Advanced Air Mobility Research, Test, & Training Center of Excellence

> ...Leading a State-Wide Ecosystem







### KPVG – Aerial View



Building Initial AAM Capability & Capacity for the Commonwealth



## Mission / Vision

- Mission VAA, by 2025, establishes a AAM Research, Test, & Training Center of Excellence (RTTC) at KPVG that meets industry development needs, captures several industry stakeholders as tenants, validates initial use cases, and provides for significant AAM regional expansion
- Vision VAA, by 2030, provides a KPVG based AAM HUB that supports emerging Virginia consumer transportation demands, capturing industry innovation, capacity, and growth for state-wide implementation of electric commercial air services near term and remotely piloted commercial services long term

Building Initial AAM Capability & Capacity for the Commonwealth



## Where to Start? Priorities...

- Facilities for an OEM Production Tenant
  - Large Hangars and Office Buildings
  - Runway Access
- Facilities for Electric AV R&D Tenants
  - Electric Charging
- Facilities for Hydrogen AV R&D Tenants
  - Hydrogen production, storage, and delivery
- Facilities for AAM Research Tenant(s)
  - Research Center Main Building
  - Industry Business Park
- Facilities for UAS Operators (Training & OPS)
  - LOS Range
  - BVLOS Range (Sensors & Range Control Center)
- Facilities for UAM/RAM Operators (Training & OPS)
  - Vertiport

Building Initial AAM Capability & Capacity for the Commonwealth



# KPVG – Aerial View



### Developing the New Aviation Workforce @KPVG

5



# UAS LOS / Local BVLOS Range -South



Developing the New Aviation Workforce @KPVG

6



## Why KPVG? Location, Location, Location

- 664 Acres
- Two asphalt runways: 10/28 is 5,350 x 100 ft (1,236 x 21 m) and 2/20 is 3,600 x 70 ft (1,074 x 21 m)
- Excellent SE Virginia location for inter-city and/or east coast transportation
  - Potential regional routes for Raleigh, Elisabeth City, Richmond, NOVA, etc..
  - Pentagon Shuttle
- Central Hampton Roads location for intra-city air transportation, UAM or RAM.
- Privately owned.. Capable of rapid, agile development
- Operates as an existing FBO with 600,000SF of current infrastructure
- Easy multiple runway access
- Existing rotorcraft operators and flight operations
- US Highway 58/664/264/64 Ground Transportation Access
- Well positioned for N-S traffic, as well as E-W traffic
- Available talent pool

Building Initial AAM Capability & Capacity for the Commonwealth



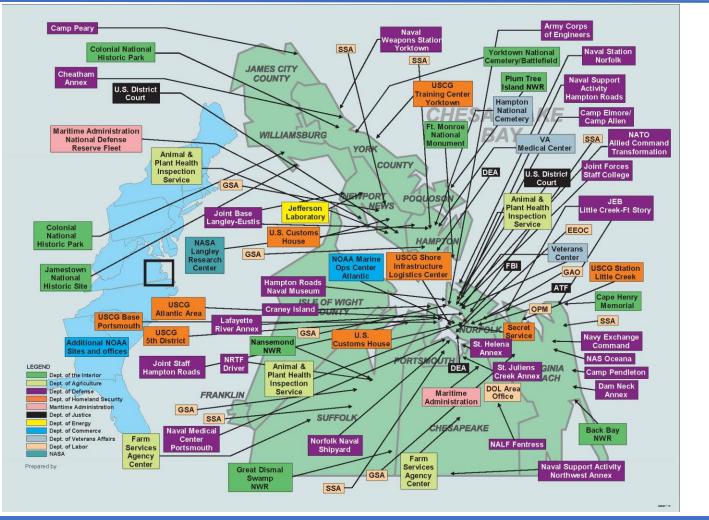
### Why KPVG? Leading Aerospace & Defense Employers

- Huntington Ingalls Industries
- Joint Expeditionary Base Little Creek Story
- NASA Langley Research Center
- NASA Goddard, Wallops Flight Facility
- Joint Base Langley Eustis
- Naval Air Station Norfolk
- Naval Air Station Oceana
- Northrop Grumman

