

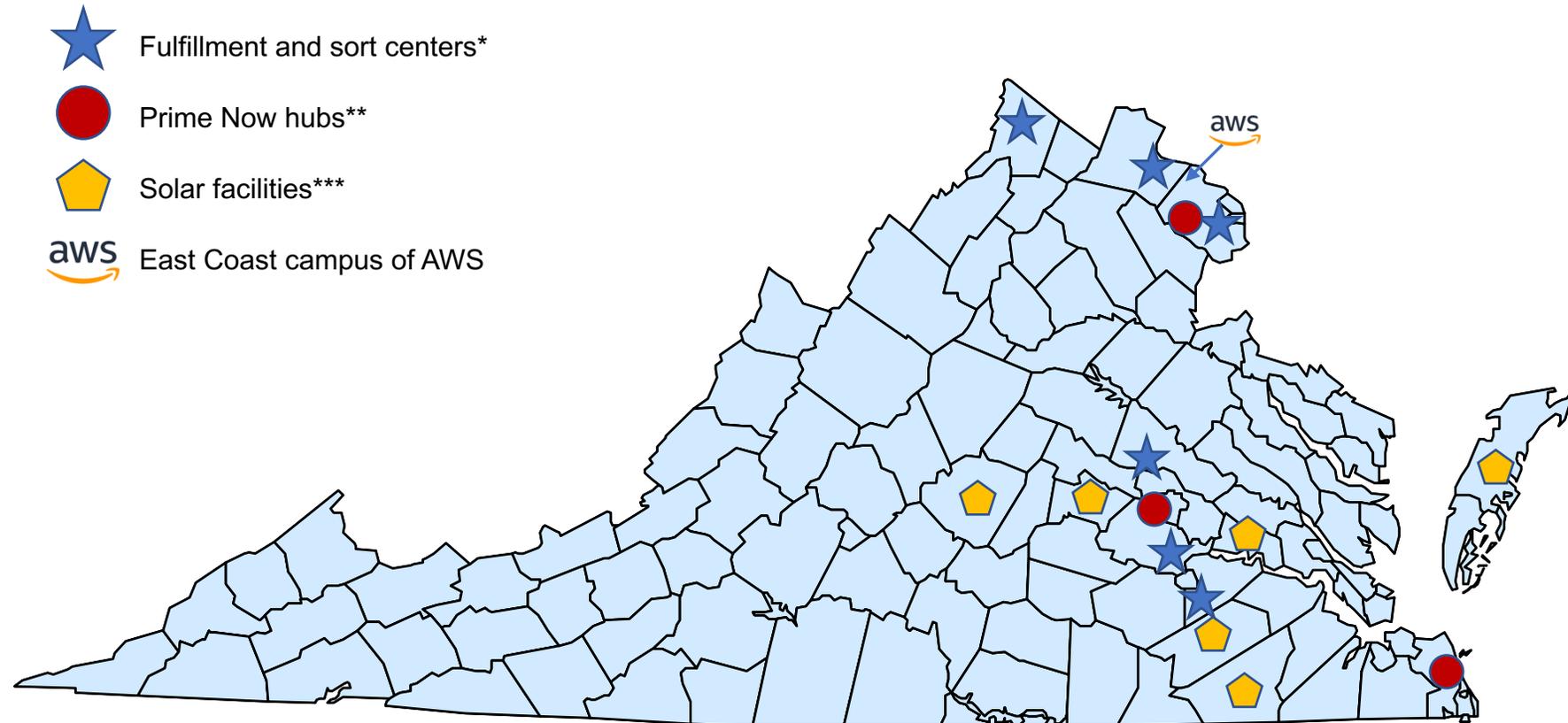
Impact of Amazon HQ2

Virginia Secretary of Commerce and Trade Brian Ball

VIRGINIA
IS FOR
AMAZON
LOVERS™



WITH 10,000 JOBS AND 28,000 SMALL/MEDIUM-SIZE FIRMS SELLING ON ITS SITE, AMAZON'S VIRGINIA PRESENCE IS SUBSTANTIAL



* Ashland, Chester, Clear Brook, Petersburg, Springfield, Sterling

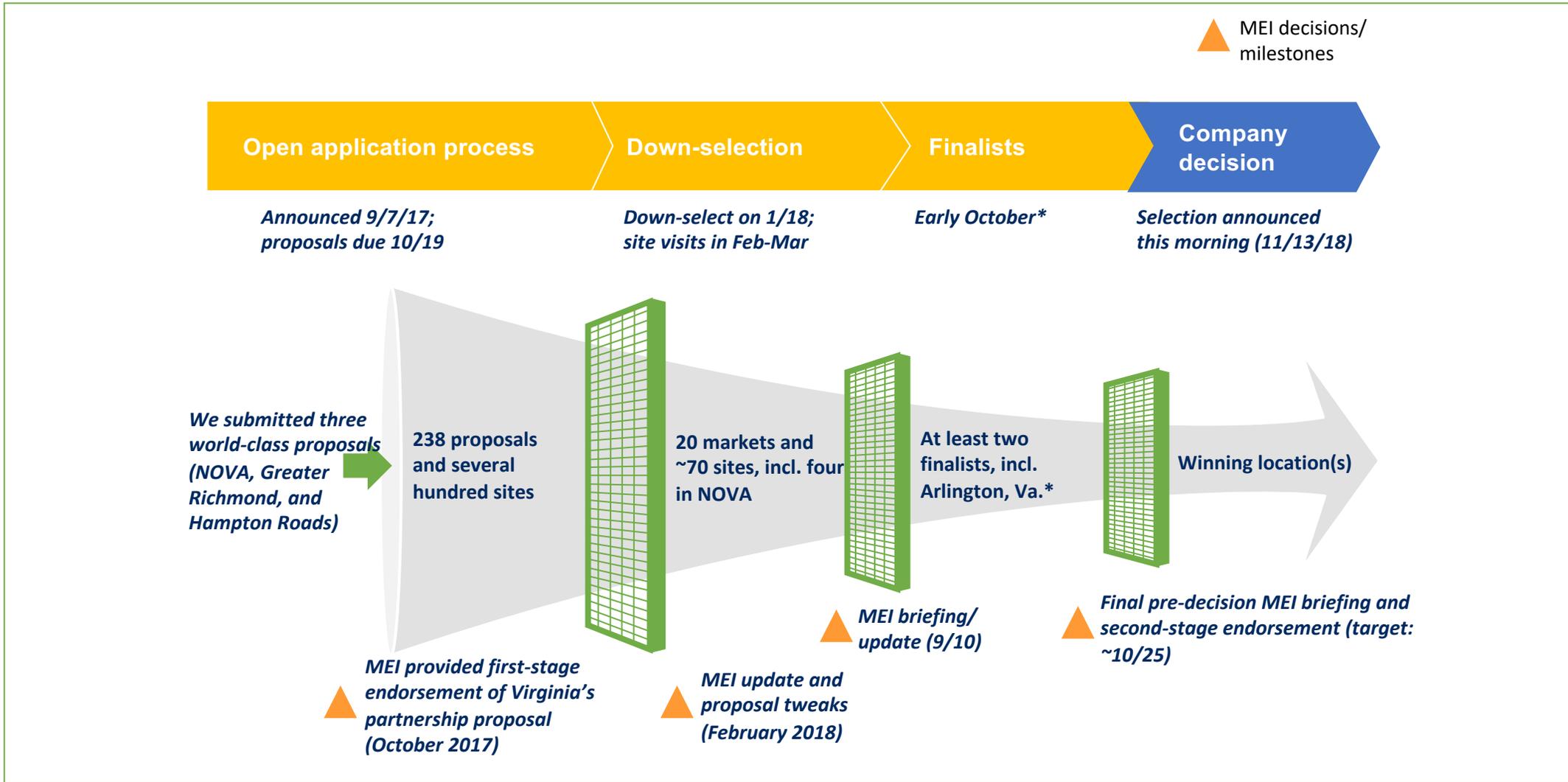
** Richmond, Springfield, Virginia Beach

*** Accomack, Buckingham, New Kent, Powhatan, Southampton, Sussex

Note: Locations of data centers not shown for security reasons – substantially all are located in Northern Virginia

Source: Amazon; VEC; VEDP analysis

HQ2 SITE-SELECTION PROCESS



* Finalists not publicly announced

HQ2 IMPACT – BY THE NUMBERS

1 Strengthen Virginia's leadership position in technology, corporate headquarters, business services, and innovation

1x Project HQ2 would directly create about the same number of direct jobs as all greenfield auto plant deals signed in the last 15 years, combined

\$2B+ Capital expenditure at 25,000 jobs would be \$2+ billion, dozens of times greater than Project Gateway (AWS East Coast Corporate Campus)

>6:1 Ratio of 20-year estimated NPV of general fund revenues to NPV of post-performance company incentive payments

\$150k+ Average salary of Amazon workers is expected to be roughly double the prevailing wages in Northern Virginia

15-25% Jobs created in first decade would close at least 15-25% of the 10-year job gap to Virginia's growth aspiration (i.e., getting back to the top 5-10 states)

AAA Opportunity to diversify state revenue base and enhance state fiscal strength

AMAZON SELECTED TWO LOCATIONS FOR HQ2: ARLINGTON, VIRGINIA AND NEW YORK CITY (LONG ISLAND CITY)

- The company committed to create a minimum of 25,000 jobs in each location, with average annual wages in excess of \$150,000, escalating by at least 1.5% annually
- Our incentive package reflects a minimum of 25,000 jobs (Phase I), with a potential ramp to 37,850 jobs (Phase II)
- *The remainder of this presentation focuses on the 25,000-job phase to which the company has committed*

