

# 2016

# FRA Rail Program Delivery

## Meeting

# Mitigation & Communities

**Ms. Odessa L. Phillip, PE**

Baltimore & Potomac Tunnel Project

Baltimore, Maryland

# Introduction

- ▶ BSCE, Howard University
- ▶ Masters of Engineering, University of MD College Park
- ▶ Professional Engineer, MD
- ▶ Former Adjunct Professor, Howard University College of Engineering, Architecture and Computer Sciences
- ▶ President, Assedo Consulting LLC



# Presentation Agenda

- ▶ Project Background
  - ▶ Funding/Team
  - ▶ Location
  - ▶ Alternatives
  - ▶ Impacts
- ▶ Public Outreach
  - ▶ NEPA Process
  - ▶ Targeted Outreach Approach
  - ▶ Mitigation Working Group

# Project Background

## Baltimore & Potomac Tunnel Project

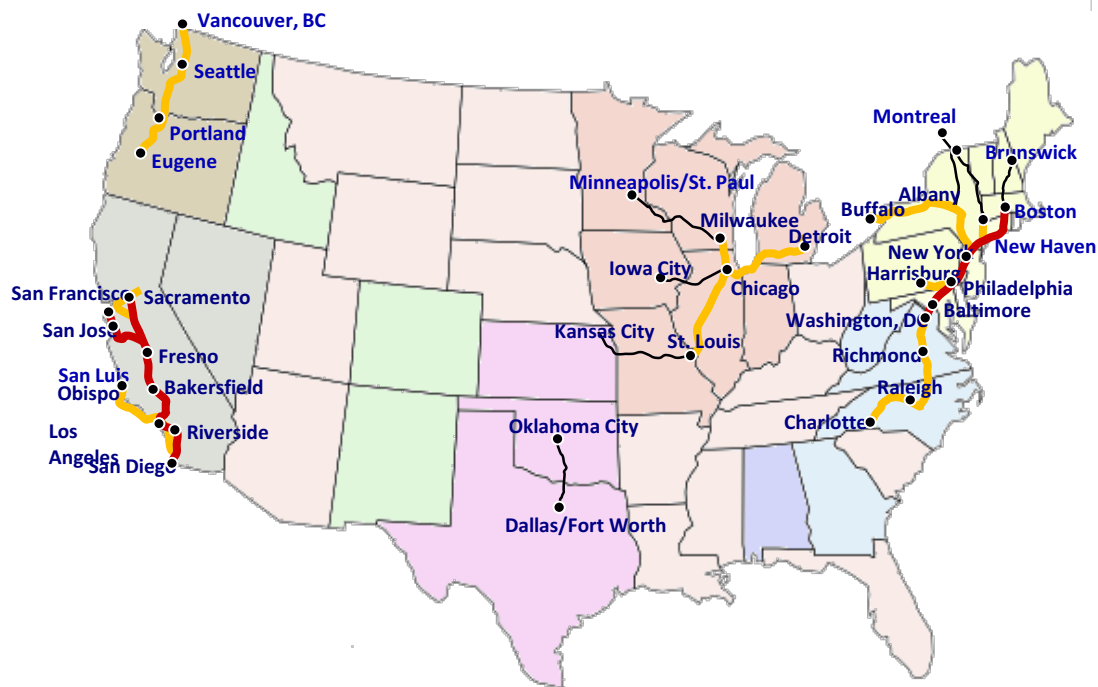
# Project Funding

- ▶ MDOT was awarded a \$60 million HSIPR grant from the FRA
- ▶ Grant covers the NEPA study process and preliminary design efforts
- ▶ Grant does NOT include funds for final design or construction

## High Speed Intercity Passenger Rail (HSIPR) Program

### Unprecedented Investment in Rail Infrastructure

FRA has solicited applications for more than \$10 billion in grant funding. To date, 39 states, the District of Columbia, and Amtrak have submitted applications requesting more than \$75 billion—well in excess of the available funding—for projects and corridors in every region of the country. Approximately 99% of the nearly \$10.1 billion allocated to the HSIPR Program across funding sources has been obligated.



# B&P Tunnel Project Team



U.S. Department of Transportation  
**Federal Railroad Administration**

**Grantor/NEPA Lead**



*Maryland Department  
of Transportation*

**Grantee**



**Tunnel Owner**



**Project Partner**

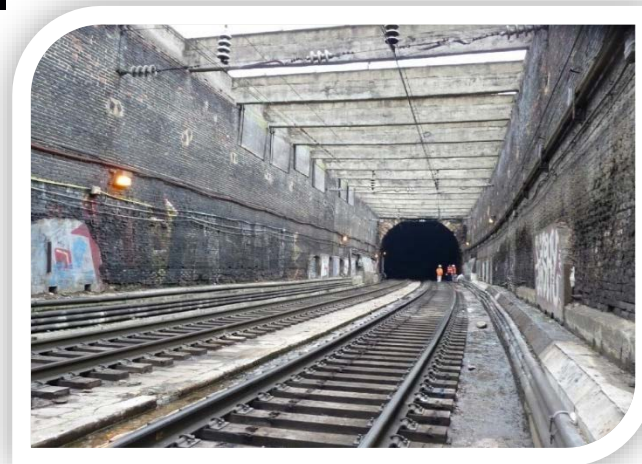
# What is the B&P Tunnel Project?

- ▶ An engineering and environmental study (NEPA) to develop and evaluate alternatives to the existing Amtrak tunnel
- ▶ An evaluation of alternatives designed to improve capacity, reliability and travel time for existing and projected passenger rail service on Amtrak's Northeast Corridor (NEC)



