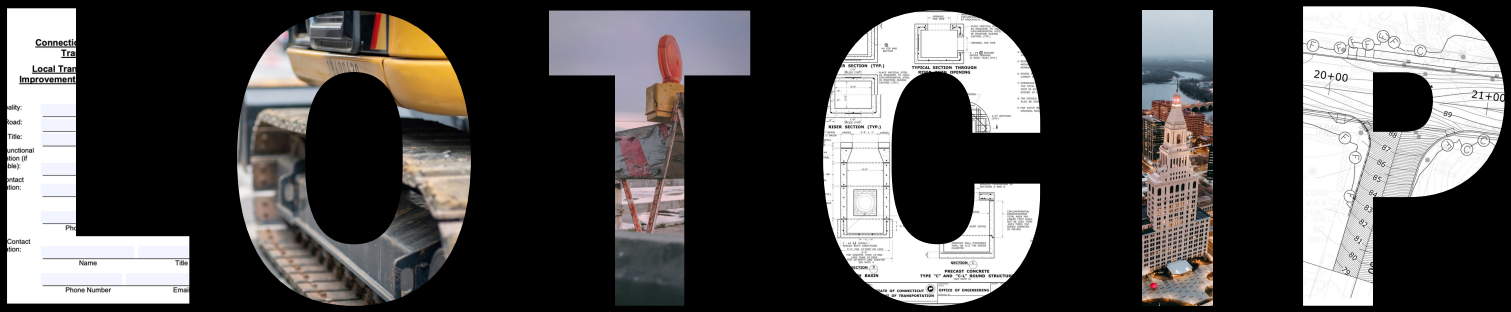


LOCAL TRANSPORTATION CAPITAL IMPROVEMENT PROGRAM

GUIDELINES

CONNECTICUT DEPARTMENT OF TRANSPORTATION

NOVEMBER 2021

Contents

Introduction

This November 2021 update of the Local Transportation Capital Improvement Program (LOTCIP) is the fourth edition of the guidelines since the program's inception in November 2013. The program is now in its eighth year and has transitioned from a ramp-up period to successful continuous operation with regular Council of Governments (COG) solicitations for new proposals and relatively steady output of construction projects. In keeping with the Connecticut Department of Transportation's (Department) original commitment to modify and improve the guidelines as the LOTCIP matures, this updated document reflects lessons learned, clarifications of information, and other minor revisions. It is anticipated that these modifications will continue to facilitate the achievement of the two main goals of the LOTCIP, as set forth below. The continued success and stable funding of the LOTCIP necessitates the various COGs working together with their member towns to maintain and monitor individual project schedules and overall program delivery. The Department provides periodic updates on the LOTCIP at regularly scheduled RPO/COG quarterly meetings held by the Department. Should there be any questions regarding the LOTCIP, please contact the Department's Local Roads section at (860) 594-3219.

As a final note, the Local Roads unit would like to sincerely thank certain individuals over the last nine years whose initial and in many cases continued effort in the development, launching and management of the LOTCIP has truly resulted in a highly successful and popular capital infrastructure program. Many thanks and much appreciation to the following: William Grant, Kelly Cain, Allison Burch, Peter Talarico, Frank Kaminski, Douglas Hummel. James Mason, Robert Ike, Steve Degen, Tom Melzen, Stephen Dudley (SCRCOG), Mark Carlino (formerly, Town of Manchester), Jeff Pfaffinger, Hugo Rivera, Rob Buchan, Vitalij Staroverov, and Tawana Forte'.

Purpose:

The purpose of the LOTCIP is to provide State monies to urbanized area municipal governments instead of Federal funds otherwise available through the Federal transportation legislation. The LOTCIP is provided for in Connecticut General Statute (CGS) Sec. 13a-98n. The LOTCIP was established with substantially fewer constraints and requirements, set forth herein, than currently exist when using Federal Title 23 USC funds. The Department sets forth the two main goals of the LOTCIP:

1. To establish and continue a State-funded program that allows eligible municipalities to perform capital infrastructure improvements with less burdensome requirements; and

2. To minimize the number and level of State resources (staff) involved in the oversight of municipal infrastructure improvements and to focus those resources on the Federal-Aid program on more regionally significant improvements of State-owned facilities. The Federal monies typically used for improvements on municipally-owned facilities in the Surface Transportation Block Grant (STBG)- Urban program may be utilized by the Department for eligible activities predominantly on State-owned assets.

Background:

In order to administer the Federal Highway Administration's (FHWA) $50-65 million STBG-Urban program, the Department historically has devoted a significant number of resources that include staff from the Highway Management Unit (formerly the Project Development Unit), Local Roads section, and four District Construction Municipal Systems Action Team (MSAT) groups. Much of this effort is expended to ensure Federal Title 23 requirements are met as a condition for the use of Federal funds. In simple terms, Federal Title 23 requirements are designed so that a thorough, well thought out process is followed to ensure that when any given project is built, all interrelated issues such as design reviews, public involvement, environmental concerns, contracting requirements, etc. are properly vetted prior to construction. This process is not necessarily conducive to smaller infrastructure improvements administered by a Municipality. The Department regularly designs and oversees projects that meet these requirements on the State-owned highway system and is very familiar with Title 23 requirements. Many municipalities find the FHWA STBG-Urban program burdensome, time-consuming, and expensive to execute projects that meet Title 23 requirements on small locally-owned roadways that qualify for federal aid. The Federal American Recovery and Reinvestment Act of 2009 (ARRA) stimulus legislation and a large number of municipal projects also brought focus to the project delivery difficulties facing municipalities. Subsequently, there was a realization that the significant effort expended by municipal and State resources could be better utilized on the programs they are most familiar with.

Based upon the information above, and in an effort to simplify municipalities' ability to implement capital infrastructure improvements while concurrently minimizing the use of Department resources, legislation was drafted in July 2012 to establish the LOTCIP. Public Act 13-239, Section 74 was subsequently passed in the Spring 2013 legislative session to formally establish the LOTCIP.

The original LOTCIP guidelines were developed in a joint and cooperative effort by members of the Department, regional COGs, and municipalities of the state. The guidelines in their draft form were distributed to the urbanized COG's for review and comment prior to the November 2013 effective date of the LOTCIP. The Department's goals were to develop a program under which the requirements would be substantially less complex than Federal Title 23 parameters, yet reasonably satisfy Department, COG, and Municipality needs to ensure a quality, long term capital improvement with minimal Department oversight and to maintain reasonable program flexibility. **CGS sec. 13a-98n allows for, and the Department is committed to, reviewing, and modifying these guidelines as necessary to achieve these objectives.**

General Overview:

Under the LOTCIP, the COGs across Connecticut will be responsible for the solicitation, ranking and prioritizing of their municipal members' project proposals. Each COG will develop their own respective ranking process and are encouraged to share ways, means, and lessons learned with each other. Periodic solicitations will be done on an as-needed basis to develop a sufficient level of participation commensurate with their respective funding allocation. Upon receipt of a project proposal package, the Department will screen

submittals, as part of the application review process, to ensure eligibility and the proposed project purpose and need is met with a reasonable solution.

Participation by Municipalities in this program and the associated certifications required in these guidelines, the primary responsibility for design standards, oversight, rights of way acquisition, environmental permitting, and quality assurance/quality control during construction is with municipal officials and not the Department. Initial review of municipal applications and related materials by State personnel is intended to determine eligibility, to confirm project purpose and need and service life of the proposed improvements. General reviews by State personnel at the application stage and of the final package are not to be construed as detailed checks of every aspect of the project. The Department relies on the Municipality for both the actual correct design and complete checking of every aspect of the design by their personnel. It is the Department's intent that construction contracts for projects in the program will be advertised and awarded through a fair, open, and competitive low-bid process. An overview of the LOTCIP process is shown in the flow chart included in Appendix A.

Application Process/Preliminary Project Submittals

General:

Projects to be funded under the LOTCIP will require that an application be prepared and submitted to the Department through the COG. Supporting information specific to the project being proposed will also be required to be submitted with the application. The blank LOTCIP application is included in Appendix B.

Project Eligibility:

Projects must meet the eligibility requirements of the Urban component of the Federal STBG Program. Basic eligibility criteria for the most common improvement types include:

- In general, LOTCIP projects must be located on a roadway classified as an urban collector or higher on the Department's Functional Classification database.
    - Rural minor collector roadways are not eligible in LOTCIP. In accordance with CGS 13a-98n(a), the LOTCIP provides State funding instead of specific Federal funding for STBG *Urban* program roadways and facilities. Only the *Rural* component of the Federal STBG program, as may be revised, allows expenditures on rural minor collectors. Functional Classification Maps are available on the Department's website at: https://portal.ct.gov/DOT/PP_SysInfo/Functional-Classification-Maps.
- Stand-alone sidewalk projects may be considered eligible along other roadway classifications.
- Bridge improvements may be eligible on other roadway classifications as long as the Federal definition (20 feet or greater existing span length as defined in 23 CFR 650.305) of a bridge is met.
- Multi-use trails are considered eligible under LOTCIP; however, recreational trails are ineligible.
    - A multi-use trail is generally considered a form of infrastructure that supports multiple transportation and recreational opportunities such as pedestrian activities, bicycling, in-line skating, and wheelchair users. Multi-use trails typically conform to established standards relative to facility width, geometry, surface type, and accessibility.
    - Recreational trails are those that primarily serve a limited group of users and provide limited function due to the characteristics of the facility, such as width, geometry, and surface type.

Project Selection:

The following are general guidelines for project selection:

1. Projects must have a minimum construction cost of $300,000 to qualify for LOTCIP funding.

2. Pavement preservation, minor pavement rehabilitation, and exclusive (stand-alone) sidewalk projects should be limited to approximately 15% of the COG's

annual LOTCIP funds, or $500,000 total project cost, whichever is greater. That is, a COG may pursue a combination of new sidewalk and minor pavement rehabilitation projects for up to 15% of its annual funding, but not 15% for each type of project. Note that full-depth reconstruction and major pavement rehabilitation, where warranted, are exempt from this cap.

3. Although Federal Transportation Alternatives (TA) program-type projects will be eligible for LOTCIP funding without an explicit cap initially, it is expected that the COGs will limit funding allocation for such projects to a reasonable level.

4. Projects that have been selected for initiation in the TA Program will not be considered for LOTCIP funding. Projects in the TA program are competitively selected and have complex federal regulatory requirements. Therefore, to minimize the potential lapsing of federal funds, the programming of TA funds is a priority.

5. Projects that have received a Commitment to Fund from the Federal Local Bridge Program will not be considered for LOTCIP funding. The Federal Local Bridge Program has historically been an underutilized fund source thus, to minimize the potential of lapsing federal funds, programming Federal Local Bridge funding is a priority.

6. Projects that have received a Commitment to Fund from the State Local Bridge Program cannot receive a Commitment to Fund from LOTCIP unless the project is withdrawn from the State Local Bridge Program.

7. Planning studies may be eligible to utilize LOTCIP as a funding source; however, if a COG elects to apply LOTCIP funds to any planning study, it must be screened and selected in accordance with the Department's current Planning Study Selection Process. Planning studies will not be administered in accordance with the LOTCIP guidelines. Funding of capital improvements is one of the primary objectives of LOTCIP; therefore, the Department reserves the right to limit the number of studies funded by the LOTCIP.

The LOTCIP is primarily intended to address regional transportation priorities through capital improvement projects prioritized and endorsed by the COGs, not for maintenance-type work. The LOTCIP was not conceived as a municipal aid or sub-allocation program. COGs should select projects based on regional transportation priorities, deficiencies identified in their long-range plans, and the specific merits of the individual projects. Thorough scoping in the earliest stages of project planning to address the purpose and need helps avoid unnecessary re-scoping and re-design.

Application Solicitation:

COGs must solicit and prioritize projects as necessary to ensure that there are a reasonable number of candidate projects available to fully utilize the LOTCIP funding allocation. To aid the COGs in solicitation efforts, the Department will conduct yearly LOTCIP meetings with each individual COG to review the overall financial status of the

program. Results of this meeting may be used, in coordination with the Department, to plan future project solicitations. Further information is available in the Financials section of the guidelines.

COGs, at their discretion, may work with member municipalities to pre-screen project proposals prior to submitting a formal application to the COG to evaluate the likelihood of regional endorsement. This two-step process would prevent the preparation of a complete application, which may involve substantial data collection, preliminary concept-level engineering, and costs to the Municipality prior to any indication from the COG on how it may be prioritized. It is strongly recommended that COGs adopt this type of initial screening process.

Party Responsible for Application Preparation:

The Municipality (or municipally-hired consultant) is responsible for preparing the LOTCIP application and any required supporting documentation.

Completeness of Application:

A properly completed LOTCIP application represents a commitment of time and resources. This is required to demonstrate that the concept has been thoroughly considered by others so that a detailed technical review will not be required by the Department.

It is essential that the application be complete, as missing information will directly delay the review process by the COG and the Department.

Application Review by COG:

Upon completion of the LOTCIP application, the Municipality must forward the application and all supporting documentation to the COG. The COG will be responsible for performing a thorough review of each application package and requesting from the Municipality any additional information necessary to fully evaluate the project being proposed.

The COG, through staff review, municipal peer review, or consultant-supported review, must thoroughly evaluate each application for:

1. Project eligibility
2. Valid project purpose and need
3. How the project will address the purpose and need
4. Consideration of proposed impacts including environmental, rights of way, utilities, etc.
5. **Checking of estimated project costs. For consistency and to facilitate application review by the Department, it is strongly recommended that Municipalities utilize the Sample Cost Estimating Table provided in**

Appendix C. This table is also available on the Department's LOTCIP webpage.

6. Inclusion of all required supporting documentation

Submission of Application to the Department:

The COG will be responsible for forwarding the application(s) it supports for inclusion into the LOTCIP to the Department. Applications are to be submitted as specified in the LOTCIP application. All applications and supporting materials are to be submitted electronically.

Endorsement/Recommendation of LOTCIP Application:

LOTCIP applications submitted to the Department by the COG are to include the following in the appropriate place in the application:

1. Signature and stamp of the Professional Engineer preparing the application and supporting documentation. This may be the municipal engineer or a consultant hired by the Municipality.

2. Signature of the municipal Chief Administrative Officer indicating the Municipality's support and recommendation of the project for inclusion in the LOTCIP.

3. Signature of the Executive Director of the COG indicating the COG's endorsement and recommendation of the project for inclusion into the LOTCIP.

Cost Participation:

1. COG Costs

   Each COG may be allocated a defined amount of LOTCIP funds for general LOTCIP program administration costs, as specified in the State/COG agreement providing the administrative funds.

2. Municipal Costs

   All costs associated with preparing, reviewing, and submitting the LOTCIP application and any required supporting documentation by the Municipality are not eligible for LOTCIP participation. This includes the cost of any consultant services procured by the Municipality in the application process. This is considered part of the Municipality's share of the project costs.

3. Agreements

   If the COG elects to receive LOTCIP funding for costs identified above, this will be drawn from the COG's allocation of LOTCIP funds. These

funds will be conveyed to the COG as a lump sum amount through a State/COG Agreement, which includes special conditions with respect to the use of the administrative funds by the COG.

Application Review Process by the Department:

Subsequent to submission of the LOTCIP application by the COG, each proposal will be reviewed by the Department. The review will consist of an on-board meeting attended by a group of experienced Department engineering staff to thoroughly screen the application, using the information/materials submitted, electronic media mapping (e.g., Streetview), and any other resources available to the Department. The intent of this review process is to provide high-level guidance and comments to the Municipality to initiate a dialogue prior to a formal funding commitment from the Department to allow the Municipality to commence design activities in accordance with these guidelines. This review will consist of, but is not limited to:

1. Confirmation of completeness of application package
2. Confirmation of project eligibility
3. General review of project purpose and need
4. General confirmation that project will address purpose and need

NOTE: The Department may request additional information to support or clarify aspects of the application package. The primary intent of the application review is to ensure the above criteria are met. The Department will not perform detailed technical reviews of project scope, cost estimates or any other supporting documentation, etc. Under the LOTCIP, such reviews are the responsibility of the Municipality and the COG, as will be documented in a complete, signed application package. Timely response to the Department's comments by the Municipality will facilitate progress toward the issuance of the formal funding commitment.

Projects on or affecting State Facilities:

In general, there are two possible scenarios based on the level of impact to State facilities:

1) Projects with minor or incidental impacts to State facilities:

   Minor improvements on or affecting a State facility will be administered in accordance with the LOTCIP guidelines. Any work on or affecting a State facility may require an encroachment permit. The Municipality must coordinate with the Department's Office of Maintenance during the design phase to ensure the design is acceptable and an encroachment permit will be subsequently issued.

2) Projects primarily on or with significant impacts to State facilities:

Prior to developing the application, the Municipality, through the COG, must contact the Department to discuss the specifics of the project and how it can best advance through design to construction. Based on those discussions, it will be collectively determined that one of the following scenarios apply:

a. The Municipality administers the project in accordance with the LOTCIP guidelines. Coordination with the Department's Office of Maintenance must occur during the design phase in order to ensure the design is acceptable and an encroachment permit will be subsequently issued.

b. The Municipality administers the project generally in accordance with the LOTCIP guidelines. However, a Department design review process may be established based on the complexities/specifics and location (e.g., impact to State-owned facilities) of the project. A project-specific design review process will be clarified and established in the Commitment to Fund letter for the project.

c. The design, rights of way, and/or construction phase(s) would be best administered, overseen, and/or performed by the Department. Projects administered, overseen, and/or performed by the Department will not be developed and constructed in accordance with the LOTCIP guidelines. LOTCIP will only serve as a fund source to the project.

   Please note under 1 and 2a above, early coordination with the Special Services Section in the appropriate District Maintenance office is essential. Late or incomplete encroachment coordination may result in delays in the processing of final design submissions.

Information Provided by the Department:

For projects approved for funding by the Department under the LOTCIP, the Department will perform an environmental screening review, based on information provided in the LOTCIP application, to assist the Municipality in achieving compliance with the Connecticut Environmental Policy Act (CEPA). The purpose of this review is to assist the Municipality in identifying items relative to natural resources, historic/archaeological resources, endangered species, etc. that are to be investigated and/or addressed during the design phase. Should the project involve any Federal actions (e.g., Federal permitting, use of Federal funding, etc.) additional Federal requirements may result, such as adherence to the Federal Endangered Species Act, etc. that may be identified as part of the environmental screening review or later in the design process. Upon completion of the environmental review, the results will be provided to the Municipality and the COG.

Note: It is the Municipality's sole responsibility to address concerns and items identified in the environmental screening review and perform all necessary follow-up to ensure full compliance with CEPA. This often requires the Municipality to directly coordinate with other State/Federal/Local agencies (e.g.,

completion/submission of Project Review Cover Form and related attachments to the State Historic Preservation Office (SHPO)).

Application Approval/Commitment to Fund/Authorization to Proceed with Design:

Upon conclusion of the Department's review of the LOTCIP application, the Municipality and the COG will be informed in writing by the issuance of a Commitment to Fund (CTF) letter. The CTF denotes final application approval, authorization to proceed with the design phase, and the beginning of the preliminary engineering/project design phase.

Preliminary Engineering/Project Design

General:

Projects approved for funding under the LOTCIP will require that a complete project design be prepared in accordance with designated design standards. Certain procedures must be followed, and documentation submitted to the Department, as described in these guidelines.

Party Responsible for Preliminary Engineering/Project Design:

For projects funded under the LOTCIP, **all design activities necessary to advance the project to construction will be the responsibility of the Municipality**. Design and design-related activities include, but are not limited to:

1. Survey
2. Stage development of design for all elements of the project as applicable, including roadway, hydraulics, drainage, traffic, structures, roadside safety considerations, etc.
3. Environmental permitting
4. Utility coordination (including test pits)
5. Right of way mapping
6. Hazardous/contaminated material identification, remediation plans, and specifications
7. Coordination with Federal, State, and local agencies, as necessary
8. Compliance with CEPA, as applicable
9. Development of final plans, specifications, estimates, and related contract documents

NOTE: The Department will not perform any detailed technical reviews of project design and related documents during the preliminary engineering phase. Under the LOTCIP, such reviews are the responsibility of the Municipality and the COG.

Municipalities may utilize municipal staff or consultants (or a combination thereof) to perform the project design activities.

Consultant Selection, Fee Negotiations, Contracts:

If the Municipality elects to use a consultant to perform all or part of the design, it is recommended that the Municipality utilize its established local procedures to procure the design services, establish the fee, and execute a contract with the consultant. ***The Department will not be reviewing consultant selection materials, scopes of***

services, fee negotiation materials, or contracts/agreements, etc. relative to the design phase. However, in an effort to ensure that scopes of services are complete, design fees are reasonable, and contracts/agreements are sound, it is strongly recommended that Municipalities and COGs employ a review process whereby individuals with expertise in these areas are consulted. These individuals can be other municipal engineers, COG staff, etc.

Design Standards/General Design Requirements:

Municipally-owned Facilities: Projects on locally-owned roadways are to be designed in accordance with established design standards. These standards can be formally established municipal geometric and other applicable design standards. In the absence of formally established municipal geometric and other applicable design standards, projects shall be designed in accordance with the latest edition of the American Association of State Highway and Transportation Officials (AASHTO) Policy on Geometric Design of Highways and Streets or the Department's Highway Design Manual and all other applicable Department standards. **It should be noted that utilization of Municipal design standards is not to be confused with the need to provide a proper level of design detail, commensurate with the proposed scope of improvements.**

State-owned Facilities: Projects on State-owned roadways or that call for project components to be constructed within the State's right of way shall be designed in accordance with the Department's Highway Design Manual and all other applicable Department standards.

- **All projects shall comply with the 1990 Americans with Disabilities Act (ADA) (see ADA Compliance below).**
- The Manual of Uniform Traffic Control Devices (MUTCD) shall be followed for all projects as applicable.
- Pavement design shall be in accordance with the 1993 AASHTO Guide for Design of Pavement Structures.
    - Additional pavement design guidance provided by the Department's Pavement Design Unit is included in Appendix P.
- For bridges and structures, design criteria shall be consistent with the latest edition of the AASHTO LRFD Bridge Design Specifications and the Department's Bridge Design Manual.

Load Rating Requirements for Structures: Because the Department maintains a structure inventory and performs routine bridge inspections on both State and Municipally-owned structures, load ratings are required to be prepared and submitted to the Department for review and approval. These ratings shall be prepared in accordance with the most current version of the Department's Bridge Design Manual and Bridge Load Rating Manual, as applicable. Load rating requirements may vary depending on the type of structure and/or scope of structure improvements proposed. For designed structures, load ratings must be submitted as part of the Final Submission package. For pre-fabricated structures

(e.g., culverts) load ratings must be submitted as part of the shop drawing approval process.

Scour Analysis Reports for Structures: Scour Analysis Reports are prepared as part of the documentation/design record for a project that involves bridge structure(s) over waterways (e.g., foundation design for the bridge). Because the Department maintains a structure inventory and performs routine bridge inspections on both State and municipally-owned structures, these reports are utilized by the Department as the source and documentation for the National Bridge Inventory (NBI) ratings for Scour Critical Bridges (NBI Item 113), Waterway Adequacy (NBI Item 71) and Channel & Channel Protection (NBI Item 61) for new/replacement bridges. The Department may also need to refer to the Scour Analysis Reports when a scour condition or concern has developed well after a bridge has been constructed.

The Department's Drainage Manual provides a format for the Scour Analysis Reports and indicates specific information that is to be included in the reports. In LOTCIP, the Municipality/designer can use their own discretion on how they maintain their design documentation/records, and they are not required to prepare the Scour Analysis Report in strict conformance with the Department's Drainage Manual. At a minimum, the Department will require that a document (dated and signed by a Professional Engineer registered in the State of Connecticut) be provided that includes the required NBI ratings and the scour depth/elevation(s) used for the design/check of the stability of the bridge foundation, along with a copy of the pertinent design plans. This information must be submitted as part of the Final Submission package. **Note: The minimum required information to be submitted to the Department as specified above should not be construed by the Municipality/designer to mean that is all that is needed for good engineering practice.**

Regardless of which design standards are used, the design plans and related documents must be developed to a sufficient level of detail to facilitate a full and complete review of the design prior to the project being approved for advancing to construction. Additionally, the design plans and related documents must contain an adequate level of information and detail such that the project can be accurately and properly constructed by a contractor.

The level of design detail required for a given project must be commensurate with the complexity of the proposed scope of improvements.

The COGs and the Department reserve the right to require the municipal designer to provide a higher level of detail, as appropriate.

ADA Compliance:

Background

The Americans with Disabilities Act of 1990 (ADA) is built upon the foundation laid by Section 504 of the Rehabilitation Act. **While Section 504 applies only to entities receiving federal financial assistance, the ADA covers all state and local governments, including those that receive no federal financial assistance.** The Department's ADA policy is documented in Policy Statement EX.O.-17 Americans with Disabilities Policy. In 2013, the U.S. Access Board issued a proposed version of Public Rights of Way Accessibility Guidelines (PROWAG) to address access to sidewalks and streets, crosswalks, curb ramps, pedestrian signals, on-street parking, and other components of right-of-way. The Federal Highway Administration (FHWA) has recommended the use of PROWAG as a best practice since some rights-of-way features are not fully addressed in the current ADA Accessibility Guidelines (ADAAG) requirements. All projects that include improvements in the public right of way must comply with applicable accessibility guidelines/requirements.

Municipal Guidance for LOTCIP Projects

All temporary and/or permanent accessibility barriers within the limits of a proposed LOTCIP project must be addressed. On May 31, 2019, the Department issued an Engineering Directive, ED-2019-7, adopting the PROWAG for use in the development of updated accessibility design guidance as a best practice. Should the use of PROWAG for a specific design element be determined to be technically infeasible, ADAAG guidelines shall be followed if applicable. The technical infeasibility for any design element not satisfying PROWAG guidelines shall be documented and approved using the Department's ADA Technical Infeasibility Form (TIF Form) (see Appendix Q).

ADA Design Standards

Minimum and maximum ADA design standards are provided in the TIF Form as a tool for the evaluation of existing pedestrian facilities, for the layout and inspection of new pedestrian facilities, and for assistance in completing the TIF Form. The pedestrian facilities in a LOTCIP project must meet the applicable values provided or be justified as non-standard facilities using the TIF Form.

Municipal Approval and Acceptance of Non-compliant ADA Facilities

For locally-administered Federal-Aid and State-funded projects (including LOTCIP), the local Public Works Director or the highest-ranking official must sign the TIF Form.

