

The Future of Ground Transportation at Dulles

How changing travel behavior, technology, and mobility are reshaping airport access

Zak Mawloud

Manager, Airside & Landside Contracts Division
Washington Dulles International Airport

September 24, 2026

Conceptual Rendering — For Illustrative Purposes Only



Metro



Limousine



Rideshare App



Washington Flyer



Rental Car



Autonomous Vehicle



Dulles is Growing. Access Must Grow With it.

Growth inside the airport creates new demands outside the terminal



Washington Region



Roads



Curbs



Airport



MORE PASSENGERS

Increasing demand for airport access



MORE CHOICES

Travelers have more ways to reach the airport than ever before



NEW EXPECTATIONS

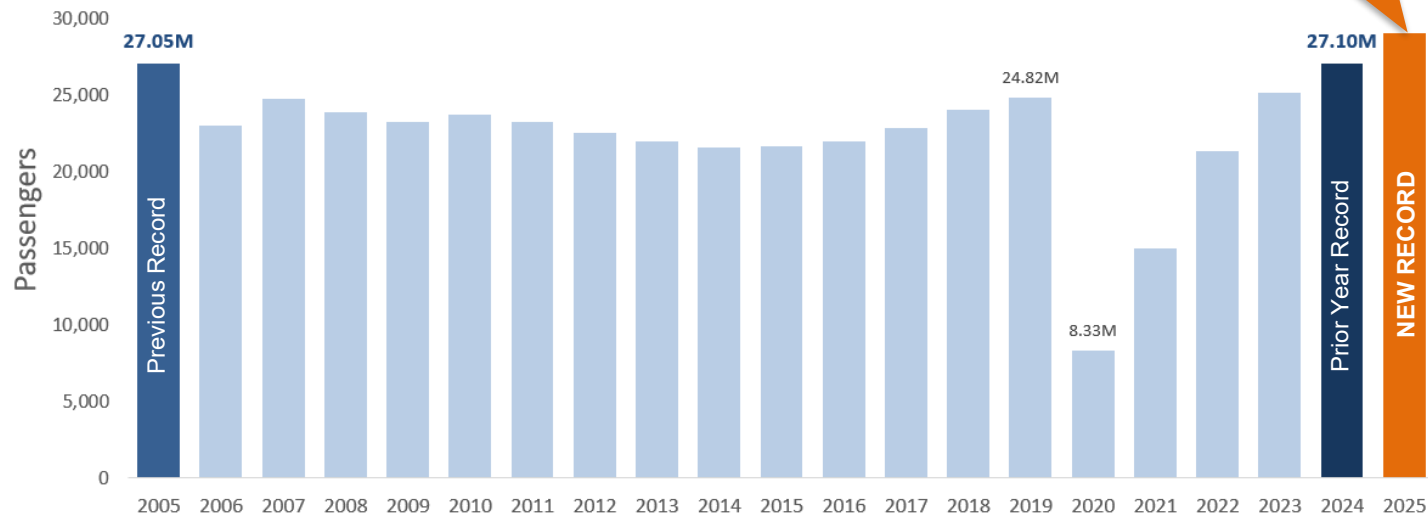
Faster . Easier . Connected . On-Demand

Dulles Sets All-Time Passenger Record in 2025

Surpassing previous record by nearly 2 Million

Annual Passengers at Dulles

(In Millions)



29.0M
ALL-TIME RECORD



29.0M

Passengers in 2025

 **+7.0%**

vs. 2024
(27.1M)

 **+7.2%**

vs. 2005
(27.05M)

