

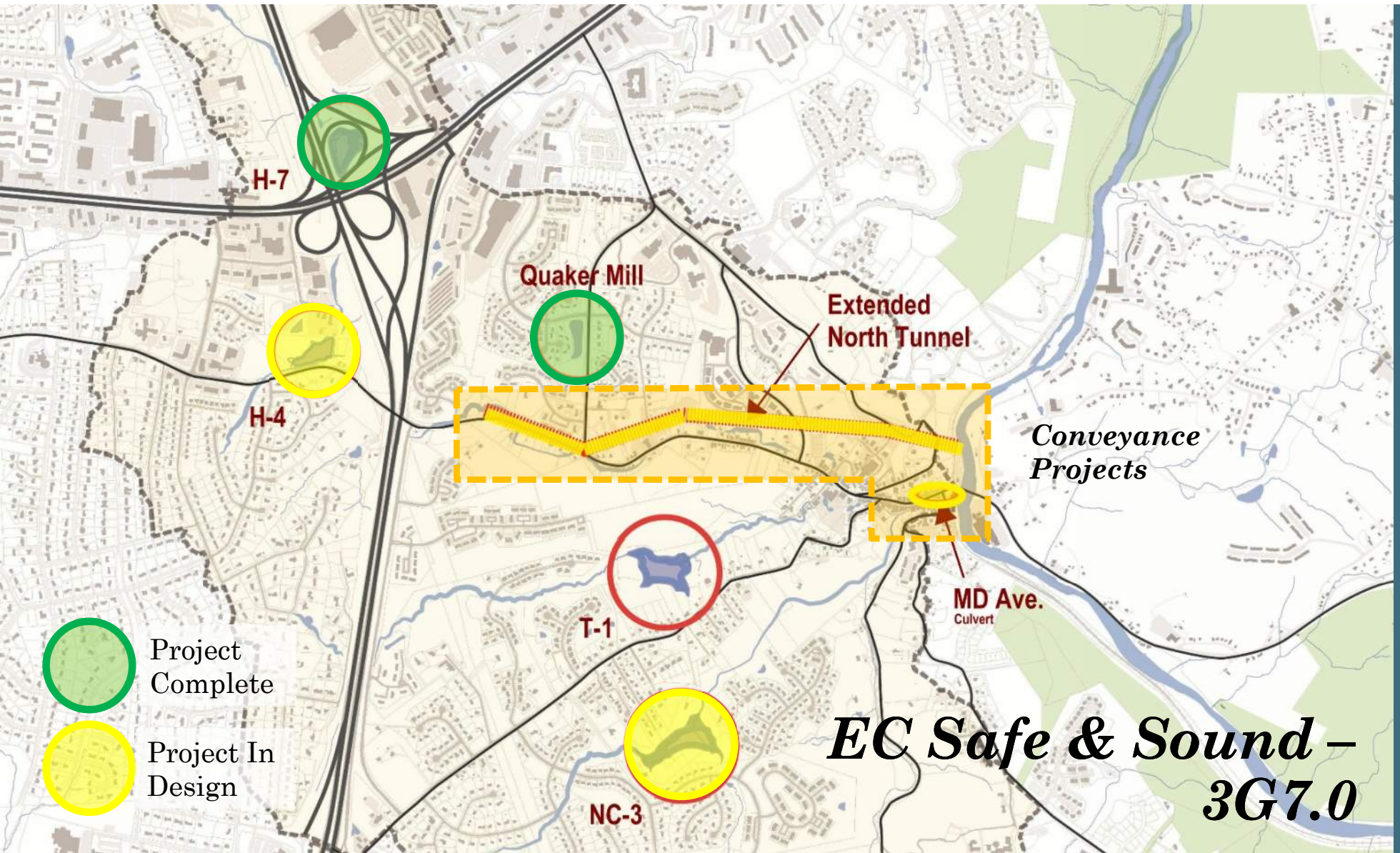


Ellicott City Safe and Sound Council Update

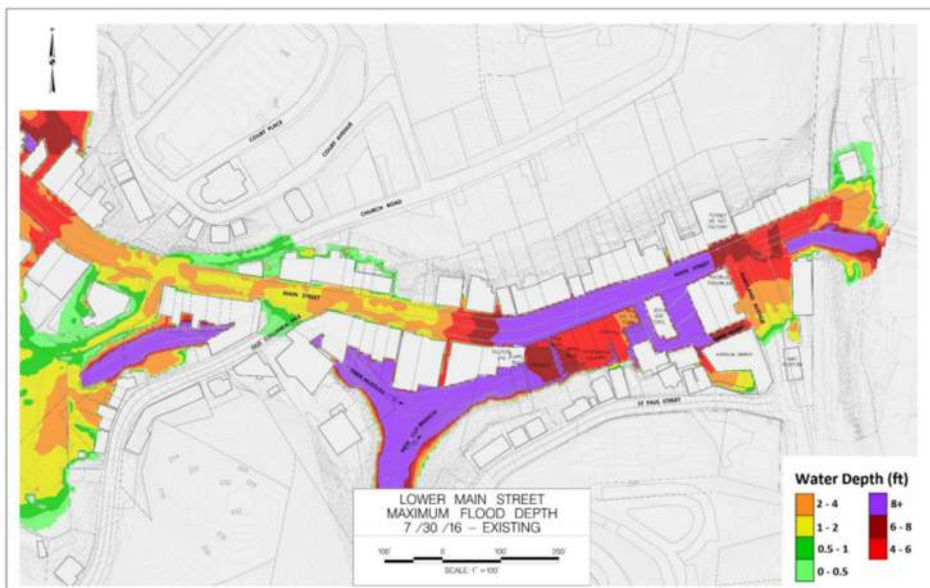
April 26, 2023

Ellicott City Safe and Sound Plan



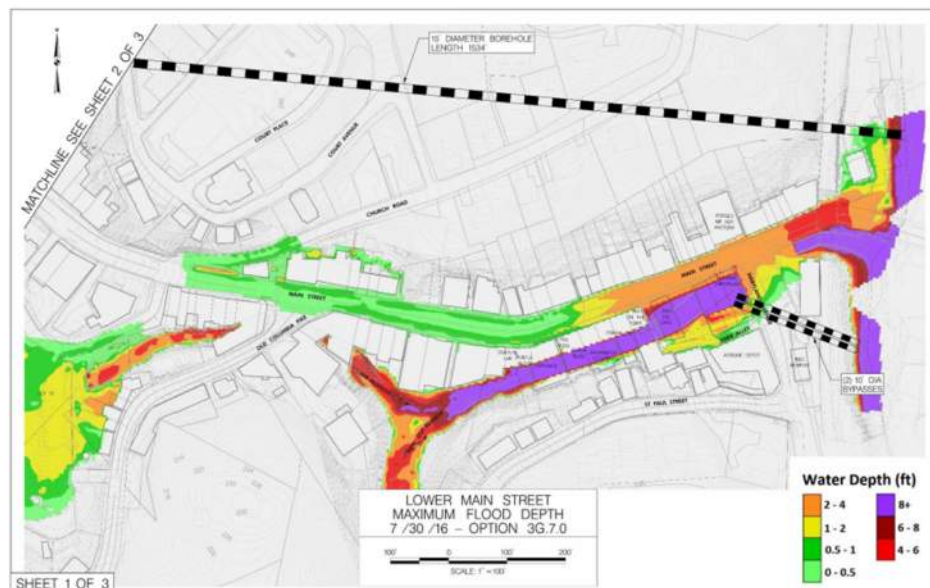


Flood Mitigation Plan



July 2016 Storm Event

- Goal of reducing depths and velocities as much as possible.
- All projects work together as a system to accomplish this goal.



Simulating July 2016 Storm Event With 3G7.0 implemented

- **Reduction in street-level flooding to 3 feet or less a priority in support of non-structural flood proofing**
- **Reduction in flood velocities down to 5 feet/second (or below) are a priority in support of non-structural flood proofing**

EC Safe & Sound – H-7

A 13-acre-foot dry flood mitigation pond located in the US 40/US 29 interchange

Current Status:

