



# Hampton Roads Bridge-Tunnel Expansion Project

Virginia Beach Military Economic Development  
Advisory Committee  
Monday, May 20, 2024



# Project Scope: More than Just a Tunnel



Increase Capacity | Ease Congestion | Enhance Travel Time Reliability



# Project Overview



- Contract Award: April 2019
- Notice to Proceed: September 2020
- Cost: \$3.9 billion Design/Build Project
- Project Funding:
  - 92% - regional gas and sales tax
  - 8% - state and federal funds



# Project Partners



PROJECT OWNER



PROJECT FUNDING



PROJECT DESIGN/BUILDER



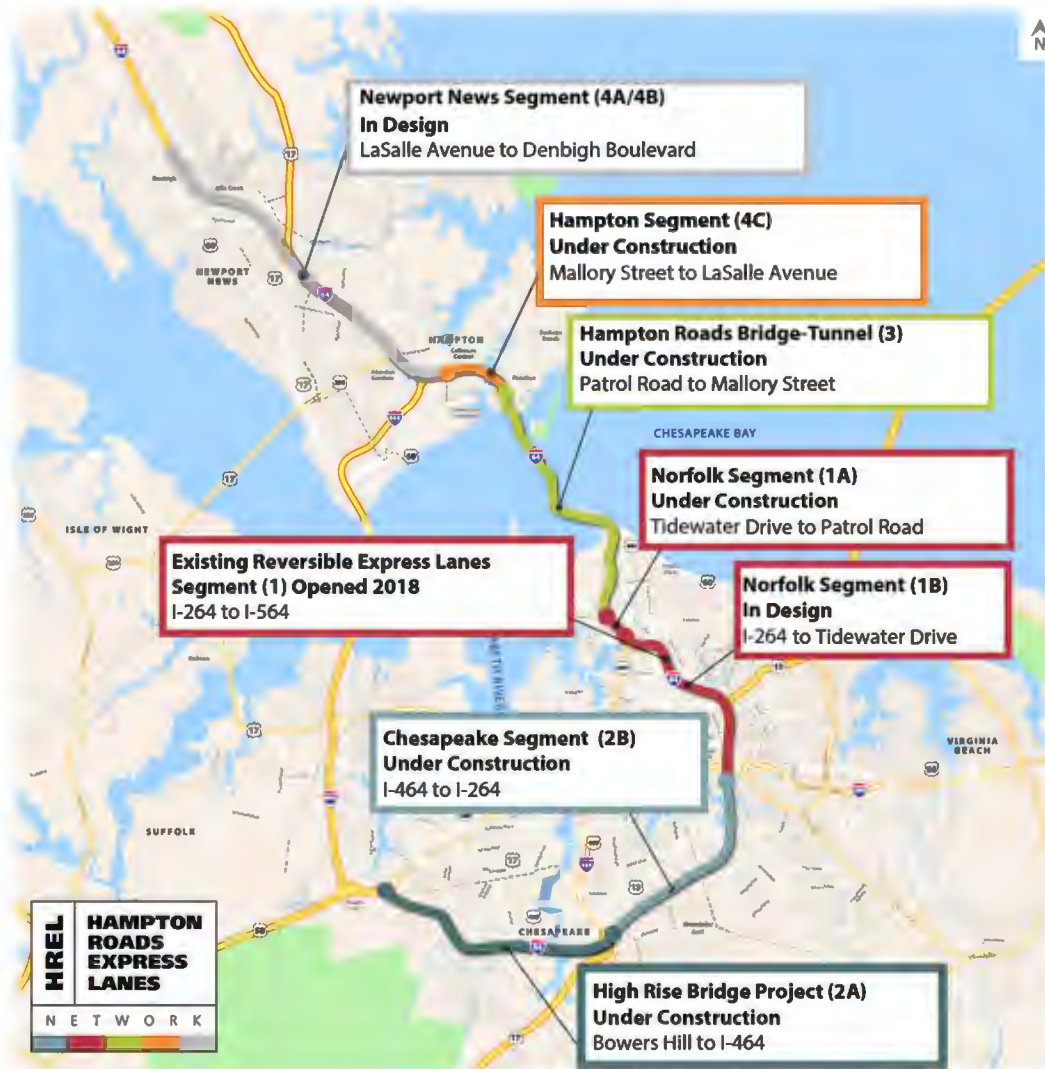
# Hampton Roads Regional Transportation Priority Projects

