

**To:** Members of Dublin City Council  
**From:** Dana L. McDaniel, City Manager  
**Date:** October 15, 2019

**Re: Resolution 58-19 - A Resolution to Express Support of and to incorporate whenever possible the Mid-Ohio Regional Planning Commission's Smart Streets Policy Concepts**

## SUMMARY

The Mid-Ohio Regional Planning Commission (MORPC) has approved a Smart Streets Policy that leverages current and emerging technologies and data to provide a digital infrastructure network in support of transportation project planning, design, and construction. Digital connectivity and data are fundamental to delivering an efficient and complete connection of streets that will improve the quality of life of Central Ohio residents. Over the past year, the Mid-Ohio Regional Planning Commission's (MORPC) Smart Region Task Force has studied the concepts of what a smart streets policy may entail. MORPC's Smart Street Policy is to be the first of its kind in the nation. Please find attached, MORPC's Smart Street Policy.

## BACKGROUND

Technological advancements are rapidly transforming conventional views of transportation into one comprised of a mobility system that employs digital and information technologies expanding services and capabilities for moving people and goods more safely and efficiently. New systems include, but are not limited to, shared vehicles, employer-provided shuttles, unmanned aerial vehicles/drones, and connected/autonomous vehicular platforms. Digital technologies are and will be incorporated with new and reconstructed infrastructure, enabling connectivity and the collection and sharing of data of all kinds. The Smart Streets Policy recognizes this emergence will occur rapidly and that the region, and we as individual jurisdictions, must position ourselves to not only embrace this change/evolution, but also be a part of it and pro-actively incorporate it in our plans, designs, and construction of road systems. It is important that as we do this we consider connectivity, flexibility, interoperability/data, and equity. We are early into this concept as a region, nation, and society. Therefore, it is important we, as a region, work together in order to advance ourselves and the region as a whole.

The City of Dublin has already made great advancements in this area. The City has significantly deployed optical fibers along many of its major roadways. Such digital infrastructure is a key enabler of the digital and telecommunications systems in support of smart streets. Additionally, the City of Dublin has maintained modern traffic signal systems, further connecting and operating them through fiber optic capability and begun to beta test "smart" and connected technology. The City of Dublin's participation in the US33 Corridor Council of Governments is a great example of leaning forward to again, enable existing and future infrastructure with the necessary digital and telecommunications systems to beta test, incorporate and sustain connected/autonomous vehicle platforms and other connected/smart technologies.

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As a result of the adoption of this new policy, MORPC desires to see Smart Street concepts incorporated into planning, programming, scoping, design, implementation, maintenance, and performance monitoring of all transportation infrastructure and encourages all infrastructure investments within the region to follow their policy. MORPC will apply the policy as part of its assessment process to all projects seeking funding through MORPC.

In addition to this policy, MORPC will publish both a Guide Book and Play Book to help local jurisdictions with the understanding and implementation of this policy. The Smart Region Task Force is currently developing these.

### **RECOMMENDATION**

Staff recommends Council pass Resolution 58-19 in support of the MORPC Smart Streets Policy concepts and directing staff to incorporate the guidance contained therein for future City and private projects.

# RECORD OF RESOLUTIONS

Dayton Legal Blank, Inc., Form No. 30045

58-19

Resolution No. \_\_\_\_\_

Passed \_\_\_\_\_

, 20\_\_\_\_

## **A RESOLUTION TO EXPRESS SUPPORT OF AND TO INCORPORATE WHENEVER POSSIBLE THE MID-OHIO REGIONAL PLANNING COMMISSION'S SMART STREETS POLICY CONCEPTS**

**WHEREAS**, the City of Dublin has long been a proponent of accommodating all modes of transportation within the public right-of-way, including but not limited to travel by pedestrians, bicyclists, transit users, motorists, emergency and commercial vehicle operators; and

**WHEREAS**, the City recognizes the importance of meeting the transportation needs of all its citizens by providing street networks that safely connect to all properties, creating a more livable and welcoming community to all citizens, regardless of age or ability; and

**WHEREAS**, technological advancements are rapidly transforming conventional views of transportation into the concept of a mobility system that employs digital communications and information technologies to provide a variety of services for moving people and goods; and

**WHEREAS**, emerging technologies must be integrated with public infrastructure to improve service delivery and the quality of life in Dublin and Central Ohio as they continue to grow in population and employment in a thoughtful way so as to improve safety, reduce congestion, increase system efficiency, and deliver services more effectively; and

**WHEREAS**, digital infrastructure is a key component for deploying these emerging technologies and realizing their benefits; and

**WHEREAS**, the Mid-Ohio Regional Planning Commission (MORPC) convened a Smart Region Task Force to develop a Smart Streets Policy to guide the deployment of digital infrastructure in order to create a regional smart mobility system that is connected, inclusive, secure, and resilient across jurisdictions, providing services effectively to improve the quality of life of our residents; and

**WHEREAS**, infrastructure investments in mobility must be planned, selected, scoped, designed, constructed, and maintained in a manner that advances a Smart Region; and

**WHEREAS**, the City of Dublin provided leadership to the MORPC Smart Region Task Force, and has been a leader by forward investing in digital infrastructure to include dubLINK, Connected Dublin smart infrastructure, and as a member of the US 33 Corridor Council of Governments who has invested in the Connected/Autonomous Vehicle testing initiative.