- Complete

Key Successes:

- Collaboration with State Highway
- **\$3.7M** Grant from the State of Maryland – *Comprehensive Flood Management Grant*

Key Challenges:

- Execution of State agreement
- Rock removal



EC Safe & Sound – *Quaker Mill*

A 10-acre-foot dry flood mitigation pond located off Rogers Avenue

Current Status:

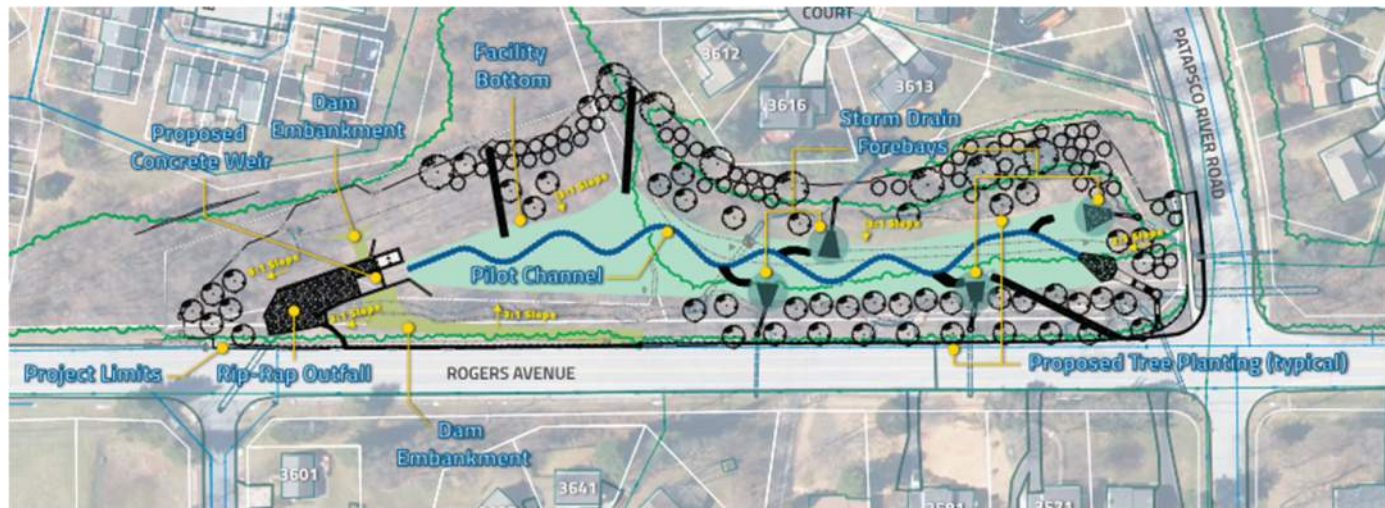
- Substantially Complete

Key Successes:

- Favorable Bid
- **\$1.97M** Grant from the State of Maryland – *Comprehensive Flood Management Grant*

Key Challenges:

- Acquisitions
- Project Schedule



EC Safe & Sound – H-4

A 15.6-acre-foot dry flood mitigation pond

Current Status:

- Progressing Pre-Final design
- Regulatory Engagement

Next Steps:

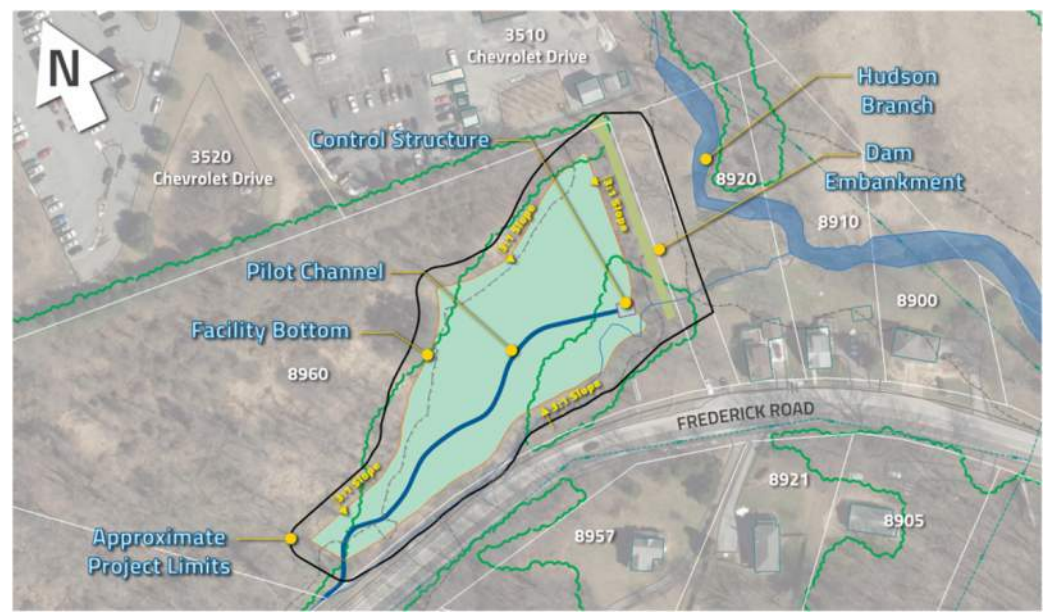
- Complete Design
- Construction

Key Successes:

