

## Capital District Smart Communities Program

### Introduction

The Capital District Smart Communities Program is being launched by the Capital District Transportation Committee (CDTC), the designated Metropolitan Planning Organization (MPO) responsible for regional transportation planning in Albany, Rensselaer, Saratoga and Schenectady Counties (with the exception of the Town of Moreau and the Village of South Glens Falls in Saratoga County). The SMART Communities Program was launched to begin exploring how the Capital District can leverage emerging technologies to improve mobility and foster sustainability with the goal of increasing interest in these concepts among cities, towns, and villages, as well as the users of the region's transportation system.

The United States Department of Transportation (USDOT) describes smart cities projects as strategies for "integrated, first-of-its-kind smart transportation systems that use data, applications, and technology to help people and goods move more quickly, cheaply, and efficiently." To be inclusive of all towns, cities, and villages, regardless of size or density, in the Capital District, CDTC is referring to the program as "Smart Communities" and assembled a Task Force to ignite discussion about this emerging portfolio of projects and how they can be leveraged to improve mobility, efficiency, equity, and sustainability in the region's transportation system.

***What does it mean to be a  
"Smart Region?"***

*A region that uses data, applications, & technology to help people & goods move more efficiently.*

The Capital District SMART Communities Task Force began meeting in March 2018 with the goal of developing a regional "roadmap" that outlines the following:

1. A regional vision for technology and transportation.
2. Identify technology needs of the transportation network.
3. Identify project investment priorities and funding strategies.
4. Identify private sector, university, and public agency partners and define their roles.
5. Propose policies and a vision for autonomous vehicle readiness.

You can review meeting presentations and notes at <http://www.cdcmpo.org/programs/smart-communities>.

Task 4.30 Smart Communities in the 2020-21 Unified Planning Work Program (UPWP) has made \$75,000 for consultant services available to fund technical studies which assist Capital District communities in launching smart cities initiatives and plans (e.g. municipal "smart cities" plans) related to new and emerging technologies and services. CDTC is accepting project proposals from Capital District communities that meet the eligibility requirements described below and will solicit for consultant services after the projects have been chosen through the evaluation process.

## New Visions Principles

[New Visions 2050](#), the Regional Transportation Plan, was created through a multi-year process and included several subcommittees and a series of public outreach events. The Environment and Technology Subcommittee released a white paper in March 2020 as part of New Visions 2050, that outlines a series of strategies and programs consistent with planning for new, smarter, better, and rapidly-changing transportation technology, including:

- Readiness
  - EV-Ready
  - Connected & autonomous vehicle ready
  - Climate readiness & resiliency
- “Smart Region”
  - Data collection & analysis
  - Intelligent Transportation Systems
  - Smart Growth & environmental protection
  - Leverage technology
    - Telematics
    - Adaptive signal control & variable speed limits
    - Real-time travel info
    - Integrated mobility
    - Smart parking
    - LED streetlights
- Create connections
  - Information (ex. smartphone apps)
- People & institutions

The full white paper can be viewed at: [https://www.cdtcmo.org/images/new\\_visions/EnvironmentTechnology1-28.pdf](https://www.cdtcmo.org/images/new_visions/EnvironmentTechnology1-28.pdf)

## Eligible Initiatives

The 2020-21 Smart Communities program will be focused on technical studies and plans that are consistent with objectives of the program and New Visions 2050 principles, and address the issues and priorities stated in the [Capital District Smart Communities Task Force summary document](#).

Inter-municipal initiatives and public-private partnerships are encouraged. Projects that use new technology or services to implement a recommendation from a previous Linkage Study, Comprehensive Plan, or other planning initiative are encouraged. Engineering related work is not eligible. Federal funds will be capped (see page five (5) on cost estimates).

Eligible projects must also fit into one of the following six categories:

### *1. Planning Documents, Studies & Guides*

Cities and towns across the globe are adapting to a new economy and preparing for emerging technologies by developing plans to make their communities more productive, accessible, sustainable, and livable while encouraging innovation, job creation, and economic development. Three local examples include the [2017 Schenectady Smart City Report](#), [Saratoga Springs Smart City Roadmap 1.0](#), and [Municipal Smart City Street Light Conversion Guide & Evolving Technology](#)

[Guidebook](#). Proposed Smart City plans must focus on transportation and mobility. They can be limited to a corridor, neighborhood, or district, or include the whole municipality.

