

# NORTHEAST MAGLEV

A Great Egret with long, thin white feathers, a long yellow beak, and a black cap with a white stripe. It is standing in a marshy area with tall grasses and water in the background.

February 23, 2021 | Baltimore Regional Transportation Board

## Superconducting Maglev Train

# Who We Are



## **Baltimore-Washington Rapid Rail (BWRR)**

- A 100% US-owned, Maryland based franchised railroad company
- Dedicated to deploying the 311mph SCMAGLEV train in the Northeast Corridor
- Over \$100 million in private investment to date



## **Northeast Maglev**

- A 100% US-owned company promoting the deployment of SCMAGLEV in the Northeast Corridor in cooperation with JR Central



## **Central Japan Railway Company (JR Central)**

- Japanese rail company with over 50 years experience in high speed rail on the most travelled rail corridor in the world
- Developer of the Superconducting Maglev (SCMAGLEV) system currently operational and being deployed in Japan

# The NEC: Big and Getting Bigger

## TODAY



**51 MILLION**  
residents

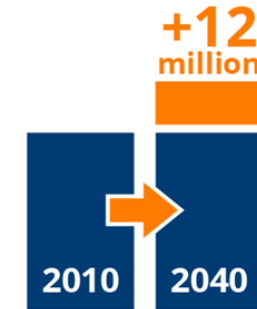


**24 MILLION**  
jobs

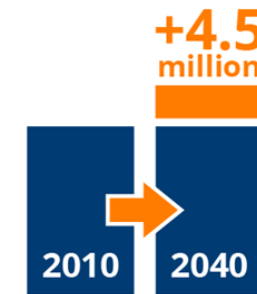


All on just 2% of U.S. land area

## BY 2040



**64 MILLION**  
residents



**28.5 MILLION**  
jobs

# Broken Infrastructure / Growing Problems

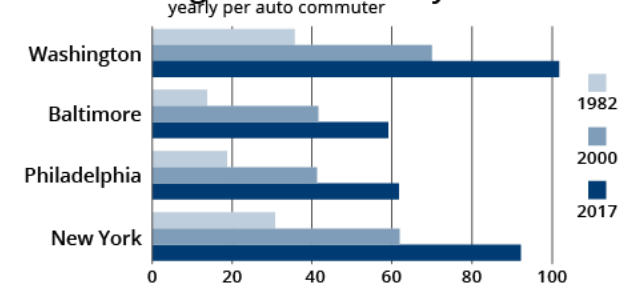
## HIGHWAYS



- 12%** of all U.S. highway lane miles
- 52%** of the worst highway bottlenecks
- 22%** increase in auto travel by 2040

source: 2019 Urban Mobility Score Card (Texas A&M Transportation Institute, 2019)

### Average Hours of Delay



## AIRWAYS



- 30%** of all U.S. air trips
- 50%** of nationwide delays originate in NYC
- 102%** increase in aviation boardings by 2040

source: 2019 Airport On-Time Arrivals (US DoT Bureau of Transportation, December 2019)

### Worst On-Time Arrival Rates

(2019)

1	Newark (EWR)	66%
2	New York LaGuardia (LGA)	70%
3	San Francisco (SFO)	72%
4	Boston (BOS)	74%
...	...	...
11	New York John F Kennedy (JFK)	78%
12	Washington National (DCA)	78%
13	Philadelphia (PHL)	79%
19	Washington Dulles (IAD)	80%
20	San Diego (SAN)	80%

## RAILWAYS



- 75%** of all weekday commuter rail riders
- 53%** of commuter trains utilize the NEC
- 115%** increase in intercity rail travel by 2040
- 6%** of current rail could support 150mph

source: Northeast Corridor Annual Report: Operations and Infrastructure (NEC Commission, April 2018)