Understanding the Dulles Curbside System



Many Ways to Get to Dulles Airport

PRIVATE VEHICLE



Public Parking



Curb Drop-off / Pick-up



Kiss & Fly

COMMERCIAL TRANSPORTATION



Taxi



Rideshare App



Shared Shuttle



Limousine



PUBLIC TRANSIT



Metro



County Buses



Regional Buses



RENTAL CAR



Rental Car
Facilities



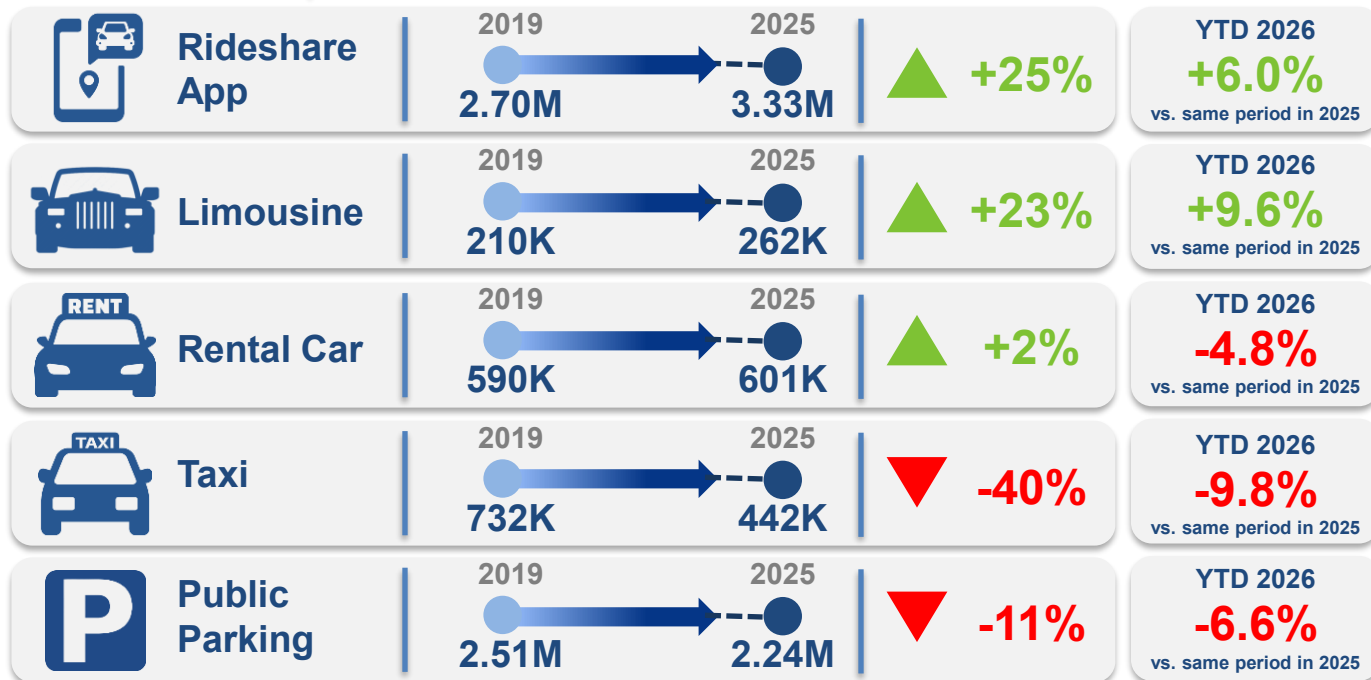
Peer 2 Peer
Car Rental



One airport. Multiple modes of ground transportation. Different operational demands.

