CONNECTICUT
DEPARTMENT OF TRANSPORTATION

LOCAL BRIDGE PROGRAM

Fiscal Year 2012

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INTRODUCTION

In Connecticut, there are thousands of bridges and culverts on municipally maintained roads. Construction and maintenance of these often-expensive structures is solely the responsibility of the municipalities. Recognizing the difficulty that municipalities have in meeting this responsibility, in 1984, the General Assembly enacted P.A. 84-254 (now known as Sections 13a-175p through 13a-175w of the Connecticut General Statutes) as part of the State's Infrastructure Renewal Program. This program provides for State financial assistance to municipalities for the removal, replacement, reconstruction or rehabilitation of local bridges. Under this program, a municipality may qualify for a grant ranging from 10% to 33%, and a loan of up to 50%, to cover eligible project costs. As a result of funding cuts directed by Public Act 09-2, this program is closed to new applications.

ConnDOT has endeavored to make Federal funding available for municipal bridge projects as much as possible. New Local Bridge Program projects will be limited to those that qualify for Federal funding.

Note that all of the funding administered by the Local Bridge Program office is for "Fix-It-First"-type projects. That is to say, only projects which repair, replace or remove an existing bridge can be considered for funding. New bridges in a location that did not previously have a bridge or other type of crossing are not eligible.

ABOUT THIS BOOK

This manual has been created to guide municipalities through the process of developing bridge projects and applying for grants and loans under the Local Bridge Program. It is aimed at both those with non-technical orientations, such as mayors and selectmen, as well as those with technical backgrounds, such as engineers and public works directors. We have attempted to give an overview of the program, with additional coverage given to those subjects which have proven troublesome, confusing, or have resulted in frequent questions. This manual is updated annually to incorporate new information, updated procedures, and lessons learned over previous years.

There are five major sections to this manual:

- **BRIDGE EVALUATION** explains how bridges are rated. Because bridge ratings determine both eligibility for funding and project priority, an understanding of the process is important.

- **FUNDING PROGRAMS** gives an overview of the funding programs administered by the Local Bridge Program unit.

- **PROJECT DEVELOPMENT** gives a general overview of the process of project development, with additional information given on areas, which have proven to be troublesome, such as environmental permits.

- **GUIDELINES FOR OBTAINING FUNDS** gives a step-by-step outline of path that a Local Bridge Program project will follow. The process is much more involved when Federal Funding is involved, so there are separate sections provided for State and Federal projects.

- **APPENDICIES** contain lists of eligible bridges; grant percentages for each municipality, various State Statutes related to municipal bridge projects, Program regulations, and hydraulic analysis guidelines.

The Department strives to make the Local Bridge Program as user-friendly as possible, and this manual is part of that effort. Comments or suggestions for its improvement are welcomed. A mail-in comment sheet is included at the back of this book for your convenience.

DEFINITIONS

To aid in understanding some of the terms used in this manual, some definitions are given below. The definitions are based on usage common in the field, but are not intended to be legally governing. In the event that any definition conflicts with a definition given in the Regulations or Statutes, the definition given in the Regulations and/or Statutes shall govern.

AASHTO: The American Association of State Highway and Transportation Officials.

AENGLC: The adjusted equalized net grand list per capita of a town, prepared as of the immediately preceding January by the State pursuant to Section 10-261 of the General Statutes.

ADT: The Average Daily Traffic; the average number of vehicles that pass over a given structure on a typical day.

Bridge: A structure including supports erected over a depression or an obstruction, such as water, highway, or railway, and having a track or passageway for carrying vehicular traffic and having an opening measured along the center of the roadway of more than 6 feet[1] between undercopings of abutments or spring lines of arches, or extreme ends of openings

[1] *Federal definition is at least 20 feet.*

for multiple boxes. (Note: in non-technical usage, a "culvert" may also be called a "bridge".)

Bridge Design Manual: The Connecticut Bridge Design Manual, dated December 2003, published by the Connecticut Department of Transportation (this supersedes the metric version dated 1997). Available on-line at: http://www.ct.gov/dot/lib/dot/documents/dpublications/bridge/bdm.pdf

Bridge Replacement: The complete replacement of a structure, including any necessary approach work.

Coding Guide: The most recent edition of the "Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges", prepared by the Federal Highway Administration. This manual is available from the Federal Highway Administration, Bridge Division HNG-33, 400 7th Street S.W., Washington, DC 20590, or on-line at http://www.fhwa.dot.gov/bridge/bripub.htm.

Commissioner: The Commissioner of the Department of Transportation, or his authorized representatives.

Commitment to Fund: A commitment issued to a municipality by the Commissioner to fund the project costs of an eligible bridge project through a grant, a loan, or both, in accordance with Section 5 of the regulations.

Culvert: A drainage opening or similar passageway beneath a roadway embankment with no definite distinction between superstructure and substructure, with an interior span length of 6 feet or more. It may also include multiple pipes, which carry the same body of water, in which the clear distance between openings is less than half of the smaller contiguous opening or which share a common headwall, provided the overall structure length is 6 feet or more.

Deck Replacement: The complete replacement of that portion of a superstructure, which provides a smooth traveling surface for vehicles, including subdecking and wearing surface, if any, and includes curbing within the limits of the replacement.

DEP: The Connecticut Department of Environmental Protection.

Deficient Bridge: A bridge or culvert which been determined to be structurally deficient and/or functionally obsolete.

Department: The Connecticut Department of Transportation.

Drainage Manual: The Connecticut Department of Transportation Drainage Manual, prepared by the ConnDOT Hydraulics and Drainage Section, dated October 2000, available on-line at: http://www.ct.gov/dot/cwp/view.asp?a=3200&q=260116&dotPNavCtr=|#40139.

Eligible Bridge: A bridge or culvert owned and/or maintained by a municipality, carrying a certified public road, which is structurally deficient, *and which has not received assistance* from the Local Bridge Program within the last 20 years (Note: rules for Federal funding differ slightly).

Erosion and sedimentation control measure: A specific design for vegetative, nonstructural or structural means for controlling erosion and sedimentation described in the Connecticut 2002 Guidelines for Soil Erosion and Sediment Control published by the Connecticut Council on Soil and Water Conservation pursuant to Section 22a-328 of the General Statutes. This manual should be used as a guide for developing proper temporary E & S control measures to be utilized during construction.

Erosion and Sedimentation Control Plan: A scheme that minimizes soil erosion and sedimentation and includes, but is not limited to, a map and narrative. The map must show topography, cleared and graded areas, proposed area alterations and the location of and detailed information concerning erosion and sediment measures and facilities. The narrative shall describe the project, the schedule of major activities on the land, the application of conservation practices, design criteria, construction details and the maintenance program for any erosion and sediment control facilities that are installed.

Fiscal Year: The fiscal year of the State, July 1 to June 30.

FEMA: The Federal Emergency Management Agency.

FHWA: The U. S. Department of Transportation, Federal Highway Administration.

Form 816: The Standard Specifications for Roads, Bridges and Incidental Construction, published by the Connecticut Department of Transportation, and available on-line at: http://www.ct.gov/dot/cwp/view.asp?a=1385&q=305506.

Functionally Obsolete: A bridge or culvert with one of the measures of its ability to serve its intended purpose rated as intolerable, requiring high priority of corrective action. A functionally obsolete structure may or may not also be structurally deficient.

Highway Design Manual: The Connecticut Highway Design Manual, dated December 2003, published by the Connecticut Department of Transportation (this supersedes the metric version dated January 1999), available on-line at: http://www.ct.gov/dot/cwp/view.asp?a=1385&q=305506.

Inventory Rating: The rating, in tons, denoting the safe sustained load capacity of a structure, determined in accordance with the Load Factor Method (Strength Design Method) described in the AASHTO Manual for Condition Evaluation of Bridges.

Municipal Road: Any road accepted, owned and maintained by a municipality and open to motor vehicle traffic.

Municipality: Any town, city, borough, consolidated town and city, consolidated town and borough, district, commission, authority or other political subdivision of the State, owning or having responsibility for the maintenance of all or a portion of an eligible bridge.

National Bridge Inspection Standards (NBIS): Federal regulations establishing requirements for bridge inspections.

Orphan Bridge: Any bridge, which carries a municipal road and spans a railroad right-of-way not owned by the State, and whose ownership and/or maintenance responsibility is in dispute.

Rehabilitation: The major work required to restore the structural integrity of a bridge as well as work necessary to correct major safety defects.

Scour: Erosion or removal of streambed or bank material from bridge foundations due to flowing water.

Scour Critical: A bridge with abutment or pier foundations, which are rated as unstable due to: 1) observed scour at the bridge site, or 2) a scour potential as determined from a scour evaluation study.

Stormwater Quality Manual: The 2004 Connecticut Stormwater Quality Manual published by the Connecticut Department of Environmental Protection. The manual available on-line at http://www.ct.gov/dep/cwp/view.asp?a=2721&q=325702&depNav_GID=1654. This manual

should be used as a guide to design permanent Stormwater Quality Measures for inclusion into projects.

Stormwater Quality Measures: Measures, ranging from proper site planning to specific engineered measures, intended to reduce pollution of bodies of water, as described in the Connecticut Stormwater Quality Manual.

Structurally Deficient: A bridge or culvert with a major structural component rated "poor" or below, or with an appraisal rating of 2 or less given to the Structure Evaluation or Waterway Adequacy.

Structure Evaluation: An overall rating of the structure, which takes into account all major structural deficiencies, and evaluates a bridge in relation to the level of service it provides, as compared with a new bridge built to current standards. Important factors considered in this appraisal are the inventory rating and the condition ratings of the superstructure and substructure.

Sufficiency Rating: The numerical rating of a bridge based on its structural adequacy and safety, essentiality for public use, and its serviceability and functional obsolescence.

Superstructure: Bridge structural members above the top of the piers and abutments.

Superstructure Replacement: The complete replacement of the superstructure, including deck, wearing surface, parapets, curbing and sidewalk, on the existing abutments piers and/or bents, and also includes replacement of fencing and guide rail beyond the limits of the superstructure as necessary for an integral system.

Substructure: Structural components, which support the superstructure, such as piers, abutments, piles, fenders, footings, etc.

Waterway Adequacy: The evaluation of the adequacy of waterway opening with respect to the passage of flow through the bridge. Important factors considered include the backwater depth, the likelihood of overtopping, and the resultant impact on traffic.

BRIDGE EVALUATION

Though the specific eligibility criteria differ between the State and Federal assistance programs, the main factor determining eligibility for funding under both programs is the bridge's physical condition. Therefore, it is necessary to have an understanding of how a numerical rating is applied to a bridge in order to understand how funding priority is established. To aid in that understanding, the rating system is explained in the following sections.

The Connecticut Department of Transportation's Bridge Safety and Evaluation Section inspects all State bridges, and all municipally owned bridges with spans greater than 20 feet, on a regular basis (every 2 years or less). Inspections of municipally-owned bridges with spans of less than 20 feet are the responsibility of the respective municipality; they are not routinely inspected by ConnDOT. There was a one-time inspection of these "under 20" bridges performed by ConnDOT to comply with Public Act 87-584, "Local Bridge Study of Town-Owned Structures Less Than Twenty Feet but Greater Than or Equal to Six Feet in Span Length." This study was completed on April 30, 1992 and a final report was forwarded to the Connecticut General Assembly in June 1993. The Department is currently seeking funding to perform a new round of inspections of town-owned structures less than 20 feet long, but cannot plan any inspections until funding is provided by the General Assembly. Therefore, ConnDOT's data on the "under 20" bridges can be quite old (usually almost two decades old), and should not be relied upon.

During the inspections, the bridge inspectors carefully evaluate each component of a bridge, and then assign a numerical rating to each component. The ratings range from 0 to 9, with "9" being the best, and "0" being the worst rating (see the tables in the Sufficiency Rating section for more explanation). There are two broad categories of ratings: condition and appraisal. Condition ratings rate bridge components relative to their original condition when new. Appraisal ratings rate components in comparison to current standards.

In general, bridges are considered to be "structurally deficient" if the physical condition rating of any of the major structural components (deck, superstructure and substructure) are rated as "poor" or below (a numerical rating of 4 or less), or if the appraisal ratings for the structure condition or waterway adequacy are rated as requiring a high priority for replacement (a numerical rating of 2 or less).

Because culverts do not have distinct decks, superstructures and substructures, these components are not rated as such when evaluating a culvert. Instead, a "culvert rating" is assigned which takes into account the overall condition of the culvert. A culvert is considered structurally deficient if the overall condition of the culvert is rated as "poor" or below (a numerical rating of 4 or less).

A bridge or culvert, which is structurally deficient, may not carry full legal loads, and if left unchecked, will continue to decay until it is unsafe for any load. Once a bridge becomes structurally deficient, it should be programmed for repair or replacement.

A bridge is considered "functionally obsolete" if the structural evaluation, deck geometry, under-clearances, approach roadway alignment, or waterway adequacy is rated as "intolerable requiring high priority of corrective action" (a numerical rating of 3 or less). A functionally obsolete structure may or may not be able to carry all legal loads, but its configuration impairs its ability to safely carry traffic or pass high water. A functionally obsolete structure contributes to traffic accidents and/or flooding, representing a liability to the municipality and a potential hazard to the public.

A. SUFFICIENCY RATING

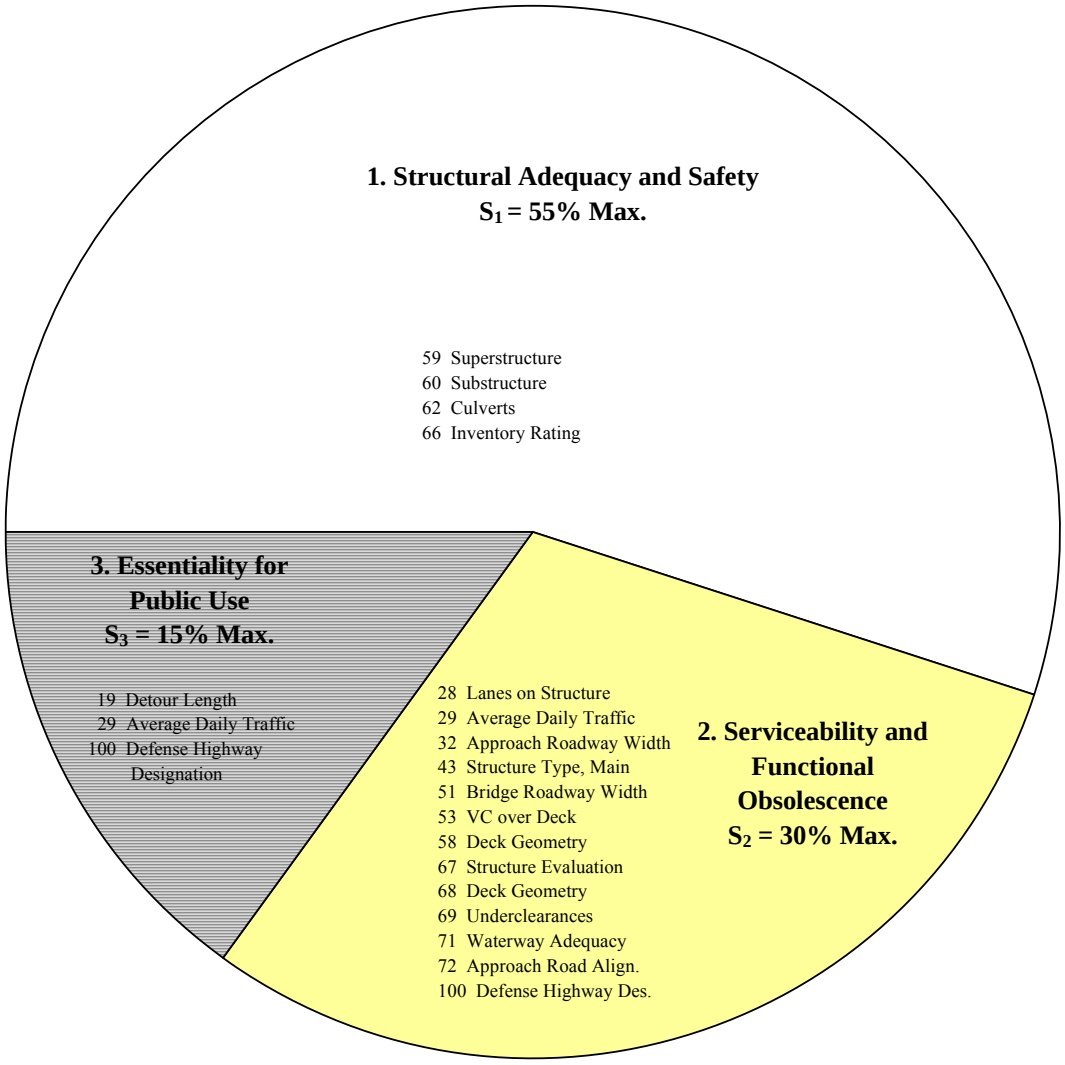
Paramount in the rating process is the sufficiency rating of the bridge. The sufficiency rating formula is a method of rating the quality of a bridge by calculating four separate factors to obtain a numeric value, which is indicative of a bridge's sufficiency to meet the demands placed upon it. In this formula, 55% of the total is based on structural adequacy and safety, 30% on serviceability and functional obsolescence, and 15% on essentiality for public use. The result of this calculation is a percentage in which 100% would represent an entirely sufficient bridge and 0% would represent an entirely deficient bridge. The primary use of the sufficiency rating is as a planning tool to prioritize bridge projects for funding purposes; it is NOT the best indicator of the absolute physical condition of a bridge.

Condition ratings of the superstructure, substructure (or culvert, if applicable) and the inventory rating (load carrying capacity of the structure), have the most impact in the sufficiency rating calculation. Serviceability, functional obsolescence, and essentiality for public use are also considered in the sufficiency rating calculation. Loss of accessibility to schools, homes, businesses, etc., due to a load-restricted or closed bridge, constitutes an undue hardship to the public, not to mention the reduction or loss of essential services such as, fire protection, police, and medical services. In addition, lengthy detours due to a closed or posted structure present ecological and financial hardship.

A graph depicting the sufficiency rating criteria is shown in Figure 1. For a more complete explanation of how the sufficiency rating is calculated, see Appendix B of the Coding Guide.

The following figure 1 illustrates the relative weight of factors comprising the sufficiency rating:

Figure 1. Summary of Sufficiency Rating Factors



4. Special Reductions
S_4 = 13% max.

19 Detour Length
36 Traffic Safety Features
43 Structure Type, Main

Sufficiency Rating = $S_1 + S_2 + S_3 - S_4$

Sufficiency Rating shall not be less than 0% nor greater than 100%

For evaluating the structural components such as decks, superstructures, substructures and culverts, the following numerical condition rating system is used:

Code	Description
N	NOT APPLICABLE
9	EXCELLENT - no noticeable deficiencies or deterioration.
8	VERY GOOD - no problems requiring attention.
7	GOOD - some minor problems; potential exists for minor maintenance.
6	SATISFACTORY - structural elements show some minor deterioration; non-structural cracking; potential exists for major maintenance.
5	FAIR - all primary structural elements are sound, but may have minor section loss, structural cracking, spalling or scour; potential exists for minor rehabilitation.
4	POOR - advanced section loss, deterioration, spalling or scour; requires major rehabilitation.
3	SERIOUS - loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present. Rehabilitation or repair required immediately.
2	CRITICAL - advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present, or scour may have removed substructure support. Need for immediate repair or rehabilitation is urgent; unless closely monitored it may be necessary to close the bridge until corrective action is taken.
1	IMMINENT FAILURE - major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic, but corrective action may put it back in light service.
0	FAILED - out of service - beyond corrective action.

For rating the overall structural evaluation, deck geometry (width), under-clearances, approach roadway alignment, and waterway adequacy, the following rating system is used:

Code	Description
N	Not Applicable
9	Superior to present desirable criteria
8	Equal to present desirable criteria
7	Better than present minimum criteria
6	Equal to present minimum criteria
5	Somewhat better than minimum adequacy to tolerate being left in-place as-is
4	Meets minimum tolerable limits to be left in place as-is
3	Basically intolerable requiring high priority of corrective action
2	Basically intolerable requiring high priority of replacement
1	(*this value not used*)
0	Bridge closed

The types of defects that are characteristic of each numerical rating are explained in detail in Chapter 10 of the ConnDOT Bridge Inspection Manual (available on-line at: http://www.ct.gov/dot/lib/dot/documents/dpublications/Inspection_Manual_061905.pdf#44255.

B. PRIORITY RATING

Section 13a-175s of the Connecticut General Statutes requires the Commissioner of Transportation to maintain a list of eligible bridges and establish a priority list of eligible bridge projects for each State fiscal year. The purpose of the prioritized list is to rank the bridges statewide on the basis of need, and to determine which bridges will be funded if not enough funds are available to fund all applications. To accomplish this, each bridge is assigned a "Priority Rating", using the methods explained below. In general, the structures in the worst condition will have the lowest Priority Ratings, with the lowest rating being the highest priority for funding, with exceptions possible in emergency situations.

The Priority Rating represents the physical condition of the structure, based upon the sufficiency rating (as discussed above), with additional "weight" given to the ratings of the main structural components and the structure's load carrying capacity. The following formulas are used, depending upon whether the structure is a bridge or a culvert. These formulas are used to define the "physical condition" as required in Section 13a-175p of the Connecticut General Statutes. The data for the formulas is taken from the rating reports developed by the bridge inspectors using the Coding Guide.

1. For Structures with Abutments and Piers

Priority Rating = SR - 2 [1-(DC+SUB+SUP)/27] - 4 [1-(IR)/36]

SR = Sufficiency Rating
DC = Deck Condition Rating (0-9)
SUB = Condition Rating of Substructure (0-9)
SUP = Condition Rating of Superstructure (0-9)
IR = HS-20 Gross Inventory Rating in Tons (Tractor semi-trailer combinations inventory rating - Max. 36)

Note: The factors of 27 and 36 are the maximum ratings for deck, substructure and superstructure conditions (9 x 3) and the acceptable load limit for a structure (36 tons) respectively.

2. For Culverts and Arches

Priority Rating= SR - 2 [1-(CUL)/9] - 4 [1-(IR)/36]

CUL = Culvert Condition Rating (0-9)

C. PRIORITY LISTS

A preliminary list of eligible bridges with span lengths greater than 20 feet (measured along the centerline of the road carried) is provided in Appendix 1. This list is updated annually and utilizes the most recent data gathered by the Department of Transportation during the Department's regular inspections of Town-owned and maintained structures. *Bridges which have received funding under the Local Bridge Program within the last 20 years are not included on the eligible bridge list*, even though they may again be deficient. The chart will indicate if the bridge is eligible for State funding, Federal funding, or both.

If a municipality wishes to have a bridge added to the eligible bridge list, it may use staff professionals or engage a consulting engineer to conduct an inspection to provide updated information that may enable a structure to qualify for funding. The inspection report must be developed using the Federal Coding Guide and the ConnDOT Bridge Inspection Manual, be signed and sealed by a Connecticut-registered professional engineer experienced in highway bridge inspection, and be submitted to the Department of Transportation for review and approval. If the bridge is found to be deficient, it will be added to the list of eligible bridges and a priority rating will be assigned. A bridge inspection report may be submitted for review at any time during the year, but the bridge will not be considered for funding until the inspection report has been reviewed. If Federal funding will be used, the inspection team must be headed by someone qualified as a Team Leader under NBIS rules, and the inspection report must be signed by an individual qualified as a Program Manager under NBIS guidelines.

It is important to note that Appendix 1 lists only *eligible* bridges; not all *deficient* municipal bridges are listed. That is, for each bridge on the list, the Department has determined that the bridge is deficient ***and*** that the bridge meets all the other eligibility criteria of the funding programs. There also exist municipal bridges which are deficient, but do not meet other criteria for funding; these bridges are not included on the eligible bridge lists. Note also that once a bridge receives a commitment to fund from the Local Bridge Program or another aid program administered by ConnDOT, it is removed from future eligible bridge lists – this is the most common reason for a bridge to "disappear" from the eligible bridge list from one year to the next.

Before June 30 of each year, the Department will establish a priority list of eligible bridge projects for which applications have been submitted. Authorization for funding is determined by the project's ranking on that list, and the extent of the funding available. Projects for which applications were submitted in one fiscal year, but due to program funding limitations were not accepted into the Program, may be resubmitted for funding consideration in a subsequent fiscal year, provided that construction has not yet begun.

D. EMERGENCY CONDITIONS

The legislation permits the Commissioner to approve projects without regard to the priority list if a public emergency exists. A public emergency is interpreted to mean a situation in which the physical condition of a bridge requires it to be closed, or its load limit reduced

substantially, resulting in the isolation of people or a significant delay in the availability of services to such an extent that the safety of people is jeopardized.

If a municipality wishes to have an application processed under the emergency provision, a letter to that effect should accompany the application, with the reasons for the emergency noted. Emergency applications may be submitted at any time of year.

Also, note that the Town Aid Road program (TAR) has a provision for emergency funding. The municipality should contact their TAR liaison at ConnDOT for more information.

FUNDING PROGRAMS

STATE FUNDS

Note: Public Act 09-2 de-funded the Local Bridge Program. New applications for State funds will not be accepted unless additional funding is appropriated for the Program. The following information is included for reference purposes on currently active projects.

