



TPB Technical Committee  
Presentation  
January 4, 2019  
Item 10

# Agenda

- Project Overview
- No Action Alternative and Action Alternatives
- Preferred Alternative Selection for EIS
- Proposed Mitigation (Bike-Pedestrian Crossing)
- Next Steps



# Project Location



# Long Bridge

- Two-track steel truss railroad bridge constructed in 1904
- Owned by CSX Transportation (CSXT)
- Serves freight (CSXT), intercity passenger (Amtrak), and commuter rail (VRE)
- Only railroad bridge connecting Virginia to the District – next closest crossing is at Harpers Ferry, WV
- Typically serves 76 weekday trains
- Three tracks approaching the bridge from the north and the south
- Contributing element to the East and West Potomac Parks Historic District

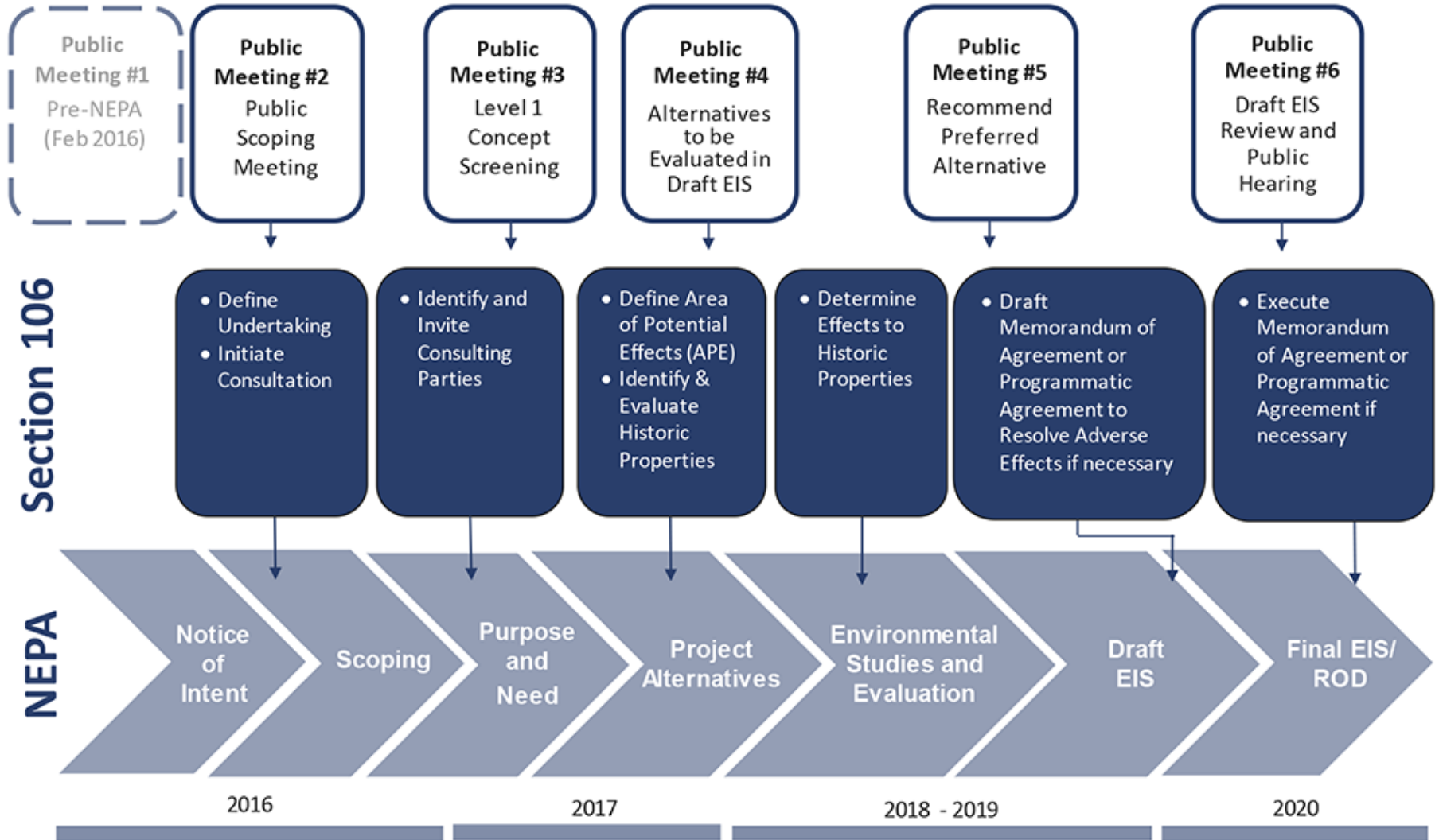


# Project History

- Phase 1 (2012-2015):  
Feasibility Study
- Phase 2 (2015-2016):  
Planning Study
- Phase 3 (2016-Present):  
NEPA Study  
(Environmental Impact  
Study)



# Section 106 and NEPA Coordination



# Train Volumes

Train Operator	Current # Trains per Day	2040 # Trains per Day	Percent Increase
VRE	34	92	171%
MARC	0	8	--
Amtrak/DC2RVA	24	44	83%
CSXT	18	42	133%
Norfolk Southern	0	6	--
<b>TOTAL</b>	<b>76</b>	<b>192</b>	