EXECUTIVE SUMMARY: OUR DISTINCTIVE, PRUDENT APPROACH FOR HQ2 WOULD HELP POSITION ALL OF VA FOR SUCCESS

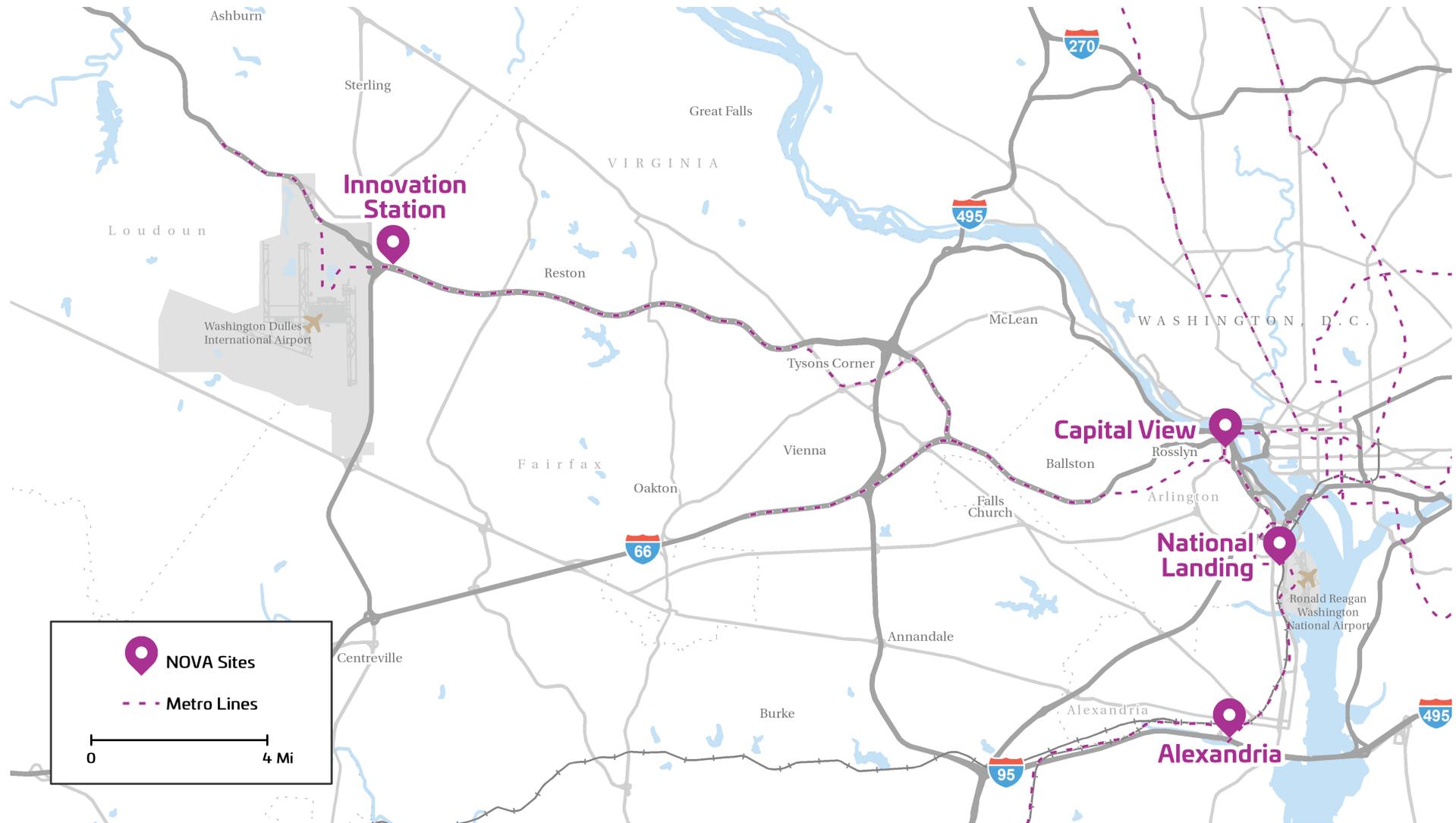
- With tens of thousands of new high-tech jobs, the HQ2 project represents a multigenerational opportunity to diversify our economy, reducing our overreliance on the federal government, while dramatically strengthening our largest traded-sector growth industry (technology)
- If implemented as envisioned, HQ2 would: enhance our state fiscal strength; generate at least 15-25% of the additional jobs needed to regain a top 10 state growth ranking; keep thousands more college grads in Virginia; and reverse our trend of net interstate population out-migration
- While our proposal includes a post-performance incentive offering, it focuses primarily on public investments that would benefit firms and citizens across Virginia; in particular: performance-based, statewide investments* to double our tech-talent pipeline (e.g., BS and MS degrees in CS and related fields), which would benefit tech employers across the Commonwealth
- Direct incentives would be paid post-performance, ensuring a positive ROI from day one and a more than 6:1 return over the 20-yr. term; if desired for budget stability and flexibility, incentives could be budgeted equally each year and held in a reserve account until earned
- Recap of total state program over 20 yrs., assuming 25,000 jobs: up to \$1.1B for tech-talent pipeline initiatives (principally expanding production of CS and related degrees*); up to \$295MM NGF for five multimodal transportation projects; up to \$550MM for post-performance incentives
- The scale and character of HQ2 are consistent with citizen-driven community growth plans in Arlington (Amazon's favored location in Va.); all county board members support the project