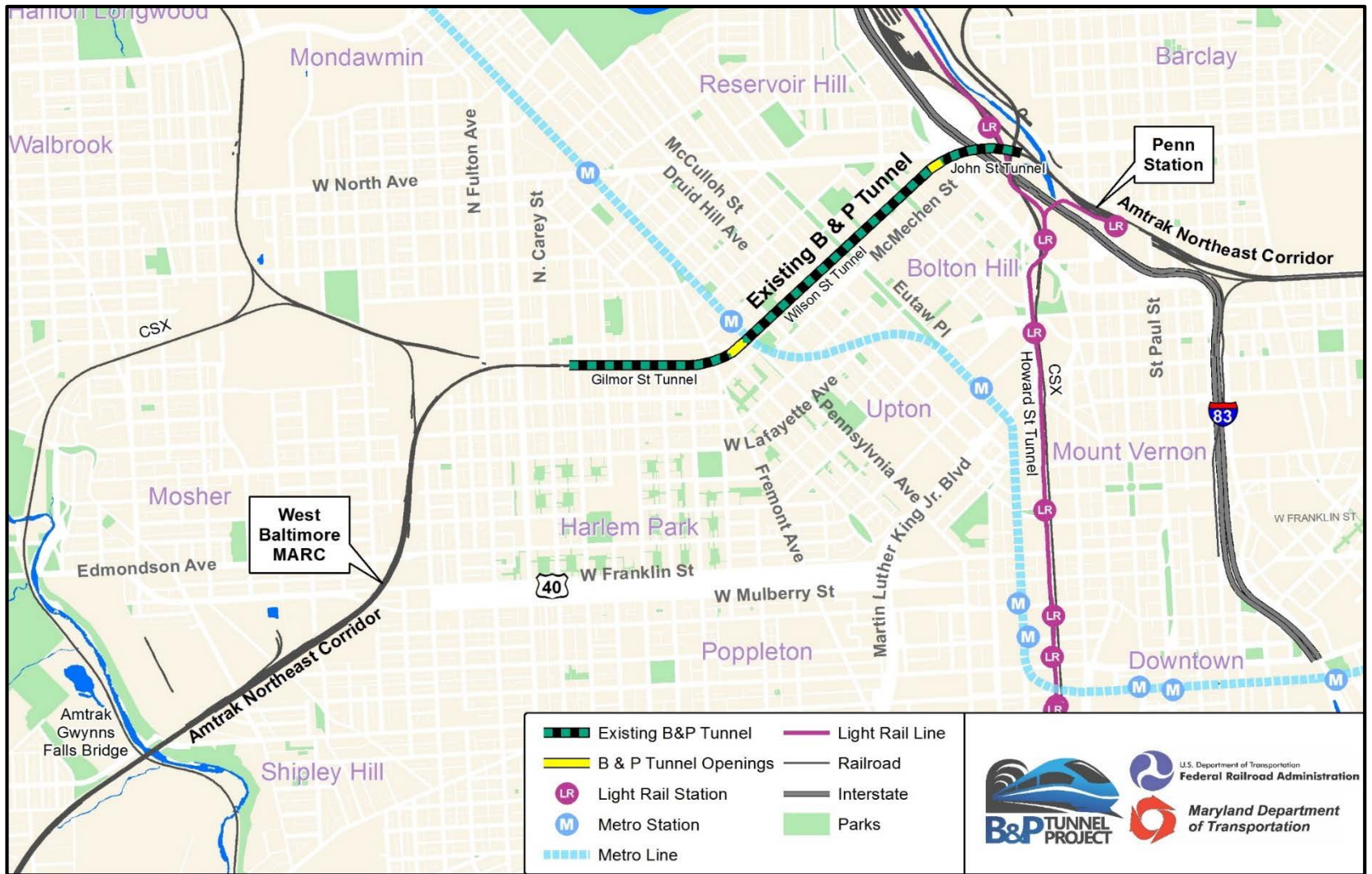
# Existing B&P Tunnel

- ▶ Opened in 1873
- ▶ 2-track railroad tunnel
- ▶ 1.4 mile-long tunnel system
- ▶ Made up of three shorter tunnels:
  - ▶ Gilmore Street Tunnel
  - ▶ Wilson Street Tunnel
  - ▶ John Street Tunnel
- ▶ Connects West Baltimore MARC and Penn Stations
- ▶ Carries Amtrak, MARC, & Norfolk Southern trains on NEC
  - ▶ 142 trains (21,600 passengers) per day
  - ▶ 2 freight trains per day





# B&P Tunnel Project Map



# Project Purpose

The purpose of the project is to **address the structural and operational deficiencies** of the existing B&P Tunnel and to accommodate future high-performance intercity passenger rail service goals of the tunnel which:

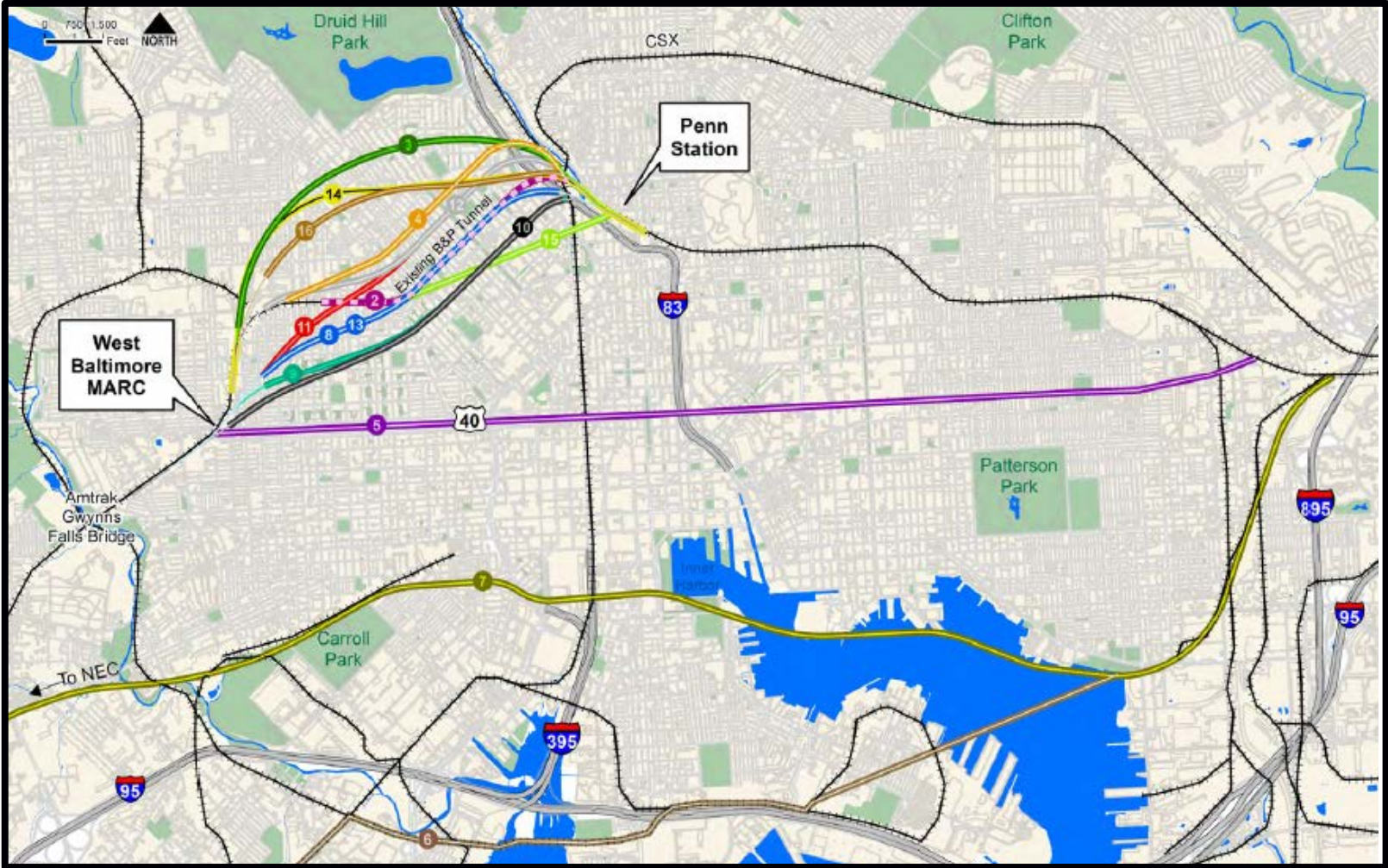
- ▶ Is **approaching the end of its useful life**
- ▶ **Does not provide enough capacity** to support current and projected demands
- ▶ Is **not suited for modern high-speed usage** due to tight clearances and sharp curves, which limit train speeds through the tunnel to 30 mph



# Project Purpose (cont'd)

- ▶ Improve travel time
- ▶ Accommodate existing and projected travel demand for passenger rail services (regional and commuter)
- ▶ Eliminate impediments to existing and projected operations along the NEC
- ▶ Provide operational reliability
- ▶ Take into account the value of the existing tunnel as an important element of Baltimore's rail infrastructure