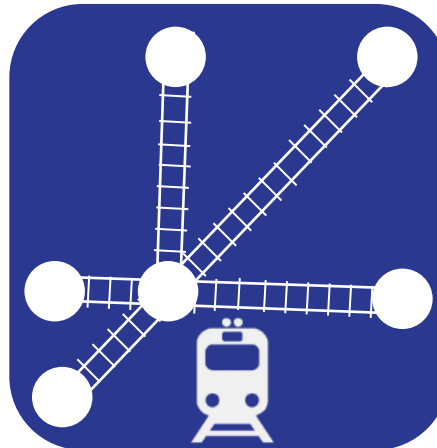
On-Time Performance		
	Current (Observed)	No Action (2040)
<b>Commuter</b>	91%	25%
<b>Intercity Long Distance</b>	70%	12%
<b>Intercity Regional</b>		7%

# Purpose and Need

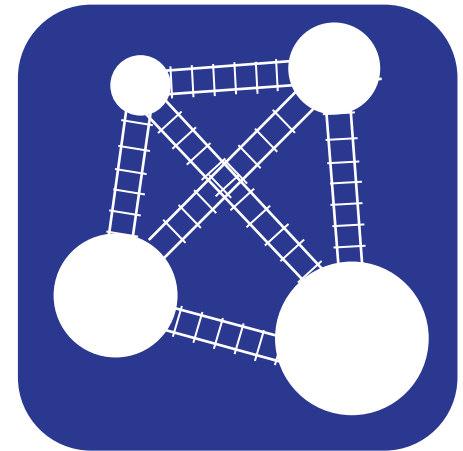
**Railroad  
Capacity**



**Network  
Connectivity**



**Railroad Resiliency  
and Redundancy**





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# No Action Alternative

## Planning Year 2040



### LEGEND

- Boundary Channel Drive Interchange Redesign (2021)
- Virginia Avenue Tunnel (2018)
- L'Enfant North Storage Track (2018)
- L'Enfant South Storage Track (2019)
- L'Enfant Station Improvements (2024)
- Interlocking
- Other Bridges
- VRE Station
- Metrorail Station
- Long Bridge Corridor
- Study Area
- Fourth Track LE to VA locking (2023)
- Fourth Track AF to RO Interlocking (2025)
- Railroads
- Metrorail

Service Layer Credits: public/GLUP  
GIS Mapping Center, VHB



# Action Alternatives



## Long Bridge Corridor

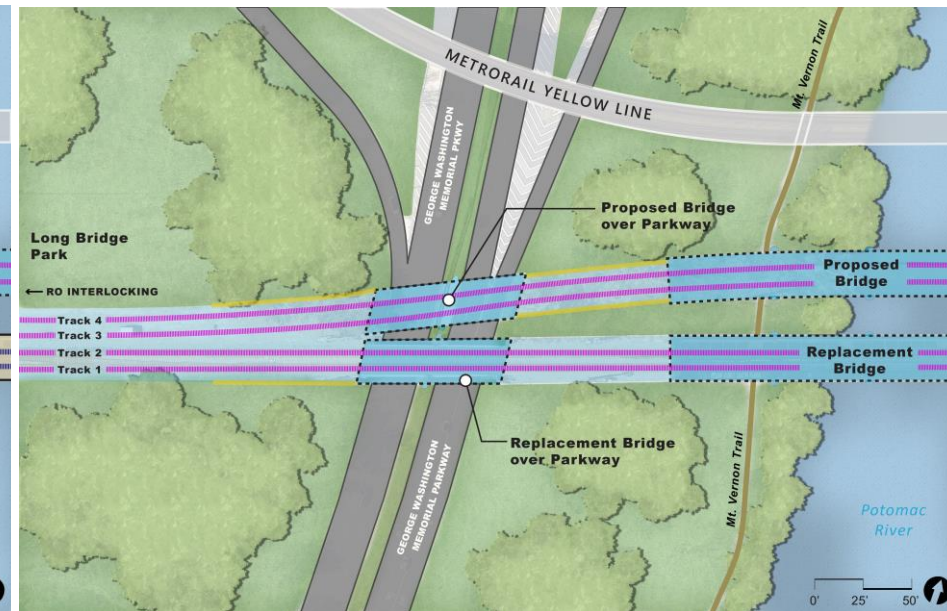
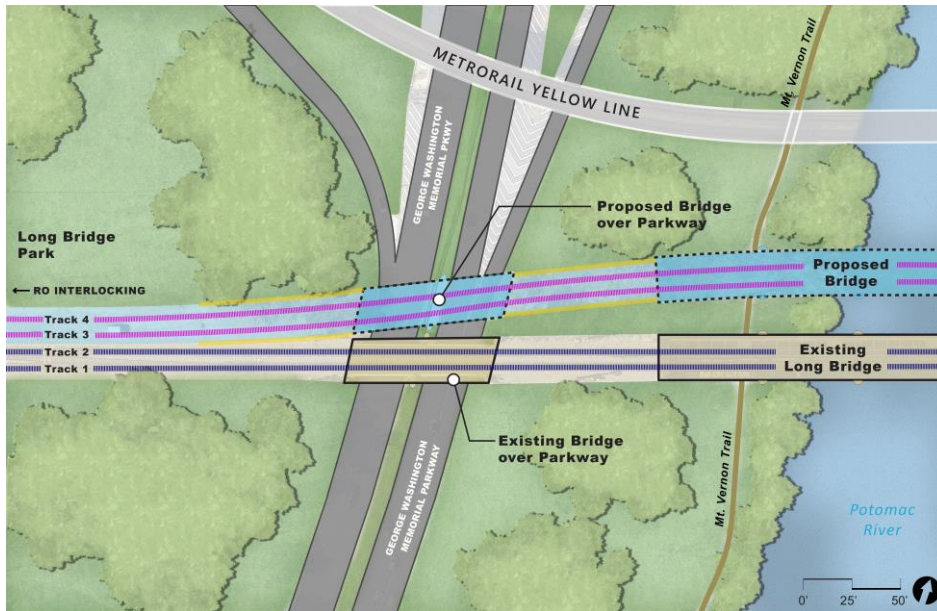