* Participating schools: Virginia Tech (Blacksburg and Alexandria), GMU, UVA, and W&M, as well as potentially all other publics with CS-related programs (e.g., ODU, JMU, VCU, CNU, Radford, UMW, UVA-Wise), plus VCCS/NVCC

RECAP OF MAJOR POINTS

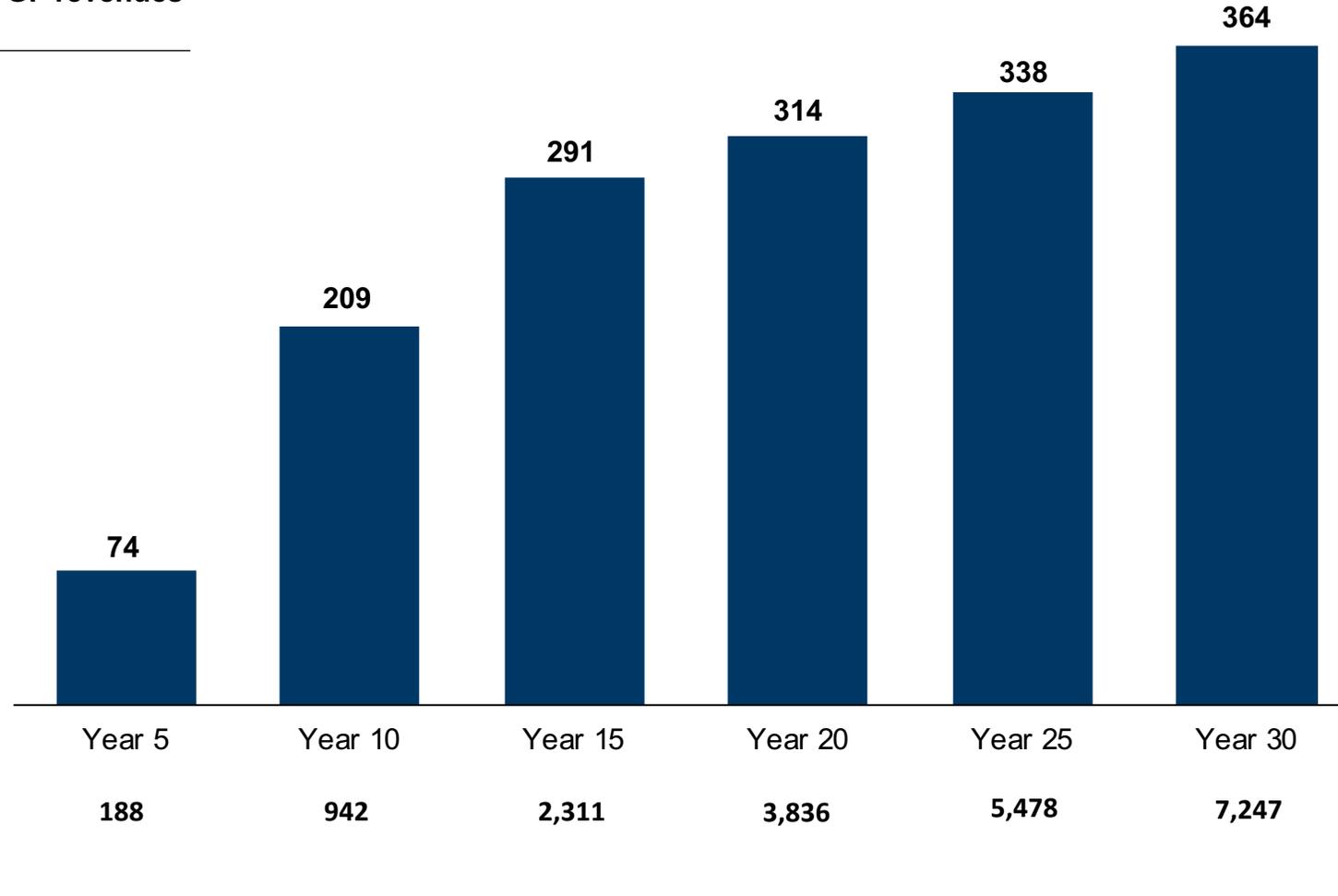
- A transformational opportunity to drive diversification and innovation
- Retention of college grads and reversal of out-migration trend
- Doubling of Virginia's tech-talent pipeline, benefiting all tech firms
- Post-performance incentives, with positive GF revenues from day one
- Transportation commitments funded by non-GF sources
- Non-incentive elements would be good investments even without HQ2
- \$1.2B+ in net new GF \$s after all obligations (over 20 years at 25k jobs)
- Scale and character of growth aligned with existing community plans
- Modest impacts on rents and traffic mitigated by investments, long ramp up
- ~\$700 million in new higher ed and K12 funding outside of Northern Va.
- A winning package for far less than many others offered (e.g., MD, NYC)