# Alternatives Considered



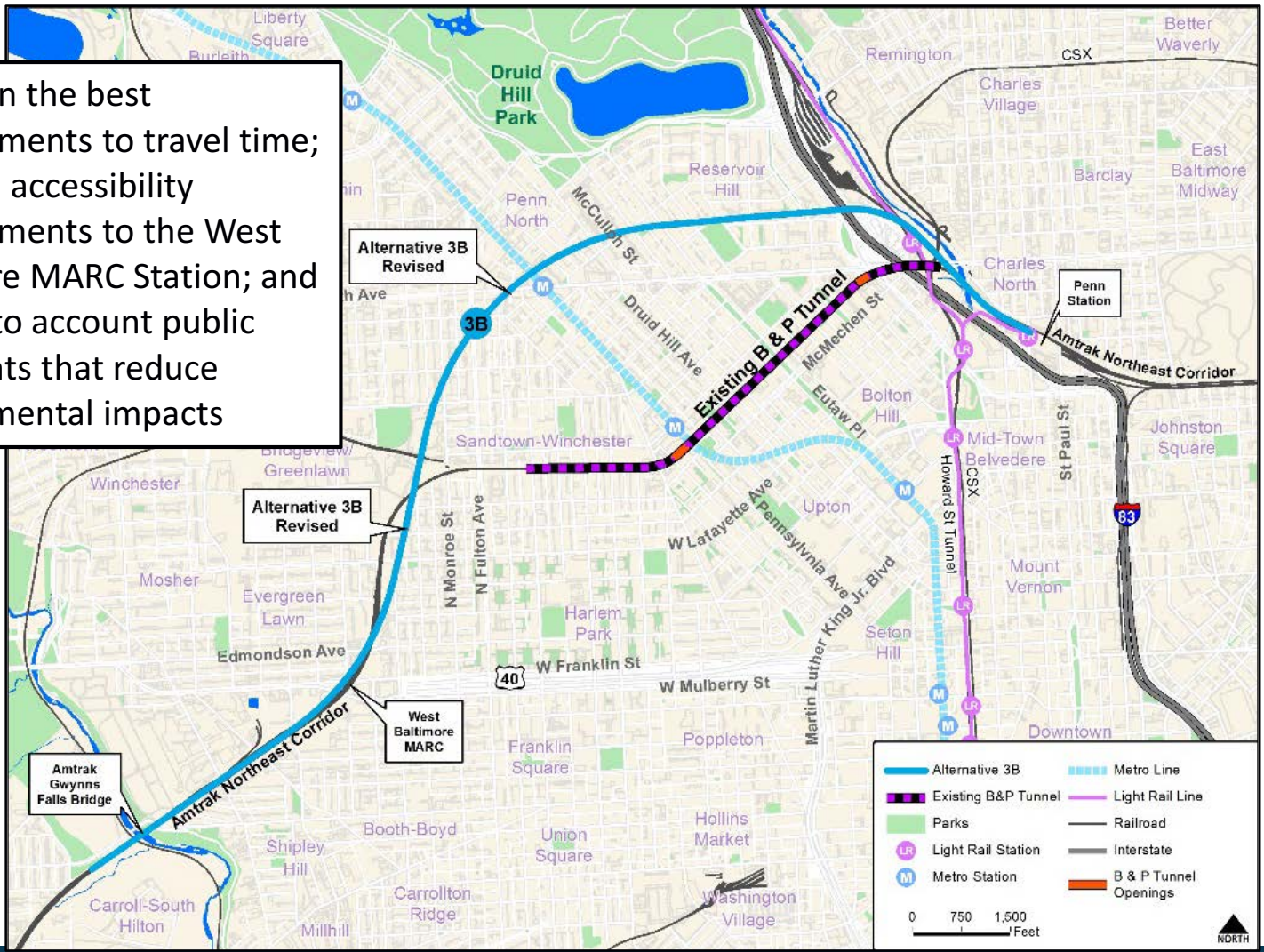
# Alternatives Retained





# Preferred Alternative

- Results in the best improvements to travel time;
- Provides accessibility improvements to the West Baltimore MARC Station; and
- Takes into account public comments that reduce environmental impacts



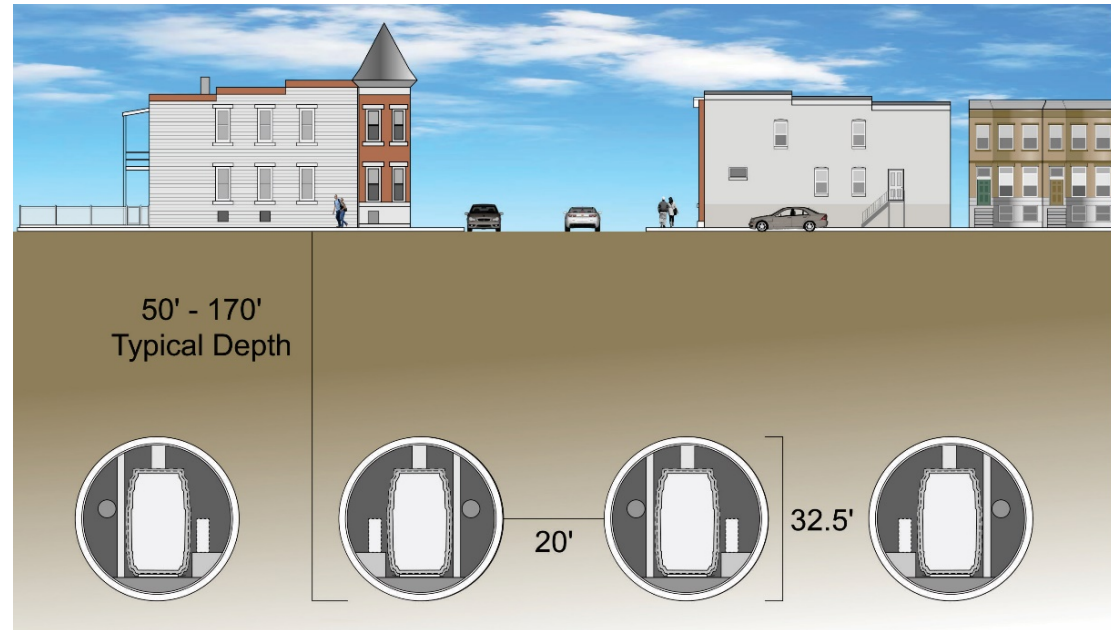
# Preferred Alternative Project Elements

- ▶ Constructs 4-tracks in individual tunnel bores
- ▶ Shifts location of West Baltimore MARC station
- ▶ Requires 3 tunnel ventilation plants along the alignment



# Four Track Tunnel

- ▶ Four tracks are needed to accommodate future high-frequency passenger train service on the NEC
- ▶ Four tracks located in four separate tunnel bores are proposed.



# Tunnel Ventilation

## Ventilation Plant:

- Above-grade structure that houses tunnel ventilation fans, operation and control rooms, and other equipment
- Ventilates the tunnel during normal, maintenance, and fire emergency operations