Two basic types of State financial assistance are available to municipalities under the Local Bridge Program for municipal bridges listed on the eligible bridge lists: grants and loans. Grant percentages vary depending upon the assessment of the town's ability to pay, as measured by the "Adjusted Equalized Net Grand List Per Capita (AENGLC)" method, computed by the Connecticut Department of Education. Each town's ranking on that list and the corresponding grant percentages are listed in Appendix 2. AENGLC factors are used to compute a grant percentage for each municipality, ranging from 10% to 33% of the total cost of the project. This list is updated annually and grant percentages are adjusted accordingly.

Towns may also apply for a loan covering up to 50% of the eligible project costs from the Local Bridge Revolving Fund. Loans are made at an interest rate of 6% per year, with the interest payable quarterly and the principal payable annually, maturing no later than 10 years from the date that the loan is made. Project loans are made pursuant to a loan agreement and promissory note between the State and the borrowing municipality, which specifies the terms of the loan. Be aware that depending upon the funding sources available to the Department at the time that a loan is to be made, it may not be possible to honor the loan commitment.

To qualify for State funding, a bridge must carry a certified public road, be municipally owned and/or maintained, be structurally deficient according to criteria developed by the Federal Highway Administration in the Coding Guide (see the BRIDGE EVALUATION section), and not have a pre-existing commitment to fund the project.

Many types of projects are eligible for funding. The scope of the project may include reconstruction, rehabilitation, modifications or improvements such as widening, complete replacement, or complete removal, as long as the project corrects the deficiencies that made the bridge eligible for funding. The project may use standard materials such as steel and concrete, traditional material such as timber, or innovative materials such as plastics and aluminum, as long as sound engineering practices are used. Any reasonable structure type may also be used, including timber trusses, if conditions permit.

Bridges that have previously received funding under the Local Bridge Program are not eligible for additional funding until at least 20 years after the completion of the earlier project. Projects that construct a new bridge in a new location (not built as a replacement for an existing bridge) are also not eligible.

Applications for financial aid will be evaluated only for those projects that are anticipated to be under way during the upcoming fiscal year. Time extensions can be granted provided that the municipality demonstrates that it is actively pursuing the project.

If the municipality submits all required documentation on schedule, funding for eligible projects is made available at approximately the time of construction contract award. Preliminary studies, engineering and property acquisition costs are eligible, subject to certain restrictions, and are reimbursed retroactively. Under exceptional circumstances, municipalities may apply for an advance grant to fund the preliminary engineering phase of a project. *Construction costs incurred prior to the Commitment to Fund are* ***not eligible*** *for reimbursement.*

In the event of multiple municipal involvement in a bridge project (such as a bridge on a town line), a decision must be made by the governing bodies of each involved municipality as to which municipality will be the "lead" relative to contact with the Department. The lead municipality will be responsible for overall prosecution of the project, including coordination with other municipalities, meeting all requirements of the Statutes, regulations and the Department's administrative documents. Agreements between municipalities defining concurrence in the selection of the lead municipality must be submitted to the Department at the preliminary application stage. Subsequent agreements defining financial responsibility must be submitted at the supplemental application stage. Grants will be made for the project costs using either: (1) each municipality's percentage as determined by formula for the percentage of cost attributable to each municipality; or (2) the grant percentage of the lead municipality. In the event costs are not divided evenly between municipalities, the Department must approve the rationale.

ConnDOT may deem the lead municipality to be the only municipality eligible for financial aid, without regard to the ownership or other interests of any other municipality in the eligible bridge. In this case, agreements will be made with, and grant and loan disbursements will be made to, the lead municipality only. This can be advantageous if one municipality's grant percentage is significantly higher than the other's is.

Other State Grant Programs

The Local Bridge Program does not prohibit the use of other State funding sources, such as Town Aid for Roads (TAR), Small Town Economic Assistance Program (STEAP), or Local Capital Improvement Program (LoCIP) grants, in conjunction with Local Bridge Program funding. However, any other funding programs being used should be checked to see if *they* prohibit funding from other sources. In any event, no municipality may receive a grant and/or loan amount, which exceeds the allowable percentage of eligible project costs. Since the Local Bridge Program grant is based on the municipality's share of construction costs, participation in other aid programs that pay for 100% of construction costs will render the project ineligible for a grant from the Local Bridge Program for the same project.

The LoCIP program specifically allows a LoCIP grant to be used along with a Local Bridge Program grant and loan. For more information on LoCIP Grants, contact the LoCIP Coordinator at (860) 418-6293, or e-mail at: sandra.huber@ct.gov. Grant requests should be addressed to:

State of Connecticut
Office of Policy and Management
Intergovernmental Policy Division
450 Capitol Ave., MS#54FOR
Hartford, CT 06106-1308
Attention: LoCIP Program

For more information on STEAP Grants, contact OPM by phone at (860) 418-6303 or e-mail: Barbara.Rua@ct.gov. STEAP applications must be sent directly to:

Benjamin Barnes, Secretary of the Office of Policy and Management
by mail: 450 Capitol Avenue, Hartford, Connecticut 06106
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Grant Percentages

Municipal grant percentages are based on the most recent Adjusted Equalized Net Grand List Per Capita (AENGLC) of a municipality available at the time of printing. Since the AENGLC factors are not finalized until the annual session of the General Assembly has adjourned, the grant percentages are usually based on the preliminary AENGLC factors.

AENGLC is defined as a combination of property tax base per person and income per person. Property tax base is used because it is the form of wealth taxed by Connecticut's towns. Per Capita Income (PCI) is used because the income from which taxes are paid has an important effect on town taxing capacity. ENGL is the Equalized Net Grand List, which represents the value of taxable real and personal property (net grand list) at 100 percent fair market value.

The determination of AENGLC is computed as follows:

$$\frac{\text{ENGL}}{\text{Population}} \times \frac{\text{PCI}}{\text{HPCI}}$$

Where: **ENGL** = Equalized Net Grand List (CT Office of Policy and Management)
PCI = Per Capita Income (U.S. Bureau of the Census)
HPCI = Highest Town PCI
Population = Total Population (U.S. Bureau of the Census)

Per statute, grant percentages vary from 10% to 33% based on the following formula:

Municipal Grant % = 33 - (MUNICIPAL AENGLC - LOW AENGLC) / FACTOR

Where FACTOR = (HIGH AENGLC - LOW AENGLC) / (33-10)

Example:

HIGH AENGLC = $347,635.98
LOW AENGLC = $8,554.29
MUNICIPAL AENGLC = $27,137.84

FACTOR = ($347,635.98 - $8,554.29) / 23 = 14,742.68

Grant % = 33 - (27,137.84 - 8,554.29) / 14,742.68 = **31.74%**

Refer to **Appendix 2 - Grant Percentages for Municipalities** for a complete list of grant percentages for all towns and cities in Connecticut.

Eligible Costs

Program regulations specify that only those costs of a bridge project that are determined to be necessary and reasonable are reimbursable. In general, a cost is "necessary and reasonable" if, in its nature or amount, it does not exceed that which would be incurred by a prudent person in the conduct of a competitive business. In any given project, the reasonableness or necessity of certain items of cost may be difficult to determine. In order to avoid a possible subsequent disallowance or dispute based on a cost being found unnecessary or unreasonable, the municipality is encouraged to seek advance approval from the Local Bridge Program Administrator as to the treatment to be accorded such cost.

A question which comes up on a regular basis is "can Local Bridge Program funds be used for covered bridges?" In general, Local Bridge Program funds can be used to remove, repair, rehabilitate, replace, or improve an existing covered bridge, subject to the same limitations as any other type of bridge. For new construction (complete replacement of an existing bridge), Local Bridge Program funds can be used for any element which serves a functional purpose. For example, the covering (siding and roof) of the traditional covered bridge served the functional purpose of protecting the timber truss from the weather, extending its service life. Thus, if a municipality wanted to build a timber through-truss bridge, the cost of covering it would be eligible for Local Bridge Program funds. However, if the covering were merely a cosmetic add-on to another type of structure (steel or concrete, for example), the cost of the covering would not be an eligible expense.

Examples of items that will ordinarily be considered eligible costs include, by category:

Preliminary Engineering:

- Advertising for consulting engineer selection (RFQ/RFPs, etc.);
- Engineering studies and inspections undertaken to determine whether a bridge is eligible for the Local Bridge Program;
- Preliminary surveys;
- Preliminary engineering activities, including type studies, preparation of project plans, specifications, and cost estimates;
- Preparation of bid documents;
- Preparation of permit applications;
- Soil borings and other subsurface investigations used for design;
- Public hearings and legal notices;
- Historical reviews and archeological studies prior to construction;

Rights-of-Way:

- Property and easement acquisition;
- Property appraisals;
- Title searches;
- Legal fees for eminent domain proceedings;

Utilities:

- Engineering costs related to municipally owned utility relocation;
- Municipally owned utility adjustment and relocation costs;

Construction:

- Construction costs (those payments made to the construction contractor) for work on the bridge, including approach roadway work necessitated by the bridge project, and any extra work required to properly complete the project;
- Temporary structures necessary to perform the work, or to carry traffic around the work area while the permanent structure is completed;
- If a bridge is removed and not replaced, demolition and road closure costs;
- Where a municipality undertakes a project using its own labor, equipment and material: payroll costs of municipal employees directly working on the project, burden and fringe costs, such as FICA, vacation pay, sick leave pay, and pension contributions, of such employees so long as such costs can be audited; documented costs of materials; costs per hour of an item of equipment so long as such costs can be audited; if such costs cannot be audited then the then current equipment charges published by the Federal Emergency Management Agency, or calculated in accordance with the Form 816.
- Costs generally recognized as reasonable and necessary for the performance of the project taking into account established contracting or construction practices;
- Costs incurred to comply with Federal and State laws and regulations, and contract terms and specifications;

Construction Engineering/Incidentals to Construction:

- Construction inspection;
- Materials testing;
- Construction advertising;
- Construction bid review and analysis;
- Review of shop, construction and working drawings;
- Engineering support and consultation during construction;
- Inspector's field office costs;
- Archeological studies after beginning construction;
- Construction staking and surveying not performed by the construction contractor;

- Other costs generally recognized as reasonable and necessary for the performance of the project to the standards used on ConnDOT projects

Costs that ordinarily will not be eligible for State local bridge program funding include:

- Bridges not usable by street-legal motor vehicles;
- General municipal administration costs, including the wages or salaries of municipal employees not working directly on the project;
- Overhead costs of a municipality performing construction on its own account;
- Interim or final audits;
- Preliminary engineering (design) and/or construction engineering (inspection) costs in excess of 15% of the construction cost for *each* activity;
- Construction costs incurred prior to the commitment to fund;
- Costs for connecting roadways, interchanges, ramps, and other roadway work not necessitated by the bridge project;
- Costs of long approach fills, causeways, and other extensive earth structures, when constructed beyond the attainable touchdown point;
- Expenses for relocation of utilities not owned by a municipality;
- Legal fees, except for bond counsel on projects with loan agreements;
- Premiums for insurance;
- Costs specifically excluded by the Form 816;
- Any costs generally *not* recognized as reasonable and necessary for the performance of the project to the standards used on ConnDOT projects.

FEDERAL FUNDS

HBP

From time to time, ConnDOT has been able to make funding available from Connecticut's allotment from the Federal Highway Administration's Highway Bridge Program (HBP - formerly known as HBRRP). This program provides reimbursement of up to 80% of eligible project costs, for all phases of a project.

To be eligible for Federal funding, the bridge must be listed on the National Bridge Inventory (NBI); be municipally owned and/or maintained; be structurally deficient, functionally obsolete, or scour-critical; have a sufficiency rating less than 80 (except for approved systematic maintenance program projects); must carry a public road classified by Federal guidelines as being either a "urban local" road, a "rural local" road, or a "rural minor collector"; and must not have received Federal funding within the last 10 years.

The types of costs that are eligible or not eligible for Federal participation are for the most part similar to the State program, but there are some differences. For example, HBP funds

may not be used for demolition of a bridge that will not be replaced, whereas State funds *can* be used for demolition without replacement. HBP funds may be used for:

- The total replacement of a structurally deficient or functionally obsolete highway bridge on any public road with a new facility constructed in the same general traffic corridor,
- The rehabilitation that is required to restore the structural integrity of a bridge on any public road, as well as the rehabilitation work necessary to correct major safety (functional) defects,
- The replacement of ferryboat operations in existence on January 1, 1984; the replacement of bridges destroyed before 1965; low-water crossings; and bridges made obsolete by Corps of Engineers (COE) flood control or channelization projects and not rebuilt with COE funds, and
- Bridge painting, seismic retrofitting, installation of environmentally acceptable anti-icing/de-icing systems, or installing scour countermeasures.

Deficient highway bridges eligible for replacement or rehabilitation must be over waterways, other topographical barriers, other highways, or railroads, and must be, as determined by the State and the Secretary of Transportation, be unsafe because of structural deficiencies, physical deterioration, or functional obsolescence. Federal participation is limited to replacement or rehabilitation of bridges on the NBI. A bridge that has been closed for an extended period of time or removed is no longer carried on the NBI, and thus would not be eligible for funding.

When a project is contemplated as part of a systematic preventative maintenance program (bridge painting, seismic retrofitting, anti-icing/de-icing systems, scour countermeasures, etc.), the project scope should also include, where feasible, correction of major safety deficiencies on the bridge. Be aware that systematic preventative maintenance program projects have the lowest priority for funding.

Because Federal funds are involved, additional requirements and procedures come into play. To ensure that municipalities do not run afoul of the Federal requirements, ConnDOT works closely with the municipality during the course of a federally aided project. Once a commitment to fund a qualifying municipal bridge project is issued by ConnDOT, the municipality is provided guidance by ConnDOT in developing the contract plans, specifications and estimates. The municipality must stay in close contact with ConnDOT to ensure compliance with all program requirements. Failure to follow these rules may result in the municipality being responsible for some or all of the project costs. Cancellation of a project by a municipality after Federal funds have been expended may also result in the municipality being required to reimburse the Federal government for costs incurred prior to cancellation.

It is important to note that this is a <u>reimbursement</u> program. This means that the municipality must be prepared to pay project expenses “up front”, and then be reimbursed after the fact. Thus, the municipality should budget enough local funding to cover several months of project costs, which may be considerable during the construction phase. In addition, because of declining funding levels, and the fact that federal funds are released to the State in a piecemeal

fashion over the lifespan of the Transportation Bill, it may take several years for a particular bridge to receive funding.

Some other significant differences caused by Federal funding requirements are outlined in the section "Guidelines for Obtaining Funds under the Local Bridge Program".

Costs that ordinarily will not be eligible for Federal local bridge program funding include:

- General municipal administration costs, including the wages or salaries of municipal employees not working directly on the project;
- Overhead costs of a municipality performing construction on its own account;
- Interim or final audits;
- Consulting engineer fees, if the engineer was not selected by a qualification-based procedure and approved by ConnDOT;
- Construction costs incurred prior to the commitment to fund;
- Costs for connecting roadways, interchanges, ramps, and other roadway work not necessitated by the bridge project;
- Costs of long approach fills, causeways, and other extensive earth structures, when constructed beyond the attainable touchdown point;
- Expenses for relocation of utilities not owned by a municipality;
- Legal fees;
- Premiums for insurance;
- Extra work performed without prior approval by ConnDOT;
- Ornamental treatments not approved by ConnDOT;
- Any costs specifically excluded by the Form 816;
- Any costs generally *not* recognized as reasonable and necessary for the performance of the project to the standards used on ConnDOT projects.

For the cost of a proprietary item to be eligible for FHWA participation, it must be procured in conformance with 23CFR635.411. The Contract Administration Core Curriculum, Participant's Manual and Reference Guide (Part II.C.5.b) provides non-regulatory guidance on identifying and justifying FHWA participation in the cost of proprietary products.

Other Federal Programs

For information on other Federal funding programs, please contact your regional planning agency (RPO/RPA or COG).

PROJECT DEVELOPMENT

Each year, the Department updates and publishes this program manual and solicits applications for the upcoming fiscal year. The current State Fiscal Year runs from July 1, 2011 to June 30, 2012, and thus is known as Fiscal Year 2012.

The municipality, as the structure's owner, is ultimately responsible for all phases of the project. This may include, but is not limited to, survey, studies, preliminary and final design, material testing, utility relocation, rights-of-way activities, permit acquisition, construction work, construction supervision and inspection. If a municipality does not diligently pursue the project, no progress will be made. For Federally funded projects, ConnDOT will provide considerable oversight and guidance in completing these tasks, and if requested, the Department may perform rights-of-way activities. On State funded projects, much less oversight is provided.

These activities may be accomplished either in-house by municipal staff, or by consulting engineers and contractors solicited for that purpose. When selecting a consultant engineer for a project that is not federally funded, the municipality may use its normal procedure for purchasing outside services. When Federal funds are used for a project, a "qualification based" selection procedure must be employed, and the consultant's activities will be governed by the latest edition of the ConnDOT Consulting Engineers Manual. State funds cannot be used to pay preliminary engineering (design) and construction engineering (inspection) costs in excess of 15% of the construction cost for each activity.

Should the municipality opt to accomplish the construction using its own employees (the "force account" method), the municipality may use equipment rental rates determined in accordance with the ConnDOT Standard Specifications (Form 816), or current F.E.M.A. (Federal Emergency Management Agency) schedule of rates for rental of equipment. Hourly rates for personnel and the pre-bid prices for materials from the current "Town Aid" schedule will also be allowed. The necessary guidelines for equipment rate charges, material certification and municipal payroll costs will be made available to the municipalities.

Project Steps and Typical Timeline

Following is a list of typical project stages, in the order in which they typically occur. Further details can be found in Procedures for State Funded Projects or Procedures for Federally Funded Projects depending upon funding source.

1. Determine Eligibility – See page 13 for State funds, or page 18 for Federal Funds.
2. Submit Preliminary Application – See page 179.
3. Return Commitment to Fund letter within 30 days.
4. Begin (or continue) design.

5. Submit Flood Management Certification package and other permits
6. Submit Supplemental Application
7. Sign and Return Grant Agreement
8. Advertise for construction
9. Submit Closing Documents
10. Receive grant
11. Begin Construction (notify ConnDOT as to starting date).
12. When nearly complete, notify ConnDOT as to semi-final inspection date.
13. Certify project as complete.
14. Submit final cost information and as-built plans.
15. State adjusts grant amount.

INITIATION/PRELIMINARY APPLICATION

A project is initiated by the municipality determining that it desires to repair or replace an eligible bridge. Bridges which are known by ConnDOT to be in poor condition *and* meeting other program requirements (and thus known to be eligible) are listed in Appendices 1 and 1A; additional bridges may also be considered for addition to the eligible bridge list if the municipality submits an inspection performed by a qualified professional engineer revealing them to be in poor condition, and the Department agrees with the results of the inspection report.

The municipality begins by estimating the scope of work needed to return the bridge to good condition, and preparing a preliminary cost estimate for this work. At the preliminary application stage, cost estimates are generally based on "rule of thumb" estimates for similar types of work; detailed plans and specifications are not required at this point.

Once preliminary plans and specifications have been developed, the municipality should have a rough idea of the project's scope and cost, and is ready to submit a Preliminary Application. The preliminary application must be submitted using the application form included in the back of this Manual (see **LOCAL BRIDGE PROGRAM** PRELIMINARY APPLICATION). Due to the limited number of bridges that qualify for Federal funding, it is anticipated that the Department will be able to fund all the applications received. Therefore, beginning in State Fiscal Year 2011, the Department is accepting applications for Federal funding at any time; there is no specific deadline. In the event that demand exceeds the available funding, the Department will establish a cut-off date, and return to the practice of funding applications in order of Priority Rating.

The Local Bridge Program Administrator will review the preliminary application, and if the project qualifies and sufficient funding is available, ConnDOT will issue a "Commitment to Fund". Once a commitment to fund a project is made, subsequent priority list revisions will not

alter the commitment, and the Department will participate in the applicable portion of all eligible project costs, up to the limit of available funding. Engineering costs incurred prior to the commitment to fund date *are* reimbursable under the State program, but construction costs incurred prior to the commitment to fund are ***not***. Therefore, construction should not begin until after the commitment to fund is signed. For federally funded projects, no costs incurred before being specifically authorized by ConnDOT are reimbursable, even if there is a Commitment to Fund the project in place.

Please note that the application form is a legal document, which will be referenced in the project agreements. The most recent version must be used, and it must not be altered in any way. Because legal requirements change from time to time, use of an altered or outdated form may cause an application to be delayed or rejected.

After the commitment to fund is issued, the subsequent development of the project will be determined by whether or not Federal funds are involved. Federally funded projects will follow the path outlined in the section entitled "Procedures for Federally Funded Projects". Projects not federally funded will follow the path outlined in the section entitled "Procedures for State Funded Projects".

PROJECT DESIGN

With the commitment to fund in hand, the municipality is ready to proceed with the design stage, where the scope and estimated costs will be more accurately defined. As a part of the design process, a public hearing must be held to solicit public input. The purpose of the public hearing is to give the public an opportunity to comment on the project. The forum is intended to be more along the lines of what the Department refers to as a "public informational meeting" where the project is presented and explained, then the public is given an opportunity to ask questions and make comments, rather than a rigidly formal public hearing. Minutes summarizing the public comments must be kept, but it is not necessary to have a word-by-word transcript prepared by a stenographer.

As the project develops, the municipality must inform the Department of any major changes in the cost of the project (in excess of 10%), so that the Department can allocate sufficient funding to the project. Failure to notify the Department of increases in the cost of a project may result in the State not participating in any costs beyond the amount of the original Commitment to Fund.

The individual responsible for the project's design must be a professional engineer licensed in Connecticut, and must sign and seal the plans and specifications.

While not mandatory, the municipality may want to use ConnDOT standard drawings and specifications. Standard drawings, specification, and other references are available at http://www.ct.gov/dot/cwp/view.asp?a=2288&Q=300688&dotNav=|.

Design Standards – State Funds

Design criteria should be consistent with the Standard Specifications for Highway Bridges of the American Association of State Highway and Transportation Officials (AASHTO), the ConnDOT Bridge Design Manual, the ConnDOT Highway Design Manual, the ConnDOT Drainage Manual, the ConnDOT Standard Specifications (as revised), and the 2004 Connecticut Stormwater Quality Manual. These guidelines have considerable flexibility built into them, and also have provisions for deviating from standards when conditions warrant. Additional consideration should be given to remaining fatigue life, hydraulic analysis, and scour susceptibility.

Geometrics: Design criteria should comply with ASHTO and ConnDOT Highway Design Manual standards for the applicable roadway classification. ConnDOT encourages designers to use context-sensitive design solutions whenever appropriate. As part of the Supplemental Application, to be filed with ConnDOT after the design of the project is complete, the licensed Professional Engineer responsible for the project's design is required to certify that the design conforms to current ConnDOT and AASHTO standards "or previously agreed to digressions from those standards". The wording allowing "previously agreed to digressions" from standards is intended to allow municipalities, as the owners of local bridges, to play the same role in weighing design factors for their own bridges as ConnDOT plays for State bridges. The allowance for reasonable flexibility in design should not be interpreted to mean that *no* standards apply to Local Bridge Program projects; it only means that the town, rather than ConnDOT, should weigh the criteria for deviating from standards. As the decision-maker, the municipality also assumes any liability associated with departing from standards. Note that a professional engineer will be reluctant to sign any plans that deviate too far from accepted practices, and should not be pressured to do so.

As a rule of thumb, ConnDOT and AASHTO standards require that the curb-to-curb roadway width on a bridge should be at least as wide as, and preferably wider than, the approach roadway including usable shoulders, whether or not the approach roadway shoulders are paved. This is important for public safety, since bridges that are narrower than the approach roadway are associated with significant increases in motor vehicle accidents at the bridge, either impacting the bridge itself, or striking on-coming traffic in an attempt to avoid striking the bridge parapet. New one-lane bridges are only acceptable on one-lane roads.

If, in order to retain and rehabilitate an existing bridge constructed prior to 1972, the municipality deviates from the AASHTO or Highway Design Manual guidelines, it must consider and document all of the factors listed in CGS Section 13a-86a (formerly Public Act 97-214 – see Appendix 3). This documentation should be retained in the project's file, and need not be submitted to the Department unless Federal funds are involved.

Life Expectancy: A designed life expectancy of at least 20 years after construction completion will be required for all projects.

Load Capacity: HS-20 or HL-93 load capacity must be achieved on the structure, except that in the case of a rehabilitation project, a municipality may opt for a lesser load limit. In all cases, a minimum load capacity of at least 12 tons must be obtained.

Scour Analysis: Reasonable and prudent hydraulic analysis of a bridge design requires that an assessment be made of the proposed bridge's vulnerability to undermining due to potential scour. Because of the extreme hazard and economic hardships posed by a rapid bridge collapse, substructures for bridges over waterways should be designed to safely support the structure subjected to the design scour.

With regard to abutment or pier foundations, two basic approaches to achieving this goal are available to the designer, listed as follows in order of preference:

a) Design the foundation to resist the effects of scour from a superflood.

Foundations subjected to scour should be designed with footings supported on piles, footings founded on rock or deep footings (located below the maximum estimated scour). Structural tremies (concrete poured under water, which directly supports the foundation loads) should be used only where no other solution is feasible. Preference for foundations adjacent to or within waterways will be for pile-supported footings or direct foundations on rock. For pile foundations, the top of footing should be set below the sum of the long-term degradation and contraction scour.

b) Protect the substructure units with riprap or similar armoring layers.