PROPOSED HQ2 SITES IN NORTHERN VIRGINIA



HQ2 WILL GENERATE A LARGE AMOUNT OF NEW STATE GENERAL FUND REVENUE OVER THE NEXT FEW DECADES

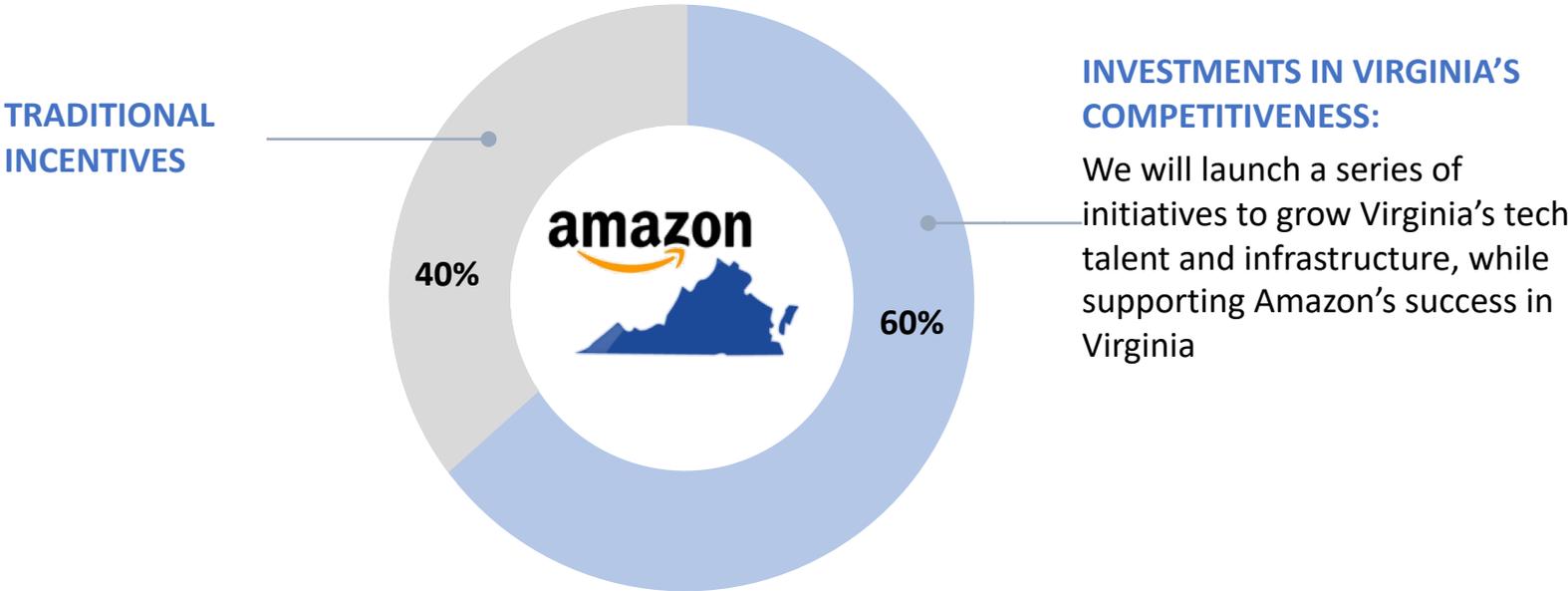
Annual state GF revenues*
\$ Millions



* Approximately 69% of direct, indirect, and induced employment will be Virginia residents for an Arlington location (based on U.S. Census commuting patterns); values include only state sales tax and personal income tax; excludes corporate income tax, other GF revenue sources, and all local taxes; values are in current dollars

WE PURSUED A DISTINCTIVE STRATEGY FOR HQ2 THAT WOULD POSITION OUR ENTIRE TECH SECTOR FOR SUCCESS

From the outset, we committed to **match the scale and structure of the financial commitment for HQ2 with the ambition of the project** through a combination of company commitments and investments in our state and regional competitiveness for all technology firms and corporate headquarters



OUR PROPOSAL FOR AMAZON'S MAJOR NEW HEADQUARTERS INCLUDES A POST-PERFORMANCE INCENTIVE GRANT

- Phase I (up to 25,000 jobs): \$22,000 per job, for a total maximum of \$550 million
- Optional Phase II (25,001-37,850 jobs): \$15,564 per job, for a total potential of \$200 million
- Incentive payments will be paid four years after qualifying jobs (minimum average of \$150,000 per year, plus benefits, escalated at 1.5% annually) are created