- \$5M Grant from the State of Maryland – *Comprehensive Flood Management Grant*
- Main property acquisition

Key Challenges:

- Duration of regulatory reviews



EC Safe & Sound – *Extended North Tunnel*

A 18-foot diameter tunnel extending from the West End to the Patapsco River

Current Status:

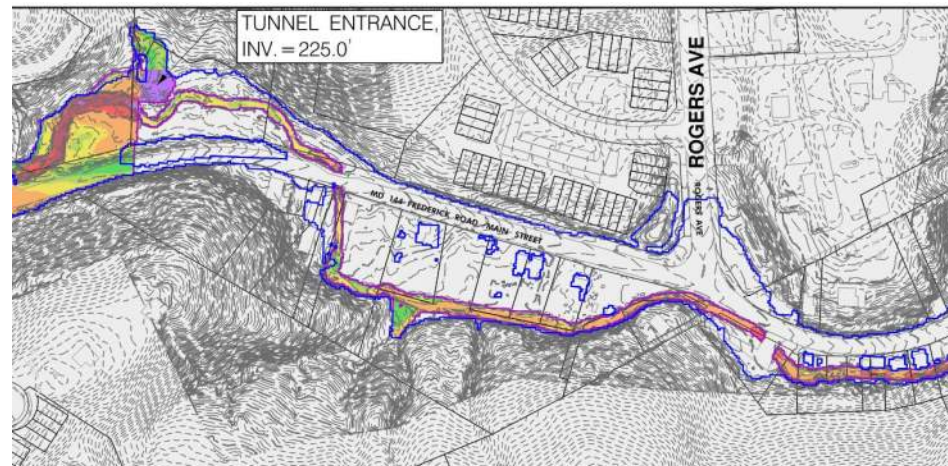
- Ongoing CSX Engagement
- Completing Final Design
- Completing Acquisitions

Next Steps:

- Preconstruction Activities

Key Successes:

- Design – Substantially Complete
- Broadened public understanding of the project
- **\$12M** State of Maryland *FY20 Bond Bill*
- **\$5M** State of Maryland *FY20 Bond Bill*
- **\$75M** WIFIA Loan



Key Challenges:

- Funding
- CSX and other acquisitions



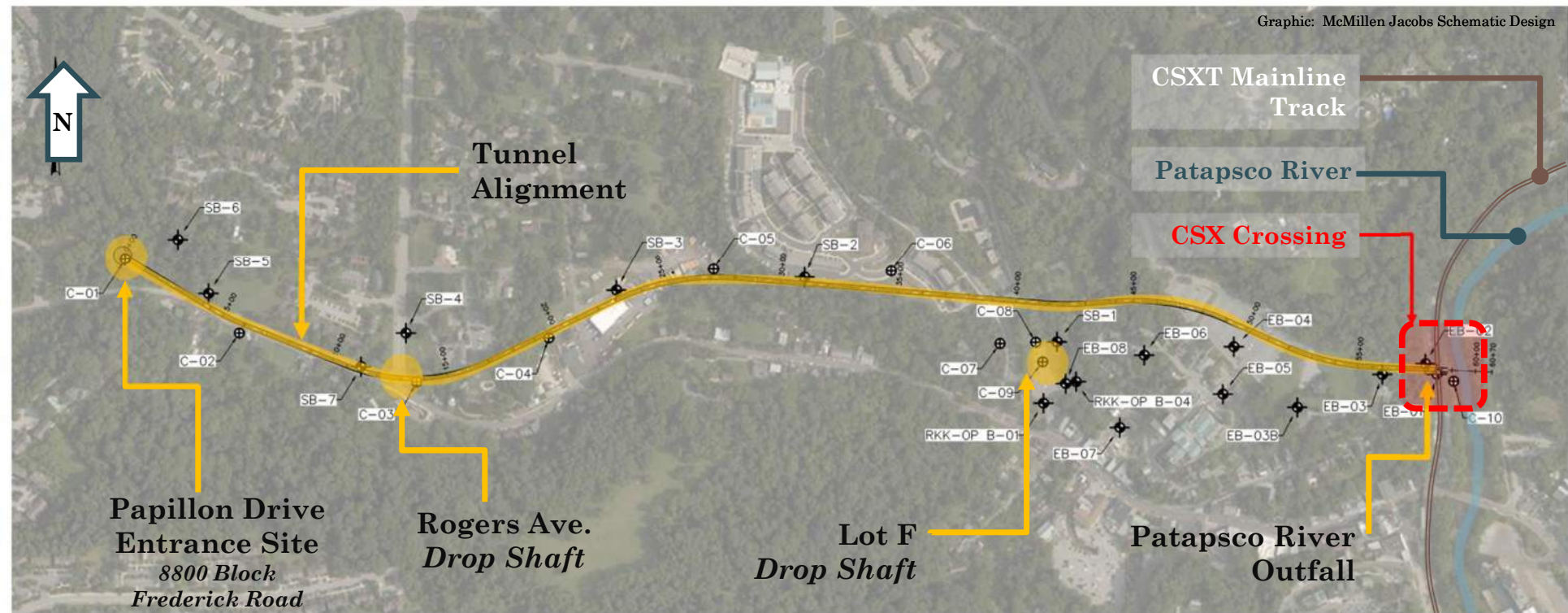
Slide 8

SBO

I think we should change this to "Broadened public understanding of the project."