Funded and Under Construction through the Hampton Roads Transportation Accountability Commission (HRTAC): \$5.1 billion





# Hampton Roads Express Lanes Network (HREL)



- 45-Mile Continuous Network
- I-64 from Denbigh Boulevard to I-664 (Bowers Hill)
- High Occupancy Toll (HOT-2)
- Dynamic Tolling System





# Corridor Concept Video



# Concept Video

**[HRBTExpansion.org](http://HRBTExpansion.org)**



# What Makes HRBT Unique

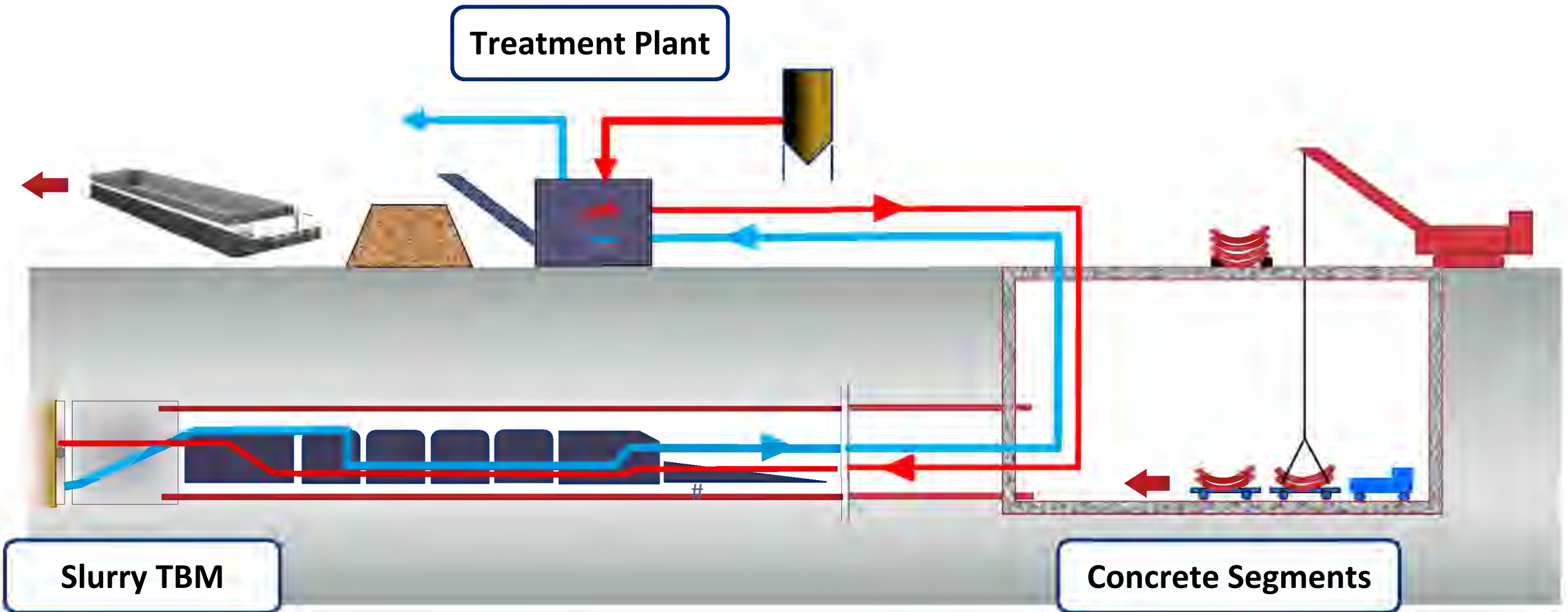
- First bored tunnel for VDOT
  - 2<sup>nd</sup> largest TBM in North America
  - 3<sup>rd</sup> bored vehicular tunnel in the US
- No impacts to Navigable Waterways
  - New tunnel will be 173 FT below water surface
- Minimal Impacts to Traveling Public
  - Segments shipped by barge
  - Spoils hauled by water
- Continuous Operation
  - Not subject to adverse weather
  - Able to continue 24/7 without interruption