STRENGTHENING THE TECH TALENT PIPELINE IN VIRGINIA

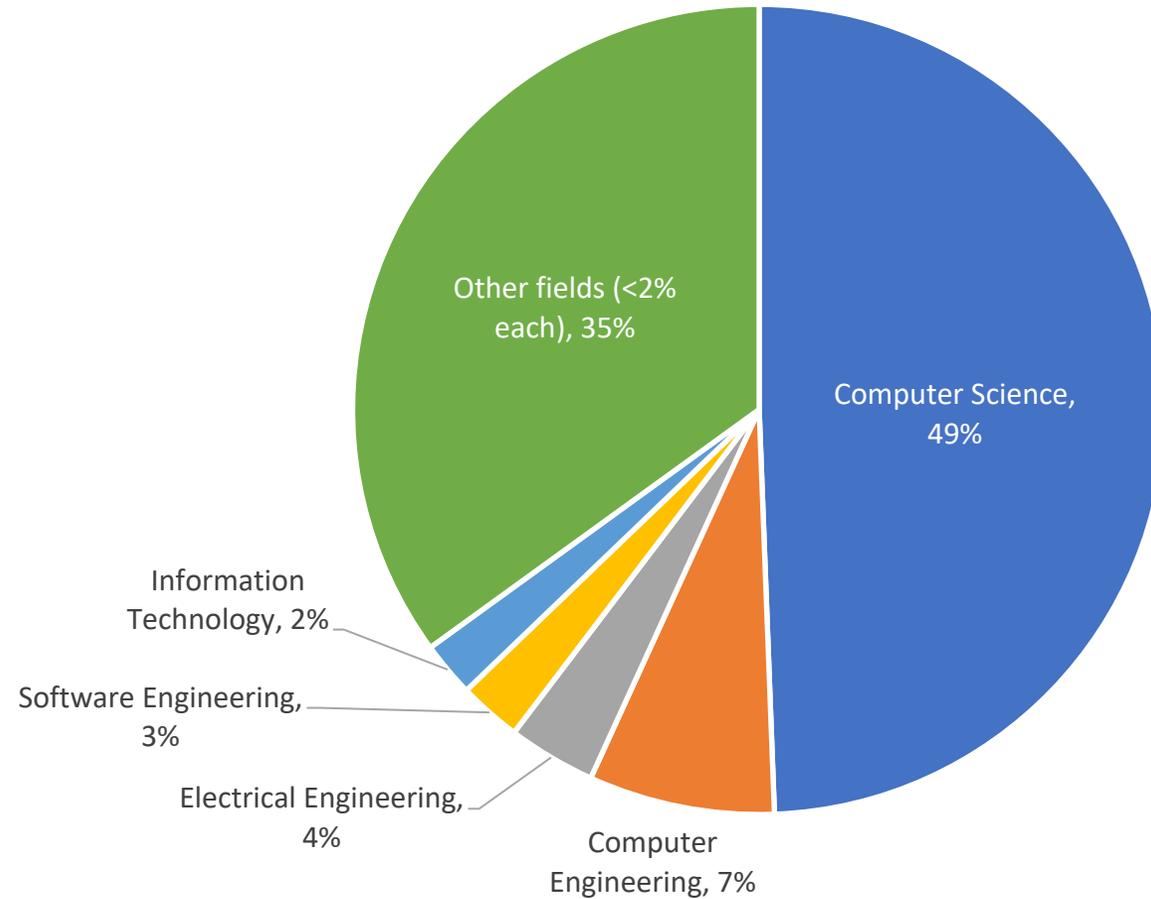
- Expecting the potential for up to 25,000 new tech jobs at HQ2, with a focus on software development engineering, Amazon's top location consideration appears to be the availability of tech talent as well as the tech talent pipeline
- We envision producing approximately 25,000-35,000 new degrees (over and above baseline levels) in computer science and related programs over the next 20 years
- These new grads would help meet HQ2's talent needs while also strengthening the overall tech talent market in Virginia
- Because college grads are highly mobile, we can increase degree production not just in Northern Virginia (George Mason) but also in other places, such as at Virginia Tech, UVA, William & Mary, JMU, VCU, ODU, and others, with additional support from NVCC
- Based on Amazon's roughly 50/50 split between bachelor's and master's grads at HQ1, we envision a similar mix of new degrees
- Master's degrees dramatically reduce the total cost, can be produced much more quickly than BS degrees, and lend themselves to customization
- Amazon has expressed enthusiasm about the concept, as have a few other tech CEOs in Virginia who we've quietly floated the idea with

NORTHERN VIRGINIA GRADUATE TECH CAMPUS: VT AND GMU

- Virginia Tech envisions building a new, innovative, technology-focused campus focused on graduate-level education in computer science and related fields that would be located in close proximity to HQ2 (likely in Alexandria); the campus would be a global center of tech excellence and talent production
- A total commitment of \$500 million over 20 years is proposed: \$250 million from Virginia Tech and \$250 million from the Commonwealth (roughly \$100 million of which would be capital investment; the balance would be performance-based funding for master's degree production in computer science and related fields over 20 years)
- Based on a state match of \$250 million, Virginia Tech has pledged a 1:1 match from philanthropy, with other sources adding to its match beyond a 1:1 ratio (public/private developer partnership where developer funds buildings to be leased to Virginia Tech for a period of time, as well as other non-state sources, e.g., F&A recovery from federal research contracts, out-of-state tuition); the other sources could be utilized to backstop philanthropic funds until they come through
- The tech campus is expected to produce at least 10,000 new master's degrees in CS and related fields over the 20-year term of the Amazon agreement
- Similarly, GMU will grow its master's programs at its Arlington campus; they plan to raise \$125 million in philanthropy with the state's 1:1 match opportunity for a total commitment of \$250 million

DEGREE FIELD DISTRIBUTION FOR AMAZON HQ1 EMPLOYEES IN SEATTLE FOR INDIVIDUALS WORKING IN TECH POSITIONS

Distribution of degrees by field of study for tech employees at Amazon



Source: analysis of social media data

EXECS IN NOVA GENERALLY EXPECT HQ2 WILL STRENGTHEN THE TECH TALENT MARKET OVER TIME, WITH SOME SHORT-TERM PRESSURE

February 2018 interviews: excerpts of answers to the question, “What would HQ2 in NOVA mean for your company?”