Building Initial AAM Capability & Capacity for the Commonwealth



## Why KPVG? Federal Installations Proximity



Building Initial AAM Capability & Capacity for the Commonwealth



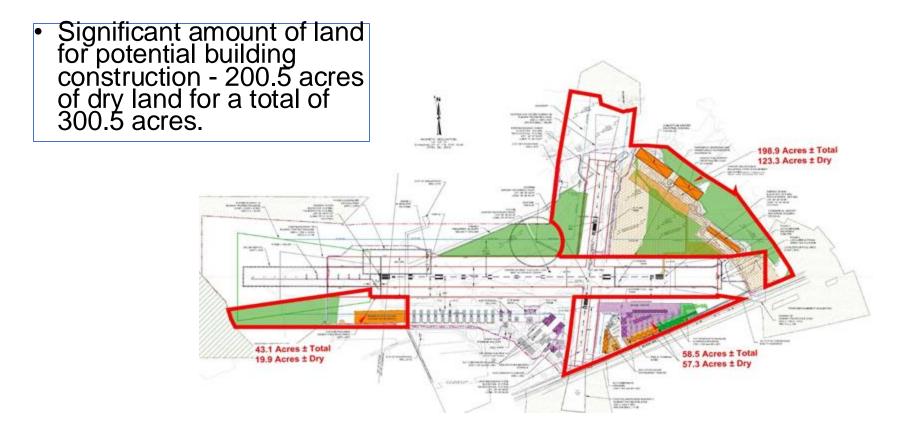
## Current Construction – Main Entrance Hangar Site

- (3) new 12,000SF hangars, 120' wide x 100' w/ 100'W x 24'H hydraulic hangar doors facing a brand new ramp/apron.
- Site work began on August 26, 2024 and is expected to be finished in April of 2025.