### Shared Tracks

on the Northeast Corridor main line



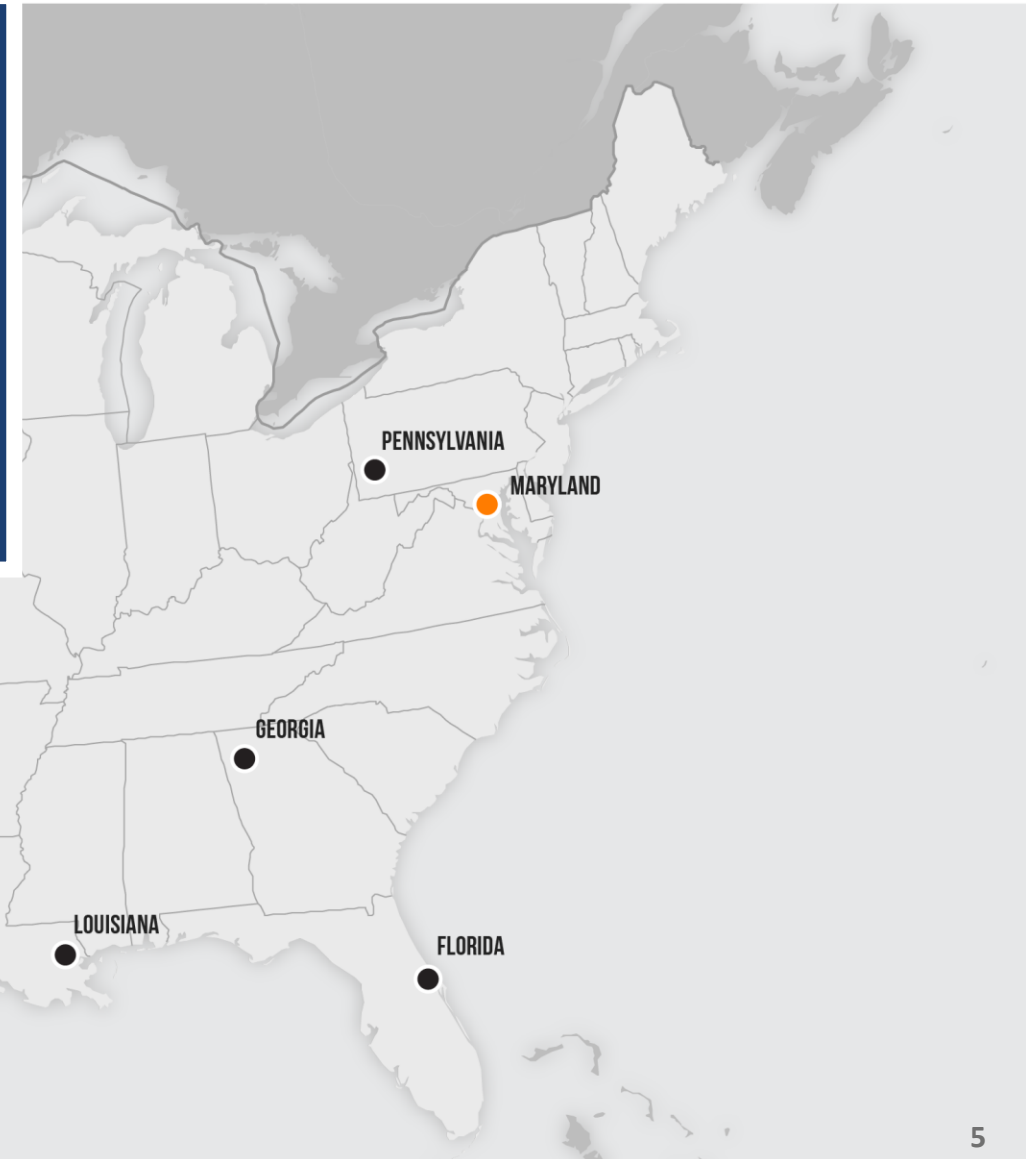


# US MAGLEV Deployment Program

## Establishing Maglev Technology in the US

1998: TEA-21 promise to deploy superspeed maglev in US  
1999-2001: 14 States compete federally to deploy MAGLEV,  
7 selected for further study  
2015: Maryland PSC grants railroad franchise to BWRR  
2019: Baltimore-Washington wins national competition

\$50+ million in U.S. Federal grants awarded to MD to date  
BWRR pays required State matching funds, does not anticipate any cash  
investment or operating subsidies from MD