- Fortune 500 CEO: “The economic lift that we get in Virginia, the branding part of it, would be a strong positive for our recruiting efforts. Clearly we will be competing for talent, but that’s fine. I think it’s important for regions to have a diversity of employment options. The economic lift and intellectual lift for the region is a strong, strong positive. I would like to see us get selected.”
- Startup tech company founder: “Short-term it may create some additional distraction in terms of hiring and growing and retaining talent. ... In the mid- and long-term, it will make us better – the best thing you can have is a strong competitor.”
- C-level exec of a Fortune 500 company: “In the short run, it will entail some competition for talent. But it’s very powerful for the region for the long term. We’ve made Virginia our hub. The fastest growing part of our ecosystem is tech – we hire thousands of associates [every year]. We want to have an ecosystem where new tech grads stay here and where there is a desire of folks from around the country to move here.”
- CEO of a midsize tech company: “It would be a big [positive] deal for us. It would tie into our value proposition [for talent] of how high tech the area is. ... Now we’ve got HQ2 in our backyard.”
- CEO of a Fortune 500 firm outside the tech sector: “Net net it would be a big positive. Anything that makes [the DC metro] more vibrant would be a good thing. ... As the guy who runs [this company], it’s good. Short term, it would create more competition for talent. ... It would make those [tech] people more expensive to get. ... But my head of HR agrees long term it’s good because the Amazon effect will attract a heck of a lot of talent that might not otherwise be interested in this area.”
- CEO of successful tech company: “It would be a double-edged sword. Great for the economy. Great for the brand. Long-term it would be good, but it’s another competitor to deal with for talent. ... It would give cachet to our area.”
- CEO of a public tech company: “Over a long period of time, it would result in a richer pool of talent around here.”
- CEO of a tech-focused federal defense contractor: “It would be great for us. We would lose some people to them, but it would present an enormous opportunity for all of us.”

ARLINGTON AND ALEXANDRIA ARE PLANNING TO COLLABORATE TO CREATE MORE AFFORDABLE HOUSING IN THE AREA

New local revenue will support creating additional housing opportunities

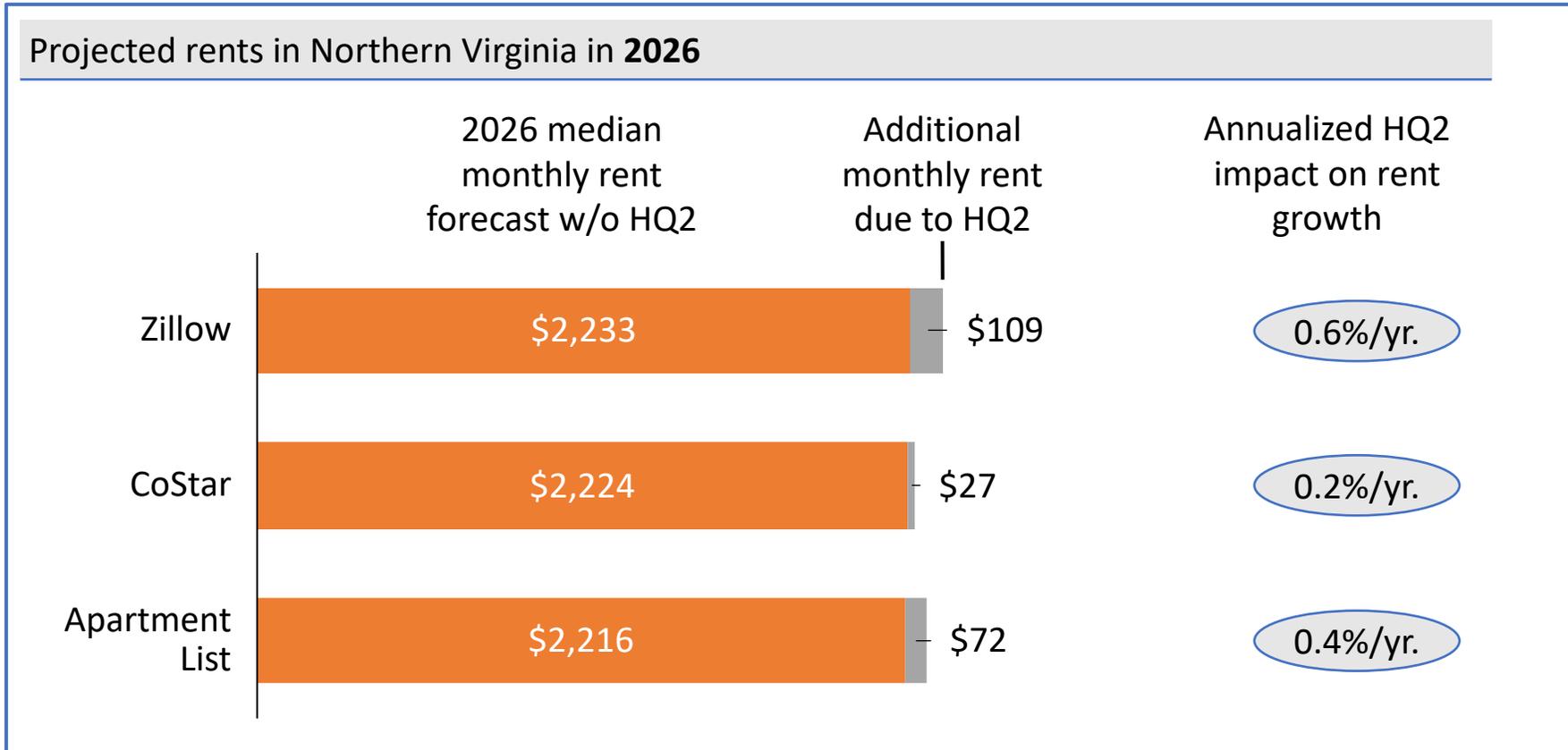
Alexandria and Arlington would use some of their new local revenue to expand affordable housing – a to-be-finalized amount of added local investment over 10 years