## 2. Data

Data management and collection is fundamental to the successful development of Smart Communities in the Capital District. Integrating data from various sources and across organizations and sectors to a shared platform can help build solutions that improve decision-making, efficiencies, and operations within communities. Examples of eligible data projects include, but are not limited to, the following:

- Open Data Projects – A notable example is [New York City’s Open Data Project Gallery](#) which has aggregated data from companies, universities, nonprofits, and government into a single platform to be used by citizens, entrepreneurs to develop products, and teachers to teach analytics skills in the classroom.
- Innovative data collection – The use of sensors, new technologies, and/or innovative collection methods.
- Data sharing, purchases, or exchanges – Third-party data is becoming increasingly valuable for better decision-making and planning (Ex. [How planners are using Strava data for bicycle and pedestrian planning](#)). Similarly, Intelligent Transportation Systems technology, like traffic signals, can collect data but is not currently being used or shared with transit operators or nearby municipalities that are measuring traffic and changes within a corridor or network.
- Mobile application and online tool development – Cities can leverage smartphones and the internet to communicate with residents, businesses, and visitors. An example is the [SeeClickFix application](#) which is currently in use by various communities in the Capital District.

## 3. Living Labs:

A “living lab” is a contained area(s) where new technology and/or services are deployed as pilot projects. Pilot projects allow communities to test new technologies and/or services and observe their benefits before generating scalable solutions to ongoing issues. It is a test-measure-refine approach to implementing new projects. Pilot projects can include deployment of new technology, energy efficiency mobility services, first/last mile transit, or transit enhancements. An example of a Living Lab is [the Dallas Innovation Alliance](#) project.

## 4. Electrification, Connectivity, and Automation

Smart cities include shifting gas- and diesel-powered vehicles to electric, and the deployment of a connected and automated vehicle (AV) fleet. The Capital District Clean Communities Coalition released an [Electric Vehicle Charging Station Plan](#) in 2016 and an updated version, the [Capital District Zero Emission Vehicle Plan](#) in 2020. Other communities in the region have created their own plans for expanding publicly-accessible electric vehicle (EV) charging infrastructure. Rapidly changing technology and shifting market demands require these types of plans to be updated and refined regularly. The [Smart Communities Task Force has discussed the potential benefits, as well as](#)

[concerns, of connected and automated vehicles](#). Leveraging safety and any land use benefits from AVs requires careful planning, including roadway and ITS design. An eligible project in this category could include, but is not limited to, policy language development, design guidelines, planning studies, smart parking projects, demonstrations and pilots, and vehicle fleet analysis and/or research-related work.

#### *5. Training, Education, and Public Engagement*

Sometimes the need and cost for extensive training or outreach is an obstacle to implementing and adopting new technologies. Training and education can help municipal employees and residents embrace and transition to new technology or systems.

#### *6. Other*

Other types of projects not mentioned above may be considered as long as they meet the objectives of the Smart Communities program and are consistent with CDTC's New Visions 2050 principles.

For questions regarding the eligibility of a potential project, please contact Jen Ceponis of the CDTC at (518) 458-2161 or email [jceponis@cdtcmtpo.org](mailto:jceponis@cdtcmtpo.org).

#### **Ineligible Initiatives**

The Smart Communities program is funded with federal planning funds is restricted to planning, research, education, and technical assistance. Smart Communities funds are not available to cover the cost of municipal employees. The following are not eligible for Smart Communities funds.

- Right-of-way acquisition
- Detailed engineering
- Surveying
- Construction of transportation system facilities
- Capital oriented implementation actions
- Purchase or lease of hardware or other equipment (i.e. sensors, cameras, etc.)
- Any type of capital project
- NEPA, SEQR, or other environmental review or regulatory processes

#### **Eligible Applicants**

Eligible applicants must be public entities within CDTC's planning area of Albany, Rensselaer, Schenectady and Saratoga Counties (with the exception of the Town of Moreau and the Village of South Glens Falls).

- Preferred applicants are towns, cities, villages and counties
- Inter-municipal initiatives are encouraged.
- Public-private partnerships are encouraged.

## Requested Assistance

Assistance can be provided in one of two ways:

- Through consultant work done under contract to CDTC.
- Through consultant work done under contract to a municipality or other unit of government (only considered for large scale studies with budgets totaling more than \$100,000 that combine funds from other sources).

Proposals may specify which method or methods appear most appropriate to the applicant or request that CDTC suggest the most appropriate method. If the submission is favorably evaluated, the determination of the most appropriate method will be made by CDTC with sponsor consent.