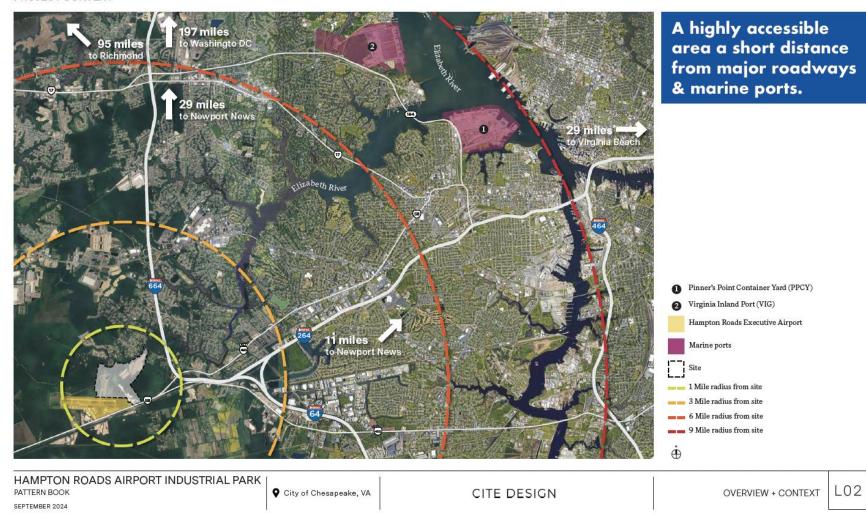
# **KPVG Real Estate**



11



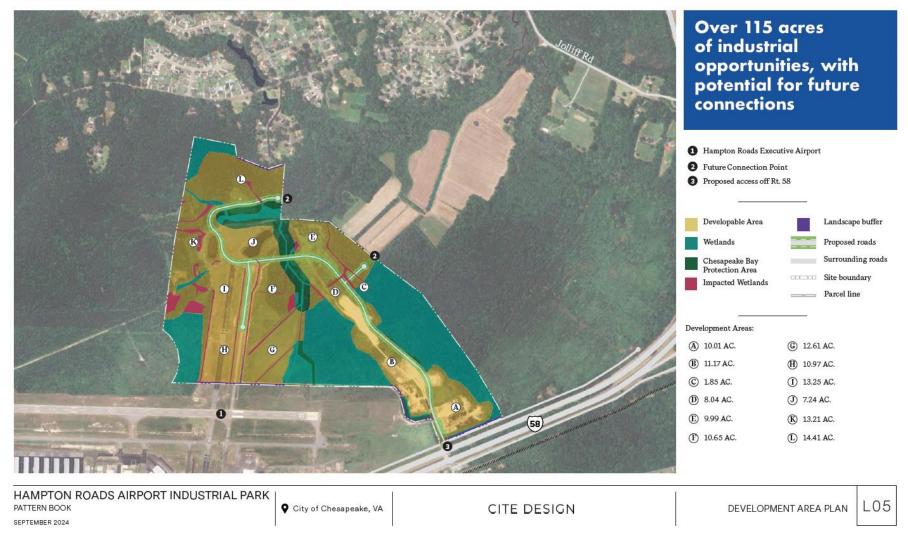
#### OVERVIEW + CONTEXT PROJECT CONTEXT





#### DEVELOPMENT AREA PLAN

PLAN OVERVIEW // VIRGINIA AVIATION ASSOC. PROPERTY





### Site Characterization Report Recommended Next-Steps

#### 7.0 RECOMMENDATIONS & ESTIMATES

#### 7.1 Due Diligence

Completing the following Due Diligence tasks for the entire site is necessary to provide information for the basis of design for Mass Grading and Infrastructure Improvements and most importantly, mitigate risks for potential prospects. Additionally, the entire site should be

rezoned for M-1 to support development.

- 1. Preliminary Geotechnical Exploration & Report
- 2. Boundary Survey and Topographic Survey
- 3. Phase I Environmental Site Assessment
- 4. Waters of the US Delineation and Determination Current wetlands shown are based on National Wetland Inventory GIS data. The 2017 preliminary Jurisdictional Determination conducted within 34-acres of the Site confirmed the delineated wetland boundaries at that time.
- 5. Cultural Resources Review
- 6. Threatened & Endangered Species Review
- Preliminary Engineering Report (PER) quantifying requirements, costs, and timelines to provide sufficient access roadways and water and sanitary capacities to the site.

A traffic impact analysis was done and provided a short-term solution to the Site entrance off US 460/58/13 for Site access, which should be addressed. For the long-term, the interchange improvement study should be evaluated to determine the best solution and the appropriate funding.



#### Table 7A: OOM Due Diligence Estimates

Task	Order of Magnitude Estimate
Preliminary Geotechnical Exploration & Report	\$33,000
Boundary & Topographic Survey	\$80,000
Phase 1 Environmental Site Assessment	\$10,000
WOTUS Delineation & Determination	\$25,000
Cultural Resources Review	\$6,000
Threatened & Endangered Species Review	\$6,000
Preliminary Engineering Report	\$40,000

Additional studies, including Phase 2 Environmental Site Assessments, and/or remediation work that may be required by regulatory agencies are unknown at this time, and therefore are not included in the estimate. In addition, further Wetlands/Waters of the US permitting, updated Threatened and Endangered Species and Archaeological evaluation or mitigation may be appropriate and will be determined at the discretion of the appropriate authorities.

#### 7.2 Mass Grading and Infrastructure Improvements

Order of magnitude opinion of probable project costs (OOM Estimates) were developed based on readily available information and the concept plans included in this report. A summary of the OOM opinions of probable project costs is provided in Table 7B.

City of Chesapeake –KPVG Site Characterization September 2023 20 City of Chesapeake –KPVG Site Characterization September 2023 21



# Site Characterization Report Recommended Next-Steps & VDOT Traffic Improvements

Virginia Department of Transportation

An official website Here's how you know

Table 7B: OOM Estimates

Economic Development Site Advancement	Order of Magnitude Estimate
Complete Due Diligence	\$200,000
Restricted Crossing U-Turn	\$14,00,000
Design and permit Water and Sewer to Site	\$150,000
Construct interior site access roads and utilities to site	\$3,000,000
Design and permit Mass Grading Plan	\$350,000
Mass Grade Lots	\$8,000,000

The OOM estimates of probable project costs are based on the following assumptions.

- A. Related mobilization, surveying, construction testing, erosion and sediment controls and stormwater management facilities are included.
- B. Related professional service fees for design and permitting are included.
- C. Site development, including parking and access drives, and associated utilities for each pad site are not included.
- D. Permit fees are excluded.
- E. Wetland and waterway permitting expenses (technical and fees) are not included.
- F. Offsite utility (water and sewer) or other offsite road network system improvements are not included. A Preliminary Engineering Report is required to determine the system requirements to provide adequate capacities and/or pressures for the Site.
- G. Electric, gas, telecommunications, and fiber service improvements are not included.
- H. Construction engineering inspection costs are not included since costs vary based on funding sources.