**NOW, THEREFORE, BE IT RESOLVED** by the Council of the City of Dublin, \_\_\_\_\_ of its elected members concurring, that:

**Section 1.** City Council supports the MORPC Smart Streets Policy.

**Section 2.** City Council directs City Departments to consider and incorporate whenever feasible the MORPC Smart Streets Policy and its concepts in the planning, programming, scoping, design, implementation, maintenance, and performance monitoring of all new and reconstruction transportation projects in the public right-of-way.

**Section 3.** City Council directs City Departments to consider the MORPC Smart Streets Policy and its concepts when evaluating private development proposals.

# RECORD OF RESOLUTIONS

58-19

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Resolution No. \_\_\_\_\_

Passed \_\_\_\_\_, 20\_\_\_\_

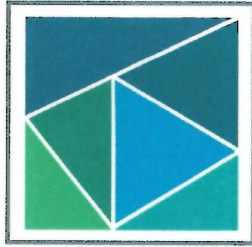
**Section 4.** This Resolution shall take effect upon passage in accordance with Section 4.04(a) of the Revised Charter.

Passed this \_\_\_\_\_ day of \_\_\_\_\_, 2019.

\_\_\_\_\_  
Mayor - Presiding Officer

ATTEST:

\_\_\_\_\_



MID-OHIO REGIONAL  
**MORPC**  
PLANNING COMMISSION

## SMART STREETS POLICY

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### BACKGROUND

For decades, transportation has been understood primarily as the movement of people and goods via motorized vehicles on a network of publicly funded highways and streets, with most vehicles being privately owned by individuals or companies and supplemented by public transit running on fixed routes. Technological advancements are rapidly transforming this conventional view of transportation into the concept of a mobility system that employs digital communications and information technologies to provide a variety of services for moving people and goods. These include transportation network companies, shared vehicles (motorized and non-motorized), employer-provided shuttles, unmanned aerial vehicles, or drones, and increasingly connected and autonomous vehicles that collect, transmit and share large volumes of data. Similarly, the transportation network is being transformed by the deployment of digital technologies that collect, transmit and share data with its users and managers about traffic, incidents and the condition of the infrastructure.

These emerging technologies must be implemented to improve service delivery and the quality of life in Central Ohio as it continues to grow in population and employment. If implemented thoughtfully, these advancements have the potential to improve safety, reduce congestion, increase system efficiency, and deliver services more effectively.

Digital infrastructure is a key component for deploying these technologies and realizing their benefits. This infrastructure needs to be regional in nature to maximize the potential of these technologies. It requires a significant investment to build and maintain this infrastructure. A regional policy on the deployment of digital infrastructure is an effective way to ensure that public infrastructure investments are made in a way that supports the capability of these technologies to effectively serve public interests and improve the quality of life in Central Ohio.

### DEFINITIONS

Smart Streets comprise a mobility system able to leverage current and emerging technologies and data to provide services more effectively and improve the quality of life of all residents.

Digital Infrastructure is the system that provides and supports digital communications, including fiber optic cable, wireless communications, and the hardware and software that supports them.

Intelligent Transportation System (ITS) are technologies that advance transportation safety and mobility and enhance productivity by integrating advanced communications technologies into transportation infrastructure and modes of travel.

Mobility is the quality or state of being mobile or movable.

Mobility System is the infrastructure, services, data, technology, and governance that enables the mobility of people and goods.

## VISION

Central Ohio is the leader in creating a regional smart mobility system that is connected, inclusive, secure, and resilient across jurisdictions, providing services effectively to improve the quality of life of all residents.

## PURPOSE

To ensure public investments in mobility are planned, selected, scoped, designed, constructed, and maintained in a manner that advances a Smart Region.

## GOALS

- Connectivity: Strategically advance digital infrastructure (primarily broadband) and access across jurisdictions throughout the region to improve mobility and the delivery of public services and effectively support economic development.
- Flexibility: The mobility system is flexible, scalable, and able to support evolving digital technologies to improve people's mobility and the delivery of public services.
- Interoperability: The mobility system is interoperable and can effectively and securely collect and share data across jurisdictions for processing and analysis to improve mobility, safety, infrastructure management, and the quality of life.
- Equity: The mobility system is accessible to all people, and emphasizes improving access and mobility for the disadvantaged.