## Funding Availability and Timing

CDTC is proposing to fund up to two proposals with the \$75,000 available to support the Smart Communities Program. The program is identified as Task 4.30 in the CDTC 2020-21 Unified Planning Work Program. These funds became available on April 1, 2020. If the project sponsor does not execute the Memorandum of Understanding with CDTC by March 31, 2021, awarded funds will be forfeited.

## Cost Estimates and Match Requirement

Sponsors are asked to provide a cost estimate for their technical study or plan in their submissions. The cost estimate is to be broken down by federal funds requested and the local match contribution (a minimum of 25% of the total project cost). Federal funds are capped. The maximum total study cost for consultant efforts is \$100,000 (\$75,000 in federal funds matched with \$25,000 in local match). Total study costs may exceed \$100,000 IF the sponsor provides an overmatch of local funds, in-kind services, or pools Smart Communities funds with funds from other grant sources. Such local sources should be identified in the project proposal.

The 25% local match must be a minimum of **10% cash with the remainder (15%) in-kind services**. A letter of intent will be required to document the availability of the local match. Additional consideration will be given to submissions that intend to provide an overmatch of local funds. An example would be, if a \$100,000 consultant study is intended, and the applicant provides \$10,000 in cash and \$20,000 in-kind services to match \$70,000 in federal funds.

All municipalities awarded studies will be required to document in-kind services provided during this study. In-kind services include all project management activities such as meeting attendance, document review, responding to inquiries, etc. Municipalities shall provide a written record of hours expended while working on this study and hourly rates for all individuals working on this study on a monthly or bi-monthly basis. A suggested form for this information will be provided.

Local in-kind services are the services provided by the sponsor's staff to participate and help manage the study. They include the following:

- Responding to inquiries
- Providing data, information, etc. to CDTC and the consultant
- Research related to the study and inquiries
- Reviewing draft materials and invoices
- Documenting in-kind services
- Scheduling and attending meetings related to the study
- Management of specific tasks, such as public participation, website design and maintenance, etc.

### **State Environmental Quality Review Act (SEQR)**

Meeting SEQR regulations is the responsibility of the local municipality. If formal action is desired or required under SEQR for the funded initiative, all documentation, public hearings and other SEQR related materials are outside the budget of this program's efforts. Changes in land use such as changes to a zoning code must consider SEQR requirements.

### **National Environmental Protection Act (NEPA)**

Meeting NEPA requirements is the responsibility of the project sponsor. Sponsors should be aware that projects proposed as a result of a study concept will be subject to NEPA if the project will be utilizing federal transportation funds for its design and construction. For these technical studies or plans, consideration should be given to following Federal Highway Administration (FHWA) guidance on linking the transportation planning process with NEPA. For details on the program visit [www.environment.fhwa.dot.gov/integ/edc.asp](http://www.environment.fhwa.dot.gov/integ/edc.asp) and for the NEPA/planning checklist visit [www.environment.fhwa.dot.gov/integ/pel\\_quest.asp](http://www.environment.fhwa.dot.gov/integ/pel_quest.asp)

FHWA guidance encourages the planning process to inform the purpose and need statement, scoping and alternatives identification, evaluation and/or elimination of alternatives, and indirect and cumulative impacts assessment of a transportation project. Engaging specific stakeholders (i.e. Federal, Tribal, State, and local environmental, regulatory, resource agencies and the public) and documenting planning decisions in a format that can easily be appended to the NEPA document or incorporated by reference are essential for linking planning with NEPA. To have standing in the NEPA process and its additional analyses, transportation planning information, analyses, documents, and decisions must be well documented and provided for examination during project scoping.

NEPA Categorical Exclusions: According to NYSDOT's Environmental Procedures Manual, certain types of federal aid projects are considered categorical exclusions under NEPA (visit the NYSDOT website at <https://www.dot.ny.gov/divisions/engineering/environmental-analysis/manuals-and-guidance/epm/chapter-2> and the federal code <http://www.ecfr.gov/cgi-bin/text-idx?rgn=div8&node=23:1.0.1.8.43.0.1.9> for more information). Automatic categorical exclusions include planning and technical studies which do not involve or lead directly to the construction of a project. These technical studies and plans generally fall into this category. However it is important for these technical studies and plans to adequately screen the study area and document potential environmental issues per CDTC's environmental mitigation procedures,

document the assumptions and data inputs used, document any technical analysis performed (including methodology and results) and document the public outreach process as potential projects investigated as part of a Linkage study may be subject to NEPA.