# Action Alternatives

## Long Bridge Park to the George Washington Memorial Parkway

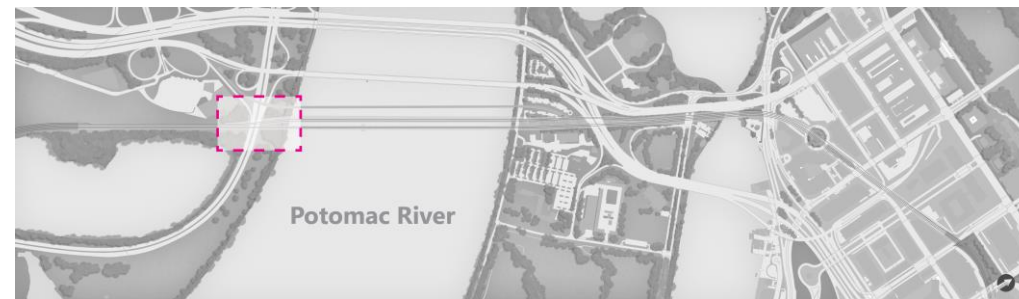
### Action Alternative A

### Action Alternative B



#### Legend

- Proposed Bridge
- Existing Bridge
- Existing Track
- Proposed/Realigned Track
- Metrorail Yellow Line
- Road
- Retaining Wall



# Action Alternatives

Spanning the Mount Vernon Trail and the Potomac River

Action Alternative A

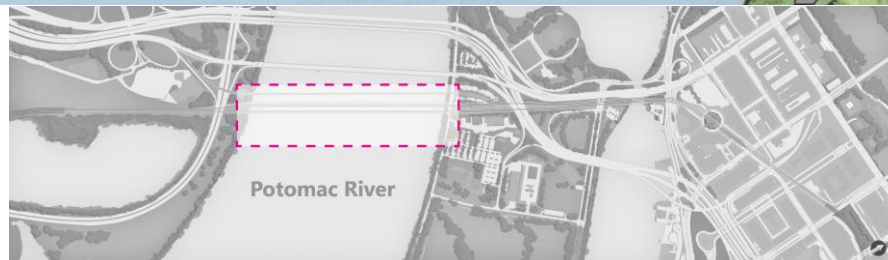


Action Alternative B



Legend

- Proposed Bridge
- Existing Bridge
- Existing Track
- Proposed/Realigned Track
- Metrorail Yellow Line
- Road
- Retaining Wall

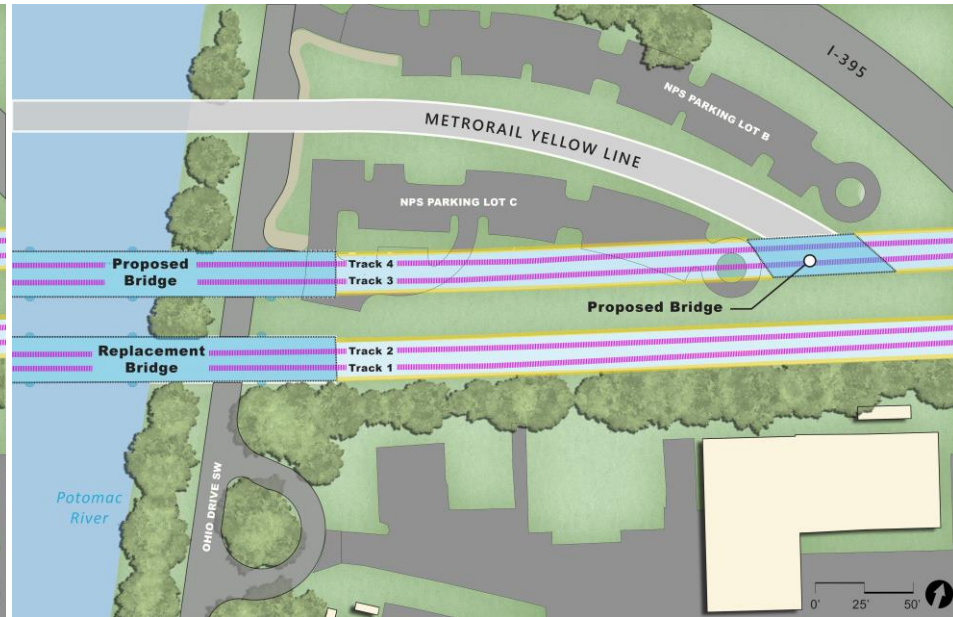
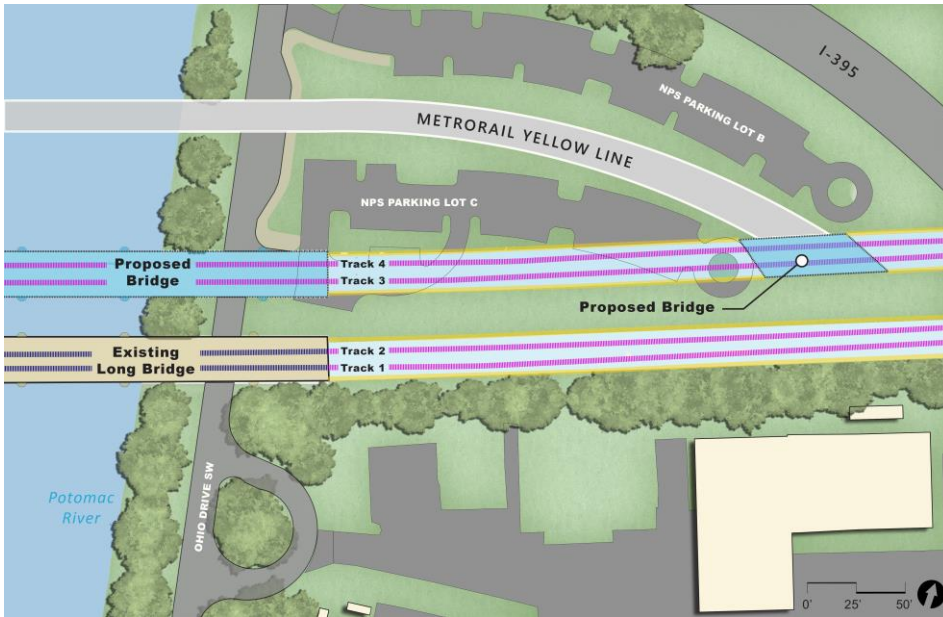