Electrical Panels



Ventilation Fans

# Alternative 3, Option B

## NORTH PORTAL RENDERING



# Proposed Vent Plant

## NORTH PORTAL LOCATION



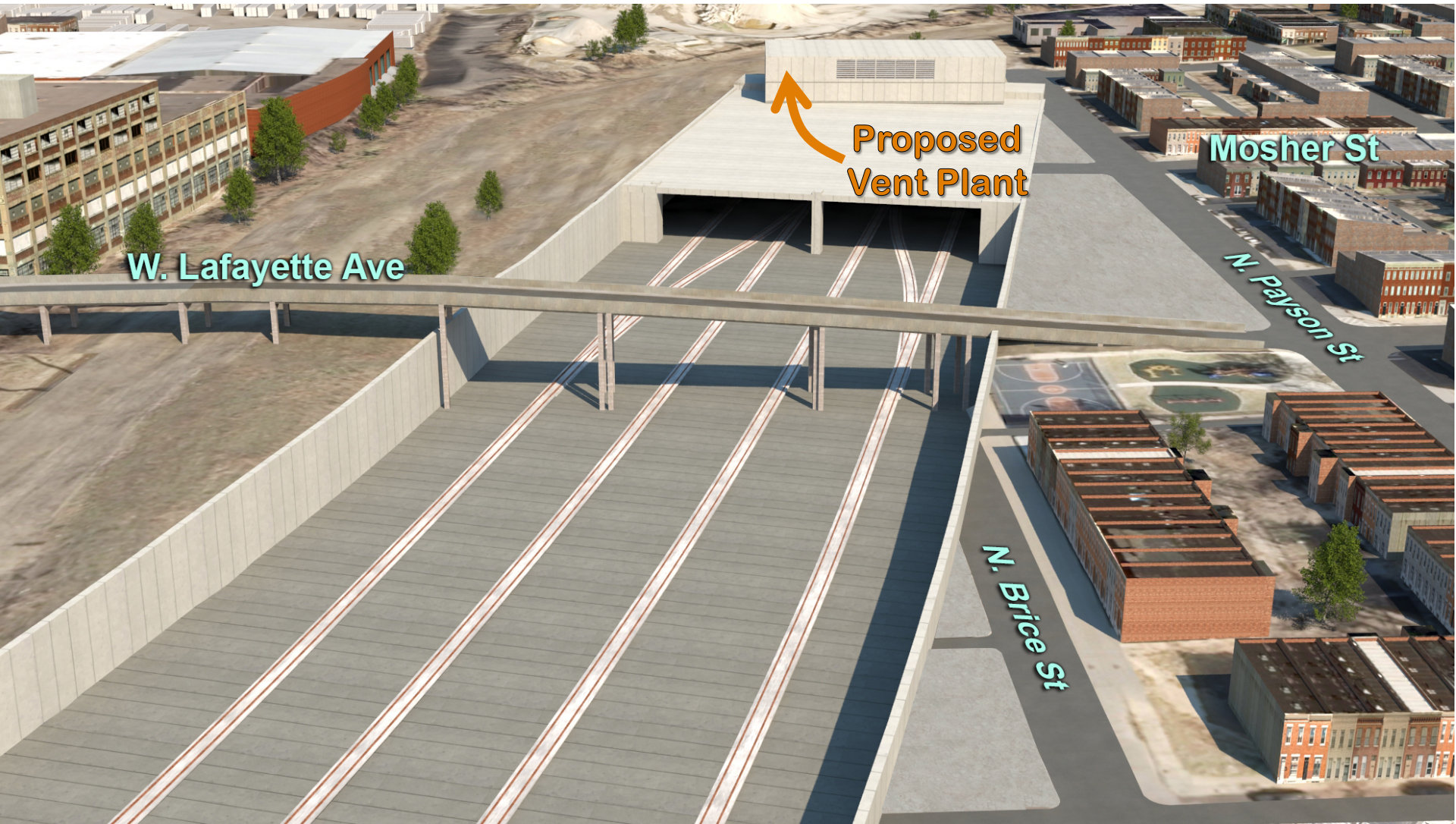
# Vent Areas of Consideration

## MID TUNNEL SITE



# Alternative 3, Option B

## SOUTH PORTAL RENDERING



# Public Outreach

## Understanding the Community

# Project Neighborhoods

- ▶ Penn North/Reservoir Hill
- ▶ Bolton Hill
- ▶ Greater Rosemont/Midtown Edmonston
- ▶ Sandtown-Winchester
- ▶ Harlem Park
- ▶ Southwestern Baltimore