These technical studies and plans may not be categorically exempted when there are “unusual circumstances” as defined by law (23 CFR 771.117(b)). Such unusual circumstances include significant environmental impacts; substantial controversy on environmental grounds; significant impact on properties protected by Section 4(f) of the USDOT Act (23 CFR 771.135) or Section 106 of the National Historic Preservation Act; or inconsistencies with any Federal, State or local law, requirement or administrative determination relating to the environmental aspects of the action.

There are instances when a project sponsor may desire to generate a project directly from a technical study and plan. Therefore, sponsors should be aware that capital projects proposed to implement a technical study and plan concept will be subject to NEPA if the project will be utilizing federal transportation funds for its design and construction. NYSDOT’s Federal Environmental Approvals Worksheet Engineering Bulletin explains the procedure for processing Categorical Exclusions under the National Environmental Policy Act (NEPA) for projects that are funded or permitted by the Federal Highway Administration (FHWA). Follow the link below for more information. The contents of this Engineering Bulletin are to be incorporated in the next update of the NYSDOT Environmental Manual Chapter 4, the Project Development Manual Chapter 4 and the Procedures for Locally Administered Federal-Aid Projects Manual Chapter 7 [https://www.dot.ny.gov/portal/pls/portal/mexis\\_app.pa\\_ei\\_eb\\_admin\\_app.show\\_pdf?id=12041](https://www.dot.ny.gov/portal/pls/portal/mexis_app.pa_ei_eb_admin_app.show_pdf?id=12041).

## Submission Instructions

The submission (excluding the letter of intent, maps and supporting documents) should be no more than three pages in length. **Deadline for receipt of completed submissions is the close of business (5 PM EST), Friday, October 2, 2020. An electronic copy should be submitted via email to [jceponis@cdtcmpo.org](mailto:jceponis@cdtcmpo.org).** Incomplete submissions will not be considered for funding.

### The following must be included in all submissions:

1. *A letter of intent which documents the availability of the local cash match and commits the community/sponsor(s) to the project. For proposals with private sector partnerships, a letter of support and/or commitment (financial, technical assistance, equipment, etc.) from the non-governmental entity must also be submitted.*
2. *Project Name.*
3. *Primary contact person information including name, title, street address, email address and phone number.*
4. *Project/Study area map (if applicable).*
5. *A detailed project description including:*
  - *The purpose and need for the project including its relationship to transportation and how the project might impact the transportation system. If the findings from the proposed project/study are favorable, how can it be replicated elsewhere in the region? Is it scalable?*
  - *The relationship of the proposal to the Smart Communities Program and the New Vision 2040 principles.*
  - *An outline of the scope of work including a task list, a description of desired deliverables, how a successful project is defined, and how you will communicate the findings of the project/study. There should also be a discussion as to how the project is to be implemented, if feasible/successful. Note whether or not the product will be adopted and how New York State Environmental Quality Review regulations will be addressed (SEQRA requirements are outside the scope of Linkage Program planning efforts).*
6. *If the proposal is for follow-up planning work related to a completed Linkage Program plan or other adopted local planning study, provide the name of the plan and a description of the specific recommendation(s) to be further explored. Also note whether or not the community has an adopted complete streets policy and how, if applicable, the proposed effort will support complete streets implementation.*
7. *Provide the estimated cost of the study following the guidelines on page five (5) and using the format on page eight (8). All sources of funding for items in sections 2 and 3 should be identified.*
8. *Appendix containing supporting material (evidence of related past planning study adoption, resolutions in support of the study, excerpts from comprehensive plans or Linkage planning studies, etc.) to help CDTC understand the status of, context of and local commitment to the proposed project.*



Sample Proposed Project Budget:

<b>1. Consultant Budget Requested from CDTC</b>	
Federal planning funds requested (75%)	\$75,000
Local cash match (min. 10% required)	\$10,000
Local in-kind services (max. 15%)	\$15,000
<b>Section 1 Total</b>	<b>\$100,000</b>
<b>2. Add-On (if applicable)</b>	
Additional cash match	\$10,000
Source:	
Additional grant funds to be pooled for a larger effort	\$0
Source:	
<b>Section 2 Total</b>	<b>\$10,000</b>
<b>Total Consultant Budget (sum of Sections 1 and 2)</b>	<b>\$110,000</b>
<b>3. Local in-kind staff contributions:*</b>	
	<b>\$10,000</b>

\*Does not count toward the local cash match.