- For all locations that occur on municipally-owned transportation facilities, the TIF Form must be completed by the Municipality and retained in the project files.
  For all locations that occur on State property or State-maintained roadways, the TIF Form must be completed by the Municipality and forwarded to the Department's ADA Engineering Coordination Unit for review and acceptance. If the form is rejected due to lack of justification, the TIF Form shall be revised and

resubmitted with attachments responding to the previous comments. The TIF Form shall be attached to an email and forwarded to dot.adatransitionplan@ct.gov.

Exceptions to Geometric Design Criteria:

Any exceptions from the design criteria utilized for LOTCIP projects on locally-owned roadways must be authorized by the Municipality and be fully documented and retained in the project records. The Department will not be involved in the design exception review and authorization process. The Department recommends the fifteen controlling criteria cited in section 6-6.02, Controlling Design Criteria, of the Department's Highway Design Manual, as may be revised, for use in the exception process. All exceptions from controlling criteria must be based on sound engineering judgment.

Non-Participating Project Elements/Items:

Non-participating project elements/items can be considered:

1. Project elements/items that are not eligible for funding participation in Federal or other State programs, based on regulations and/or current policies and procedures (e.g., project improvements on ineligible roadway classification)
2. Project elements/items that the Department deems non-participating, based on current practices (e.g., a reasonable level of landscape amenities, downtown streetscape features, etc.)

Although certain elements and items may be deemed non-participating, determinations may be made on a project-specific basis to allow the Municipality to include these project elements/items at 100% Municipal cost.

Proprietary Items:

Use of any proposed proprietary items (i.e., sole source) are to be approved by the Municipality. Such approvals must be documented and retained in the project records.

Utilities:

Coordination should be established early in the design process with utility companies that have facilities in the project area, as well as with any utilities that currently do not have facilities present but may have plans to expand service to the area. It is recommended that the coordination process be initiated by the municipality with written notification of the new project to each utility company having facilities within the respective municipality in which the project is located. The notification should include funding determination in accordance with the below guidance. This will ensure that any potential conflicts are identified early and properly addressed. This will also help to identify any future plans for betterments or other utility work that may compromise or adversely affect the service life of the proposed improvements. The Municipality should hold a minimum of one utility coordination meeting with all utility companies impacted by the project.

Utility conflicts identified during construction can result in costly change orders and/or project delays. Therefore, utility test pits to locate existing facilities and identify utility

conflicts shall be completed during the design phase. The test pit program should be carried out to positively locate all existing utility facilities which could potentially conflict with proposed improvements including, but not limited to; drainage modifications, profile cuts/fills, foundations, etc. Any resulting conflicts identified should be resolved by the Municipality by modification of the proposed design and/or coordinating the relocation, adjustment, or removal of conflicting utility facilities with the respective owner.

The Municipality should obtain from the respective owner(s), utility plans and work schedules for inclusion in the contract documents. Cost estimates received by the Municipality for work to be done by the affected utility(ies) must be forwarded to the Department for any LOTCIP participating costs.

In general, any necessary agreements to provide for utility relocation cost-sharing shall be executed between the municipality and the affected utility(ies).

In accordance with applicable statutes (CGS 13a-98f) and consistent with Engineering Directive, ED-2020-3, participation in utility relocation costs for LOTCIP projects will be as follows:

Transportation Improvements Primarily Involving Municipally-Owned Roadways*:		
Utility Owner[1]	Activity	Cost Participation
Public	Relocation Design/Engineering	100% Municipal
	Relocation Construction	100% LOTCIP
Private	Relocation Design/Engineering	100% Utility
	Relocation Construction	100% Utility

Transportation Improvements Primarily Involving State-Owned Roadways*:		
Utility Owner[1]	Activity	Cost Participation
Public	Relocation Design/Engineering	100% Municipal
	Relocation Construction	100% LOTCIP
Private	Relocation Design/Engineering	50% Utility/50% Municipal
	Relocation Construction	50% Utility/50% LOTCIP

*Transportation improvements that affect both Municipally-owned and State-owned roadways will be evaluated on a case-by-case basis to determine LOTCIP funding eligibility of utility relocation costs based on a review of the primary purpose and need of the project.

Note: Costs associated with utility betterments/upgrades that are not required to accommodate the proposed transportation improvement are not eligible project costs.

[1] Definition of Utility Owner:

Public – Any town, city, borough, or district that owns, maintains, and operates Utility Facilities (e.g. Municipally owned water or sewer, MDC, etc.)

Private – Any person or company that owns, maintains, and operates Utility Facilities, but shall not include towns, cities, boroughs, districts, or any municipal corporations or departments thereof. (e.g. Eversource, Connecticut Water Company, Frontier, etc.)

Design/Service Life of Proposed Improvements:

The LOTCIP is funded with 20-year State bonds. Therefore, projects funded under the LOTCIP must be designed to provide a minimum 20-year design/service life (see exceptions to pavement design life below) for the proposed improvements commensurate with the duration of the bonds. This will include the use of 20-year projections of traffic volumes and full-depth pavement design for an approximate 20-year design life. A simplified method of deriving 20-year projected traffic volumes is provided below to assist the Municipality in computing design/service life and completing the LOTCIP application.

Existing and 20-year Projected ADTs and Turning Volumes:

Existing volumes should be no more than 3 years old. For the purposes of LOTCIP, 20-year traffic volume projections may be computed using the following simple growth factors:

1. Within urbanized areas: 0.5% per year (10% growth over 20 years)
2. Within rural areas: 1.0% per year (20% growth over 20 years)

The urban/rural boundaries to be used are the latest boundaries published on the Department's Functional Classification maps for each municipality.

Design Life of Proposed Pavement Improvements:

Pavement improvements can generally be categorized in four treatment categories:

1. Preservation
2. Minor Rehabilitation
3. Major Rehabilitation
4. Full-Depth Reconstruction

The treatment category must be selected based on existing field conditions by an engineer with pavement experience. Choosing the correct category helps to determine the appropriate level of investigative sampling required later. **The adequacy of a specific treatment type or repair strategy (mill and overlay, reclamation, full depth reconstruction, etc.) within these categories cannot be confirmed without proper investigation of the existing pavement layer depths and subsurface material**

composition. For all treatments, the required investigation should begin with a review of as-built construction records. This must be followed by investigative sampling (cores, borings, test pits, split spoon samples, sieve analysis) for the specific treatment category chosen, to accurately determine existing conditions and perform the required pavement design.

For projects that involve pavement improvements, this process will include providing a pavement design that meets the design life requirements for the respective treatment category chosen. Adherence to pavement design life requirements is determined by projecting construction-end-year traffic volumes over the design period, calculating cumulative Equivalent Single Axle Loads (ESALs), and then evaluating whether the provided structural number is greater than the required structural number per the 1993 AASHTO Guide for Design of Pavement Structures.

Exceptions to Pavement Design Life:

Pavement **major rehabilitation** and **full-depth reconstruction** projects are required to meet the 20-year structural design life without exception.

Pavement **minor rehabilitation** projects must also meet a 20-year structural design life; however, mill and overlay resurfacing treatments that result in a minimum 15-year design life will be accepted. It should be noted that shortened design life periods are not necessarily more cost-effective when considering life cycle costs over the long term. It is still encouraged to meet a 20-year design life for mill and overlay treatments if possible.

Pavement **preservation** projects, which should be limited to structurally sound pavements only (determined by an engineer with pavement experience), are exempt from all pavement design life requirements, as these treatments are not intended to provide a structural improvement but simply preserve the existing structure. However, treatments should be selected that extend the service life as much as possible.

Further discussion of individual treatment types is included in the pavement guidance provided by the Department's Pavement Design Unit in Appendix P.

Simplified tools and guidance for following the AASHTO procedure are available on the Department's Pavement Design Unit web page under "Pavement Design Resources" at the following link:

https://portal.ct.gov/DOT/Engineering/Pavement-Design/Pavement-Design-Unit

Service Life of Proposed Structure Improvements:

For bridge and structure projects, service life shall be consistent with the latest edition of the AASHTO LRFD Bridge Design Specifications and/or the Department's Bridge Design Manual. For example:

- Full replacement of a bridge/cross-culvert should meet a 75-year service life.
- Bridge deck replacements, in general, should meet 35-40 year service life.

The above is not intended to provide a comprehensive list of all service life requirements related to bridge and structure projects, but rather to provide a representative range for typical types of improvements.

Environmental Permitting:

All environmental permitting is the responsibility of the Municipality. The Department will not be involved in permit preparation, review, or coordination with the regulatory agencies.

While projects that qualify under this program are not deemed State actions when the improvements are on a locally-owned roadway or facility (CGS 13a-98n) and therefore not regulated under Connecticut's Flood Management Act, applicants should be aware that this does not preclude the need to ensure project compliance with the flood ordinance of the local Municipality and the requirements of FEMA's National Flood Insurance Program.

Please be advised that any project that involves work within waters or wetlands may require State and/or Federal environmental permits (e.g., section 404 federal Clean Water Act, Section 401 Federal Clean Water Act, and Connecticut Water Diversion Policy Act). In the case where projects are required to obtain other State permits from the Connecticut Department of Energy and Environmental Protection (DEEP), including but not limited to Diversion Permits or Water Quality Certifications, those projects will most likely be reviewed for compliance with State and FEMA hydraulic and hydrologic guidelines, standards, and requirements.

It is strongly recommended that the Municipality or their consultant contact both the DEEP Inland Water Resources Division (IWRD) and the New England District Army Corps of Engineers (USACE) early in the design process to discuss permitting requirements and to identify specific environmental concerns and design considerations.

If specific concerns are identified, the Department hosts a monthly Interagency Coordination (Municipal) meeting at which the regulatory agencies are present to provide input and/or direction toward resolution of environmental/permitting issues. The intent of this meeting is to provide a forum and guidance for municipal

staff to discuss municipal projects with the regulatory agencies. At this meeting, Municipality staff or its engineer present their projects to DEEP IWRD/DEEP Fisheries staff, and USACE staff. The only representation from the Department will be Environmental Permit Coordination staff. This portion of the Interagency Meeting allows Municipalities the opportunity to ensure compliance with 401 Water Quality Certification and other environmental permitting requirements.

The Municipality may request to attend this meeting by contacting the Department's Environmental Permitting Coordination Unit at the following:

DOT-EPC@ct.gov

Filing an application with finalized design plans without previously engaging the DEEP Inland Water Resources Division in a pre-application consultation may result in significant time delays in the permitting process due to the need for design changes and/or denial of the application.

Environmental Permitting Contact:

Connecticut DEEP
Inland Water Resources Division
79 Elm St.
Hartford, CT 06106-5127
Phone: (860) 424-3019

Public Involvement:

It is the Department's policy to engage in effective public involvement efforts during the planning, design, and construction of transportation improvement projects. Projects in the LOTCIP will therefore require public involvement opportunities. Public involvement is the principal mechanism for identifying stakeholders and their concerns. Early coordination improves the opportunity for meaningful consideration of issues and their efficient resolution. Encountering a significant concern late in the process is inherently problematic since modifications are more disruptive and expensive. To avoid this situation, public outreach should be initiated at the onset of the development of any project, and must certainly be made by the 30% design stage.

The extent and specific timing of public outreach for each project is dependent on the project's scope, location, and other factors. A public informational meeting is generally expected for typical projects. The Municipality may elect to have this as an agenda item on a regularly scheduled meeting of boards, councils, or other governing bodies to provide public involvement. Sufficient public notice prior to the meeting and an opportunity for public comment after the meeting is expected. Abutting property owners are typically notified by direct mailing. For very minor projects with no right of way or permit involvement, such as paving projects and traffic signal replacements, a notice in a newspaper with substantial area circulation, posting information on the Municipality's

website, and/or a press release to other local media outlets identifying the basic project information and a contact for further inquiry/comment may suffice.

It is required that the Municipality keep a record of the public involvement process including all comments received and how the comments were addressed.

Technical Reviews of the Design:

All elements of the project design should be thoroughly reviewed throughout the design phase to ensure the design is complete and correct, and to minimize the potential for significant cost increases during construction. Because the Municipality will assume full responsibility for the completeness and accuracy of all aspects of the design, it is highly recommended that a technical review of the design be performed by an independent party.

Technical reviews of the design can be performed by:

1. Municipal staff
2. COG technical staff
3. Peer review (neighboring municipal engineers)
4. Third-party consultant

In general, the Department will not be reviewing any design-related or technical information during the design phase. Typically, no interim submissions or design information will be required to be submitted to the Department until the design is complete and the project is ready to advertise for construction bids.

Scope and Cost Changes during Design:

If there is a change in project scope and/or 20% change in cost, the Municipality will be required to submit documentation in a timely manner after the change(s) is/are identified. The Municipality will submit documentation and justification of the change(s) to the COG for their review and approval. The COG will then submit that information to the Department for review and approval.

Failure to identify and properly notify the COG and the Department in advance of the final design submission to the Department may result in unnecessary project delays.

Eligible Costs, Cost Participation:

1. Project Design
    a. Costs associated with actual project design and related activities by municipal staff and/or consultants, etc. are not eligible for participation under the LOTCIP. These costs are to be 100% Municipally-funded and are considered the Municipality's share of the project costs.

2. Design Reviews

    a. Costs associated with design reviews performed by third-party consultants, hired by the COG, during the development of the design are eligible costs under the LOTCIP. The costs associated with design reviews by third-party consultants are to be drawn from the COG's allocation of LOTCIP funds for program administration.

Project Records:

The Municipality must maintain complete and accurate project records. The Department, at its discretion, may audit project records to ensure compliance with these guidelines.

Final Submission to the Department:

When the project design is completed and the Municipality is preparing to advertise the project for construction bids, the Municipality must forward to the Department, through the COG:

1. Plans, specifications, and contract documents. A complete set of final project plans, specifications, and contract documents, including the signature and seal of the Professional Engineer preparing the project documents (Engineer of Record).
2. Engineer's final construction cost estimate.
3. State Historic Preservation Office Determination Letter
4. District Acceptance Letter (Encroachment Review) – if applicable
5. Structural Load Ratings – if applicable
6. Bridge Scour Ratings – if applicable
7. Completed Final Submission Documentation (see Appendix O)
    a. Final Submission Documentation form
    b. General Municipal Certification form
    c. Certification by Engineer of Record form
    d. COG Endorsement form

For a comprehensive list of requirements, please refer to Appendix O

All final submission materials are to be submitted electronically.

It is not the intent of the Department to perform a detailed technical review. The submitted materials will be used to confirm that the project plans and cost estimate are consistent with the project scope and cost approved as part of the application process or as subsequently revised and approved.

Certifications:

The Municipality and project designer (as applicable) will be required to certify that various aspects and elements of the project have been thoroughly vetted, addressed, and included in the design, as applicable. These certifications will be part of the final submission to be made to the Department through the COG upon completion of design and prior to the disbursement of construction funds. Final submission documentation and certification forms are included in Appendix O.

Basic Contract Provisions:

In addition to typical front-end bid documents, project-specific technical specifications, etc., the following items must be adhered to:

- Effective October 1, 2015, Small Business Enterprise (SBE) requirements apply to Municipally-held public works contracts, as required by CGS Sec. 4a-60g(b). The Commission on Human Rights and Opportunities (CHRO) is responsible for the administration of these requirements. Refer to the CHRO website for the most current SBE requirements that are to be included in the bid documents and legal notice.
- Disadvantaged Business Enterprise (DBE)/Small Business Participation Pilot Program (SBPPP) goals will not apply to any construction contracts.
- State prevailing wage rates will be applicable to LOTCIP construction contracts; however, certain exclusions may apply. If applicability of prevailing wage rates to a given contract is in question, the Municipality and/or COG must coordinate with the Department and the Department of Labor.
  http://www.ctdol.state.ct.us/wgwkstnd/Contact.htm
  If applicable, the most recent State prevailing wage rates must be included in the construction contract at the time of advertising.
- Local bidder preferences are not allowed.
- It is required that the prime contractor self-perform a minimum of 50% of the total contract value.
- The most current State-required contract provisions are to be included in the contract package and can be found on the LOTCIP web page.

Project Authorization Letter (Municipal/State Agreement):

Upon review of the final submission and confirmation of the project scope and cost, the Department will forward to the Municipality for signature the Project Authorization Letter (PAL) pursuant to their respective executed Master Municipal Agreement for Construction Projects. The PAL will serve as the project agreement between the State and the Municipality for the construction phase and will specify the approved project construction cost based on the final submission. The PAL may also identify other requirements such as maintenance responsibilities for project-specific features, etc. The COG will be copied on the transmittal of the PAL to the Municipality.

The Municipality must sign the PAL and return it to the Department before authorization to advertise the project is issued by the Department.

The amount specified in the original PAL sent to the Municipality will be based on the final estimate submitted with the final submission. It is not to be confused with the actual payment at low bid. The grant payment to the Municipality will reflect the approved low bid amount plus an additional 10% of low bid for incidentals and 10% of low bid for contingencies. Please note that eligible utility costs will also be included in the grant payment, as applicable. If the approved low bid amount exceeds the amount specified in the PAL, a supplemental PAL will be executed.

Authorization to Advertise:

Upon receipt of the signed PAL from the Municipality, the Department will issue an authorization to advertise the project to the Municipality. **No Municipality shall advertise a project for construction bids without prior authorization from the Department, otherwise, LOTCIP participation in the project may be withheld.**

Project Advertising:

The Municipality is responsible for advertising the project for construction bids utilizing a fair, open, and competitive process. A 28-day advertising period is recommended; a 21–day minimum advertising period is required.

Receipt of Bids/Bid Opening:

The Municipality will be responsible for receiving and publicly opening bids received for the project.

Bid Review and Analysis:

Subsequent to receipt and opening of bids, the Municipality in coordination with its engineer (as applicable), is responsible for analyzing the bids received and ultimately recommending award. A contract shall be awarded to the lowest bidder deemed to be responsible. The bidder/contractor must also be deemed responsive to all bid requirements and must be qualified to perform the work. The review of bids/bidders encompasses four main aspects:

1. Review of Bid Prices in comparison to other bids and the engineer's estimate
2. Bid/Bidder Responsiveness
3. Bidder Responsibility Determination
4. Contractor Qualifications/Experience

1. <u>Review of Bid Prices</u>:

The bid analysis process is an examination of the unit bid prices for reasonable conformance with the engineer's estimated prices. Beyond a comparison of prices, other factors that a bid analysis may consider include, but not be limited to, the following:

- Number of bids
- Range of bids
- Unbalancing of bids (see explanation below)
- Current market conditions
- Geographic location of the bidders
- Comparison of bid prices with similar projects
- Justification for significant bid price differences (between bidders and when compared to the engineer's estimate)
- Potential savings if the project is re-advertised

- Other factors, as warranted.

Not all of these factors need to be considered for bids that indicate reasonable prices or show good competition. However, when a low bid differs from the engineer's estimate by an unreasonable amount, a thorough analysis of all bids should be undertaken to justify award of the contract.

This review is done to determine whether or not any unbalancing of bids exists and to ensure clarity and consistency of the interpretation of bid documents (plans and specifications) among the bidders and the Municipality. Item prices that show a significant deviation, either among the bidders or from the engineer's estimate, are to be discussed with the low bidder to assure their understanding of the scope and intent of the project plans and specifications. The low bidder should be allowed the opportunity to explain/justify the reason for their item bid pricing.

Upon completion of the Bid Analysis, if there is cause for concern, both in terms of unbalancing or the bidder's understanding of a particular item or project scope, the bidder should be questioned and allowed the opportunity to respond to the concerns. Generally speaking, this is usually documented in writing via email but may also require a meeting between the Municipality, the engineer, and the low bidder.

In case of a meeting, an agenda should be forwarded to the bidder prior to the meeting so they can be prepared to respond. Minutes should also be taken. If one side would like to bring their legal counsel, they should inform the other side so that both parties can be represented. In most cases, legal counsel is not necessary as it relates to bid pricing analysis.

FHWA's Core Curriculum Manual is a good source of information. The section on Bid Analysis and Award of Contract offers extensive information as it relates to unbalanced bidding.

https://www.fhwa.dot.gov/construction/cqit/award.cfm

Unbalanced Bids

There are two types of unbalanced bidding: mathematically unbalanced bids, and materially unbalanced bids.

> **Mathematically Unbalanced Bids**
> A bid is mathematically unbalanced if the bid is structured on the basis of nominal prices for some work and inflated prices for other work; that is, each element of the bid must carry its proportionate share of the total cost of work plus profits.
>
> For example, if there is similar work being done in two time periods and there is a large price differential, this is prima facie evidence that a bid is mathematically unbalanced.

It is widely held that there is no per se prohibition of mathematically unbalanced bids. Evidence of a mathematically unbalanced bid is, however, the first step in proving a bid is materially unbalanced.

Materially Unbalanced Bids
A bid is materially unbalanced if there is a reasonable doubt that award to the bidder submitting the mathematically unbalanced bid will result in the lowest ultimate cost to the Government. Consequently, a materially unbalanced bid may not be accepted.

A bid that is materially unbalanced is defective and thus can be voided by the court.

2. Bid/Bidder Responsiveness

A responsive bid/bidder is one that meets all the requirements of the bid solicitation (invitation to bid) including submitting all materials required by the bid solicitation. The bid solicitation requirements and any other requirements of the project specifications, including specific contractor qualifications, should be clearly stated "upfront" in the solicitation and/or specifications. Providing clear instructions for bidders helps to reduce bidding errors and bid rejections.

3. Bidder Responsibility Determination

A responsible bidder is a bidder who has the financial wherewithal and is physically organized and equipped to undertake and complete the contract. A bidder may be considered not responsible due to unsatisfactory past performance, failure to meet the Municipality's qualification requirements, or Federal suspension or disbarment action. The Municipality should search the Federal System for Award Management (SAM) website to determine if the contractor is currently debarred or suspended from working on Federally funded projects.

A non-responsibility recommendation/determination by the Municipality must be coordinated with the Department, and any subsequent notification should be in writing and the contractor should be allowed an opportunity to respond under due process.

For further guidance, refer to the Department's Construction Contract Bidding and Award Manual (Section G Rejection of Bids or Bidders) at: https://portal.ct.gov/DOT/Engineering-and-Construction-Directives-and-Bulletins/Engineering-Information-Resources

Rejecting a bidder as non-responsible is a serious matter and can have long-lasting negative implications on the bidder.

4. Contractor Qualifications/Experience

The Department does not require contractors bidding on LOTCIP projects to be pre-qualified by the Department. However, Municipalities may choose to use the Department's list of pre-qualified contractors as a resource and is available at the link below. Generally speaking, a contractor should be capable of performing the work, have adequate experience, personnel, equipment, financial resources, and a performance record. For more information on Department Contractor Prequalification, please see the link below.

https://portal.ct.gov/DOT/Business/Contractor-Information/CONTRACTOR-PREQUALIFICATION-INFORMATION

Withdrawal of Bids:

A bid is an offer until accepted by the owner. Any bidder may request to withdraw their bid. The Department reserves the right to approve such requests for good cause; otherwise, repeated requests could lead to concerns related to responsibility and responsiveness. It should be noted that preparing a bid is costly and it is very rare that a bidder requests to withdraw their bid.

No Municipality can reject a low bid, go to the second or other bidder or reject all bids and re-advertise the project without prior coordination with and approval from the Department. Failure to adhere to this requirement may result in the loss of current and/or future participation in the LOTCIP by the respective Municipality.

Submission of Bid Results/Request for Construction Funds:

After the bid opening and analysis by the Municipality, the following information is to be submitted to the Department through the COG:

1. Date of bid opening
2. Number of bidders
3. Bid tabulation and analysis of lowest three bids
4. Recommendation from the Municipal Chief Administrative Officer for award of the project, based on the bid analysis
5. Certificate of Compliance with Connecticut General Statute 31-57b from the bidder to which award of the project is being recommended
6. Explanation and/or justification if the low bid is 10% above or below the final engineer's estimate
7. Explanation and/or justification if it is determined that the lowest responsible bidder is not the apparent low bidder

8. Recommendation from COG Executive Director for award of the project
9. Anticipated award date

Authorization to Award/Issuance of Grant Payment:

Subsequent to receipt and review of the above documentation by the Department, authorization to award the contract to the lowest responsible bidder and commitment to fund the project at the approved low bid amount plus 10% for contingencies and 10% for incidentals will be issued. Please note that eligible utility costs will also be included in the grant payment, as applicable. This authorization will prompt the grant payment from the Department to the Municipality for the total amount.

Rights of Way

General:

Projects being funded under LOTCIP may or may not require the acquisition of right of way. Whether or not right of way is required for the project, certain procedures must be followed, and documentation submitted to the Department, as described in these guidelines.

The requirements associated with right of way acquisition by Municipalities for construction projects using State-only funding programs (such as LOTCIP) are governed by a formal Engineering Directive, 2015-6-E, issued by the Department's Engineering Administrator. The procedures and documentation requirements described in these guidelines are based on the requirements of the Engineering Directive. **These requirements apply whether or not State (LOTCIP) funds are used for the acquisitions.**

For Projects Where Right of Way Acquisitions Are NOT Required:

When it has been determined by the Municipality that right of way acquisitions are not required for the project, the Municipality must:

1. Certify to the Department through the COG via the General Municipal Certification form that there are no right of way acquisitions required as part of the proposed project. This certification is submitted as part of the Final Submission made to the Department (See Preliminary Engineering/Project Design section).

2. Notify the Department through the COG if it is discovered during the design phase that right of way acquisitions will be required.

For Projects Where Right of Way Acquisitions ARE Required:

Party Responsible for Rights of Way Acquisitions:

When it has been determined by the Municipality that right of way acquisitions are required for the project, acquisition activities may be performed by either:

1. The Municipality or a consultant hired by the Municipality.

   If LOTCIP funds are to be used to pay for consultant or other professional services, these services shall be procured as follows:

   a. For costs up to $50,000, General Letter 71 (see Appendix F) shall be followed.

b. For costs greater than $50,000, a fair, open, and competitive procurement process shall be used. Established municipal procurement procedures may be used, provided they meet these criteria.

SBE/DBE/SBPPP goals will not apply to any consultant or professional service contracts.

2. The State, if:

   a. Determined by the State to be in its best interest, or

   b. Formally requested of the Department in writing by the Municipality. The Department may or may not be able to accommodate the request based on workload and/or other factors.

The LOTCIP project application submitted by the Municipality through the COG must indicate who the Municipality anticipates will perform the right of way activities (i.e., the Municipality, a consultant hired by the Municipality, or the State).

Eligible Costs:

Costs associated with right of way acquisitions are considered eligible project costs under LOTCIP. This includes the cost of the acquired property as well as the cost of professional services incurred to acquire the property such as title searches, appraisals, negotiations, closings, etc. This applies when either the Municipality, a consultant hired by the Municipality, or the State performs the right of way acquisition activities.