In general, the use of riprap to provide scour protection for new bridges is discouraged and should be used only where it has been demonstrated that alternate, preferred means of designing bridges to be safe from scour related failures are not feasible. On bridge rehabilitation projects where the substructure is being repaired and incorporated in the reconstruction of the bridge, riprap scour countermeasures may be an effective solution for protecting the bridge from scour.

The designer should explore and incorporate into the design all reasonable methods of minimizing local scour, such as the use of embankment or "stub" abutments placed at the top of a protected slope. These types of abutments are much less susceptible to scour than full height abutments. The use of stub abutments does not relieve the requirement for founding on piles or directly on rock. Piers that may experience local scour should be flow aligned and should have streamlined end sections.

Reconstructed or Rehabilitated Bridges

Generally, scour evaluations should be performed for all bridges that are to be reconstructed or rehabilitated where significant capital investment is involved, and where the bridge has been classified as scour susceptible or scour critical. A significant capital investment correlates to the following improvement categories:

- Deck Replacement
- Superstructure Replacement or Widening
- Modification or Major Repairs to Substructure Units

Bridges that have been classified as scour susceptible or scour critical should have hydrologic, hydraulic and scour evaluations performed which are sufficiently detailed to satisfy

all applicable design and permitting requirements. All necessary scour countermeasures for scour susceptible or scour critical bridges should be incorporated into the overall project plans.

Further information on designing for scour can be found in the Department's Drainage Manual, and the FHWA document entitled "Evaluating Scour at Bridges" (HEC-18).

Hydraulics: A hydraulics analysis will be required whenever Flood Management Certification is needed. Any studies prepared in support of a FMC application that will be reviewed by ConnDOT's Hydraulics and Drainage section must be prepared by an engineer approved in accordance with section 1.2.4 of the Drainage Manual. All culverts and bridges must be designed in accordance with methods and procedures defined in the DOT Drainage Manual as revised, DOT 816 as revised and the CT 2004 Stormwater Quality Manual as revised and meet the following requirements:

1. Culverts and bridges will be designed for flood frequencies and under clearances stipulated in the DOT Drainage Manual, except that on local roads and driveways with low traffic volumes and where alternate routes are available, lower design criteria are acceptable when:

- Flood discharges may be allowed to cross over roads that are at or close to the floodplain grade.
- Water surface elevations are not increased by more than one foot, and will not cause damage to upstream properties.
- Provisions are made to barricade the road when overtopped.
- The road or driveway is posted as being subject to flooding.

2. The location of new bridges and culverts minimize the relocation of the watercourses.

3. Rigid floors at new or replaced bridges and culverts are depressed below the normal streambed with one foot native streambed material on top in order to maintain fish passage, unless specific written approval is given prior by DEP Fisheries.

4. Solid parapet walls at bridges and culverts in the sag part of vertical curves are only to be used when such walls are deemed hydraulically acceptable by the DOT Hydraulics and Drainage Unit and if such walls do not cause an adverse impact.

5. Multiple small openings are discouraged.

Fatigue: Designs must also consider fatigue on existing structural elements in accordance with the AASHTO Guidelines for Fatigue Evaluation of Bridges.

Longitudinal Barriers: Guide railing of a safe and responsible design will be required at the leading ends to bridges. Consideration should be given to upgrading the bridge railings to current AASHTO standards. All new longitudinal barriers should meet or exceed the TL-3 crash testing criteria in NCHRP Report 350. Solid parapet walls at bridges and culverts in the sag part

of vertical curves are only to be used when such walls are deemed hydraulically acceptable by the DOT Hydraulics and Drainage Unit.

Environmental: Stormwater management systems shall be designed to incorporate primary treatment measures whenever possible. All projects shall be constructed and maintained in accordance with the following conditions:

(1) Time of Year Restriction on In-water Construction

(A) Between September 30th and May 31st the permittee shall not place fill, excavate material, or conduct any other construction activity in any watercourse unless such activity is confined by a cofferdam or other device which isolates such activity from the watercourse, unless the DEP Inland Fisheries Division has given written authorization that the proposed activity will not adversely impact any fisheries habitat.

(B) The permittee shall not place fill, excavate material, or conduct any other activity in any watercourse stocked with fish by the DEP or any other person, or in any tributary to such watercourse, from 12:01 a.m. on the Monday preceding the third Saturday in April through 12:00 midnight on the Sunday preceding the fourth Saturday in April.

(C) The permittee shall not place fill, excavate material or conduct any other construction activity in or adjacent to any watercourse, which activity may adversely affect anadromous fish, during the time period when anadromous fish are known or reasonably believed to be migrating in the watercourse.

(2) Pollution Prevention/Best Management Practices: The permittee shall not cause or allow the authorized activity, including any construction associated therewith, to result in pollution or other environmental damage and shall employ best management practices to prevent such damage. The permittee shall, in addition to employing any other best management practices necessary to prevent such damage, do the following:

(A) Controlling Erosion: The permittee shall install and maintain in optimal condition erosion and sedimentation controls to prevent erosion and discharge of material into any waters of the state, including wetlands, as a result of the authorized activity or any construction associated therewith. Such controls shall be installed and maintained in conformity with the *Connecticut Guidelines for Soil Erosion and Sediment Control*, as revised, published by the Connecticut Council on Soil and Water Conservation pursuant to Section 22a-328 of the General Statutes.

(B) Proper Disposal of Material: All material and solid waste generated during any construction associated with such activity shall be disposed of in accordance with applicable federal, state and local law.

(3) The contractor shall seek written approval from the DOT, Environmental Planning Division, for placement or storage of equipment / materials within the 100-year floodplain. At a minimum, the contractor shall be required to remove equipment and materials from the 100-year floodplain during periods when flood warnings have been issued or are anticipated by a responsible federal, state or local agency. It shall be the contractor's responsibility to be knowledgeable of such warnings when flooding is anticipated.

(4) Work shall not be conducted in or adjacent to watercourses and reservoirs used as public drinking water supply sources without coordination with the water supply utility and Department of Public Health.

(5) All temporary structures, cofferdams, and fill shall not impede the movement of flood flows and shall be removed at the completion of their use. The design of such temporary structure, cofferdams and fill shall be based on Chapter 18 of the DOT Drainage Manual, where applicable. Sheet piling that is cut 1 foot below existing grade shall be considered removed.

(6) All fill shall be clean material, free of stumps, rubbish, hazardous, and toxic material.

(7) Once work is initiated, it shall proceed rapidly and steadily until completed and stabilized in order to minimize use of temporary structures and to minimize soil erosion.

Design Standards – Federal Funds

For projects with Federal funding, the project's design will be required to comply with all ConnDOT standards where possible; any deviations from the AASHTO or ConnDOT design guidelines *must* be approved by the Department and FHWA. In all cases, the design must improve the existing conditions, and correct all of the problems that rendered the bridge eligible for Federal funding. A scour analysis will also be required, as described above and in the Drainage Manual.

PERMITS

The municipality is responsible for obtaining all permits required by federal, state and local regulatory agencies, including local Inland Wetlands and Watercourses. Any project that affects a waterway or wetlands will require a permit from the U.S. Army Corps of Engineers, *regardless of the funding source*. Almost all bridge projects will also require Flood Management Certification from the DEP.

Some projects, especially those involving larger waterways, may also require additional State and Federal permits, such as U.S. Army Corps of Engineers Individual permits, and U.S. Coast Guard Bridge Permit Application (and/or navigation lighting approval or waiver). Projects impacting tidal, coastal or navigable waters may require permits from the DEP's Office of Long Island Sound Programs. Construction sites disturbing one acre or more will also require a National Pollutant Discharge Elimination System (NPDES) permit under the Federal Clean Water Act. For construction projects with a total disturbed area (regardless of phasing) between one and five acres, the Town must provide a review and written approval of the erosion and sedimentation control measures and certify that the plan follows the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control*. If no review is conducted by the Town, the permittee must register and comply with Section 6 of the DEP **General Stormwater Discharge Permit for Construction Activities and Dewatering of Wastewater,** Modified April 8, 2004. Copies of all permit applications and approvals must be included in the contract documents.

Following is a list of regulatory approvals, which may be required, depending upon the particulars of the project:

- DEP Flood Management Certification, submitted via the Department of Transportation;
- Municipal Inland Wetlands and Watercourses Permit under the Inland Wetlands and Watercourses Act (CGS Sections 22a-36 to 22a-45(a), inclusive),
- Water Diversion Permit under the Connecticut Water Diversion Policy Act (CGS Sections 22a-365 to 22a-378(a), inclusive),
- DEP Stream Channel Encroachment Lines Permit (CGS Sections 22a-342 to 22a-349(a), inclusive),
- Dam Safety Construction Permit (CGS Sections 22a-401 to 22a-411, inclusive),
- DEP Structures, Dredging and Filling Permit (CGS Sections 22a-359 to 22a-363f, inclusive),
- DEP Tidal Wetlands Permit under the Tidal Wetlands Act (CGS Sections 22a-28 to 22a-35a inclusive),
- DEP Certificate of Permission (CGS Section 22a-363b),
- Long Island Sound General Permits (CGS Sections 22a-28 to 22a-35 and Sections 22a-359 to 22a-363f inclusive),
- Coastal Area Management Review (CAM) (CGS Section 22a-90 to 22a-113b, inclusive) *Note: not required if obtaining a COP, Structures & Dredging or Tidal Wetland Permit approval from DEP OLISP. Some Towns have a local CAM program - please contact the appropriate municipal commission or agency.*
- U.S. Army Corps of Engineers Permit Application (typically a Programmatic General Permit concurrence).
- U.S. Coast Guard Bridge Permit Application and/or navigation lighting approval or waiver.
- Department of Health Services Change in Land Use Permit Application.
- DEP Section 401 Water Quality Certificate Application. *Note: An individual 401 WQC approval is needed only when an individual permit is required by the USACOE.*

NOTES FOR ALL DEP PERMIT APPLICATIONS: Applications must include plans signed and sealed by a professional engineer licensed in Connecticut. ***The application will not be reviewed until signed and sealed plans are provided.*** If these plans are not final construction plans, a notation to the effect of "For Permit Application" should appear on the plans. It is not necessary for plans submitted for permitting purposes to show internal structural details unrelated to the project's environmental impact (such as rebar details). All plan sheets must be dated, and any future modifications to the plan sheets provided with the application must include a list of drawing revisions on the cover sheet, including sheet number, description, and date of the revision. The revised sheet must also include the latest revision date. Permit approvals refer to the plans, including the date, and any revisions. Therefore, the applicant is responsible for providing clear and accurate documentation of all

proposed activity on the plan sheets. Any activity not shown on the approved plans is not in compliance with the issued permit.

When submitting an application requiring river hydraulic models, the following information must be provided.

1. A copy of the FEMA back-up data. FEMA cross-sections and flows must be used in development of the model. If FEMA backup is not available, a copy of the original request to FEMA and the response letter back from FEMA must be provided.
2. A disk including all runs as defined in the hydraulic Guidance Document. (All runs must be provided on one disk under one project.)
3. No modifications to floodway boundary are permitted without approval from FEMA.
4. The Hydraulic Analyses and results of the hydraulic modeling should be clearly summarized in the engineering report.

This is fundamental information required to make a complete application; it is not considered to be extra work. Failure to provide the above as a minimum requirement *will result in rejection* of the application.

Flood Management Certification

Note: In an effort to expedite the Flood Management Certification process, ConnDOT and DEP have signed an MOU giving most responsibility for FMC review to DOT. New DOT forms for the FMC have been developed, and must be used for application packages to be reviewed by DOT.

Because State funds are involved, Section 25-68d of the Connecticut General Statutes requires that a State Flood Management Certificate be obtained from the DEP. This requirement can be satisfied in one of three ways: By a Flood Management General Certification, by an FMC application processed by DOT under a Memorandum of Understanding with DEP, or by an FMC application given final approval by DEP after review by DOT.

Some general guidelines for preparing the FMC application:

- **Read the guidance provided in this Manual!** Environmental permitting has changed over the last few years, and will continue to evolve. Taking the approach "that's the way we always did it in the past" is a sure route to a difficult permitting process.
- Permit applications should be sent in early in the project development, in case design revisions are required to meet regulatory requirements. It should be anticipated that reduced staffing levels at State agencies might impact processing times.
- The FMC application package developed by DOT's Hydraulics & Drainage Section must be used for all FMC packages. If final approval must be granted by DEP, the DEP permit application will have to be completed as well.

- The hydraulic engineer performing the analysis must be approved by ConnDOT on a project-by-project basis. Approval of the hydraulics engineer must be granted by DOT before any submissions will be reviewed.
- The project must be analyzed for the 100-year storm, even if lesser design criteria are used.
- The hydraulics, hydrology, and scour analysis should be in separate reports.
- The designer should consult with DEP Fisheries Division (http://www.ct.gov/dep/cwp/view.asp?a=2696&q=322700&depNav_GID=163) early in the process to address any concerns they might have. Copies of correspondence with Fisheries must be included with the FMC application.
- The project should be identified by the road carried, the body crossed, the bridge number, and the State project number. Do **not** put any consultant project number, town project number, or any similar number on the application or plans that might be confused with a State project number.
- Water handling plans, consisting of a narrative as well as illustrations, showing the sequence of construction must be included with every application package. Elevations of the water handling diversion systems should be provided. Even if the designer believes that there may be many feasible options to handle water, the designer must still provide *at least one* constructible method (***the contractor will be required to use the method shown*** in the approved package). Details of the water handling plan ***cannot*** be left up to the contractor.
- Cofferdam and dewatering: Elevations of the cofferdam should be provided including an approximate location of the dewatering basin, shown upland and outside of the work area. The Cofferdam must be labeled "temporary" or "permanent".
- Plans must show construction staging.
- Erosion and Sedimentation control plans are required for every project. Plans should include all information as listed in the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control's E & S Plan Checklist, which can be found on pages 3-12 and 3-13 of the manual. The E&S plan ***cannot*** be left up to the contractor.
- Because most correspondence regarding permit applications is now done electronically, it is vital that the engineer preparing the Flood Management Certification application package provide an e-mail address to the Administrator of the Local Bridge Program.
- All communications regarding the FMC application must be made through the Local Bridge Program office. Calling staff engineers or sending information to other offices, unless specifically directed to do so by the Local Bridge Program Administrator, will result in delays and misfiled documents.

If any activity or placement of fill will occur below the 100-year floodplain elevation, a full hydraulic analysis will be required. The hydraulic package should include the following:

- Natural, existing, and proposed models based on approved hydrology

- CD containing the entire report in Adobe Acrobat PDF format (contents selectable and searchable) and the original data files associated with computations and analysis.
- Adequate narrative
- Hydraulic Data Sheets
- Profiles – One page per discharge
- Cross Sections
- Tables – one per discharge containing both existing and proposed conditions.
- Plans including erosion and sediment controls and water handling (see notes above)

More guidance on the requirements for hydraulic analysis is included in APPENDIX 5 - Hydraulic Analysis Guidance Document

After the hydraulics study is reviewed, there will be at least 2 permit package submissions required for the FMC application. When the structure type is selected and the hydraulic analysis is approved (about 30% design), the municipality or its consultant should prepare a draft application package for Floodplain Management Certification, consisting of 2 printed copies of the application, 1 printed copy of the hydraulics study with CD containing the entire report in Adobe Acrobat PDF format (contents selectable and searchable) and the original data files associated with computations and analysis, and 2 printed sets of construction plans (half-size is preferred), then forward it to the Local Bridge Program Administrator for review. The Department will review the package and provide comments and corrections where needed.

Once all the comments and suggestions have been addressed by the designer, a final application package consisting of 2 printed copies of the application, 2 printed sets of plans (half-size is preferred), and 1 complete copy of the application materials (including the hydraulics data) in an electronic format (PDF or MS Office format) must be prepared by the municipality or its consultant and sent to the Local Bridge Program Administrator for review and approval. **DO NOT** submit the FMC application to DEP.

When completing the Flood Management Certification application, a set of half-size plans (or full-size if the drawings are very congested) is preferred over plates to accompany the application. Again, do not put any number on the plans that might be confused with a State project number. All OHW, floodway, 100 year, and 500-year floodplain boundaries and elevations must be shown on all appropriate views.

In the case where a general permit authorization, stream channel encroachment line permit, or State 401 Water Quality Certification is also required, the request for flood management certification approval will be processed jointly with the other permit application. If Flood Management applications involve activity that will require other DEP division permits (i.e. PGP, WQC, DIV, IW) they ***must*** be submitted simultaneously with the FMC application. Please be aware that if the FMC is submitted in advance of a joint application, any modification to the approved plans required by other permit programs will need a new approval to the FMC. If the change to the approved FMC is minor, a Technical Plan Revision may be requested for review. If a revision is required that modifies the approved plans and has new wetland, floodway, or floodplain impact, a new Flood Management Certification Application may be required.

Typical Steps For an FMC Application under the MOU Procedure

1) Designer requests approval of hydraulics engineer (include the engineer's resume, highlighting hydraulics experience on projects in Connecticut).
2) Submit Hydraulics Report for review.
3) Respond to comments on Hydraulics Report.
4) Request comments from DEP Fisheries. The designer may contact DEP directly (with a cc to ConnDOT) for this step, or may prepare a request form for the Local Bridge Program Administrator to forward. In either case, the current form (see the Local Bridge Program Documents and Forms page) must be used.
5) Check the National Diversity Database (NDDB) maps to see if additional screening is required.
6) If the project is likely to involve a structure of historic interest, the State Historic Preservation Office (SHPO) should be contacted.
7) Submit an Environmental Review Request Form to ConnDOT.
8) If the project will require an individual ACOE permit, request that the project be reviewed at the monthly Project Managers' Meeting.
9) When the project is at approximately 30% design, prepare and submit 2 copies of the Flood Management Application package.
10) Respond to comments on the 30% application package, and incorporate the comments into the final submission.
11) When the project is at about 90% design, the final FMC application package should be submitted, with a written response to each comment generated by the 30% submission. The package should include:

    HARDCOPIES:

    1. The FMC MOU certification/signature forms with original signatures, separate and unbound. It is anticipated that the Department section originating/administering the project will circulate these forms to the OEP for signature, then H&D. **The date on the B-2 certification form for "*Plan Dated and Revised Through*" must match the date on the plans being submitted (last reviewed by Department) and the date on the form for "*Hydrologic and Hydraulic Study Dated*" must match the date of the final floodplain/floodway report (hydraulic report, if no FEMA floodplain/floodway analysis report).**
    2. Two (2) copies of the DOT FMC application/worksheets (FMC-DOT-FMP-1) stapled or bound.
    3. One (1) bound copy of the final hydraulic report and appendices, PE stamped & signed front cover, with hydrology report as an appendix. The report must include a CD containing the final version of HEC-RAS model(s) for the project and a PDF copy of the report. The CD should be located in a pocket near or on the inside back cover of the report.

4. One (1) bound copy of the final floodplain/floodway report (*for projects involving FEMA floodplain/floodways*) and appendices, PE stamped & signed front cover. The report must include a CD containing the final version of HEC-RAS model(s) for the project and a PDF copy of the report. The CD should be located in a pocket near or on the inside back cover of the report.

5. One (1) bound copy of the final scour evaluation report (*for projects involving span bridges*) and appendices, PE stamped & signed front cover. If scour calculations are performed using computer software or spreadsheets, the report must include a CD containing the final version of computer files used for the calculations and a PDF copy of the report. The CD should be located in a pocket near or on the inside back cover of the report.

6. One (1) half-size set of the project plans (signed, stamped and dated).

<u>ELECTRONIC COPIES</u> (The following documents must be provided on a CD):

1. A PDF copy of the DOT FMC application/worksheets.

2. A PDF copy of the final hydraulic report and appendices, PE stamped & signed front cover, with hydrology report as an appendix.

3. A file folder containing the final version of HEC-RAS model(s) used in the hydraulic report.

4. A PDF copy of the final floodplain/floodway (*for projects involving floodways*) and appendices, PE stamped & signed front cover.

5. A file folder containing the final version of HEC-RAS model(s) used in the floodplain/floodway report.

6. A PDF copy of the final scour evaluation report (*for projects involving span bridges*) and appendices, PE stamped & signed front cover.

7. A file folder containing the final version of computer files used for the scour calculations, if scour calculations were performed using computer software or spreadsheets.

8. A PDF copy of the project plans (signed, stamped and dated). If the plan set is large, we will accept only the sheets relevant to the FMC along with the signed, stamped and sealed cover sheet.

9. A PDF copy of the relevant specifications and special provisions.

12) If any comments requiring revisions to the 90% application package are received, a 100% application package must be submitted.

13) If a project requires an exemption which can only be approved by DEP, the designer must prepare a DEP permit application, in addition to the DOT FMC application package.

Flood Management General Certification

For certain minor activities within regulated floodplain, the Department of Transportation has been granted a "General Certification" by DEP. When all work on a project falls into the categories described below, ConnDOT's Hydraulics and Drainage Section will certify that the project is covered by the general certification, and no separate FMC application to DEP will be needed. The eleven approved activities are described in detail below:

1. **Minor Safety Improvements and Streetscape Projects:** Projects that include minor grading and minor safety improvements including but not limited to traffic signals, signs, sidewalks, landscaping and light poles. This item does not include fencing or sound barriers.

   Landscape plantings will be in accordance with the most current version of the Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, as revised by the latest supplements, and also in accordance with the State of Connecticut Department of Environmental Protection's Non-Native Invasive plant Species Policy dated November 13, 1998. Obstructions such as poles, signs and plantings may be placed in the floodplain, but not in the floodway. Any grade changes will be limited to 2.0 feet maximum over the existing ground elevation and must further be limited to the outer 20% of the floodway fringe as depicted on the relevant FEMA Floodway map. The length of the encroachment as measured longitudinally along the stream corridor will not exceed 500 feet.

2. **Roadway Repaving, Maintenance & Underground Utilities:** Milling, repaving and associated regrading to roadsides. Also included are roadway patching and repairs to existing grade and work to the subgrade of the roadway such as utility work, underdrain and storm drain installation, exclusive of storm drainage outfalls.

   Construction under this category will allow up to a 4-inch increase in pavement height in a floodway fringe but no increase in pavement height in a floodway. This item will allow for the roadside to be graded to meet the new pavement grade. Also included are roadway patching and repairs to existing grade, and work to the subgrade of the roadway, such as utility work, underdrain and storm drain installation when such work does not affect the elevation of the roadway within the regulated area.

3. **Minor Stormwater Drainage Improvements:** Replacement with equivalent diameter pipe of drainage outfalls, replacement or placement of riprap splash pads or plunge pools set no higher than existing grade at existing outfalls. Placement of a flared end as a replacement for an endwall is acceptable provided the fill matches adjacent slope limits. The design of riprap splash pads and plunge pools shall conform to the guidelines in the ConnDOT Drainage Manual and/or FHWA Publication No – FHWA-RD-94-096, "Culvert Repair Practices Manual", Volumes 1 & 2, May 1995. *Any change in outlet pipe size will necessitate an individual Flood Management Certification.*

4. **Removal of Sediment from a Floodplain:** Removal of sediment from a floodplain including pond and ditch cleaning. Removal of fill also includes the cleaning of ponds when all other necessary Inland or Coastal wetland permits are approved.

Sediment shall be disposed of in accordance with Best Management Practices as outlined in Section 1.10 of the Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, Form 816, as revised by the latest supplements.

5. **Wetland Creation or Enhancement:** Removal of material and placement of organic soils and wetland plantings. This item shall include actions necessary for creating wetland mitigation sites, such as placement of organic soils and wetland plantings. Any placement of material for soil amendment shall be an amount less than or equal to the material which was removed from the floodplain.

6. **Scour Repairs at Structures:** Scour repairs, which bring the streambed, back to original grade, as depicted either on original as-built plans or as determined in the field by the Engineer. *Note: Municipal projects that require no other State permit approvals do not qualify for the General Certification under this item.*

   Fill will be placed to an appropriate level, which is at an elevation no higher than the original grade at either bridge face or points beyond the influence of local or contraction scour. The placement of riprap or alternate counter-measures must be limited to local scour holes adjacent to the bridge substructure units, retaining walls, wingwalls or culvert termini.

7. **Guide Rail Installation:** Installation, replacement or repair of guide rails including minor clearing and grubbing, which may be necessary to place a new system and allow for its deflection and the use of appropriate materials under guiderail to prevent erosion. Jersey-type solid safety barriers may not be placed under this item.

8. **Deck and Superstructure Replacements:** Replacement of the superstructure or deck of a structure where both the existing and proposed low chord elevations are above the floodway elevation. Temporary impacts for construction may include but are not limited to: scaffolding, ladders, sandbags, cofferdams and sedimentation control devices necessary to perform the work. This item includes necessary modifications to the substructure to accommodate the new superstructure if the modifications are above the floodway elevation.

   No modifications below the floodway elevation are included in this item. No decrease in hydraulic capacity will occur as a result of any work under this item. Any temporary impact items will be able to be removed in a timely manner from the site in case of a flood warning, except for items designed under the ConnDOT Drainage Manual as temporary structures, and will allow for the passage of fish, with minimal disturbance to the streambed.