# Action Alternatives

## Ohio Drive SW and WMATA Metrorail Tunnel Portal

### Action Alternative A

### Action Alternative B

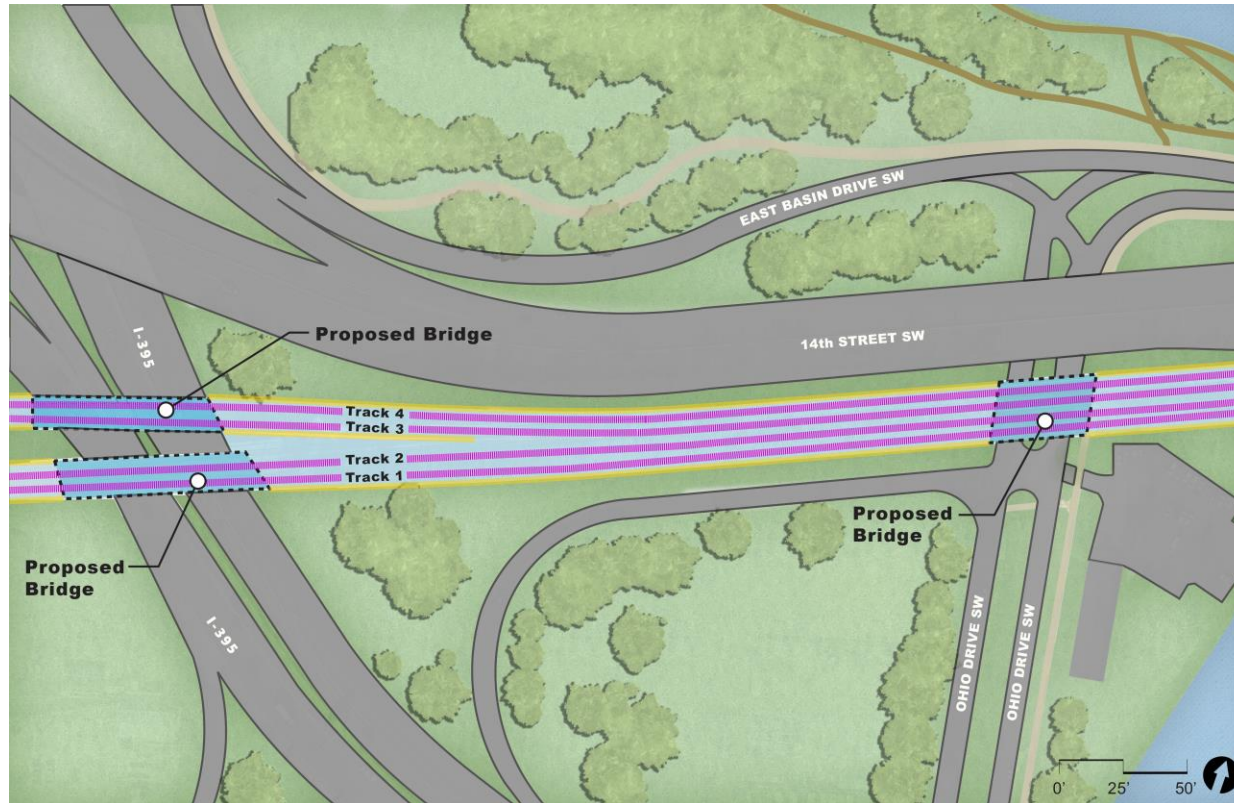


- Legend**
- Proposed Bridge
  - Existing Bridge
  - Existing Track
  - Proposed/Realigned Track
  - Metrorail Yellow Line
  - Road
  - Retaining Wall



