



COMMONWEALTH of VIRGINIA
Office of the
SECRETARY of TRANSPORTATION

Potomac Yard Sports and Entertainment District – Transportation Needs

February 20, 2024



History of Potomac Yard Development

North Potomac Yard Small Area Plan in 2010 established the vision for redevelopment of the site as a dense, mixed-use community, oriented around a new Metrorail station.

2017 Plan Update built on the 2010 plan and anticipates 7.5M sq. ft. of mixed-use development to include office, hotel, residential, and concentrated areas of retail within ¼ mile of the new Metrorail station.

2020 Plan Update further refined the plan for 7.675M SF of development for North Potomac Yard.

The Potomac Yard Metrorail Station underpinned this updated vision and was completed in May 2023 at a cost of \$370M. It was built to serve the area and included two 800-ft. long platforms, two pavilions, and multiple pedestrian and bicycle bridges. It is substantially underutilized as it waits for development to occur.

Monumental Sports announced in December 2023 their desire to relocate two professional sports teams to the site, resulting in different transportation challenges.

Transportation Challenges associated with both the new Arena development and that envisioned in the 2020 Small Area Plan will stress the existing road and transit infrastructure. Although the peak loads are different, both development options will require improvements. The Arena development includes funding for those improvements that was not included in the previous plan.

Planning Level Analysis was undertaken by Kimley Horn to determine the transportation improvements necessary to support this new opportunity. Cost ranges for these projects were developed.

Preliminary Analysis of Needed Improvements

On behalf of the Commonwealth,
Kimley-Horn:

- Analyzed PY Metro Station capacity and efficiency
- Developed additional multimodal capital and operational improvements
- Evaluated estimated travel time to/from the project site along multiple routes to develop potential capital improvements

- Kimley-Horn is Top 2 in the US for Sports Planning, Design, and Event Management, as ranked by ENR
- National planning and design consulting firm with 300+ staff in Virginia
- Decades of experience working through the Commonwealth's most challenging transportation needs alongside VDOT, DRPT, and localities
- Leader in developing multimodal transportation plans for sports arenas and stadiums

Key Takeaways

With the multimodal investments and proposed improvements, travel time estimates in the study area with Phase 1 of the proposed arena development are consistent with the previously approved “By-Right” development.

Investments needed:

- Annual cost of operating improvements = \$2.5M - \$7.5M
 - Increased Metro service
 - Other multimodal solutions
- Total cost of capital improvements = \$135M - \$215M
 - Targeted Metro station upgrades
 - Targeted intersection improvements

All cost estimates include contingency (20% Transit operating, 50% Transit capital, 60% Roadway)

General Assumptions

- By-Right development includes over 7.675M SF of mixed-use development approved in 2020. Trip generation is based on the 2017 North Potomac Yard Small Area Plan, as amended in 2020.
- Arena development includes a 20,000-seat arena, concert venue, and other mixed-use development. Trip generation is based on arena sell-out conditions for all events and includes the other Phase 1 development impacts.
- Trip Distribution for arena traffic is based on developer-provided ticket sales analysis and anticipated travel routes.
- Mode Split scenarios were developed based on similarly sized and situated arenas around the country (50% non-auto including transit, walk, and bike).
- Peak Travel analysis considered arena inbound traffic during the PM peak (5-6 PM) for auto traffic and post-event travel for transit use to assess “worst case” conditions.
- Parking includes both on-site (2,500 spaces) and off-site options. Off-site options include ~3,600 spaces in Crystal City served by shuttles and 5,000+ spaces at nearby metro lots and garages.