## POLICY

### Statements

MORPC supports the Smart Streets concept throughout Central Ohio. To promote the acceptance and practice of Smart Streets, MORPC recommends that local jurisdictions and the state of Ohio develop and adopt Smart Streets policies to meet their needs and are compatible with this regional policy.

MORPC seeks to incorporate the Smart Streets concept into the planning, programming, scoping, design, implementation, maintenance, and performance monitoring of all transportation infrastructure and encourages all infrastructure investments in Central Ohio to follow this policy.

This policy will be applied to all projects awarded funding through MORPC. MORPC will ensure the uses of these funds are consistent with this policy, incorporating Smart Streets concepts as appropriate. The policy is intended to identify opportunities where they exist and leverage our investments in infrastructure. It requires sponsors to take certain considerations regarding digital infrastructure into account during project development, document the findings, and provide a rationale for its decisions. The policy does not include the specific criteria for how those decisions will be judged. Those criteria are expected to develop and change rapidly as the technologies emerge and evolve and be very dependent on the individual circumstances of

Adopted May 2019

each project. Instead, the policy is intended for the project sponsor, the program administrators, and the existing organizational institutions to make informed, transparent decisions about the digital infrastructure components of transportation projects, using standards and criteria they mutually agreed upon. If it is successful, the policy will not result in imposing a burden upon sponsors or their projects, but, through its deliberate application, help to generate the awareness and knowledge necessary to lead them to processes and outcomes they value themselves.

This policy is not intended to create new rights for utilities outside those provided by existing law and contract.

## Applicability

Many factors will be considered to determine whether a project is consistent with the policy.

1. Prior to submitting a formal application or request for funding, MORPC staff will be available to the sponsor to review the proposed use of funds, to discuss any potential Smart Streets considerations with the project, and to provide resources for technical assistance.
2. The formal application or funding request shall provide sufficient information about the projects for staff to determine whether the proposed project adheres to this policy. The evaluation and selection process will incorporate Smart Streets concepts.
3. Once MORPC-attributable funds are committed to a project, staff will continually monitor its development through the construction/implementation. This includes review and comment on (if applicable) requests for proposals, field reviews, scoping, preliminary studies, systems engineering analysis, design plans, and change orders to ensure adherence to this policy and provide guidance on incorporating Smart Streets concepts.

## Requirements

The policy's requirements are listed below and grouped by the four goals of the policy. Some of these are already required by existing laws, regulations, and standards. They are included here to stress their importance for Smart Street concepts.

### Connectivity

1. The project sponsor shall complete the checklist accompanying this policy and provide the information to MORPC.
2. The project shall use the most appropriate development process and design standards. Any digital infrastructure related to the project shall meet accepted industry standards.
3. Project sponsors shall notify the owners of digital infrastructure located within the project limits of the project scope and schedule after MORPC has committed funds to the project. They shall be given the opportunity to participate in the plan review process. This policy is not intended to create new rights for utilities outside those provided by existing law and contract.
4. The sponsor shall provide MORPC with geocoded data for the location, type and specifications of publicly-owned digital infrastructure that was installed as part of the project. Sensitive data must be protected by a non-disclosure agreement.
5. If the project will affect digital infrastructure adjacent to institutional uses or public facilities, such as a police or fire station, school, library, recreation center, government offices, or maintenance facility, the project sponsor shall engage the facility

owner/operator about the possibility of the facility having access, if feasible, to the affected infrastructure.

6. If the construction of a project requires the removal or relocation of the project sponsor's digital infrastructure in current use for a transportation service, the infrastructure shall be maintained by being relocated or replaced. The replacement infrastructure shall meet current industry standards, be compatible with the existing infrastructure, and be sufficient to continue current transportation uses.

### Flexibility

1. Project requirements for digital infrastructure shall be sensitive to the context of the project setting, the scope of the project, and cost. Projects in different contexts may take different approaches to Smart Streets.
2. Sponsors shall govern the project's digital infrastructure in a state of good repair through its anticipated useful life and operate the infrastructure securely, in accordance with industry standards.