# Action Alternatives

## I-395 to Ohio Drive SW



## Action Alternatives A & B

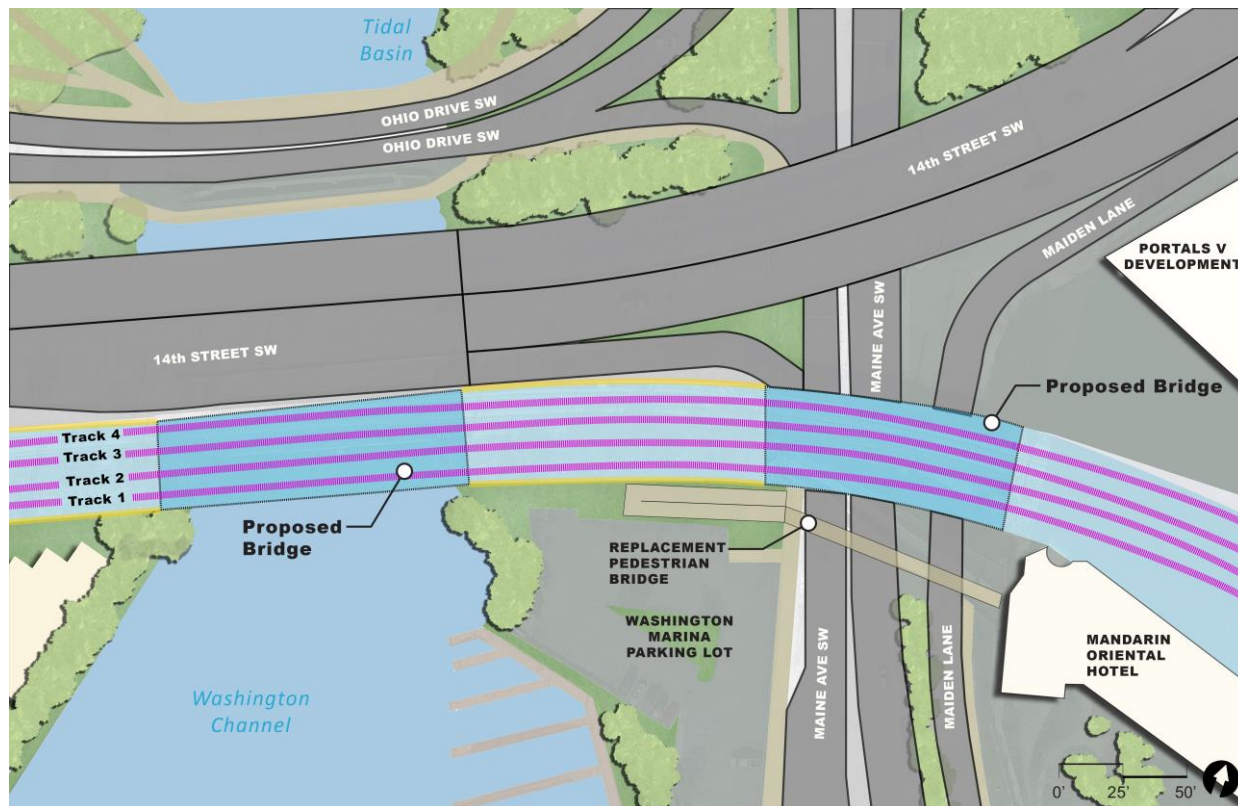


### Legend

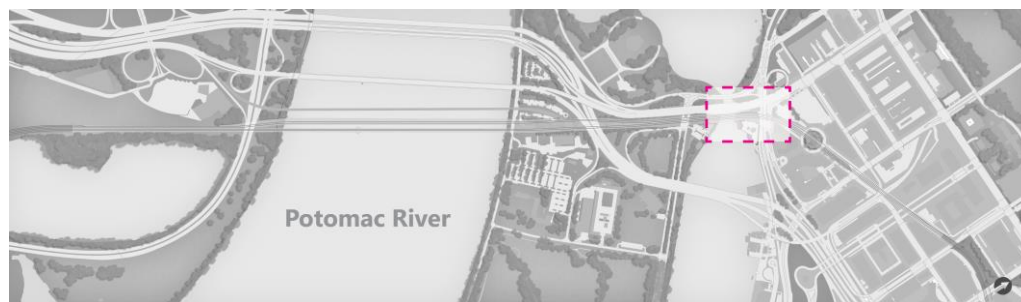
-  Proposed Bridge
-  Existing Bridge
-  Existing Track
-  Proposed/Realigned Track
-  Metrorail Yellow Line
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# Action Alternatives