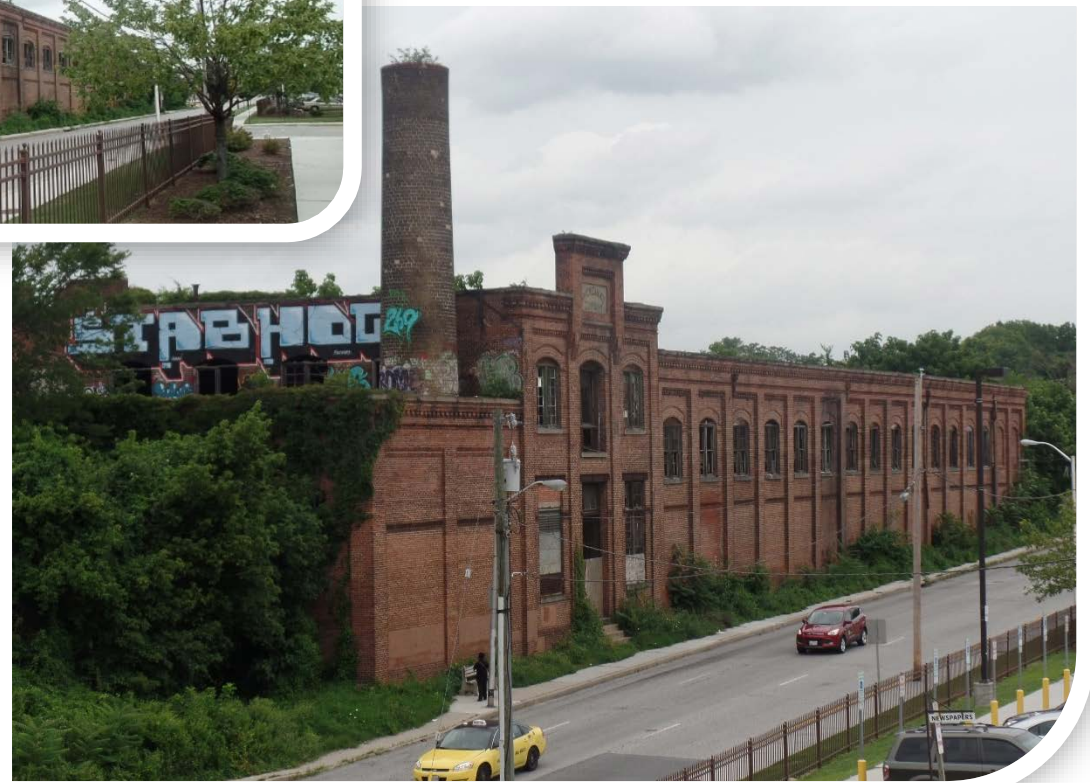


# West Baltimore MARC Station

25



# American Ice Company



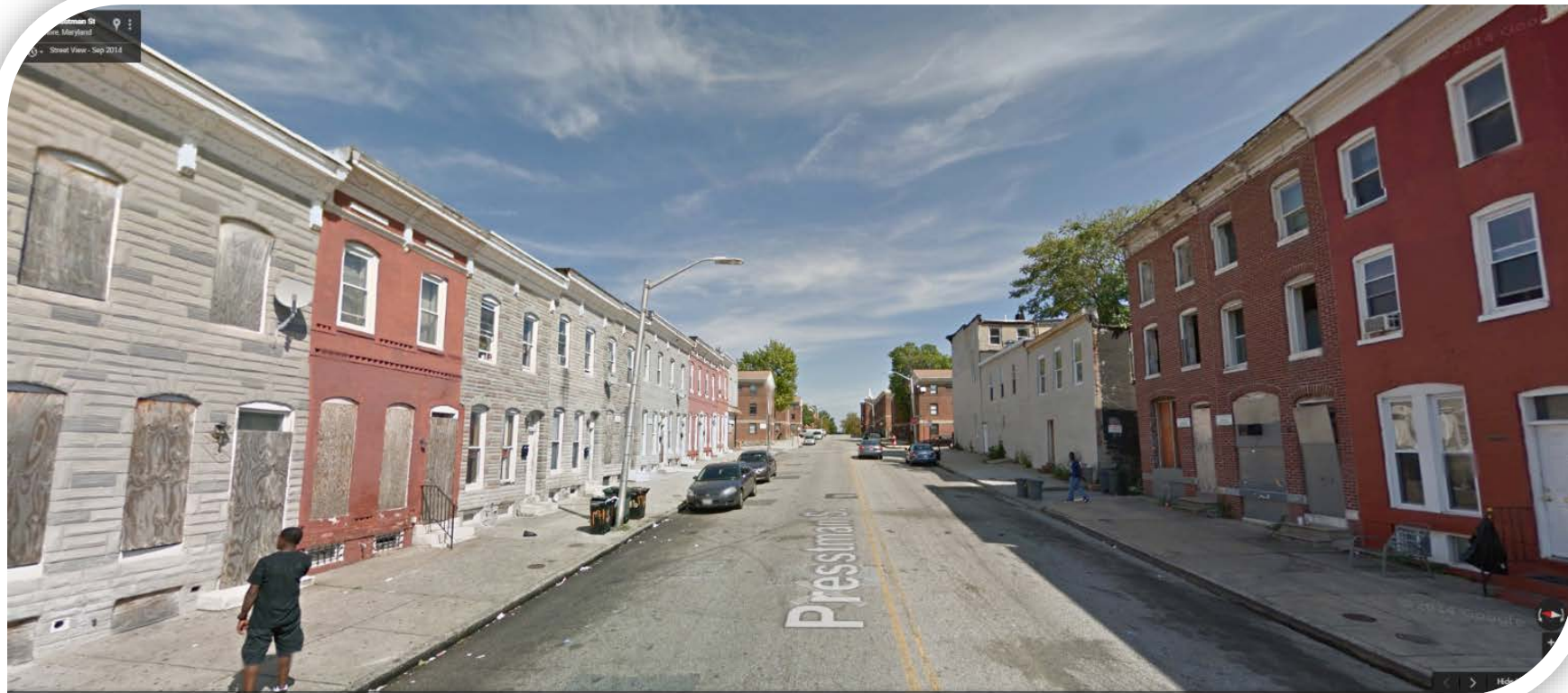
# Midtown Edmonson



# Midtown Edmonston



# Sandtown-Winchester



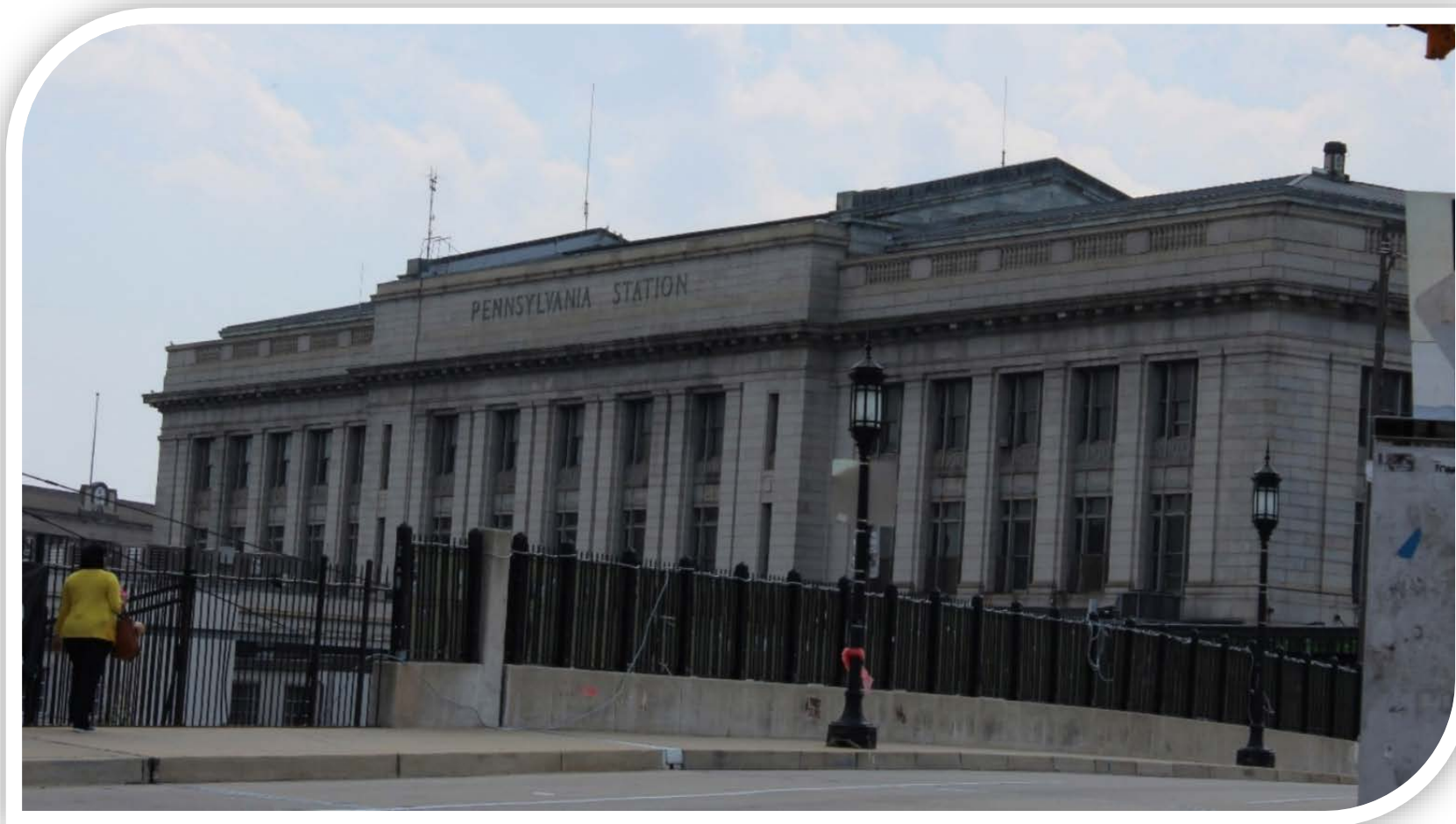
# Reservoir Hill



# Reservoir Hill - Whitelock Community Garden



# Baltimore Penn Station

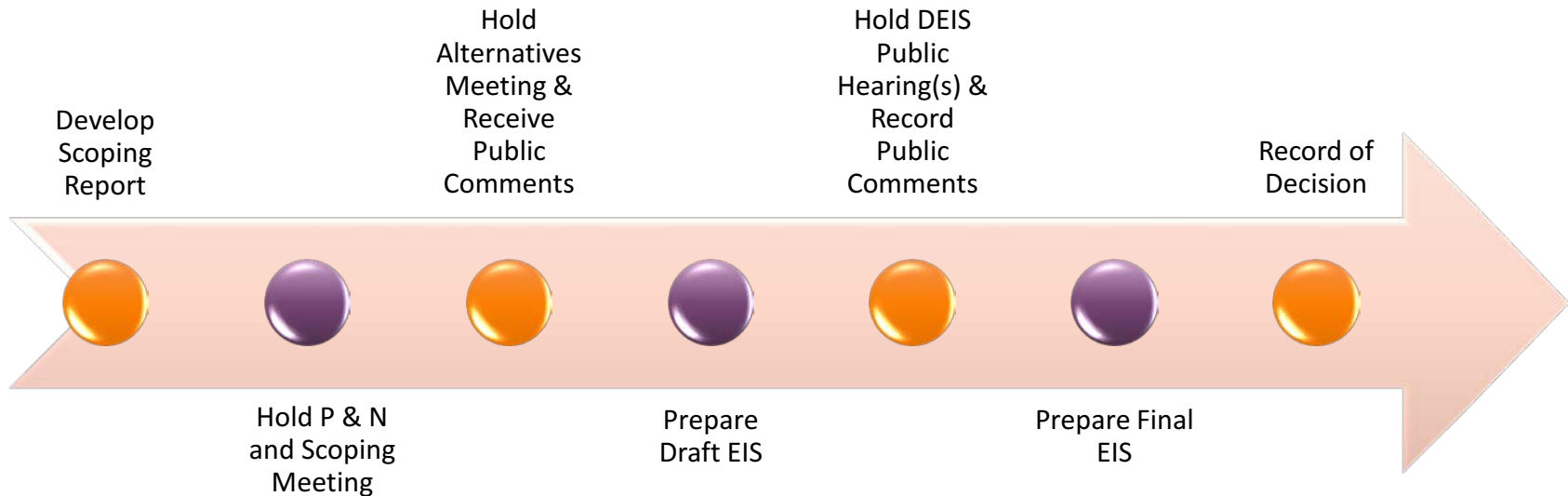




# Initial Outreach Approach

- ▶ Adhere to spirit of NEPA regulations
  - ▶ Identify impacted communities
  - ▶ Disseminate postcard notifications using zip code list (20,000)
  - ▶ Develop project website
  - ▶ Hold Public Information Meetings at predetermined project phases
    - ▶ Scoping Meeting/Purpose & Need
    - ▶ Alternatives Meeting
    - ▶ DEIS Public Hearing(s)