9. **Minor Bridge Repairs:** Repairs to bridges, culverts or pipes including such actions as repairs to spalling concrete, repointing, painting, replacement of wood on wooden bridges, or other maintenance activity, which would not diminish the hydraulic capacity of the structure. Temporary impacts for construction may include but are not limited to: scaffolding, ladders, cofferdams, sandbags and sedimentation control devices necessary to perform the work.

10. **Fisheries Enhancements:** Work in waterways to create or enhance fisheries habitat. Such work may include placement of boulders, riparian plantings, vortex rock weirs, log structures, wing deflectors, channel blocks, cover logs and rootwads, bank cribbing and other enhancements such as scour pool excavation and stream bank stabilization. This item includes any temporary impacts necessary for construction. This item may not be used for construction of fishways or fish ladders.

    All enhancements must be approved by the DOT Hydraulics and Drainage Section. Boulders or groupings of boulders placed will be no wider than 20% of the stream width and there will be no more than one boulder or boulder grouping per 300 square feet of channel. Boulders will be placed only downstream of any bridge structure. Riparian plantings will be conducted in accordance with the State of Connecticut Department of Environmental Protection's Non-Native Plant Species Policy dated November 13, 1998. Temporary floodplain impacts for construction necessary to perform the work shall be allowed.

11. **Surveying and Testing:** This item includes activities such as field survey, excavation of utility test pits, physical testing or the installation of monitoring devices to determine surface or subsurface engineering site data.

    Conventional land survey activities will be accomplished in accordance with standard ConnDOT practice. Minor manual clearing of brush or undergrowth will be allowed to establish lines of sight necessary for geodetic survey. Soil borings using mechanical drill rigs will be allowed provided that no fill is placed for access to the drilling site. The installation or use of temporary or permanent monitoring devices to record or provide real time data relative to bridges, culverts, streams or subsurface characteristics will be allowed providing that there is no resultant permanent reduction in hydraulic capacity at a waterway crossing site. Any devices shall be approved by the Hydraulics and Drainage Unit of DOT. The excavation of utility test pits using mechanical excavators is acceptable providing that there is no change in the final ground elevation at the test pit site.

The following practices shall be followed for **ALL** activities covered under this General Certification:

- *Proper erosion and sedimentation controls will be utilized in conjunction with Best Management Practices as outlined in Section 1.10 of the State of Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, Form 816, as revised by the latest supplements.*
- *Any temporary facilities or equipment requiring work in, or placement in a waterway, must be able to be removed in a timely manner from the site in case of a flood warning, except for items designed as temporary structures, in accordance with the guidelines outlined in the ConnDOT Drainage Manual for Temporary Hydraulic Structures.*
- *Temporary facilities will allow for the passage of fish with minimal disturbance to the streambed.*
- *Unconfined in-stream work must be limited to the period June 1 to September 30.*

When seeking Flood Management Certification under the general permit procedure, the town's engineer should put together a package of information including, but not limited to, the following:

- Project description with a statement of hydraulics and drainage involvement.
- Location plan.
- Design plans.
- Copy of flood map.
- Justification of why the request qualifies under FM General Certification.
- Available supporting reports, computations, hydraulic analyses, etc.

This package must be sent to the Administrator of the Local Bridge Program, who will forward it to the Hydraulics and Drainage Section for review and approval. Any questions regarding the general certification status should be addressed to the Administrator of the Local Bridge Program.

Below is the cover memo, which must accompany the application package. The justification section must be completed by the designer:

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

m e m o r a n d u m

FLOOD MANAGEMENT GENERAL CERTIFICATION
Project No.: «Project_No»
Description: «LocationFeature»
Town: «TownCity» «Town»
Date: March 10, 2011

to: Mr. Michael E. Masayda
Trans. Principal Engineer
Hydraulics and Drainage
Bureau of Engineering and Construction

from: Julie F. Georges
Transportation Principal Engineer
Consultant Design (Bridge)
Bureau of Engineering and Construction

Please review this request for Flood Management General Certification and indicate your concurrence below.

Certification (to be completed by designer)

I have read the Flood Management General Certification and the descriptions for the approved DOT minor activities. This project qualifies for the Flood Management General Certification under:

( ) Minor Safety Improvements and Streetscape Projects
( ) Roadway Repaving, Maintenance & Underground Utilities
( ) Minor Stormwater Drainage Improvements
( ) Removal of Sediment from a Floodplain
( ) Wetland Creation or Enhancement
( ) Scour Repairs at Structures; (*Must acquire another State permit to be eligible*)
( ) Guide Rail Installation
( ) Deck and Superstructure Replacements
( ) Minor Bridge Repairs
( ) Fisheries Enhancements
( ) Surveying and Testing

The following required documentation is attached in support of this certification:

- Project description
- Location plan
- Description of Floodplain involvement and how project qualifies for general certification

Print Name	Title
Signature	Date

Concurrence (to be completed by Hydraulics and Drainage)

Based on the documentation submitted, I hereby concur that the project qualifies for Flood Management General Certification.

If there are any changes to the proposed activities within the floodplain or floodway, the project must be re-submitted for review and approval.

Signature	Date

cc: Joseph J. Obara
Environmental Planning File
DEP Flood Management Certification File
Hydraulics and Drainage File

Rev. 4/07

Stream Channel Encroachment Lines

This program, administered by DEP's Bureau of Water Management's Inland Water Resources Division, regulates the placement of encroachments and obstructions riverward of stream channel encroachment lines, to lessen the hazards to life and property due to flooding. Stream channel encroachment lines have been established for about 270 linear miles of riverine floodplain throughout the State, and are shown on stream channel encroachment line maps, which are on file in the Town Clerk's office in the affected town. An index to the maps is available from DEP. In making a decision on a stream channel encroachment line permit application, DEP must consider the impact of proposed activities on the floodplain environment, including wildlife and fisheries habitats, and on flooding and the flood hazards to people and property posed by such activity.

Any person proposing to place an encroachment or obstruction riverward of stream channel encroachment lines must obtain a permit, even if all the activity is above the applicable flood elevation. Activities which require a permit when conducted riverward of such lines include the removal or deposition of material, any alteration of the land or watercourse or construction of structures, filling, dredging, clearing, grubbing, grading, piping, culverting, channelizing, diverting, damming, dewatering, construction of structures, and any other activity that temporarily or permanently alters the character of the floodplain or watercourse. Additionally, major repair of structures that existed before the stream channel encroachment lines were established may require a permit.

Note that in many cases, the requirement for an SCEL permit can be satisfied by one of DEP's General Permits for construction activities. If an individual SCEL permit is required, the municipality must submit an application directly to DEP.

U.S. Army Corps of Engineer Permits

Any project that impacts a federally regulated waterway or wetlands (which are almost all waterways) will require a permit from the U.S. Army Corps of Engineers (USACOE or ACOE). It is the responsibility of the municipality's designated agency or commission (for example Inland Wetland or Conservation Commission) to pursue these permits and provide the necessary documentation to the USACOE. If a project may need an individual ACOE permit, a request should be made through the ConnDOT Project Manager to be placed on the monthly Project Managers' Meeting.

Programmatic General Permits

Note: A new PGP is expected in May 2011; procedures described below may change.

The New England District of the U.S. Army Corps of Engineers issued a programmatic general permit (PGP) on May 15, 2006 (expiring May 15, 2011), to expedite review of minimal impact work in coastal and inland waters and wetlands within the State of Connecticut and lands

located within the exterior boundaries of an Indian reservation. Most Local Bridge Program projects will have impacts small enough that they will be covered under the Connecticut Programmatic General Permit. Be aware that ***there are significant changes from the last PGP***, and fewer projects will qualify as Category 1 (non-reporting) than under the old rules. The relevant portions of the PGP are excerpted below; please see the USACOE website at http://www.nae.usace.army.mil/reg/ctpgp.pdf for the official version. A checklist to help determine which PGP category applies is in development, but was not available at press time.

Activities with minimal impacts are specified by the terms and conditions of the PGP and the **DEFINITION OF CATEGORIES** sheets. Minimal impact activities either meet Category 1 (eligible without screening, non-reporting), or Category 2 (may be eligible, determination of eligibility made during a screening meeting by the Corps, representatives of the Federal resource agencies, and the Connecticut Department of Environmental Protection.) In both cases, the PGP is valid only after the applicant receives all of the necessary state and local approvals listed under the **Procedures** section. The Corps individual permit review process, and activities exempt from Corps jurisdiction are not affected by the PGP.

I. GENERAL CRITERIA:

Category 1: Non-reporting. Projects are eligible without screening (provided other authorizations are obtained which this permit states are necessary for activities to be eligible for authorization under this category) and do not require notification to the Corps of Engineers.

Category 2: Screening/Reporting. These projects require the submittal of an application to the Corps followed by screening the proposal by the Corps, the U. S. Fish and Wildlife Service (U.S. FWS), the U. S. Environmental Protection Agency (EPA), the National Marine Fisheries Service (NMFS), and the Connecticut Department of Environmental Protection (DEP). Category 2 projects may not proceed until written notification in the form of a Corps PGP authorization letter is received.

II. ACTIVITIES COVERED:

Work and structures that are located in, or that affect, navigable waters of the United States (regulated by the Corps under Section 10 of the Rivers and Harbors Act of 1899), and the discharge of dredged or fill material into waters of the United States (regulated by the Corps under Section 404 of the Clean Water Act).

It is important to note that the 401 Water Quality Certification is directly connected to the ACOE PGP permitting process. For projects qualifying for Category 1, the 401 WQC approval is considered automatic. For Category 2 projects, the DEP Addendum form should be submitted along with the ACOE permit application. If Flood Management Certification is being sought through the DOT, much of the supplemental information required by the addendum sheet is no longer required. An individual 401 WQC approval is needed from DEP *only* when an **individual** permit is required by the ACOE.

III. PROCEDURES:

A. State and Local Approvals:

When any of the following state or local approvals are required for activities eligible under the PGP, such approvals must be obtained in order for the PGP authorization to be valid. Applicants are responsible for ensuring that all required permits and approvals have been applied for and obtained. (Refer also to PGP Condition No. 1):

(1) Inland Wetlands and Watercourses Permit under the Inland Wetlands and Watercourses Act (Connecticut General Statutes (CGS) Sections 22a-36 to 22a-45(a), inclusive),

(2) Water Diversion Permit under the Connecticut Water Diversion Policy Act (CGS Sections 22a-365 to 22a-378(a), inclusive),

(3) Stream Channel Encroachment Lines Permit (CGS Sections 22a-342 to 22a-349(a), inclusive),

(4) Dam Safety Construction Permit (CGS Sections 22a-401 to 22a-411, inclusive),

(5) Structures, Dredging and Filling Permit (CGS Sections 22a-359 to 22a-363f, inclusive),

(6) Tidal Wetlands Permit under the Tidal Wetlands Act (CGS Sections 22a-28 to 22a-35a inclusive),

(7) Certificate of Permission (CGS Section 22a-363b),

(8) Long Island Sound General Permits (CGS Sections 22a-28 to 22a-35 and Sections 22a-359 to 22a-363f inclusive),

(9) Approvals for marine based aquaculture activities required by Connecticut General Statutes Section 22-11h.

(10) Water Quality Certification (WQC) under Section 401 of the Federal Clean Water Act (33 U.S.C. Sec. 1341). Section 401(a)(1) of the Clean Water Act requires that applicants obtain a water quality certification or waiver from CT DEP to discharge dredged or fill materials into waters of the United States.

(11) Coastal Zone Management Consistency (CZM) Concurrence under Section 307 of the Federal Coastal Zone Management Act of 1972, as amended. Section 307(c) of the Coastal Zone Management Act of 1972, as amended, requires applicants to obtain a certification or waiver from CT DEP that the activity complies with the

state's coastal zone management program for activities affecting a state's coastal area.[2]

B. Corps Authorizations:

CATEGORY 1 (Non-Reporting)

Eligibility Criteria

Activities in Connecticut and lands located within the exterior boundaries of an Indian reservation may proceed without application or notification to the Corps if they:

- Are subject to Corps jurisdiction (See General Condition 2),
- Meet the definition of Category 1 in Appendices A & B – Definition of Categories, and
- Meet the General Conditions of the PGP.

Activities subject to Corps jurisdiction that are not regulated by the CT DEP (Office of Long Island Sound Programs/Inland Water Resources Division) or a Connecticut municipal inland wetlands agency will be subject to the Category 2 screening requirements of the PGP.

Projects not eligible under Category 1 may be screened under Category 2 provided they meet the criteria as defined in Appendices A & B.

WQC – Inland: The Connecticut DEP has conditionally granted WQC for Category 1 activities in inland wetlands and waterways. They denied WQC for Category 1 activities that involve piping, boxing or other enclosing or covering of inland waters or waterways for other than a driveway or roadway crossing; projects with direct or secondary impacts to Special Wetlands, Threatened, Endangered or Special Concern Species, Significant Natural Communities identified by the CT Natural Diversity Database; projects with fill for a dam, dike, levee, water impounding or other water diversion structures; projects with activities regulated by CT DEP under Water Diversion Policy Act or Dam Construction; projects with fill placed within an established FEMA floodway or flood plain; projects with detention or retention of storm water in inland waters, waterways or wetlands; projects that channel or relocate inland waters or

[2] *The state's Coastal Area is statutorily defined as: all lands and waters within the municipalities of Greenwich, Stamford, Darien, Norwalk, Westport, Fairfield, Bridgeport, Stratford, Shelton, Milford, Borough of Woodmont, Orange, West Haven, New Haven, Hamden, North Haven, East Haven, Branford, Guilford, Madison, Clinton, Westbrook, Deep River, Chester, Essex, Borough of Fenwick, Old Saybrook, Lyme, Old Lyme, East Lyme, Waterford, New London, Montville, Norwich, Preston, Ledyard, Groton (city, Town and Long Point Borough) and Stonington (Town and Borough) [Section 22a-94(a) CGS].*

waterways; and projects occurring within a segment of a National Wild and Scenic River System or within 0.25 mile upstream or downstream of the main stem or tributaries of a National Wild and Scenic River System segment. CT DEP conditionally granted WQC for Category 2 activities in inland wetlands and waterways provided applicants obtain other required authorizations as listed on Page 2, Section A of the PGP.

WQC – Coastal: For Category 1 activities in tidal, coastal and navigable waters, the PGP is not valid until the CT DEP Office of Long Island Sound Programs (OLISP) authorization is granted. OLISP conducts a substantial evaluation regarding consistency with state water quality standards on individual activities in tidal, coastal and navigable waters. As such, a WQC is inherent in OLISP authorizations 5 - 8 listed on Page 2, Section A of the PGP. A separate WQC application is not required for these OLISP authorized activities.

CZM: For Category 1 activities in the state's coastal area, the PGP is not valid until the state issues an Individual CZM Consistency Determination. The CT DEP authorizations for activities in the state's coastal area include a substantive evaluation by OLISP regarding consistency concurrence with the CZM program. As a result, a CZM consistency concurrence is inherent in the OLISP permit process for State authorizations 5 – 8 listed on Page 2, Section A of the PGP. Therefore, a separate application to the Corps is not required for these activities.

Those applicants that require only Coastal Zone Management Consistency Concurrence (see 11 above) **must apply directly to OLISP for CZM consistency**. OLISP will then forward those applications, as appropriate, to the Corps of Engineers, who will determine whether the proposed activity is eligible under the CT PGP program.

Project proponents seeking Category 1 authorizations must comply with the PGP's General Conditions, and other Federal laws such as the National Historic Preservation Act, the Endangered Species Act (ESA) and the Wild and Scenic Rivers Act. Therefore, consultation with the Corps and/or outside experts such as the Connecticut Commission on Culture and Tourism and any appropriate Indian tribes is recommended when there is a high likelihood of the presence of resources of concern.

Although Category 1 projects are non-reporting, the Corps reserves the right to require screening under Category 2 or Individual Permit review (see General Condition 4, Discretionary Authority) if there are concerns for the aquatic environment or any other factor of the public interest.

Enforcement cases. The PGP does not apply to any existing or proposed activity in Corps jurisdiction associated with an on-going Corps or EPA enforcement action until such time as the enforcement action is resolved or the Corps determines that the activity may proceed independently without compromising the enforcement action. The Corps may choose not to accept applications or issue permits to any applicant with outstanding violations.

CATEGORY 2 (Reporting – Screening)

Eligibility Criteria

Activities in Connecticut require written approval from the Corps if they:

- Are subject to Corps jurisdiction (See General Condition 2),
- Meet the definition of Category 2 in Appendices A & B – Definition of Categories, and
- Meet the General Conditions of the PGP.

For Category 2 projects, applicants must obtain written authorization from the Corps and any required State approvals. These projects will be reviewed during interagency screening/joint processing meetings (see Joint Processing/Interagency Screening Meeting Procedures to determine whether such activities may be eligible under the PGP.) To be eligible, and subsequently authorized, an activity must result in minimal impacts to the aquatic environment as determined by the Corps based on comments from the review team and the criteria listed above. Mitigation may be required to compensate for unavoidable impacts to ensure net effects of a project are minimal.

Enforcement cases. See previous section.

Category 2 Application Procedures:

CT DEP, OLISP regulated activities

For work affecting tidal wetlands and tidal, coastal or navigable waters pursuant to State authorities 5, 6, 7, 8, 10 and 11 listed in Section A of the PGP, OLISP will forward copies of application packages and OLISP approvals to the Corps on a weekly basis. If a project meets Category 1, the Corps will forward a letter of eligibility to the applicant.

For projects involving dredging with open water disposal, applicants must send the required information listed above to the CT DEP, OLISP **and** the Corps. This information is necessary for developing sampling plans and ultimately determining the suitability of the material to be dredged with respect to the requested disposal site. These projects will also be reviewed at the screening meeting.

The Corps, Federal resource agencies, and CT DEP will review State/Federal application packages, COPs and tentative determinations for activities eligible under Category 2 at monthly PGP Joint Processing/Interagency Screening Meetings.

CT DEP, IWRD regulated Activities: Work affecting inland waters/waterways and wetlands, waters of the U.S...

A separate Corps application form (ENG Form 4345) is required for these activities. Applicants must submit 4 copies of the application, 8.5” x 11” drawings and one large-scale drawing, three copies of the functions and values assessment and wetland delineation documentation, one copy of the CT DEP addendum (attached), one copy of their Connecticut Commission on Culture and Tourism or THPO coordination (see Application Procedures for All Category 2 Activities), and any proposed mitigation to the Corps.

To expedite the review process, applicants shall also submit the following directly to CT DEP Inland Water Resources Division: three copies each of the Corps application form, 8.5” x 11” drawings, large-scale drawings; wetlands functions and values assessment, Federal wetlands delineation documentation (data sheets); CT DEP addendum and documentation of any proposed mitigation. Any application fee required by the State of Connecticut shall be submitted directly

to the Connecticut DEP, Central Permit Processing Unit, 79 Elm Street, Hartford, Connecticut 06106-5127.

CT DEP Inland Water Resources Division will review the activity for compliance with state water quality standards and CZM consistency with the state's coastal program (coastal area projects) that are not already being reviewed by OLISP under State authorizations 5, 6, 7, 8, 10 and 11 listed in Section A of the PGP.

The CT DEP, Inland Water Resources Division has 60 days from receipt of a complete application to make a determination on their WQC.

Application Procedures for All Category 2 Activities

The Corps must review and approve in writing all Category 2 activities. The Corps will determine if an application:

(a) requires additional information (see "information typically required" below);

(b) is appropriate for screening with the Federal resource agencies (See Joint Processing/Interagency Screening Meeting Procedures on the following page);

(c) is ineligible under the terms and/or conditions of the PGP; or

(d) will require Individual Permit review, regardless of whether the terms and conditions of the PGP are met, based on concerns for the aquatic environment or any other factor of the public interest (see General Condition 4, Discretionary Authority).

If open water disposal of dredged material is proposed, the Corps will make a suitability determination, fully coordinated with the Federal resource agencies, before evaluating a project at a joint processing meeting.

To ensure compliance with the conditions of the PGP, consultation with the Corps and outside experts is required. This includes consultation with the Connecticut Historic Preservation Commission and the appropriate Native American Indian tribes to ensure compliance with General Condition 7. Also, note the review thresholds under Category 2 apply to single and complete projects only (see General Condition 5). Therefore, applicants shall submit a copy of their application materials to the Connecticut Commission on Culture and Tourism, Historic Preservation and Museum Division (all of CT), and for projects east of the Thames River to the Rhode Island border and inland to Montville and Ledyard, to the Mashantucket Pequot and the Mohegan Tribal Historic Preservation Officers (THPO) to be reviewed for the presence of historic, archaeological or tribal resources in the permit area that the proposed work may affect.

Application packages submitted to the Corps shall include information to indicate that this coordination has been done (a copy of the applicant's cover letter to the Connecticut Commission on Culture and Tourism and tribes, a statement of having sent their application materials to the appropriate agency, or a copy of the response letters when applicable.) The Corps will be notified by the appropriate agency if there are State concerns that the proposed work will have an effect on historic resources.

Information Typically Required. The following information may not be necessary for all projects:

Please see www.nae.usace.army.mil for a more comprehensive checklist. Select "Regulatory/Permitting," "Forms" and then "Application and Plan Guideline Checklist." Check with the Corps office for project-specific requirements. Please note that all plans should show the ordinary high water (OHW) line, which normally indicates the limits of ACOE jurisdiction.

(a) Purpose of project;
(b) 8½"x 11" locus map and plan views of the entire property, including property lines, and project limits with existing and proposed conditions; site latitude and longitude, in decimal degrees;
(c) typical cross-section views of all wetland and waterway fill areas and wetland replication areas;
(d) legible, reproducible plans. Show mean low water (MLW), mean high water (MHW) and high tide line (HTL) elevations whenever in navigable waters;
(e) clearly state the datum used in the each plan in either the title block or notes. Do not use local datum;
(f) wetland delineation for the site, Corps wetland delineation data sheets (see web site), and calculations of waterway and wetland impact areas (see General Condition 2);
(g) delineation of submerged aquatic vegetation, e.g., eelgrass beds, in tidal waters;
(h) volume, type and source of fill material to be discharged into waters and wetlands, including the area(s) (in square feet or acres) of fill in wetlands, below ordinary high water in inland waters and below the high tide line in coastal waters;
(i) limits of any Federal Navigation Project in the vicinity and State Plane Coordinates for the limits of the proposed work closest to the Federal Navigation Project;
(j) on-site alternatives analysis (Please contact Corps for guidance);
(k) identify and describe potential impacts to Essential Fish Habitat (See General Condition 11 and contact Corps for guidance);
(l) photographs of wetland/waterway to be impacted.

Additional information required for dredging projects: (must be submitted directly to Corps)

(a) For projects proposing open water disposal, applicants are encouraged to contact the Corps as early as possible regarding sampling and testing protocols. Sampling and testing of sediments without such contact should not occur and, if done, would be at the applicant's risk. Results of sediment testing, including physical (e.g., grain-size analysis), chemical and biological testing.
(b) The area in square feet and volume of material, in cubic yards, to be dredged below mean low water;
(c) existing and proposed water depths including datum basis;
(d) type of dredging equipment to be used;
(e) nature of material (e.g., silty sand);
(f) any existing sediment grain size and bulk sediment chemistry data for the proposed or any nearby projects;

(g) information on the location and nature of municipal or industrial discharges and occurrence of any contaminant spills in or near the project area, location of the disposal site (include locus sheet);
(h) shellfish survey;
(i) identify and describe potential impacts to Essential Fish Habitat (see General Condition 11);
(j) delineation of submerged aquatic vegetation (e.g., eelgrass beds);
(k) alternatives to open water disposal, if applicable.

NOTE: It is important that applicants supplement the Corps application form with appropriate and adequate drawings. You may refer to the Corps "Guide for Permit Applicants" for a complete description of sample drawing requirements. (This guide is on the website: www.nae.usace.army.mil, "Regulatory/Permitting," "Publications".) **Failure to submit a complete application with appropriate information could result in processing delays and/or administrative closure of the file.**

Category 2 PGP Joint Processing/Interagency Screening Meeting Procedures:

The Corps will review only complete applications for Category 2 projects requiring Corps approval at PGP Interagency Screening Meetings (or "joint processing" meetings) with the interagency review team [Federal resource agencies (FWS, EPA and NMFS) and CT DEP] to determine whether such activities may be authorized under this PGP. The screening meetings are held either at the Corps offices or other agreed upon locations on a monthly basis, or coordinated as necessary, to provide applicants with a timely response.

At the screening meeting, the interagency review team will determine if Category 2 applications:

(1) are eligible under the PGP as proposed,
(2) are ineligible under the terms and/or conditions of the PGP,
(3) require additional information,
(4) will require project modification, mitigation or other special conditions to minimize impacts and protect the aquatic environment to be eligible for the PGP, or
(5) require Individual Permit review irrespective of whether the terms and conditions of the PGP are met, based on concerns for the aquatic environment or any other public interest factor (see General Condition 4 on Discretionary Authority).

Federal resource agency comments to the Corps must be made within 10 working days of the screening meeting. If Federal Resource Agency comments raise a concern whereby the Corps will require an Individual Permit, these comments must be confirmed in writing by the Branch Chief or Field Supervisor, within 10 working days of the initial response. These comments must clearly identify and reflect a concern related to the aquatic environment within their area of expertise; state the species or resources that could be impacted by the activities, and describe the impacts that either individually or cumulatively will be more than minimal. All comments raised by any one of the agencies will be coordinated with the applicant in a timely manner.