Note: All costs associated with the preparation of property maps are considered a design cost and are not eligible for LOTCIP participation.

Cost Participation:

For projects where right of way will be acquired by the Municipality, or a consultant hired by the Municipality, eligible right of way costs can be funded with either:

1. 100% Municipal funds with no participation from LOTCIP

   a. All costs associated with required right of way acquisitions will be the sole responsibility of the Municipality.

   OR

2. 100% LOTCIP participation with no municipal share

   a. 100% of eligible documented Municipal costs for right of way acquisitions necessary for the project will be reimbursed by the State.

For projects where right of way will be acquired by the State, the cost of all acquisitions will be funded with 100% LOTCIP funds from the respective COG LOTCIP funding allocation.

Acquisition of Property by Donation:

On a given project, some or all properties required may be acquired by donation. In such cases, the property owner must first be offered the opportunity for an appraisal and compensation. If the property owner agrees to donate the property, they must sign a Waiver of Compensation and Appraisal form (see Appendix E for sample).

Acquisition Process Requirements, Agreements, Required Documentation, Reimbursements:

When it has been determined by the Municipality that right of way acquisitions are required for the project, one of the cases listed below will apply. The Municipality must comply with the requirements shown for the applicable case. It is strongly recommended that the determination of temporary rights vs. constructions easements be discussed with the Department's Division of Rights of Way.

1. The Municipality performs right of way acquisition activities for the project with 100% Municipal funds with no participation from LOTCIP:

    a. The right of way acquisition process and documentation must be completed in conformance with these procedures.

    b. For each property acquisition, including easements and construction easements, the Municipality must submit the following for approval prior to disbursement of project construction funds to the Municipality by the State:

        i. Property Map

        ii. Title Certification

        iii. Appraisal*

        iv. Written offer*

        v. Recorded deed

        vi. Record of payment*

        *Waivers of Compensation and Appraisal must be submitted if property is donated to the Municipality (see Appendix E for sample).

It is recommended that the required documentation be submitted as it becomes available to ensure the requirements are met.

c. Before the initiation of negotiations, the Municipality or its representative shall establish an amount which it believes is just compensation for the acquisition. The amount shall not be less than an approved appraisal of the Fair Market Value (FMV) of the acquisition, taking into account the value of allowable damages or benefits to any remaining property. FMV must be established by an appraisal based upon the uniform standards of professional appraisal practice.

d. If the project will result in an eligible person(s) being displaced from their home(s), business(es) or farm(s), as defined in the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act), the Municipality is responsible for meeting the requirements outlined in the Uniform Act. The Municipality will be required to certify as part of the General Municipal Certification that any relocations were completed in conformance with the Uniform Act. **It should be noted that the requirements associated with relocations are more complex; therefore, close coordination with the Department's Division of Rights of Way should be maintained during the process.**

e. Agreement: An executed Master Municipal Agreement for Rights of Way Projects (MMA ROW) and Project Authorization Letter (PAL) <u>are not required</u> if the Municipality elects to perform right of way acquisition activities at its own cost with no participation from the LOTCIP.

2. The Municipality performs right of way acquisition with 100% participation from LOTCIP:

   a. The Municipality must comply with requirements 1(a), 1(b), 1(c), and 1(d) of the preceding section.

   b. Agreement: An executed MMA ROW and PAL will be required to initiate Right of Way project activities. The PAL, which will be prepared by the Department and forwarded to the Municipality for signature, will include project-specific information and an estimate of the ROW costs. If the actual ROW costs should exceed the estimate, a supplemental PAL will be required.

   c. Reimbursement to the Municipality for eligible Right of Way expenses:

      i. The Municipality must submit to the Department through the COG the following materials as part of the Final Submission package:

1. Completed General Municipal Certification form, which includes certification that all right of way activities associated with the project have been completed, documentation submitted, and the necessary requirements have been met.

2. Documented evidence of the following:

    a. The services provided and who provided the services*

    b. Invoice(s) detailing the associated expense(s)

    c. Evidence of payment

    * If a provider of services is employed by the Municipality and provides this type of service as part of their normal duties, the expense is not eligible for reimbursement.

ii. Upon review and approval of the submitted information, the Department's Right of Way Project Coordinator will process a reimbursement payment based on eligible ROW costs. If the reimbursement amount exceeds the ROW estimate, as stated in the executed ROW PAL, a supplemental ROW PAL will be required.

Note: The Department will process ONE (1) reimbursement package for Right of Way activities. All documentation relative to the Right of Way expenses (invoices, evidence of payment, etc.) must be included in the materials submitted in order for the amount to be included in the reimbursement payment.

3. The State performs right of way acquisition activities for the project

    a. The Municipality will be responsible for providing to the Department:

        i. Schedule of Property Owners

        ii. Title Mylar

        iii. All required property maps

        iv. Full set of construction plans

    b. Agreements: An executed MMA ROW and PAL will be required to initiate Right of Way project activities. The PAL, which will be prepared by the Department and forwarded to the Municipality for signature, will include project-specific information and an estimate of the ROW costs.

Construction

General:

Administration and inspection of the project will be performed in accordance with the LOTCIP guidelines. The intent of the LOTCIP is for the Municipality to have responsibility and control of the construction phase and the resulting quality of the completed work. Unless specific problems become apparent or the Municipality solicits advice, the Department will generally have no involvement in the construction phase.

Party Responsible for Construction Phase:

For projects funded under the LOTCIP, responsibility for all construction activities will rest with the Municipality. Construction and construction-related activities include, but are not limited to:

1. Construction
2. Contract administration
3. Materials testing
4. Inspection
5. Quality Assurance
6. Recordkeeping
7. Final certification of completion of construction

The Municipality is also responsible for providing design services during construction (shop drawing review, change order preparation, design revisions, etc.).

Cost Participation:

The construction phase will be funded under the LOTCIP at:

1. 100% of accepted low bid, plus
2. 10% of low bid for contingencies to provide an allowance for normal quantity adjustments, minor unforeseen field conditions, and minor field changes that do not increase project scope, extend project limits, etc., plus
3. 10% of low bid for incidentals to provide an allowance for inspection and materials testing services. Project advertising costs are not eligible for LOTCIP participation and are to be assumed by the Municipality.
4. Eligible utility relocation costs, as applicable, as outlined in the Preliminary Engineering/Project Design section of the guidelines.

A grant payment will be issued to the Municipality for the total of the above items in accordance with the LOTCIP guidelines. **All construction phase costs above the grant payment amount are the sole responsibility of the Municipality.** However, if extenuating circumstances arise, collectively, in consultation with the COG and Municipality, legitimate cost increases above the cap may be considered to be eligible for participation under the LOTCIP.

Costs associated with design services during construction are considered design functions and as such are not eligible costs under the LOTCIP. These costs must be tracked separately from inspection costs to facilitate final audit by the Department.

Standards and Specifications:

Local standards and specifications may be used. In the absence of local standards and specifications, the Department's Form 818, Construction Manual, and Municipality Manual, as revised, will be adhered to.

Inspection:

Inspection must be adequate to satisfy the Professional Engineer (licensed in CT) overseeing construction (Engineer), as well as to adequately document that the project was built in accordance with the final plans and specifications.

Municipal Staffing:

The Municipality must assign a municipal employee to act in the capacity of Municipal Administrator to be in responsible charge of the LOTCIP project at all times. This individual need not be assigned solely to the project. Responsibilities of the Municipal Administrator must include, but are not limited to:

1. Be thoroughly knowledgeable of the day-to-day operations of the project, contractors, and the inspection forces.
2. Be aware of and involved in decisions relative to changed conditions, which require construction orders.
3. Visit the project as needed, commensurate with the magnitude and complexity of the project and project activity.
4. Be responsible and in charge of the consultant/inspection staff during all stages of the project.
5. Attend all project meetings as warranted/requested.
6. Review the project records for accuracy and compliance with applicable requirements.

Inspection Staffing:

Municipalities may utilize municipal staff or consultants (or a combination of both) to perform construction inspection activities. Staffing levels must be appropriate for the size and complexity of the project.

Qualifications and experience of the inspection staff must be acceptable to the Engineer and be able to satisfactorily perform the required functions.

If consultant inspection is to be utilized on the project, the Engineer may refer to the Department's Construction Engineering and Inspection Information Pamphlet for Consulting Engineers for additional guidance on typical roles and responsibilities of the inspection staff and recommended levels of experience and training. The pamphlet can be viewed at:

https://portal.ct.gov/-/media/DOT/documents/dconstruction/2017CEIInformationPamphletpdf.pdf

If LOTCIP funds are to be used to pay for consultant inspection services, the services shall be procured as follows:

1. For costs up to $50,000, the procurement of inspection services shall be in accordance with General Letter 71 (see Appendix F), which establishes dollar value thresholds and procurement methods to be followed.

2. For costs greater than $50,000, a fair, open, and competitive process shall be used. Established municipal procurement procedures may be used provided they meet these criteria.

3. In accordance with the Department's Policy Statement EX.O-33 (see Appendix G), as may be amended, which establishes limitations on burden, fringe, overhead, and profit rates to be applied to consultant inspection contracts.

SBE/DBE/SBPPP goals will not apply to any consultant inspection contracts.

Quality Assurance:

Quality assurance consists of all planned and systematic actions necessary to provide adequate confidence that a product or service will satisfy specified requirements for quality. Quality assurance serves to provide confidence in the contract requirements, which include materials handling and construction procedures, calibration and maintenance of equipment, production process control, and any sampling, testing, and inspection which is performed by the Municipality and/or its consultant. The Municipality and/or its consultant must possess and maintain Quality Assurance procedures that will be employed to monitor the Contractor's performance.

Quality Control:

Quality Control is defined as the sum total of activities performed by the Contractor to ensure the end product meets the construction contract requirements. Quality Control is the responsibility of the Contractor and should be a contractual requirement.

Material Testing:

Local standards or materials testing requirements may be used; however, in the absence of local standards or requirements, materials incorporated into the project must be tested in accordance with the Department's Schedule of Minimum Testing for the LOTCIP (see Appendix I). Final Materials Certification must be certified by the Engineer and included in the Final Package submitted to the Department through the COG subsequent to construction completion.

Minimum testing must include sufficient material testing for structural materials (e.g., concrete, steel, reinforcement, etc.), roadway materials (gravel, subbase, etc.), and HMA to assure the integrity of construction.

Recordkeeping:

Recordkeeping must include, but is not limited to:

1. Inspector Reports
2. Contract Items, Material Testing, and Testing Summary
3. Computations and Quantity Summaries
4. Payments to the Contractor
5. Payments to Consultants and Materials Testing services

Final Package Submission:

The Municipality must submit the following completed certifications and forms upon completion and acceptance of construction through the COG to the Department's listed contact:

1. Acceptance of Project (CON-501L) signed by COG Official, Municipal Official, and Engineer. A sample of this form can be found in Appendix K.
2. Final Materials Certification must be certified by the Engineer. A sample of this form can be found in Appendix J.

Audit Requirements/Return of Unexpended Funds:

Refer to the Financials section for information regarding audit requirements and unexpended project funds.

Note that any balance of unexpended project funds cannot be construed as justification to expand the scope of work or items in the contract to fully expend the grant payment.

Financials

Sub-allocation of the LOTCIP Funding:

The state-funded LOTCIP was implemented in November 2013 to provide funding to municipalities/Councils of Governments (COGs) in place of Federal sub-allocated Surface Transportation Program funds, currently referred to under the FAST Act as the Surface Transportation Block Grant Program (STBGP). The distribution of LOTCIP funding, therefore, follows the same population-based sub-allocation process used by the Federal Highway Administration (FHWA) to provide STBGP funding to the states for urbanized areas. The population-based STBGP funds are provided to three areas as listed below:

1. Major urbanized areas with a population over 200,000
2. Areas with a population of 5,001 to 200,000 (Other Urbanized Areas)
3. Areas with a population of 5,000 or less (Rural Areas)

The LOTCIP funds are available for use in urbanized areas with a population of 5,001 or greater. The federal STBG Rural program will continue to fund projects outside of the urbanized areas. The following table provides a breakdown of the urbanized area population by planning region.

TABLE 1

2010 URBANIZED AREA POPULATION BY PLANNING REGION		
Planning Region	**Urban Population**	**% Total Urban Population**
WestCOG	546,235	17.4
NHCOG	47,508	1.5
NVCOG	418,985	13.3
CT MetroCOG	310,446	9.9
SCRCOG	553,840	17.6
CRCOG	877,496	28.0
RiverCOG	127,942	4.1
SCCOG	220,469	7.0
NECCOG	36,730	1.2
TOTAL:	**3,139,651**	**100.0**

Population Data Used to Calculate Sub-allocations by COG:

The sub-allocations by COG for the State-funded LOTCIP will be based on the most recent urban population numbers as published by the Department of Commerce, Bureau of the Census in the latest decennial census for the qualifying urban areas. Qualifying urban areas for the 2010 census are published in the Federal Register/Volume 77, Number 59. Population data can be accessed through the Department of Commerce, Bureau of the Census website at http://www.census.gov. The urban population numbers and percentages by planning region will require updating when the next decennial census figures are published.

Annual Funding Amount:

The LOTCIP is in its eighth year since initial authorization in fiscal year 2014. Below is a summary of the funding authorized to date by fiscal year:

SFY2014	SFY2015	SFY2016	SFY2017	SFY2018	SFY2019	SFY2020	SFY2021	TOTAL
45,000,000	45,000,000	74,000,000	74,000,000	62,000,000	64,000,000	67,000,000	67,000,000	498,000,000

The Department's practice has been to request annual LOTCIP funding levels in the biennial Capital Budget submission that align with the anticipated level of federal sub-allocated STBG funding. This practice may be revised should future federal transportation bills significantly change funding levels sub-allocated by urbanized area. The final adopted budget will dictate the available funding in any given State fiscal year.

The percentages found in **Table 1 – *2010 Urbanized Area Population by Planning Region*** on the previous page, are to be applied to the LOTCIP funding included in the adopted biennial budget to determine funding for each COG. Funding provided to each COG may be net of a set-aside for Department personnel for program administration and oversight, as required. (**Note: Authorized funding must go through the Bond Commission approval process before it can be expended.)**

Disbursement of Funds:

Under the federal STBG program, individual projects are established for each transportation improvement in both FMIS (FHWA's Fiscal Management Information System) and Core-CT (State agency financial system), which is labor and time-intensive. To eliminate delays caused by the project initiation process and allow for prompt payments to municipalities, one blanket project has been established in the Core-CT, for each COG under the LOTCIP. Funding will be allocated by the State Bond Commission based on estimated project delivery schedules and anticipated payment amounts. After Bond Commission approval, funding will be allotted to the appropriate regional project. Payments will be made from the regional blanket projects to the COGs for administrative costs based on COG requests but subject to Department approval. Payments will also be made from the regional blanket projects to the member municipalities for individual transportation improvements following receipt of the Authorization to Award notice from the Department or to reimburse for right of way costs following submission of required

documentation. Payments for planning studies approved by the Department to use LOTCIP as a fund source will also be paid through the regional blanket projects. Planning studies must be screened and selected in accordance with the Department's current Planning Study Selection Process and will not be administered by Highway Design, Local Roads. The following is a list of the current regional blanket project numbers:

PLANNING REGION	REGIONAL BLANKET PROJECT NUMBER
WestCOG	DOT01703271GR
NHCOG	DOT01703273GR
NVCOG	DOT01703274GR
CT MetroCOG	DOT01703276GR
SCRCOG	DOT01703277GR
CRCOG	DOT01703279GR
RiverCOG	DOT01703280GR
SCCOG	DOT01703281GR
NECCOG	DOT01703283GR

Funding Eligibility by Project Phase:

Preliminary Engineering/Project Design – All design activities necessary to advance a project to construction are not eligible for LOTCIP funding and will be the responsibility of the Municipality. Design review costs and LOTCIP-related administrative activities by the COG are eligible for 100% funding through the LOTCIP. See *Preliminary Engineering/Project Design* section for more detail.

Rights of Way – If right of way acquisitions are required, these costs can be funded with either 100% municipal funds or 100% LOTCIP funds. One of three scenarios will apply, as determined by the COGs and Municipalities through the application process. The three scenarios include:

1. The Municipality elects to perform the right of way acquisition activities for the project at its own cost with **no participation** from the LOTCIP.

2. The Municipality performs right of way acquisition activities for the project with **100% participation from the LOTCIP**. Under this scenario, the Municipality will receive **reimbursement** of costs incurred after all required documentation has been received by the Department. See *Rights of Way* section for detail regarding required documents.

3. The Municipality requests and the Department agrees to perform right of way acquisition activities on behalf of the Municipality with **100% participation from**

the LOTCIP. Under this scenario, the Department will establish a separate right of way project in Core-CT with funding from the appropriate regional project to cover anticipated Department ROW personnel costs and acquisition charges. See *Rights of Way* section for more detail regarding required documents from the Municipality.

Construction – Construction phases are to be funded 100% with LOTCIP funds. A grant payment will be made promptly to the Municipality after the low bid amount and supporting documentation is received from the COG by the Department. The grant payment will include an additional 10% for contingency and 10% for incidentals. The intent of the 10% contingency is to provide an allowance for normal quantity adjustments and minor unforeseen field conditions. The intent of the 10% incidentals is to provide an allowance for inspection and materials testing services. **It is not the intent of the contingency and incidental allowances to provide for increasing project scope, extending project limits, etc.** Costs associated with Design Services during Construction are considered design functions and as such are not eligible costs under the LOTCIP. See *Construction* section for more details. Any costs incurred above the grant payment are the responsibility of the Municipality. However, if extenuating circumstances arise, collectively, in consultation with the COG and Municipality, legitimate cost increases above the original grant payment may be considered to be eligible for participation under the LOTCIP.

Funding Accumulation/Carryover:

Funding for this program will not lapse at the end of each State fiscal year; therefore, unexpended funds may be carried over from one fiscal year to another. However, COGs are strongly encouraged to minimize their accumulation of rollover funds. Balances will be monitored and the Department will work with the COGs to minimize the accumulation of unprogrammed funds.

Use of LOTCIP as Match for Federal Funding:

The LOTCIP was initiated partly in response to long-standing concerns from the COGs regarding the complexity and length of the project initiation process for capital improvements funded with federal aid. The intent of this new state-funded program is for it to be a stand-alone program to replace the use of federal STBG Program funding by the municipalities, resulting in a faster and simpler process for completing capital improvements. Funding received under this program, therefore, is not eligible to be used as local matching funds for receipt of other federal funds.

Use of LOTCIP in Combination with State Local Bridge Program Funding:

The use of LOTCIP in combination with State Local Bridge Program funding is not allowed. State Local Bridge Program guidelines state that “Since the (State) Local Bridge Program grant is based on the Municipality’s share of eligible project costs, participation in other aid programs that pay for 100% of the construction costs will render the project ineligible for a grant from the (State) Local Bridge Program for the same project.”

Additionally, if a project has received a Commitment to Fund from the State Local Bridge Program, the project cannot receive a Commitment to Fund from LOTCIP unless the project is withdrawn from the State Local Bridge Program.

Use of LOTCIP as Contributory Fund Source:

The LOTCIP was not conceived as a municipal aid or sub-allocation program. COGs should select projects based on regional transportation priorities, deficiencies identified in their long-range plans, and the specific merits of the individual projects. However, in cooperation with the COG, it may be collectively determined that LOTCIP funds can be used as a source of funds for larger Department and/or municipally sponsored Federally funded projects. Such use of LOTCIP funds will not relieve federal aid requirements and will not be administered under these guidelines.

Audit Requirements:

Municipalities must adhere to audit requirements specified in the Municipal Auditing Act (Chapter 111 of the Connecticut General Statutes) and the State Single Audit Act (Chapter 55b of the Connecticut General Statutes). The Office of Finance – Municipal Finance Services (MFS) Unit of the Office of Policy and Management provides technical assistance for, and ensures compliance with, both of these Acts. If a Municipality's annual audit will be a single audit, the independent auditor should be notified by the Municipality that it has received funds under the LOTCIP. As part of the State Single Audit Report, LOTCIP expenditures are to be reported on the *Schedule of Expenditures of State Financial Assistance.* Failure to provide an audit is an event of default under the Municipal/State Project Agreement and may result in the Department requesting the return of the grant and may impact the Municipality's future eligibility in the LOTCIP.

In accordance with the LOTCIP program requirements, municipal expenditures of the LOTCIP funds for a project must be sufficiently documented. Subsequent to a project being completed in construction, the Municipality will be required to submit to the Department, through the COG, certain documentation of expenditures made against the LOTCIP grant payment issued to the Municipality for the project. This information will be reviewed by the Department's Office of External Audits to assist in determining if a reimbursement is due the State as well as to close out the LOTCIP project. Advance knowledge of the required documentation will allow the information to be accumulated by the Municipality while the LOTCIP project is ongoing and providing the information as listed below will enable the Department to close out the LOTCIP projects in a timely manner.

Required expenditure documentation consists of:

a. Copies of the annual Municipal State Single Audit, with LOTCIP program expenditures listed separately on the Schedule of State Financial Assistance, for each year of LOTCIP expenditures

b. A final report or certification of total LOTCIP expenditures, which includes a sign-off by a municipal official

c. A printout from the Municipality's accounting system detailing all expenditures under the LOTCIP

d. An expenditure summary accompanied by complete copies of invoices and proof of payment, e.g. copies of canceled checks

Samples of items a. through d. listed above are included in Appendix L.

Note: Should the Municipality have more than one LOTCIP project for which expenditures are being made against the individual LOTCIP grant for each project, the expenditures for each project are to be tracked and reported separately, including for the municipal Schedule of Expenditures of State Financial Assistance as noted above.

If it is determined that a balance is due the State, the Department's Accounts Receivable unit will send an invoice to the Municipality. It is the goal of the Department to conduct the necessary project closeout as soon as practicable after receipt of required information from the Municipality.

Unexpended Project Funds:

Funds awarded to a Municipality have been provided for a specific project that has received approval from the COG and the Department; therefore, unexpended funds cannot be used for any other purpose or project, or to expand the scope of the existing project. Unexpended funds will be returned to the Department through the audit process, as described above. Funds returned to the Department will be credited to the COG's regional LOTCIP project and will be available for use on future improvements within the COG.

Note: LOTCIP projects that include right of way acquisitions with LOTCIP funding participation will be audited and closed out under a separate internal Department process.

Quarterly Status Reports/Annual Program Review Meetings:

It is expected that projects will commence and be completed in a timely manner. In order for the Department and COGs to monitor project progress, quarterly updates are to be provided to the Department in the format provided in Appendix M. The COGs must compile and submit the necessary information from their member municipalities for all

approved projects under the LOTCIP, as this information is critical to program monitoring and program transparency. Project progress, estimated design completion, cost, and construction schedule updates will be critical to determining when funding requests shall be submitted for State Bond Commission approval. Quarterly Reports must be submitted to the contact listed in these guidelines within two weeks after the end of a quarter. Late submission or lack of submission of the Quarterly Status Report may impact available funding and the ability to make payments from a region's LOTCIP project.

The Department will provide copies of an updated *Cash Flow Summary* spreadsheet for each COG on a quarterly basis (see sample copy in Appendix N). In addition to quarterly reporting by the Department of expenditures and available funding, Department staff will meet on an annual basis with each COG to complete a program review. The annual Program Review Meeting will include project status reporting by the COGs, a financial overview by the Department, and planning for future solicitations.

Department Oversight Costs:

A project has been established by the Department for program and project level administration of the LOTCIP. The Department will monitor expenditures necessary to administer the program and set aside funds, as required, from the funding authorized and allocated for the LOTCIP. Funding sub-allocated to the regional LOTCIP blanket projects will be net of any required administrative funds for Department oversight and administration of the program.

Contacts

General LOTCIP and Pre-Construction Questions

Hugh H. Hayward, P.E.

Principal Engineer

Division of Highway Design, Local Roads

860-594-3219

Hugh.Hayward@ct.gov

Right of Way Questions

Steven L. Degen

Supervising Property Agent

Division of Rights of Way

860-594-2579

Steven.Degen@ct.gov

Construction Questions

Jeffery H. Hunter, P.E.