### Interoperability/Data

1. All Intelligent Transportation Systems (ITS) associated with a project shall be interoperable with other such systems serving public infrastructure in the region. They will have the capability to transmit and share data with each other.
2. A systems approach shall be used in developing a project, such that the sponsoring agency has engaged and communicated with stakeholders (within the sponsoring agency as well as any other jurisdictions) about the potential interrelationships between the project and any existing, planned or proposed infrastructure in the vicinity of the project.
3. If there are other adjacent infrastructure projects planned, programmed or in development, the projects should be coordinated to ensure consistency and connectivity among the facilities serving the area.
4. Sponsors of projects with digital infrastructure components are required to have policies in place to guide the collection, use and sharing of data and to ensure the security and privacy of the system and the data within it, especially for potentially sensitive data such as personally identifiable information.
5. Public transit agencies shall be informed of projects being developed in their service areas and shall have the opportunity to coordinate with the project sponsor to jointly consider the ITS aspects of the project. Each transit agency and the project sponsor can determine the appropriate level of participation in project development.
6. All sponsors shall identify any ITS services, inventory elements, functional requirements and interfaces/information flows in the Central Ohio Regional ITS Architecture that are relevant to the project before beginning detailed design or right-of-way acquisition.
7. Projects shall facilitate ITS integration opportunities and ITS extensions of additional/future projects as identified in the Central Ohio Regional ITS Architecture by accounting for future integration requirements and describing how it will support future extensions of the regional architecture.

### Equity

1. All digital infrastructure funded by the project must be primarily utilized to serve a public purpose.



2. The sponsor shall ensure that actions taken to comply with this policy do not prevent safe use of the public right-of-way by any mode (e.g., a traffic signal cabinet shall not block the clear walking zone on the sidewalk or encroach on a transit stop).
3. Project sponsors shall comply with all applicable laws, regulations, and standards regarding the installation and placement of digital infrastructure.

## Recommendations

The following statements are recommendations. Project sponsors and others are not obligated to follow any of these recommendations to be considered in compliance with this policy.

1. Local governments are encouraged to adopt their own Smart Streets policies to meet the needs of their communities. They should strive for consistency with this regional policy and federal and state requirements.
2. State government agencies should work with Metropolitan Planning Organizations to ensure consistency in digital infrastructure policies at the state, regional and local level.
3. Project sponsors are encouraged to build redundancy and resiliency into digital infrastructure to a degree that is in accordance with industry best practices.
4. Project sponsors may encourage colocation with private utility infrastructure provided that it does not inhibit public use of the infrastructure or right-of-way.
5. Project sponsors should allow other local governments and public uses the option to pay for the use power and fiber installed as part of the project that is not reserved by the sponsor for a specific public use. See also Recommendation 4 regarding private uses of the conduit.
6. Project sponsors should consider incorporating other connected technologies into their projects that can benefit from and maximize the utility of the digital infrastructure being installed, such as smart lighting, traffic surveillance, security surveillance, data collection and reporting.
7. Project sponsors should avoid use of proprietary point technologies where practicable in favor of interoperable technologies.
8. Traffic signal maintenance should include upgrades to support connected vehicles when it can be installed at a comparably lower cost than a subsequent retrofit.
9. As multiple mobility providers emerge and the usage of shared/autonomous vehicles increases, the demand for curb space may become acute at certain times and places. Local agencies should consider policies to equitably and effectively manage these spaces.
10. MORPC advocates for open data sharing, good data governance and the adoption of policies to ensure data security by local public agencies. However, it also recognizes that every situation presents unique challenges and trade-offs such that these principles cannot be applied to specific projects nor every circumstance.

## Appeals

If the sponsor and MORPC staff are unable to reach an agreement on assuring compliance with a provision of this policy, sponsors may ask the Attributable Funds Committee to grant an exemption from the provision or to review the situation. MORPC staff will review the request and provide a report with recommendations to the committee in advance of the decision. In the event that the sponsor disagrees with the action of the Attributable Funds Committee, the sponsor may appeal to the MORPC Policy Committee officers, who may or may not elect to hear the appeal request.

## IMPLEMENTATION

Upon approval and adoption of this policy, the Attributable Funds Committee will be tasked with incorporating Smart Street concepts into the project selection process for MORPC-attributable funds. The policy will also guide MORPC staff in the preparation of the Metropolitan Transportation Plan and other plans it prepares or to which it contributes.

A resource guide will be developed to assist sponsors in developing projects that comply with the Smart Streets Policy. This guide will contain project-specific best practices, sample policies, funding opportunities, and information on other resources.

## EVALUATION

MORPC reports annually on the region's progress toward targets established in the Metropolitan Transportation Plan. These targets include several ITS-related targets that can be considered in evaluating the effectiveness of this policy.

MORPC collects data on several aspects of projects receiving the assistance of MORPC-attributable funds, such as the lead agency, location, limits, type of work, length, number of travel lanes, pedestrian facilities, bicycle facilities, and funding by phase, source and year. Digital infrastructure components of these projects will be tracked through reporting mandated by Connectivity Requirement #4.

Portions of the Policy that are the subject of an appeal heard by the Attributable Funds Committee will be subsequently reviewed by the committee, and any recommendations concerning the policy will be considered for approval by MORPC's Community Advisory, Transportation Advisory, and Transportation Policy committees.