

SMART STREETS POLICY

BACKGROUND

Technological advancements are rapidly transforming the conventional view of City infrastructure into the concept of a system that employs digital communications and information technologies to provide a variety of services. Cities are being transformed by the deployment of digital technologies that collect, transmit and share data with its users and managers to streamline their operations, provide information data, and improve services for their residents.

These emerging technologies must be implemented to improve service delivery and the quality of life in Hilliard 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 requires a significant investment to build and maintain. A 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 Hilliard.

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

Establish Hilliard as a leader in creating a smart mobility system that is connected, inclusive, secure, and resilient, 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 City.

GOALS

- Connectivity: Strategically advance digital infrastructure (primarily broadband) and access across the City 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 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

Hilliard seeks to incorporate the Smart Streets concept into the planning, programming, scoping, design, implementation, maintenance, and performance monitoring of all transportation infrastructure.

This policy will be applied to all City projects ensuring they 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 taking 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 each project. Instead, the policy is intended for the project sponsor, the program administrators, and the existing organization 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 capital budgets or request for funding, the City of Hilliard Smart Street team will meet with the project 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 capital or funding request shall provide sufficient information about the projects for the team to determine whether the proposed project adheres to this policy. The evaluation process will incorporate Smart Streets concepts.
3. Once funds are committed to a project, the team will continually monitor its development through 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.
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. 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 Hilliard GIS with geocoded data for the location, type and specifications of publicly-owned digital infrastructure that was installed as part of the project.
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 City. 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 department has engaged and communicated with possible stakeholders (within the City 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 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 department/jurisdiction 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 City of Hilliard 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 City of Hilliard 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. Project sponsors are encouraged to build redundancy and resiliency into digital infrastructure to a degree that is in accordance with industry best practices.
2. Project sponsors may encourage colocation with private utility infrastructure provided that it does not inhibit public use of the infrastructure or right-of-way.
3. Project sponsors should allow other local governments and public uses the option to pay for the use of any applicable digital infrastructure 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.

4. 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.
5. Project sponsors should avoid use of proprietary point technologies where practicable in favor of interoperable technologies.
6. Traffic signal maintenance should include upgrades to support connected vehicles when it can be installed at a comparably lower cost than a subsequent retrofit.

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.

SMART STREETS POLICY PROJECT CHECKLIST

PROJECT SCOPE

Using available information, check any of the following that could potentially be involved in the project:

- Right-of-way acquisition
- Utility relocation
- Excavation of more than 3 feet below ground level
- Traffic signal infrastructure
- Light poles
- New commercial development
- New residential development

CONNECTIVITY

Please cite the specific design guidance or resources related to digital infrastructure that you expect to use in the development and design of your project.

Will the project affect digital infrastructure in the vicinity of any institutional uses or public facilities? Indicate all that apply:

- Police or fire station
- School
- Library
- Recreation center
- Government offices
- Maintenance facility
- Other (please specify): _____

What digital infrastructure is currently present in the project area? Will it be maintained in place or will it potentially need to be relocated or replaced? What digital infrastructure is expected to replace the existing infrastructure to meet current industry standards and be sufficient to continue current public uses?

What communications infrastructure (e.g. coax, fiber, conduit, duct bank, pull boxes) are present in the project area? What specifications/details (owners, users, number of strands, lines, capacity) are known about each one?

What are the current publicized connection speeds of internet service available in the project area?

FLEXIBILITY

What department will be responsible for ongoing maintenance of the digital infrastructure and how will this be budgeted? If the project sponsor is not responsible for maintenance after the project ends, please indicate responsible department name.

INTEROPERABILITY

Project limits should be selected so that they can accommodate existing and future connections. If the project touches another jurisdiction, was a systems approach taken? Were cross jurisdictional connections considered?

Will the digital infrastructure systems associated with this project be interoperable with other such systems serving public infrastructure in the City?

What policies are 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?

EQUITY

Identify people and organizations that are expected to benefit from the digital infrastructure proposed in the project and any people and organizations that could have a potential benefit.