If the applicant is unable to resolve the concerns raised, the Corps, independently or at the request of either the CT DEP or one of the Federal Resource Agencies, will require an Individual Permit for the activities. The applicant will be notified of this in writing, and provided information about submitting the necessary application materials.

If the activity is determined through the federal/state screening to be eligible for authorization under the PGP, then a Corps PGP authorization letter will be sent directly to the applicant. If the activity is determined not eligible, then the Corps will contact the applicant to discuss the concerns raised. In either case, the Corps will notify the applicant, in writing, within 45 days of the federal/state screening meeting.

Category 2 projects may not proceed until written notification is received from the Corps. This written approval will be in the form of a Corps PGP authorization letter sent directly to the applicant.

Emergency Situations Procedures

Emergency situations are limited to sudden, unexpected occurrences that pose an imminent risk to life, significant loss of property, or significant economic hardship if initial corrective action requiring a permit is not undertaken within a time period less than the normal time needed to process an application under standard procedures. If an emergency situation requires action in less than 30 days after the occurrence, it qualifies for the amended notification procedures described below.

Notification Procedures for Emergency Situations:

Any project proponent may request emergency authorization from the Corps; however, the Corps will determine if a project qualifies for these emergency situation procedures. When an application for Category 2 work is received that the Corps determines is an "emergency" as defined above, the Corps will fax a copy of the plans and Determination of Eligibility to the EPA, F&WS, NMFS and the CT DEP. These agencies have 16 business hours to notify the Corps if they have any comments on authorization of the project under the PGP. If no response is received within 16 business hours, the Corps will proceed with a decision on the application. If the resource agencies have comments on the proposal, they will have 16 business hours to put their comments in writing. If written comments from these agencies are not received within 16 business hours, the Corps will proceed with a decision on the application.

If a reviewing agency requests that an Individual Permit be required for a project or requests modifications to the project based on concerns within their area(s) of expertise, the Corps will notify the applicant within one business day of receipt of that request that the project as proposed does not qualify for authorization under this PGP and the emergency Individual Permit procedures may be followed. In any event, the Corps will notify the applicant within 16 business hours of commencement of the screening process as to whether the project may proceed under the PGP.

Minerals Management Service (MMS) Review

Projects with construction of solid fill structures or discharge of fill that may extend beyond the coastline or the baseline from which the territorial sea is measured (i.e., mean low water), must be coordinated with MMS, Outer Continental Shelf (OCS) Survey Group, pursuant to the Submerged Lands Act (43 USC. Section 13011315, 33 CFR 320.4(f)). The Corps will forward project information to MMS for their review. The MMS will coordinate their determination with the Department of the Interior (DOI) Solicitor's Office. The DOI will have 15 calendar days from the date MMS is in receipt of the project information to determine if the baseline will be affected. No notification within the 15-day review period will constitute a "no effect" determination.

Otherwise, the solicitor's notification to the Corps may be spoken but must be followed with a written confirmation within 10 business days from the date of the spoken notification. This procedure will be eliminated if the State of Connecticut provides a written waiver of interest in any increase in submerged lands caused by a change in the baseline resulting from solid fill structures or fills authorized under this PGP.

IV. INDIVIDUAL PERMIT

Work that is not eligible under Category 2 as defined in PGP Appendices A & B– Definition of Categories, or that does not meet the terms and conditions of the PGP, will require the submission of an application for an Individual Permit to the Corps (see 33 CFR Part 325.1). The screening procedures outlined for Category 2 projects will only serve to delay project review in such cases. The applicant should submit the appropriate application materials (including the Corps application form) at the earliest possible date. General information and application forms can be obtained at our web site or by calling us. Individual water quality certification and coastal zone management consistency concurrence are required, when applicable, from the State of Connecticut before Corps permit issuance. The Federal resource agencies' comments are due within10 working days after the Public Notice's expiration date, unless the Corps receives and approves a written request for a time extension within ten working days after the notice's expiration.

V. PROGRAMMATIC GENERAL PERMIT CONDITIONS:

The following conditions apply to **ALL** activities authorized under the PGP, including all Category 1 (non-reporting) and Category 2 (screening) activities:

General Requirements

1. Other Permits. Authorization under the general permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

2. Federal Jurisdictional Boundaries. Applicability of the PGP shall be evaluated with reference to Federal jurisdictional boundaries. Applicants are responsible for ensuring that the boundaries used satisfy the Federal criteria defined at 33 CFR 328-329. These sections prescribe

the policy, practice and procedures to be used in determining the extent of jurisdiction of the Corps of Engineers concerning "waters of the United States" and "navigable waters of the United States." Wetland boundaries shall be delineated in accordance with the January 1987 Corps of Engineers Wetlands Delineation Manual, located at http://www.saj.usace.army.mil/permit/documents/87manual.pdf. The U.S. Fish and Wildlife Service publishes the National List of Plant Species that Occur in Wetlands, located at http://www.nwi.fws.gov. The Natural Resources Conservation Service (NRCS) publishes the current hydric soil definition, criteria and lists, located at http://www.statlab.iastate.edu/soils/hydric.

3. Minimal Effects. Projects authorized by this general permit shall have minimal individual and cumulative adverse environmental impacts as determined by the Corps.

4. Discretionary Authority. Notwithstanding compliance with the terms and conditions of the permit, the Corps retains discretionary authority to require an Individual Permit review based on concerns for the aquatic environment or for any other factor of the public interest [33 CFR 320.4(a)]. This authority is invoked on a case-by-case basis whenever the Corps determines that the potential consequences of the proposal warrant Individual Permit review based on the concerns stated above. This authority may be invoked for projects with cumulative environmental impacts that are more than minimal or if there is a special resource or concern associated with a particular project that is not already covered by the remaining conditions of the PGP that warrants greater review. Whenever the Corps notifies an applicant that an Individual Permit may be required, authorization under the PGP is voided and no work may be conducted until the Corps Individual Permit is obtained or until the Corps notifies the applicant that further review has demonstrated that the work may proceed under the PGP.

5. Single and Complete Projects. This PGP shall not be used for piecemeal work and shall be applied to single and complete projects. All components of a single project shall be treated together as constituting one single and complete project and/or all planned phases of a multi-phased project, unless the Corps determines that a component has independent utility. (The *Independent Utility* test is used to determine what constitutes a single and complete project in the Corps regulatory program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.) For linear projects, such as power lines or pipelines with multiple crossings, the "single and complete project" (i.e., single and complete crossing) will apply to each crossing of a separate water of the U.S. (i.e., single waterbody) at that location; except that for linear projects crossing a single waterbody several times at separate and distant locations, each crossing is considered a single and complete project, and may be reviewed for Category 1 eligibility. (However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies.) If any crossing requires a Category 2 activity, then the entire linear project shall be reviewed as one project under Category 2. The PGP shall not be used for any activity that is part of an overall project for which an Individual Permit is required, unless the Corps determines the activity has independent utility. NOTE: CT DEP will make their own determination of single and complete projects.

6. Permit On-Site. For Category 2 projects, the permittee shall ensure that a copy of the PGP and the accompanying authorization letter are at the work site (and the project office) authorized by the PGP whenever work is being performed, and that all personnel with operational control of the site ensure that all appropriate personnel performing work are fully aware of its terms and conditions. The entire permit authorization shall be made a part of any and all contracts and sub-contracts for work that affects areas of Corps jurisdiction at the site of the work authorized by the PGP. This shall be achieved by including the entire permit authorization in the specifications for work. The term "entire permit authorization" means the PGP and the authorization letter (including its drawings, plans, appendices and other attachments) and also includes permit modifications. If the authorization letter is issued after the construction specifications, but before receipt of bids or quotes, the entire permit authorization shall be included as an addendum to the specifications. If the authorization letter is issued after receipt of bids or quotes, the entire permit authorization shall be included in the contract or sub-contract as a change order. Although the permittee may assign various aspects of the work to different contractors or sub-contractors, all contractors and sub-contractors shall be obligated by contract to comply with all environmental protection provisions contained within the entire PGP authorization, and no contract or sub-contract shall require or allow unauthorized work in areas of Corps jurisdiction.

National Concerns

7. Historic Properties. Any activity authorized by the PGP shall comply with Section 106 of the National Historic Preservation Act. Information on the location and existence of historic resources can be obtained from the Connecticut Commission on Culture and Tourism, Historic Preservation and Museum Division, the National Register of Historic Places and the Tribal Historic Preservation Officer (THPO) of both the Mashantucket Pequot Tribe and the Mohegan Tribe. Project proponents shall apply to the Corps for all projects that would otherwise qualify for Category 1 if there is the potential for an effect on a historic property within the permit area. Historic properties include those that are eligible for inclusion, but not necessarily listed on the National Register. If the permittee, during construction of work authorized herein, encounters a previously unidentified archaeological or other cultural resource within the area subject to Department of the Army jurisdiction that might be eligible for listing in the National Register of Historic Places, he/she shall immediately notify the District Engineer.

8. National Lands. Activities authorized by this general permit shall not impinge upon the value of any National Wildlife Refuge, National Forest, or any other area administered by the U.S. FWS, U.S. Forest Service, or National Park Service.

9. Endangered Species. No activity authorized under the PGP may affect a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which is likely to destroy or adversely modify the critical habitat of such species, or which would result in a "take" of any threatened or endangered species of fish or wildlife, or which would result in any other violation of Section 9 of the ESA protecting threatened or endangered species of plants. Applicants shall notify the Corps if any listed species or critical habitat is in the vicinity of the project and shall not begin work until notified by the DE that the requirements of the ESA have been satisfied and that the activity is

authorized. Information on the location of threatened and endangered species and their critical habitat can be obtained from the U.S. FWS and the NMFS.

10. Essential Fish Habitat. As part of the PGP screening process, the Corps will coordinate with the NMFS in accordance with the 1996 amendments to the Magnuson-Stevens Fishery Conservation and Management Act (MSA) to protect and conserve the habitat of marine, estuarine and anadromous finfish, mollusks, and crustaceans. This habitat is termed "Essential Fish Habitat," (EFH) and is broadly defined to include "those waters and substrate necessary to fish for spawning, breeding, feeding and growth to maturity." All species managed under the MSA have had EFH designations. There are 61 species with EFH in the coastal waters of southern New England. Applicants may be required to describe and identify potential impacts to EFH. For instance, in Connecticut, this act protects Atlantic salmon (*Salmo salar*) habitat. Any work in the mainstem or tributary streams of the Connecticut River watershed that are being managed for Atlantic salmon may **NOT** be eligible for authorization under Category 1 of this PGP because the activity requires screening for potential impacts to designated EFH. Conservation recommendations regarding the protection of EFH for species managed under the MSA made by NMFS will normally be included as special conditions to any permit issued by the Corps. Information on the location of EFH can be obtained from NMFS. The NMFS has established a web site at www.nero.nmfs.gov/RO/DOC/appguide1.html.

11. Wild and Scenic Rivers. Any activity that occurs in a component of, or within 0.25 miles up or downstream of the main stem or tributaries of a river segment of the National Wild and Scenic River System, must be reviewed by the Corps under the procedures of Category 2 of the PGP regardless if it meets the Category 1 size of impact thresholds. This condition applies to both designated Wild and Scenic Rivers and rivers designated by Congress as study rivers for possible inclusion while such rivers are in an official study status. The Corps will consult with the National Park Service (NPS) with regard to potential impacts of the proposed activity on the resource values of the wild and scenic river. The culmination of this coordination will be a determination by the NPS and the Corps that the work: (1) may proceed as proposed; (2) may proceed with recommended conditions; or (3) could pose a direct and adverse effect on the resource values of the river, and an individual permit is required. If preapplication consultation between the applicant and the NPS has occurred whereby the NPS has made a determination that the proposed activity is appropriate for authorization under the PGP (with respect to wild and scenic river issues), this determination should be furnished to the Corps with submission of the application. The National Wild and Scenic River System segment for Connecticut as of this date includes the Farmington River as follows: the 14-mile segment of the West Branch and main stem extending from immediately below the Goodwin Dam and Hydroelectric Project in Hartland Connecticut, to the downstream end of the New Hartford-Canton, Connecticut, town line and the Shepaug River. The Housatonic River and the Eight Mile River have been designated as Study Rivers.

12. Federal Navigation Project. Any structure or work that extends closer to the horizontal limits of any Corps navigation project than a distance of three times the project's authorized depth shall be subject to removal at the owner's expense prior to any future Corps dredging or the performance of periodic hydrographic surveys.

13. Navigation. (a) There shall be no unreasonable interference with navigation by the existence or use of the activity authorized herein, and no attempt shall be made by the permittee

to prevent the full and free use by the public of all navigable waters at or adjacent to the activity authorized herein. (b) The permittee understands and agrees that, if future operations by the U.S. require the removal, relocation, or other alteration of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the U.S. No claim shall be made against the U.S. on account of any such removal or alteration.

14. Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following: (a) damages to the permitted project or uses thereof as a result of other permitted or non-permitted activities or from natural causes; (b) damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the U.S. in the public interest; (c) damages to persons, property, or to other permitted or non-permitted activities or structures caused by the activity authorized by this permit; (d) design or construction deficiencies associated with the permitted work; (e) damage claims associated with any future modification, suspension, or revocation of this permit.

Minimization and Mitigation of Environmental Impacts

15. Minimization. Discharges of dredged or fill material into waters of the U.S., including wetlands, shall be avoided and minimized to the maximum extent practicable. Permittees may only fill those jurisdictional wetlands that the Corps authorizes to be filled and impact those wetlands that the Corps authorizes as secondary impacts. Mitigation for impacts to those wetlands may be required on a case-by-case basis. For coastal structures such as piers and docks, the height above the marsh at all points should be equal to or exceed the width of the deck. The height shall be measured from the marsh substrate to the bottom of the longitudinal support beam. This will help ensure sunlight reaches the area beneath the structure.

16. Heavy Equipment in Wetlands. Heavy equipment other than fixed equipment (drill rigs, fixed cranes, etc.) working within wetlands shall not be stored, maintained or repaired in wetlands, unless it is less environmentally damaging otherwise, and as much as possible shall not be operated there. Where construction requires heavy equipment operation in wetlands, the equipment shall either have low ground pressure (<3 psi), or shall not be located directly on wetland soils and vegetation. Equipment shall be placed on swamp or timber mats that are adequate to support the equipment in such a way as to minimize disturbance of wetland soil and vegetation. (See **General Condition 17** below.) Other support structures that are less impacting and are capable of safely supporting equipment may be used with written Corps authorization. Similarly, not using mats during frozen, dry or other conditions may be allowed with written Corps authorization. An adequate supply of spill containment equipment shall be maintained on site.

Note: "Swamp mats" is a generic term used to describe structures that distribute equipment weight to prevent wetland damage while facilitating passage and providing work platforms for workers and equipment. They are comprised of sheets or mats made from a variety of materials in various sizes, and they include large timbers bolted or cabled together (timber mats). Corduroy roads, which are not considered to be swamp mats, are cut trees and/or saplings with the crowns and branches removed, and the trunks lined up next to one another.

17. Temporary Fill. Fill placed into waters of the U.S. (including wetlands) totaling greater than or equal to 5,000 square feet in total area (i.e., the sum of permanent and temporary fill areas) exceeds the Category 1 threshold and may not be discharged without written authorization from the Corps. When temporary fill is used (e.g., access roads, swamp mats, cofferdams), it shall be stabilized and maintained during construction in such a way as to prevent its eroding into portions of waters of the U.S. where it is not authorized. Swamp or timber mats (see 16 above) are considered as temporary fill when they are removed immediately upon work completion. The area must be restored in accordance with **General Condition 18** below.

- Unconfined temporary fill authorized for discharge into flowing water (rivers and streams) shall consist only of clean stone.
- Temporary fill authorized for discharge into wetlands shall be placed on geotextile fabric laid on the pre-construction wetland grade. (Swamp and timber mats are excluded from this requirement.)
- Temporary fill shall be removed as soon as it is no longer needed, and it shall be disposed of at an upland site and suitably contained to prevent its subsequent erosion into waters of the U.S.
- Waters of the U.S. where temporary fill was discharged shall be restored (see Condition 18).
- If temporary fill is staged and then returned to its original location, e.g., sewer projects through wetlands, the original location shall be restored.
- No temporary work shall drain a water of the U.S. by providing a conduit for water on or below the surface.

18. Restoration of Inland Wetland Areas.

- Upon completion of construction, all disturbed wetland areas (the disturbance of these areas must be authorized) shall be stabilized with a wetland seed mix containing only plant species native to New England.
- The <u>introduction</u> or <u>spread</u> of invasive plant species in disturbed areas shall be controlled.
- In areas of authorized temporary disturbance, if trees are cut they shall be cut at ground level and not uprooted in order to prevent disruption to the wetland soil structure and to allow stump sprouts to revegetate the work area, unless otherwise authorized.
- Wetland areas where permanent disturbance is not authorized shall be restored to their original condition and elevation, which under no circumstances shall be higher than the pre-construction elevation. Original condition means careful protection and/or removal of existing soil and vegetation, and replacement back to the original location such that the original soil layering and vegetation schemes are approximately the same, unless otherwise authorized.

19. Coastal Bank Stabilization. Projects involving construction or reconstruction/maintenance of bank stabilization structures within Corps jurisdiction should be designed to minimize environmental effects, effects to neighboring properties, scour, etc. to the maximum extent practicable. For example, vertical bulkheads should only be used in situations where reflected wave energy can be tolerated. This generally eliminates bodies of water where the reflected wave energy may interfere with or impact on harbors, marinas, or other developed shore areas. A revetment is sloped and is typically employed to absorb the direct impact of

waves more effectively than a vertical seawall. It typically has a less adverse effect on the beach in front of it, abutting properties and wildlife. For more information on this topic, go to the Corps Coastal Engineering Manual (supersedes the Shore Protection Manual), located at http://chl.erdc.usace.army.mil. Select "Products/ Services," "Publications." Part 5, Chapter 7-8, a (2) c is particularly relevant.

20. Sedimentation and Erosion Control. Adequate sedimentation and erosion control management measures, practices and devices, such as phased construction, vegetated filter strips, geotextile silt fences, hay bales or other devices, shall be installed and properly maintained to reduce erosion and retain sediment on-site during and after construction. These measures shall be capable of preventing erosion, of collecting sediment, suspended, and floating materials, and of filtering fine sediment. These devices shall be removed upon completion of work and the disturbed areas shall be stabilized. The sediment collected by these devices shall be removed and placed at an upland location, in a manner that will prevent its later erosion into a waterway or wetland. All exposed soil and other fills shall be permanently stabilized at the earliest practicable date.

21. Waterway Crossings.

(a) All temporary and permanent crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed to withstand and to prevent the restriction of high flows, and to maintain existing low flows, and so as not to obstruct the movement of aquatic life indigenous to the waterbody beyond the actual duration of construction.

(b) Open bottom arches, bridge spans or embedded culverts are generally preferred over traditional culverts and are required for Category 1/non-reporting projects. However, site constraints (e.g., placing footings) may make use of an open bottom arch, bridge span or embedded culverts impractical, and in these cases well-designed culverts may actually perform better. Project proponents shall consult with the Corps if an open bottom arch, bridge span or embedded culvert is impractical.

(c) No projects involving open trench excavation in flowing waters are allowed in Category 1. However, open trench excavation projects may qualify for Category 1 provided they utilize management techniques such as temporary flume pipes, culverts, cofferdams, etc. and maintain normal flows within the stream boundary's confines so the work does not occur in flowing waters. Projects utilizing these management techniques must meet the other Category 1 requirements and all of the PGP's terms and conditions. If not, they will require review under the Category 2 screening procedures.

(d) Temporary bridges, culverts, or cofferdams shall be used for equipment access across streams.

(**Note:** areas of fill and/or cofferdams must be included in total waterway/wetlands impacts to determine applicability of the PGP).

(e) Projects using slip lining (retrofitting an existing culvert by inserting a smaller diameter pipe), plastic pipes, and High Density Polyethylene Pipes (HDPP) are not allowed as non-reporting Category 1 activities, either as new work or maintenance activities.

(f) For projects that otherwise meet the terms of Category 1, unconfined in stream construction work shall be conducted during the low flow period July 1 through September 30 in any year except in instances where a specific written exception has been issued by the Connecticut Department of Environmental Protection. All other projects shall be screened pursuant to Category 2, regardless of the waterway and wetland fill and/or impact area.

(g) All temporary fill must be removed as soon as it is no longer needed and all disturbed areas must be returned to their pre-construction conditions

22. Discharge of Pollutants. All activities involving any discharge of pollutants into waters of the U.S. authorized under this PGP shall be consistent with applicable water quality standards, effluent limitations, standards of performance, prohibitions, and pretreatment standards and management practices established pursuant to the CWA (33 U.S.C. 1251), and applicable state and local laws. If applicable water quality standards, limitations, etc., are revised or modified during the term of this permit, the authorized work shall be modified to conform with these standards within 6 months of the effective date of such revision or modification, or within a longer period of time deemed reasonable by the District Engineer in consultation with the Regional Administrator of the EPA. Applicants may presume that state water quality standards are met with issuance of the Section 401 WQC (Applicable only to the Section 404 activity).

23. Spawning Areas. Discharges of dredged or fill material, and/or suspended sediment-producing activities in fish and shellfish spawning or nursery areas and amphibian and waterfowl breeding areas shall be avoided. During all times of year, impacts to these areas shall be avoided to the maximum extent practicable.

24. Storage of Seasonal Structures. Coastal structures, such as pier sections and floats, that are removed from the waterway for a portion of the year (often referred to as seasonal structures) shall be stored in an upland location, located above mean high water (MHW) and **not** in tidal wetlands. These seasonal structures may be stored on the fixed, pile-supported portion of the structure that is seaward of MHW. This is intended to prevent structures from being stored on the marsh substrate and the substrate seaward of MHW.

25. Environmental Functions and Values. The permittee shall make every reasonable effort to carry out the construction or operation of the work authorized herein in a manner so as to maintain as much as is practicable, and to minimize any adverse impacts on, existing fish, and wildlife, and natural environmental values and to discourage the establishment or spread of plant species identified as non-native invasive species by any federal or state agency.

26. Protection of Vernal Pools. Impacts to uplands in proximity (within 500 feet) to the vernal pools referenced in Appendices A & B - Definitions of Categories, shall be minimized to the maximum extent possible.

Procedural Conditions

27. Inspections. The permittee shall allow the District Engineer or his authorized representative(s) to make periodic inspections at any time deemed necessary in order to ensure that the work is being performed in accordance with the terms and conditions of this permit. The

District Engineer may also require post-construction engineering drawings for completed work, and post-dredging survey drawings for any dredging work.

28. Work Start Notification Form and Compliance Certification. Every permittee who receives a written Category 1 or 2 PGP authorization from the Corps must submit a 1) Work Start Notification Form (WSNF) two weeks before work commencement, and 2) signed Compliance Certification Form (CCF) within one month following the completion of the authorized work and any required mitigation (but not mitigation monitoring, which requires separate submittals). The Corps will forward the blank WSNF and CCF with the authorization letter. The CCF will include: (a) a statement that the authorized work was done in accordance with the Corps authorization, including any general or specific conditions; (b) a statement that any required mitigation was completed in accordance with the permit conditions; and (c) the signature of the permittee certifying the completion of the work and mitigation.

29. Maintenance. The permittee shall maintain the activity authorized by this PGP in good condition and in conformance with the terms and conditions of this permit. This does not include maintenance of dredging projects. Maintenance dredging is subject to the review thresholds in the List of Categories sheets (attached) and/or any conditions included in a written Corps authorization. Maintenance dredging includes only those areas and depths previously authorized and dredged. Some maintenance activities may not be subject to regulation under Section 404 in accordance with 33 CFR 323.4(a) (2). Information on mosquito ditching and maintenance is provided at www.nae.usace.army.mil. Go to "Regulatory/Permitting," and then "Other."

30. Property Rights. This permit does not convey any property rights, either in real estate or in material, or any exclusive privileges, nor does it authorize any injury to property or invasion of rights or any infringement of federal, state, or local laws or regulations.

31. Modification, Suspension, and Revocation. This permit may either be modified, suspended, or revoked in whole or in part pursuant to the policies and procedures of 33 CFR 325.7; and any such action shall not be the basis for any claim for damages against the United States.

32. Restoration. The permittee, upon receipt of a notice of revocation of authorization under this permit, shall restore the wetland or waterway to its former conditions, without expense to the United States and as directed by the Secretary of the Army or his authorized representative. If the permittee fails to comply with such a directive, the Secretary or his designee may restore the wetland or waterway to its former condition, by contract or otherwise, and recover the cost from the permittee.

33. Special Conditions. The Corps may impose other special conditions on a project authorized pursuant to this general permit that are determined necessary to minimize adverse environmental effects or based on any other factor of the public interest. These may be based on concerns from CT DEP or Federal resource agency. Failure to comply with all conditions of the authorization, including special conditions, will constitute a permit violation and may subject the permittee to criminal, civil, or administrative penalties or restoration.

34. False or Incomplete Information. If the Corps makes a determination regarding the eligibility of a project under this permit, and subsequently discovers that it has relied on false, incomplete, or inaccurate information provided by the permittee, the permit shall not be valid, and the U.S. government may institute appropriate legal proceedings.

35. Abandonment. If the permittee decides to abandon the activity authorized under this general permit, unless such abandonment is merely the transfer of property to a third party, he/she may be required to restore the area to the satisfaction of the DE.