## Washington Channel to Maine Avenue SW



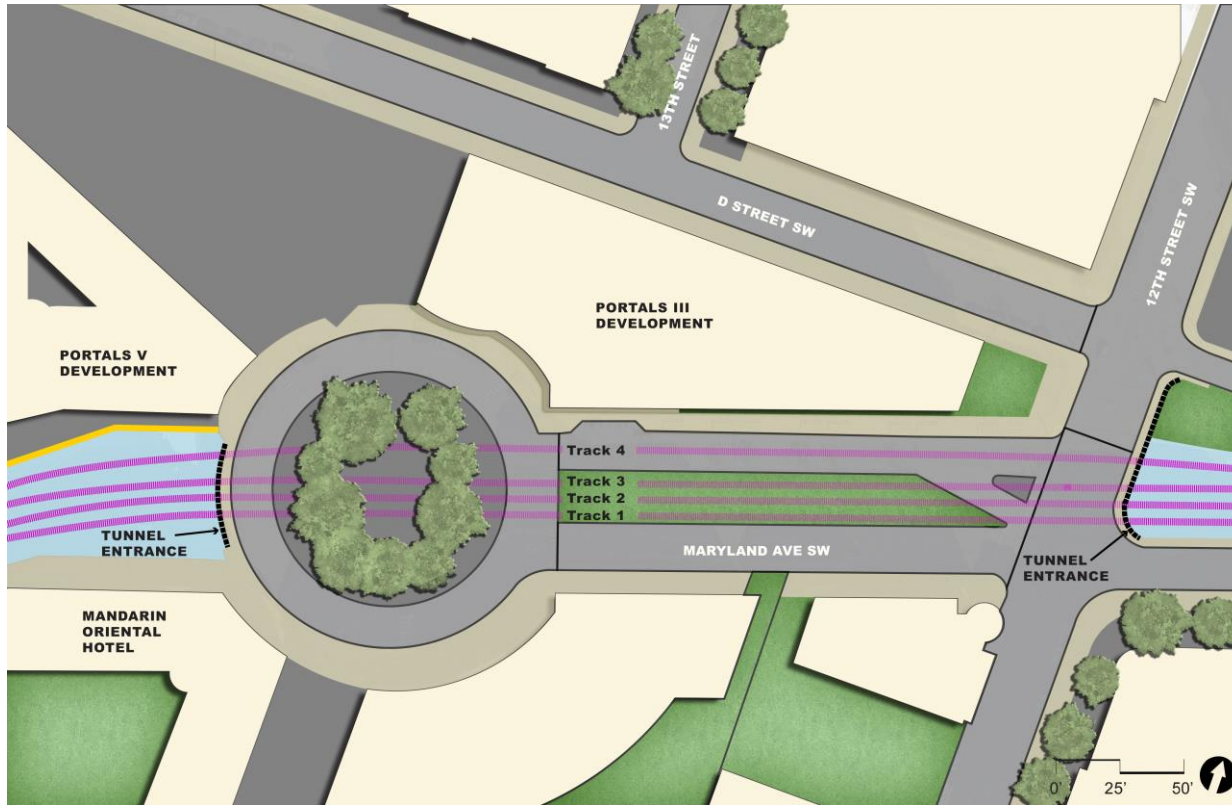
## Action Alternatives A & B



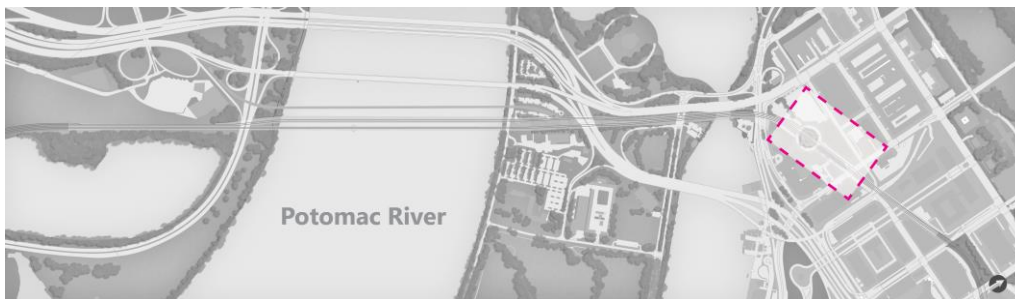


# Action Alternatives

## Maryland Avenue SW Overbuild



## Action Alternatives A & B

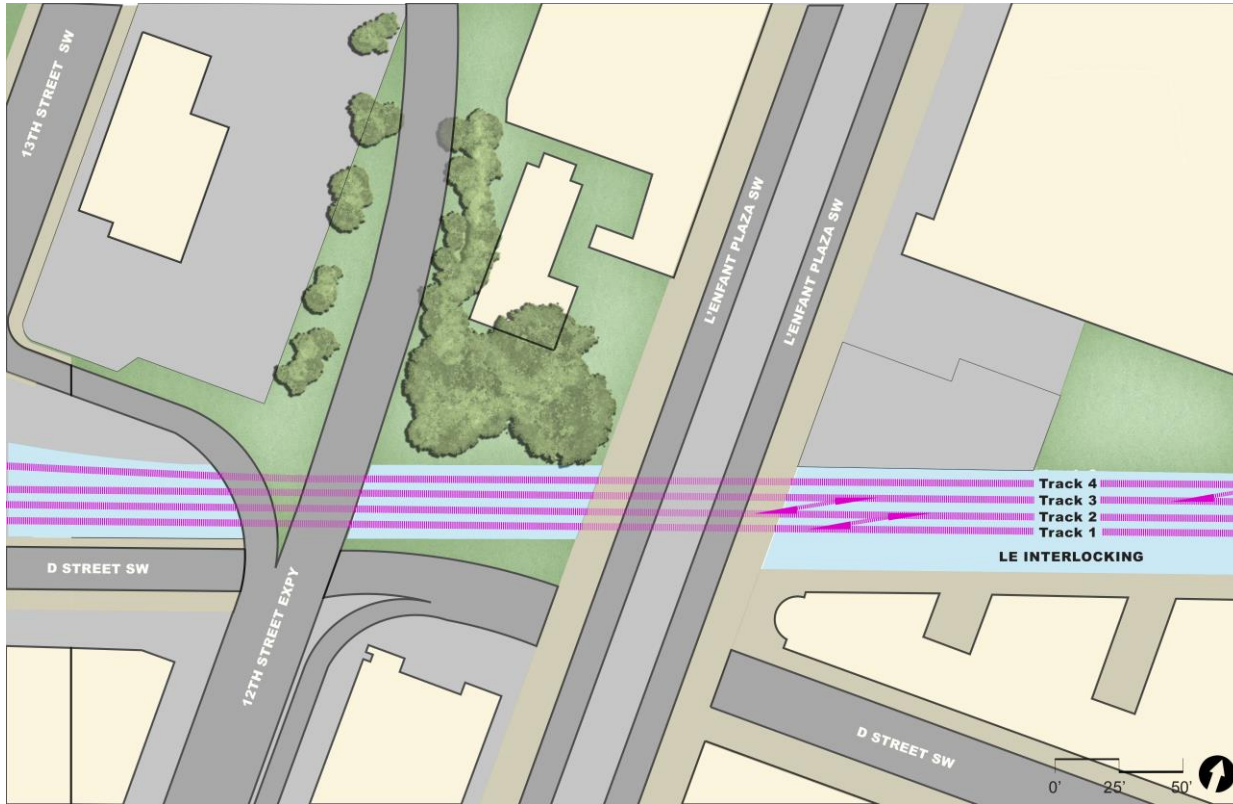


### Legend

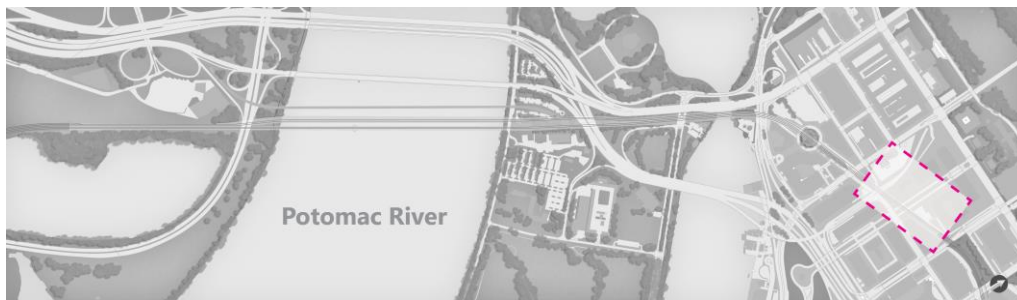
-  Proposed Bridge
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# Action Alternatives