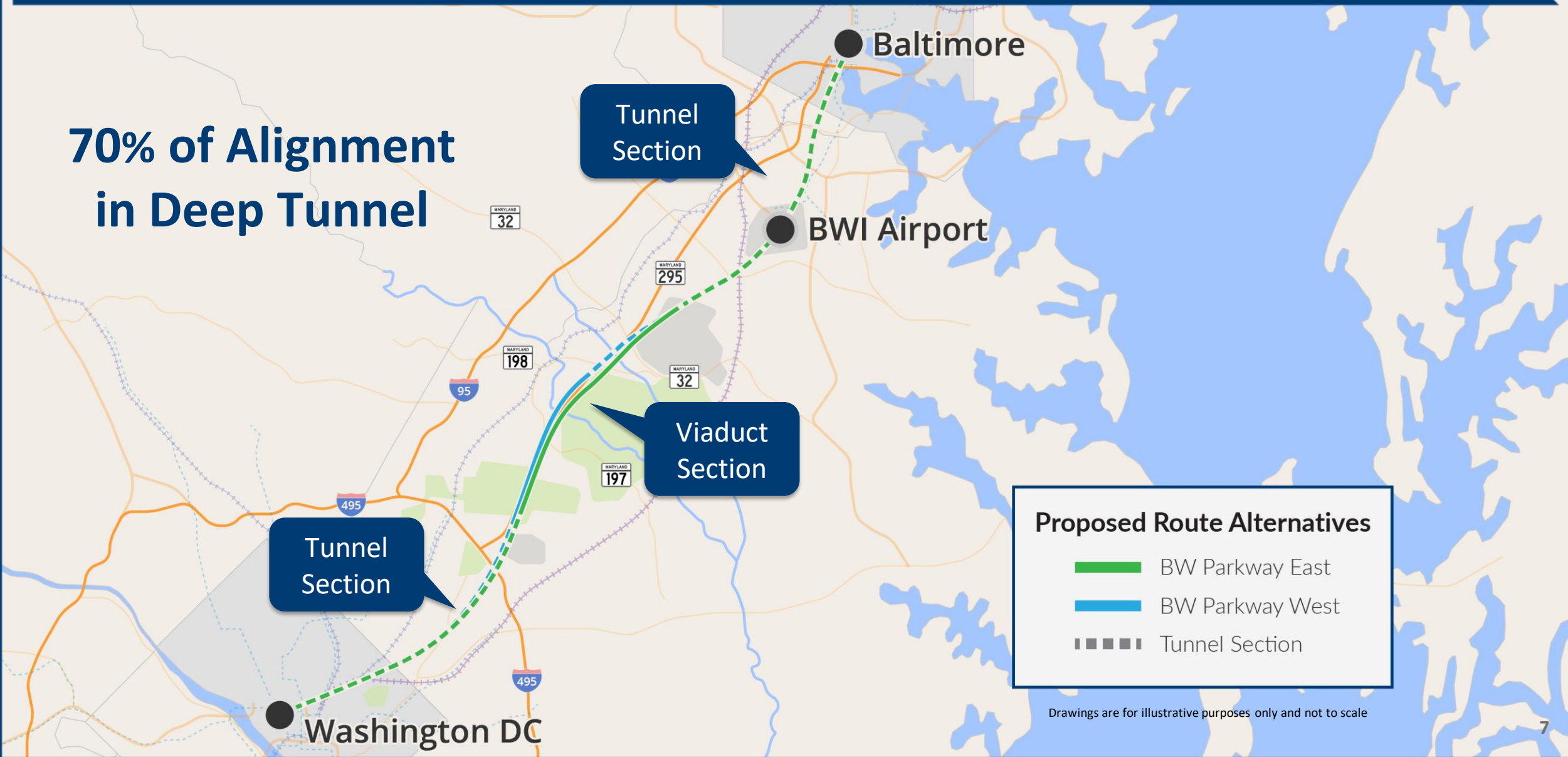


# Our Vision: Innovation, Opportunity, Green Transportation

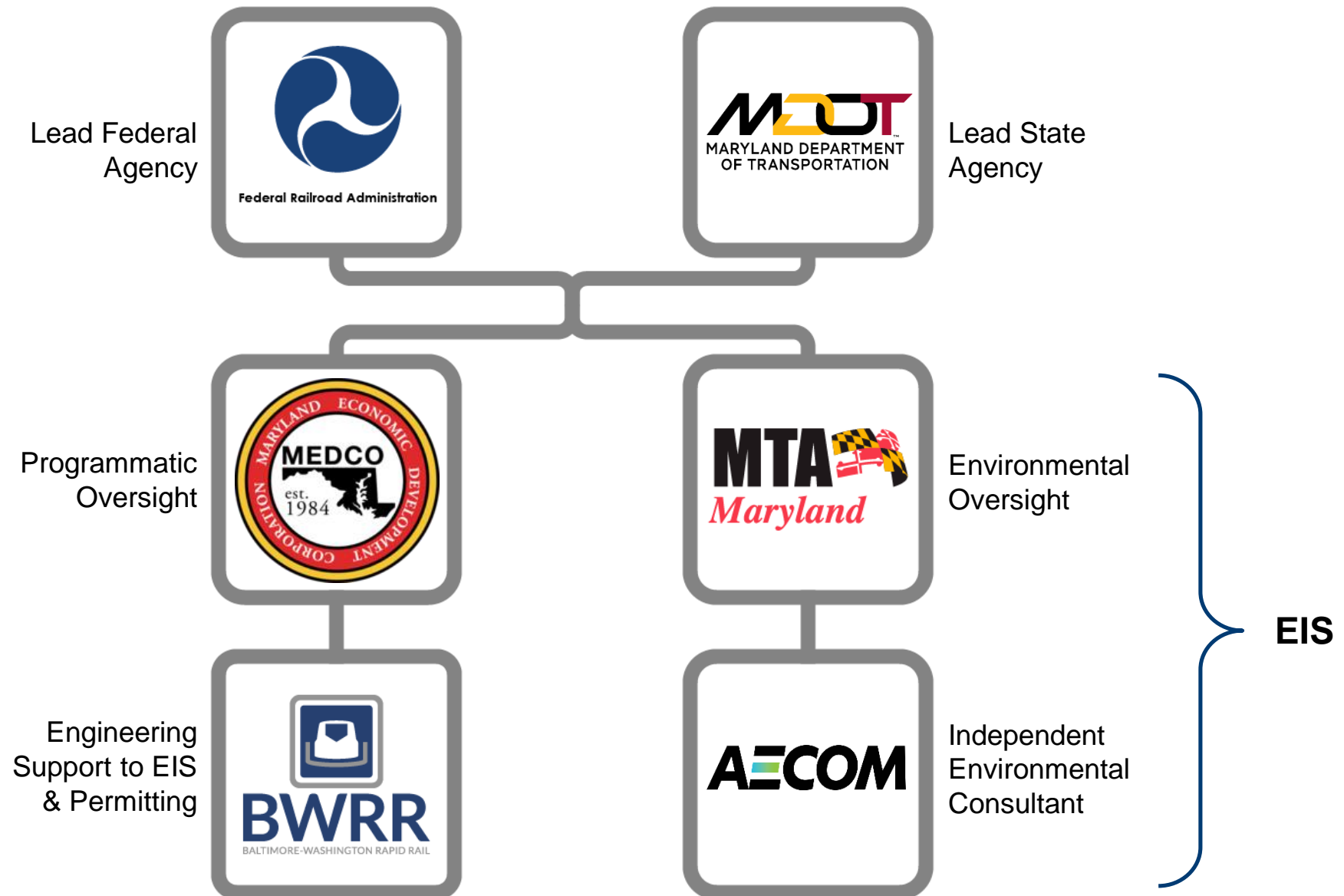


# Construction Overview

**70% of Alignment  
in Deep Tunnel**



# NEPA / Engineering Responsibilities





# EIS Agency Coordination

## Federal

- Federal Highway Administration (FHWA)
- Federal Transit Administration (FTA)
- Surface Transportation Board (STB)
- Federal Emergency Management Agency (FEMA)
- US Army Corps of Engineers (USACE)
- US Environmental Protection Agency (USEPA)
- US Fish and Wildlife Service (USFWS)
- US Department of Agriculture (USDA)
- National Park Service (NPS)
- National Capital Planning Commission (NCPC)
- US Commission of Fine Arts (USCFA)
- National Aeronautics & Space Administration (NASA)
- Federal Aviation Administration (FAA)
- **Federal Railroad Administration (FRA)**
- National Security Agency (NSA)

## State

- Maryland Department of Natural Resources (MDDNR)
- Maryland Department of the Environment (MDE)
- Maryland Department of Planning (MDP)
- Maryland-National Capital Park and Planning Commission (M-NCPPC)
- Maryland State Highway Administration (SHA)
- Maryland Historical Trust (MHT)
- Metropolitan Washington Council of Governments (MWCOC)
- **Maryland Department of Transportation (MDOT)**
- **Maryland Transit Administration (MTA)**

## Local

- Anne Arundel County Transportation Department
- Anne Arundel County Government Office of Planning & Zoning Transportation Division
- Anne Arundel Economic Development Corporation
- Howard County Office of Transportation
- Prince George's County Department of Public Works and Transportation
- Baltimore City Department of Transportation (BCDOT)
- Baltimore City Department of Planning
- Baltimore Metropolitan Council (BMC)
- District Department of Energy and Environment (DOEE)
- District Department of Transportation (DDOT)
- District of Columbia Historic Preservation Office (DC SHPO)
- Washington Metropolitan Area Transit Authority (WMATA)
- Metropolitan Washington Council of Governments (MWCOC)