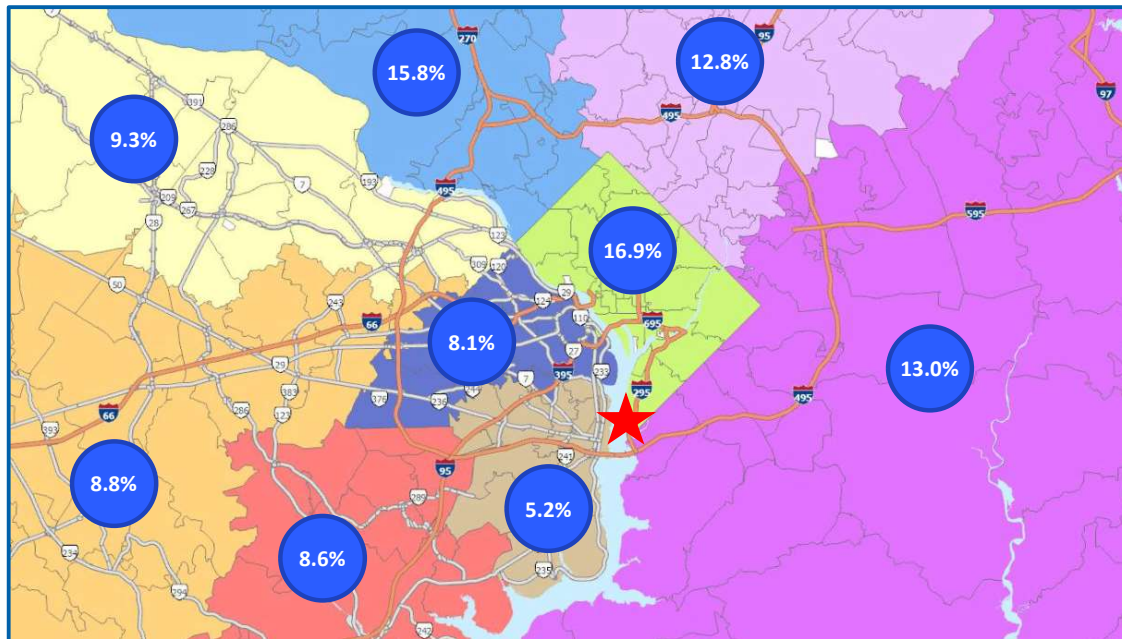
Traffic Modeling is based on:

- A 100% full arena
- All events occurring during the highest traffic loads

Recent Data shows:

- Average arena occupancy is 65% across ALL events
- 35% of games occur on Saturday or Sunday

Traffic Distribution Assumptions



* Average distribution for Capitals and Wizards tickets (2022-2023)

Multimodal Improvements: Overall Objectives

The multimodal strategies seek to achieve at least a **50% non-auto mode-share** by:



Aligning the **timing and amount of rail and bus service** with the demand of event attendees and staff



Identifying **potential pinch-points in Metro capacity** during peak event flows



Improving **pedestrian and bicycle infrastructure and access**



Maximizing use of **available parking at Metro stations** and other **off-site shuttle-accessible locations**



Facilitating safe and efficient flow of buses/shuttles through **dedicated lanes and signal technology**

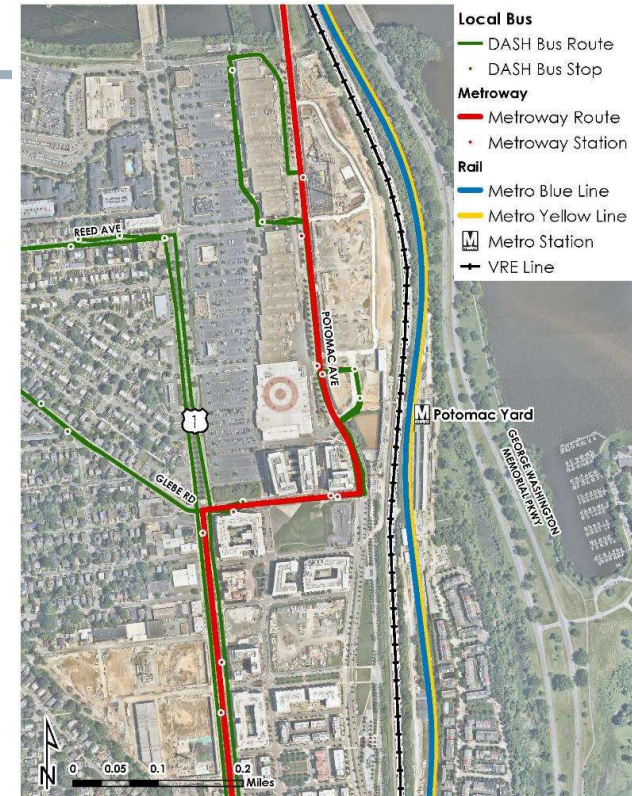


Leveraging technology to provide **clear, real-time transit and travel information**