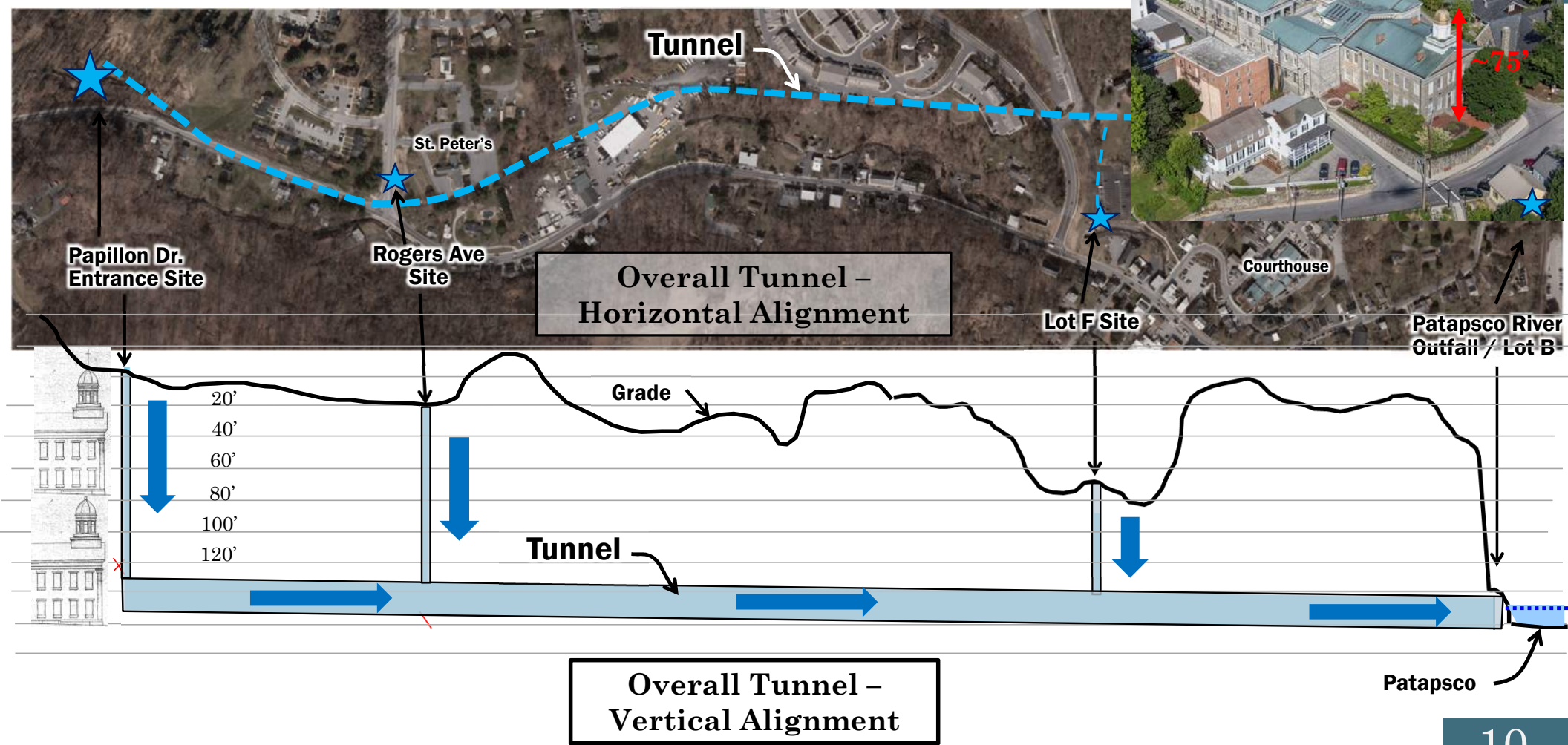
Shepter, Brian, 2023-04-26T03:09:39.476

EC Safe & Sound – *Extended North Tunnel*



- **Hard rock water conveyance tunnel**
- **18' Diameter**
- **+/- 150' Below Grade**
- **+/- 5,300' Long**

North Tunnel: Alignment & Profile



Slide 10

HS0 this seems way, way too technical for this group

Hernandez, Shaina, 2022-06-15T15:44:05.339

HRO 0 made it more diagrammatic

Hollenbeck, Robert, 2022-06-15T17:43:32.805

EC Safe & Sound – Maryland Avenue Culvert

A culvert installed under Maryland Avenue connecting the Tiber-Hudson to the Patapsco

Current Status:

- Ongoing CSX engagement
- Preconstruction / CMAR Engagement

Next Steps:

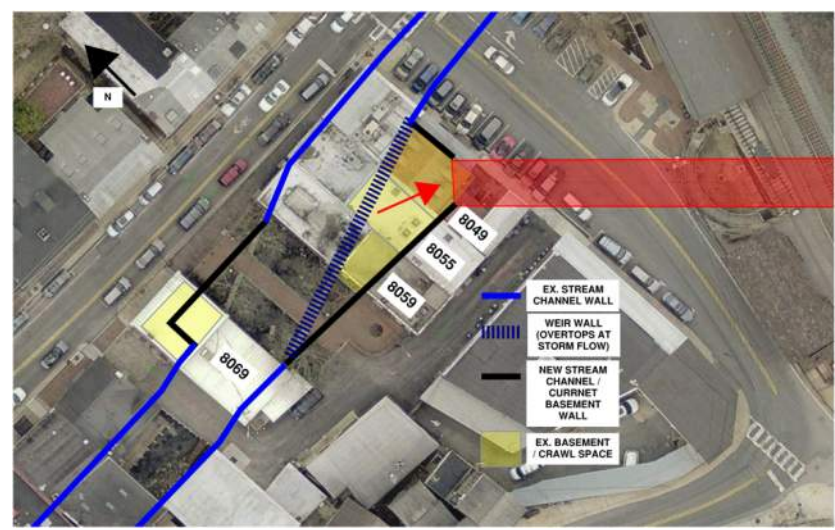
- Complete Final Design

Key Successes:

- Acquisition of Lower Main buildings
- **\$4.37M** Grant from the State of Maryland – *Comprehensive Flood Management Grant*

Key Challenges:

- CSX
- Cost
- Risk / Means and Methods of Construction



Acquisitions	Design	Permitting	Funding	Construction

Slide 11

SB0 lets just say "acquisition of lower main buildings."