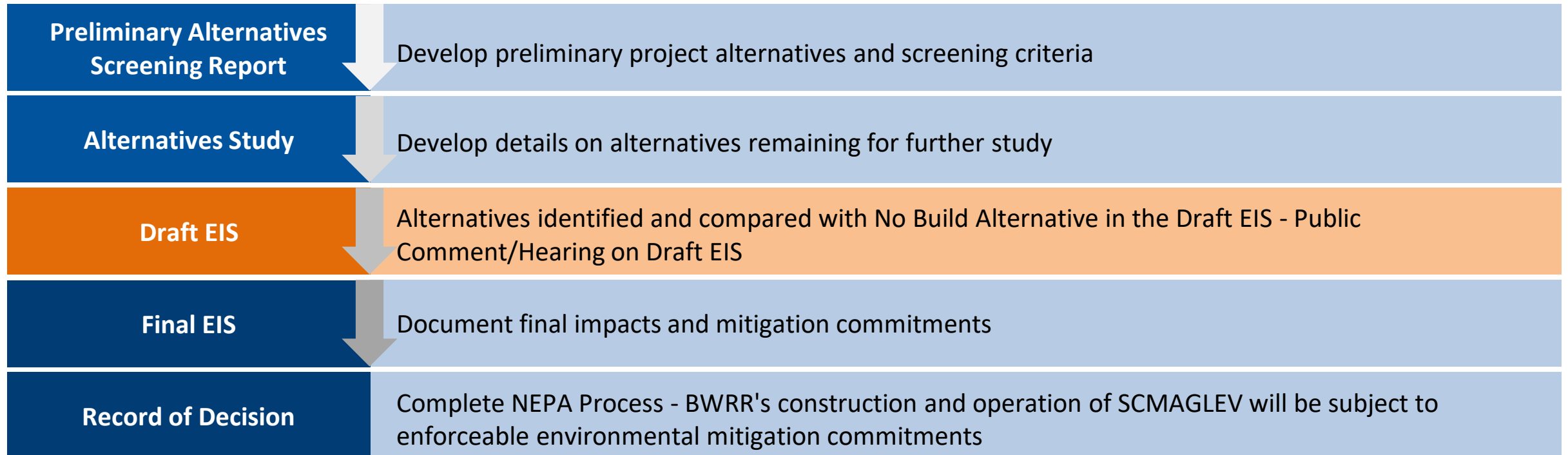
**Bold** Denotes Lead Agencies

# EIS Schedule

FRA-led NEPA Process provides a 'hard look' at project impacts, offering full disclosure through publishing of environmental impact statement (EIS)

EIS process investigates Route Alternatives and includes:

- Investigations/Studies
- Public Involvement
- Agency Coordination



*Orange color denotes current phase*

# Baltimore-Washington Project Schedule

EIS/Permitting Completion  
2022



Final Design Commences  
Construction Start

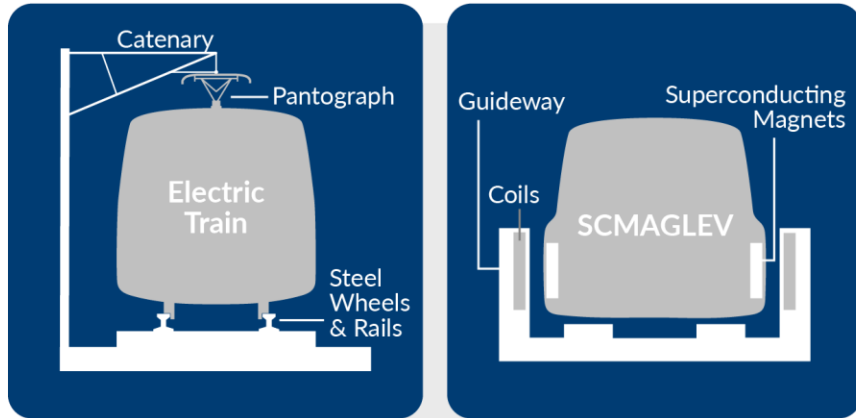


Construction duration depends on alignment selected  
and construction methodology