Photo Credit: Herrenknecht



# Tunnel Boring Machine & Slurry Treatment Plant



# Slurry Treatment Plant



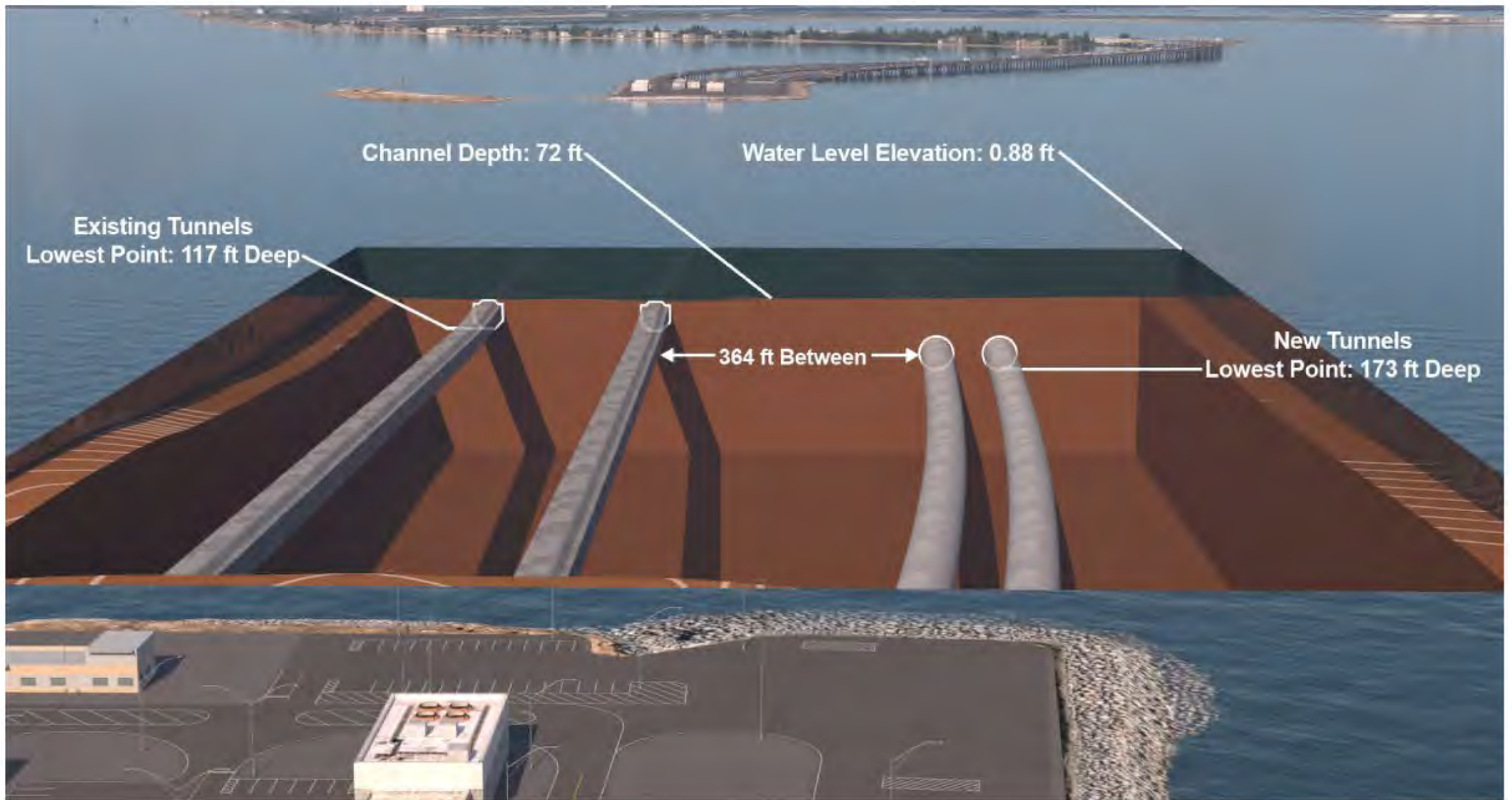
- Manufactured in France
- Stands 3 stories tall
- Separates soil from slurry
- Spoils pumped to surface through 22-inch steel pipe
- Operates 24 hours a day
- Largest STP in North America