Transportation Supervising Engineer (Construction)

Office of Construction

860-594-3227

Jeffery.Hunter@ct.gov

Appendices

*Current fillable versions available electronically on the Department's LOTCIP webpage: https://portal.ct.gov/DOT/Office-of-Engineering/Highway-Design---Local-Roads---LOTCIP

A. LOTCIP Flow Chart

B. LOTCIP Application*

C. Sample Cost Estimate Form*

D. Bicycle and Pedestrian Travel Needs Assessment Form*

E. Sample Waiver of Compensation and Appraisal

F. General Letter Number 71

G. Policy No. EX.O-33

H. Certificate of Compliance with Connecticut General Statute 31-57b

I. LOTCIP Schedule of Minimum Testing

J. Final Materials Certification*

K. CON-501L*

L. Sample Expenditure Documentation

M. Regional Quarterly Status Report Form*

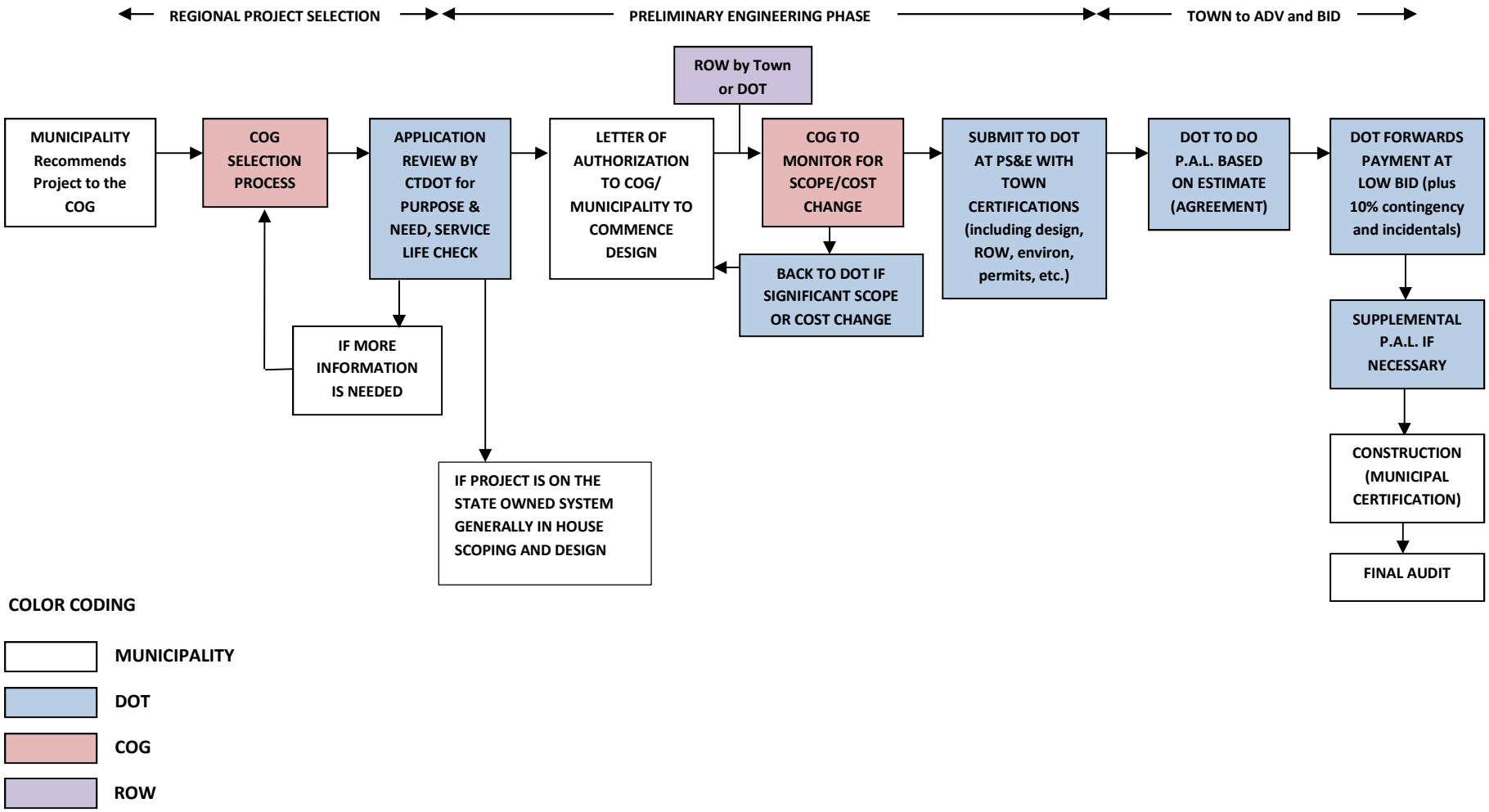
N. Sample LOTCIP Cash Flow Summary

O. Final Submission Documentation and Certification Forms*

P. Pavement Design Guidance

Q. ADA Technical Infeasibility Form (TIF Form)*

LOCAL TRANSPORTATION CAPITAL IMPROVEMENT PROGRAM



November 2021

Connecticut Department of Transportation

Local Transportation Capital Improvement Program Application

Municipality: _____ COG: _____

Route/Road: _____

Project Title: _____

Roadway Functional Classification (if applicable): _____

COG Contact Information:

_____
Name Title

_____
Phone Number Email

Municipal Contact Information:

_____
Name Title

_____
Phone Number Email

The applicant must answer the questions below which are intended to address basic issues about existing conditions, project management, project costs, impacts on private property, utilities, wetlands, etc. You may provide your answer in the space provided below or submit separate answer sheets. **It is important that the application be as thorough as possible, as missing information will delay the review process. All project- related sections must be completely filled out or the application will be returned and will require resubmittal.**

The intent of the application is to establish eligibility, service life, and to ensure the Municipality is considering all pertinent aspects associated with major infrastructure improvements consistent with the purpose and need of the project.

(A) Project Information

1. Select the type of proposed improvement (select all that apply):

Please note: The entire application must be completed for all projects in addition to any necessary supplemental sections (K through P) as determined by the type of project.

- ☐ Roadway Geometric Improvement
- ☐ Stand-Alone Sidewalk Construction
- ☐ Bicycle/Pedestrian Improvement, including Multi-Use Trail Facilities
- ☐ Intersection Improvement

  Provide additional information as required in section L
- ☐ Bridge Rehabilitation/Replacement

  Provide additional information as required in section M
- ☐ Major Drainage Improvement

  Provide additional information as required in section N
- ☐ Pavement Structure Improvement

  Provide additional information as required in section O
- ☐ Traffic Signal Replacement/Upgrade/New Installation/Coordination

  Provide additional information as required in section P
- ☐ Other (please specify): _____

  Provide additional information as required in section Q

2. Describe the purpose and need of the project (i.e., what are the problems to be corrected?). Please provide adequate detail to clearly convey the nature of the problem(s) to be corrected. Provide photographs to document the existing conditions and support the purpose and need. (Attachments acceptable)

3. Provide a project description, including project limits and length, that specifically describe how the proposed improvements will correct the problem(s) identified in the purpose and need. Describe what alternative(s) were considered. (Attachments acceptable)

4. Provide concept plans of the proposed improvement. The plans must be sufficiently developed and provide enough detail on a scaled drawing (including aerial photography base mapping if possible) to identify the following:

Inc.	N/A	
☐		Project location
☐		Limits of project
☐	☐	Approximate limits and extent of any pavement widening or realignment
☐	☐	Proposed number of lanes, widths, and arrangements
☐	☐	Approximate limits and extent of any anticipated ROW acquisitions (based on available ROW information from Assessors maps, GIS data, etc.)
☐	☐	Structures (e.g., Retaining walls, bridges)
☐	☐	Watercourses
☐	☐	Typical Cross Section including lane and shoulder widths, pavement structure, etc.

5. Have the improvements at this location been previously submitted to the Department for funding? ☐ No ☐ Yes

   If yes, when and under what program?

   _____

6. Have any other Federal or State funding sources been applied for or awarded for the improvements at this location?

   If yes, please list source, amount, and when awarded in detail below:

   _____
   _____
   _____
   _____
   _____
   _____
   _____
   _____
   _____
   _____

7. Does the project impact any State-owned Facilities (e.g., roads, bridges, etc.)?
   ☐ No ☐ Yes

   If yes, describe the impacts:

   _____
   _____
   _____
   _____
   _____
   _____
   _____
   _____
   _____

8. In the area of the project, are there any known proposed developments?

   ☐ No ☐ Yes

   If yes, describe the proposed developments:

   _____
   _____
   _____
   _____

9. Design Standards to be used:

   ☐ Established municipal standards

   ☐ AASHTO Policy on Geometric Design of Highways and Streets

   ☐ Connecticut Department of Transportation Highway Design Manual

   ☐ AASHTO LRFD Bridge Design Specifications and Connecticut Department of Transportation Bridge Design Manual

   ☐ Other, please specify: _____

(B) Rights of Way

1. Are any Right of Way (ROW) impacts anticipated? ☐ No ☐ Yes

   If yes, describe the nature, extent, and type of impacts:

   _____
   _____
   _____
   _____

2. If ROW acquisitions will be required, who does the Municipality plan to have perform acquisition activities?

   ☐ Municipal staff ☐ Consultant hired by Municipality ☐ State

3. If ROW acquisitions are to be performed by the Municipality's staff or their consultant, will the Municipality be seeking reimbursement for ROW costs?

   ☐ No ☐ Yes

(C) Utilities

1. List all utilities within the project area, including their owners.

Overhead	Underground

2. Are any utility impacts anticipated? ☐ No ☐ Yes

   If yes, explain the nature and extent of the impacts:

   _____
   _____
   _____
   _____

   Note: Costs associated with utility betterments/upgrades that are not required to accommodate the proposed transportation improvement are not eligible project costs.

3. Have the utility companies been contacted to identify any plans to expand or improve existing utilities that would compromise the service life of the proposed improvements?

   ☐ No ☐ Yes

   If yes, describe any proposed improvements and their schedule:

   _____
   _____
   _____
   _____

(D) Storm water drainage system and under drains

1. Do any existing storm water drainage problems exist? ☐ No ☐ Yes

   If yes, describe the problem(s):

   _____
   _____
   _____
   _____

2. Is any storm water drainage system work anticipated, including any new or modified drainage outlets? ☐ No ☐ Yes

   If yes, explain the nature and extent of the improvements:

   _____
   _____
   _____
   _____

3. Are there any existing watercourse crossings that are proposed to be modified, rehabilitated, or replaced as part of the project? ☐ No ☐ Yes

   If yes, indicate the type of improvement needed and the reason for it. Please also indicate if any existing watercourse crossings have inadequate hydraulic capacity:

   _____
   _____
   _____
   _____
   _____

(E) Rail Crossings

1. Are there any railroad crossings that are likely to be impacted as part of the project?

   ☐ No ☐ Yes
   ☐ At-grade
   ☐ Grade separated

   If yes, describe impacts and any necessary modifications:

   _____
   _____
   _____
   _____
   _____

(F) Pedestrian/Bicycle Safety and Mobility

1. Complete and attach the Department's Bicycle and Pedestrian Needs Assessment Form to this application (a copy of this form is included in Appendix D). In accordance with Connecticut General Statutes, Section 13a-153f, and the Department's focus on accommodating non-motorized travel modes, accommodation of all users shall be a routine part of the planning, design, construction, and operating activities of all highways. The need for inclusion of accommodations for bicyclists and pedestrians, including those with disabilities, must be reviewed for every project, regardless of funding source.

(G) Traffic

The information below needs to be provided or reviewed (as specified) by the designer for all project types except for stand-alone sidewalk projects and bicycle/pedestrian improvements, and multi-use trail facilities that do not involve pedestrian crossings

1. Volumes

   Provide existing and 20-year Projected ADTs and Turning Volumes. Refer to the Preliminary Engineering/Preliminary Design section for guidance on traffic volumes.

2. Crash Experience

   Provide a summary of crash experience using the most current three-year data, including a crash summary diagram, and analysis noting any discernable crash patterns.

3. Traffic Signals

   Review the existing traffic signal plans for projects involving signalized intersections

4. Speed Data

   Provide 85th percentile speeds in the project area

   Provide all posted speed limits in the project area

(H) Environmental Resource Involvement

Refer to Application Process/Preliminary Project Submittals - Information provided by the Department for more information.

1. Parks, Cemeteries, Historic Structures

   a. Are there any parks, cemeteries, or historic structures that are likely to be affected by the project? ☐ No ☐ Yes

If yes, describe the type and extent of the anticipated impact.

2. Wetlands

   a. Are there any wetlands that are likely to be affected by the project?

   ☐ No ☐ Yes

   If yes, describe the type and extent of the anticipated impact.

3. Hazardous or Contaminated Sites

   a. Has the potential for hazardous or contaminated sites and materials in the project area been investigated? ☐ No ☐ Yes

   If yes, describe the type and extent of the anticipated impact.

(I) Public Involvement

Refer to Preliminary Engineering/Project Design - Public Involvement section for more information.

1. Has public involvement been conducted? ☐ No ☐ Yes

   If yes, describe the public involvement effort, when it was conducted, and any public support or opposition to the project:

If no, describe the planned public involvement effort should the project move forward:

_____
_____
_____
_____
_____
_____
_____
_____

(J) Cost Estimate

1. Attach a preliminary cost estimate identifying:
    a. Approximate quantities and assumed unit prices of the major contract items
    b. An allowance for minor items (percentage of a)
    c. Standard lump sum items (e.g., clearing and grubbing, mobilization, construction staking, maintenance and protection of traffic), as applicable (percentages of a + b)
    d. Total contract items (a + b + c)
    e. Contingencies (10% of d)
    f. Incidentals to construction, (e.g., construction inspection, materials testing) (10% of d)
    g. Rights of Way costs
    h. Eligible utility relocation costs (in accordance with CGS 13a-98f)
    Note: Costs associated with utility betterments/upgrades that are not required to accommodate the proposed transportation improvement are not eligible project costs
    i. Total project costs (d + e + f + g + h)

Sample cost estimate form provided in Appendix C and the Excel spreadsheet is available for download from the Department's LOTCIP webpage:

https://portal.ct.gov/DOT/Office-of-Engineering/Highway-Design---Local-Roads---LOTCIP

Refer to the Department's most current Cost Estimating Guidelines for cost estimate guidance or use town-generated unit prices. The anticipated costs for each phase of the project shall be well documented and based on reasonable anticipated costs.

The guidelines are located at:

https://portal.ct.gov/DOT/Engineering-Applications/Submissions---Cost-Estimating

ADDITIONAL INFORMATION TO BE PROVIDED BASED ON IMPROVEMENT TYPE SELECTED IN SECTION (A)1:

(K) Roadway Geometric Improvements

Proposed Design Speed

(L) Intersection Improvements

Capacity Analyses (For build and no-build conditions using existing and projected traffic volumes).*

(M) Bridge Rehabilitation/Replacement

Latest Condition Report

(N) Major Drainage Improvement

Material, Age, Hydraulic adequacy assessment of existing drainage system (Condition Report, post-cleaning is preferred)

(O) Pavement Structure Improvement

The level of investigation will be dependent upon the proposed improvements. **Cores or test pits must be performed** such that a representative sample of the existing roadway condition is obtained. If varying pavement conditions exist along the roadway indicating the possibility of different pavement conditions, a test pit should be performed in each roadway section. **Pavement thickness and type, sub-base thickness and type**, and the presence of fines and/or groundwater must be noted. Attach the data obtained. If full depth reconstruction is proposed, cores or test pits may be required to justify the scope of the proposed improvements.

Approximate percentage of heavy vehicles: _____

What is the existing pavement type, condition, and thickness?

_____

_____

_____

What is the anticipated pavement design? Describe the type and depth of each course including the base that is suitable for the ADT and percentage of heavy vehicles. Does it meet current design standards? Describe the cross-section (e.g., lanes and shoulder widths, etc.).

_____

_____

_____

Describe how the service life requirement for the proposed pavement design was determined:

_____

_____

_____

_____

_____

(P) Traffic Signal Replacement/Upgrade/New Installation/Coordination

Who is/will be responsible for ownership, maintenance, and electrical costs

Age of existing signals

Capacity Analyses (For build and no-build conditions using existing and projected traffic volumes)*

Warrant Analysis for new signals

Systems Engineering Analysis Form (SEAFORM) for Intelligent Transportation Systems (ITS) projects

(Q) Other

To be determined based on type of improvement proposed.

***Capacity Analysis:** For the purposes of this application, a simplified analysis may be performed for signalized intersections that do not require detailed assumptions, proprietary software or specialized traffic engineering skills. The "Quick Estimation Method" is described in detail in the 2010 Highway Capacity Manual, with accompanying worksheets that can be completed by hand. A brief description of the method is also described in Section 3.3.6 of the FHWA Signal Timing Manual, where it is referred to as a "Critical Movement Analysis." The relevant section of the FHWA publication can be accessed at: http://ops.fhwa.dot.gov/publications/fhwahop08024/chapter3.htm

This simplified analysis will yield an approximate critical volume/capacity ratio that can be used to assess overall operation of the intersection. The build and no-build conditions should be analyzed for the existing and projected traffic volumes.

APPLICATION SUBMISSION

This application and supporting documents must be submitted by the Municipality to their COG. At such time when the application is to be forwarded to the Department of Transportation by the COG, it must be forwarded electronically to:

DOTLOTCIPapp@ct.gov

Prepared by: _____ Date: _____

Name, Title, and stamp of Responsible P.E. (Municipal or Consultant)

_____

Signature

(*Stamp)*

Reviewed/Recommended by: _____ Date: _____

Name and Title of Municipal Chief Administrative Officer

_____

Signature

Endorsed/Recommended by: _____ Date: _____

Name and Title of COG Executive Director

_____

Signature

Construction Cost Estimate | LOTCIP Application

Project Name, Town Name

Major and Minor Contract Items

Item No.	Item	Unit	Quantity	Unit $	Total Cost
				$ 1.00	$ -
				$ 1.00	$ -
				$ 1.00	$ -

CONNECTICUT DEPARTMENT OF TRANSPORTATION

BICYCLE AND PEDESTRIAN TRAVEL NEEDS ASSESSMENT FORM (BPTNA)

In accordance with Connecticut General Statutes, Section 13a-153f, Accommodations and Provisions of Facilities for All Users and the Department's Policy Statement No. EX.0-31, It is the policy of the Department to consider the needs of all users of all abilities and ages (specifically including pedestrians, bicyclists, transit users, and vehicle operators) in the planning, programming, design, construction, retrofit and maintenance activities related to all roads and streets as a means of providing a "safe, efficient transportation network which enhances quality of life and economic vitality." Therefore, the need for inclusion of accommodations specifically for bicyclists and pedestrians, including those with disabilities, must be reviewed for **every** project.

This form shall apply to all Department projects, mainline utility projects within the state right-of-way, the Office of the State Traffic Administration (OSTA) certificate applications receiving state or federal funding, and municipal transportation projects that receive state or federal funding. This form provides designers the documentation and information needed to make decisions on the need and extent of bicycle and pedestrian features that should be included in a project. This form is not intended to dictate what features should be included in a project design, as guidance on those questions can be found in numerous other reference documents. This form should be completed to the extent practical (at least Sections 1 & 2) during the project scoping phase and finalized by the completion of the Preliminary Design. Once signed, this form should be retained with the project documents.

Project Number(s):		Route(s):	
Project Name:			
Municipality(s):		Planning Region(s):	

SECTION 1: APPLICABILITY

Although bicycle and pedestrian accommodations should be considered for all projects, certain types of projects (e.g. bridge deck patching, culvert re-lining, projects on expressway mainlines) do not typically provide reasonable opportunity to provide improvements for these travel modes. Considering the project type answer the question below. If the question below is answered **no**, please explain why, then skip to the last page, sign the form, and file this form with the project documents. If the answer is **yes**, go to Section 2 and complete the rest of the form.

Does this project type provide reasonable opportunity to provide improvements for non-motorized access?	Yes ☐ No ☐
If no, why?	

SECTION 2: ASSESSMENT OF STUDY AREA

2.1 Study Area Map

Identify any non-motorized and/or transit generators located within the Study Area (Study Area is generally defined as approximately ½ mile radius from the project limits). Using the letters in the code column below, create a map from a location plan or aerial photograph indicating the location of existing or planned non-motorized or transit user generators identified below (for planned facilities, precede the letter with a P-).

Non-Motorized/Transit User Generators	Code
Residential Areas: Indicate any general areas of dense residential housing	**R**
Parks: Include areas that would attract people, whether officially designated as a park or not	**P**
Recreational Areas: Examples include athletic fields, dog parks	**RA**
Religious Facilities	**C**
Schools (including public and private schools, colleges, universities, daycare or other educational institution)	**S**
Health / Medical Facilities	**H**
Town Centers: typically would include areas where Town Halls, Libraries and other public facilities exist	**TC**
Shopping Centers: especially centers with businesses where non-motorized customers might be expected (restaurants, bookstores, drug stores, etc.)	**M**
Large Employment Businesses: Factories, large office buildings, hospitals, government offices	**E**
Bus Stops	**B**
Public Transit Facilities: train/bus stations, airports	**T**
Shared-use trail access / parking	**TA**
Other: other known facilities expected to generate or attract non-motorized users _____	**O**

2.2 Analysis of Study Area		
Using the map prepared in Section 2.1, and the resources suggested below, answer the following questions about the study area. **[For State/District-wide or Division of Traffic Engineering projects with many locations use the "Multi-location BPTNA Table" at: https://portal.ct.gov/DOT/PP_Policy/Documents/BikePed_Dashboard to answer questions marked with an (*)]**		Explain as needed (attach additional sheet(s) if needed)
a. * Referencing the CTDOT Interactive Bike Map located at: http://www.ctbikepedplan.org/interactivemap.html is this project located on the Connecticut Statewide On-Road or Off-Road Bicycle Planning Network?	Yes ☐ No ☐	
b. * Have all existing bicycle, pedestrian and transit features within and just beyond the project limits (such as: features and ADA accessibility of existing bus stops, sidewalks, shoulder widths, bicycle markings/signs, shared-use paths, etc.) been identified and assessed for condition and need? (If assistance is needed identifying Transit requirements a request can be sent to: DOT.PTransBikePed@ct.gov)	Yes ☐ No ☐	
c. * Are there any areas of concern where physical impediments to non-motorized travel through the study area exist? Physical impediments can be excessive grade, limited width of roads/bridges, gaps or need for sidewalks (indicated by worn foot paths), utility poles or other appurtenances restricting access, etc.	Yes ☐ No ☐	
d. * Is there any reason to anticipate an increase in travel by non-motorized and /or transit users through the project limits in the future?	Yes ☐ No ☐	
e. * Based on the U.S. Access Board's Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG), are there barriers to mobility inhibiting continuous access between schools, hospitals, senior care, or community centers, etc. for persons with disabilities that **cannot** be addressed in this project?	Yes ☐ No ☐	
f. * Is there a pattern of bicycle or pedestrian crashes within the project area? Crash information can be found by accessing the UCONN Crash Repository at (https://www.ctcrash.uconn.edu/).	Yes ☐ No ☐	

g. Does the project provide unique or primary access (defined as access which is not otherwise available within approximately one-half mile of the project) : • across a river, highway corridor or other natural and/or man-made barrier? • into or out of any of the bicycle and pedestrian generators listed above? • between communities?	Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐	
h. Is the project located near or provide new access or connectivity to state parks, forests or CT Designated Greenways? Information on State Parks, Forests and Greenways can be found at: http://www.ct.gov/deep/cwp/view.asp?a=2707&q=323852 and http://www.ct.gov/deep/parkmaps If yes, please notify the Trails and Greenways Program Coordinator at the Department of Energy & Environmental Protection, State Parks Division, by sending a location and description of the project to: deep.stateparks@ct.gov. This is for notification and not intended to be a formal review and /or concurrence.	Yes ☐ No ☐	
i. In accordance to the Complete Streets Policy, the Department will include non-motorized users in traffic counts to the extent possible. Has the existing pedestrian and/or bicyclist usage patterns within the project limits, particularly at intersection and midblock crossings, been observed / collected?	Yes ☐ No ☐	
j. Has there been any documented public concern or comments about non-motorized and/or transit needs in the area?	Yes ☐ No ☐	
k. Are there any comprehensive regional or local planning documents (such as Complete Streets Plan, Sidewalk Plan, Plan of Conservation & Development, etc.) that address bicyclists, pedestrian or transit user conditions within or proximate to the project limits? (Can usually be found on applicable website) Contact the RPO Coordination or Intermodal Planning units in the Bureau of Policy and Planning if assistance is needed.	Yes ☐ No ☐	

SECTION 3: NON-MOTORIZED AND TRANSIT ACCOMMODATIONS

Identify any non-motorized and/or transit user accommodations/improvements that may be considered as part of this project. This section is provided as a list of countermeasures that may be appropriate and is not intended to dictate what features should be included in the project design. **[For State/District-wide or Division of Traffic Engineering projects with many locations answer this section by considering all sites as if they were one location]**

3.1 Pedestrian Facilities and Crossing Treatments		*3.2 Bike Facilities (Cont.)*	
a. New sidewalks	Yes ☐ N/A ☐	e. Signage and/or pavement markings	Yes ☐ N/A ☐
b. Pedestrian median crossing island	Yes ☐ N/A ☐	f. Bicycle parking, bike racks/lockers	Yes ☐ N/A ☐
c. Curb extension/bulb-outs	Yes ☐ N/A ☐	g. Trail Improvements, including parking	Yes ☐ N/A ☐
d. Reduced Corner Radius	Yes ☐ N/A ☐	h. Special height railings	Yes ☐ N/A ☐
e. Pedestrian bridge/tunnel	Yes ☐ N/A ☐	*3.3 Bike & Pedestrian Treatments*	
f. New or relocated unsignalized or mid-block crossing	Yes ☐ N/A ☐	a. Road diet	Yes ☐ N/A ☐
g. Enhanced illumination at pedestrian crossings	Yes ☐ N/A ☐	b. Narrowing travel lane width	Yes ☐ N/A ☐
h. Pedestrian signing and yield lines	Yes ☐ N/A ☐	c. Corridor-wide speed calming	Yes ☐ N/A ☐
i. Parking restrictions near crossings	Yes ☐ N/A ☐	*3.4 Transit Facilities*	
j. Pedestrian hybrid beacon [PHB; also known as the High intensity Activated crossWalK (HAWK)]	Yes ☐ N/A ☐	a. New or revised bus stops	Yes ☐ N/A ☐
		b. Bus shelters	Yes ☐ N/A ☐
k. Rectangular rapid flashing beacon (RRFB)	Yes ☐ N/A ☐	c. Standing pads	Yes ☐ N/A ☐
l. Pedestrian fencing on bridges	Yes ☐ N/A ☐	d. New or revised crossing for bus stop	Yes ☐ N/A ☐
		3.5 Streetscape Elements	
3.2 Bike Facilities		a. Landscaping, street trees, planters, buffer strips, etc.	Yes ☐ N/A ☐
a. Dedicated bike lane or cycle track	Yes ☐ N/A ☐	b. Decorative lighting	Yes ☐ N/A ☐
b. Shared-used lanes	Yes ☐ N/A ☐	c. Public seating or benches	Yes ☐ N/A ☐
c. Shared-used path	Yes ☐ N/A ☐	*3.6 Other (please specify):*	
d. Wider shoulders	Yes ☐ N/A ☐		

Once completed this form should be signed, attached to the Preliminary Design Statement, and filed with the project documents in ProjectWise. If the answer to the question under Section 1 "Applicability" is "Yes", please email the link to the completed form in ProjectWise (or a PDF copy) to: CTDOT.BikePedReviews@ct.gov. Comments will be provided if necessary however, designers are not required to obtain concurrence to move forward with design. This form will be maintained and periodically updated by the Office of Strategic Planning & Projects in the Bureau of Policy & Planning.

Prepared By: _____
Project Engineer - Print Name

_____ Date: _____
Signature

Approved By: _____
Project Manager - Print Name

_____ Date _____
Signature

Town of Redding

100 Hill Road, PO Box 1028
Redding, Connecticut 06875

Natalie Ketcham
First Selectman

203-938-2002
FAX 203-938-8816

WAIVER OF COMPENSATION & APPRAISALS

Whereas, _____ is the owner of certain real property situated in the Town of Redding, County of Fairfield, and State of Connecticut, upon which the Town of Redding requires certain permanent acquisition of an easement to construct and maintain sidewalk, and easement for right to grade, easement for temporary work area for the purpose of accessing the subject area during site construction.

Whereas, _____ has been informed of its right to receive any and all just compensation for said acquisition of permanent and temporary easements in compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970; and

Now therefore, said does hereby waive its right to receive any and all just compensation for said acquisition of permanent and temporary easements described on the map entitled:

"TOWN OF REDDING. MAP SHOWING EASEMENTS ACQUIRED FROM

No. 116-013, Serial No. 1, Sheet 1 of 1.

