

## Connecticut Department of <u>Transportation</u>



# Local Transportation Capital Improvement Program Application

Municipality:	COC	G:
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 K □ Bridge Rehabilitation/Replacement Provide additional information as required in section L Major Drainage Improvement Provide additional information as required in section M Pavement Structure Improvement Provide additional information as required in section N Traffic Signal Replacement/Upgrade/New Installation/Coordination Provide additional information as required in section O Other (please specify):

Provide additional information as required in section P

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.	<ul> <li>Provide concept plans of the proposed improvement. The plans must sufficiently developed and provide enough detail on a scaled drawing (including aerial photography base mapping if possible) to identify the following:</li> </ul>		
	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 (i.e. Retaining walls, bridges)
			Watercourses
			Typical Cross Section including lane and shoulder widths, pavement structure, etc.
5.			improvements at this location been previously submitted to the at for funding? $\square$ No $\square$ Yes
	If yes	s, whe	n and under what program?
6.		•	other Federal or State funding sources been applied for or awarded rovements at this location?
	If yes	s, plea	se list source, amount, and when awarded in detail below:

7.	Does the project impact any State-owned Facilities (i.e. roads, bridges, etc.)? $\hfill \square$ No $\hfill \square$ 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) Righ	nts 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.	•	erformed by the Municipality's staff or their seeking reimbursement for ROW costs?	
	☐ No ☐ Yes		
(C) Utili	ties		
1.	List all utilities within the project ar	rea, including their owners.	
	<u>Overhead</u>	<u>Underground</u>	
2.	Are any utility impacts anticipated	? □ No □ Yes	
	If yes, explain the nature and extent of the impacts:		
	, , ,	•	
	<b>Note:</b> Costs associated with utility betterments/upgrades that are not require to accommodate the proposed transportation improvement are not eligibl project costs.		
3.	3. Have the utility companies been contacted to identify any plans to expand of 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?			
	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			
	es, indicate the type of improvement needed and the reason for it. Please 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
	i aino.	Ochiciches.	THOUSIG	OHUGIUITA

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

<ul><li>2. Wetlands</li><li>a. Are there any wetlands that are likely to be affected by the project?</li><li>☐ No ☐ Yes</li></ul>
If yes, describe the type and extent of the anticipated impact.
3. Hazardous or Contaminated Sites
<ul> <li>a. Has the potential for hazardous or contaminated sites and materials in the project area been investigated?    No   Yes  </li> </ul>
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 yes, describe the type and extent of the anticipated impact.

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 (i.e. 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, (i.e. construction inspection, materials testing) (10% of d)
  - g. Rights of way costs
  - h. Eligible utility relocation costs (in accordance with CGS13a-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 M and the Excel spreadsheet is available for download from the Department's LOTCIP webpage: https://www.ct.gov/dot/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:

http://portal.ct.gov/-/media/DOT/documents/AEC/costestimatingguidelinespdf.pdf

# 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 (i.e. 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: <a href="http://ops.fhwa.dot.gov/publications/fhwahop08024/chapter3.htm">http://ops.fhwa.dot.gov/publications/fhwahop08024/chapter3.htm</a>. 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:

Hugh.Hayward@ct.gov

Mr. Hugh H. Hayward, P.E. Department of Transportation 2800 Berlin Turnpike P.O. Box 317546 Newington, CT 06131-7546

Prepared by:		_ Date:
	Name, Title and stamp of Responsible P.E. (Municipal or	Consultant)
	Signature	(Stamp)
Reviewed/Re	ecommended by:	_ Date:
	Name and Title of Municipal Chief Administrative Officer	
	Signature	
Endorsed/Re	ecommended by:	Date:
	Name and Title of COG Executive Director	
	Signature	