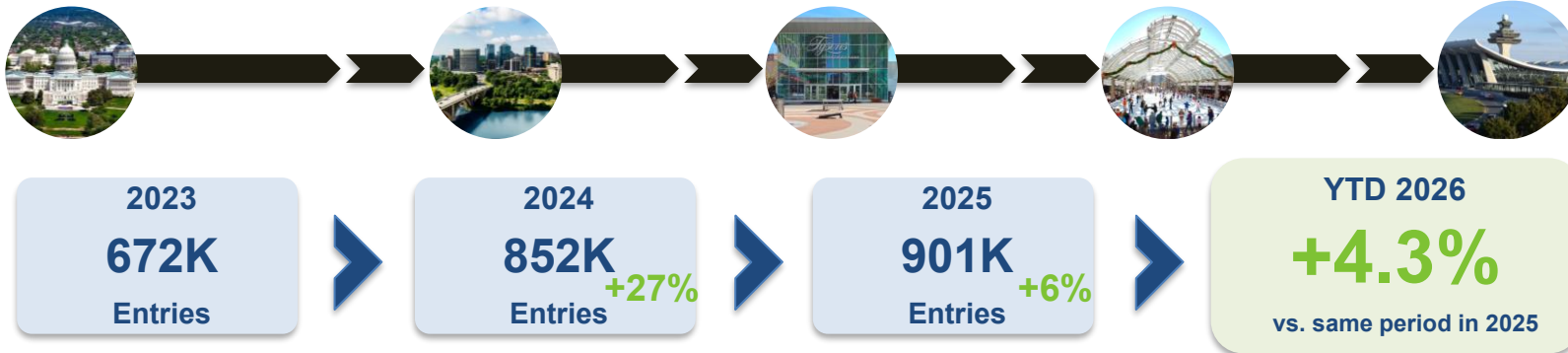
How Dulles Ground Transportation Has Changed

2019 vs. 2025 | Pre-pandemic baseline to recent full year



The number of transportation choices isn't changing, the way passengers use them is.

Silver Line Changed the Ground Access Equation

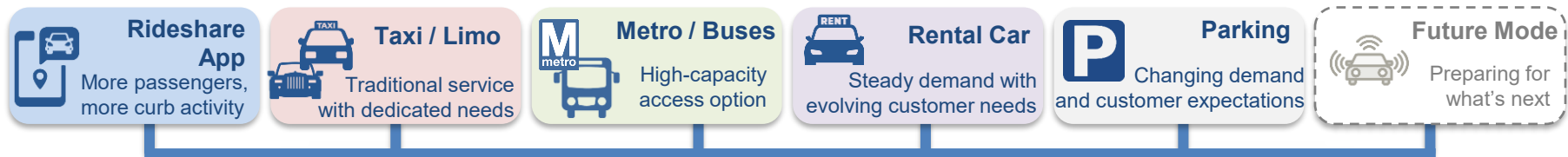


Dulles is now directly connected to the regional rail network.

Metro added an entirely new dimension to Dulles ground access.

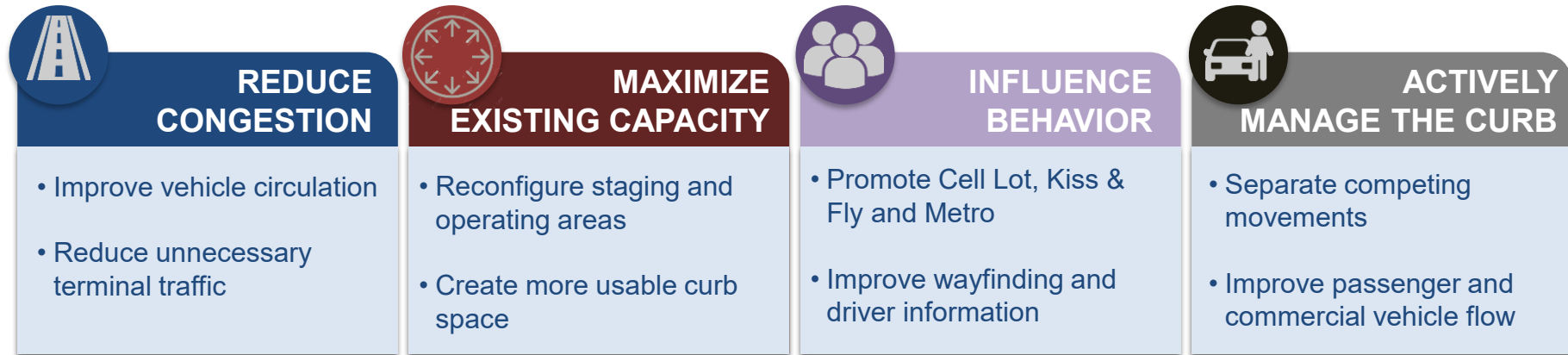
Different Choices Create Different Demands