Please provide proof that, as the , that you are an authorized signatory.

By: _____ **Date** 11/6/09

Title: _____

Witness: _____ **Date** 11/6/09

GENERAL LETTER NUMBER: 71

Authorization:
Pursuant to the authority granted in Title 4a, Chapter 58, of the Connecticut General Statutes, as it may be amended from time to time, purchases of goods and/or services costing less than $200,000 may be made, subject to the limitations set forth in sections a) through c) below, without prior and specific approval of the Department of Administrative Services (DAS), as appropriate, **provided that a DAS contract does not exist for the goods and/or services being acquired.**

Additionally, purchases of goods and/or services specifically listed in section d) below may be made, as appropriate, **provided that a DAS contract does not exist for the goods and/or services being acquired**. Non-competitive purchases, as defined in section "d" below, are not subject to any monetary or date limitations.

THE AUTHORITY GRANTED BY THIS GENERAL LETTER 71 TO AGENCIES IS PERMISSIVE, NOT MANDATORY; DAS WILL SOLICIT QUOTATIONS, BIDS OR PROPOSALS ON BEHALF OF ANY AGENCY UPON REQUEST.

Application:

a) Minor nonrecurring purchases of any type of goods or services up to $5,000 (annually, per item) ., also known as direct or open market purchases, may be made without obtaining quotations or bids.

b) Purchases over $5,000 and up to $50,000 (annually, per item) must be based upon, when possible, at least three written quotations or bids, from responsible and qualified sources of supply.

c) Purchases over $50,000 and less than $200,000 (annually, per item) must be based upon, when possible, at least three written quotations or bids**,** from responsible and qualified sources of supply. Agencies must also publish their request for quotation or bid notice on the State Contracting Portal in accordance with the provisions in Connecticut General Statutes Section 4e-13. Instruction on posting bids to the State Contracting Portal can be found here: https://portal.ct.gov/DAS/Procurement/Contracting/DAS-Procurement-Biznet-Instructions-to-Post-Solicitations

d) The nature of certain purchases preclude competition and may be purchased directly without obtaining competitive quotations or bids. Such non-competitive purchases are limited to the following items only:

- Seminar or Certification Fees for Employees (i.e., Skill Path, Fred Pryor (or other local) seminars and/or professional designation/certification type trainings or workshops)
- Rental of conference and/or hotel facilities
- Publications
- Subscriptions (including electronic subscriptions)
- Advertising (including online and/or social media advertising fees)
- Dues, Fees, Tuitions, Honorariums, Sponsorships, Mentorships
- Certain public utility services (electric generation services, electric distribution services; water services, and natural gas distribution services)
- Cable and satellite television equipment and services (excluding internet services and excluding telephone services)
- Renewal of software licenses and Renewal of software maintenance
- Postage
- Licenses *(excluding software licenses)*
- Eyeglasses
- Dentures
- Hearing aids and hearing aid supplies
- Transportation of persons and freight
- Prosthetics
- Rehabilitation technology and placement equipment

d) Continued

- Donations to charitable organizations and scholarship funds
- Gift cards
- Exhibit space and booths at trade-shows/conventions or other events
- Hiring of guest speakers (i.e., notable persons or personalities) for conferences and/or other events
- Catering services
- Car wash services
- Florist services
- Payments of parking fees (including validations)
- Law enforcement service dogs
- Products or services from professional associations to which the agency is a member
- Railroad or utility flagging services, materials and/or installation of materials for railroad and utility services required by the Department of Transportation
- Reimbursements to educational institutions (i.e., regional education service centers) for training, professional development and program evaluation services required by the Department of Education
- Purchases by the Board of Education and Services for the Blind (BESB**)** and Department of Correction Enterprise Program of commodities for resale to BESB and DOC Enterprise customers
- Historical document conservation treatment
- Purchases by the Department of Emergency Services and Public Protection of various services to support the maintenance and operation of undercover" residential homes throughout the state.
- Expert Witnesses
- Purchases by the Department of Economic and Community Development of Fine Arts and Fine Art related services

No annual limits or restrictions are established for the specific categories of items listed in this section.. Upon the request of one or more agencies, DAS may supplement on a case-by-case basis the above categories of items and issue a revised General Letter 71 evidencing the change.

e) Emergency repairs and emergency purchases costing up to $200,000 may be made without obtaining quotations or bids **(excluding real property)**. An "emergency" exists where the normal operation of an agency (or portions thereof), the health or safety of any person, or the preservation of property would be seriously impaired, threatened or jeopardized if immediate action were not taken to correct the situation. All emergency purchases exceeding $200,000 must be directed to DAS for processing through a Standardization Transaction request. Such emergency requests must be submitted in writing to DAS for approval. **Purchases for repairs, changes or renovations to real property must be made in accordance with the Department of Administrative Services/Division of Construction Services ("DAS/DCS") guidelines and procedures for Agency Administered Projects.**

f) Purchase transactions between or among State agencies do not require competitive quotes and are not subject to annual limits or restrictions.

g) Agencies may purchase goods or contractual services from the United States Government, a federal agency, and any state government or any of their political subdivisions without obtaining quotes or competitive bids and without being subject to annual limits or restrictions. Agencies may not purchase from persons or entities who have contracts with any department, agency or instrumentality of the federal government (including cooperative purchase agreements and the use of federal contracts) without first obtaining the written **approval from DAS, as appropriate.**

h) Agencies are required to ensure that purchases for equipment or appliances meet or exceed the federal energy conservation standards and meet or exceed the federal Energy Star standards consistent with Connecticut General Statutes Section 4a-67c.

Review **A**n agency's failure to follow any of the terms or conditions in this General Letter 71 may result in DAS rescinding the agency's authority to purchase under this General Letter until such time as DAS is satisfied that the failure is not likely to recur. DAS may review any purchases made under this authority at any time. Agencies must retain copies of their request for quotations or invitations to bids, purchase orders, specifications, proposals and all corresponding documentation for the normal legal retention period or as otherwise provided for in Connecticut General Statutes Sections 11-8 and 11-8a. Agencies should not send to DAS copies of these documents unless otherwise requested. Agencies shall comply with Connecticut General Statute Section 4a-52a(e), as it may be amended from time to time, and all other applicable statutes, regulations and procedures..

Limitations

1. Agencies may not use the authority granted by this General Letter to purchase goods and contractual services that are already the subject of existing DAS contracts. Those goods and contractual services must be purchased against those existing contracts.
2. Agencies may not use the authority granted by this General Letter to enter into Personal Services Agreements or Purchase of Services Agreements.
3. Agencies may not issue Requests for Proposals ("RFPs") to make purchases of goods and contractual services unless previously so authorized in writing by DAS for each particular purchase.
4. As used in this General Letter, the terms "purchase" and "purchases" shall also mean "rent" and "rentals" (excluding purchases and rentals of real property).
5. When issuing bids or RFPs, agencies must follow all of the applicable requirements found in the DAS statutes, regulations and procedures governing purchases.
6. Agencies shall only allow purchasing under GL71 by staff holding any of the "Fiscal/Administrative" series of state job classifications.
7. Agencies shall establish procedures for Purchasing Card (p-card) holders that do not hold one of the above mentioned job classifications to ensure the p-card holders are trained in the use of state contracts and GL71, and to have an oversight and/or approval process in place for p-card purchases. This p-card oversight and/or approval process should be handled by agency fiscal staff who have sufficient purchasing experience and expertise.
8. All information technology purchases are required to have the approval of the DAS, Bureau of Enterprise Systems and Technology (BEST) prior to the purchase being made, regardless if it's a GL71 or a contract purchase.

Other Information:
To obtain instructions and assistance in publishing your bid notices under the authority of this General Letter or for other related questions, please contact the DAS Procurement Division at 860-713-5095.

CONNECTICUT DEPARTMENT OF TRANSPORTATION

POLICY STATEMENT

POLICY NO. EX.O. - 33
June 25, 2015

SUBJECT: Policy on Non-Federally Funded Contract Fees for Architects, Engineers and Consultants performing services for the Department

On May, 4 2015 the Office of Policy and Management (OPM) rescinded OPM General Letter No. 97-1. OPM is currently working, in consultation with DOT, to establish revised guidelines regarding the reasonableness and allow-ability of various cost factors related to engineering consultant services as required by Section 13b-20m of the Connecticut General Statutes.

In the interim, the Department will utilize the following Policy on Non-Federally Funded Contract Fees for Architects, Engineers and Consultants performing services for the Department:

All contracts for architects, engineers and consultants shall be negotiated and awarded on the following basis:

1. Burden, Fringe, Overhead and Profit – Actual but not to exceed 165% for work utilizing a Home Office rate and 130% for work utilizing a Field Office rate.

2. Travel – Maximum is established per the State Travel Regulations (Manager's Agreement).

Each such contract must contain appropriate language to clearly acknowledge the parameters of this letter.

James Redeker
Commissioner

STATE OF CONNECTICUT

Certificate of Compliance with Connecticut General Statute Section 31 - 57b

I hereby certify that all of the statements herein contained below have been examined by me, and to the best of my knowledge and belief are true and correct.

The _____ **HAS / HAS NOT**
Company Name (Cross out Non-applicable)

been cited for three (3) or more willful or serious or serious violations of any Occupational Safety and Health Act (OSHA) or of any standard, order or regulation promulgated pursuant to such act, during the three year period preceding the bid, provided such violations were cited in accordance with the provisions of any State Occupational Safety and Health Act of 1970, and not abated within the time fixed by the citation and such citation has not been set aside following appeal to the appropriate agency of court having jurisdiction or **HAS / HAS NOT** (Cross out Non-applicable) received one or more criminal convictions related to the injury or death of any employee in the three-year period preceding the bid.

The list of violations (if applicable) is attached.

_____
(Name of Firm, Organization or Corporation)

Signed: _____
Written Signature:

_____ _____
Name Typed: *(Corporation Seal)*

Title: _____
(Title of Above Person, typed)

Dated: _____

State of)
County of) ***ss:*** ***A.D., 20____***
)

Sworn to and personally appeared before me for the above, _____,
(Name of Firm, Organization, Corporation)

Signer and Sealer of the foregoing instrument of and acknowledged the same to be the free act and deed of

_____ _____, and his/her free act and deed as
(Name of Person appearing in front of Notary or Clerk)

_____.
(Title of Person appearing in front of Notary or Clerk)

My Commission Expires: _____
(Notary Public) *(Seal)*

Local Transportation Capital Improvement Program (LOTCIP) **4/2/2019**

ONLY Applies to Municipal Adminstered LOTCIP Projects ***not*** *on National Highway System*

Material Name	Unit	Test/Documentation	Frequency 1 per	Notes
Anchor Bolts	ea.	MC	project	1 per size
Asphalt Emulsions (CSS-1, RS-1 or SS-1)	gal	MC	10k	
Bituminous Concrete (HMA)	ton	D 2950 FLDT	day	See Note 3
Cement - Portland Type I/II	bag	FLDT	project	empty bag
Chemcial Anchor	lb.	QPL MC	project	
Concrete-Ready Mixed	c.y.	T22 FLDL	75	4 cylinders
Construction Signing	ea.	MC	project	
Geotextile	s.y.	QPL MC	project	
Gravel (Bank Run or Crushed)	c.y.	T27 LABT	5k	
Grout, Non-shrink	bag	MC	project	
Masonry Brick & Block (Solid)	ea.	FLDT	project	See Note 1
Pipe - Reinforced Concrete	l.f.	PC-1	project	See Note 1
Pipe (Metal & Plastic) All types	lf	MC	project	See Note 1
Pipe Arch - Aluminum	lf	MC	project	See Note 1
Precast Concrete Items (not pipe)	ea.	PC-1	Item type	
Prestressed Concrete Members	ea.	LABT	1	See Note 2 & 3
Reclaimed Misc. Aggregate	c.y.	T27/Chem Analysis	2500	See Note 5
Reclaimed Waste	c.y.	T180 LABT	50k	See Note 5
Sand (Masonry /Trenching & Backfilling)	c.y.	T27 LABT	2500	
Sheet Piling	l.f.	MC	project	See Note 4
Sign Post	ea	MC	project	See Note 1
Span Pole - Steel or Wood	ea.	MC	project	See Note 3
Steel Reinforcing Bars (Plain or Epoxy)	lb.	T244 MC	200t	
Stone (Broken/Crushed)	c.y.	T27 LABT	20k	
Structural Steel	cw	Shop Drawings	project	Notes 2, 3 & 4
Traffic Signal Equipment	ea.	MC	project	NA

Notes

1	Material should be inspected on the project site prior to use. Suspect material should be physically tested to determine conformance.
2	QC Inspection should be provided and documented during fabrication.
3	Contact the Department of Transportation Division of Materials Testing to determine vendor qualifications and QA inspection availablity.
4	Documentation should be provided to determine conformance to Buy America requirements.
5	FORM MAT-212 should be completed and provided by the Contractor prior to use of material.

Test Method/Test Type

LABT	Laboratory Test
FLDT	Test performed in the field
QPL	ConnDOT Qualified Products List (http://www.ct.gov/dot/lib/dot/documents/dresearch/conndot_qpl.pdf)
PC-1	MAT-308 Required from producer with shipment
MC*	Materials Certificate

*Should comply with ConnDOT Standard Specification Section 1.06.07

ConnDOT - LOTCIP
MATERIALS CERTIFICATION

LOTCIP PROJECT NO.: _____

LOTCIP PROJECT DESCRITION: _____

MUNICIPALITY: _____

THIS IS TO CERTIFY THAT:

Results of tests on acceptance samples indicate the materials incorporated in the construction work and the construction operations controlled by sampling and testing were in conformity with approved plans and specifications I and that such results compare favorably with the results of independent assurance sampling and testing.

Exceptions to the plans and specifications are documented in the project records and are also listed below:

- NONE

Certified by Designer of Record (PE, licensed in CT):

Signature: _____ Date: _____

Typed Name: _____

Title: _____

License No.: _____

CERTIFICATE OF ACCEPTANCE OF PROJECT **CON-501L**	STATE OF CONNECTICUT **DEPARTMENT OF TRANSPORTATION** *Bureau of Engineering and Construction*		LOTCIP STATE PROJECT NO(S).

DESCRIPTION OF CONTRACT		TOWN(S)
NAME OF HIGHWAY / ROUTE NO.	BEGINNING AT *(Specific Location - No Station Nos.)*	ENDING AT *(Specific Location - No Station Nos.)*

TO CONTRACTOR (*Street Address Only - No PO Boxes*)	DATE OF AWARD
TYPE OF IMPROVEMENT	DATE WORK ACCEPTED

All work and administrative requirements under the above described contract has been completed in accordance with the plans, specifications, and special provisions of the contract, and is recommended for acceptance in fulfillment of the terms of said contract.

(1) MUNICIPAL OFFICIAL	NAME / TITLE	DATE
(2) COUNCIL OF GOVERNMENTS OFFICIAL	NAME / TITLE	DATE

THE ABOVE DESCRIBED PROJECT IS HEREBY ACCEPTED AS OF _____

The payment of a certified final estimate of the full amount owing, including the reserved amount.

(3) BY ENGINEER (PE, licensed in CT)	NAME	DATE

CUT LINE

Instructions:

Addresses:

Include street addresses - not PO Boxes.

Municipal project, provide the mailing (street) address below for the municipal official who signed the CON-501L, and include this with the CON-501L submitted to ConnDOT :

Location:

BEGINNING AT / ENDING AT

Include a physical description in addition to available Milepoints - Do NOT use stations.

EX: 1		EX: 2	
BEGINNING AT	ENDING AT	BEGINNING AT	ENDING AT
East Main Street @ School Street	East Main Street @ Harris Hill	I-91 @ EX 3 BR. 1234 MP .04	I-91 @ EX 6 MP 20.4

1) Municipality to fill out form and submit to Engineer for signature of acceptance.
2) Municipality obtains signature of COG official.
3) Engineer Returns to Municipality for their signature
4) Municipality to send completed original form to contractor with copy to ConnDOT

a. Sample Annual Municipal State Single Audit

(Note: Sample is for year 1 of 3 for the example project that spanned 3 years. State Single Audit Reports w/Schedules of Expenditures of State Financial Assistance to be submitted for each year of project)

CITY OF MERIDEN, CONNECTICUT

STATE SINGLE AUDIT REPORT
JUNE 30, 2018

Note: This sample contains excerpts of a State Single Audit Report for illustration purposes and to reduce the size of the appendix. The full report(s) are to be submitted with the expenditure documentation package.

blumshapiro
accounting • tax • advisory

CITY OF MERIDEN, CONNECTICUT
STATE SINGLE AUDIT REPORT
JUNE 30, 2018
TABLE OF CONTENTS

Sample Schedule of Expenditures of State Financial Assistance

(Note: Sample is for year 1 of 3 for the example project that spanned 3 years. State Single Audit Reports w/Schedules of Expenditures of State Financial Assistance to be submitted for each year of project)

CITY OF MERIDEN, CONNECTICUT
SCHEDULE OF EXPENDITURES OF STATE FINANCIAL ASSISTANCE (CONTINUED)
FOR THE YEAR ENDED JUNE 30, 2018

State Grantor/Pass-Through Grantor/ Program Title	State Grant Program Core-CT Number	Passed Through to Subrecipients	Expenditures	
Department of Transportation				
Bus Operations	12001-DOT57931-12175			$ 332,847
Rail Operations	12001-DOT57951-12168			45
Town Aid Road Grants-Municipal	12052-DOT57131-43455		$ 331,870	
Town Aid Road-STO	13033-DOT57131-43459		331,870	
				663,740
Local Transportation Capital Program	13033-DOT57197-43584			974,330
Total Department of Transportation				1,970,962
Department of Public Health				
Local & District Departments of Health	11000-DPH48558-17009			77,506
Comprehensive Cancer Public Act	12060-DPH48876-35386			47,522
Connecticut Vaccine Program	12004-DPH48500-12563			9,327
Total Department of Public Health				134,355
Department of Emergency Services and Public Protection				
Drug Asset Forfeiture Revenue Account	12060-DPS32155-35142			13,266
Enhanced 911 Telecommunication Fund	12060-DPS32741-35190			19,857
Total Department of Emergency Services and Public Protection				33,123
Department of Social Services				
Hispanic Programs	11000-DSS60783-16118			29,078
Hispanic Programs-Municipality	11000-DSS60783-17029			109
Medicaid	11000-DSS60000-16020			170,386
Total Department of Social Services				199,573
Economic and Community Development				
Brownfield Remediation & Development	12060-ECD46260-35533			1,434,483
Urban Act Grant-OPM	13019-ECD46510-41240			38,141
Total Economic and Community Development				1,472,624
Mental Health and Addiction Services				
Drug Asset Forfeiture Revenue Account	12060-MHA53282-35148			177
Office of Early Childhood				
Temporary Assistance for Needy Families (TANF) Block Grant	11000-OEC64806-12584			10,792
Child Care Services	11000-OEC64841-16274	$ 363,950		363,950
School Readiness	11000-OEC64845-16158			16,530
School Readiness	11000-OEC64845-16274	3,750,529		3,849,565
School Readiness Quality Enhancement	11000-OEC64845-17097			11,807
Total Office of Early Childhood		4,114,479		4,252,644

The accompanying notes are an integral part of this schedule

b. Sample Final Certification of Total LOTCIP Expenditures

.

FINANCE DEPARTMENT
ROOM 212 CITY HALL
142 EAST MAIN STREET
MERIDEN, CONNECTICUT 06450-8022

KEVIN MCNABOLA
FINANCE DIRECTOR

PHONE (203) 630-4134
FAX: (203) 630-4135

May 7, 2021

William E. Grant, P.E.
Project Manager
Highway Design – Local Roads
Connecticut Department of Transportation
2800 Berlin Turnpike
PO Box 317546
Newington, Connecticut 06131-7546

Dear Mr. Grant:

DOT Grant Project No. L079-0001 - Local Transportation Capital Improvement Program (LOTCIP) requires the City of Meriden to provide a report of expenditures associated with the City of Meriden LOTCIP Program.

I hereby certify that the City had the following expenditures related to the project.

Total Amount Expended (FY 2018 – FY 2020):	$3,290,479.10

A ledger of transactions for the grant, along with copies of all supporting invoices and check payments, accompanies this certification.

Signed,

Kevin McNabola 5-7-21

Kevin McNabola, Finance Director

Appendix L

c. Sample Printout from Municipal Accounting System

(Note: Sample is for year 1 of 3 for the example project that spanned 3 years. Printouts for each project year to be submitted)

Account/Description Date Transaction Reference Type Work Order Job Vendor Projects/Grants	Debits	Credits	Balance

SELECTIONS: G/L Account - From 1002-3310-41-0-2018-492
LOTCIP - Construction
- To 1002-3310-41-0-2018-492
LOTCIP - Construction
Control MB
CITY OF MERIDEN
Transaction date from :
Transaction date to . :

Year - From 2018
Period - From 0 To 999
Function type All Accounts
Detail or Summary 1 1=Detail, 2=Summary
Print zero balances N Y=Yes, N=No
Account activity Current and Carry Forward
Suppress control accts N Y=Yes, N=No
Sequenced by Account Mask/Showing Account Mask

Requestor Frank Ocskasy - Finance
Account Security . : N

Appendix L

Account/Description / Date / Transaction / Type / Work Order / Job / Vendor / Projects/Grants	Reference	Debits	Credits	Balance
1002-3310-41-0-2018-492 LOTCIP - Construction				.00 *
9/18/17 Purchase Project Manageme IN FIA CARD SERVICES, N.A.	000000000181486	3,300.00		
10/26/17 INVOICE 599 JE	000000000181647	8,052.00		
10/26/17 INVOICE 597 JE	000000000181647	65,247.52		
12/13/17 PROF SVC-PRATT ST GATEWAY IN VANASSE HANGEN BRUSTLIN INC	000000000182215	6,377.63		
12/13/17 PROF SVC-PRATT ST GATEWAY IN VANASSE HANGEN BRUSTLIN INC	000000000182215	6,042.87		
2/01/18 PROF SERV DEC 2017 IN VANASSE HANGEN BRUSTLIN INC	000000000182887	6,290.01		
2/20/18 PRATT ST TRAFFIC IMP IN LAROSA CONSTRUCTION CO INC	000000000183107	63,308.65		
3/19/18 PROF SERV IN VANASSE HANGEN BRUSTLIN INC	000000000183515	11,927.33		
3/21/18 PRATT ST GATEWAY IN VANASSE HANGEN BRUSTLIN INC	000000000183585	28,847.34		
4/06/18 PRATT ST TRAFFIC IMPROV IN LAROSA CONSTRUCTION CO INC	000000000183795	54,470.53		
4/26/18 PRATT ST TRAFFIC IMPROV IN LAROSA CONSTRUCTION CO INC	000000000184099	173,890.89		
5/31/18 PRATT ST TRAFFIC IMPROVE IN LAROSA CONSTRUCTION CO INC	000000000184638	172,310.54		
5/31/18 PRATT ST TRAFFIC IMPROVE IN LAROSA CONSTRUCTION CO INC	000000000184638	29,296.84		
7/13/18 PRATT ST GATEWAY IN VANASSE HANGEN BRUSTLIN INC	000000000185406	33,152.59		
7/13/18 PRATT ST GATEWAY IN VANASSE HANGEN BRUSTLIN INC	000000000185406	28,666.75		
7/20/18 PRATT ST TRAFFIC IMPROV IN LAROSA CONSTRUCTION CO INC	000000000185512	149,299.40		
8/09/18 PRATT ST TRAFFIC IMPROVE IN LAROSA CONSTRUCTION CO INC	000000000185656	133,849.56		
		974,330.45		974,330.45
** LOTCIP - Construction Totals				974,330.45 *
Fund CONSTRUCTION MISC GR Totals		974,330.45		974,330.45