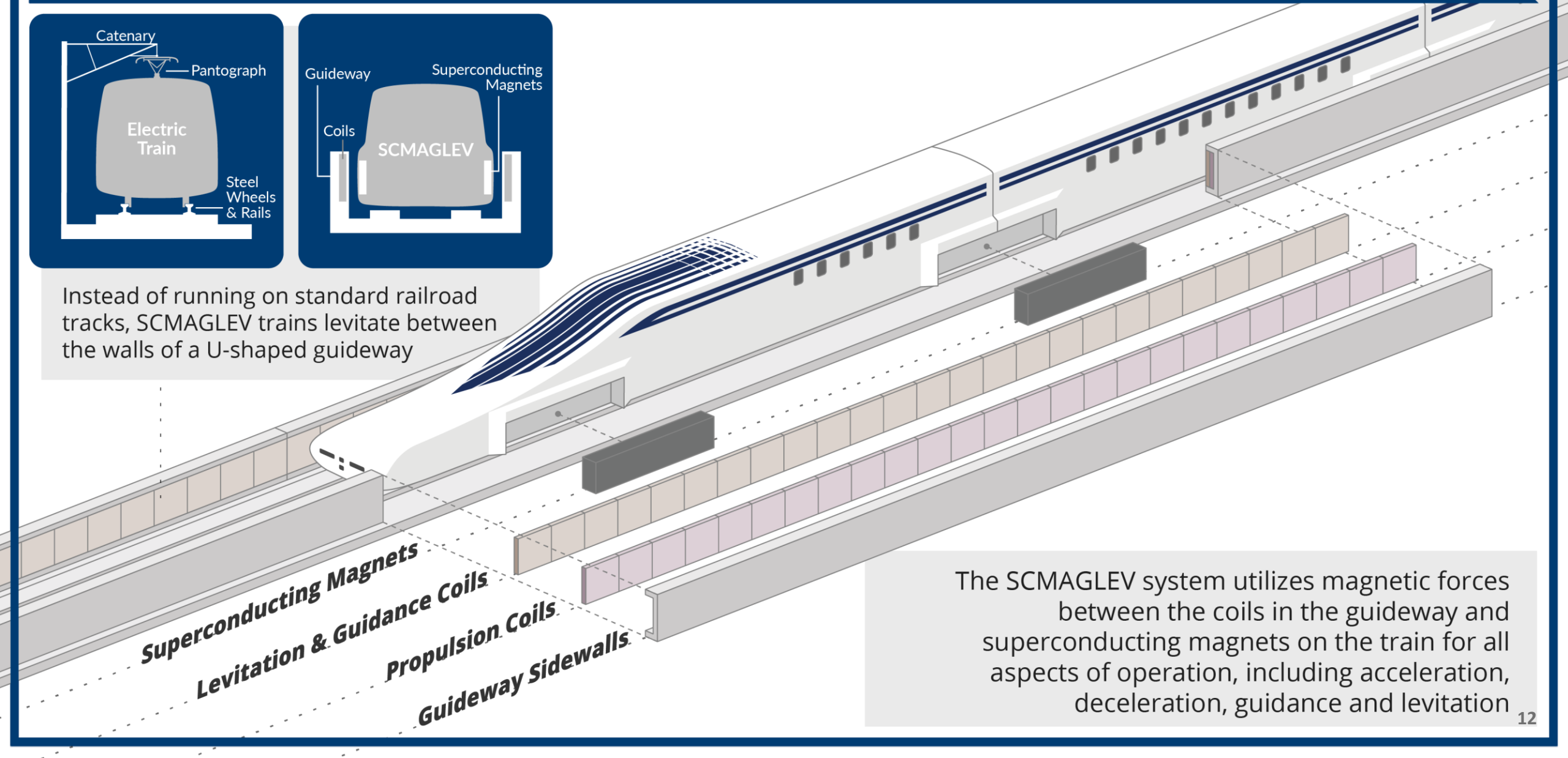


Revenue Service Begins

# How SCMAGLEV Works



Instead of running on standard railroad tracks, SCMAGLEV trains levitate between the walls of a U-shaped guideway



The SCMAGLEV system utilizes magnetic forces between the coils in the guideway and superconducting magnets on the train for all aspects of operation, including acceleration, deceleration, guidance and levitation



# Ridership Forecast

**Table 4.2-3: Forecasted Source of SCMAGLEV Ridership and Forecasted Diversions to SCMAGLEV Project from other Modes for the Years 2030 and 2045, by Baltimore Station Alternative**