### Project Selection

The Smart Communities Program is competitive and will involve a three step project selection process:

- Step 1: Submissions will be screened to ensure they are complete and meet all program requirements as listed in this solicitation. Incomplete submissions and those that do not meet the program requirements will not be considered for funding.
- Step 2: CDTC staff will review the project description proposed for each project and the estimated budget. If the budget is not adequate for the desired scope of work, CDTC staff will develop an appropriate budget for the project and will reach out to the study sponsor with two choices: 1) increase the local match in proportion to the revised study cost to complete the desired scope of work or 2) reduce the desired scope of work to fit the study budget originally proposed. Project budgets will be confirmed based on CDTC’s experience with other types of planning studies and consultant work. Once study budgets and scopes have been confirmed for all projects, the submissions will be forwarded on to a review committee for full evaluation.
- Step 3: CDTC staff and Smart Communities Task Force members will then evaluate the submissions. Any Smart Communities Task Force member that is part of a project proposal will be prohibited from participating in the evaluation process. CDTC’s Planning Committee will review the evaluation results and funding options. Once approved by the Planning Committee, CDTC’s Policy Board will take action on the recommended package of studies for incorporation into the 2020-21 Unified Planning Work Program. The likelihood of a study receiving funds will not be known until submissions have been received and evaluated. If

the proposals received do meet the program criteria, or if CDTC does not receive a sufficient number of proposals, CDTC will accept proposals on a rolling basis. The evaluation criteria presented below are not presented in order of importance however an indication of their relative importance is noted for each criterion.

## Evaluation Criteria

### Primary:

1. Is the initiative eligible and consistent with the Smart Communities Program objectives and New Visions 2050 principles? (mandatory and improves priority)
2. Is the proposed scope of work reasonable for the proposed budget? (mandatory)
3. Does the proposed project aim to improve operations, efficiencies, and sustainability, or an ongoing issue (i.e. connectivity, accessibility, equity, etc.)? (mandatory)
4. Does the proposed project yield research or data that contributes to local knowledge and expertise related to smart cities and transportation? (mandatory)

### Secondary:

1. Does the proposed project implement part or all of a recommendation from a completed Linkage Study, Comprehensive Plan, or other local adopted plan or policy? (improved priority)
2. Is the project replicable or scalable and if replicated/scaled, will the project have a positive impact on the transportation system when implemented? (improves priority)
3. Is the proposal an inter-municipal initiative? (improves priority)
4. Is the proposal a public-private partnership? (improves priority)
5. Does the proposed project demonstrate a new technology, system, or tool that hasn't been used in the region before? (improves priority)
6. Is the submission supported locally through complementary activities or initiatives and/or funding commitments beyond the minimum match requirements? (improves priority)
7. For past sponsors of other CDTC-funded studies: Was the sponsor's performance adequate and appropriate as determined by CDTC staff? (improves priority)

All efforts are required to meet the primary evaluation criteria. Addressing the remaining eight criteria will help improve the priority of the submission. CDTC staff will use past history with CDTC-funded studies and programs to evaluate the scope of work versus budget and the sponsor's past performance. Submissions that best meet all twelve evaluation criteria will be considered first for funding. If there are more worthy submissions than available funding, funding options will also consider geographic balance and project type.

## Notification of Award

All project sponsors will be notified in writing as to the status of their submissions by December 1, 2020. Sponsors awarded funding will receive CDTC's *Smart Communities Administration Procedures* and will be asked to sign a Memorandum of Understanding (MOU). The MOU must be signed before



funds may be accessed. The MOU is between CDTC and the study sponsor(s) and articulates the roles and responsibilities of all parties throughout the study process. The MOU will be tied to the chosen method of assistance. **If the project sponsor does not execute the MOU with CDTC by March 31, 2021, funds will be forfeited.**

### **Consultant Activity Guidelines**

To satisfy federal and state requirements, use of an appropriate means of consultant solicitation and selection will be required prior to designation of a consultant. CDTC uses an abbreviated approach to consultant selection. Sponsors should be aware that if consultant assistance is used in the preparation of a submission or in the development of the scope of work for the study, that consultant will not be eligible for the contract. In addition, a consultant on retainer to a municipality is not guaranteed a contract. The consultant selection process is required to be competitive.

*CDTC reserves the right to modify the program without prior notice.*

For questions regarding the Smart Communities program, contact Jen Ceponis of the CDTC staff at (518) 458-2161 or email [jceponis@cdtcmpo.org](mailto:jceponis@cdtcmpo.org).