36. Enforcement cases. This PGP does not apply to any existing or proposed activity in Corps jurisdiction associated with an on-going Corps or EPA enforcement action, until such time as the enforcement action is resolved or the Corps determines that the activity may proceed independently without compromising the enforcement action.

Duration of Authorization/Grandfathering:

37. Duration of Authorization. This PGP expires five years from the effective date listed at the top of Page 1. Activities authorized under Category 1 of this PGP that have commenced (i.e., are under construction) or are under contract to commence in reliance upon this authorization will remain authorized provided the activity is completed within twelve months of the date of this PGP's expiration date. Activities authorized under Category 2 of this PGP will remain authorized in accordance with the project-specific date that the Corps provides to the permittee in the PGP authorization letter, unless:

(a) the PGP is either modified or revoked, or

(b) discretionary authority has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization in accordance with 33 CFR 325.2(e)(2).

The permittee must be able to document to the Corps satisfaction that the project was under construction or contract by the appropriate date. Activities completed under the Category 1 or Category 2 authorizations of this PGP will continue to be authorized by this PGP after its expiration date. Activities authorized under Category 2 of this PGP (or by an Individual Permit) for the transport of dredged or fill material for the purpose of disposing of it in open waters will specify a completion date for the disposal not to exceed three years from the date of authorization.

38. Previously Authorized Activities:

(a) Activities completed under the authorizations of past PGPs that were in effect at the time the activity was completed will continue to be authorized by those PGPs.

(b) Projects that have received written verification or approval from the Corps, based on applications made to the Corps prior to issuance of this PGP, regional general permits, or letters of permission shall remain authorized as specified in each authorization.

(c) Activities authorized pursuant to 33 CFR Part 330.3 ("Activities occurring before certain dates") are not affected by this PGP.

VI. CONTACTS FOR CT PROGRAMMATIC GENERAL PERMIT:

1. FEDERAL

U.S. Army Corps of Engineers
New England District, Regulatory Division
696 Virginia Road
Concord, Massachusetts 01742-2751
(800) 343-4789 or (978) 318-8335
(978) 318-8303 - fax

National Park Service
North Atlantic Region
15 State Street
Boston, Massachusetts 02109
(617) 223-5203

Federal Endangered Species:
U.S. Fish and Wildlife Service
P.O. Box 307
Charlestown, Rhode Island 02813
(401) 364-9124

Federal Endangered Species & EFH
National Marine Fisheries Service
Habitat Division
212 Rogers Avenue
Milford, Connecticut 06460
(203) 882-6504

Department of Agriculture
Bureau of Aquaculture
P. O. Box 97
190 Rogers Avenue
Milford, Connecticut 06460

Regional EFH Coordinator
National Marine Fisheries Service
One Blackburn Drive
Gloucester, MA 01930
Phone: (978) 281-9102
(978) 281-9301 – fax

2. STATE OF CONNECTICUT

CT Department of Environmental Protection
Bureau of Water Management

Long Island Sound Programs
79 Elm Street
Hartford, Connecticut 06106-5127
(860) 424-3034

Inland Water Resources Division
79 Elm Street
Hartford, Connecticut 06106-5127
(860) 424-3011

(State Endangered Species)
Dept. of Environmental Protection
Bureau of Natural Resources
Wildlife Division
Natural Diversity Data Base
79 Elm Street
Hartford, Connecticut 06106-5127
(860) 424-3019

3. HISTORIC PROPERTIES

Tribal Historic Preservation Officers
Mashantucket Pequot Tribal Historic Pres. Officer
Ms. Theresa Hayward-Bell, THPO
Mashantucket Pequot Museum & Research Center
110 Pequot Trail
Mashantucket, Connecticut 06339

Mohegan Tribe Cultural Department
5 Crow Hill Road
Uncasville, Connecticut 06382

Archaeological Information
Connecticut Commission on Culture and Tourism
Historic Preservation & Museum Division
59 South Prospect Street
Hartford, Connecticut 06106
(860) 424-3005

4. ORGANIZATIONAL WEBSITES

Army Corps of Engineers	www.nae.usace.army.mil (click "Regulatory/Permitting")
Corps of Engineers Headquarters	www.usace.army.mil (click "Services for the Public")
Environmental Protection Agency	http://www.epa.gov/owow/wetlands/
National Marine Fisheries Service	www.nmfs.noaa.gov
U.S. Fish and Wildlife Service	www.fws.gov
National Park Service	www.nps.gov/rivers/index.html

See below for an addendum form, which must be submitted, to DEP for a Category II PGP.

APPENDIX A

U. S. ARMY CORPS OF ENGINEERS, NEW ENGLAND DISTRICT PROGRAMMATIC GENERAL PERMIT STATE OF CONNECTICUT CATEGORIES FOR WORK IN WATERS OF THE U.S. (1)(2) INLAND WATERS AND WETLANDS

Inland Waters and Wetlands: Waters that are regulated under Section 404 of the Clean Water Act, including rivers, streams, lakes, ponds and wetlands, and excluding Section 10 Navigable Waters of the U.S. (2) The jurisdictional limits are the ordinary high water (OHW) mark in the absence of adjacent wetlands, beyond the OHW mark to the limit of adjacent wetlands when adjacent wetlands are present, and the wetland limit when only wetlands are present. For the purposes of this PGP, fill placed in the area between the mean high water (MHW) and the high tide line (HTL), and in the bordering and contiguous wetlands to tidal waters are reviewed in the Tidal, Coastal and Navigable Waters section. (See Appendix B.)

Activities must be conducted consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control (DEP Bulletin 34) and the 2004 Connecticut Stormwater Quality Manual.

See the last page of this matrix for footnote definitions.

CATEGORY 1

Unconfined in-stream work, including construction, installation or removal of cofferdam structures or placement of fill, is limited to the period July 1 through September 30 **except in instances where a specific written exception has been issued by the CT DEP.**

1. **A. NEW FILL/ EXCAVATION DISCHARGES WITHIN WATERS OF THE U.S.**(1) Less than 5,000 SF of Inland Waters, Waterway and/or Wetland Fill and Secondary Impacts. Fill impacts include all temporary and permanent fill and excavation discharges resulting from a single and complete project, see #5 of General Requirements. Secondary impacts include but are not limited include to impacts to inland waters, waterways or wetlands drained, dredged, flooded, cleared or degraded resulting from a single and complete project. (See 40 CFR 230.11 (g) and (h))

Activities Eligible for Authorization under Category 1:

Utility Line Right-of-Way Crossings. These must be constructed as follows:

- when trenching, the uppermost 12 inches of the trench is backfilled to the original grade with native soil or streambed material, as appropriate, of the same nature, type and characteristics as the adjacent soil or streambed material, and
- the right-of-way is managed to prevent the introduction, establishment, or spread of plant species determined by the CT Invasive Plants Council to be invasive or potentially invasive.

http://invasives.eeb.uconn.edu/ipane/ipanespecies/current_inv.htm

Driveway/Roadway Crossings. The following are required for driveway/roadway crossings constructed on brooks, streams, rivers and their tributaries. These provisions do not apply to crossings of drainage ditches or waters with no definable channel.

• **Driveway crossings using a bridge or open-bottom structure must**:

- span at least 1.2 times the watercourse bank full width,
- have an openness ratio(7) equal to or greater than 0.25 meters, and
- allow for continuous flow of the 50-year frequency storm flows

• **Roadway crossings using a bridge or open-bottom structure must:**

- follow the above 3 requirements for driveway crossings, and
- have a riparian bank on one or both sides for wildlife passage.

• **Driveway or Roadway crossings using a culvert provided:**

- the tributary watershed to the culvert is ≤ 1.0 sq. mile (640 acres),
- the culvert gradient (slope) is no steeper than the streambed gradient immediately upstream or downstream of the culvert,
- for a crossing constructed using a single box or pipe arch culvert, the inverts are set ≥ 12 inches below the streambed elevation,
- for a crossing constructed using multiple box or pipe arch culverts, the inverts of one of the boxes or pipe arch culverts are set ≥ 12 inches below the elevation of the streambed,
- for a crossing constructed using a pipe culvert, the inverts are set such that ≥ 25% of the pipe or 12", whichever is less, is set below the streambed elevation,
- the culvert is backfilled with natural substrate material matching upstream and downstream streambed substrate,
- the structure does not otherwise impede the passage of fish and other aquatic organisms, and
- the structure allows for continuous flow of the 50-year frequency storm flows

Projects including any of the following Activities are NOT ELIGIBLE for AUTHORIZATION under Category 1:

Piping, boxing, enclosing or covering of inland waters or waterway for other than a driveway or roadway crossing. Projects with direct or secondary impact(s) to:

- Special Wetlands(5) (Work within 500 feet of vernal pools shall be minimized.)
- Threatened, Endangered, or Special Concern Species (6) http://www.dep.state.ct.us/
- Significant Natural Communities (6) identified by the CT Natural Diversity Database http://www.dep.state.ct.us/

Projects with a dam, dike, levee, water impounding, water diversion structure or other activities regulated by the CT DEP under CT General Statutes Sections 22a-368 (Water Diversion Policy Act) or 22a-403 (Dam Construction).

Projects with fill placed within a FEMA established floodway. http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1

Projects with fill placed within a FEMA established floodplain that would adversely affect the hydraulic characteristics of the floodplain.(8)

Projects with detention or retention of storm water in inland waters, waterways or wetlands including:

- roadway or driveway crossing that by design or default function to provide storm water detention or
- retention in inland waters, waterway or wetland, or construction of storm water detention or retention basin in inland waters, waterway or wetland.

Projects occurring in a segment of a National Wild and Scenic River System or within 0.25 mile upstream or downstream of the main stem or tributaries of a National Wild and Scenic River System segment. http://www.nps.gov/rivers/

NOTE: In instances where it is determined that it is not practicable to construct a roadway or driveway crossing consistent with the standards, the crossing may be authorized as a Cat. 1 project provided that the crossing is constructed in a manner that minimizes impediments to fish and aquatic life passage to the greatest extent practicable. A mere showing of expense will not necessarily determine that compliance with the standards is not practicable. Proponents must submit plans and documentation to the Corps and CT DEP for consideration and must receive written authorization prior to the commencement of construction.

1. B. STREAM BANK STABILIZATION PROJECTS WITHIN WATERS OF THE U. S.(1)	
Activities Eligible for Authorization under Category 1: **Stream Bank Stabilization** ≤ 200 feet in length with: • an average of 1 cubic yard of fill or less per linear foot below ordinary high water • no fill within the streambed beyond the toe of slope of the stream bank, and • work limited to July 1 through September 30. **NOTE:** Length is defined as the sum of the lengths of bank stabilization work along each bank of an inland water or waterway.	**Projects including any of the following Activities Are NOT ELIGIBLE for AUTHORIZATION under Category 1:** Project with direct or secondary impacts to: • Special Wetlands (5) (Work within 500 feet of vernal pools shall be minimized) • Threatened, Endangered, or Special Concern Species • Significant Natural Communities (6) identified by the CT Natural Diversity Database Channeling or relocating inland waters or waterway. Project with fill placed within any wetland, streambed, or FEMA established floodway. http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1 Projects occurring in a segment of a National Wild and Scenic River System or within 0.25 mile upstream or downstream of the main stem or tributaries of a National Wild and Scenic River System segment. http://www.nps.gov/rivers/

1. C. REPAIR AND MAINTENANCE WORK WITHIN WATERS OF THE U. S . (1)

Total impacts (direct and secondary) not to exceed 5,000 square feet – (See 1.A. for definition)

Activities Eligible for Authorization under Category 1:

Repair or maintenance of existing, currently serviceable, authorized fills, provided:

- No change in use.
- Conditions of the original authorization apply. However, minor deviations in fill design allowed.

Replacement of existing DRIVEWAY crossings using a bridge or open bottom structure must:

- Span at least 1.2 times the watercourse bank full width,
- Have an openness ratio (7) equal to or greater than 0.25 meters,
- Allow for continuous flow of the 50-year frequency storm flows
- Not result in a change in the normal surface elevation of the upstream waters, waterway or wetland.

Replacement of existing ROADWAY crossing using a bridge or open bottom-structure must:

- Follow the above 4 requirements for driveway crossings, and
- Have a riparian bank on one or both sides for wildlife passage,

Replacement of an existing Driveway or Roadway crossing constructed using a culvert, provided:

- the tributary watershed to the culvert is ≤ 1.0 square mile (640 acres),
- the culvert gradient (slope) is no steeper than the streambed gradient immediately upstream or downstream of the culvert,
- for a crossing constructed using a single box or pipe arch culvert, the inverts are set ≥ 12 inches below the elevation of the streambed,
- for a crossing constructed using multiple box or pipe arch culverts, the inverts of one of the boxes or pipe arch culverts are set ≥ 12 inches below the elevation of the streambed,
- for a crossing constructed using a pipe culvert, the inverts are set such that ≥ 25% of the pipe or 12", whichever is less, is set below the elevation of the streambed,
- the culvert is backfilled with natural substrate material matching upstream and downstream streambed substrate,
- the structure does not otherwise impede the passage of fish and other aquatic organisms, and
- the structure allows for continuous flow of the 50-year frequency storm flows
- the CT Natural Diversity Database confirms in writing that there are no known endangered, threatened or special concern species that would be adversely impacted, and

Replacement of a Utility Line within an Existing Right-of-Way Crossing,

- no horizontal expansion or impacts beyond previously cleared areas,
- no open trench excavation w/in flowing waters w/out management techniques as stated in Special Condition 21 (c)
- when trenching, the uppermost 12 inches of the trench is backfilled with native soil or streambed material, as appropriate, of the same nature, type and characteristics as the adjacent soil or streambed material,
- the right-of-way is managed to prevent the introduction, establishment, or spread of plant species determined by the CT Invasive Plants Council to be invasive or potentially invasive.

http://invasives.eeb.uconn.edu/ipane/ctcouncil/CT_Invasive_Plant_List.htm

Projects including any of the following Activities are NOT ELIGIBLE for AUTHORIZATION under Category 1:

Projects with direct or secondary impacts to:

- Special Wetlands (5), (Work within 500 feet. of vernal pools shall be minimized)
- Threatened, Endangered, or Special Concern Species (6)
- Significant Natural Communities (6) identified by the CT Natural Diversity Database http://www.dep.state.ct.us/

Projects with fill placed within a FEMA established floodway.

http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1

Projects with fill placed within a FEMA established floodplain that would adversely affect the hydraulic characteristics of the floodplain. (8)

Projects occurring in a segment of a National Wild and Scenic River System or within 0.25 mile upstream or downstream of the main stem or tributaries of a National Wild and Scenic River System segment.

http://www.nps.gov/rivers/

NOTE: In instances where it is determined that it is not practicable to construct a roadway or driveway crossing consistent with the standards, the crossing may be authorized as a Category 1 project provided that the crossing is constructed in a manner that minimizes impediments to fish and aquatic life passage to the greatest extent practicable. A mere showing of expense will not necessarily determine that compliance with the standards is not practicable. Documentation and plans are to be submitted to the Corps and CT DEP for consideration and written authorization must be issued prior to the commencement of construction.

NOTE: Replacement of utility line projects with impacts solely within wetlands greater than 5,000 SF may be eligible for Category 1 authorization provided the standards are met. Replacement of utility line projects involving stream crossings with impacts over 5,000 SF must be screened under Category 2.

CATEGORY 2 (Screening)

Time of year restrictions on activities will be determined case-by-case.

Unconfined in-stream work, including construction, installation or removal of cofferdam structures or placement of fill, is limited to the period July 1 - Sept. 30, unless otherwise specifically authorized in the written approval of coverage issued by the Corps of Engineers.

2. A. NEW FILL/ EXCAVATION DISCHARGES WITHIN WATERS OF THE U. S.[1] 5,000 SF to 1 acre Inland Waters, Waterway and/or Wetland Fill and Secondary Impacts. Fill impacts include all temporary and permanent fill and excavation discharges resulting from a single and complete project. Secondary impacts include, but are not limited to impacts to inland waters, waterways or wetlands drained, dredged, flooded, cleared or degraded resulting from a single and complete project. (See 40 CFR 230.11 (g) and (h))

Activities Eligible for Authorization under Category 2:

Utility Line Right-of-Way Crossing provided the construction adheres to the following standard:

- when trenching, the uppermost 12 inches of the trench is backfilled with native soil or streambed material, as appropriate, consistent with the adjacent soil or streambed material, and
- the right-of-way is managed to prevent the introduction, establishment, or spread of plant species determined by the Connecticut Invasive Plants Council to be invasive or potentially invasive. http://invasives.eeb.uconn.edu/ipane/ctcouncil/CT_Invasive_Plant_List.htm

The following provisions apply to Driveway/Roadway Crossings constructed on brooks, streams, rivers and their tributaries. These provisions do not apply to crossings of drainage ditches or waters with no definable channel.

Roadway or Driveway Crossing Constructed using a Bridge or Open-bottom Structure that:

- allows for the continuous flow of the 50-year frequency storm flows
- spans at least 1.2 times the watercourse bank full width, and
- has an openness ratio[7] greater than or equal to 0.25 meters.

Roadway or Driveway Crossing Constructed using a Culvert provided that:

- the use of a bridge or open-bottom structure is determined to be not practicable,
- for a crossing constructed with a single box or pipe arch culvert, the inverts are set at least 12 inches below the elevation of the natural streambed,
- for a crossing constructed with multiple box or pipe arch culverts, the inverts of one of the boxes or pipe arch culverts are set at least 12 inches below the elevation of the natural streambed,
- for a crossing constructed with a pipe culvert, the inverts are set such that at least 25% of the pipe, or 12", whichever is less, is set below the elevation of the natural stream bed,
- the culvert is backfilled with natural substrate material matching upstream and downstream substrate, • the structure allows for continuous flow of the 50-year frequency storm flows
- there is no practicable alternative location for the crossing that would have less environmental impacts.

Projects with any of the following Activities are NOT ELIGIBLE for AUTHORIZATION under Category II Individual Permit Required.

Piping, boxing, or other enclosing or covering of inland waters or waterway for other than a driveway or roadway crossing.

Projects with fill placed within a FEMA established floodway. http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1

Projects with fill placed within a FEMA established floodplain that would adversely affect the hydraulic characteristics of the floodplain.[8]

Detention or retention of storm water in inland waters, waterway or wetland including:

- roadway or driveway crossings that by design or default function to provide storm water detention or retention in inland waters, waterway or wetland, or
- construction of storm water detention or retention basins in inland waters, waterway or wetland.

NOTE: In instances where it is determined by the agencies that it is not practicable to construct a roadway or driveway crossing consistent with the standards, the crossing may be authorized as a Category 2 project provided that the crossing is constructed in a manner that minimizes impediments to fish and aquatic life passage to the greatest extent practicable. A mere showing of expense will not necessarily determine that compliance with the standards is not practicable. Documentation should be submitted with the Category 2 application package.

NOTE: Work and/or construction within 250 feet of vernal pools may require Individual Permit review and will be decided on a case-by-case basis.

2. B. BANK STABILIZATION PROJECT WITHIN WATERS OF THE U. S.[1]

Activities Eligible for Authorization under Category 2:	Projects/Activities NOT ELIGIBLE for AUTHORIZATION under Category 2 - Individual Permit Required.
Stream Bank Stabilization Exceeding 200 ft. in length provided there is less than an average of 1 cubic yard of fill per linear foot below ordinary high water. **NOTE:** Length is defined as the sum of the lengths of bank stabilization work along each bank of an inland water or waterway.	Channeling or relocating inland waters or waterway. Projects with fill placed within a FEMA established floodway. http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1 Projects with fill placed within a FEMA established floodplain that would adversely affect the hydraulic characteristics of the floodplain.(8)

2. C. REPAIR & MAINTENANCE WORK WITHIN WATERS OF THE U. S.(1)

Activities Eligible for Authorization under Category 2:	Projects with any of the following Activities are NOT ELIGIBLE for AUTHORIZATION under Category 2 Individual Permit Required.
Replacement of Non-Serviceable Fills, or Repair or Maintenance of Serviceable Fills with horizontal expansion of up to 1 acre, or change in use. NOTE: The 1-acre impact limitation applies to all activities below. **Replacement of an Existing Roadway or Driveway Culvert Crossing** provided that: • the existing culvert is replaced using a box or pipe arch culvert, • the invert elevation is set at least 12 inches below the elevation of the natural streambed, • the culvert is backfilled with natural substrate material matching upstream and downstream substrates, • the culvert has an openness ratio(7) equal to or greater than 0.25 meters the structure does not impede the passage of fish and other aquatic organisms, • the structure does not result in a change in the normal surface elevation of the upstream waters, waterway or wetland, and • the structure allows for continuous flow of the 50-year frequency storm flows **Discharge of fill in conjunction with the Excavation of an Existing Pond/Lake** provided that: • there is no horizontal expansion of the pond, • excavation is limited to restoring the pond basin to its original contours through the removal of accumulated material, • excavated material is disposed outside of inland waters, waterways, wetlands and floodplains, • the area being dredged is physically isolated from adjoining areas of flowing water, • best management practices are employed to avoid creating erosion, sedimentation or water quality degradation during excavation and during any period of dewatering and refilling, • adequate littoral zones are maintained to provide habitat suitable for supporting fish and other aquatic life, and • during the period of refilling, downstream flow is maintained consistent with the stream flow standards established by the State of Connecticut DEP, as amended. **NOTE:** Existing pond/lake excavation projects with impacts exceeding 1 acre are eligible for Category 2 authorization provided the above standards are met.	Project with fill placed within a FEMA established floodway. http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1 Project with fill placed within a FEMA established floodplain that would adversely affect the hydraulic characteristics of the floodplain.(8) **NOTE:** In instances where it is determined by the agencies that it is not practicable to construct a roadway or driveway crossing consistent with the standards, the crossing may be authorized as a category 2 project provided that the crossing is constructed in a manner that minimizes impediments to fish and aquatic life passage to the greatest extent practicable. A mere showing of expense will not necessarily determine that compliance with the standards is not practicable. Documentation should be submitted with the Category 2 application package.

2. D. WETLAND OR STREAM RESTORATION PROJECTS WITHIN WATERS OF THE U. S.(1)	
Activities Eligible for Authorization: under Category 2 **Inland Water, Waterway, Wetland or Stream Restoration Project** sponsored or administered by a federal or state environmental agency provided that impacts to aquatic resources are minimal and there is a planning review component to the project that includes representation on a screening committee from all involved federal and state agencies. **NOTE:** Such restoration projects with any amount of impact may be screened for eligibility under Category 2. The Corps, in consultation with State and Federal agencies, must determine that net adverse effects are minimal.	

2 E. MISCELLANEOUS PROJECTS WITHIN WATERS OF THE U. S.(1)	
Activities Eligible for Authorization under Category 2 Less than one acre of Inland Waters, Waterway and/or Wetland Fill, and Secondary Impacts that are not defined under any of the previous categories. **Fill impacts include all temporary and permanent fill and excavation discharges result from a single and complete project. Secondary impacts include but are not limited to impacts to inland waters, waterways or wetlands drained, flooded, cleared or degraded resulting from a single and complete project. (See 40 CFR 230.11 (g) and (h))**	**Project with any of the following Activities are NOT ELIGIBLE for Authorization under Category 2 – Individual Permit Required:** Project with fill placed within a FEMA established floodway. http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1 Project with fill placed within a FEMA established floodplain that would adversely affect the hydraulic characteristics of the floodplain.(8) Detention or retention of storm water in inland waters, waterway or wetland

DEFINITIONS

(1) Waters of the U. S.: Inland rivers, streams, brooks, lakes, ponds and wetlands. [Refer to Title 33 CFR 328 and Section 1362 Federal Clean Water Act]

(2) Navigable Waters: Waters that are subject to the ebb and flow of the tide, and federally designated navigable waters, which in Connecticut includes the Connecticut River to the Massachusetts, state line. [Refer to Title 33 CFR Part 329 and Section 1362 Federal Clean Water Act]

(3) Connecticut Department of Environmental Protection and Connecticut Municipal Inland Wetlands Agency Authorizations:

- Inland Wetlands and Watercourses Act, CGS Sections 22a-36 through 22a45(a)
- Connecticut Water Diversion Policy Act, CGS 22a-365 through 22a-378a
- Stream Channel Encroachment Lines, CGS 22a-342 through 22a 349(a)
- Dam Construction, CGS 22a-401 through 22a-411
- Aquaculture Operations: The Connecticut Department of Agriculture has exclusive authority for granting or denying permits under the above regulatory programs for aquaculture operations.