## 12<sup>th</sup> Street SW to LE Interlocking



## Action Alternatives A & B



### Legend

-  Proposed Bridge
-  Existing Bridge
-  Existing Track
-  Proposed/Realigned Track
-  Metrorail Yellow Line
-  Road
-  Retaining Wall

# Comparison of Alternatives

	No Action Alternative	Action Alternative A	Action Alternative B
<b>Support for Purpose and Need</b>			
Increases capacity; facilitates connectivity; and expands resiliency and redundancy	No	Yes	Yes
<b>Capital Costs and Construction Duration</b>			
Capital Costs*	--	Approx. \$1.3 to \$1.6 billion	Approx. \$2.0 to \$2.3 billion
Construction Duration	--	Approx. 5 years	Approx. 8.25 years
<b>Differentiating Infrastructure Elements**</b>			
Existing railroad bridge over George Washington Memorial Parkway retained	Yes	Yes	No
Existing Long Bridge retained	Yes	Yes	No

\*Approximate costs are based on conceptual engineering and subject to change as design advances. Costs in 2018 dollars.

\*\*All other infrastructure elements are the same for Action Alternatives A and B.

# Comparison of Alternatives

## Environmental Impacts, Section 106, Section 4(f)

Compared to Action Alternative A, **Action Alternative B** would have **more**:

- Permanent environmental impacts
- Temporary construction impacts
- Impacts to historic properties
- Impacts to parklands

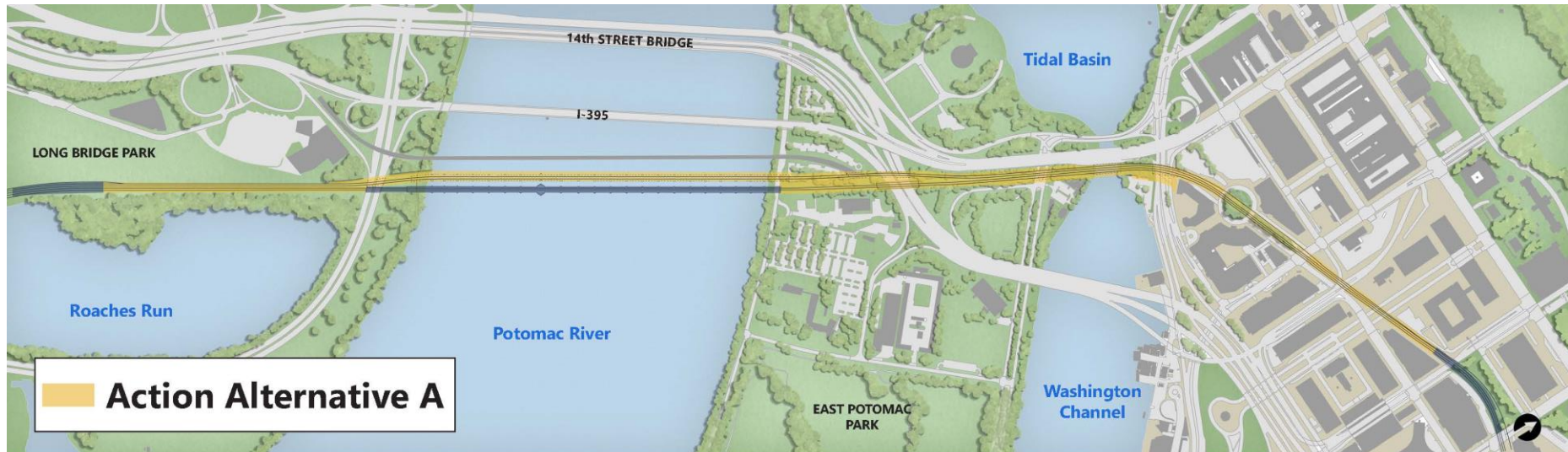
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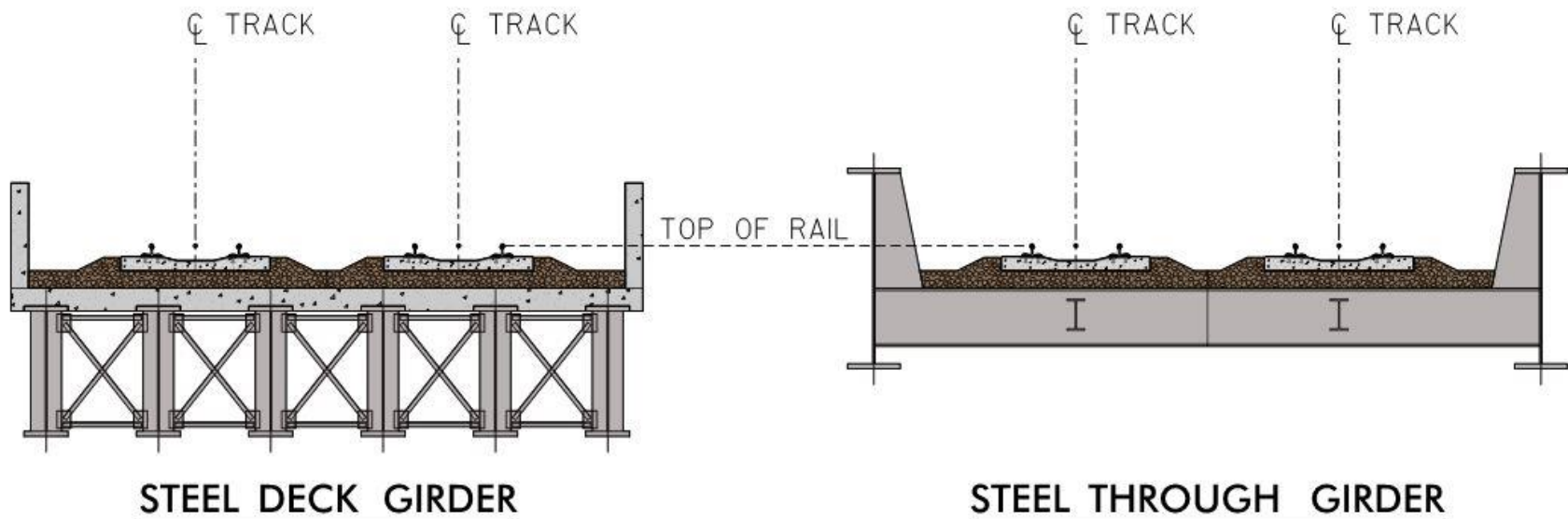
# Selection of Preferred Alternative: Action Alternative A