I fear certain folks will read this as though we are excited to remove historic buildings

Shepter, Brian, 2023-04-26T02:56:56.811

EC Safe & Sound – Maryland Avenue Culvert



EC Safe & Sound – NC-3

A 63-acre-foot dry flood mitigation pond located the Autumn Branch in the New Cut watershed

Current Status:

- Final design
(inclusive of Schematic, Pre-final, & Final Design)
- Acquisitions

Next Steps:

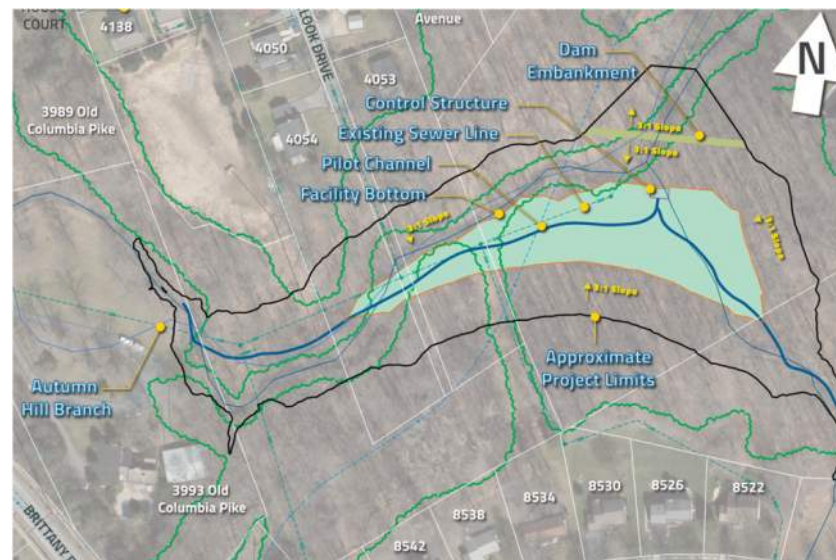
- Solicit Construction Manager at Risk
- Secure Construction Funding

Key Successes:

- Ability to maintain wooded site
- \$3M Grant from the State of Maryland – *Comprehensive Flood Management Grant*

Key Challenges:

- Acquisitions



EC Safe & Sound – T-1

A 70-acre-foot dry flood mitigation pond located on the Tiber tributary

Current Status:

- Continuing to analyze project scope and delivery methods

SBO

Next Steps:

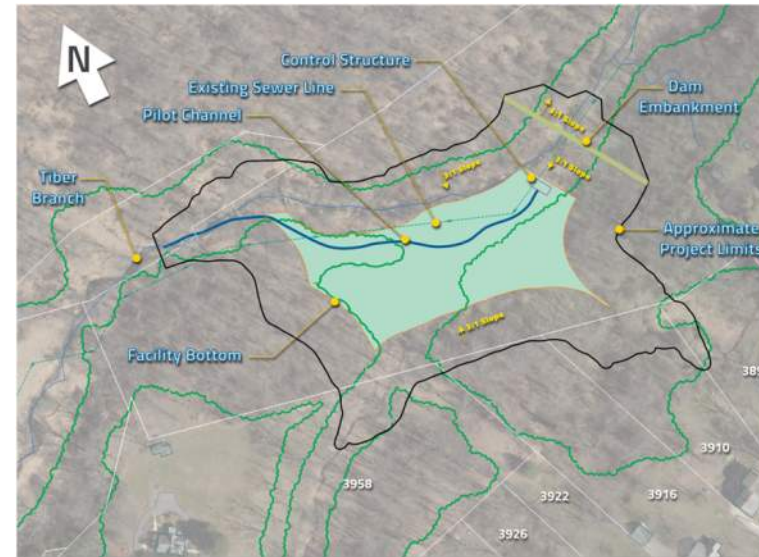
- Finalize scope of work and select project delivery method

Key Successes:

- Supported by a State of Maryland – \$2M FY22 Bond Bill

Key Challenges:

- P3 Funding Mechanism



Acquisitions



Design



Permitting



Funding



Construction



SBO I edited this line and the next steps line
Shepter, Brian, 2023-04-26T02:57:37.436

Channel Constriction Project / Four Building Removal

Removal of the rear section of 8085, 8095, 8111-8113 and 8125 Main Street to alleviate constrictions above channel; full removal of 8049-8069 Main Street

Current Status:

- Regulatory Approvals

Next Steps:

- Commence Construction

Supported by:

\$5M Grant from the State of Maryland – *DHCD Strategic Demolition*

\$750k Grant from the State of Maryland – *DHCD Community Legacy*

\$500k State of Maryland – *FY22 Bond Bill (8095)*

\$500k State of Maryland – *FY22 Bond Bill (Caplan's)*

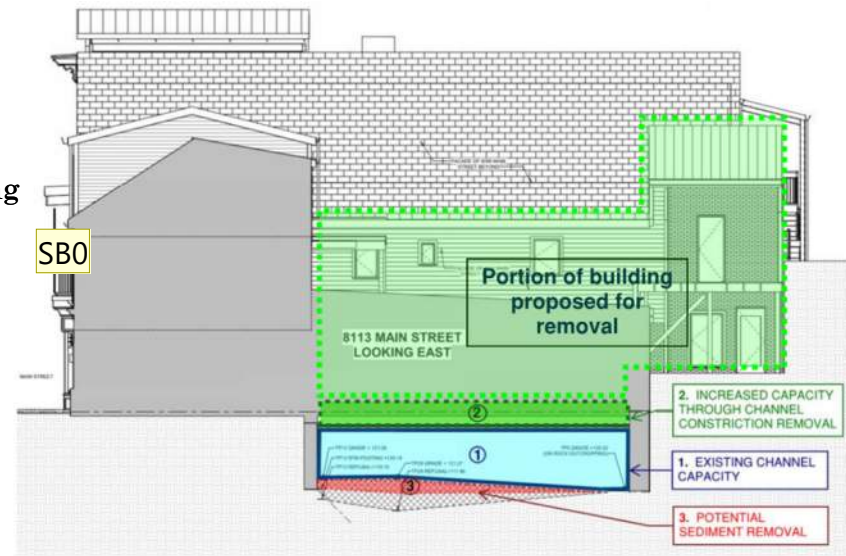
Key Successes:

- Broadened public understanding

- State Funding Support

Key Challenges:

- Regulatory Approvals



Slide 15

SBO

I edited this to soften

Shepter, Brian, 2023-04-26T02:57:18.233

Channel Constriction Project



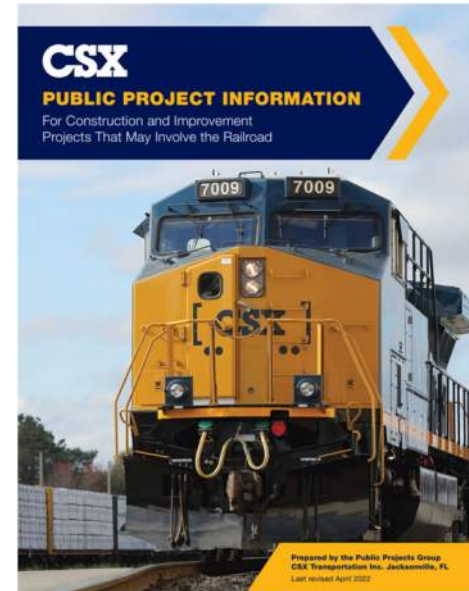
Other related efforts

<i>Expanded Tiber Park</i>	<i>Streetscape</i>	<i>Wayfinding Signage</i>	<i>St. Paul Street Pocket Park</i>	<i>Vehicle Drop Arms</i>
<p>Current Status:</p> <ul style="list-style-type: none"> ○ Developing design scope <p>Next Steps:</p> <ul style="list-style-type: none"> ○ Select project designer <p>Supported by a State of Maryland – \$126,230 FY21 <i>Bond Bill</i></p>	<p>Current Status:</p> <ul style="list-style-type: none"> ○ Design – Welcome Center Front Entrance ○ Prelim. Design – Pedestrian Safety Improvements <p>Next Steps:</p> <ul style="list-style-type: none"> ○ Construction – Welcome Center ○ Design – Pedestrian Safety Improvements <p>Supported by a State of Maryland – \$250,000 FY21 <i>Bond Bill</i></p>	<p>Current Status:</p> <ul style="list-style-type: none"> ○ BMC Study nearing completion ○ Selecting project designer <p>Next Steps:</p> <ul style="list-style-type: none"> ○ Design ○ Implementation <p>Supported by a State of Maryland – \$250,000 FY22 <i>Bond Bill</i></p>	<p>Current Status:</p> <ul style="list-style-type: none"> ○ Developing design scope <p>Next Steps:</p> <ul style="list-style-type: none"> ○ Select project designer <p>Supported by a State of Maryland – \$150,000 FY23 <i>Bond Bill</i></p>	<p>Current Status:</p> <ul style="list-style-type: none"> ○ Developing design scope <p>Next Steps:</p> <ul style="list-style-type: none"> ○ Select project designer <p>Supported by a State of Maryland – \$250,000 FY22 <i>Bond Bill</i></p>

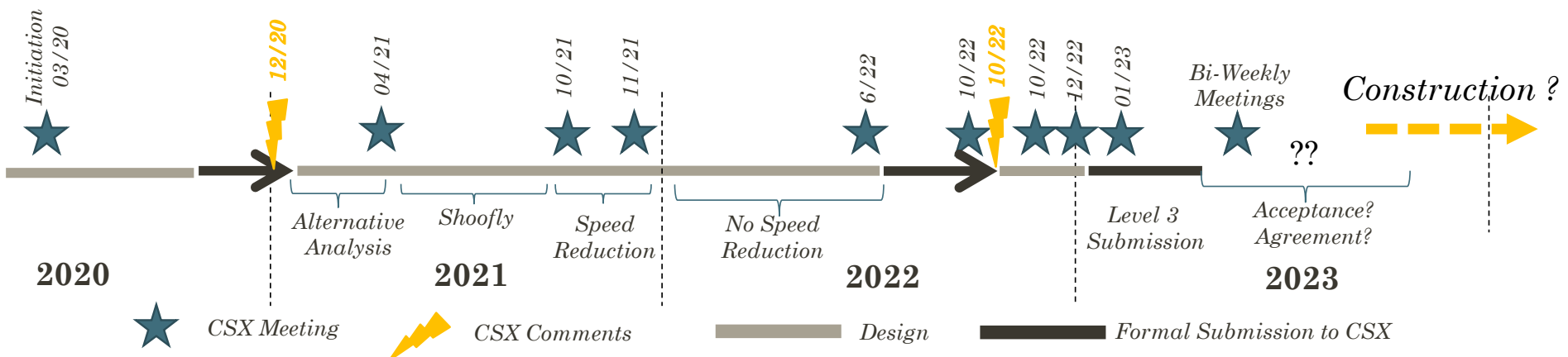
CSX Background

- *North Tunnel* and *Maryland Avenue Culvert* projects require Facility Encroachment Agreements with CSX.
- Each project will convey storm water below the railroad, discharging to the Patapsco River.
- Continued coordination with CSX is ongoing.

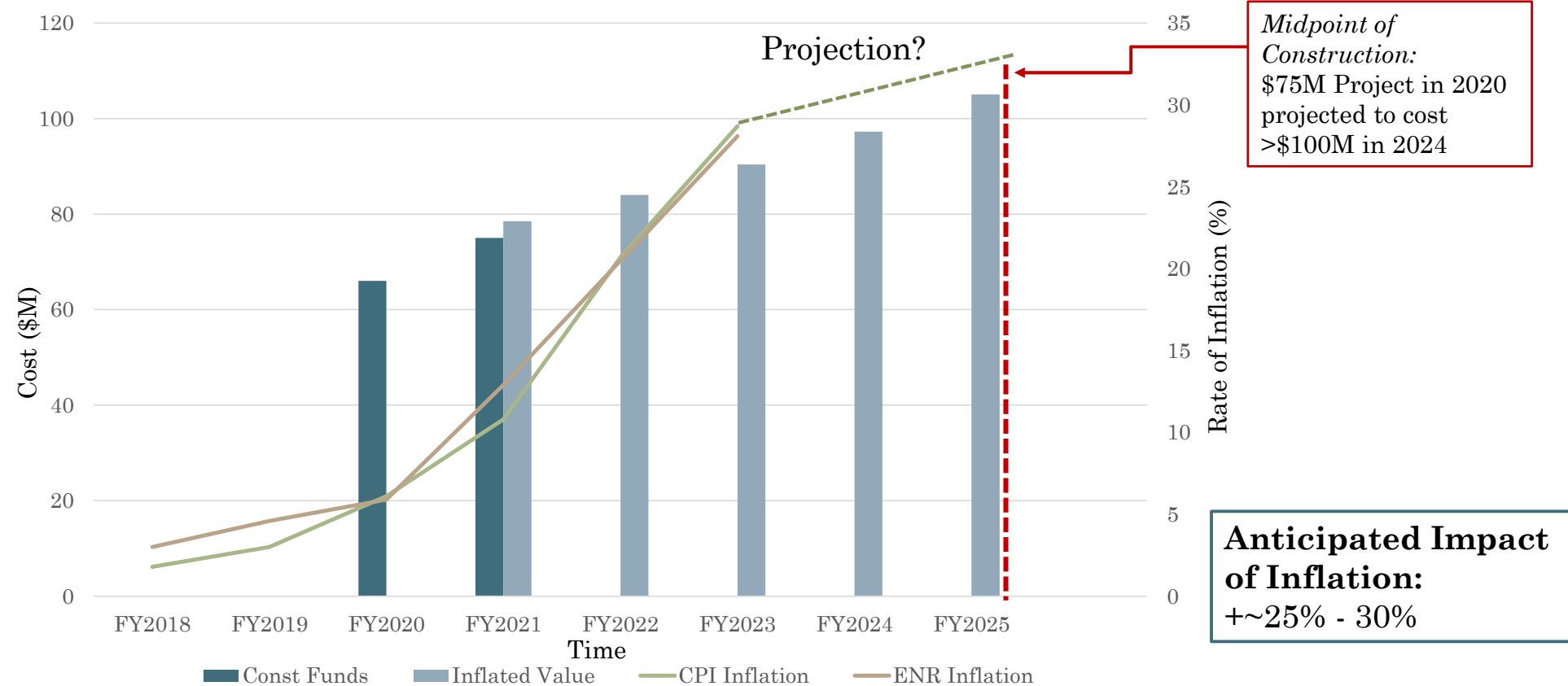
Strict conformance with the CSX Public Project Manual is *technically infeasible* given the unique geography and associated challenges in Ellicott City.



