

# SMARTCOLUMBUS

WE ARE THE **SMART CITY!**

## OUR VISION



The City of Columbus “Smart Columbus” vision won the **U.S. Department of Transportation \$40 million Smart City Challenge** in June, 2016 after competing against 77 cities nationwide to become the country’s first city to fully integrate innovative technologies – self-driving cars, connected vehicles, and smart sensors – into their transportation network. Columbus was also awarded an additional **\$10 million grant from Paul G. Allen’s Vulcan Inc.** to accelerate the transition to an electrified, low-emissions transportation system.

### Smart Columbus will:

- Improve **access to jobs** through expanded mobility options in major job centers
- Compete globally through **smart logistics**
- **Connect Columbus residents** to safe, reliable transportation that can be accessed by all
- Better **connect our visitors** to transportation options
- Develop a more environmentally **sustainable transportation** system.

## THE COLUMBUS WAY

Columbus has built an unprecedented culture of collaboration. By knocking down silos and building partnerships, Columbus has quickly become one of the fastest growing cities in the country, leading the Midwest in job and wage growth. The City of Columbus is matching the USDOT and Vulcan grants with **\$90 million in pledges** from public and private sector partners.

## OUTCOME: A SAFER, MORE MOBILE AND SUSTAINABLE CITY

Columbus will become the nation’s epicenter for intelligent transportation systems (ITS) research to improve safety, enhance mobility, create ladders of opportunity for those who may have been left behind in the past, and address climate change by reducing emissions.

 **SAFETY**  **MOBILITY**

**OPPORTUNITY** 

 **CLIMATE CHANGE**



U.S. Department  
of Transportation

[transportation.gov](http://transportation.gov)

[columbus.gov/smartcolumbus](http://columbus.gov/smartcolumbus)

[vulcan.com](http://vulcan.com)



11/11/16 v2

# STATE-OF-THE-ART PROJECTS

Smart Columbus will develop, deploy and share lessons learned for 15 USDOT-funded and 9 Vulcan-funded initiatives within the following framework and districts.

## USDOT

### **Integrated Data Exchange**

The heart of Smart Columbus is the Integrated Data Exchange (IDE), a dynamic, cloud-based platform that integrates data from multiple sources, including the planned smart city technologies, traditional transportation data, and data from other community partners, such as food pantries and medical service providers. This will facilitate better decision-making and problem solving for all users.

### **Columbus Connected Transportation Network**

Leveraging the city's high-speed fiber investment, the Columbus Connected Transportation Network (CCTN) will connect people, vehicles, infrastructure and transportation providers in a safe, secure and seamless manner. Projects include connected vehicles, smart street lights with Wi-Fi and a transit-pedestrian collision avoidance system.

### **The Residential District: Linden**

Smart Columbus will leverage cutting edge transportation technology to enhance human services and improve the lives of residents who have not historically enjoyed their share of the city's gains. Trip planning and payment options will be integrated into a single application so residents have more convenient access to jobs, school, fresh food and doctor appointments. Central Ohio Transit Authority (COTA) will launch a mobile application that enables persons with cognitive disabilities to travel independently.

### **The Commercial District: Easton**

"First and last mile" transportation solutions will be implemented in Easton, a popular retail and commercial hub on the northeast side of Columbus. A fleet of six connected electric autonomous transit vehicles will be deployed, making Smart Columbus one of the first connected, autonomous vehicle deployments in the nation consistent with USDOT guidelines. Multiple inductive charging stations will also be installed.

### **The Downtown District**

Smart Columbus will introduce real-time freight delivery zone availability technology in the Short North, a bustling urban area. The city will

also deploy and evaluate an enhanced parking permit system and create a new event parking management system. This will allow travelers to plan, reserve and book a parking space during large events. Direct routing of travelers is expected to reduce congestion during those times.

### **The Logistics District**

Through the use of truck platooning and oversized vehicle routing, Smart Columbus will improve fuel efficiency, increase safety and improve overall delivery efficiency. Additionally, by integrating truck parking information into the Integrated Data Exchange, Smart Columbus will be able to direct commercial vehicle drivers to safe, convenient parking solutions.

## VULCAN

### **Electric Vehicle Fleet Adoption and Charging Program**

In collaboration with its many public and private partners, Smart Columbus will work to encourage the adoption of electric vehicles and the installation of charging infrastructure.

### **Smart Grid Modernization and Large Scale Renewable Energy Program**

American Electric Power (AEP) and Smart Columbus will work to deploy grid modernization projects, which include battery storage installations and expanded capacity. AEP will integrate new large-scale wind and solar developments into the region's electricity grid, while the City of Columbus Division of Power will increase its yearly purchased renewable energy to 20 percent and upgrade city streetlights.

### **Dealer, Consumer and Workplace Adoption**

A series of experiential marketing strategies will be deployed to encourage regional automotive dealerships to embrace the sales and promotion of electric vehicles, and to encourage consumers to purchase electric vehicles. Columbus CEOs will lead the way in encouraging employees to purchase electric vehicles by installing workplace charging infrastructure and hosting ride and drive events.