(4) Special Aquatic Sites: Include wetlands (inland and salt marsh), mud flats, vegetated shallows (permanently inundated areas that support rooted aquatic vegetation such as eelgrass, celery grass, and tape grass), coral reefs, and riffle and pool complexes. [Refer to 40 CFR Part 230 Subpart E]

(5) Special Wetlands: Include vernal pools, bogs, fens, cedar swamps, spruce swamps, calcareous seepage swamps, and wetlands which provide habitat for threatened or endangered species or species of special concern as designated

by the State of Connecticut Natural Diversity Database. The following definitions for bogs, calcareous seepage wetlands, cedar swamps, fens, spruce swamps, and vernal pools apply for the purposes of this PGP:

> **Bog:** a peat accumulating wetland dominated by sphagnum moss. Typical plant species include sphagnum moss, leatherleaf, black spruce, pitcher plant and sundew.
> **Calcareous Seepage Swamp:** a forested wetland characterized by the discharge of groundwater with a chemistry influenced by the underlying limestone geology.
> **Cedar Swamp:** a forested wetland characterized by the presence of Northern White Cedar or Atlantic White Cedar.
> **Fen:** a peat accumulating wetland dominated by sedges and/or ericaceous shrubs. Typical plant species include low sedges, ericaceous shrubs, sphagnum and other mosses.
> **Spruce Swamp:** a forested wetland characterized by the presence of Red or Black Spruce.
> **Vernal Pool:** an often temporary body of water occurring in a shallow depression of natural or human origin that fills during spring rains and snow melt and typically dries up during summer months. Vernal pools support populations of species specially adapted to reproducing in these habitats. Such species may include wood frogs, mole salamanders (*Ambystoma* sp.), fairy shrimp, fingernail clams, and other amphibians, reptiles and invertebrates. Vernal pools lack breeding populations of fish. **(NOTE: The Corps will determine on a case-by-case basis which vernal pools are within their jurisdiction. All vernal pools are subject to the jurisdiction of the Connecticut Department of Environmental Protection under Connecticut Water Quality Standards.**)

(6) Threatened, Endangered or Special Concern Species; Significant Natural Communities: Species listed by CT DEP pursuant to Chapter 495 of the Connecticut General Statute as threatened or endangered species or species of special concern. Known locations of threatened and endangered species and species of special concern, and significant natural communities are identified on maps entitled "State and Federal Listed Species and Significant Natural Communities", as amended. These maps are available at city or town clerk offices and in the CT DEP File Room located on the store level of 79 Elm Street, Hartford. http://www.dep.state.ct.us/

(7) Openness Ratio: The cross-sectional area (in square meters) of the opening of a structure divided by the length (measured in meters) of the structure. For a box culvert, openness ratio = (height x width)/length (measured in meters). The imbedded portion of the culvert is not included in the cross-sectional area used for calculating the openness ratio.

(8) Adverse Affect to Hydraulic Characteristics: An adverse affect to hydraulic characteristics includes an increase in flood water surface elevation, an increase in flood flow velocity or a restriction of flood flow conveyance in a manner that would impact upstream, downstream or adjacent property.

APPENDIX B

U.S. ARMY CORPS OF ENGINEERS, NEW ENGLAND DISTRICT

PROGRAMMATIC GENERAL PERMIT STATE OF CONNECTICUT

CATEGORIES FOR WORK IN WATERS OF THE U.S.[(2)]

TIDAL, COASTAL AND NAVIGABLE WATERS

(INCLUDING ALL OF THE CONNECTICUT RIVER)

Navigable Waters: Waters that are subject to the ebb and flow of the tide, and federally designated navigable river, which in Connecticut includes the Connecticut River to the Massachusetts, state line. [Refer to Title 33 CFR Part 329 and Section 1362 Federal Clean Water Act.] The jurisdictional limits are the mean high water (MHW) line in tidal waters and the ordinary high water (OHW) mark in non-tidal portions of the federally designated navigable river (Connecticut River). For the purposes of this PGP, fill placed in the area between the mean high water (MHW) and the high tide line (HTL), and in the bordering and contiguous wetlands1 to tidal waters are also reviewed in this Navigable Waters section.

See the last page of this matrix for footnote definitions.

CATEGORY 1	
1. A. REPAIR AND MAINTENANCE WORK	
Activities Eligible for Authorization: Repair and/or maintenance of existing currently serviceable grandfathered or authorized fills and structures with **no** expansion or change in use. Grandfather dates include structures installed before 1968 and fill placed before 1975 for Corps purposes and structures and fill placed before 1980 for CT DEP purposes.	**Projects That Include Any Of The Following Activities Are NOT Eligible for Authorization Under Category 1:** Projects with impacts to Special Aquatic Sites (3) Projects occurring in the main stem of Connecticut River (See General Condition 10)
1. B. DREDGING	
Activities Eligible for Authorization: Maintenance dredging with: • contained upland disposal • proper siltation controls used to prevent runback into the waterway or wetland • work occurring between October 1 through January 15	**Projects That Include Any Of The Following Activities Are NOT Eligible for Authorization Under Category 1:** Projects occurring within Special Aquatic Sites (3) Projects occurring in the main stem of the Connecticut River (See General Condition 10)
1. C. MOORINGS	
Activities Eligible for Authorization: Private, non-commercial, non-rental single boat moorings not associated with any boating facility (4). Moorings must have harbormaster approval.	**Projects That Include Any Of The Following Activities Are NOT Eligible for Authorization Under Category 1:** Moorings located in Federal Navigation Project (channel, anchorage or turning basin). Moorings that interfere with navigation. Projects occurring in the main stem of the Connecticut River (See General Condition 10)

CATEGORY 1 (Continued)	
1. D. PILE-SUPPORTED STRUCTURES	
Activities Eligible for Authorization: Reconfiguration of existing authorized structures provided those structures do not extend beyond the existing perimeter of the facility. Construction of private residential structures with a length limit of 40 feet beyond mean high water and to a depth of –4 feet mean low water and a width limit of 4 feet.. Osprey platforms and perch poles that meet CT General Permit LIS-GP-004.	**Projects That Include Any Of The Following Activities Are NOT Eligible for Authorization Under Category 1:** No additional slips or expansion allowed for reconfiguration of existing authorized structures. Structures within 25′ of the riparian boundary, unless prior approval of abutting property owner(s) No floats/structures shall be located over submerged aquatic vegetation or over tidal wetlands. No floats shall sit on the substrate during any tide. Projects occurring in the main stem of the Connecticut River (See General Condition 10)
1. E. BRIDGE WORK	
Activities Eligible for Authorization: Discharges of dredged or fill material incidental to the construction of bridges across navigable waters of the United States, including cofferdams, abutments, foundation seals, piers, and temporary construction and access fills are authorized by this General Permit provided the U.S. Coast Guard authorizes such discharges as part of the bridge permit.	**Projects That Include Any Of The Following Activities Are NOT Eligible for Authorization Under Category 1:** No causeways or approach fills are included in this category. Projects occurring in the main stem of the Connecticut River (See General Condition 10) Projects occurring in special aquatic sites(3)
1. F. MISCELLANEOUS	
Activities Eligible for Authorization: Temporary buoys, markers, floats, etc. for recreational use during specific events, provided they are removed within 30 days of their use. Coast Guard approved Aids to Navigation. Oil spill clean up. Scientific measurement devices and survey activities, such as exploratory drilling, surveying, samplings.	**Projects That Include Any Of The Following Activities Are NOT Eligible for Authorization Under Category 1:** No floats/structures shall be located over submerged aquatic vegetation or over tidal wetlands. Scientific measurement devices do not include oil/gas exploration and fills for roads/construction pads. Projects occurring in a component of, or within 0.25 mile up or downstream of the main stem of tributaries of a river segment of, the National Wild and Scenic River System. http://www.nps.gov/rivers/ Projects occurring in the main stem of the Connecticut River. (See General Condition 10)

CATEGORY 2 (SCREENING)	
2. A. FILL/EXCAVATION	
Activities Eligible for Authorization: Up to 1-acre waterway/wetland fill and/or excavation, including secondary impacts (e.g. areas that are drained, flooded, cleared, excavated or degraded.) The one-acre limit does not apply to Integrated Marsh Management (including open marsh management) or wetland restoration projects, provided that impacts to the aquatic resources are minimal and there is a preplanning component to the project that includes review, representation and approval from all federal and state agencies on the screening committee. Includes temporary and permanent fill. Beach nourishment with compatible grain size.	**Projects That Include Any Of The Following Activities Or Elements Are NOT Eligible for Authorization under Category 2 and will require an Individual Permit** Greater than 1 acre waterway fill and secondary impacts that are not considered proactive restoration projects. No permanent fill and/or excavation in special aquatic sites(3).
2.B. REPAIR AND MAINTENANCE WORK	
Activities Eligible for Authorization: Repair of any non-serviceable structures or fills, or repair/maintenance of serviceable structures or fills with expansion up to one acre or change in use.	**Projects That Include Any Of The Following Activities Or Elements Are NOT Eligible for Authorization under Category 2 and will require an Individual Permit** Replacement of non-serviceable structures or fills. Repair and maintenance of serviceable fills greater than one acre.
2.C. DREDGING	
Activities Eligible for Authorization: Maintenance, new, or improvement dredging with disposal at upland, open water, confined aquatic disposal cells, or beach nourishment, provided material to be dredged is determined suitable by the Corps for disposal.	**Projects That Include Any Of The Following Activities Or Elements Are NOT Eligible for Authorization under Category 2 and will require an Individual Permit:** Federal proponents disposing of dredged material in open water. Dredging of >25,000 cubic yards of material with open water disposal. Dredging in or affecting special aquatic sites (3).

CATEGORY 2 (Continued)	
2. E. MOORINGS	
Activities Eligible for Authorization: All commercial moorings in all locations and any moorings that do not have harbormaster approval and that are located in a Federal Navigation Project.	**Projects That Include Any Of The Following Activities Or Elements Are NOT Eligible for Authorization under Category 2 and will require an Individual Permit:** Any mooring that interferes with navigation.
2.F.PILE-SUPPORTED STRUCTURES	
Activities Eligible for Authorization: Piers and floats for navigational access to the waterway that are not eligible under Category 1. New structures within an existing boating facility, provided those structures do not extend beyond the existing perimeter of the facility.	**Projects That Include Any Of The Following Activities Or Elements Are NOT Eligible for Authorization under Category 2 and will require an Individual Permit:** Structures/piers/floats that extend, or with docked/moored vessels, that extend within horizontal limits of a Federal navigation project. Structures/piers/floats within a previously unauthorized boating facility. (4)
2.H.BRIDGE WORK	
Activities Eligible for Authorization: Causeways and approach fills associated with discharges of dredged or fill material incidental to the construction of bridges across navigable waters of the United States.	**Projects That Include Any Of The Following Activities Or Elements Are NOT Eligible for Authorization under Category 2 and will require an Individual Permit:** EIS projects required by the Corps.
2. I.MISCELLANEOUS	
Activities Eligible for Authorization: Structures/work in or affecting tidal/navigable waters that are not defined under any of the previous headings. Includes, but not limited to: utility lines, aerial transmission lines, pipelines, outfalls, boat ramps, submarine cables.	**Projects That Include Any Of The Following Activities Or Elements Are NOT Eligible for Authorization under Category 2 and will require an Individual Permit:** EIS projects required by the Corps. Activities within the horizontal limits of Corps Federal Navigation Projects, or with docked or moored vessels that extend within those limits.

Definitions

(1) **Navigable Waters:** Waters that are subject to the ebb and flow of the tide, and federally designated navigable rivers, which in Connecticut includes the Connecticut River to the Massachusetts state line. [Refer to Title 33 CFR Part 329 and Section 1362 Federal Clean Water Act.] The jurisdictional limits are the mean high water (MHW) line in tidal waters and the ordinary high water (OHW) mark in non-tidal portions of the federally designated navigable river (Connecticut River). For the purposes of this PGP, fill placed in the area between the mean high water (MHW) and the high tide line (HTL), and in the bordering and contiguous wetlands to tidal waters are also reviewed in this Navigable Waters section.

(2) **Connecticut DEP, Office of Long Island Sound Programs Authorizations:**

- Structures, Dredging and Filling Permit (CGS Sections 22a-359 through 22a-363f)
- Tidal Wetlands Permit under the Tidal Wetlands Act (CGS Sections 22-a through 22a-35a)
- Certificate of Permission (CGS Section 22a-363b)
- Long Island Sound General Permits (CGS Sections 22a-28 to 22a-35 and Sections 22a-359 to 22a-363f inclusive)
- Coastal Zone Management Consistency (CZM) Concurrence under Section 307 of the Federal Coastal Zone Management Act of 1972, as amended.

(3) **Special Aquatic Sites:** Include wetlands (inland and salt marsh), mud flats, vegetated shallows (permanently inundated areas that support rooted aquatic vegetation such as eelgrass, celery grass and tape grass), coral reefs, and riffle and pool complexes. [Refer to 40 CFR Part 230 Subpart E]

(4) **Boating Facilities**: Facilities that provide, rent, or sell mooring space, such as marinas, yacht clubs, boat yards, town facilities, dockominiums, etc.

Connecticut Department of Environmental Protection
Bureau of Water Protection and Land Reuse
Inland Water Resources Division

CONNECTICUT ADDENDUM
ARMY CORPS OF ENGINEERS
PROGRAMMATIC GENERAL PERMIT

AGENCY USE ONLY

NAE# _____ PGP screening date _____

DEP# _____

Determinations: Eligible Cat. 2 _____ Eligible Cat. 1 _____ Individual Permit _____

Section A- Applicant Information *(please print or type)*

Applicant Name

Mailing Address

Work Phone Fax/ Email

IF an agent is working for the applicant during the permit process, complete #2

Authorized Agent

Mailing Address

Phone Fax/ Email

Relationship of Applicant to Property: ☐ Owner ☐ Developer ☐ Option Holder

If the applicant is not the Property Owner, please provide the following information for the property owner:

Name

Address

Phone Fax

Section B-Project Information

Location (street address, including city, or other information pertinent to identifying the geographical location where the proposed activity will occur)

Three copies of the application, CT addendum material, and full-scale plans (1"= 40') have been submitted. Yes _____ No _____ Total area within property boundaries Acres _____

Is there more than 1 phase to the project? Yes _____ No _____ If yes, How many phases _____

Project Category:

____ Industrial Site Development ____ Individual Residential ____ Multiple Lot Residential Development
____ Commercial Site Development ____ Condo/Apartment Complex ____ Public Water Supply
____ Pond/Lake Dredging ____ Stream Restoration/Enhancement ____ Mine/Quarry
____ Fish/Wildlife Management (Government Agency)
____ Golf Course Development

____ Other (Describe: _____)

Section C-Environmental Information

Wetland Impact

Direct Impact (Includes Temporary)	**Secondary/Indirect Impact**	**TOTAL IMPACT**
(sf) _____ acres _____	(sf) _____ acres _____	(sf) _____ acres _____

Waters/waterways/watercourses

Direct Impact (Includes Temporary)	**Secondary/Indirect Impact**	**Total Impact**
(lf) _____ (sf)_____	(lf) _____ (sf)_____	(lf) _____ (sf)_____

Do the following special wetland types occur on site?

Special Wetland			Total Area (sf) of Resource	Area (sf) of Resource Impacted
Vernal Pool	Yes ____	No ____	_____	_____
Fen	Yes ____	No ____	_____	_____
Bog	Yes ____	No ____	_____	_____
Cedar Swamp	Yes ____	No ____	_____	_____
Spruce Swamp	Yes ____	No ____	_____	_____
Calcareous Seepage Swamp	Yes ____	No ____	_____	_____

Channel Relocation/ Restoration/ Stabilization

Does the project include alterations to a perennial watercourse? Yes_____ No _____
IF so, indicate all design features included:

	YES	NO
Avoidance of barriers to fish movement		
Formation of pools and riffles		
Provisions for areas of sheltered flow (e.g. boulders, low check dams)		
Preservation of stream bank vegetation & establishment of new vegetation		
Use of clean natural bed materials of a suitable size		

	Flow	Frequency Recurrence (Year)
Design flow for bank-full flow	cfs	
Design velocity for bank-full flow	fps	

Floodplains

	YES	NO
Is there a FEMA mapped floodplain for floodway on the site?		
Are any excavation or permanent fill/ structures proposed within the floodplain?		
Are any excavation or permanent fill/ structures proposed within the floodway?		
Are any temporary stockpiles of fill or materials proposed within the floodplain		
Are any increases in the 100-year water surface elevation proposed? Maximum increase _____ feet.		
Are any flooding increases proposed that extend off the subject property? Please explain (attach explanation)		
Include hydraulic calculations including tabulated summary of results that demonstrate no adverse impacts of any fill in a floodplain and which are in accordance with the guidance document entitled, "Hydraulic Analysis Guidance Document" found at www.dep.state.ct.us/pao/download/watrdown/iwrdhydraulicguidance.pdf		

Application Documentation should include as appropriate the following Information

Environmental Documentation	**Report**	**Shown on Plans**
	✓ **If included**	
Description (biological/ecological) of the wetland and/or waterway		
Description of the proposed activities and the purpose.		
Evaluation of the functions and values of all wetlands and waters on-site or affected off-site.		
Evaluation of direct and indirect (secondary) impacts to the functions and values of wetlands and waters affected.		
Evaluation of mitigation/restoration and or creation of wetlands to replace the functions and values of impacted wetlands/watercourses.		
Design details for reconstruction/modification of existing culvert(s)		
Design details for reconstruction/modification of existing culvert(s).		
Biological field survey of the project area to identify the presence of endangered, threatened, or special concern species.		
Culvert invert elevations for roadway crossings set at least 12 inches below the elevation of the natural streambed for fish and aquatic passage?		
Federal wetland delineation of the site shown on plans.		
State wetland delineation of the site shown on plans.		
Construction of the development in accordance with the Best Development Practices Guidance document recommendations of Klemens and Calhoun.[1] [1]Best Development Practices, Conserving Pool-Breeding Amphibians in Residential and Commercial Developments in the Northeastern United States. MCA Technical Paper No.5 Metropolitan Conservation Alliance, Wildlife Conservation Society, Bronx, New York.		
Report documenting vegetation, soils, and hydrology of wetlands on site.		
Incorporation of a permanently protected buffer zone adjacent to wetlands and waters.		
Site plans drawn at a scale of 1”:100’ or larger showing the pre- and post- construction aerial extent of inundation of wetlands and waters for the 2-yr, 10-yr, 25-yr, 50-yr and 100-yr storm frequency events.		

Engineering Documentation **All plans and calculations must be signed and sealed by a P.E. licensed in the State of CT.**	**Report**	**Shown on Plans**
	✓ **If included**	
Summary of all water handling proposed at the site, including plans and computations, as needed to show that temporary water handling will not cause erosion or flooding.		
Erosion and Sediment control measures designed in accordance with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, including calculations as required for engineered measures.		
Design details and calculations for each hydraulic and drainage structure demonstrating consistency with the standards contained within the Connecticut DOT Drainage Manual and 2004 Connecticut Storm water Quality Manual.		
FEMA floodway/floodplain boundaries within the project site plotted on the site plans and a copy of the FEMA map showing the site location.		
Hydrologic calculations including pre- and post- drainage area maps and a tabulated summary of results that demonstrate no adverse increase in runoff rates or velocities as a result of the proposed activity at appropriate downstream points.		

Hydraulic and Drainage Structures

(You are required to complete a separate sheet for each structure)

Sheet ____ of _____

Identify the type of structure:

□ Culvert □ Detention/Retention Basin □ Infiltration Basin/Structure □ Drainage Outfall □ Drainage Swale □ Other
□ Dam □ Dike □ Weir □ Outlet Control Structure □ Pipe/Conduit/Aqueduct □ Bridge

How is the structure labeled on the site plans and in reports?_____

Where is the structure located on the site plans? _____ Sheet # _____

For bridge/culvert structures, what is the **openness ratio**? _____ (X-sectional area of structure opening/ length of the structure parallel to the stream, measured **in meters**)

What is the size of the contributing watershed to the structure? _____ Acres _____ Square Miles

Is the structure located within a **FEMA flood zone**? YES ____ NO _____ If YES, indicate the type of zone _____ Floodway _____ Flood Plain

Provide the following information as appropriate for the structure identified above.

Water Surface Elevation (Immediately upstream of structure) Storm Event Frequency														
2-yr			10-yr			25-yr			50-yr			100-yr		
Existing	Proposed	Change (+/-)	Existing	Proposed	Change (+/-)	Existing	Proposed	Change (+/-)	Existing	Proposed	Change (+/-)	Existing	Proposed	Change (+/-)

Aerial Extent of Inundation (Maximum) Storm Event Frequency														
2-yr			10-yr			25-yr			50-yr			100-yr		
Existing	Proposed	Change (+/-)	Existing	Proposed	Change (+/-)	Existing	Proposed	Change (+/-)	Existing	Proposed	Change (+/-)	Existing	Proposed	Change (+/-)

Duration of Inundation (hours) Storm Event Frequency					**Discharge Velocity (feet/second)** Storm Event Frequency					**Flow Volume (cubic feet/second)** Storm Event Frequency				
2-yr	10-yr	25-yr	50-yr	100-yr	2-yr	10-yr	25-yr	50-yr	100-yr	2-yr	10-yr	25-yr	50-yr	100-yr

Certification

A signed certification is required from the applicant and all individuals who actually prepared the application and any part thereof. Such individuals include scientific and engineering consultants (biological, ecological, geological, and soils scientists; professional engineers and surveyors) responsible for the collection, compilation or review of data or documentation filed in support the application. By their signature, they certify that to the best of their knowledge and belief, the information contained in the application, including attachments, is true, accurate and complete.

The certification of the application package must be signed as follows:

1. For an individual(s) or sole proprietorship, by the individual(s) or proprietor, respectively;
2. For a corporation, by a principal executive officer of at least the level of vice president;
3. For a limited liability company (LLC), a manager, if management of the LLC is vested in a manager(s) in accordance with the company's "Articles of Organization", or a member of the LLC if no authority is vested in a manager(s);
4. For a partnership, by all general partners; and
5. For a municipal, state or federal agency or department, by either a principal executive officer or a ranking elected official or by other representatives of such applicant as authorized by law.

Use additional sheets as necessary to provide all required signatures.

"I have personally examined and am familiar with the information submitted in this application and documentation attached thereto, and I certify that based on reasonable investigation, including my inquiry of the individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement in the submitted information may be punishable as a criminal offense, in accordance with Section 22a-6 of the General Statutes, pursuant to Section 53a-157b of the General Statutes, and in accordance with any other applicable statue."

Signature of Applicant	Date
Name of Applicant (*Printed or Typed*)	Date
Signature of Preparer	Date
Name of Preparer (*Printed or Typed*)	Date
Signature of Preparer	Date
Name of Preparer (Printed or Typed)	Date

SUPPLEMENTAL APPLICATION

Once the final design, rights-of-way acquisition, utility coordination, permits, and public hearing are completed, the municipality is ready to submit the Supplemental Application. The Supplemental Application must be filed within 270 days from the Commitment to Fund date, unless an extension of that deadline is requested. To request an extension, the municipal official overseeing the project must send a letter to the Administrator of the Local Bridge Program, requesting an extension of time to submit the Supplemental Application, giving the revised project schedule and an update of estimated costs.

The Supplemental Application must be made on the current form supplied by the Department (available on-line at: http://www.ct.gov/dot/localbridge), without any alterations, and must include the final plans, specifications, detailed cost estimates, public hearing notice and minutes, and the following certifications:

- By a professional engineer licensed in Connecticut that the design conforms to the minimum AASHTO and Highway Design Manual requirements. By statute, the municipality has the responsibility for approving any digressions from AASHTO or Highway Design Manual guidelines, for rehabilitation projects funded solely under the State Local Bridge Program. If there are deviations from accepted standards, the municipality and the designer must certify that the deviations do not reduce public safety.
- By an appraiser that all property values assessed on the project are fair and reasonable. If no property was acquired for the project, a letter to this effect should be submitted.
- By an authorized municipal official, that property acquisition is complete or will be complete at the time construction starts.
- By an authorized municipal official that public utility companies are aware of the project and prepared to relocate or adjust facilities as necessary to construct the project, and that estimates for the relocation or adjustment of municipally owned utilities are realistic for the project need.

On projects that are not federally funded, the Department requires plans and specifications to be submitted primarily for data collection purposes, load rating, and for planning inspections, so that the official files maintained on each bridge can be kept up to date. The Department does not routinely review or approve any plans or specifications (except for those projects that are federally funded) - that responsibility lies solely with the municipality. The Department may, however, offer comments on the proposed design, as workload permits. The plans should show structural members in sufficient detail to enable load-rating calculations to be performed (if structural details are left to a vendor, shop drawings must be submitted as well).

AGREEMENTS

All payments to the municipality by the State must be made in accordance with a formal State/Municipal agreement. This agreement will be a standard form agreement, approved by the

Attorney General, which the municipality will not be allowed to add, delete, substitute, or modify any portion of. For Federally funded projects, there will be separate agreements for each phase of the project (design, rights-of-way, and construction). For State funded projects, there will normally be only one agreement covering all phases of the project. If the scope of the project changes significantly after the execution of the original agreement, a supplemental agreement may be needed.

Upon review and acceptance of the Supplemental Application, the Department will prepare and forward a State/municipal agreement to the municipality for signatures. The grant and/or loan amounts in the agreement are based on the data submitted as part of the Supplemental Application. Two copies of the agreement will be prepared by the Local Bridge Program office, and forwarded to the municipality along with instructions for signature by the municipal official. Once signed by the municipality, both copies of the agreements, along with attachments, must be returned to the Department to be signed by the State.

When the agreements are fully executed, one copy of the agreement will be returned to the municipality, and a Tax Exempt Proceeds Fund account will be established by Reich & Tang Mutual Funds. A checkbook will be sent to the municipality by Reich & Tang to allow the municipality to withdraw the funds when due. The account will be funded to the value of the grant (and loan if applicable) when all required documents have been submitted and the project is ready for closing.