# Tunnel Segments

- Fabricated in Cape Charles, VA
- 9 segments = 1 ring
- Average Dimensions = 16' x 6'-6" x 18"
- Each segment weighs roughly 10 tons
- 2,388 rings will be needed to complete both tubes





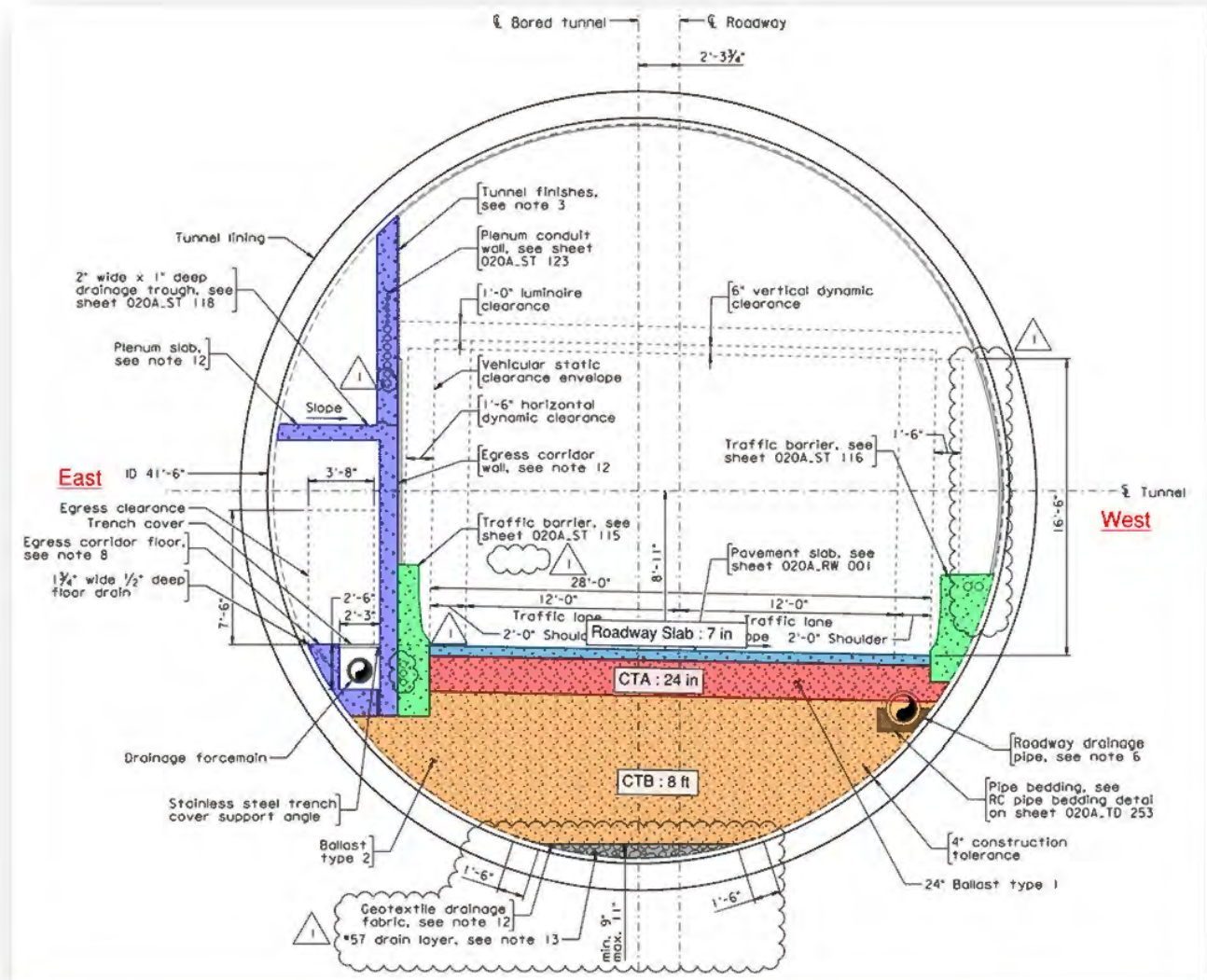


## Features

- 16'-6" Clearance
- Egress corridor
- Jet fan ventilation
- 15,000 truckloads of base material
- More than 1 million square feet of tile

