

RESOLUTION T-9-16

**“MORPC’S SUPPORT OF THE CITY OF COLUMBUS’S APPLICATION FOR THE U.S. DOT BEYOND TRAFFIC: SMART CITY CHALLENGE”**

WHEREAS, on December 7, 2015 the U.S. DOT issued a Notice of Funding Opportunity for the Beyond Traffic: Smart City Challenge, which offers up to \$40 million in federal funding with additional private resources for a Mid-Sized City to Conduct a Smart City Demonstration; and

WHEREAS, the criteria for a candidate city include:

- a population between approximately 200,000 and 850,000
- a dense urban population typical for a mid-sized American city
- representing a significant portion (more than 15%) of the overall population of its urbanized area using 2010 Census data
- having an existing public transportation system and an environment that is conducive to demonstrating proposed strategies
- continuity of committed leadership and capacity to carry out the demonstration throughout the period of performance
- having a commitment to integrate with the sharing economy
- a clear commitment to making open machine-readable data accessible, discoverable and usable by the public to fuel entrepreneurship and innovation
- is proactively working to improve safety, enhance mobility, and address climate change; and

WHEREAS the City of Columbus is an ideal Smart City candidate as it meets all of the above criteria; and

WHEREAS, the City of Columbus shares a vision with the U.S. DOT for its city that incorporates Technology Elements, Innovative Approaches to Urban Transportation Elements and Smart City Elements; and

WHEREAS, the City of Columbus was designated the 2015 Intelligent Community of the Year in an international competition held by the Intelligent Communities Forum, and has built partnerships with key technology organizations through seeking this honor with Battelle, The Ohio State University and others, proving that the city has the expertise and partnerships in place to be successful at developing Smart City strategies; and

WHEREAS, the City of Columbus has built the high-tech Columbus Traffic Signal System, which includes advanced signal coordination, high-speed fiber installation throughout the city, and connectivity to other municipalities, counties and the Ohio Department of Transportation, proving the city has the knowledge and experience to be successful in implementation of Smart City strategies; and

WHEREAS, the base infrastructure for a Smart City proposal will be the Columbus Traffic Signal System and the Central Ohio Transit Authority’s technologies already employed in the city, and this infrastructure benefits the region through interconnectivity of multi-agency traffic, transit services beyond the city limits, and economic development access to high-speed fiber for the region; and

WHEREAS, the Smart City proposal developed by the City of Columbus proved that the city and the region have made significant strides toward being an ideal test bed for implementation of Smart City

Technology, focusing on Job, Freight, Visitor and Citizen Mobility in a mid-sized city in the United States; and

WHEREAS; on March 12, 2016 U.S. DOT announced the City of Columbus was a finalist for the Smart City Challenge;

WHEREAS; the City of Columbus will submit the final proposal on May 13, 2016, now therefore

**BE IT RESOLVED BY THE TRANSPORTATION POLICY COMMITTEE OF THE MID-OHIO REGIONAL PLANNING COMMISSION:**

- Section 1. That it supports the City of Columbus's proposal to U.S. DOT for the Beyond Traffic: Smart City Challenge as a project of regional significance and benefit.
- Section 2. That MORPC will continue to work with the City of Columbus to support all related elements of the Smart City proposal and implementation of the project upon award.
- Section 3. That this committee finds and determines that all formal deliberations and actions of this committee concerning and relating to the adoption of this resolution were taken in open meetings of this committee.

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Matt Greeson, Chair  
**MID-OHIO REGIONAL PLANNING COMMISSION**

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Date

Prepared by: Transportation Systems & Funding Staff

Attachment: Smart City Challenge – Regional Benefits Summary

## 1. What is the Smart Cities Challenge?

- The U.S. Department of Transportation (USDOT) will make an award of \$40 Million to one mid-sized city (between 200,000 and 850,000) that can demonstrate the best vision for how advanced data, applications, and intelligent transportation systems (ITS) technologies can be used.
- Vulcan Inc. will contribute an additional \$10 million to incorporate electric vehicle infrastructure.
- Mobileye will install driver assistance safety technology on every bus in the winning city.
- Alphabet Sidewalk Labs will install over 100 kiosks to provide free Wi-Fi access points for disadvantaged citizens
- Amazon Web Services will provide \$1 million of cloud and professional services, Autodesk will provide 3D design technology, and NXP will provide wireless communication modules that allow cars to securely exchange data.

## 2. Application Submission and Schedule

- USDOT announced the 7 Finalists (Columbus, Austin, Denver, Kansas City, Pittsburgh, Portland, & San Francisco) on March 12, 2016 at the South by Southwest Conference in Austin, TX and will contribute \$100,000 to each city to further develop their concepts and final application.
- The Finalists' applications are due May 2016, and the winner will be announced in June of 2016.

## 3. Our Vision

- To be the nation's epicenter for intelligent transportation systems (ITS) research, development, and implementation.
- Implementing ITS will not only create opportunities for economic development and job creation for the Columbus Region but also provide ladders of opportunity to our residents to better access jobs, food, services, education, and recreation.