Existing Multimodal Assets

- **2 Metro lines** (Blue and Yellow Lines)
- **1 bus rapid transit line** (Metroway)
- **3 local bus routes** (Alexandria DASH)
- **2 rail lines** (VRE Fredericksburg and Manassas Lines)

Current Challenges	Opportunities
<ul style="list-style-type: none"> • Constrained Metro capacity • Bus access: limited bus bays at Potomac Yard Metro Station • VRE service operates in peak direction/time only and requires transfer to Metrorail or bus • Lack of access from George Washington Pkwy and trail 	<p>Near-Term</p> <ul style="list-style-type: none"> • Expand access and increase service to best-in-class Potomac Yard Metro station • Leverage Metroway and existing dedicated transit lanes • Enhance bicycle and pedestrian network • Leverage ample parking at other Metro stations <p>Long-Term (2030 and Beyond)</p> <ul style="list-style-type: none"> • Future bi-directional VRE service • Future bike/ped connection to GW Trail



Addressing Metro Constraints: *Potomac Yard Metro Station*

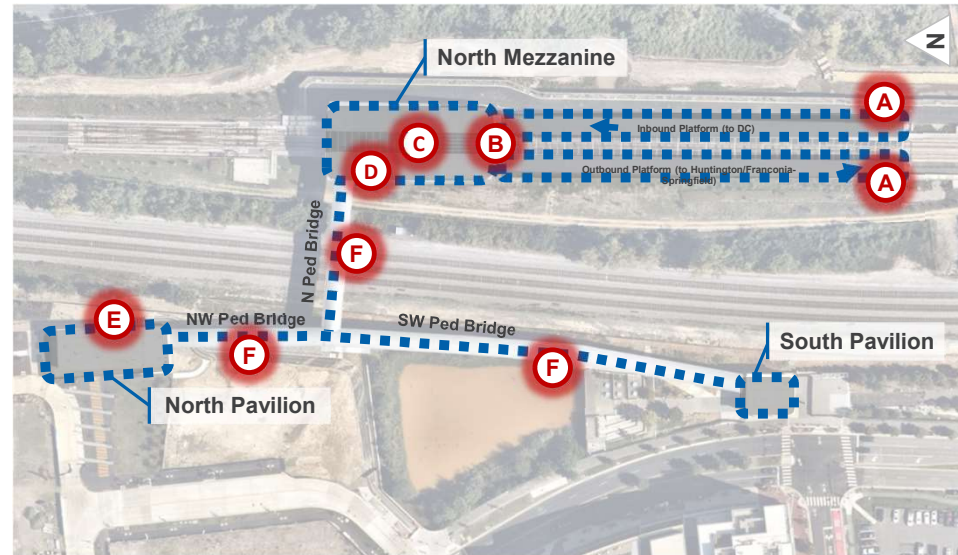


- Opened in May 2023—\$370M investment
- 100,000 Square Feet—Designed to accommodate planned development in Potomac Yard area (“By-Right”). Currently, substantially underutilized.
- 98th rail station in the system, only 2nd infill station (built between existing stops)
- Anticipated to become one of the first rail stations in the country to become LEED certified
- Art in Transit installations create a sense of place

Addressing Metro Constraints: Station Capacity Analysis

Assessing Pinch Points

- A. Platforms
- B. Platform ↔ Mezzanine Escalators
- C. Faregates (6)
- D. Ticket Machines (3)
- E. North Pavilion
- F. Corridors