#### 7.3 Funding Options

- Virginia Economic Development Partnership (VEDP) Site Development Funding. Localities and regional economic development authorities are eligible to apply for funding. Refer to https://www.vedp.org/vbrsp for additional information. Funding beyond FY24 is anticipated.
- 2. VDOT Economic Development Access Program can provide \$500,000 plus up to \$150,000 with a match for the design and construction of the access roads. The following is an excerpt from the Resolution of the Commonwealth Transportation Board dated December 7, 2016, describing one of the terms for the funding. Additional information can be found here: <a href="https://www.virginiadot.org/business/local-assistance-access-programs.asp">https://www.virginiadot.org/business/local-assistance-access-programs.asp</a>

City of Chesapeake –KPVG Site Characterization September 2023 22

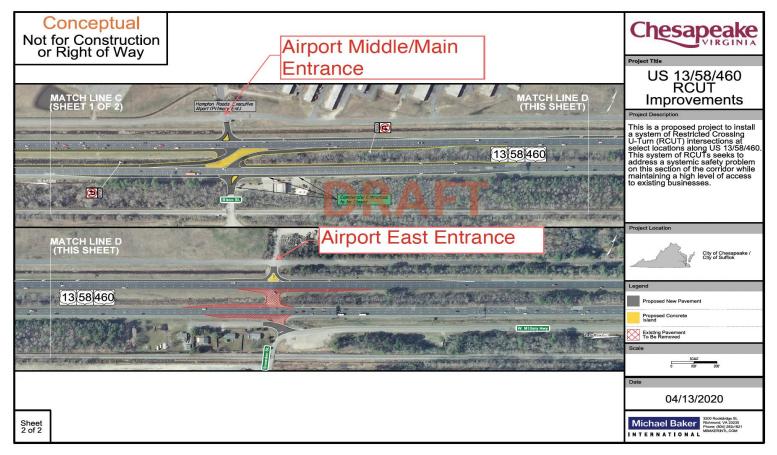


Six-Year Improvement Program VDOT Virginia Department of Transportation Home User's Guide About All Projects Major Projects MPO Fund Reports Line Item Details **Project Summary** UPC 110271 RTE 460/58/13 SAFETY IMPROVEMENTS Project Scope of Work Traffic Management/Engineering Construction Description FROM: US Routes 460/58/13 TO: US Routes 460/58/13 Report Note scheduled Fund Source FY2027 Estimates & Schedule **Project Location** Estimated Cost Hampton District Jurisdiction Chesapeake Schedule Roads \$1,609 FY2024 Urban 0.0100 MI Prelim. Eng. (PE) Road System Length \$2,750 EY2027 Right of Way (RW) **US Routes** Route U000 Street 460/58/13 Construction (CN) \$9,827 FY2027 MPO Area Hampton Roads \$14,186 Total Estimate **Required Allocations** Required FY2024 FY2025 FY2026 FY2027 FY2028 FY2029 Specialized State and Federal: MPO CMAQ \$0 \$0 \$0 \$0 \$1,609 \$2,750 \$4,914 **Total Funding** \$0 \$0 \$0 \$0 \$1,609 \$2,750 \$4,914 \$4,914 matches FY2030 allocation, so we understand to be fully funded

Find a Commonwealth Resource

### VDOT Traffic Improvements - \$14,186,000 RCUT Project

Figure 36. Chesapeake RCUT Concept #5 (continued)



US 460/58/13 ACCESS SAFETY IMPROVEMENT STUDY - 22 -



- 1) Archer Aviation Selects Site in Georgia Adjacent to the Covington Municipal Airport for its Manufacturing Facility. \$118M over 10 years.
- Beta Technologies inaugurates 188,500sf South Burlington, Vermont electric aircraft manufacturing plant at Patrick Leahy Burlington International Airport. 400 Employees in Vermont and \$800M in financing as of April 2022.
- 3) Joby Selects Dayton, Ohio, Birthplace of Aviation, For First Scaled Manufacturing Facility. 140 acre site. Joby plans to build a facility capable of delivering up to 500 aircraft per year at the Dayton International Airport, supporting up to 2,000 jobs.

4) Supernal LLC, Hyundai Motor Group's Advanced Air Mobility company, announced the opening of its primary R&D facility in Fremont, Calif. 72,000square-foot facility serves as a home base to more than 100 Employees