A change in transportation mode changes how the airport is used



Adapting The System We Have Today

Improving flow, capacity and the passenger experience without simply adding more roadway



Sometimes the solution isn't more infrastructure.
Sometimes, it's using existing infrastructure more efficiently.

Rethink Rideshare Traffic Flow

STAGE

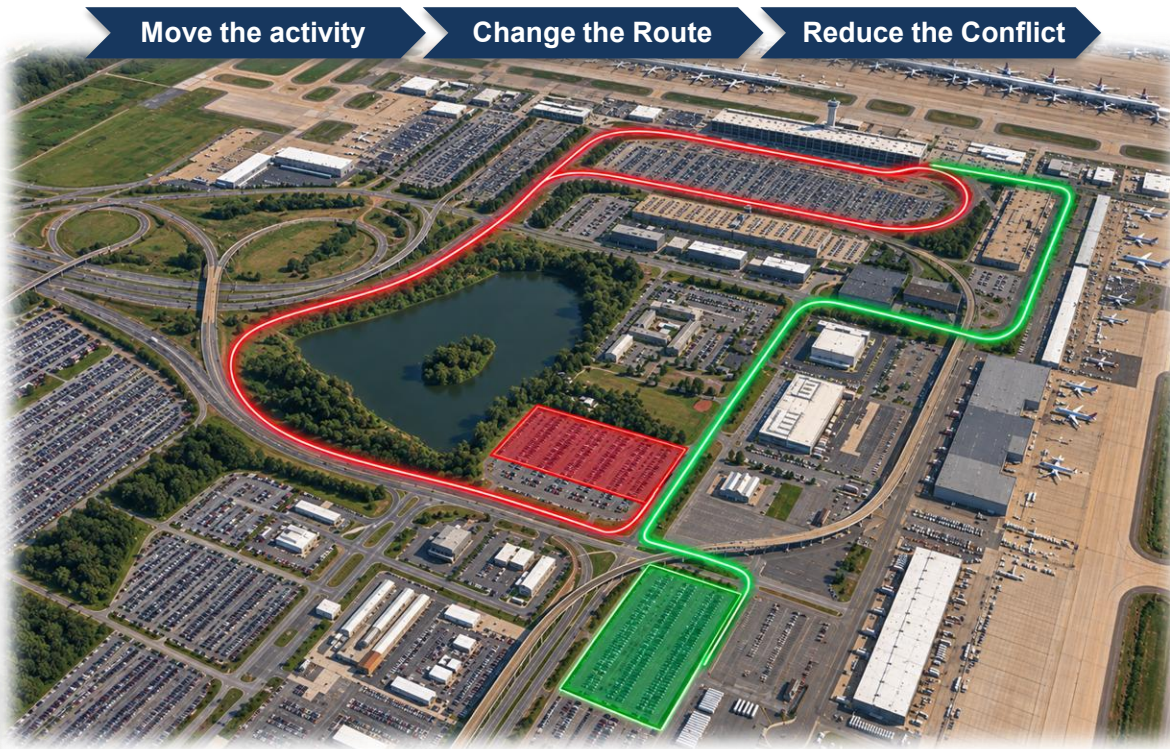
Relocated Rideshare staging lot for efficient access