Timeline of CSX Engagement on Maryland Avenue Culvert:



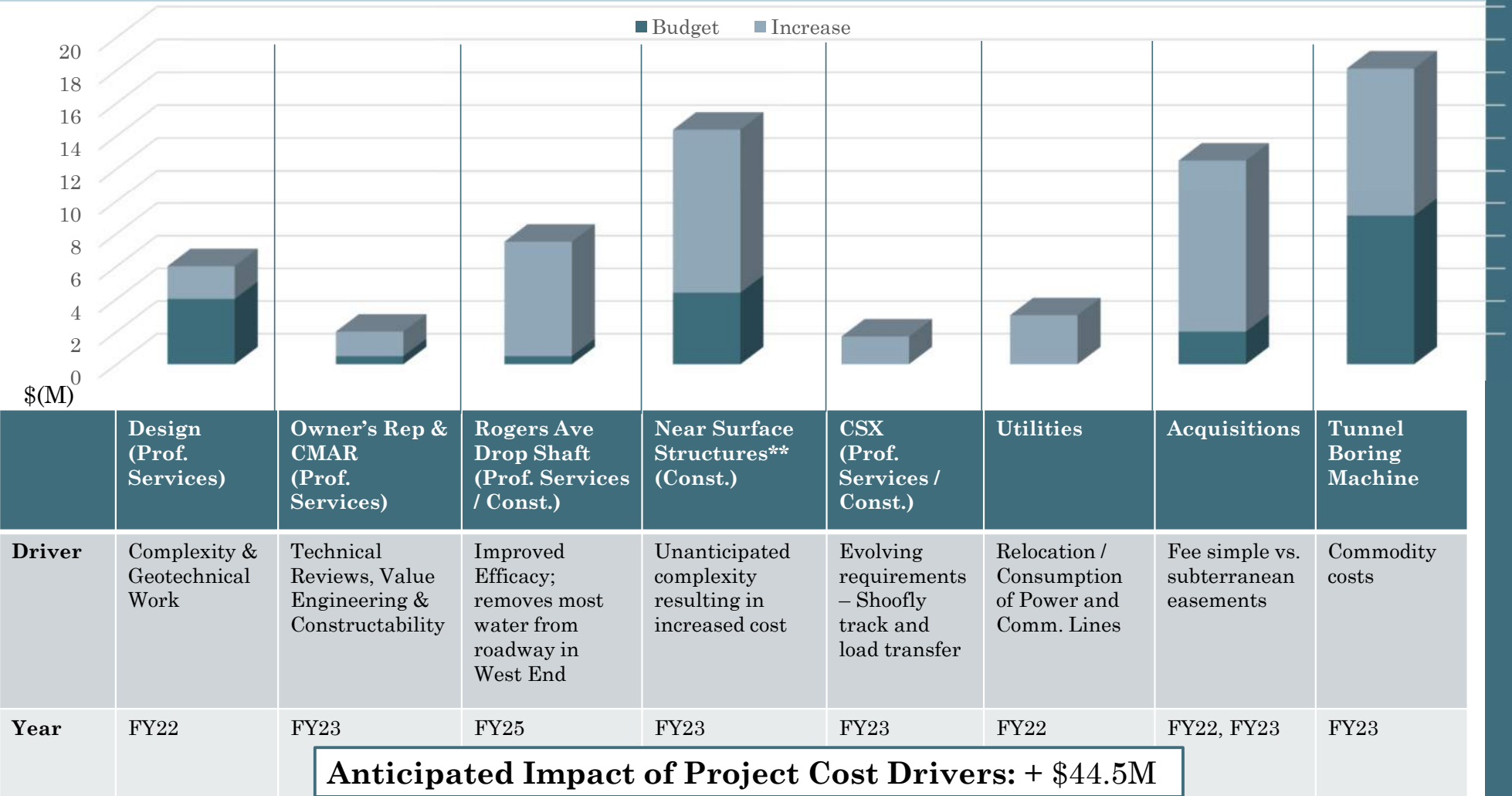
Impact of Inflation on Construction Cost