# Tunnel Interior Structures

Typical Cross Section



# Project Progress









# North Marine Trestle Progress



- Construction began in 2021
- Installed to date:
  - 305 54" precast piles
  - 44 precast caps
  - 324 girders
  - 38 concrete deck pours
- Traffic shift to new eastbound trestle May 2024



# North Marine Trestles



- Traffic shifted on to new eastbound trestle May 2, 2024
- **First new bridge at HRBT in nearly 50 years**



Summer 2021



April 2024

## North Island Progress

- 15-acre island expansion completed
- Slurry walls installed
- Receiving pit excavated to depth of -65 FT
- Concrete base slab poured



# South Island





# South Island Progress



- Support of mining
- Permanent approach structure waterproofing, rebar, & concrete
- South Island expansion has started



# South Trestle Progress



# South Trestle Progress



- Construction began in 2021
- Installed to date:
  - 402 54" precast piles
  - 70 precast caps
  - 518 girders
  - 28 concrete deck pours





Willoughby Bay Bridge

# Landside South Progress



- Interstate widening & bridge rehabilitation
- Stormwater control improvements
- Sound walls under construction



**Mason Creek Road**



- **Patrol Road**
- **West Evans Street**
- **1st View Street**
- **West Bay Ave**
- **Mason Creek Road**
- **13th View Overpass**
- **4th View**

## **Bridge and Surface Street Rehabilitation**





# Tunnel Work



- Mining started in April 2023
- 1-year evolution

## Work Completed

- 7,941 feet mined
- 1,185 rings built





# Virginia's First Bored Tunnel

➤ April 17, 2024





# Tunnel Work



## Best Day

➤ 17 Rings

➤ 113.2 FT

## Best Week

➤ 50 rings

➤ 331.9 FT



# HRBT EXPANSION INTERESTING FACTS





AS OF MAY 2024

**358 EXECUTED  
DBE/SWaM AGREEMENTS**

TOTALING

**\$555  
MILLION**

IN CONTRACT AWARDS



## **DBE/SWaM Goals**

**80% are Virginia-based firms**

**Minority Workforce – 58%**

Minority Workforce Goal - 27.1%

**Women in Workforce – 16%**

Women Workforce Goal – 6.9%





## Environmental Challenges

- Endangered/Protected Bird Species
  - ❖ *Migration and Nesting Season*
- Marine Noise Impacts
- Protected Species within Project Limits

# Historic Artifacts



From the Battle of Hampton Roads between the USS Monitor and the CSS Virginia (formerly the USS Merrimack) in 1862.



*Recovered ship timbers at the VDOT storage facility.*



# Historic Artifacts

- Mastodon
  - ❖ Approximately 50,000 years old
  - ❖ Fossils include partial
    - Tooth
    - Rib
    - Limb
    - Vertebra



# HRBT EXPANSION Magazine



Summer 2022



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## Ongoing Outreach

- Social Media
- Local Presentations
- Project Website
- HRBT Monthly Newsletter
- HRBT Tunnel Talk Podcast
- HRBT Magazine
- Community Engagement Events
- Weekly Lane Closure Report



**Q&A**







# CONNECT

PROJECT PROGRESS, UPDATES, & MORE!



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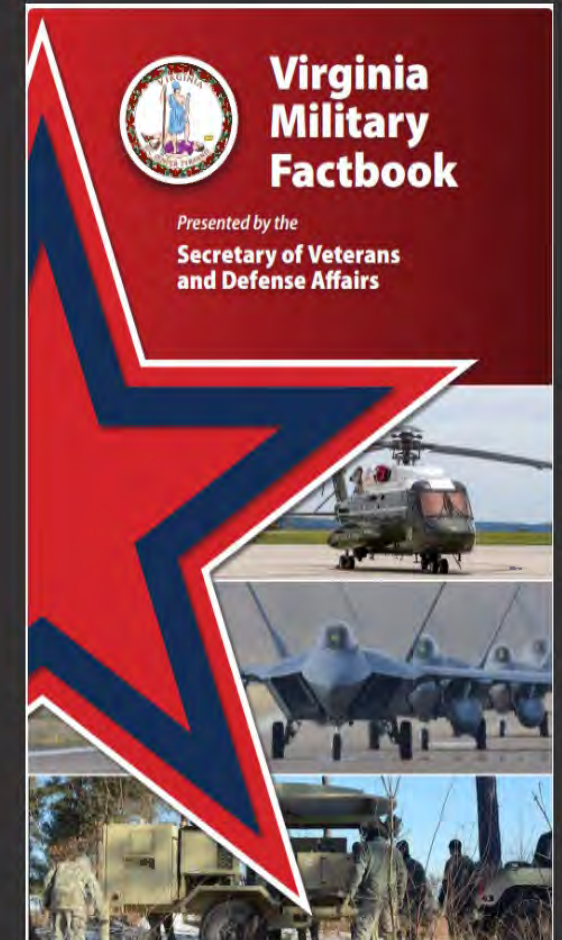
# Virginia's Military Value