FRA and DDOT selected **Action Alternative A** as the Preferred Alternative



- Action Alternative A has lower capital costs, shorter construction duration, and fewer impacts than Alternative B
- Selection of the Preferred Alternative occurred after consideration of all comments from agencies and the public on the Project to date

# New Railroad Bridge Type Options



- Both options feasible under either Action Alternative
- Structure type to be determined in final design

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# Bike-Pedestrian Crossing Option Selection

## Potential Section 4(f) Mitigation

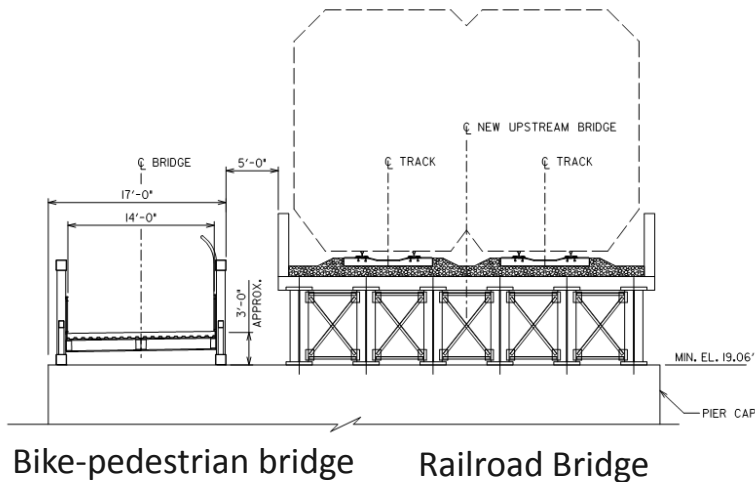


Independent structure upstream of the new railroad bridge spanning the Potomac River

# Bike-Pedestrian Crossing

## Potential Section 4(f) Mitigation

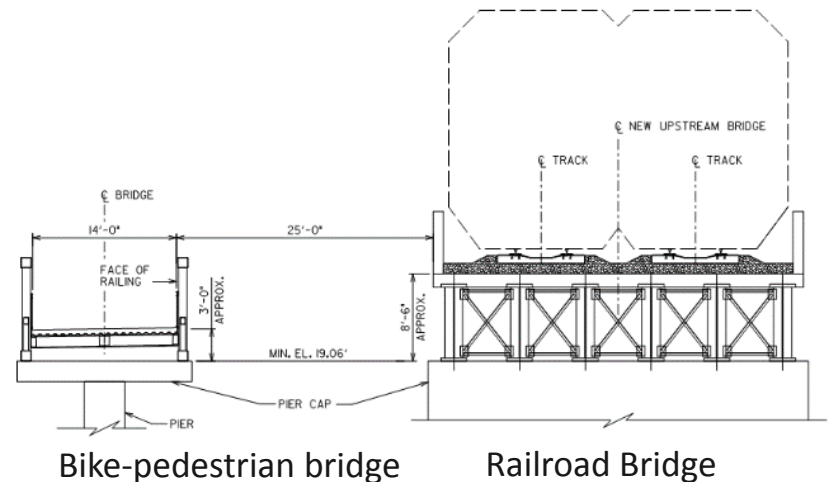
### Option 1: Shared railroad bridge substructure



- Extended railroad piers
- Larger permanent footprint
- More security measures required
- More expensive than Option 2

### Selected Option

### Option 2: Independent bridge



- Preferred by railroad operator, property owners, and design review agencies
- Smaller permanent footprint
- Fewer security measures required
- Construction cost approximately 20% less than Option 1

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# Next Steps

## EIS Next Steps

2018

Evaluate impacts

*Selection of Preferred Alternative*

Summer 2019

Publish Draft EIS

Public Hearing on Draft EIS

Spring 2020

Publish Final EIS

Execute Record of Decision -  
includes Section 4(f) and Section 106  
mitigation commitments

## Section 106 Next Steps

2018

Assess effects

Winter/Spring 2019

Develop draft Memorandum  
of Agreement (MOA) or  
Programmatic Agreement (PA)  
to document resolution of  
adverse effects for the Preferred  
Alternative

Winter 2020

Finalize and execute  
MOA or PA

# Thank You

For more information visit:  
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