- The localities plan on executing a memorandum of understanding (MOU) that will allocate a portion of the new revenue to affordable housing projects in each jurisdiction
- Affordable and Workforce Housing will be implemented across Pentagon City, Crystal City, Potomac Yard, Columbia Pike, and Old Town – this can support the achievement of approximately 1,000+ committed affordable units in this geography

Examples of implementation tools

- Both jurisdictions have established Affordable Housing Investment Funds used to provide predevelopment loans, grants, and other financial support to nonprofit housing developers, housing authorities, and other eligible entities
- A variety of planning tools, including incentive-based and inclusionary zoning, developer contributions, developer built affordable units and changes to existing regulations to encourage Accessory Dwelling Units
- Transfer of development rights
- Funding preservation efforts for existing market rate affordable units

3RD-PARTY ANALYSES SUGGEST HQ2 IN THE DC METRO AREA WOULD RESULT IN SMALL INCREASES IN RENT OVER A DECADE



- 2026 median monthly rent expected to be between **\$2,216-2,233/mo.**
- HQ2 expected to add **<\$110** to that monthly bill

* All three studies envisioned employment growth much faster than the latest forecast
 Source: Zillow; Apartment List; CoStar; VEDP analysis

WITH NEW FUNDING COMMITMENTS, THOUSANDS OF AFFORDABLE UNITS ARE EXPECTED TO COME ONLINE OVER THE NEXT DECADE

| Locality | Programs and/or neighborhoods | Annual investment, Millions USD | Annual impact Aff. housing units |
|---|---|---------------------------------|----------------------------------|
| Arlington | <ul style="list-style-type: none"> • Neighborhoods immediately around the proposed site – Crystal City, Pentagon City, and Columbia Pike areas | +\$7M/yr. | +100/yr. |
| Alexandria | <ul style="list-style-type: none"> • \$2 million/year of existing funding • \$5 million/year new funding (beginning in 2018) • \$3 million+/year new funding attributed to new revenue growth from project will be committed to a new regional funding mechanism | +\$10M/yr. | +150-200/yr. |
| Virginia Housing Development Authority (VHDA) | <ul style="list-style-type: none"> • Low income housing tax credits in NOVA • Expansion of Homeownership Loan program or launch of an Economic Development Pool • \$152M private activity bond cap for affordable rental housing in NOVA | +\$15M+/yr. | n/a |
| 10-year totals | | \$320M+ | 2,500+ |

Key Transportation Projects



**New VRE
Station**

Pedestrian Bridge to DCA

**2nd Metro
Entrance**

Route 1 Blvd

**Potomac Yard
Metro**

STATE AND LOCAL OFFICIALS COLLABORATED TO DEVELOP A COMPREHENSIVE TRANSPORTATION PROGRAM FOR HQ2

- Amazon experienced transportation-related challenges in Seattle, where local and state efforts did not keep pace with company growth
- In the previous round, we worked with the Transportation Secretariat, VDOT, DRPT, and local transportation officials to model site-specific transportation needs and develop preliminary solutions
- Given the company's recent focus on National Landing, the Virginia team further evaluated and confirmed the regional and site-specific infrastructure investments needed to support robust, multi-modal connectivity for HQ2 in that area (i.e., Arlington / Alexandria)
- We have established a consensus view and a proposal that will avoid HQ1's mistakes as well as help ensure solid community support