ROUTE

Created a more direct route to the terminal outside the general traffic

ACCESS

Reduced curb conflict as the vehicles approach the terminal



Not Every Trip Needs to Reach the Terminal Curb

KISS & FLY

Meet passengers away from the terminal curb



COMMERCIAL BUSES

Relocated all commercial buses away from the terminal curb



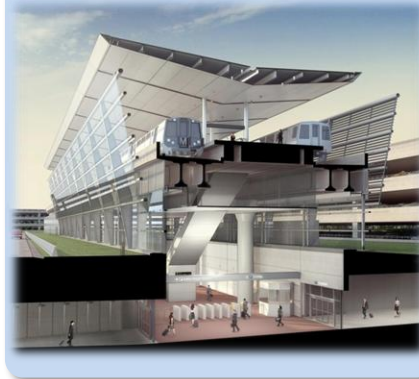
CELL PHONE LOT

Wait away from the terminal roadway



METRO

Removed the automobile trip entirely

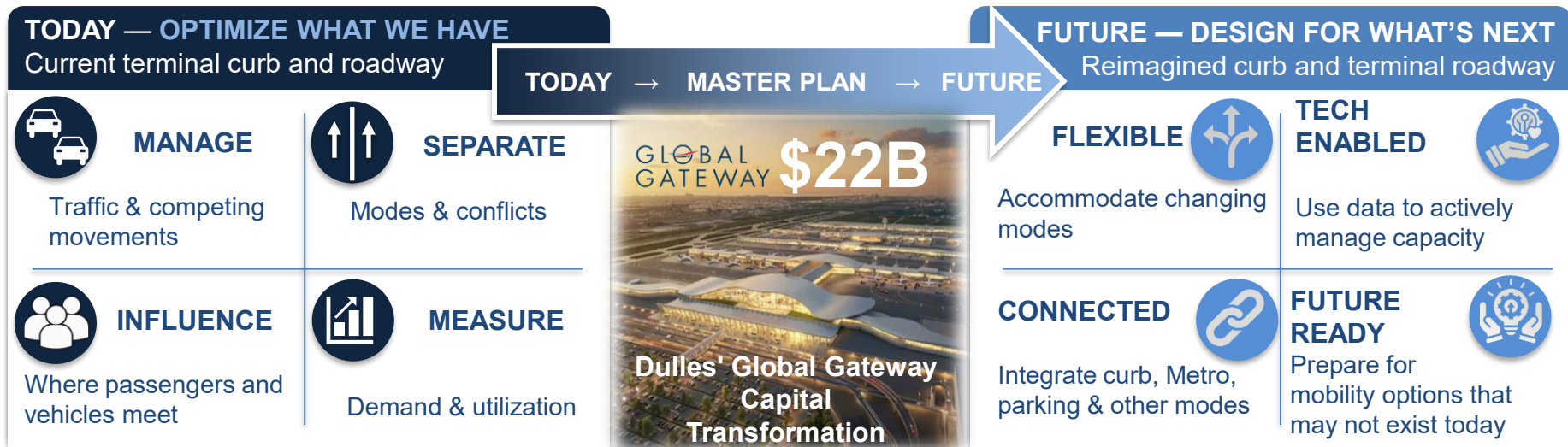


The most efficient curb trip is sometimes the trip we can avoid

Fewer unnecessary vehicle trips • Less roadway circulation • More effective curb capacity

Managing Today. Designing Tomorrow.

Dulles must optimize today's curb while preparing for a fundamentally different future



The challenge is not predicting the next mode — it's designing flexibility for whatever comes next.

From Managing Traffic to Managing Mobility

The infrastructure may be physical

The management system is becoming digital

PHYSICAL

Roads • Curbs • Parking • Staging



DIGITAL

Sensors • Cameras
Connected Systems



INTELLIGENT

Measure • Analyze • Predict • Respond



PHYSICAL INFRASTRUCTURE + DIGITAL INTELLIGENCE



SEE

What's happening
in real time



UNDERSTAND

Where and when
demand occurs



RESPOND

Adjust operations
more quickly



PLAN

Make better long-term
decisions

Seeing the Entire Ground Transportation System

WHAT'S HAPPENING?