# NEPA Outreach Process



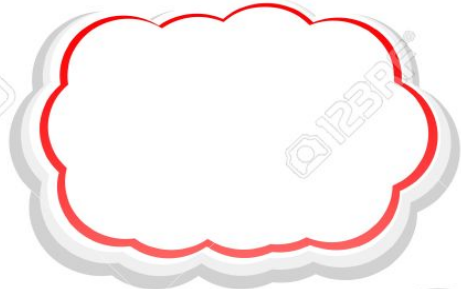
# Outreach Obstacles

- ▶ Socioeconomics
- ▶ Uninformed elected officials & communities
- ▶ Distrust of government
- ▶ Poor communication
- ▶ Fear of change
- ▶ Misinformation to community
- ▶ Meeting/information overload
- ▶ Civil Unrest

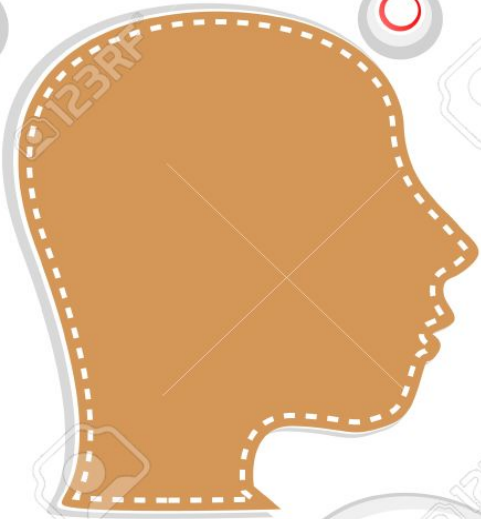
# Community Reaction to Project



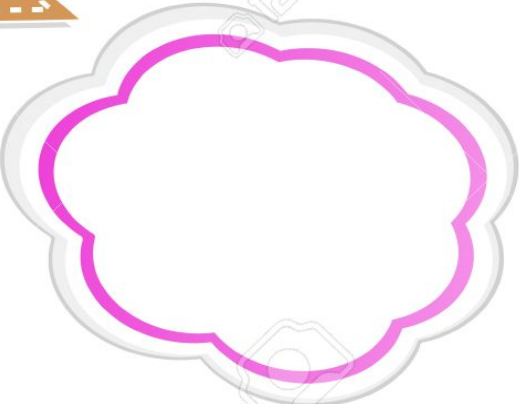
"My home begins to vibrate if a bus passes by. What happens if we dig 100, 150 feet below it?"



"The new tunnel would be built directly across the street from after-school program, our jobs program, our computer training program and our farm."



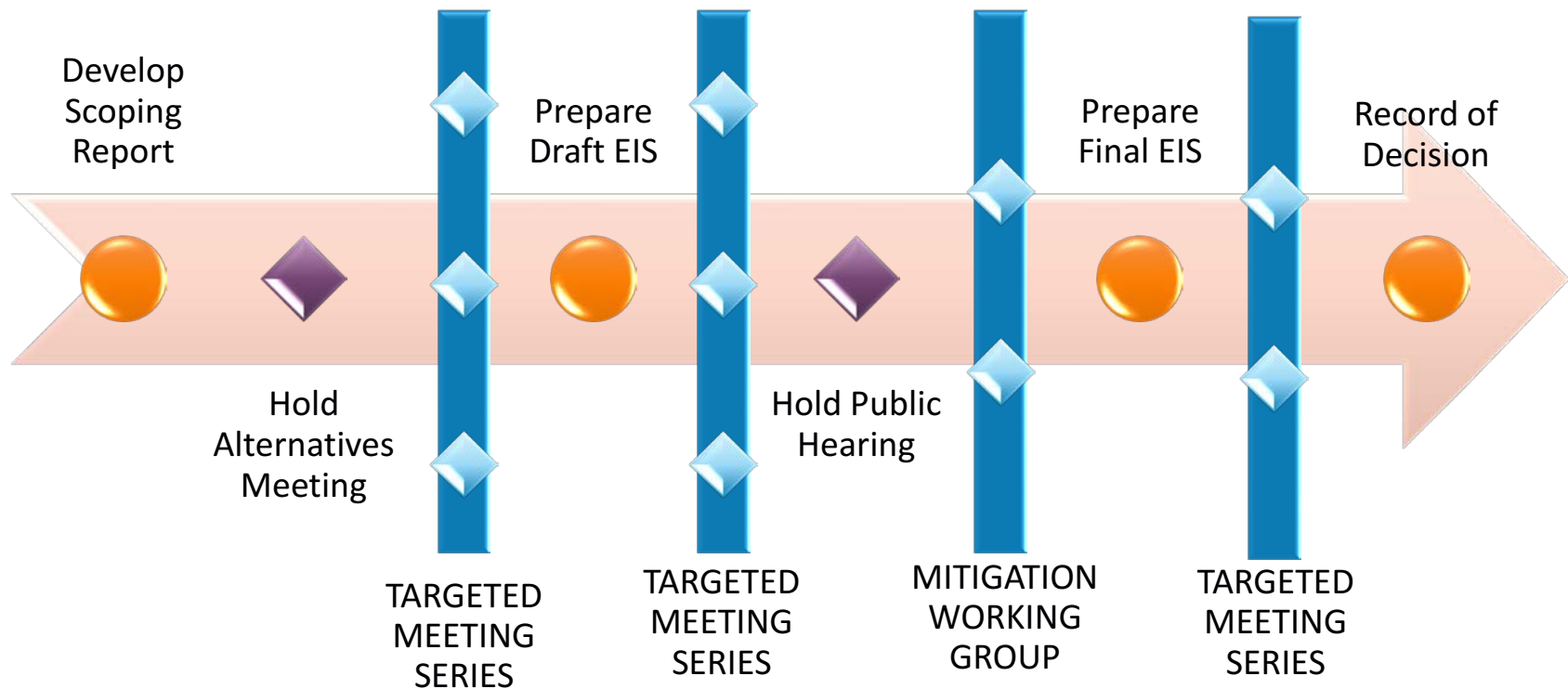
current alternatives "do not pass the smell test."