## *Military Investment* *(FY21 Data)*

- 19% of Virginia's economy
  - Direct, Indirect, Induced
- \$105B+ annually
- #1 in the Nation



***Impacts all 95 counties and 38 cities in the Commonwealth***





## *Military Value*

### **Compatibility**

Shared space, resources, relationships, advocacy

### **Resilience**

Shared Challenges, partnered solutions

### **Quality of Life**

Child care, Spouse employment, Education, Housing, Health Care, Transportation, Public Safety

**Meet mission  
Keep talent**

***Competing with every State***



*Networked to win*

## Locally Driven

Installations, Defense Communities, Regional Advocates

## State Supported

General Assembly, GAMVC, Cabinet, Agencies, VMAC, Programs

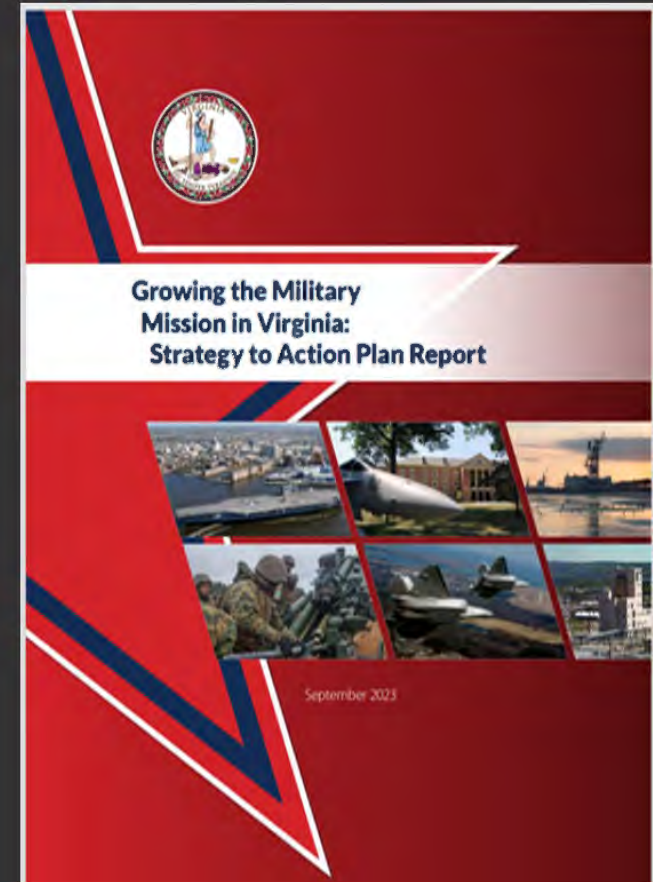
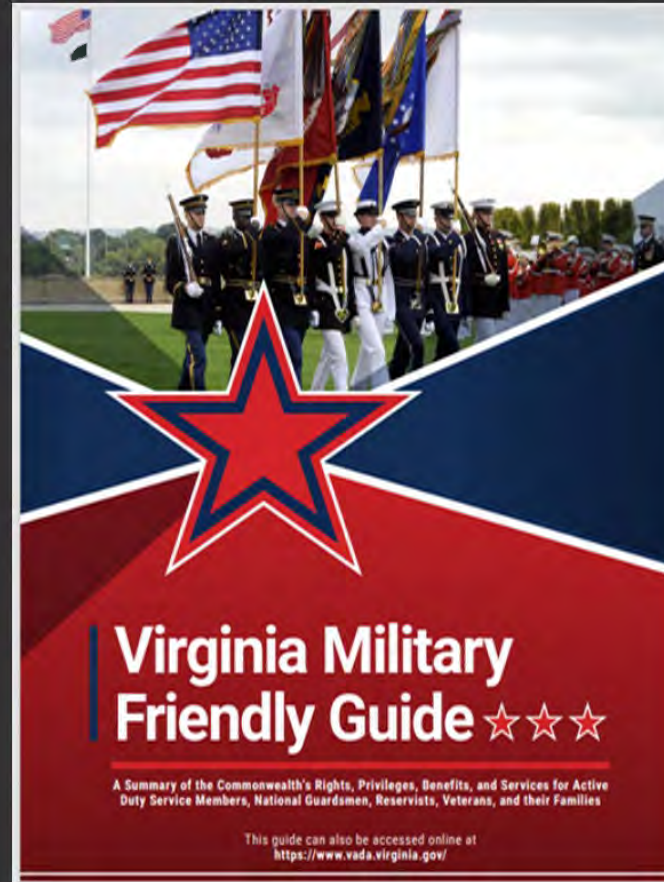
## Federally \$hared