## 4. Our Application

- We address community challenges through five inter-related strategies:
  - 1) **ACCESS TO JOBS.** Columbus has several major employment centers; however, some workers do not have reasonable access to these jobs. Our application includes an autonomous vehicle deployment in Easton to provide last mile connectivity from the Easton Transit Center to area employers. We will also provide enhanced traveler information, broadband connectivity, and build smart intersections along the new CMAX Bus Rapid Transit (BRT) Corridor from Polaris to Downtown.
  - 2) **SMART LOGISTICS.** The Rickenbacker Inland Port is a high-speed international, multimodal logistics hub, has one of the world's only cargo-dedicated airports, and boasts the 7th most active foreign trade zone in the U.S. Our project will include making accessible real time traffic condition and routing data in the form of a smartphone app for trucks to improve the reliability of our transportation system for the movement and delivery of freight.
  - 3) **CONNECTED VISITORS.** Visitors to the Columbus Region spend \$5.7 billion each year, provide an overall economic impact of \$8.7 billion, and support over 71,000 jobs. However, visitors lack real-time information related to traffic and parking conditions, and transit options. We will develop a smartphone app with Experience Columbus that can be customized to specific events to address these challenges.
  - 4) **CONNECTED CITIZENS.** Columbus has select neighborhoods with mobility challenges that limit citizen access to jobs, health care, and education services. We will examine mobility challenges in the Linden neighborhood to further build ladders of opportunity for residents by increasing personal transit service offerings (e.g. Uber, Car2Go), and helping cash-based and/or credit-challenged citizens access these services.
  - 5) **SUSTAINABLE TRANSPORTATION.** We will work to expand the recently completed Smart Grid project to other parts of the City, expand electric vehicle charging infrastructure, pursue continued conversion of City fleet to compressed natural gas (CNG), explore converting more of the city fleet to electric vehicles (EVs), and investigate additional ways through incentives or policy changes to encourage more EVs in the City.

## 5. Why Columbus Should be Selected

### 1) Columbus is America's Opportunity City and is leading the state, Midwest, nation, and the world.

- Columbus is the 15<sup>th</sup> largest city, the largest city in Ohio, and the state capital.
- Columbus is the fastest growing metro area and top metro for job growth in the Midwest.
- The top metro for wage growth in the U.S.
- #1 Opportunity City by *Forbes*.
- #1 among inland and coastal ports in population concentration within a one-day drive.
- #3 Best City for Millennials by *Money Magazine*.
- 2015 Most Intelligent Community in the World by Intelligent Communities Forum.

### 2) Columbus is an international center of learning and higher education with more than 138,000 college students attending 63 college and university campuses including The Ohio State University (OSU), one of the nation's top 20 public universities and top 20 in higher education research and development expenditures.

### 3) Columbus is a center for innovation

- Columbus is the headquarters of Battelle Memorial Institute--the world's largest nonprofit research and development organization, with over 22,000 employees at more than 60 locations globally.
- IBM's Client Center for Advanced Analytics is advancing research, development, client services, and skills training in the areas of analytics, big data, and cognitive computing.

### 4) Columbus is a green leader

- Of the nearly 20,000 incorporated communities in the U.S., only 18 are certified as a 4-STAR (Sustainable Tools for Assessing and Rating) Community.
- Columbus was honored by 100 Best Fleets for having the greenest fleet in North America in 2011 and was named the best fleet in North America in 2014.
- Through the Columbus Green Spot initiative, more than 12,000 individuals, organizations, and businesses have committed to taking specific steps toward a sustainable way of life.

### 5) Columbus has state-of-the-art facilities and networks

- Columbus has completed construction of a new Traffic Management Center (TMC). Construction is also underway on the City's \$76 million Columbus Traffic Signal System (CTSS) project. When completed in 2018, 565 miles of fiber will link the Columbus TMC to all 1,250 signalized Columbus intersections, 12 regional communities, Franklin County, OSU, and the Ohio Department of Transportation (ODOT).
- Columbus is home to ODOT's TMC, which monitors traffic conditions in each of the major metropolitan areas of the state and is linked to city infrastructure through a robust network of sensors, cameras, and communication technologies.
- The Transportation Research Center (TRC) is a world-leading provider of vehicular testing services, providing R&D and compliance and certification testing for vehicles and components for crash testing, emissions testing, dynamic testing and durability testing.

### 6) The Columbus Smart City Program Office is composed of some of the leading public and private sector entities in the world (e.g. OSU, Siemens, IBM, Battelle, and General Electric) and will insure that what is achieved in Columbus will be shared with the world.

### 7) Columbus and its partners have demonstrated the capacity to take on a project of this size and complexity

- Columbus is the only city of its size with an AAA bond rating from Moody's Investors Service, Standard & Poor's, and Fitch Ratings. It has held an AAA bond rating since 1995.
- Columbus has already committed a 20% match of \$8 million to the \$40 million Smart Cities award.
- The Central Ohio Transit Agency (COTA) is implementing the \$46.8 million CMAX BRT with \$37.4 million from the Federal Transit Authority's (FTA) New Starts program.

### 8) The Columbus Smart Cities effort has broad bi-partisan support of the community with 102 letters of support from local, state, and federal elected officials, regional governments, business leaders, and non-profits.