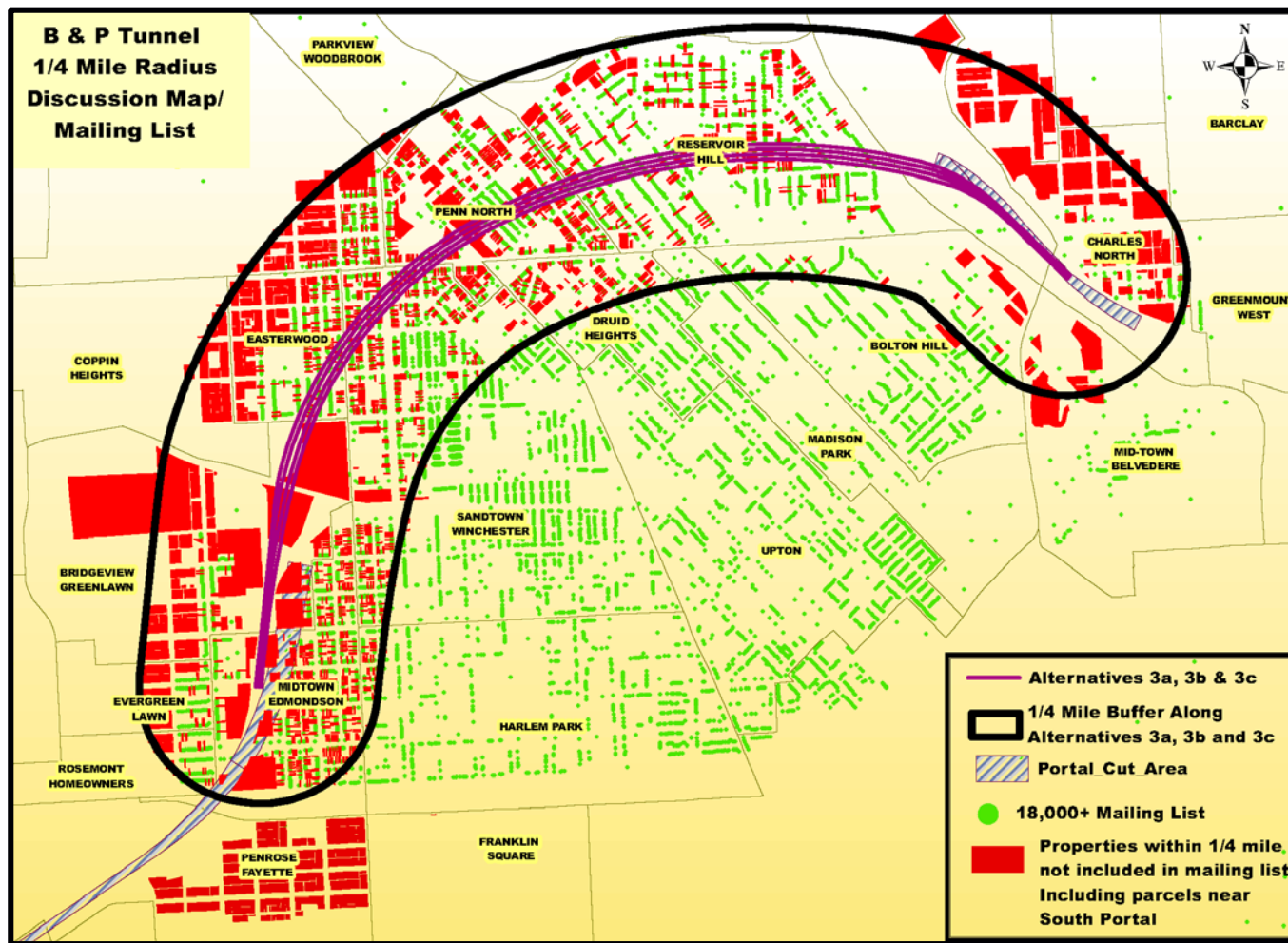
# Modified Outreach Approach

- ▶ Grassroots Approach
  - ▶ Partnered w/ Baltimore City DOT to reach elected officials, community leaders, residents and property owners
  - ▶ Refined project mailing list using GIS
  - ▶ Scheduled targeted meetings at project milestones
  - ▶ Simplified project materials (website)
  - ▶ Developed and disseminated newsletters & fact sheets
  - ▶ Attended community meetings and presented project updates
  - ▶ Convened mitigation working group

# Modified Outreach Process

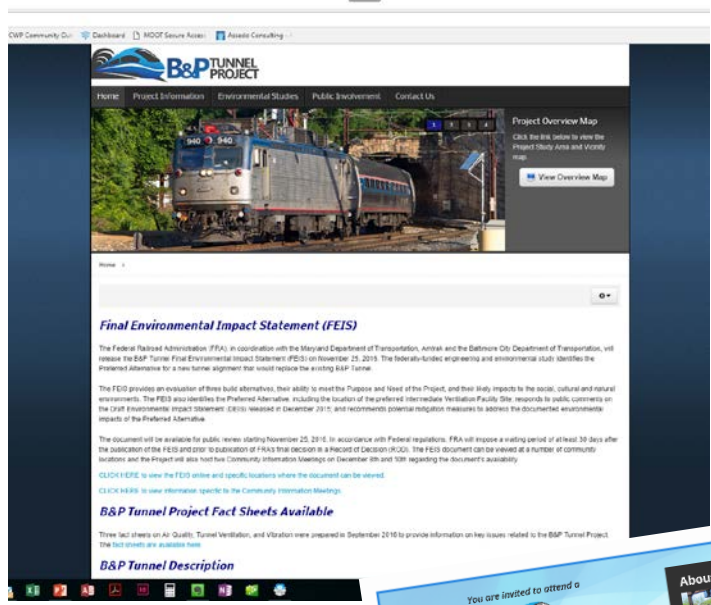


# Revised mailing list





# Public Materials



**You are invited to attend a**

**B&P Tunnel Project**

**Open House**

**Wednesday, October 29, 2014**  
5:00 PM to 8:00 PM

**Mt. Royal Elementary Middle School**  
121 McClellan Street  
Baltimore, MD 21217

Come to the open house anytime between 5:00 PM and 8:00 PM for the final decision on the project. An open house is being held to provide public input on the project. The open house will be held on Wednesday, October 29, 2014, from 5:00 PM to 8:00 PM.

- Hear the Project's history and overview of the alternative
- Identify a method for streamlining the alternatives
- Present your views
- Provide comments on the project that the team will use to make decisions on the project

**We welcome your input and encourage you to identify a lead contact person for the project.**

**Can't attend?** Meeting materials will also be posted on our website: [www.bptunnel.com](http://www.bptunnel.com).

**About the Project**

The Baltimore and Potomac Tunnel (B&P Tunnel) is a proposed rail line through the city of Baltimore, Maryland. The project will connect the city to the Washington Metro system and the Amtrak Northeast Corridor (NEC). The tunnel will be constructed in a cut-and-cover method, with a total length of approximately 1.5 miles. The project is being funded by the Federal Railroad Administration (FRA) and the Maryland Department of Transportation (MDOT). The project is expected to be completed by 2020.

**B & P TUNNEL FACTS**

**UNDERSTANDING Vibration**

**B & P TUNNEL FACTS**

**UNDERSTANDING Air Quality**

**B & P TUNNEL FACTS**

**UNDERSTANDING Tunnel Ventilation**

**BACKGROUND**

The Baltimore and Potomac Tunnel (B&P Tunnel) is a proposed rail line through the city of Baltimore, Maryland. The project will connect the city to the Washington Metro system and the Amtrak Northeast Corridor (NEC). The tunnel will be constructed in a cut-and-cover method, with a total length of approximately 1.5 miles. The project is being funded by the Federal Railroad Administration (FRA) and the Maryland Department of Transportation (MDOT). The project is expected to be completed by 2020.

**Table 1: Daily Train Service**

Service	Trains per Day
Amtrak	1
MDOT	1
MTA	1
Other	1
<b>Total</b>	<b>4</b>

**TUNNEL VENTILATION**

All tunnels require ventilation for safe operations. Ventilation may occur naturally through a tunnel or be actively provided by fans and blowers. Both methods move air out of the tunnel and create fresh air for the tunnel.