Addressing Metro Constraints: *Station Capacity Analysis and Solutions*

- With current infrastructure and service levels the station would be unable to handle the number of anticipated passengers, with extreme crowding lasting 60-90 minutes
- In addition to service enhancements, funding will address pinch points, and minimize delay times to manage capacity:
 - Add faregates, additional escalators, and ticket vending machines
 - Widen bridge over CSX and bridge to North Pavilion
- With improvements the station will be able to handle anticipated passengers but will be crowded for ~30-45 minutes post game
- DRPT will work with WMATA to finalize and implement necessary improvements



Other Multimodal Strategies

- **Additional service hours and frequency for Metroway and DASH bus pre- and post-event**
- **Improved bicycle/pedestrian infrastructure**
- **Additional self-service bike and scooter storage**
- **Event shuttles and Metro connecting off-site parking lots**
- **Prioritized carpool parking**
- **Real-time travel and transit information**
- **Incentivization of transit use**

Multimodal Capital Improvements and Transit Service Enhancements

Multimodal Capital Improvements: \$35M - \$70M

- Improvements to faregates and escalators at PY Metro station
- Improvements to bridges at PY Metro station
- Other multimodal solutions including bus enhancements, bike/ped infrastructure, transit-accessible parking, etc.

Capital cost estimates include 50% contingency



Transit Service Enhancements: \$2.5M - \$7.5M annually

- Up to 4 additional pre-event and up to 4 additional post-event Metrorail trains, increased bus service frequency, other multimodal strategies

Operating cost estimates include 20% contingency

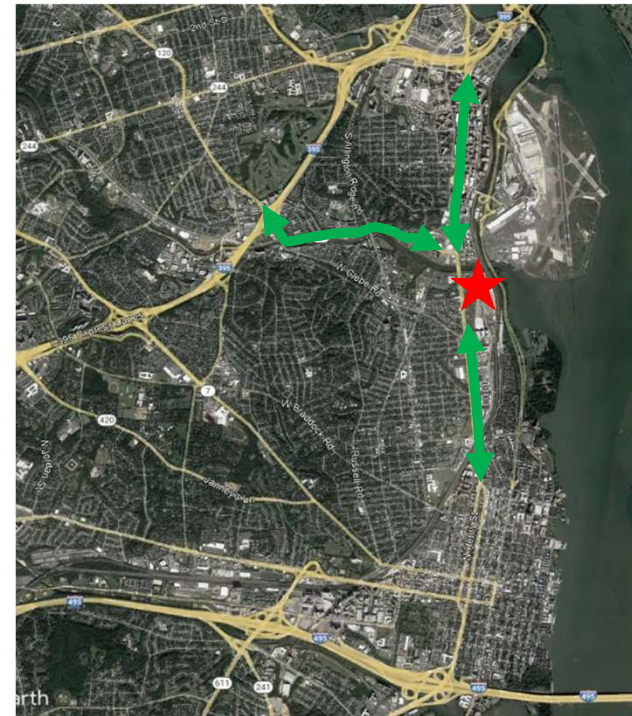
Multimodal Strategies: *Summary of Takeaways and Next Steps*

With investments in transit service, multimodal infrastructure, and technology, the development will achieve desired non-auto mode split of at least 50% within the stated budget

- Post-event Metrorail service will require **additional northbound trains** to meet demand
- Pre-event Metrorail demand **could exceed southbound capacity** if there is a higher-than-expected Metrorail mode share or more trips to arena originate from the north
- Detailed strategy assumptions and implementation responsibilities will need to be determined in further study
- WMATA will need to further **analyze station capacity and potential physical improvements**
- Proposed multimodal scenarios will require **upfront capital investments and continuing annual operations commitments**

Traffic Analysis Methodology

- Evaluated estimated travel time to/from the development site along multiple routes
- Evaluated scenarios with both in-place and future proposed Route 1 Urban Boulevard project
- Evaluated multiple values of mode split and auto occupancy