CODEL, DoD/DHS, INVE\$TMENT

***Relevant & modern missions, equipment, and facilities***



## Resources



Google: Secretary Veterans and Defense Affairs



## *2024 Legislation that Increased Military Value*

- ✓ Early Childhood Care and Education; Publicly Funded Providers; exemption from licensure
- ✓ Cosmetology interstate Licensure Compact
- ✓ Dentistry interstate Licensure Compact
- ✓ Physician Assistant interstate Licensure Compact
- ✓ Social Work interstate Licensure Compact

Massage Therapy interstate Licensure Compact

Teacher Mobility interstate Licensure Compact





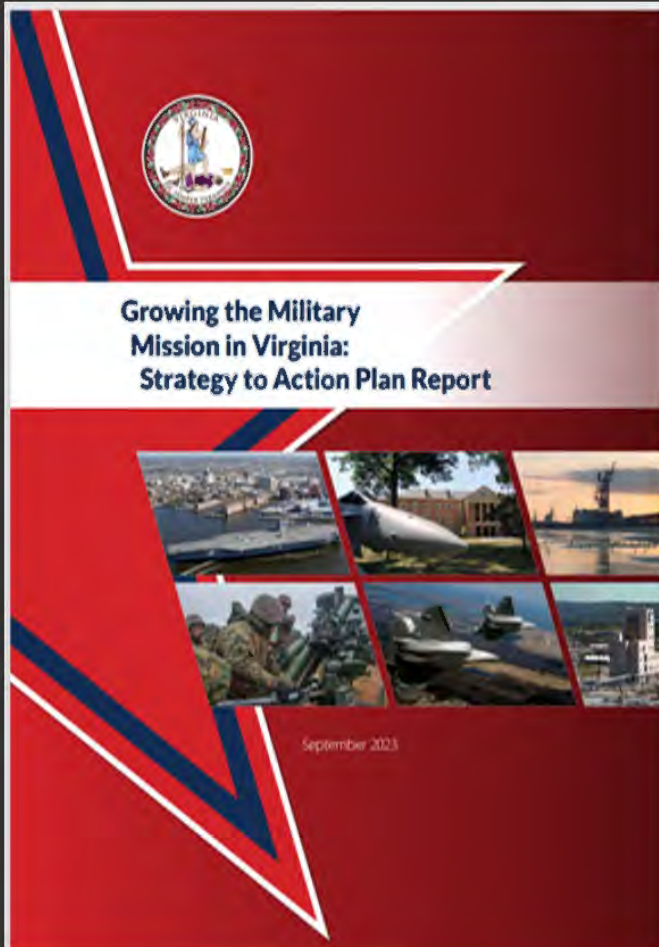
## *2024 Budget Amendments that Increased Military Value*