CURB

Vehicle activity
Dwell time
Zone utilization



RIDESHARE

Trips
Staging
Pickups



TAXI / LIMO

Queues
Dispatch
Trips



PARKING

Occupancy
Reservations
Transactions



ROADWAYS

Traffic
Flow
Congestion



TRANSIT

Ridership

The **OPPORTUNITY**,
isn't more data,
but better operating picture.



mwaalabs
for airports, by an airport.

WHAT CAN WE DO WITH IT?



SEE

What's happening in real time



UNDERSTAND

Where and when demand occurs



RESPOND

Adjust operations more quickly

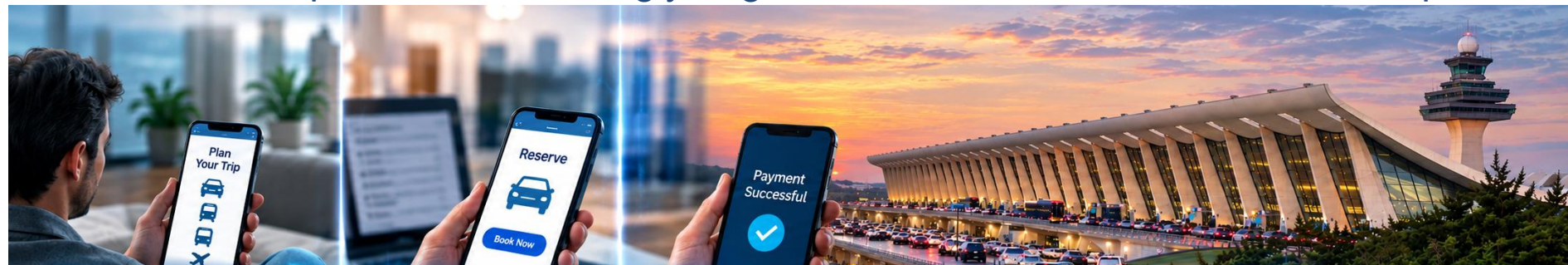


PLAN

Make better long-term decisions

The Passenger Journey is Digital

Ground transportation increasingly begins before the traveler reaches the airport



PLAN

How will I get there?

Parking
 Rail
 Bus
 Ground transportation

RESERVE

Secure the trip

Parking reservation
 Ground transportation
 booking

PAY

Transaction complete

Mobile payment
 Digital wallet
 Prepaid reservation

ACCESS

Remove friction

Mobile credential
 Digital ticket

TRAVEL

Complete the journey

Home
 >>Airport
 >>Destination

Ground access is becoming part of the digital travel journey.

More convenience for passengers • More visibility into future demand for airports

Trends in Autonomous Mobility

From robotaxis to autonomous vehicle (A/V) transit, the next mobility shift is taking multiple forms

AUTONOMOUS RIDE-HAILING



WAYMO

Fully autonomous ride-hailing
Public service operating in multiple
U.S. markets

Testing at Nashville International Airport

PURPOSE-BUILT ROBOTAXI



TESLA

CYBERCAB

No steering wheel • No pedals

Limited public rides began in **Austin** —
September 2026

VEHICLE DESIGNED AROUND THE RIDER



ZOOX

Bidirectional • Four passengers
Designed without a traditional driver's
position
Ride service / deployment expanding
across selected U.S. markets

AUTONOMOUS TRANSIT



GLYDWAYS

Dedicated guideway •
On-demand • Shared mobility
Atlanta-area pilot launching **late**
2026

Autonomous mobility isn't developing as one solution
It's emerging as an ecosystem of different technologies and operating models

Airports Are a Unique A/V Environment

WHY AIRPORTS ARE ATTRACTIVE?