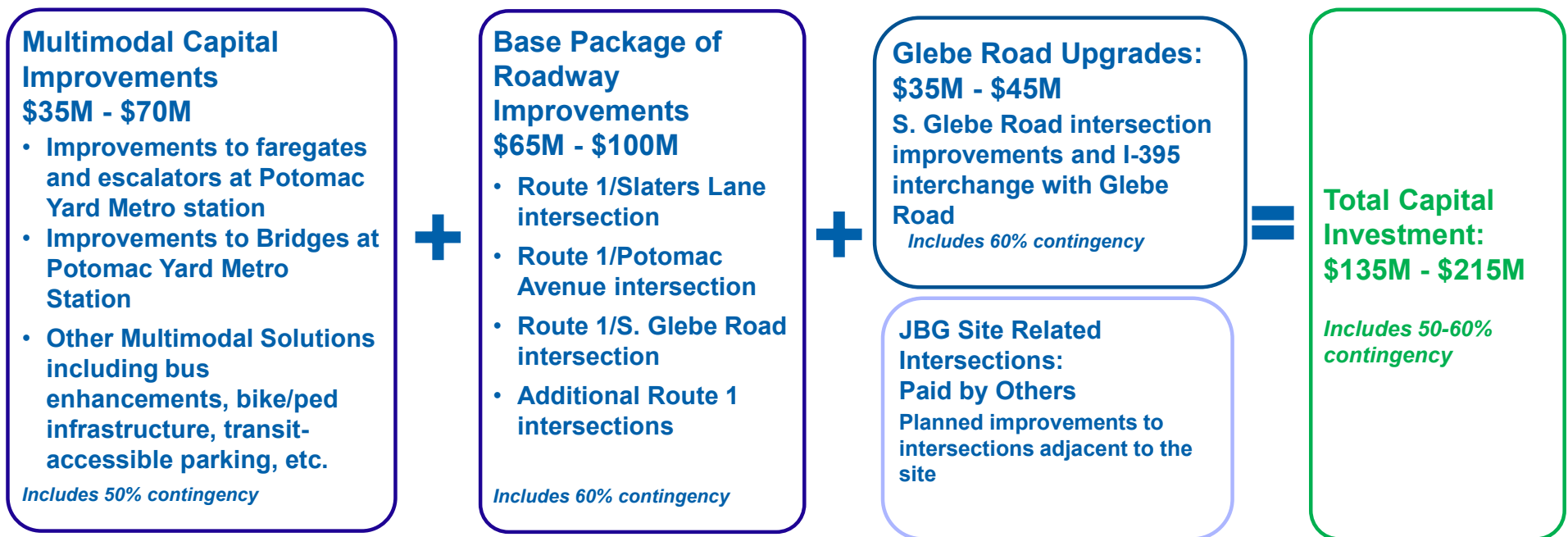
Development-Wide Capital Improvements



Other Operational Improvements Planned

- **Signal Timing Enhancements** that prioritize the mainline during the peak flows can further reduce travel times by approximately 2-5 minutes.
- **Enhanced Traffic Management** including the deployment of the Regional Multi-Modal Mobility Program (RM3P – see RM3PVirginia.org) will further improve travel in the region through better traveler information (including location and availability of parking) and an AI-based decision support system for traffic management. An incentivization component can be leveraged to encourage additional transit use.
- **Limiting Impacts to Reagan National Airport** can be achieved with temporary traffic control. The George Washington Parkway is not currently assumed to carry a significant amount of southbound traffic and there is currently no exit from GWP to Route 1 between I-395 and Slaters Lane. Cut through traffic attempting to use roadways in or adjacent to National Airport can be discouraged and/or prevented with temporary traffic control.

Development-Wide Capital Improvements



Funding

- **VDOT and the City of Alexandria will share the costs**
- **Proposed State funding sources:**
 - **ITTF for Signal upgrades and enhancements - \$5 million**
 - **Use existing cash supported allocations of \$133 million on the Route 1 Urban Blvd, that will otherwise sit until 2032 (RW) and 2034 (CN), now and backfill with a like amount of GARVEE proceeds**
 - Urban Blvd held harmless
 - Debt service savings realized by not issuing debt until funds needed
 - Eliminate the inflationary erosion of the \$133 million over the 8 to 10 year period

Next Steps

CTB actions:

Add a “Parent” Arena project to the SYIP and transfer the existing \$133 million of Route 1 Urban Blvd funds to the Arena project



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Thank you