Virginia Military Community Infrastructure Grant Program    \$3M

*Graded everyday*



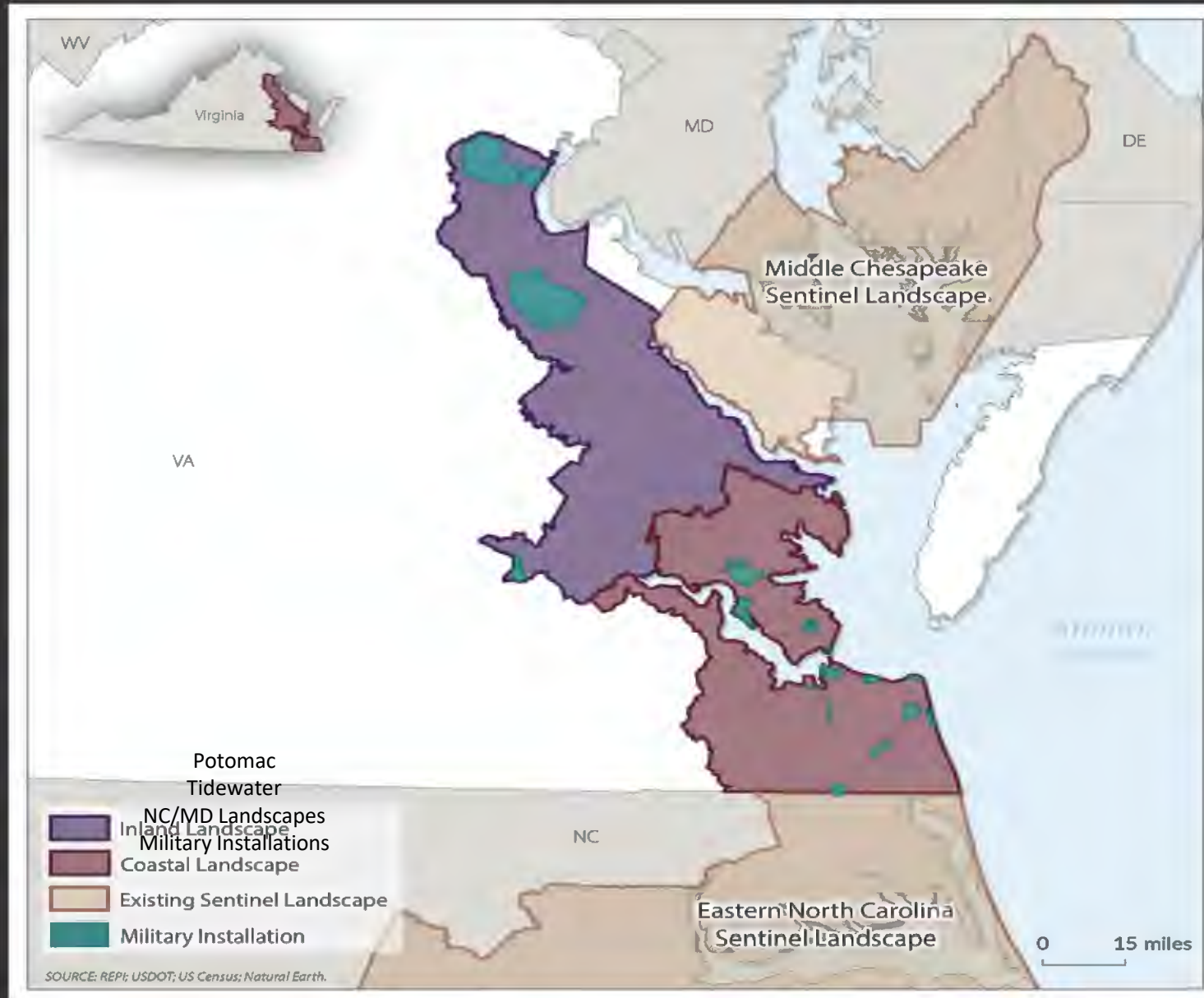
## *Strategy to Action*



- Win basing of the Next Generation Air Dominance (NGAD) fighter.
  - Oceana
- Pursue additional JSOC/SOF and Fleet basing at Joint Expeditionary Base Little Creek/Fort Story (JEBLC-FS)
- Investigate opportunities for the future of Naval Mine Countermeasures (MCM) missions at Naval Station Norfolk
- Establish a Commonwealth-wide IGSA
- Build upon the success of compatibility programs (DCIP, REPI)
- Coordinate agreements with Dominion Energy to increase power capacity and create cost savings.
- Toll assistance or reimbursement for installations in the Hampton Roads area.
- Commonwealth-wide military childcare availability and affordability study



# Sentinel Landscapes





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