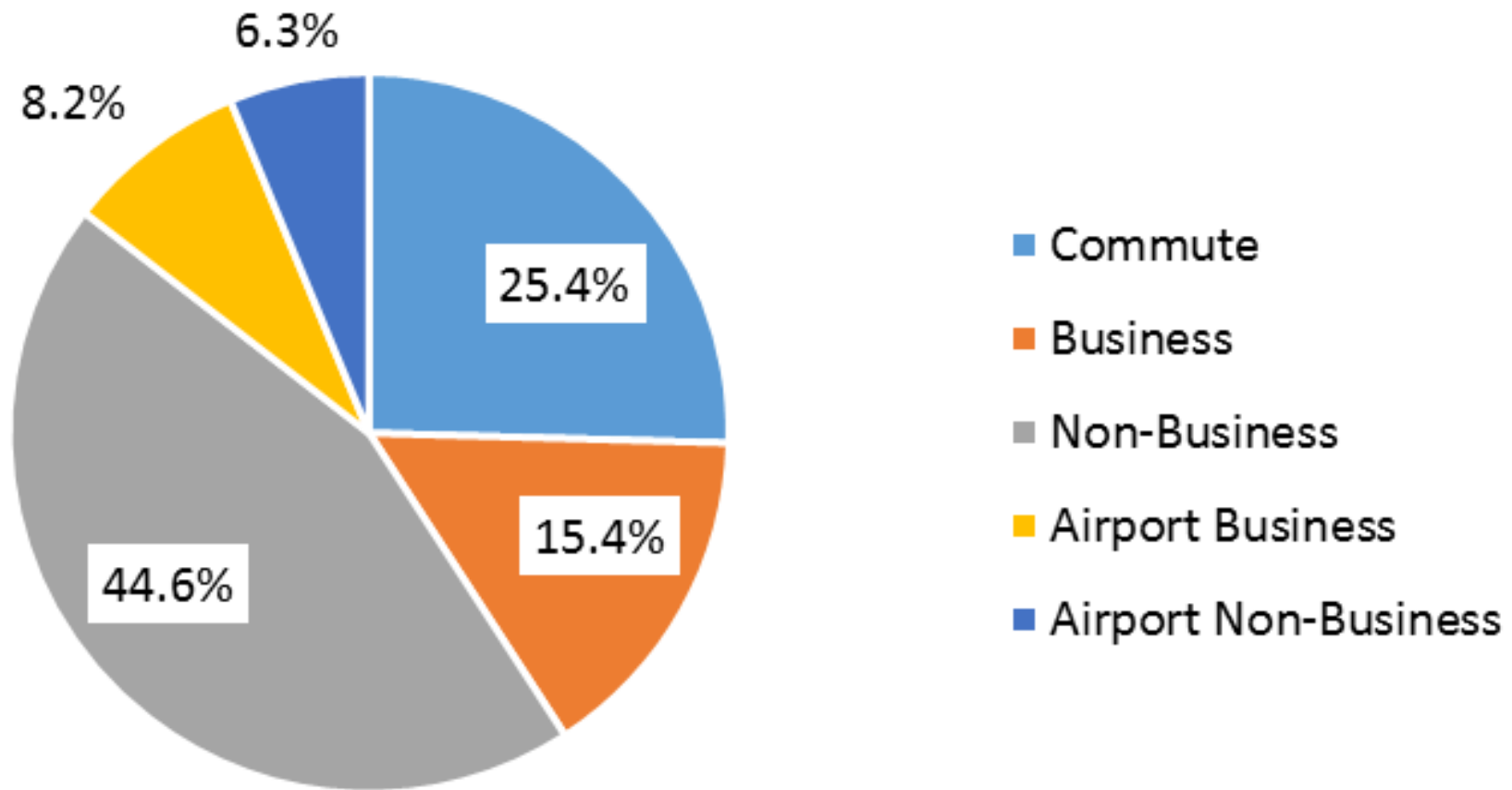
<b>Baltimore Station Alternative by Year</b>	<b>2030 Cherry Hill Station</b>	<b>2045 Cherry Hill Station</b>	<b>2027 Camden Yards Station</b>	<b>2045 Camden Yards Station</b>
Diverted from Auto	11,380,467	14,877,281	12,609,501	16,480,393
Diverted from Rail	2,122,750	2,610,204	2,261,072	2,768,873
Diverted from Bus*	253,107	309,733	263,229	320,005
Diverted from Taxi/Rideshare	582,217	860,551	681,976	1,009,282
<b>Total Diverted Trips</b>	<b>14,338,541</b>	<b>18,657,769</b>	<b>15,815,778</b>	<b>20,578,553</b>
<b>Total Forecasted Annual SCMAGLEV Trips</b>	<b>17,056,911</b>	<b>22,367,238</b>	<b>18,960,622</b>	<b>24,938,652</b>
<b>New Induced Trips</b>	<b>2,718,370</b>	<b>3,709,269</b>	<b>3,144,844</b>	<b>4,360,099</b>

Source: Baltimore-Washington SCMAGLEV Project: Project Sponsor SCMAGLEV Daily Boardings and Alightings by SCMAGLEV Station

\* This category covers diversions from all bus services in the SCMAGLEV Project Affected Environment, including local bus services, express services to Baltimore and Washington and privately operated inter-city bus services