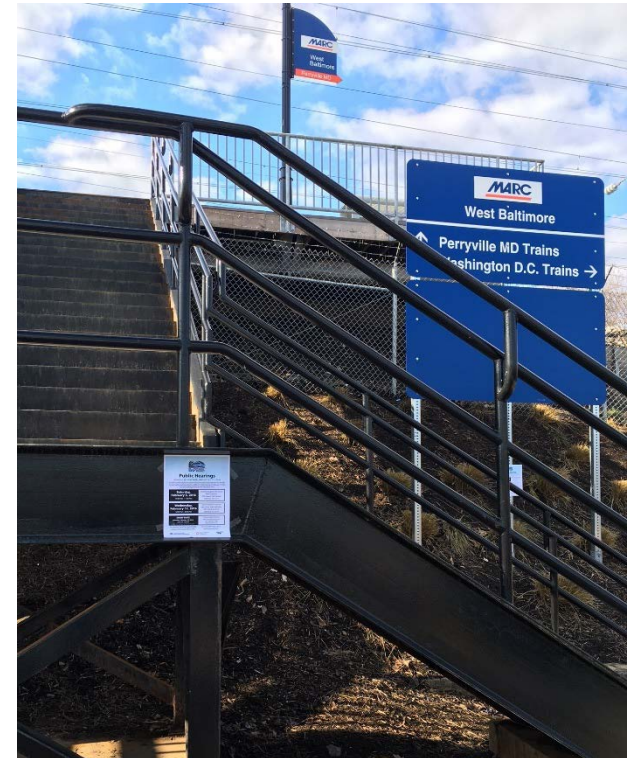
**CURRENT TUNNEL OPERATIONS**

The existing tunnel is made up of three separate tunnels. The existing tunnel is approximately 1.5 miles long. The project is being funded by the Federal Railroad Administration (FRA) and the Maryland Department of Transportation (MDOT). The project is expected to be completed by 2020.

**PROPOSED TUNNEL OPERATIONS**

The proposed tunnel is a single-track tunnel. The project is being funded by the Federal Railroad Administration (FRA) and the Maryland Department of Transportation (MDOT). The project is expected to be completed by 2020.

# Grassroots Outreach



# Public Meeting



# Public Meeting



# Targeted Meeting Series



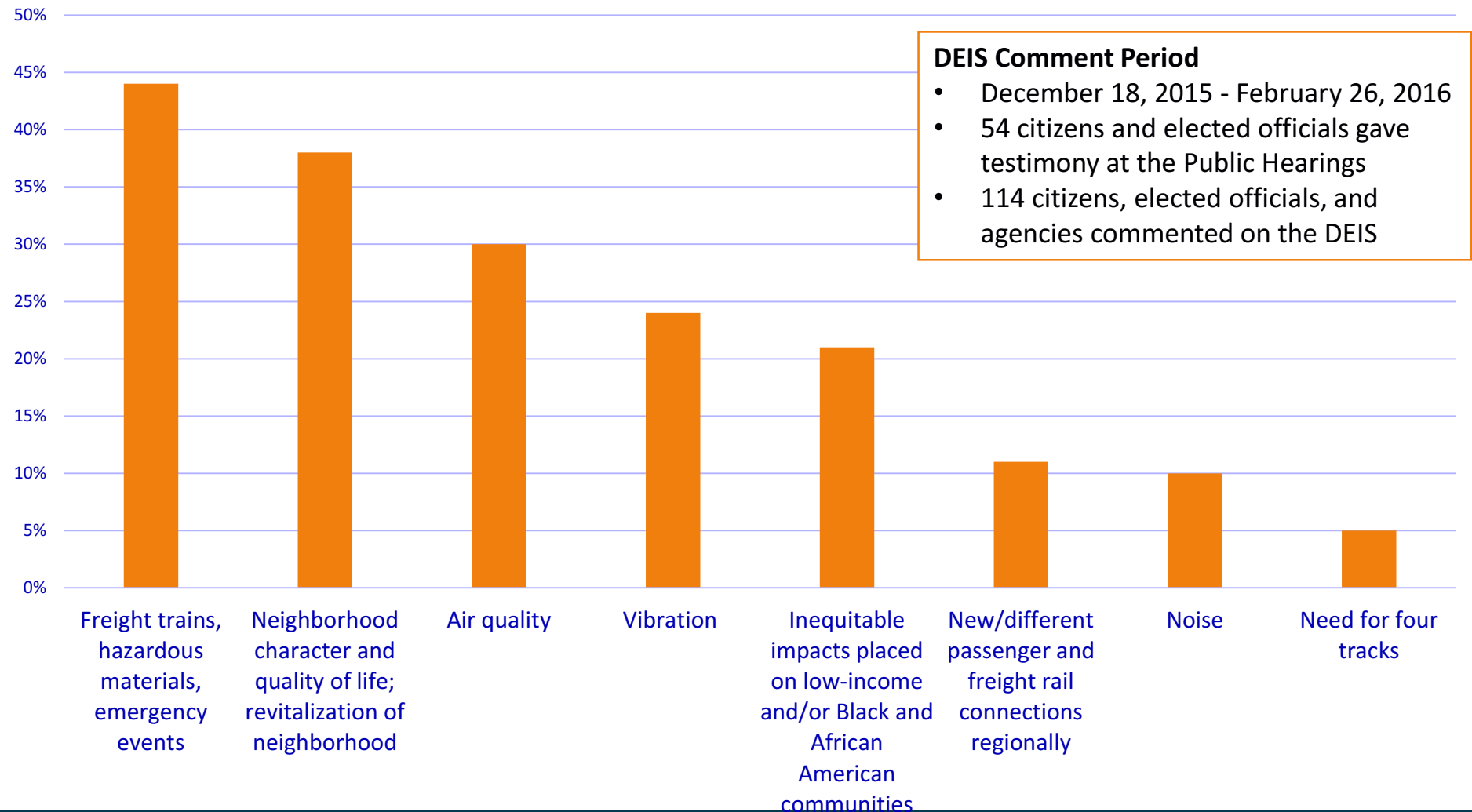
# Targeted Meeting Series



# Mitigation

Changing the conversation

# DEIS Comment Themes





# Community Concerns

- ▶ Transportation (Freight)
- ▶ Hazardous Materials
- ▶ Neighborhood character
- ▶ Economic Development
- ▶ Equity
- ▶ Quality of Life
- ▶ Noise
- ▶ Air Quality \*\*

# Mitigate UP

- ▶ FRA expressed desire to leave community improved
- ▶ Engaged a group of leaders and vocal opponents to work with team to develop potential solutions
- ▶ Keep a fully transparent process

# Mitigation Discussion

## QUESTIONS

- How do you mitigate for long term, historical impacts to Baltimore?
- Can you put resources to invest in existing programs?
- How do you frame in perpetuity these measures?

Preserve archeological findings  
 Use existing tunnel for community  
 Measure and report value of community input into process

## VENT PLANT

Create joint community use for physical facility  
 job training center  
 community center

## COMMUNITY BETTERMENT

Upgrade lighting in communities  
 Secure old tunnel  
 Positive re-use of existing tunnel  
 Maintain property values based on current tax assessment  
 Improve (protected bike lanes) to W. Balt MARC and Penn Station  
 Maintain ability to secure insurance  
 Establish fund to help secure a floor for property values (indexed to market value)

# Mitigation Elements

- ▶ Community
  - ▶ Parks & Recs facilities funds
  - ▶ Community Garden funds
  - ▶ Design & landscaping
  - ▶ Vent plant screening
- ▶ Economy
  - ▶ Coordinate w/ local job training organization
  - ▶ Create contractor goals for disadvantaged workers

# Mitigation Elements (cont'd)

## ▶ Transportation

- ▶ Streetscape, pedestrian & bike funds
- ▶ MOT Plan for Construction
- ▶ Retain existing tunnel for future
- ▶ Additional station amenities at West Baltimore MARC

## ▶ Natural Resources

- ▶ SWM Plan
- ▶ E&SC Plan
- ▶ Rodent Abatement Plan

# Lessons Learned

- ▶ Communities get information differently
  - ▶ Create high-tech (website, email list) and low-tech (newsletters/fliers) options
  - ▶ Address misinformation immediately!
- ▶ Open house format doesn't always work
  - ▶ Present information to community
- ▶ Too many agency meetings
  - ▶ Go to THEIR regularly scheduled meetings
- ▶ Be prepared to LISTEN!
- ▶ Work WITH the community

# 2016

# FRA Rail Program Delivery

## Meeting

# Thank you!

Odessa L. Phillip, PE

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