HIGH, CONSISTENT DEMAND

Thousands of passenger and employee trips every day



REPEATABLE JOURNEYS

Common origins and destinations with predictable travel patterns



24/7 MOBILITY NEED

Demand extends beyond traditional transit schedules



MULTIPLE USE CASES

Passenger trips • Parking • Rental Cars Employees • Remote Facilities

Airports are natural mobility hubs.



Conceptual Rendering — For Illustrative Purposes Only

**PUBLIC
ROADWAY**
State operating
framework



**AIRPORT
PROPERTY**
Airport operating
environment

WHY AIRPORTS ARE DIFFERENT?



CONSTRAINED CURB SPACE

Multiple transportation modes compete for premium access



STAGING & DWELL

Vehicles cannot simply stop / park whenever and wherever they choose



PASSENGERS + LUGGAGE

Airport trips have different loading and accessibility requirements



OPERATING RULES

Permits, designated areas and operating requirements



COMPLEX ROADWAYS

Heavy traffic • Pedestrians • Buses • Commercial vehicles

State authorization to operate an A/V does not necessarily mean authorization to operate at an airport.

Airport access requires integration with airport operations, infrastructure and rules.

Commonwealth of Virginia Is Preparing for Autonomous Mobility

VA Airports goal: Welcome A/V innovation while preserving safe, effective airport operations.

VIRGINIA'S PATH FORWARD



2025 - HB 2627

Autonomous Driving Workgroup established



2026 – Over Two Dozen Policy Issues Evaluated

Permitting • Safety • Insurance
Data • Enforcement • Operations



AUGUST 2026

Workgroup Recommends
Moving Forward



2027 GENERAL ASSEMBLY

Enabling Legislation Likely

• PILOT → EVALUATE → DEPLOY

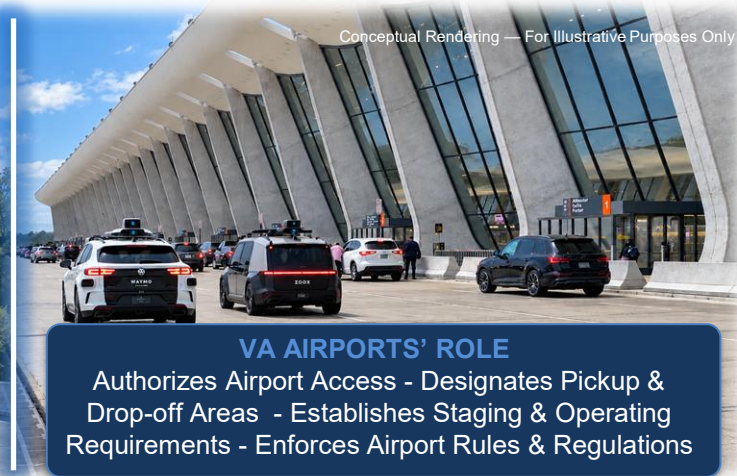
• Monitor 2027 Legislative Process
Derived from 2026 A/V Workgroup
Recommendations

VIRGINIA'S ROLE

Authorizes commercial A/V
operation statewide



Conceptual Rendering — For Illustrative Purposes Only



VA AIRPORTS' ROLE

Authorizes Airport Access - Designates Pickup &
Drop-off Areas - Establishes Staging & Operating
Requirements - Enforces Airport Rules & Regulations

VA Airports Language Proposed During 2026 A/V Workgroup for Legislative Consideration

AIRPORT AUTHORIZATION

A/V operators must receive
authorization from VA Airport
Operators to operate on airport
property.

COMPLY WITH AIRPORT RULES

A/V operations on-VA airports remain
subject to airport rules and regulations.

ACCOUNTABILITY

Violations of airport regulations
could affect the operator's state
authorization.

Preparing Dulles For What Comes Next



We don't need to predict which transportation mode will win.
We need a ground transportation ecosystem flexible enough for whatever comes next.



DULLES
INTERNATIONAL

FlyDulles.com



@Dulles_Airport



FlyDulles