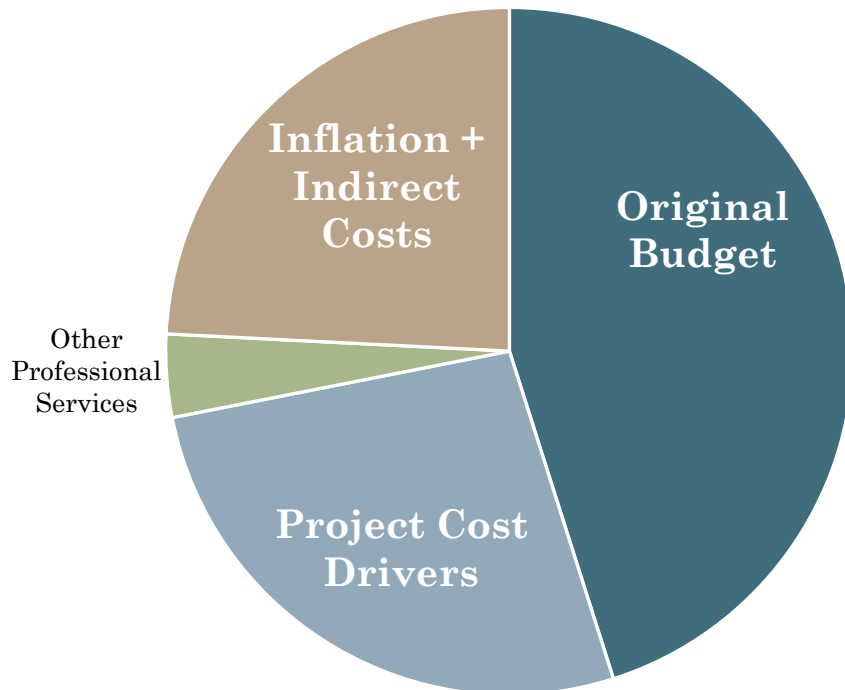
*County utilizes Consumer Price Index, (CPI) which is atypical for Construction. CPI shows ~11% increase from date of Prelim. Design estimate. Of note, CPI Commodity scale has increased YTD by 20%; and Energy scale has increased 40% YTD. ENR agrees with CPI on 20% material increase. Multiple other indexes showing ~10% increase per year; feedback from CMAR indicates ~25% increase. In Nov. 2022, ENR noted Baltimore as having the highest YTD material inflation (40%) of any market in the US.

**From McMillen Jacobs Concept vs. Schematic Design estimates

North Tunnel - Project Cost Drivers (since 01/2020)



North Tunnel – Funding Needs



Required Funds:

CMAR (Construction):	\$130,000,000
Rogers Ave:	\$7,000,000
Acquisitions:	\$12,500,000
Utility Relocations:	\$3,000,000
Other (Misc Loan, CSX):	\$500,000

Professional Services	
<i>Preliminary Design:</i>	\$1,500,000
<i>Final Design:</i>	\$7,500,000
<i>Construction:</i>	\$4,500,000

Total Required Funds: \$166,000,000

Slide 21

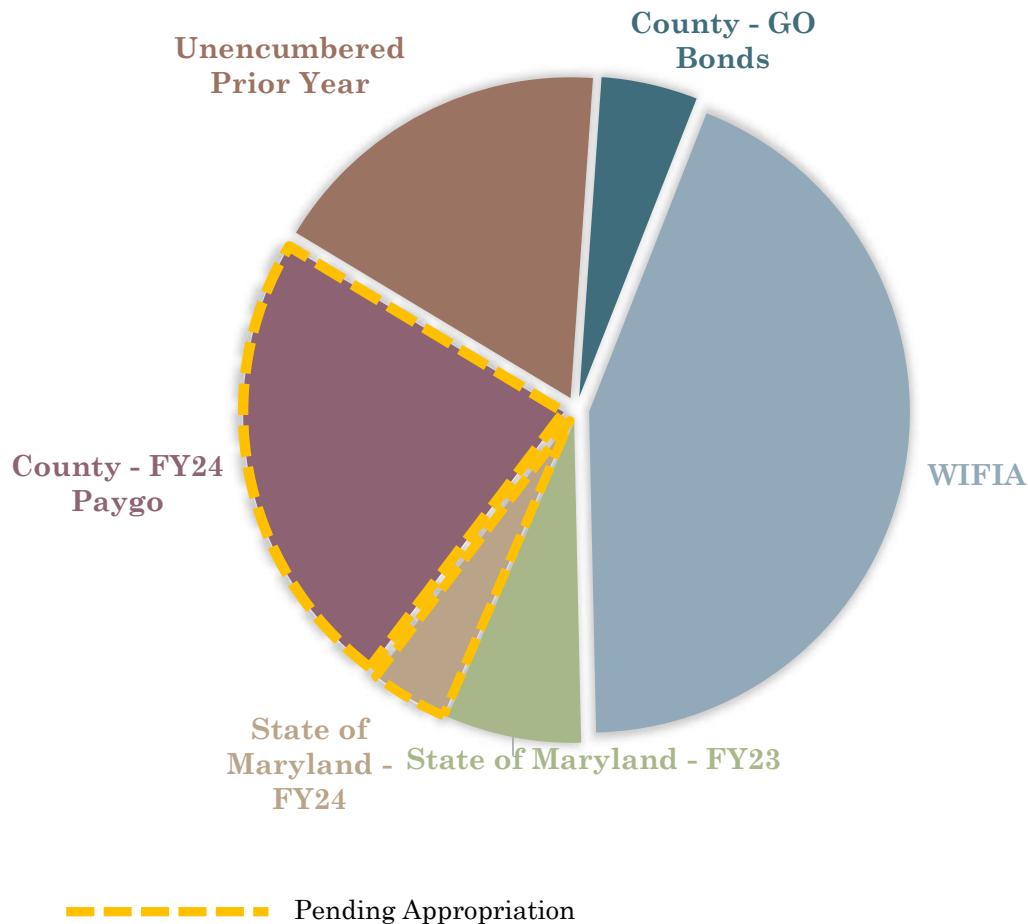
SBO I'm not following why we wouldn't include the \$40M in PAYGO we included in the budget here and also explain how we intend to shift the ~\$30M from other projects to make up the gap.

Shepter, Brian, 2023-04-26T03:08:44.897

HR0 0 When we originally prepared this summary, we were not sure where/how the \$ was going to come to fruition. I added two lines to the bottom right to address.

Hollenbeck, Robert, 2023-04-26T11:24:33.694

North Tunnel – Funding Distribution



Available Funds:	
County – GO Bonds:	\$9,400,000
WIFIA:	\$75,000,000
State of Maryland:	\$12,000,000

Total Available Funds: \$96,400,000

Pending Funds:	
County – FY24 Paygo:	\$40,700,000
State of Maryland:	\$5,000,000

Total Pending Funds: \$45,700,000

Remaining funds will be redirected from unencumbered appropriations to proceed with construction; and backfilled in future years.