d. Sample Expenditure Summary

City of Meriden, CT
LOTCIP General Ledger Detail

Account#	Acct Desc	Date	Type	Description	Amount	VendorName (if Appl)	Check No	Check Amt (if Diff)	Ref
1002-3310-41-0-2018-492	LOTCIP - Construction	9/18/2017	IN	Purchase Project Manageme	$ 3,300.00	FIA CARD SERVICES, N.A. (Info Tech Inc.)	P-CARD		A
1002-3310-41-0-2018-492	LOTCIP - Construction	10/26/2017	JE	INVOICE 599	$ 8,052.00		JE		B1
1002-3310-41-0-2018-492	LOTCIP - Construction	10/26/2017	JE	INVOICE 597	$ 65,247.52		JE		B2
1002-3310-41-0-2018-492	LOTCIP - Construction	12/13/2017	IN	PROF SVC-PRATT ST GATEWAY	$ 6,377.63	VANASSE HANGEN BRUSTLIN INC	268682	$ 40,262.56	C
1002-3310-41-0-2018-492	LOTCIP - Construction	12/13/2017	IN	PROF SVC-PRATT ST GATEWAY	$ 6,042.87	VANASSE HANGEN BRUSTLIN INC	268682	$ 40,262.56	C
1002-3310-41-0-2018-492	LOTCIP - Construction	2/1/2018	IN	PROF SERV DEC 2017	$ 6,290.01	VANASSE HANGEN BRUSTLIN INC	269952	$ 11,291.16	D
1002-3310-41-0-2018-492	LOTCIP - Construction	2/20/2018	IN	PRATT ST TRAFFIC IMP	$ 63,308.65	LAROSA CONSTRUCTION CO INC	270294		E
1002-3310-41-0-2018-492	LOTCIP - Construction	3/19/2018	IN	PROF SERV	$ 11,927.33	VANASSE HANGEN BRUSTLIN INC	271178		F
1002-3310-41-0-2018-492	LOTCIP - Construction	3/21/2018	IN	PRATT ST GATEWAY	$ 28,847.34	VANASSE HANGEN BRUSTLIN INC	271374		G
1002-3310-41-0-2018-492	LOTCIP - Construction	4/6/2018	IN	PRATT ST TRAFFIC IMPROV	$ 54,470.53	LAROSA CONSTRUCTION CO INC	271643		H
1002-3310-41-0-2018-492	LOTCIP - Construction	4/26/2018	IN	PRATT ST TRAFFIC IMPROV	$ 173,890.89	LAROSA CONSTRUCTION CO INC	272248		I
1002-3310-41-0-2018-492	LOTCIP - Construction	5/31/2018	IN	PRATT ST TRAFFIC IMPROVE	$ 172,310.54	LAROSA CONSTRUCTION CO INC	273312	$ 201,607.38	J
1002-3310-41-0-2018-492	LOTCIP - Construction	5/31/2018	IN	PRATT ST TRAFFIC IMPROVE	$ 29,296.84	LAROSA CONSTRUCTION CO INC	273312	$ 201,607.38	J
1002-3310-41-0-2018-492	LOTCIP - Construction	7/13/2018	IN	PRATT ST GATEWAY	$ 33,152.59	VANASSE HANGEN BRUSTLIN INC	274894	$ 61,819.34	K
1002-3310-41-0-2018-492	LOTCIP - Construction	7/13/2018	IN	PRATT ST GATEWAY	$ 28,666.75	VANASSE HANGEN BRUSTLIN INC	274894	$ 61,819.34	K
1002-3310-41-0-2018-492	LOTCIP - Construction	7/20/2018	IN	PRATT ST TRAFFIC IMPROV	$ 149,299.40	LAROSA CONSTRUCTION CO INC	274965		L
1002-3310-41-0-2018-492	LOTCIP - Construction	8/9/2018	IN	PRATT ST TRAFFIC IMPROVE	$ 133,849.56	LAROSA CONSTRUCTION CO INC	275380		M
1002-3310-41-0-2018-492	LOTCIP - Construction	9/10/2018	IN	PRATT ST TRAFFIC IMPROV	$ 266,305.73	LAROSA CONSTRUCTION CO INC	276078		N
1002-3310-41-0-2018-492	LOTCIP - Construction	9/10/2018	IN	PRATT ST GATEWAY	$ 27,014.19	VANASSE HANGEN BRUSTLIN INC	276133	$ 53,970.89	O
1002-3310-41-0-2018-492	LOTCIP - Construction	9/10/2018	IN	PRATT ST GATEWAY	$ 26,956.70	VANASSE HANGEN BRUSTLIN INC	276133	$ 53,970.89	O
1002-3310-41-0-2018-492	LOTCIP - Construction	9/20/2018	IN	PROF SERV- PRATT GATEWAY	$ 10,751.71	VANASSE HANGEN BRUSTLIN INC	276456	$ 162,102.16	P
1002-3310-41-0-2018-492	LOTCIP - Construction	9/20/2018	IN	PROF SERV- PRATT GATEWAY	$ 13,380.17	VANASSE HANGEN BRUSTLIN INC	276456	$ 162,102.16	P
1002-3310-41-0-2018-492	LOTCIP - Construction	9/20/2018	IN	PROF SERV-PRATT GATEWAY	$ 29,185.69	VANASSE HANGEN BRUSTLIN INC	276456	$ 162,102.16	P
1002-3310-41-0-2018-492	LOTCIP - Construction	9/20/2018	IN	PROF SERV-PRATT GATEWA	$ 26,771.18	VANASSE HANGEN BRUSTLIN INC	276456	$ 162,102.16	P
1002-3310-41-0-2018-492	LOTCIP - Construction	10/19/2018	IN	PRATT ST GATEWAY	$ 248,629.46	LAROSA CONSTRUCTION CO INC	277223	$ 258,354.07	Q
1002-3310-41-0-2018-492	LOTCIP - Construction	11/5/2018	IN	09/30/2018PRATT ST GATEWA	$ 207,361.20	LAROSA CONSTRUCTION CO INC	277674		R
1002-3310-41-0-2018-492	LOTCIP - Construction	11/5/2018	IN	PROF SERV-PRATT ST GATEWA	$ 5,550.67	VANASSE HANGEN BRUSTLIN INC	277729	$ 10,726.42	S
1002-3310-41-0-2018-492	LOTCIP - Construction	11/30/2018	IN	PRATT ST GATEWAY	$ 511,827.15	LAROSA CONSTRUCTION CO INC	278637		T
1002-3310-41-0-2018-492	LOTCIP - Construction	1/7/2019	IN	PRATT ST GATEWAY	$ 414,774.42	LAROSA CONSTRUCTION CO INC	279606		U
1002-3310-41-0-2018-492	LOTCIP - Construction	2/19/2019	IN	PRATT ST GATEWAY	$ 79,748.16	LAROSA CONSTRUCTION CO INC	280698		V
1002-3310-41-0-2018-492	LOTCIP - Construction	2/19/2019	IN	PRATT ST GATEWAY	$ 533.27	VANASSE HANGEN BRUSTLIN INC	280745	$ 117,195.90	W
1002-3310-41-0-2018-492	LOTCIP - Construction	2/19/2019	IN	PRATT ST GATEWAY	$ 112,539.13	VANASSE HANGEN BRUSTLIN INC	280745	$ 117,195.90	W
1002-3310-41-0-2018-492	LOTCIP - Construction	2/19/2019	IN	PRATT ST GATEWAY	$ 4,123.50	VANASSE HANGEN BRUSTLIN INC	280745	$ 117,195.90	W
1002-3310-41-0-2018-492	LOTCIP - Construction	3/22/2019	IN	PRATT ST GATEWAY-ENG	$ 25,171.27	LAROSA CONSTRUCTION CO INC	281719		X
1002-3310-41-0-2018-492	LOTCIP - Construction	3/22/2019	IN	PRATT ST GATEWAY	$ 2,542.46	VANASSE HANGEN BRUSTLIN INC	281789		Y
1002-3310-41-0-2018-492	LOTCIP - Construction	4/2/2019	IN	PRATT ST GATEWAY-ENG	$ 141,173.14	LAROSA CONSTRUCTION CO INC	281923	$ 150,790.98	Z
1002-3310-41-0-2018-492	LOTCIP - Construction	5/6/2019	IN	PRATT ST GATEWAY	$ 1,835.24	LAROSA CONSTRUCTION CO INC	282830		AA
1002-3310-41-0-2018-492	LOTCIP - Construction	5/6/2019	IN	PRATT ST GATEWAY	$ 2,389.17	VANASSE HANGEN BRUSTLIN INC	282891		BB
1002-3310-41-0-2018-492	LOTCIP - Construction	5/20/2019	IN	PRATT ST GATEWAY	$ 2,308.25	VANASSE HANGEN BRUSTLIN INC	283354		CC
1002-3310-41-0-2018-492	LOTCIP - Construction	8/22/2019	IN	PRATT ST GATEWAY	$ 86,914.38	LAROSA CONSTRUCTION CO INC	285831		DD
1002-3310-41-0-2018-492	LOTCIP - Construction	12/30/2019	IN	PRATT ST GATEWAY	$ 803.74	VANASSE HANGEN BRUSTLIN INC	289632	$ 15,449.95	EE
1002-3310-41-0-2018-492	LOTCIP - Construction	12/30/2019	IN	PRATT ST GATEWAY IMPROVEM	$ 59,770.85	LAROSA CONSTRUCTION CO INC	289599	$ 90,426.71	FF
1002-3310-41-0-2018-492	LOTCIP - Construction	1/6/2020	JE	RECLASS EXP FROM 0401-7373-749	$ 7,787.82		JE		GG
					$ 3,290,479.10	**TOTAL**			

d. Sample Contractor Invoice with Proof of Payment

Note: Copies of all invoices with proof of payment to be submitted.

OK to Pay 2/13/18

APPLICATION AND CERTIFICATION FOR PAYMENT

AIA DOCUMENT G702

TO:
City of Meriden
142 East Main Street
Meriden, CT 06450

PROJECT:
Pratt Street Gateway Traffic Improvements

APPLICATION NO: 1.01
PERIOD TO: December 31, 2017
CITY PROJECT NO#: L079-001
FEDERAL AID NO.#:
STATE PROJECT NO#:
CONTRACT DATE:

Distribution to:
[ ] OWNER
[X] ENGINEER
[ ] CONTRACTOR

FROM CONTRACTOR:
LaRosa Construction Co., Inc.
1401 North Colony Road
Meriden, CT 06450

VIA ENGINEER:

PO# 84820

CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in connection with the Contract. Continuation Sheet, AIA Document G703, is attached.

1. ORIGINAL CONTRACT SUM $ 2,681,040.00
2. Net change by Change Orders $
3. CONTRACT SUM TO DATE (Line 1 ± 2) $ 2,681,040.00
4. TOTAL COMPLETED & STORED TO DATE (Column G on G703) $ 66,640.69
5. RETAINAGE:
   a. 0.050 % of Completed Work (Column D + E on G703) $ 3,332.03
   b. ______ % of Stored Material (Column F on G703) $
   Total Retainage (Lines 5a + 5b or Total in Column I of G703) $ 3,332.03
6. TOTAL EARNED LESS RETAINAGE (Line 4 Less Line 5 Total) $ 63,308.65
7. LESS PREVIOUS CERTIFICATES FOR PAYMENT (Line 6 from prior Certificate) $
8. CURRENT PAYMENT DUE $ 63,308.65
9. BALANCE TO FINISH, INCLUDING RETAINAGE (Line 3 less Line 6) $ 2,617,731.35

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner		
Total approved this Month		$0.00
TOTALS	$0.00	$0.00
NET CHANGES by Change Order	$0.00	

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown herein is now due.

FEB - 2 2018

CONTRACTOR: LaRosa Construction Company, Inc.

By: Michael P. Casey Date: 1/29/18

State of: Connecticut County of: New Haven
Subscribed and sworn to before me this 29 day of January 2018
Notary Public: Kristen Giordano
My Commission expires: 11/30/2020

KRISTEN D. GIORDANO
NOTARY PUBLIC
MY COMMISSION EXPIRES NOV. 30, 2020

ARCHITECT'S CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents, based on on-site observations and the data comprising the application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

AMOUNT CERTIFIED . . . . $

(Attach explanation if amount certified differs from the amount applied. Initial all figures on this Application and onthe Continuation Sheet that are changed to conform with the amount certified.)

ARCHITECT:

By: [signature] Date: 1/31/18

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

E

CONTINUATION SHEET

AIA Document G702, APPLICATION AND CERTIFICATION FOR PAYMENT, containing Contractor's signed certification is attached.
In tabulations below, amounts are stated to the nearest dollar.
Use Column I on Contracts where variable retainage for line items may apply.

AIA DOCUMENT G703

CITY PROJECT NO#: L079-001
FEDERAL AID NO.#:
STATE PROJECT NO#:

	A	B					D	E		G		H	I
	ITEM NO.	DESCRIPTION OF WORK	# Units	Unit	$/Unit	Contract PRICE	WORK COMPLETED PREVIOUS APPLICATIONS	WORK COMPLETED QUANTITY THIS PERIOD	TOTAL $ THIS PERIOD	TOTAL COMPLETED & STORED TO DATE	% (G ÷ C)	BALANCE TO FINISH (C-G)	RETAINAGE (IF VARIABLE RATE)
													5%
1	0201001A	CLEARING & GRUBBING	1	LS	170,162.74	170,162.74		0.25	$42,540.69	$42,540.69	25%	$127,622.06	$2,127.03
2	0201012	REMOVAL OF TREES	5	EA	300.00	1,500.00		5.00	$1,500.00	$1,500.00	100%		$75.00
3	0202000	EARTH EXCAVATION	1,730	CY	10.00	17,300.00			$0.00	$0.00	0%	$17,300.00	$0.00
4	0202100	ROCK EXCAVATION	182	CY	50.00	9,100.00			$0.00	$0.00	0%	$9,100.00	$0.00
6	202452A	TEST PIT	6	EA	800.00	4,800.00			$0.00	$0.00	0%	$4,800.00	$0.00
7	0202502A	REMOVAL OF CONCRETE PAVEMENT	3,132	CY	20.00	62,640.00			$0.00	$0.00	0%	$62,640.00	$0.00
8	0202529	CUT BITUMINOUS CONCERTE PAVEMENT	8,046	LF	1.25	10,057.50			$0.00	$0.00	0%	$10,057.50	$0.00
9	0205001	TRENCH EXCAVATION 0' - 4' DEEP	58	CY	20.00	1,160.00			$0.00	$0.00	0%	$1,160.00	$0.00
5	0205003	TRENCH EXCAVATION 0' - 10' DEEP	55	CY	30.00	1,650.00			$0.00	$0.00	0%	$1,650.00	$0.00
10	0209001	FORMATION OF SUBGRADE	5,444	SY	4.00	21,776.00			$0.00	$0.00	0%	$21,776.00	$0.00
11	0212000	SUBBASE	183	CY	30.00	5,490.00			$0.00	$0.00	0%	$5,490.00	$0.00
12	0213100	GRANULAR FILL	1,719	CY	30.00	51,570.00			$0.00	$0.00	0%	$51,570.00	$0.00
13	0219011A	SEIDMENT CONTROL SYSTEM AT CATCH BASIN	50	EA	225.00	11,250.00			$0.00	$0.00	0%	$11,250.00	$0.00
14	0304002	PROCESSED AGGREGATE BASE	208	CY	30.00	6,240.00			$0.00	$0.00	0%	$6,240.00	$0.00
15	0406171A	HMA S0.5	2,396	TON	103.00	246,788.00			$0.00	$0.00	0%	$246,788.00	$0.00
16	0406172A	HMA S0.375	2,396	TON	110.00	263,560.00			$0.00	$0.00	0%	$263,560.00	$0.00
17	0406236	MATERIAL FOR TACK COAT	4,327	GAL	10.00	43,270.00			$0.00	$0.00	0%	$43,270.00	$0.00
18	0406272A	MILLING OF BITUMINOUS CONCRETE (0" TO 6")	28,160	SY	5.00	140,800.00			$0.00	$0.00	0%	$140,800.00	$0.00
19	0406600	MATERIAL TRANSFER VEHICLE	4,792	TON	10.00	47,920.00			$0.00	$0.00	0%	$47,920.00	$0.00
20	0406999A	ASPHALT ADJUSTMENT COST	1	EST	20,000.00	20,000.00			$0.00	$0.00	0%	$20,000.00	$0.00
21	0506017A	LARGE BLOCK GRAVITY RETAINING WALL	1	LS	100,000.00	100,000.00			$0.00	$0.00	0%	$100,000.00	$0.00
22	0507001	TYPE "C" CATCH BASIN	3	EA	2,000.00	6,000.00			$0.00	$0.00	0%	$6,000.00	$0.00
23	0507006	TYPE "C" CATCH BASIN TOP	29	EA	700.00	20,300.00			$0.00	$0.00	0%	$20,300.00	$0.00
24	0507224	TYPE "C-L" CATCH BASIN TOP	8	EA	700.00	5,600.00			$0.00	$0.00	0%	$5,600.00	$0.00
25	0507567	MANHOLE FRAME AND COVRE	1	EA	600.00	600.00			$0.00	$0.00	0%	$600.00	$0.00
26	0507771	REST CATCH BASIN	37	EA	400.00	14,800.00			$0.00	$0.00	0%	$14,800.00	$0.00
27	0507831	CONVERT CATCH BASIN TO MANHOLE	2	EA	1,000.00	2,000.00			$0.00	$0.00	0%	$2,000.00	$0.00
28	0586650	RESET MANHOLE	56	EA	300.00	16,800.00			$0.00	$0.00	0%	$16,800.00	$0.00
29	0651001	BEDDING MATERIAL	35	CY	45.00	1,575.00			$0.00	$0.00	0%	$1,575.00	$0.00
30	0651012	15" R.C. PIPE	136	LF	40.00	5,440.00			$0.00	$0.00	0%	$5,440.00	$0.00
31	0714020	TEMPORARY SHEETING PILING	525	SF	30.00	15,750.00			$0.00	$0.00	0%	$15,750.00	$0.00
32	0715020	SHEET PILING MATERIAL LEFT IN PLACE	525	SF	50.00	26,250.00			$0.00	$0.00	0%	$26,250.00	$0.00
33	0813041A	6" X 18" GRANITE STONE CURBING	4,491	LF	50.00	224,550.00			$0.00	$0.00	0%	$224,550.00	$0.00
34	0813042A	6" X 8" GRANITE STONE CURBING	2,150	LF	40.00	86,000.00			$0.00	$0.00	0%	$86,000.00	$0.00
35	0813051A	6" X 18" GRANITE STONE CURVED CURBING	487	LF	50.00	24,350.00			$0.00	$0.00	0%	$24,350.00	$0.00
36	0813052A	6" X 8" GRANITE STONE CURVED CURBING	133	LF	40.00	5,320.00			$0.00	$0.00	0%	$5,320.00	$0.00
37	0814002	RESET GRANITE STONE CURBING	236	LF	40.00	9,440.00			$0.00	$0.00	0%	$9,440.00	$0.00
38	0912504	REMOVE TWO-CABLE GUIDE RAILING	210	LF	10.00	2,100.00			$0.00	$0.00	0%	$2,100.00	$0.00

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CONTINUATION SHEET

AIA Document G702, APPLICATION AND CERTIFICATION FOR PAYMENT, containing
Contractor's signed certification is attached.
In tabulations below, amounts are stated to the nearest dollar.
Use Column I on Contracts where variable retainage for line items may apply.

AIA DOCUMENT G703

CITY PROJECT NO#: L079-001
FEDERAL AID NO.#:
STATE PROJECT NO#:

	A	B					D	E		G		H	I
	ITEM NO.	DESCRIPTION OF WORK	# Units	Unit	$/Unit	Contract PRICE	WORK COMPLETED PREVIOUS APPLICATIONS	WORK COMPLETED QUANTITY THIS PERIOD	TOTAL $ THIS PERIOD	TOTAL COMPLETED & STORED TO DATE	% (G÷C)	BALANCE TO FINISH (C-G)	RETAINAGE (IF VARIABLE RATE)
													5%
39	0913001	4' CHAIN LINK FENCE	101	SF	60.00	6,060.00			$0.00	$0.00	0%	$6,060.00	$0.00
40	0921001A	CONCRETE SIDEWALK	10,749	SF	8.00	85,992.00			$0.00	$0.00	0%	$85,992.00	$0.00
41	0921005A	CONCRETE SIDEWALK RAMP	6,068	SF	9.00	54,612.00			$0.00	$0.00	0%	$54,612.00	$0.00
42	0921024A	GRANITE PAVER SETTS	3,687	SF	40.00	147,480.00			$0.00	$0.00	0%	$147,480.00	$0.00
43	0921040A	DETECTABLE WARNING STRIP (CAST IRON)	41	EA	450.00	18,450.00			$0.00	$0.00	0%	$18,450.00	$0.00
44	0921009A	FLEXI-PAVE POROUS PAVEMENT	6,291	SF	10.00	62,910.00			$0.00	$0.00	0%	$62,910.00	$0.00
45	0922501A	BITUMINOUS CONCRETE DRIVEWAY	131	SY	60.00	7,860.00			$0.00	$0.00	0%	$7,860.00	$0.00
46	0924006A	CONCRETE DRIVEWAY RAMP	42	CY	430.00	18,060.00			$0.00	$0.00	0%	$18,060.00	$0.00
47	0944000	FURNISHING AND PLACING TOPSOIL	2,673	SY	12.00	32,076.00			$0.00	$0.00	0%	$32,076.00	$0.00
48	0945060A	PINE BARK MULCH	2,122	SY	5.00	10,610.00			$0.00	$0.00	0%	$10,610.00	$0.00
49	0949059	ARONIA ARBUTIFOLIA RED CHOKEBERRY 2'-3' HT. B.B.	23	EA	40.00	920.00			$0.00	$0.00	0%	$920.00	$0.00
50	0949161	ILEX GLABRA "COMPACTA" COMPACT INKBERRY 18"-24" HT. B.B.	26	EA	70.00	1,820.00			$0.00	$0.00	0%	$1,820.00	$0.00
51	0949260	JUNIPERUS HORIZONTALIS BAR HARBOR, BAR HARBOR JUNIPER 15"-18" SPREAD B.B.	199	EA	35.00	6,965.00			$0.00	$0.00	0%	$6,965.00	$0.00
52	0949409	RHUS AROMATICA FRAGRANT SUMAC 18"-24" HT. B.R.	225	EA	50.00	11,250.00			$0.00	$0.00	0%	$11,250.00	$0.00
53	0949559	RUDBECKIA FULGIDA "GOLDSTRUM" GOLDSTRUM BLACK EYED SUSAN 1 GALLON	439	EA	31.00	13,609.00			$0.00	$0.00	0%	$13,609.00	$0.00
54	0949565	CALMAGROSTIS ACUTIFLORA "STRICTA" STRICTA REED GRASS 1 GALLON CONTAINER	334	EA	31.00	10,354.00			$0.00	$0.00	0%	$10,354.00	$0.00
55	0949776	CARPINUS BETULUS FASTIGIATA, PYRAMIDAL EUROPEAN HORNBEAM 3"-3 1/2" CAL. B.B.	3	EA	1,000.00	3,000.00			$0.00	$0.00	0%	$3,000.00	$0.00
56	0949872A	BAPTISIA AUSTALIS, BLUE WILD INDIGO 3 GAL. CONT.	78	EA	75.00	5,850.00			$0.00	$0.00	0%	$5,850.00	$0.00
57	0949829A	CORNUS SERICEA 'ALLEMAN'S COMPACT', DWARF RED TWIG DOGWOOD 3 GAL. CONT. 24"-36" HT.	22	EA	70.00	1,540.00			$0.00	$0.00	0%	$1,540.00	$0.00
58	0949848A	PANICUM VIRGATUM 'HEAVY METAL', SWITCHGRASS 1 GAL. CONT.	16	EA	40.00	640.00			$0.00	$0.00	0%	$640.00	$0.00
59	0950005	TURF ESTABLISHMENT	460	SY	2.00	920.00			$0.00	$0.00	0%	$920.00	$0.00
60	0969008A	MEDIAN ALERT	230	LF	50.00	11,500.00			$0.00	$0.00	0%	$11,500.00	$0.00
61	0969060A	CONSTRUCTION FIELD OFFICE, SMALL	18	MO	1,600.00	28,800.00		1.00	$1,600.00	$1,600.00	6%	$27,200.00	$80.00
62	0970006	TRAFFICPERSON (MUNICIPAL POLICE OFFICER)	1	EST	35,000.00	35,000.00			$0.00	$0.00	0%	$35,000.00	$0.00
63	0970007	TRAFFICPERSON (UNIFORMED FLAGGER)	960	HR	55.00	52,800.00			$0.00	$0.00	0%	$52,800.00	$0.00
64	0971001A	MAINTENANCE AND PROTECTION OF TRAFFIC	1	LS	40,000.00	40,000.00		0.25	$10,000.00	$10,000.00	25%	$30,000.00	$500.00
66	0975004	MOBILZATION AND PROJECT CLOSEOUT	1	LS	36,000.00	36,000.00		0.25	$9,000.00	$9,000.00	25%	$27,000.00	$450.00
65	0980001	CONSTRUCTION STAKING	1	LS	8,000.00	8,000.00		0.25	$2,000.00	$2,000.00	25%	$6,000.00	$100.00
67	1001001	TRENCHING AND BACKFILLING	735	LF	20.00	14,700.00			$0.00	$0.00	0%	$14,700.00	$0.00
68	1002010	LIGHT POLE BASE	3	E	800.00	2,400.00			$0.00	$0.00	0%	$2,400.00	$0.00
69	1003911A	REMOVE SPAN POLE	5	EA	2,000.00	10,000.00			$0.00	$0.00	0%	$10,000.00	$0.00
70	1003912A	REMOVE CONCRETE LIGHT STANDARD BASE	2	EA	1,000.00	2,000.00			$0.00	$0.00	0%	$2,000.00	$0.00
71	1008465	2" RIGID METAL CONDUIT	735	LF	12.00	8,820.00			$0.00	$0.00	0%	$8,820.00	$0.00
72	1010011	CONCRETE HANDHOLD - TYPE I	9	EA	850.00	7,650.00			$0.00	$0.00	0%	$7,650.00	$0.00
73	1010052	CAST IRON HANDHOLE COVER (30"X30")	9	EA	450.00	4,050.00			$0.00	$0.00	0%	$4,050.00	$0.00
74	1111430	PREFORMED LOOP DETECTOR	221	LF	35.00	7,735.00			$0.00	$0.00	0%	$7,735.00	$0.00
75	1116300A	LED STOP SIGN	7	EA	1,000.00	7,000.00			$0.00	$0.00	0%	$7,000.00	$0.00

(E)

CONTINUATION SHEET

AIA Document G702, APPLICATION AND CERTIFICATION FOR PAYMENT, containing Contractor's signed certification is attached.
In tabulations below, amounts are stated to the nearest dollar.
Use Column I on Contracts where variable retainage for line items may apply.