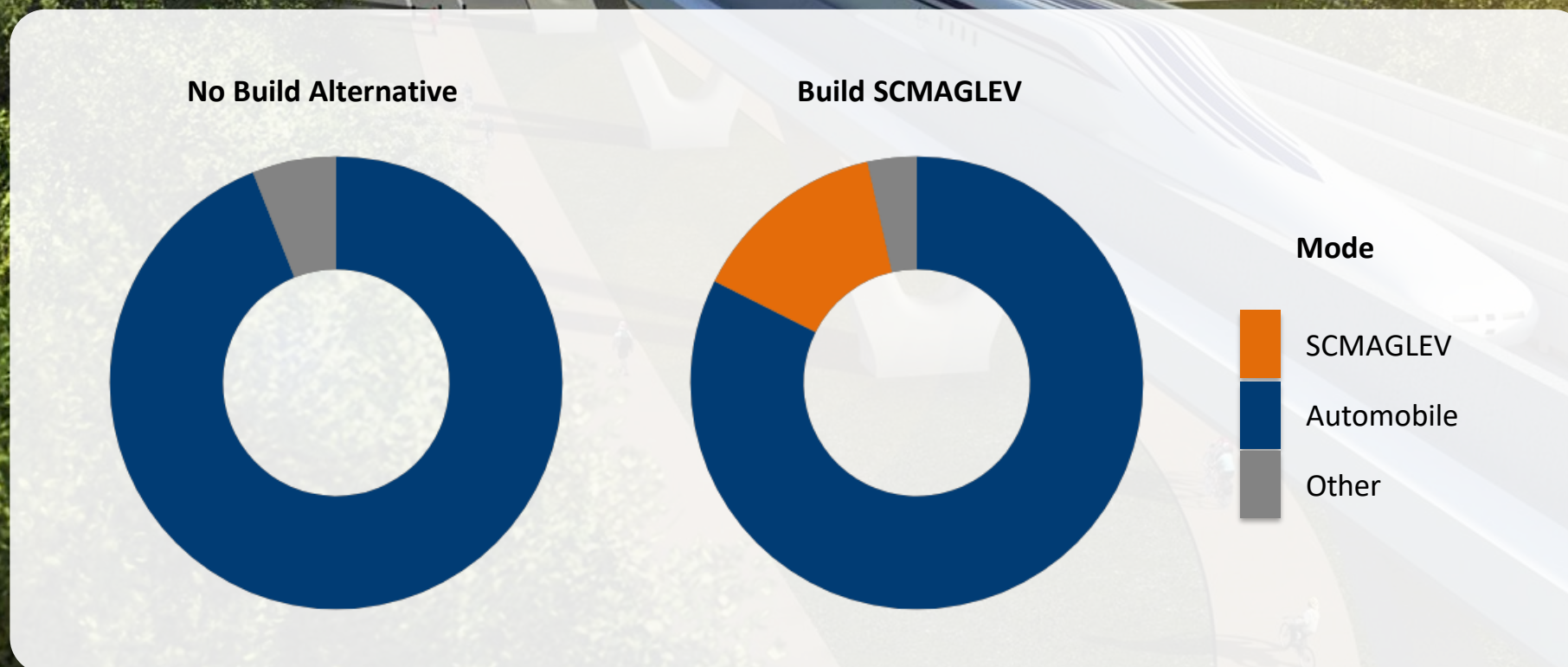
# Ridership Forecast

SCMAGLEV Ridership by Segment



# Reduction in Vehicle Miles Traveled

- DEIS predicts SCMaglev will result in reduction of regional VMT between 9% and 12% (2027 to 2045)
- Independent Ridership Study shows SCMaglev reduces automobile share from 94% to approx. 82%





# Economic Opportunity Resulting from SCMaglev

## Regional Jobs

**123,000 JOBS**

Construction Related Job-Years

**38,000 JOBS**

Professional Services Job-Years



## Regional Labor Earnings

**\$8.8 BILLION**

In Employee Earnings

Baltimore-Washington SCMaglev DEIS, January 2021 – Resulting form Build Alternative J-03



# Maryland Transit Authority – A Critical Piece

## ***MTA a Critical Part of First/Last Mile Connectivity***

- MTA 25-year vision notes light-rail ridership has declined 16% since 2012\*
  - MTA wants improved service between Cherry Hill and Downtown Baltimore\*
  - MTA long-term goals of improved pedestrian and cycling access to stations, micro-mobility integration with existing services, and integrated whole-journey ticketing
- BWRR prefers proposed station at Cherry Hill Light Rail Station
  - BWRR looks forward to working with MTA on innovative first/last mile solutions, ensuring passengers have integrated, cost-effective, and environmentally sound transportation options

\*(P. 14 & 49, MTA *Connecting Our Future: A Regional Transit Plan For Central Maryland*)

Diagram – connection to light rail?

# No State of Maryland Funds

## ***BWRR Not Seeking State of Maryland Funds***

- MTA expects \$2 billion budget shortfall over the next decade
- BWRR committed to build without State appropriations
  - Billions generated from SCMaglev project to Maryland's GDP will help grow the State's Transportation Trust Fund and help MTA with budget shortfall
  - Jobs created boost county general funds to help expand transit in places like Cherry Hill and Westport

\*(P. 14 & 49, MTA *Connecting Our Future: A Regional Transit Plan For Central Maryland*)





NORTHEAST MAGLEV

NORTHEAST MAGLEV





**NORTHEAST MAGLEV**



# Project Support

- Endorsed by civic groups, union labor groups, local business and community organizations
- Partnering to provide local outreach, education, and access to opportunity to businesses and residents



**NAACP**  
*Maryland*  
STATE CONFERENCE



**Eastern Atlantic States**  
REGIONAL COUNCIL OF CARPENTERS



- Support continues to grow. More than 15,000 people have shown their support by signing a petition in favor of the project

# NORTHEAST MAGLEV

Thank You

@NortheastMaglev

for more information, visit:  
[www.northeastmaglev.com](http://www.northeastmaglev.com)

February 2021