AIA DOCUMENT G703

CITY PROJECT NO#: L079-001
FEDERAL, AID NO.#:
STATE PROJECT NO#:

	A	B					D	E		G		H	I
	ITEM NO.	DESCRIPTION OF WORK	# Units	Unit	$/Unit	Contract PRICE	WORK COMPLETED PREVIOUS APPLICATIONS	WORK COMPLETED QUANTITY THIS PERIOD	TOTAL $ THIS PERIOD	TOTAL COMPLETED & STORED TO DATE	% (G ÷ C)	BALANCE TO FINISH (C-G)	RETAINAGE (IF VARIABLE RATE)
													5%
76	1131002A	REMOTE CONTROL CHANGEABLE MESSAGE SIGN	1	EA	7,000.00	7,000.00			$0.00	$0.00	0%	$7,000.00	$0.00
77	1205046	STREET NAME SIGN	20	EA	300.00	6,000.00			$0.00	$0.00	0%	$6,000.00	$0.00
78	1206013	REMOVAL OF EXISTING SIGNS	1	LS	1,000.00	1,000.00			$0.00	$0.00	0%	$1,000.00	$0.00
79	126023A	REMOVAL AND RELOCATION OF EXISTING SIGNS	1	LS	2,500.00	2,500.00			$0.00	$0.00	0%	$2,500.00	$0.00
80	1208927	SIGN FACE- SHEET ALUMINUM (TYPE IX RETROREFLECTIVE SHEETNG)	47	SF	80.00	3,760.00			$0.00	$0.00	0%	$3,760.00	$0.00
81	1208932	SIGN FACE - SHEET ALUMINUM (TYPE IV RETROREFLECTIVE SHEETING)	444	SF	50.00	22,200.00			$0.00	$0.00	0%	$22,200.00	$0.00
82	1209005	PAINTED PAVEMENT MARKINGS - 4" YELLOW	9,323	LF	0.16	1,491.68			$0.00	$0.00	0%	$1,491.68	$0.00
83	1209007	PAINTED PAVEMENT MARKINGS - 12" WHITE	472	LF	1.50	708.00			$0.00	$0.00	0%	$708.00	$0.00
84	1209009	PAINTED PAVEMENT MARKINGS - 4" WHITE	9,438	LF	0.16	1,510.08			$0.00	$0.00	0%	$1,510.08	$0.00
85	1209401	PAINTED LEGEND ARROS AND MARKINGS	310	SF	1.50	465.00			$0.00	$0.00	0%	$465.00	$0.00
86	1209431	THERMOPLASTIC PAVEMENT LINE - 4" WHITE	16,777	LF	1.00	16,777.00			$0.00	$0.00	0%	$16,777.00	$0.00
87	1209434	THERMOPLASTIC PAVEMENT LINE - 12" WHITE	472	LF	3.00	1,416.00			$0.00	$0.00	0%	$1,416.00	$0.00
88	1209441	THERMOPLASTIC PAVEMENT LINE - 4" YELLOW	9,365	LF	1.00	9,365.00			$0.00	$0.00	0%	$9,365.00	$0.00
89	1209467	THERMOPLASTIC LEGENDS, ARROWS AND MARKINGS	341	LF	3.00	1,023.00			$0.00	$0.00	0%	$1,023.00	$0.00
90	1211001	REMOVAL OF PAVEMENT MARKINGS	3,882	SF	1.00	3,882.00			$0.00	$0.00	0%	$3,882.00	$0.00
91	1220013	CONSTRUCTION SIGNS - BRIGHT FLUORESCENT SHEETING	134	SF	40.00	5,360.00			$0.00	$0.00	0%	$5,360.00	$0.00
92	1302061A	ADJUST GATE BOX (WATER)	31	EA	100.00	3,100.00			$0.00	$0.00	0%	$3,100.00	$0.00
93	1302062	ADJUST GATE BOX (GAS)	11	EA	100.00	1,100.00			$0.00	$0.00	0%	$1,100.00	$0.00
	092101	CONCRETE SIDEWALK	2,625	SF	8.00	21,000.00			$0.00	$0.00	0%	$21,000.00	$0.00
	0813042A	6"X8" GRANITE STONE CURBING	436	LF	40.00	17,440.00			$0.00	$0.00	0%	$17,440.00	$0.00
	0813052A	6"X8" GRANITE STONE CURVED CURBING	25	LF	40.00	1,000.00			$0.00	$0.00	0%	$1,000.00	$0.00
	0921024A	GRANITE PAVERS SETTS	1,790	SF	40.00	71,600.00			$0.00	$0.00	0%	$71,600.00	$0.00
						2,681,040.00			$66,640.69	$66,640.69		$2,614,399.32	$3,332.03

Gross Amount	66,640.69
Retainage 5%	3,332.03
Net Amount	63,308.65

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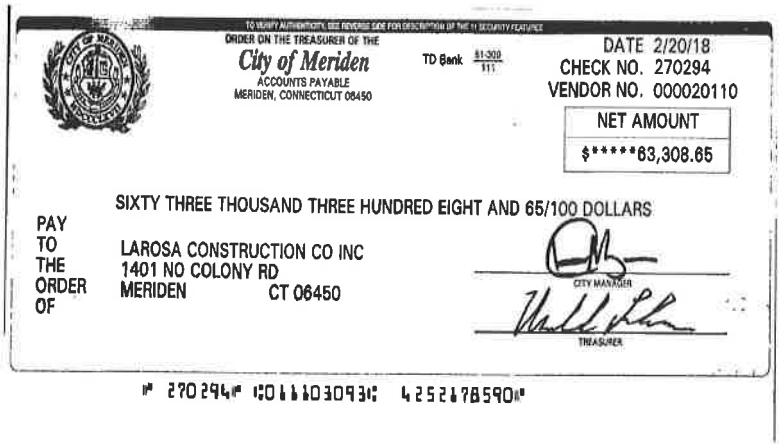


TO VERIFY AUTHENTICITY, SEE REVERSE SIDE FOR DESCRIPTION OF THE 11 SECURITY FEATURES

ORDER ON THE TREASURER OF THE
City of Meriden
ACCOUNTS PAYABLE
MERIDEN, CONNECTICUT 06450

TD Bank 61-300/111

DATE 2/20/18
CHECK NO. 270294
VENDOR NO. 000020110

NET AMOUNT
$*****63,308.65

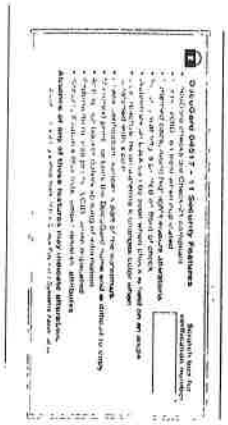
SIXTY THREE THOUSAND THREE HUNDRED EIGHT AND 65/100 DOLLARS

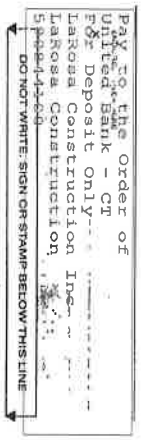
PAY TO THE ORDER OF
LAROSA CONSTRUCTION CO INC
1401 NO COLONY RD
MERIDEN CT 06450

CITY MANAGER

TREASURER

⑈ 270294⑈ ⑆011103093⑆ 425267859⓪⑈





Pay to the Order of
United Bank - CT
For Deposit Only
LaRosa Construction Inc
LaRosa Construction
DO NOT WRITE, SIGN OR STAMP BELOW THIS LINE

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PO 085134

Appendix L

d. Sample Consultant Inspection Services Invoice with Proof of Payment

Note: Copies of all invoices with proof of payment to be submitted.

Invoice

3/8/17

FEB 13 2018

Please remit to:
Vanasse Hangen Brustlin, Inc.
101 Walnut Street, PO Box 9151 | Watertown, MA 02471
617.924.1770 F 617.924.2286

Mr. Howard Weissberg
City Engineer
City of Meriden
Engineering
142 East Main Street, Room 19
Meriden, CT 06450-8022

Invoice No: **0257826**
February 9, 2018
VHB Project No: 42324.00

Invoice Total $11,927.33

Pratt Street Gateway - Construction Management Services
City of Meriden, CT
~~PO No. 084743~~
PO No. 085134

Professional Services from December 31, 2017 to January 27, 2018

Professional Personnel

Note: Names have been redacted in this sample for confidentiality. It is strongly recommended that the Municiplaity receive copies of employee timesheets and a payroll certification with each Consultant invoice to document hours and rates being invoiced.

	Hours	Rate	Amount	
[redacted]	17.50	58.90	1,030.75	
	7.50	53.13	398.48	
	33.00	59.78	1,972.74	
	.50	30.86	15.43	
	25.00	48.56	1,214.00	
Totals	83.50		4,631.40	
	2.3744 times	**4,631.40**	**10,996.80**	
	1.08 times	**10,996.80**	**11,876.54**	
Total Labor				**11,876.54**

Reimbursable Expenses

Note: It is strongly recommended that the Municipality receive copies of mileage logs and receipts for all direct expenses with each Consultant invoice to support the expenses being invoiced.

Mileage	48.65	
Printing	2.14	
Total Reimbursables	**50.79**	**50.79**

Billing Limits	**Current**	**Prior**	**To-Date**
Labor	11,876.54	24,004.40	35,880.94
Limit			186,027.12
Remaining			150,146.18
Expenses	50.79	45.65	96.44
Limit			10,000.00
Remaining			9,903.56

Total this Invoice $11,927.33

Billings to Date

	Current	Prior	Total
Labor	11,876.54	24,004.40	35,880.94
Expense	50.79	45.65	96.44
Totals	**11,927.33**	**24,050.05**	**35,977.38**

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Payment Due Upon Receipt.

Original Copy

ORDER ON THE TREASURER OF THE
City of Meriden
ACCOUNTS PAYABLE
MERIDEN, CONNECTICUT 06450

TD Bank 61-209/111

DATE 3/19/18
CHECK NO. 271178
VENDOR NO. 000036849

NET AMOUNT
$*****11,927.33

ELEVEN THOUSAND NINE HUNDRED TWENTY SEVEN AND 33/100 DOLLARS

PAY TO THE ORDER OF
VANASSE HANGEN BRUSTLIN INC
101 WALNUT STREET
PO BOX 9151
WATERTOWN MA 02471

CITY MANAGER

TREASURER

⑈ 271178⑈ ⑆011103093⑆ 425217859⓪⑈

DocuGard 04317 – 11 Security Features

DO NOT WRITE, SIGN OR STAMP BELOW THIS LINE

FOR DEPOSIT ONLY
ACCOUNT 113016371
VANASSE HANGEN BRUSTLIN INC
WATERTOWN MA

F

LOCAL TRANSPORTATION CAPITAL IMPROVEMENT PROGRAM

REGIONAL QUARTERLY STATUS REPORT

REGION: _____

AS OF: _____

Note: Quarterly Status Reports should be completed as of September 30, December 31, March 31, and June 30th.

***includes contract items, contingency, and incidentals**

PROJECTS RECEIVING AUTHORIZATION TO AWARD/AUTHORIZATION TO PROCEED:

LOTCIP #	TOWN	ROUTE/ROAD	PROJECT DESCRIPTION	TOTAL GRANT AMOUNT* (Based on Award)	ACTUAL OR ANTICIPATED PROJECT AWARD DATE	ESTIMATED COMPLETION DATE	PROJECT EXPENDITURES TO DATE*	ACTUAL COMPLETION DATE

PROJECTS RECEIVING COMMITMENT LETTER TO FUND:

LOTCIP #	TOWN	ROUTE/ROAD	PROJECT DESCRIPTION	CURRENT COMMITMENT TO FUND VALUE*	CURRENT COST ESTIMATE*	ESTIMATED FINAL DESIGN SUBMISSION DATE TO DEPARTMENT	ANTICIPATED CONSTRUCTION START DATE

LOTCIP ADMINISTRATIVE AWARD:

Grant Amount:

Funds Expended to Date:

CAPITOL REGION COG
CASH FLOW SUMMARY
DOT01703279GR

**As of 3/4/2019	SFY2014	SFY2015	SFY2016	SFY2017	SFY2018	SFY2019	SFY2020	SFY2021	
BEGINNING BALANCE	**0.00**	**9,517,640.00**	**17,895,199.00**	**27,437,014.46**	**28,734,993.32**	**17,624,602.47**			
BUDGET ALLOTMENTS/(RELEASES):									**TOTAL**
Allocation By State Bond Commission	9,812,000.00	10,035,000.00	12,600,000.00	8,120,000.00		10,580,000.00			51,147,000.00
Transfer from WINCOG			1,424,000.00						1,424,000.00
Transfer from CCRPA					500,441.55				500,441.55
DOTL1310001RW Southington Jude Lane					-42,000.00				-42,000.00
									0.00
									0.00
TOTAL FUNDS IN	9,812,000.00	10,035,000.00	14,024,000.00	8,120,000.00	458,441.55	10,580,000.00	0.00	0.00	53,029,441.55
PAYMENTS/(UNEXPENDED GRANT):									**TOTAL**
CRCOG Admin Grant	294,360.00		378,000.00	621,600.00		537,600.00			1,831,560.00
L164-0001CN Windsor Kennedy Rd		777,441.00			-82,818.35				694,622.65
CRCOG UConn Study		880,000.00							880,000.00
L051-0001CN Farmington South Rd			1,972,713.14						1,972,713.14
L076-0001RW Manchester Hillstown Rd/Spencer St			8,000.00						8,000.00
L076-0001CN Manchester Hillstown Rd/Spencer St			2,123,471.40						2,123,471.40
L118-0001CN Rocky Hill Old Forge Rd				779,173.56					779,173.56
L164-0002CN Windsor Prospect Hill Rd				1,581,885.00					1,581,885.00
L048-0001CN Enfield Freshwater Blvd				1,054,287.31					1,054,287.31
L132-0001CN South Windsor Avery St Phase 2				1,715,795.16					1,715,795.16
L032-0001CN Coventry Lake St/Cross St				1,069,280.11					1,069,280.11
L139-0001CN Suffield Thrall Ave					1,340,863.80				1,340,863.80
L164-0003CN Windsor Kennedy Rd Phase 2					722,708.64				722,708.64
L078-0001CN Marlborough South Main St					1,317,139.00				1,317,139.00
L076-0002CN Manchester North Main St					1,790,730.31				1,790,730.31
L055-0001CN Granby Salmon Brk St & Hartford Ave					500,710.20				500,710.20
L053-0001CN Glastonbury Hebron Ave					1,276,806.00				1,276,806.00
L109-0002CN Plainville Northwest Drive					928,045.20				928,045.20
L076-0003CN Manchester Tolland Turnpike					860,208.60				860,208.60
L011-0001CN Bloomfield Granby St					1,292,000.00				1,292,000.00
L164-0004CN Windsor Day Hill Road					1,622,439.00				1,622,439.00
L132-0002RW South Windsor Buckland Sidewalk						29,248.00			29,248.00
L132-0002CN South Windsor Buckland Sidewalk						1,267,488.40			1,267,488.40
L132-0003CN South Windsor Avery St						1,352,558.40			1,352,558.40
L077-0001CN Mansfield Eastwood Rd Sidewalk						371,323.80			371,323.80
L131-0001CN Southington Jude Lane/West St						676,691.62			676,691.62
									0.00
TOTAL FUNDS OUT	294,360.00	1,657,441.00	4,482,184.54	6,822,021.14	11,568,832.40	4,234,910.22	0.00	0.00	29,059,749.30
AVAILABLE BALANCE	**9,517,640.00**	**17,895,199.00**	**27,437,014.46**	**28,734,993.32**	**17,624,602.47**	**23,969,692.25**			**23,969,692.25**

Note: Unexpended grant amounts returned to CTDOT based on final audit are reflected in Core and the Cash Flow summary as a reduction to expenditures

PROJECTS FUNDED UNDER CCRPA PROJECT DOT01703278GR		SFY2015	SFY2016	SFY2017	SFY2018				
L088-0001CN New Britain Allen Street		1,600,000.00							1,600,000.00
L109-0001CN Plainville Cooke Street			1,368,290.40						1,368,290.40
DOTL1310001RW Southington Jude Lane (CTDOT administered ROW)				30,000.00					30,000.00
TOTAL FUNDED UNDER CCRPA PROJECT		1,600,000.00	1,368,290.40	30,000.00	0.00				**2,998,290.40**

**CCRPA dissolved as a result of the OPM redesignated planning regions. The CCRPA regional project was kept open to make payments for projects that received a Commitment to Fund Letter prior to dissolution. All commitments have now been paid from the CCRPA project except for Southington project at Jude Lane/West Street. The balance of funding ($500,441.55) under the CCRPA regional project has been transferred to CRCOG project DOT01703279GR.

	SUMMARY BOND AUTHORIZATIONS/UNALLOCATED BALANCE BY FISCAL YEAR								
	SFY2014	SFY2015	SFY2016	SFY2017	SFY2018	SFY2019	SFY2020	SFY2021	TOTAL
Total Authorized for LOTCIP Program	**45,000,000**	**45,000,000**	**74,000,000**	**74,000,000**	**62,000,000**	**64,000,000**	**0**	**0**	**364,000,000**
CRCOG Suballocation	9,812,000	10,035,000	20,720,000	20,580,000	17,360,000	17,780,000	0	0	**96,287,000**
Allocated to Date by SBC	9,812,000	10,035,000	20,720,000	10,580,000	0	0	0	0	**51,147,000**
Remaining to be Allocated	**0**	**0**	**0**	**10,000,000**	**17,360,000**	**17,780,000**	**0**	**0**	**45,140,000**

****Periodic draw downs of funding are processed as needed prior to suballocation to the regions to fund CTDOT oversight project DOT01703299PE.**
These draw downs account for the variation in suballocated amounts between years that have the same authorized amount
-$1,000,000 against the SFY2014 authorized amount
-$500,000 against the SFY2017 authorized amount
-$500,000 against the SFY2019 authorized amount

FINAL SUBMISSION DOCUMENTATION

Final Submission is hereby made by the _____ of _____ for funding under the guidelines of the LOTCIP for the following project:

LOTCIP Project Number: _____

Project Title: _____

Project Location: _____

Engineer of Record (CT Professional Engineer Responsible for Project Design):

Name: _____

Firm: _____

License No.: _____ Telephone: _____ FAX: _____

Street Address: _____

City, State, ZIP: _____

E-Mail: _____

Municipal Administrator (Employee Responsible for Construction Administration *See Construction – Municipal Staffing*):

Name & Title of Official Contact: _____

Street Address: _____

City, State, ZIP: _____

Telephone Number: _____ FAX: _____

E-Mail: _____

COG Information:

Name & Title of Official Contact: _____

Street Address: _____

City, State, ZIP: _____

Telephone Number: _____ FAX: _____

E-Mail: _____

Project Schedule

Final Design (Accepted by Municipality) _____

Rights of Way (Acquisition Complete) _____

Utilities (Coordination Completion) _____

Public Involvement/Meeting (Completed) _____

Anticipated Construction Advertising _____

Anticipated Construction Contract Award _____

Anticipated Construction Start _____

Anticipated Construction Completion _____

Items to be submitted as part of the final package

_____ Plans

_____ Specifications

_____ Contract Documents

_____ Engineer's Final Estimates

_____ Structural Load Ratings – if applicable

_____ Scour Analysis Reports – if applicable

_____ General Municipal Certification

_____ Certification of Engineer of Record

_____ COG Endorsement

_____ District Acceptance Letter (Encroachment Review) – if applicable

_____ State Historic Preservation Office Determination Letter

Project Cost Data Summary

	Commitment to Fund	Final Submission
Rights of Way Cost (If Applicable)	$	$
Estimated Construction Costs (Include Detailed Estimate)	$	$
Incidentals (10% of Construction Costs Only)	$	$
Contingencies (10% of Construction Costs Only)	$	$
Eligible Utility Relocation Costs	$	$
Total Estimated Project Cost	$	$

Local Transportation Capital Improvement Program

GENERAL MUNICIPAL CERTIFICATION

LOTCIP Project Number: _____

Project Title: _____

I, _____, duly authorized

name

by the (Town, City, Borough) of _____ do certify and attest to the following:

1. That the project plans, specifications, and estimates have been approved and accepted. Any design exceptions from established local, AASHTO, the Department's Highway Design Manual, and/or the Department's Bridge Design Manual, as applicable, have been authorized by the Municipality and are documented and retained in the project records.

2. That the Municipality owns or has the responsibility for maintaining the facility for which funding is sought and will be responsible for all future maintenance of the facility.

3. That all public and private utility relocations have been addressed.

4. That all permits required from Federal, State, and local agencies have been obtained, and all applicable permits, permit conditions, and regulations will be complied with.

5. That the public involvement process has been completed, the concerns of the residents have been considered, the project is in the best interest of the general public.

6. That the project complies with Connecticut Environmental Policy Act as applicable.

7. That the project is consistent with the local conservation and development plan.

8. The Municipality has coordinated with the Department's Office of Maintenance during the design phase and the design has been deemed acceptable for issuance of an encroachment permit for all work within the State right of way.

9. Rights of Way (select one)

   ☐ There are no right of way acquisition activities required as part of the proposed project.

   ☐ All right of way activities associated with the project have been completed, as evidenced by submission of the required documentation described in the Rights of Way section of the Local Transportation Capital Improvement Program guidelines.

   The purchase price for all property rights being acquired represents the fair market value of such property rights, as established by a certified appraiser.

For all property rights that were acquired by donation, a Waiver of Compensation and Appraisal Form has been properly executed.

Any relocations were completed in conformance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

☐ Right of way acquisitions are required. Acquisition activities were performed by the State.

10. Plans and specifications are complete and signed and sealed by the Engineer of Record.
11. That separate accounts have been established specifically for this project and all additions or disbursements will be made therefrom.

Signed: _____ Date: _____

Title: _____ *Municipal Seal*

Local Transportation Capital Improvement Program

CERTIFICATION BY ENGINEER OF RECORD

LOTCIP Project Number: _____

Project Title: _____

I, _____, do hereby certify:

name

1. That the project is designed to provide an approximate service life of:

   ☐ Not Applicable (Pavement Preservation Projects Only)

   ☐ 15 Years (Pavement Rehabilitation Projects Only)

   ☐ 20 Years (All Other Projects)

2. That the design complies with Americans with Disabilities Act of 1990, as applicable.

3. That the design complies with the established local standards, AASHTO, the Department's Highway Design Manual, and/or the Department's Bridge Design Manual and the Department's Bridge Load Rating Manual, as applicable. Any design exceptions from the above standards are based on sound engineering judgment, have been authorized by the Municipality, and are documented and retained in the project records.

Signed: _____ Date: _____

Title: _____

Conn. P. E. Registration: _____

(Stamp)

Local Transportation Capital Improvement Program

COG ENDORSEMENT

LOTCIP Project Number: _____

Project Title: _____

I, _____, duly authorized

name

by the _____

name of COG

do certify and attest to the following:

1. That the final submission package for the project is complete.
2. That the COG has selected this project as a regional priority and has authorized the use of the COG's LOTCIP funds for construction activities.
3. That based on the information contained in the final submission package and by virtue of this endorsement, the COG hereby fully supports the proposed project.

Signed _____ Date _____

Title _____

(Executive Director)

PAVEMENT INVESTIGATION FOR LOCAL ROAD PROJECTS

Introduction

This document outlines the required investigation for Local Roads (LOTCIP) projects that include pavement improvements. The guidance is broken out by categories of pavement improvement in order to identify the particular considerations, information, and investigative sampling required. This document considers only pavement with asphalt wearing surfaces and does not address concrete pavement wearing surfaces. The categories below attempt to capture some of the more common treatment strategies but do not seek to identify all pavement repair strategies.

Please contact the Pavement Design Unit at 860-594-3287 if you have any questions.

Category 1: Pavement Preservation

Surface Treatments (Bonded Overlay, Thin Overlay, Chip Seal, Microsurfacing, etc.):

A surface treatment project may be recommended for asphalt surfaced pavements with little or no areas of structural failure. Structural failures such as alligator fatigue cracking, potholes, and deformations generally indicate that the existing roadway structure, including asphalt and granular materials, are inadequate for some combination of the existing traffic, subgrade, and drainage conditions. In order to determine whether a surface treatment is appropriate, the roadway condition should first be surveyed to determine if the distresses are functional or structural in nature. Functional distresses are related to age and environmental impacts and may include transverse cracking, longitudinal cracking (non-wheelpath), block cracking, and raveling. For surface treatments, these functional distresses should be limited, covering some but not all of the area of the pavement surface, and should generally be low severity to moderate severity at worst.

Collecting the following minimum information is required for this effort:

- Perform a detailed distress survey to identify and estimate distress types, severities, and quantities using the linked documents as a reference to ensure the pavement is in good structural condition and can support a surface treatment.
    - FHWA - Distress Identification Manual
    - Pavement Interactive - Pavement Distresses
- Determine whether surface preparation will be required prior to treatment such as crack sealing and partial depth patching.
- Identify the latest traffic volumes which may be available here:
    - https://portal.ct.gov/DOT/PP_SysInfo/Traffic-Monitoring
        - AADT Reporting Tool
- Identify the functional classification which may be available here:
    - https://portal.ct.gov/DOT/PP_Bureau/Documents/Maps
        - Miscellaneous Maps → View/Download FC Maps
- Determine the pavement surface age from existing records.
    - Surface treatments have generally been found to be of the most benefit when the pavement surface age is roughly between 6 and 10 years.

Category 2: Minor Rehabilitation

Mill and Overlay, Hot-in-Place Recycling, Cold-in-Place Recycling, etc.:

A mill and overlay resurfacing treatment or in-place pavement recycling treatment may be recommended for asphalt surfaced pavements without extensive structural failure. Extensive structural failures such as alligator fatigue cracking, potholes, and deformations generally indicate that the existing roadway structure, including asphalt and granular materials, are inadequate for some combination of the existing traffic, subgrade, and drainage conditions. In order to determine whether a treatment of this type is appropriate, the roadway condition should first be surveyed to determine if the distresses are functional or structural in nature. Functional distresses are related to age and environmental impacts and may include transverse cracking, longitudinal cracking (non-wheelpath), block cracking, and raveling. A mill and overlay resurfacing treatment or in-place pavement recycling treatment is well suited for roadways that are experiencing primarily functional distresses to varying extents and severity. This treatment may also be appropriate if some minimal amount of structural failures are present but isolated; however, all areas of structural failure should be identified and repaired with full depth patching in combination with the resurfacing. When performing full depth patching, replacement of the existing granular base/subbase may be warranted if it is determined that those materials are in some way contributing to the poor performance of the asphalt pavement.

The next step is to determine the existing pavement depth and layer configuration, granular base and/or subbase depth, and subgrade type. The following minimum sampling is required for this effort:

- Take representative pavement cores along the roadway at 500-foot increments. Cores should be measured for total depth and depth between layers. Milling depths/recycling depths should be chosen to remove or recycle deteriorated layers and provide a layer for placing the new material that is sound. When milling, this is generally accomplished by avoiding the interface between existing pavement layers with the selected mill depth – staying slightly above an interface by approximately 1 inch, or slightly below an interface by approximately 1/2 inch. The targeted milling depth should also avoid exposing existing granular material by staying a minimum of 2 inches above the granular base or subbase. Consideration should also be given to the minimum pavement thickness that traffic will be traveling on after the initial mill. For instance, selecting a mill depth that results in the remaining pavement being 2 inches thick may be adequate to avoid subbase exposure while being inadequate to support heavy truck loads even for short term use.
- Check existing records to determine whether a granular base or subbase exists below the pavement. If no records on the existing roadway are available, take 1 split spoon sample (possibly in an existing core hole), or 1 test pit, every 1/2 mile to determine total base/subbase depth (engineered granular material) and depth to subgrade (existing or native material). A general identification of the base/subbase is recommended to distinguish whether the material is composed primarily of sand, gravel, or both (fine graded, coarse graded, or well graded). This assessment may also identify whether the material is silty or contains other contaminations.
- Identify the subgrade type for the area utilizing surficial mapping or other resources. Soil information can be accessed here:
    - Surficial Materials - CT DEEP GIS Open Data Website
        - Surficial Materials Map
    - ArcGIS - My Map
        - Additional Surficial Materials Map

- Identify the latest traffic volumes which may be available here:
  - https://portal.ct.gov/DOT/PP_SysInfo/Traffic-Monitoring
    - AADT Reporting Tool
- Identify the functional classification which may be available here:
  - https://portal.ct.gov/DOT/PP_Bureau/Documents/Maps
    - Miscellaneous Maps → View/Download FC Maps
- Perform a pavement design following the 1993 AASHTO Pavement Design Guide. Resources to assist in the calculation of ESALs, design structural number, and required structural number are available here:
  - https://portal.ct.gov/DOT/Engineering/Pavement-Design/Design-Guidance

Note: In-place recycling treatments should be covered with an overlay (either a dense graded HMA layer or preservation surface treatment) to achieve the best performance, and this layer should be accounted for in the design evaluation if applicable. It is not recommended to use the recycled pavement layers as a final wearing surface for the roadway. To maintain the existing roadway elevation, existing pavement material may need to be removed through partial milling before recycling occurs to accommodate placing the new asphalt pavement.

Category 3: Major Rehabilitation

Removal and Replacement of Asphalt ("Peel and Pave"), Full Depth Reclamation (FDR):

A peel and pave treatment or FDR treatment may be recommended for full depth asphalt pavements without extensive structural failures that would indicate a poor base/subbase condition or drainage issues. Extensive structural failures such as alligator fatigue cracking, potholes, and deformations generally indicate that the existing roadway structure, including asphalt and granular materials, are inadequate for some combination of the existing traffic, subgrade, and drainage conditions. In order to determine whether a treatment of this type is appropriate, the roadway condition should first be surveyed to determine if the distresses indicate that an extensive structural failure is present. Peel and pave or FDR treatments are each well suited for roadways with a high quantity and severity of functional distresses related to age and environmental impacts, which may include transverse cracking, longitudinal cracking (non-wheelpath), block cracking and raveling. These treatments are also appropriate if some structural failures are present but isolated, and mostly related to an inadequate initial pavement design thickness or indicative of a pavement that has reached terminal serviceability from repeated traffic loadings.

The next step is to determine the existing pavement depth, granular base and/or subbase depth, and subgrade type. The following minimum sampling is required for this effort:

- Take representative test pits along the roadway at 1000-foot increments to a depth of 36 inches each. Determine pavement thickness, total base/subbase depth (engineered granular material), and depth to subgrade (existing or native material). Test pits should be of an appropriate size and area in order to properly collect base/subbase samples which may be used in performing a sieve analysis based on the treatment selected.
  - For FDR projects, particle size distribution must be determined for the retrieved base/subbase samples. The material gradation should be determined in accordance with AASHTO T 27 and AASHTO T 11 standard test methods and identify sieves corresponding to CTDOT Form 818 Section M.02.06 Grading B requirements. See below for additional considerations.

    - For peel and pave projects, the collected base/subbase samples can be characterized visually. A general identification is recommended to distinguish whether the material is composed primarily of sand, gravel, or both (fine graded, coarse graded, or well graded). This assessment may also identify whether the material is silty or contains other contaminations.
- Take representative pavement cores along the roadway at 1000-foot increments between each test pit. Cores should be measured for total pavement depth.
- Identify the subgrade type for the area utilizing surficial mapping or other resources (visual identification should be used if encountered at 36-inch test pit depth in conjunction with mapping). Soil information can be accessed here:
    - Surficial Materials - CT DEEP GIS Open Data Website
        - Surficial Materials Map
    - ArcGIS - My Map
        - Additional Surficial Materials Map
- Identify the latest traffic volumes which may be available here:
    - https://portal.ct.gov/DOT/PP_SysInfo/Traffic-Monitoring
        - AADT Reporting Tool
- Identify the functional classification which may be available here:
    - https://portal.ct.gov/DOT/PP_Bureau/Documents/Maps
        - Miscellaneous Maps → View/Download FC Maps
- Perform a pavement design following the 1993 AASHTO Pavement Design Guide. Resources to assist in the calculation of ESALs, design structural number, and required structural number are available here:
    - https://portal.ct.gov/DOT/Engineering/Pavement-Design/Design-Guidance

Special Considerations for Full Depth Reclamation (FDR):

When considering an FDR treatment, it is important to keep in mind that in order to maintain the existing roadway elevation, base material will have to be removed after reclamation is performed, and before placing the new asphalt pavement. Note that there is also an approximate 15% bulking or "fluff" factor associated with this treatment to consider as well. Once a reclamation depth is chosen, and a new asphalt pavement thickness is determined through design evaluation, consideration should be given to the depth of reclaimed base material that will be left in place. Ultimately, this may not be the most effective treatment if less than 8 -10 inches of reclaimed base will be left in place.

Select a reclamation depth that will provide a blend of asphalt and granular base/subbase material meeting Section M.02.06 Grading B requirements. It is generally recommended that this blend not consist of more than 50% asphalt pavement, and typically would include an approximate 40% ratio of asphalt and 60% ratio of granular material. Blending subgrade material into the new reclaimed base should be avoided since this will typically blend in fine material (passing #200 sieve) that will increase the frost susceptibility of the reclaimed base.

Blended Material Example:

Sieve #	Assumed RAP Gradation (9" Depth)	Existing Subbase Gradation (11" Sandy Gravel)	Blend: RAP Gradation * (9/20) + Subbase Gradation * (11/20) =	M.02.06 Grading B Requirements	Check
5 inch	100	100	100	100	OK
3.5 inch	100	100	100	90 to100	OK
1.5 inch (37.5 mm)	80	80.8	80.4	55 to 95	OK
0.75 inch (19mm)	65	69.3	67.4		NA
0.25 inch (6.3mm)	35	58.7	48.0	25 to 60	OK
No.10 (2.0mm)	20	46.6	34.6	15 to 45	OK
No. 40 (425 µm)	9	26.8	18.8	5 to 25	OK
No. 100 (150 µm)	5	10.1	7.8	0 to 10	OK
No. 200 (75 µm)	2	4.2	3.2	0 to 5	OK

Note: In some instances, there may be both a granular base and granular subbase course between the bottom of the asphalt pavement and the subgrade; in this case, the additional layer may be blended in depending on the reclamation depth chosen. It should be noted that this base material would also require sampling and sieve analysis to consider the overall blend.

Category 4: Full Depth Reconstruction

A full depth reconstruction project may be recommended for asphalt pavements with extensive structural failures that would indicate a poorly designed asphalt pavement thickness, poor base/subbase condition, or drainage issues. Extensive structural failures such as alligator fatigue cracking, potholes, and deformations generally indicate that the existing roadway structure, including asphalt and granular materials, are inadequate for some combination of the existing traffic, subgrade, and drainage conditions. In order to determine whether a full depth reconstruction project is appropriate, the roadway condition should first be surveyed to determine if the distresses indicate that an extensive structural failure is present, warranting this treatment strategy.

Collecting the following minimum information is required for performing a full depth pavement design.

- Identify the latest traffic volumes which may be available here:
  - https://portal.ct.gov/DOT/PP_SysInfo/Traffic-Monitoring
    - AADT Reporting Tool
- Identify the functional classification which may be available here:
  - https://portal.ct.gov/DOT/PP_Bureau/Documents/Maps
    - Miscellaneous Maps → View/Download FC Maps
- Identify the subgrade type for the area utilizing surficial mapping or other resources. Soil information can be accessed here:
  - Surficial Materials - CT DEEP GIS Open Data Website
    - Surficial Materials Map
  - ArcGIS - My Map
    - Additional Surficial Materials Map
- Perform a pavement design following the 1993 AASHTO Pavement Design Guide. Resources to assist in the calculation of ESALs, design structural number, and required structural number are available here:
  - https://portal.ct.gov/DOT/Engineering/Pavement-Design/Design-Guidance

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ADA Technical Infeasibility Form
Justification for Pedestrian Facilities
(TIF Form)

This form is used to document pedestrian facilities within State right-of-way or State projects that cannot comply with current standards. See pages 3-5 for instructions, and pages 6-7 to identify applicable standards and any non-compliant elements for a facility. The non-standard facilities may be identified and justified during preliminary design, final design, or construction. ***A new form must be completed for each facility.***

1. Project and Non-standard Facility Location Information

City/Town: _____ District: _____

Project Number: _____ Project Scope Type: _____

Project Description: _____

Road/Highway: _____ Side of Road or Intersection: _____

Intersecting Road/Highway: _____ Intersection No.: _____

Route Mileage Location: ○ Linear feature (e.g., sidewalk) Milepost *from* _____ *to* _____

○ Point feature (e.g., sidewalk ramp) Milepost _____

GIS Information: ○ Linear feature (e.g., sidewalk) *from* Lat.: _____ Long.: _____

to Lat.: _____ Long.: _____

○ Point feature (e.g., sidewalk ramp) Lat.: _____ Long.: _____

Location Description (if needed, in addition to coordinates):

2. Non-standard Facility

Select the non-standard pedestrian facility the form is intended for:

☐ A. Curb Ramp/Blended Transition
☐ B. Detectable Warnings
☐ C. Sidewalk
☐ D. Surface
☐ E. Crosswalk
☐ F. Pedestrian Signals
☐ G. Railing
☐ H. Accessible Parking
☐ I. Bus Stops
☐ J. Pedestrian At-grade Rail Crossing
☐ K. Other: _____

Describe any non-compliant element(s) within the non-standard facility:

	Element (e.g., Width)	Target Value (e.g., 48")	Achievable Value (e.g., 44")
1.			
2.			
3.			
4.			
5.			
6.			
7.			

ADA Technical Infeasibility Form

3. Justification for Non-compliant Element(s)

Design Constraints or Reasons for Technical Infeasibility (Check all that apply):

- ☐ A. Underlying Terrain
- ☐ B. Right-of-Way Availability
- ☐ C. Underground Structures
- ☐ D. Adjacent Developed Facilities
- ☐ E. Drainage
- ☐ F. Presence of a Notable Natural Feature
- ☐ G. Presence of a Notable Historic Feature
- ☐ H. Other: _____

Design Alternatives Considered:

Design Alternative	Alternative Selection	Selection Justification
1.	◯ Yes ◯ No	
2.	◯ Yes ◯ No	
3.	◯ Yes ◯ No	

4. Supporting Information

- ◯ No Supporting Information
- ◯ Supporting Information Attached - Number of pages: _____

5. Approval and Acceptance

Form Prepared by: _____ Date: _____

Title: _____ Division/Company: _____

E-mail: _____ Phone: _____

Approved By: _____ **Date:** _____

Title: _____ **Division/Company:** _____

*** This Section is only applicable for locations that occur on State property or State-maintained roadways ***
(To be completed by the CTDOT ADA Engineering Coordination Unit)

◯ **Declined** with Comments: _____

_____

◯ **Accepted.** ☐ Place this facility on the ADA Transition Plan to be made compliant in the future.

Signature: _____ **Date:** _____

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ADA Technical Infeasibility Form Instructions

This document provides the instructions for completing the "ADA Technical Infeasibility Form (TIF)".

1. Project and Facility Location Information

Project Number: CTDOT project number (e.g., 0000-0000 or Town project with its project number).

Project Scope Type: (e.g., preservation, 3R (resurfacing, restoration, and rehabilitation), new construction, etc.).

Project Description: Name of project. (e.g., "Route 9 Pedestrian Improvement Project" or "Encroachment Permit for ……").

Road/Highway: If it's on state highway, provide state highway number.

Side of Road or Intersection: Choose the direction that best reflects the location of the facility in relation to the road or center of the intersection.

Intersecting Road/Highway: This is applicable if the pedestrian facility is located on or near a corner. If there is no intersecting road or highway, enter "N/A".

Intersection No.: If applicable, enter CTDOT Intersection Number (e.g., 000-000).

Route Mileage Location: Enter State Route milepost with accuracy to 2 decimal places.

GIS Information: Enter location coordinates as latitude (Lat.) and longitude (Long.) with accuracy to 6 decimal places. Coordinates can be found by using Google Maps (right click a point and select "What's Here?") or other reputable sources.

> **Linear feature:** This requires a starting location and an ending location to identify the feature (e.g., a section of the sidewalk or bridge).
>
> **Point feature:** This requires only one location point to identify the feature (e.g., curb ramps, crosswalks or landings).

Location Description: This field is optional, and may be used to provide additional information to pinpoint the location of a facility. For instance, if there are two curb ramps in one corner that are in proximity to each other, it may be necessary to distinguish them with a description.

2. Non-standard Facility

Select only the type of non-standard pedestrian facility that is within the scope of the improvement. The following definitions are provided for clarification on some of the facility selections:

Curb Ramp: A ramp that cuts through or is built up to the curb (ADA Standard Section 406).

Blended Transition: A raised pedestrian street crossings, depressed corners, or similar connections between pedestrian access routes at the level of the sidewalk and the level of the pedestrian street crossing that have a grade of 5 percent or less. Blended transitions are suitable for a range of sidewalk conditions. (PROWAG Section R304).

Surface: This is the surface area of sidewalks and other pedestrian circulation paths (e.g., boardwalks), pedestrian street crossings, at-grade rail crossings, pedestrian structures (e.g. pedestrian overpass and underpass), curb ramps, and blended transitions.

Railing: A rail to be grasped by the hand for support or a barrier consisting of a rail and supports. (ADA Standard Section 405.8 & 505)

ADA Technical Infeasibility Form Instructions

2. Non-standard Facility (continued)

Any non-compliant elements shall be listed. Compliance standards can be found on pages 6-7 "Critical Elements for the Design, Layout, and Acceptance of Pedestrian Facilities". Additional non-compliant elements can be attached with the Supporting Information.

Element: Any Critical Element of the facility that will not meet the standard.

Target Value: The standard limit measurement or dimension for the element to be compliant.

Achievable Value: The closest to standard limit measurement or dimension that can be achieved within the project's scope and constraints.

3. Justification for Non-compliant Element(s)

The 2011 PROWAG "recognize[s] that it is not always possible for altered elements, spaces, or facilities to fully comply with new construction requirements because of existing physical constraints. Where existing physical constraints make it impracticable for altered elements, spaces, or facilities to fully comply with the requirements for new construction, compliance is required to the extent practicable within the scope of the project. Existing physical constraints include, but are not limited to, underlying terrain, right-of-way availability, underground structures, adjacent developed facilities, drainage, or the presence of a notable natural or historic feature. The proposed guidelines permit flexibility in alterations to existing facilities where needed." Select all Design Constraints or Reasons for Technical Infeasibility.

A. Underlying Terrain: Existing grade separations may be too steep, or grade separations too great for pedestrian facilities to comply with maximum slopes. For example, a pedestrian path intended to replace a set of stairs on a steep natural grade may not be able to achieve the maximum 8.3% running slope without extensive grading and negative impacts to adjacent properties. If a compliant ramp or sidewalk cannot be furnished within the available space, a facility with the minimum practicable slope should be installed.

B. Right-of-Way Availability: If adequate public right-of-way cannot be acquired, or permission to access private property is not granted by a property owner to construct a facility, it may not be possible to achieve fully compliant dimensions or slopes within the space available.

C. Underground Structures: Existing underground structures may limit the ability to adjust grade to comply with maximum accessible slopes. For example, the elevation of a sidewalk crossing over the top of an existing utility vault will be fixed above the top of the vault. This "fixed" elevation may necessitate a sidewalk slope exceeding the maximum compliant slope.

D. Adjacent Developed Facilities: Existing facilities may introduce constraints that cannot be addressed in a practical manner. For example, a segment of sidewalk installed alongside a developed block of road with a 12% grade could probably not achieve the maximum 8.3% running slope without excessive grading and/or negative impacts to adjacent properties.

E. Drainage: Standing or frozen water can make a facility inaccessible, unsafe and prone to faster deterioration. If the maximum compliant slope of a pedestrian facility is not adequate to drain it in certain conditions, or will impede the drainage of a larger area, a slope exceeding the maximum will be necessary.

F. Presence of a Notable Natural Feature: It may not be possible to build a fully compliant facility without negatively affecting the existence or integrity of a natural feature. For example, if replacing a non-compliant 3-feet wide sidewalk with a compliant 4-feet wide sidewalk would require the removal of a row of valued, mature street trees, then segments of 3-feet wide walk near the trees may be acceptable.

ADA Technical Infeasibility Form Instructions

3. Justification for Non-compliant Element(s) (Continued)

G. Presence of a Notable Historic Feature: It may not be possible to build a fully compliant facility without negatively affecting the existence or integrity of a historic feature. For example, if replacing a non-compliant 3-feet wide sidewalk with a compliant 4-feet wide sidewalk would require the removal of a historic stone retaining wall, then the segment of 3-feet wide walk along the wall may be acceptable.

H. Other: Any design constraint or technical infeasibility that does not fit the criteria of A through G above can be included here. A description of the justification factor must be included in the text box.

Design Alternatives Considered: Identify up to 3 design alternatives that were considered, including the one that was ultimately selected, and briefly explain why each alternative was or was not selected.

4. Supporting Information

Supporting information such as drawings/sketches and photos are recommended to be included with each justification form. This information will be helpful for future design considerations or as records for defending decision-making in court. Supporting documents shall be labeled with description and submitted together with the TIF Form in PDF format. Provide the total page number for the attachments.

5. Approval and Acceptance

Nonstandard facilities identified during:	*Shall be approved by:*	***Require acceptance:***
Project in Design	CTDOT Transportation **Principal Engineer**	For all locations that occur on a State property or State-maintained roadways, the form must be forwarded to the **CTDOT ADA Engineering Coordination Unit** for review and acceptance. The declined form shall be revised and resubmitted with attachments responding to previous comments. The form shall be attached to an e-mail and sent to *dot.adatransitionplan@ct.gov*
Project in Construction	Shall be forwarded to the CTDOT Design Engineer for review, then be approved by the CTDOT **Assistant District Engineer** with concurrence from the CTDOT Transportation Principal Engineer	
Locally Administered Federal-Aid and State Funded Projects	Local **Public Works Director** or the Highest-ranking Official	
Utility Company Encroachment Permit Applications	CTDOT Special Service **Section Manager**	
Other Encroachment Permit Applications	Local **Public Works Director** or the Highest-ranking Official	

Copies of approved/accepted justifications for state projects are to be retained in the project folder for record as long as the non-standard facility exists.

For more information, please contact CTDOT ADA Engineering Coordination Unit at dot.adatransitionplan@ct.gov.

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Critical Elements for the Design, Layout, and Acceptance of Pedestrian Facilities

This document is intended to serve as a tool for the evaluation of existing pedestrian facilities, for the layout and inspection of new pedestrian facilitie's and for the assistance in completing the Technical Infeasibility Form (TIF). The pedestrian facilities must meet the applicable values on this sheet, or be justified as Non-standard facilities.

For Evaluation of Existing Ramps to Remain on Preservation or Preventative Maintenance Projects *Subject to 1991 ADAAG*	Reference *1991 ADAAG unless otherwise noted*	1991 ADA Limits	
A Curb Ramp			
Clear width	4.3.3	36" min.	
Flare slope for ramps in walkable area	4.7.5	10% max.	
Cross slope at crossing with yield or stop control	4.3.7 & PROWAG R304.5.3	2% max.	
Cross slope at crossing without yield or stop control (including any signal but flashing red)	4.3.7 & PROWAG R304.5.3	2% max.	
Curbed ramp edge or flare slopes exceeding 10%	4.7.5	Located in non-walkable area	
Grade (running slope)	4.8.2	8.33% max.	
Grade (running slope), if space is limited	4.1.6	10% for 6" rise	
Clear space for diagonal ramps	4.7.10	48" x 48" min.	
Grating spaces (in walking surface)	4.5.4	0.5" max.	
Vertical changes	4.5.2	0.5" max., with 1:2 max. bevel between 0.25" and 0.5" high	

New and Replacement Facilities *Subject to 2011 PROWAG , and National Manual of Uniform Traffic Control Devices*	Reference *(2011 PROWAG unless otherwise noted)*	Reference Requirements	Design and Layout Limits
A Curb Ramp / Blended Transition			
Clear width	R304.5.1	48" min.	
Slope of flared sides, within pedestrian circulation path	R304.2.3	10.0% max.	10% max. Where walkable surface is adjacemnt to ramp
Slope of flared side, outside pedestrian circulation path	R304.2.3	No max. slope, may be curbed	No max. slope, may be curbed
Grade (running slope) for curb ramp	R304.3.2	8.3% max.	7.1%
Grade (running slope) for blended transition	R304.1 & R304.4.1	5.0% max.	5.0% max.
Cross slope (at crossing with yield or stop control)	R304.5.3	2.0% max.	2.0% max.
Cross slope (at crossing without yield or stop control, including any signal but flashing red)	R304.5.3	Highway grade is max.	Highway grade is max.
Length of a curb ramp, if the ramp must exceed maximum allowable grade (running slope) due to steep terrain, (i.e., "chasing grade")	R304.2.2 & R304.3.2	15' Max.	15' Max.
Turning space, with no constraints	R304.2.1 & R304.3.1	48" x 48" min.	48" x 48" min.
Turning space, with constraint at back of sidewalk	R304.2.1	48" x 60" min.	48" x 60" min.
Turning space, with constraints on two sides	R304.3.1	48" x 60" min.	48" x 60" min.
Slope of turning space, in any direction	R304.2.2 & R304.3.2	2.0% max.	1.5%
Counter slope at bottom of ramp	R304.5.4	5.0% max.	5.0% max.
Clear space (beyond bottom grade break, outside of parallel vehicle path; can include drop curb)	R304.5.5	48" x 48" min.	48" x 48" min.
Grade breaks (no rounding)	R304.5.2	Perpendicular to direction of ped. travel	Perpendicular to direction of ped. travel
B Detectable Warnings *(for ped. rail crossings, refer to M.)*			
Covered by Specs: Dome dimensions and spacing	R305.1.1 & R305.1.2	On DOT Approved List	On DOT Approved List
Covered by Specs: Contrast of warning device	R305.1.3	Light on dark or dark on light	Federal Standard 595A Color #22144 or approval equal
Alignment	R304.5.2	Perpendicular to grade break between ramp run and street	Perpendicular to grade break or back of curb
Width	R305.2	Full width of ramp (2" border allowed)	Width of Ramp (no more than 2" boaders if required)
Length (depth)	R305.1.4	24" min. in direction of pedestrian travel	2' min.
Placement	R305.2.1	At grade break if < 60" from curb, otherwise at back of curb	At grade break if less than 60" from curb otherwise along radius of curb
Where not required	R208.2	Refuge islands where ped. route is < 72" long	Refuge islands where ped. route is < 72" long

Critical Elements for the Design, Layout, and Acceptance of Pedestrian Facilities

New and Replacement Facilities *Subject to 2011 PROWAG , and National Manual of Uniform Traffic Control Devices*	Reference *(2011 PROWAG unless otherwise noted)*	Reference Requirements	Design and Layout Limits
C Sidewalk			
Clear width of Ped. Access Route (excluding curb)	R302.3	48" min.	48" min.
Grade (running slope) where hwy. grade is 5% or less	R302.5	5% max.	5% max.
Grade (running slope) where hwy. grade is > 5%	R302.5	Hwy. edge of pvmt. grade is max.	Hwy. edge of pvmt. grade is max.
Cross slope	R302.6	2.0% max.	1.5%
Passing space interval (if Ped. Access Route is less than 60" wide)	R302.4	200' max.	200' max.
Passing space dimensions	R302.4	60" x 60" min	60" x 60" min
D Surfaces			
Material	R302.7	HMA or PCC	Firm, stable, and slip resistant
Horizontal openings (such as gratings and joints)	R302.7.3	0.5" max.	0.5" max
Vertical discontinuities	R302.7.2	0.25" max.	0.25" max.
E Crosswalk (Pedestrian Street Crossing)			
Width	R302.3	72" min.	96"
Cross slope at intersection with yield or stop control	R302.6.1	2.0% max.	2.0% max.
Cross slope at intersection without yield or stop control (including any signal but flashing red)	R302.6.1	5.0% max.	5.0% max.
Cross slope, midblock	R302.6.2	Highway grade is max.	Highway grade is max.
Grade (running slope), e.g., highway cross slope	R302.5.1	5.0% max.	4% - 13% max.
Markings	MUTCD 3B.18	L, S, or LS Type	8' x 16" Crosswalk Bars
Clear width, within median or pedestrian refuge island	R302.3.1	60" min.	60" min.
F Drainage			
Adequate drainage	HDM CH 8	No low spots that will pond water within Ped. Access Route	No low spots that will pond water within Ped. Access Route
G Pedestrian Signals			
Push button height	R406.2 & R406.3	15" min. - 48" max.	42" max.
Push button distance from pedestrian access route	R406.3	10" max.	10" max.
Dimensions of clear space adjacent to push button	R302.7 &R404.3	30" x 48" min.	30" x 48" min.
Grade (running slope) of clear space adjacent to push button	R404.2	Match grade of adjacent Ped. Access Route	Match grade of adjacent Ped. Access Route
Cross slope of clear space adjacent to push button	R404.2	2.0% max.	2.0% max.
Clearance timing	R306.2	3.5 ft/s max. walking speed	3.5 ft/s max. walking speed
H Accessible Parking			
Width of street-level access aisle for parallel parking, if width of adjacent sidewalk or available ROW is > 14'	R309.2.1	60" min. for length of space	60" min. for length of space
Parallel parking space located at end of block face, if width of adjacent sidewalk or available ROW is < 14'	R309.2.2	Yes	
Width of street-level access aisle for perpendicular or angled parking	R309.2.3	96" min., for length of space	
Sign displaying International Symbol of Accessibility	R211.3 & R411	Yes	Yes
Number of accessible on-street parking spaces required	R214	1 for every 25 up to 100, 1 for each additional 50 over 100, 4% of total spaces over 201	1 for every 25 up to 100, 1 for each additional 50 over 100, 4% of total spaces over 201
I Bus Stops (Transit Stops)			
Dimensions of boarding area	R308.1.1.1	60" min. parallel to hwy., 96" min. perpendicular to curb	60" min. parallel to hwy., 96" min. perpendicular to curb
Slope of boarding area, parallel to highway	R308.1.1.2	Match highway grade	Match highway grade
Slope of boarding area, perpendicular to highway	R308.1.1.2	2.0% max.	1.5% to 2% max.
J Pedestrian At-grade Rail Crossings			
Track gaps, crossing freight tracks	R302.7.4	3" max.	3" max.
Track gaps, crossing passenger tracks	R302.7.4	2.5" max.	2.5" max.
Detectable warnings, at a ped. crossing not located within a highway	R305.2.5	6' min. - 15' max. from rail, both sides	6' min. - 15' max. from rail, both sides for no gate present, otherwise 2' away from gate
Grade (running slope), where adjacent hwy. grade is ≤ 5%	R302.5	5.0% max	5% max
Grade (running slope), where adjacent hwy. grade is > 5%	R302.5	Hwy. edge of pvmt. grade is max.	Hwy. edge of pvmt. grade is max.
Cross slope	R302.6	2.00%	1.5% to 2% max.

3 References

A US Access Board's Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Rights of Way, 2011, a.k.a. Public Right of Way Accessibility Guidelines (PROWAG).
B ADA Accessibility Guidelines (ADAAG) for Buildings and Facilities in 28 CFR, 1991
C United States Access Board
D National Manual of Uniform Traffic Control Devices (MUTCD)

4 Contact for questions

A dot.adatransitionplan@ct.gov