Upon receipt of bids, the municipality will certify the bids, select the successful bidder, and submit certified copies of the bids to DOT. In the event that the municipality selects a bidder other than the "low bidder", documentation substantiating the selection must be submitted for approval.

Once all administrative requirements are complete and all required documents have been submitted, the Attorney General's office will be notified that the project is ready for "closing". The closing involves the submission of several documents by the municipality and its attorney for review by the Attorney General's Office. Upon conclusion of the closing, the Attorney General's office will notify the Local Bridge Program Administrator, and the funds in the account will be made available to the municipality. If construction is not yet complete, the funds will be transferred into the Tax Exempt Proceeds Fund account, where the municipality may write checks against the account to cover project costs. If construction has been completed, the municipality may request that the State send a check for the entire grant and/or loan amount directly to the municipal treasurer, in lieu of using the TEPF account.

PROJECT COMPLETION

When construction is nearly completed, the Town should notify the Department as to the date of the semi-final inspection, so that representatives of ConnDOT can be present for the inspection. Once construction has been finished and the final inspection completed, the municipality must certify to the Department that the project has been completed, <u>within 90 days of the completion of construction</u>. It is important that the project be certified as complete as soon as possible after construction is completed, since the certification date will be used to determine

future funding eligibility. When available, the municipality should also submit shop drawings and a set of "as-built" plans to the Department, to be included in the Bridge Safety & Evaluation Section's file on each bridge. The shop drawings and as-built plans will be used to establish a load rating for the bridge, and in planning any future inspections.

The municipality must obtain an audit of the total cost of the project by a Certified Public Accountant (either a project-specific audit, or more typically, as part of the annual municipal audit) and forward the audit to the Department for the purpose of adjusting the final grant and/or loan amounts and closing out the project, with the exception of the pay-back of any loan issued by the State. Failure to provide an audit is an event of default under the project agreement, and may result in the Department requesting the return of the grant and loan, and the municipality becoming ineligible for future financial assistance.

The contents of the audit report must be in accordance with government auditing standards issued by the Comptroller General of the United States, and the requirements as outlined in the OMB Circular A-133, "Audits of States, Local Governments, and Non-Profit Organizations" and the State Single Audit Act, as applicable.

If the audit will be performed as part of the municipality's annual single audit, the auditor should be given notice that the municipality has a Local Bridge Program project. The auditor can then identify and separate out all expenditures directly related to specific bridge projects, in supplementary schedules with program/grant information such as the bridge number and location, account numbers, ConnDOT project number, project phase (design, construction, etc.), and expenditures broken down by phase (see ***Eligible Costs*** on page 16 for a list of expenditures which can be included in each phase). A sample supplemental schedule will be attached to the Project Agreement. The sum of project expenditures should agree, in total, to the program/grant expenditures as shown in the annual audit report. Any costs that are not supported by the audit report and supplemental schedules will not be eligible for reimbursement. A copy of the supplemental schedule is below:

SUPPLEMENTARY PROGRAM FINANCIAL INFORMATION

FEDERAL PROJECT No.[1] _____

CONNDOT PROJECT No.: _____

BRIDGE No.: _____

LOCATION: _____

PERIOD COVERED: _____ TO_____

PROGRAM/GRANT IDENTIFICATION No.[2]	PHASE[3]	CURRENT PERIOD EXPENDITURES, BY PHASE[4]	TOTAL EXPENDITURES TO DATE, BY PHASE[4]
	PE		
	ROW		
	Municipal Utility		
	Construction		
	CE/Incidentals		
	Other:		

1 For projects with Federal funding.

2 The number used by the municipality to identify the account in financial records, such as the State/Federal Grant ID number, account number, or capital project number.

3 Preliminary Engineering (PE), Rights of Way (ROW), Municipally-Owned Utilities (UTILITY), Construction (CONST), Construction Engineering/Inspection/Testing/Incidentals (CE), Other – provide explanation (OTHER). See "Eligible Costs" in the Program Manual for more information.

4 The sum of the project expenditures should agree, in total, to the program/grant expenditures.

The municipality must retain all records for at least seven years after issuance of the project's certification of acceptance, or three years after receipt of the final payment, whichever is later, provided that there is no pending litigation. These records include the contract, contractor's monthly and final estimates and invoices, construction orders, correspondence, field books, computations, contractor's payrolls, EEO/AA records/reports, and any other project related records. **The audited Municipality must obtain written approval from the Connecticut Department of Transportation prior to destruction of any records and/or documents** pertinent to the project. This requirement is ***in addition to*** any requirements of the Freedom of Information Act or the Connecticut State Library's Office of the Public Records Administrator.

Upon review by the Department's audit staff, the municipality will be notified by letter of its eligibility for additional grant and/or loan funds, or that reimbursement is due the State. The Department will also take actions necessary to close out the Tax Exempt Proceeds Fund account established for the project.

GUIDELINES FOR OBTAINING FUNDS UNDER THE LOCAL BRIDGE PROGRAM

The following guidelines outline, in typical order, those steps that municipalities must follow to obtain funding under the Local Bridge Program. These guidelines are general, and are intended only to give an overview of the process. ConnDOT will give additional guidance to the municipality as the project progresses. Please see Section 21 for additional procedures that must be followed when a bridge is owned or maintained currently by more than one municipality.

ALL APPLYING MUNICIPALITIES SHOULD REVIEW THESE PROCEDURES WITH THEIR MUNICIPAL ATTORNEYS AND BOND COUNSEL, WHEN APPROPRIATE, IN ORDER TO PLAN FOR THEIR LOCAL BRIDGE PROJECTS. NOTE THAT A PARTICIPATING MUNICIPALITY MUST APPROPRIATE MONIES FOR THE FULL AMOUNT OF LOCAL BRIDGE PROJECT. WHEN A LOCAL BRIDGE PROJECT IS TO BE FINANCED BY BORROWING, THE MUNICIPALITY MUST AUTHORIZE BONDS FOR EITHER OR BOTH OF THE FOLLOWING AS APPLICABLE: (I) THE PORTION OF TOTAL PROJECT COSTS TO BE FINANCED BY A LOAN UNDER THE LOCAL BRIDGE PROGRAM; (ii) MUNICIPALITY'S SHARE OF THE TOTAL COSTS.

PROCEDURES FOR STATE FUNDED PROJECTS

1. Municipality submits a Preliminary Application (see Appendix 6) to the State by the deadline. (Note: *Applications for new State Funded projects are no longer being accepted*.)

2. ConnDOT reviews the Preliminary Application. If accepted, the State issues a Commitment to Fund to the municipality on or about July 1 of the same year that the application is filed. If rejected, the municipality may reapply in any future fiscal year.

3. Municipal official signs and returns the Commitment to Fund letter to the State within 30 days. Once the Commitment to Fund has been issued, the project may proceed with construction as soon as it is ready.

4. The municipality requests approval of the hydraulics engineer for the project design.

5. The municipality's engineer prepares plans and specifications for the project. If preliminary plans and specifications were not ready at the time of preliminary application, they should be furnished to the Department when the design is 30% complete. ConnDOT does not "approve" these plans, but may offer suggestions.

6. The municipality's engineer requests comments from DEP Fisheries.

7. The municipality's engineer submits an Environmental Review Request Form.

8. The municipality's engineer prepares an initial application for Flood Management Certification and forwards it to the Local Bridge Program Administrator for review and comment by ConnDOT.

9. Municipal legislative body sets date for public hearing on bridge project. Municipality publishes a legal notice NOT LESS THAN 5 DAYS in advance of the public hearing in a newspaper of general circulation. Legislative body holds public hearing.

10. The municipality's engineer prepares an application package for Flood Management Certification, with signature pages, incorporating all comments, and forwards it to the Local Bridge Program Administrator.

11. When the final design is complete, the municipality submits the Supplemental Application (a Supplemental Application form will be included with the Commitment to Fund letter, and is also available on ConnDOT's Web Site) within 270 days of the Commitment to Fund letter, unless a time extension has been granted, along with the following:

    (a) Final plans (2 copies; half-size is preferred for at least one of the copies) and specifications certified by a Connecticut Professional Engineer, including any design exceptions;

    (b) Final estimates;

    (c) Proposed project schedule;

    (d) Municipal certifications as to:

    - Completion of property acquisition;
    - Ownership of or responsibility for bridge;
    - Coordination for relocation of public utilities;

    (e) Appraiser's certificate as to property acquired, if applicable;

    (f) Amount of grant and/or loan requested;

    (g) A resolution from the municipality's legislative body authorizing the municipal official to submit the Supplemental Application.

12. ConnDOT reviews supplemental application package. When complete, ConnDOT prepares and delivers two copies of a Project Agreement to the municipality.

13. Municipal legislative body votes to approve Local Bridge Project and to authorize the financing in accordance with statutory and charter requirements for issuance of its indebtedness as follows:

    (a) Authorizes municipal official to execute project agreement;

    (b) Appropriates funds to meet total estimated cost of bridge project;

    (c) Authorizes bonds, including project loan general obligation promissory note, if necessary.

14. Authorized Municipal official executes (signs and seals) and returns two copies of the Project Agreement (with attachments) together with the following to the State:
    (a) Newspaper affidavit of publication of notice of public hearing/informational meeting;
    (b) Certified minutes of public hearing/informational meeting (word-for-word transcript is not required);
    (c) Certified copies of authorizing proceedings.

15. ConnDOT reviews Agreement package and authorizing proceedings. State then creates a purchase order, executes the Project Loan and/or Grant Agreement, and returns one original copy to the municipality. (Note: the purchase order is not sent to the municipality.)

16. Within 180 days from the date of the Project Agreement (unless an extension is granted), the Municipality must submit the following to the State:
    (a) Certified copies of all contractor's bids, including written justification for awarding the construction contract to any bidder other than the lowest bidder;
    (b) Evidence that the Municipality and the contractor have entered into a legally binding construction contract.
    (c) Evidence that the Municipality has funds available to pay its share of the total project costs;
    (d) An inquiry as to whether or not the State has funds available to finance, in part, any increase in cost should the total project cost exceed the total project cost stated in the Supplemental Application.

17. Once all the above requirements have been met, ConnDOT notifies the municipality that the file is ready for closing, and instructs the municipality to have their legal counsel complete and return the closing documents.

18. Counsel to the municipality prepares the following according to forms provided as exhibits to Project Loan and Grant Agreement or Project Grant Agreement, as of the closing date, and returns them to the Local Bridge Program Administrator:
    (a) For loan and grant (to be prepared by bond counsel):
        i) Opinion of nationally recognized bond counsel;
        ii) General Obligation Promissory Note;
        iii) Signature and no litigation certificate and incumbency certificate with bank's certification;
    (b) For grant only:
        i) Opinion of municipal attorney;
        ii) Signature and no litigation certificate and incumbency certificate;

16. Upon satisfaction of above items, the Assistant Attorney General closes the loan and/or grant. Upon completion of the closing, the funds are released to municipality. If

construction is not complete, the funds will be transferred into the TEPF account established for the project; the municipality may then write checks against this account. If construction work is complete, the municipality may request that a check for the full amount due be sent directly to it.

17. The municipality notifies ConnDOT when the project has started construction.

18. At the close of every fiscal year during which expenditures were made on the project, the municipality forwards a copy of its annual single audit, along with supplemental schedules, to ConnDOT.

19. When the project is deemed to be nearly substantially complete, the Town notifies ConnDOT of the date of the semi-final inspection.

20. Within 90 days of the completion of construction, the municipality must certify to ConnDOT that the project has been completed in accordance with the submitted plans and specifications.

21. After the final payment to the contractor has been made, the municipality forwards a final Supplemental Schedule with the total costs of the project to ConnDOT to adjust the grant and/or loan amounts.

22. As soon as possible after construction is complete, the municipality (or its Engineer) submits as-built plans to the Local Bridge Program Administrator.

23. ConnDOT reviews the project audit, and notifies the municipality of the findings. If the project costs exceed those in the original agreement, the Department will send a supplemental grant to the municipality if funding is available. If the project costs are less than those in the original agreement, the Department will invoice the municipality for the balance due.

24. For any bridge owned or maintained by more than one municipality, the following additional procedures govern funding under the Local Bridge Program:

    (a) One municipality (the "lead" or "managing" municipality) may assume responsibility under the Local Bridge Program for maintenance of the entire bridge under an interlocal agreement approved by its legislative body entered into with another municipality whose legislative body must also approve such agreement. Upon entering into such interlocal agreement, the lead municipality may file a preliminary application for the total project costs, may borrow up to 50% of the total project costs, and may be awarded a grant based upon its grant percentage as applied to such total project costs;

    (b) In the absence of an interlocal agreement allocating responsibility for maintenance, each municipality may apply for a loan for 25% (50% of 50%) of the total project costs and for a grant based upon its grant percentage applied to 50% of the total project costs;

(c) Under either of the above scenarios, evidence that each municipality is legally bound to complete its respective portion of the project must be delivered to the State before funds may be disbursed.

PROCEDURES FOR FEDERALLY FUNDED PROJECTS

1. Municipality submits a Preliminary Application (see Appendix 6) to the State.

2. ConnDOT reviews the Preliminary Application. If accepted, the State issues a Commitment to Fund to the municipality.

3. Municipal official signs and returns the Commitment to Fund letter to the State within 30 days.

4. Following acceptance of a project, a concept meeting is scheduled by ConnDOT, between representatives of ConnDOT and the municipality, to review the program requirements and to discuss the steps required to move forward with the project following Federal and State guidelines. At this point, the municipality should begin to inform the public of the project by publishing a press release, and by sending notification letters to abutting property owners and other interested parties.

5. An agreement between ConnDOT and the municipality for the design phase of the project is prepared and forwarded to the municipality for signature.

6. Municipal legislative body votes to approve Local Bridge Project, and to authorize the financing in accordance with statutory and charter requirements, as follows:
   (a) Authorizes municipal official to execute project agreement;
   (b) Appropriates funds to meet total estimated cost of bridge project;

7. Authorized Municipal official executes (signs and seals) and returns two copies of the Project Agreement (with attachments) together with the resolution authorizing the appropriate municipal official to execute the agreement, and certified copies of authorizing proceedings to the State.

8. The following pre-design activities are initiated by ConnDOT:
   (a) Environmental Review
   (b) State Historic Preservation Office (SHPO) Review
   (c) Natural Resources Review
   (d) Preliminary Fisheries Review and coordination
   (e) Hazardous/Contaminated Materials Screening

Consultant Selection

1. After the concept meeting, the municipality initiates the selection of a designer. Municipalities may undertake the design phase themselves if they have appropriate staff, or may hire a consulting engineer. If a consultant is to be engaged, the Qualifications Based Selection (QBS) must be used. The QBS process is intended to promote open competition by advertising, ranking, selecting and negotiating contracts based on demonstrated competence

and qualifications for the type of engineering and design-related services being procured. Costs and locality preferences shall not be part of the selection process. The Municipality shall solicit, in conformance with federal law and regulations, which include but may not be limited to 40 USC1101-1104 ('Brooks Act'), 23USC112, and 23 CFR 172, the qualifications of prospective consultants to perform services on a Municipally-administered Project, at a minimum, in one of the following ways:

i. Publication: The Municipality shall prepare a legal notice by customizing only the indicated fields on the supplied form and shall insert the Legal Notice in at least one (1) newspaper having substantial Connecticut circulation and at least one (1) trade publication, professional magazine or newsletter. When possible, the Legal Notice shall also be posted on the Municipality's website (if the municipality does not have an active website, the notice can also be posted on the Local Bridge Program Web page). The Municipality must obtain prior approval from ConnDOT for any other modifications to the standard format Legal Notice.

ii. Direct Notification: The Municipality shall prepare a notification letter by customizing only the indicated fields on the form attached hereto (Notification Letter) and shall mail the Notification Letter to consulting firms prequalified by the Department, as provided on a list available from the Department's website at www.ct.gov/dot. The Municipality must mail the Notification Letter to ALL prequalified consultant firms listed under the category of services most appropriate for the Project. The Municipality must obtain prior approval from ConnDOT for any other modifications to the standard format Notification Letter.

The Municipality shall obtain approval from the Department on their selected method of advertisement prior to advertising. The deadline for submitting RFQs must be at least 30 days after the date of publication, or the postmark date of the Notification Letter, as applicable. This deadline should be noted in the Legal Notice or the Notification Letter. Prior to publishing the Legal Notice or mailing the Notification Letter, the Municipality must obtain approval of that document from the Department.

Each Project must be reviewed by the Department's Screening Committee to assign the appropriate Disadvantaged Business Enterprise (DBE) goal, Small Business Enterprise (SBE) goal or Small Business Participation Pilot Program (SBPPP) goal. The Municipality shall include the goal assigned for the Project in the Legal Notice or the Notification Letters, as applicable.

2. The municipality must establish a Consultant Selection Committee (Committee) consisting of three (3) to four (4) municipal officials. One (1) member of the Committee shall be the Town Engineer, Director of Public Works or a municipal official with considerable engineering or other applicable experience possessing substantial knowledge about the project. The Chairman of the Committee shall be the individual who would sign the municipal/State and municipal/consultant agreements on behalf of the municipality (normally the chief official). The names and titles of Panel members shall be provided to the Department for approval prior to the first official meeting of the Panel.

3. The Committee shall give fair and impartial consideration to all responses received within the stipulated time period from prospective consultants. Firms that did not make a submission in accordance with the legal notice may be disqualified. Consultants must be registered with the Secretary of State and the State Board of Examiners for Professional Engineers and Land Surveyors, and any other applicable State of Connecticut licensing board. Each member shall use the approved consultant selection rating form to independently rate all firms that the Committee has determined to merit further consideration. The total score of each Committee member from the consultant selection rating form should be totaled for each firm under consideration.

4. The five firms to which the Committee have given the highest ratings (the "short list") shall be requested to attend a personal interview with the Committee. The Committee shall interview and rate the five (5) firms utilizing the approved Consultant Rating Form. If five (5) or fewer firms respond, all of the firms must be interviewed. Each Committee member shall independently evaluate and rate each consulting firm during or immediately following the interview. Following the completion of the interviews, the Committee may discuss their conclusions and adjustments may be made by any member based on these discussions. The Committee may also agree to secure additional information, based on comments from the interview, prior to finalizing their ratings of the most qualified firms.

5. Following the completion of the interviews, the Committee shall proceed to furnish a list of the most qualified consultant firms to the Chairman. The Chairman shall make the final selection from the list of most qualified firms submitted by the Committee. In the process of making the final selection of the most qualified consultant for a specific assignment, the Chairman shall be guided by the evaluation criteria set forth in the rating form. The Chairman may request additional information from other sources or individuals that he may deem appropriate to assist him in the final selection process. All additional information requested and received shall be documented by the Chairman. Should the Chairman select a firm other than the top rated firm following the interviews, the rationale for this selection shall be fully documented and should not violate the QBS requirements.

6. Once the Municipality has made its final selection, all of the information reviewed by the Municipality for the selected firm shall be submitted to the Department for its review. The Municipality must receive written approval of its final selection from the Department prior to notifying the selected firm, the scheduling of the assignment meeting and the commencement of fee negotiations with respect to the Project.

7. After ConnDOT approves the selection of the consultant, the municipality shall prepare a written notification to the selected firm advising that the firm has been selected. The Municipality shall also prepare written notification to all other interviewed firms that the firm was not selected, but that it may be contacted should the fee negotiations with the selected firm not be successfully completed.

8. After notification of the consultant, an assignment meeting between representatives of the municipality, the selected consultant, and ConnDOT is scheduled by the municipality or the CLE. The purpose of the assignment meeting is to discuss the project issues, scope of services to be provided by the consultant, schedule, and fee proposal format. The consultant

is notified to submit information to ConnDOT to review and establish a current audited BF&O rate.

9. Following the assignment meeting, the selected firm shall draft a detailed scope of services and list of line item tasks which may be used as the basis for fee negotiations. The selected firm shall submit these drafted items to the Municipality for review and approval. The Municipality shall submit the proposed final scope of services to the Department for approval. Upon approval, both the Municipality and the selected firm shall then concurrently and independently prepare man-hour/fee proposals and submit them to the Negotiations Committee (see below).

Negotiations

1. The Municipality shall establish a Negotiations Committee (Committee) to perform the fee negotiations phase. The Committee should have no more than four (4) members, including at least two (2) individuals from the Consultant Selection Panel. One (1) member of the Committee shall be the Town/City Engineer, the Director of Public Works, or an individual with considerable engineering or other applicable experience that possesses substantial knowledge about the Project.

2. Once the work scope is agreed to by the Municipality, the consultant, and ConnDOT, the consultant prepares a fee proposal for submission to the municipality. A certified payroll list is submitted to the municipality and ConnDOT for use in calculating the lump sum fee. At the municipality's request, ConnDOT will prepare an independent man-hour counterproposal estimate for use by the municipality as a guide during negotiations. The CLE is not a party to the negotiations. It is imperative that fee negotiations be a fair and open competitive process. This means that if the Committee is unable to successfully negotiate a contract with the selected firm at a price that the Committee determines to be fair, competitive and reasonable, negotiations with that firm shall, with prior Department approval, be formally terminated. The Municipality shall then select the next highest ranked firm from the interview process, and submit all of that firm's information to the Department for review and approval, and the procedure set forth in Section 3 and this Section 4 shall be followed. The Negotiations Committee shall comply with the requirements of Agreement Bulletin 91-3, Pre-Award Auditing of Consultant.

3. Upon completion of negotiations, the municipality forwards a request for approval of the negotiated lump sum fee to ConnDOT along with the following:

    1. Consultant's fee proposal
    2. Municipality's fee proposal
    3. Negotiated fee

3. ConnDOT reviews the fee, and if acceptable, prepares an approval letter. Upon receipt of the Department's written approval of the negotiated fee, the municipality shall prepare a written notification to those consultants that were not selected.

4. A draft agreement between the municipality and the consultant is prepared by ConnDOT and is forwarded to the parties for signature. The Municipality must receive written notification

of the Department's approval of any Consultant Agreement, and any supplemental agreements thereto, prior to signature by any party. The Consultant Agreement must be fully executed before the commencement of any activities on the Project. A supplemental agreement, and/or supplemental grant authorizing document (GAD), as applicable, between the Municipality and the State may be required if the actual negotiated fee exceeds the amount of reimbursement indicated in the original State/Municipal agreement and the State approves the increase in fees. All costs incurred by the Municipality for advertising, consultant selection and fee negotiations are non-reimbursable under the agreement, and/or GAD, as applicable, between the State and the Municipality. All Consultant Agreements are subject to the Department's contracting requirements, including but not limited to insurance and audit requirements, and, if federal funds are being paid or reimbursed to the Municipality for the Project, all applicable federal contracting requirements. Four (4) copies of the fully executed agreement are forwarded to ConnDOT for distribution, along with a copy of the Notice to Proceed issued by the municipality to the consultant.

Contract Monitoring

The "Consultant Administration and Project Development Manual," Connecticut Department of Transportation (September 2008), as may be revised, outlines the procedures and contract monitoring provisions that are employed for Department-administered projects and that the Municipality must likewise employ for its Consultant Agreements entered into for the Projects it administers.

Consultant performance evaluations should be conducted by the Municipality on a semi-annual basis. The rating sheets should be completed by the Municipality and submitted to the Department every January and July, provided that the Consultant was actively working on a Project during the rating period.

The responsibility for settling all contractual and administrative issues with the Consultant rests with the Municipality, not the Department, by agreement.

A final consultant performance evaluation for the Preliminary Engineering phase should be prepared by an appropriate Municipal official when the contract is advertised for construction. A final consultant performance evaluation for the Construction Inspection phase should be prepared by an appropriate Municipal official when construction is completed. These ratings will be submitted to the Department and a copy will be placed in the Department's project file.

Design Tasks

Following is a partial list of references, which may be used during the design phase:

(1) Consultant Administration and Project Development Manual (CE Manual)

(2) Standard Specifications for Roads, Bridges, and Incidental Construction – Form 816 & Supplemental Specifications

(3) Guidelines for Highway Design

(4) Location Survey Manual
(5) Specifications for Checking Photogrammetric Mapping
(6) Specifications for Aerial Photography & Photogrammetric Mapping
(7) Policies and Procedures for Property Maps
(8) Guide for Preparation for 13a-57 Plans
(9) Bridge Design Manual
(10) Bridge Design Standard Practices
(11) Drainage Manual
(12) Bridge Scour Analysis – Technical Approach
(13) Water Resources Coordination and Permit Processing Manual
(14) On-Site Mitigation for Construction Activities
(15) Geotechnical Engineering Manual
(16a) Manual of Traffic Control Signal Design
(16b) Catalogue of Signs
(16c) Guide MP&T Special Provision and Traffic Control Plans
(17) Utility Mailing List
(18) Policy on the Accommodation of Utilities on Highway Rights of Way
(19a) Standard Roadway Drawings & List of Road Standards
(19b) Standard Traffic Drawings
(20) Design Aids (Factors for Estimating Quantities)
(21) Bid Description Master File
(22) Weighted Unit Prices
(23) Product Use Status Lists
(24a) Index of Recurring Special Provisions and Index of Guide Special Provisions
(24b) Index of "Non Structural" Design Directives and Recurring Special Provisions
(25) CADD Manual
(26) MicroStation file package for ConnDOT projects
(27) Design/Constructability Review Guidelines
(28) 2002 Connecticut Guidelines for Soil Erosion and Sedimentation Control.

Following is an outline of design stage activities on a typical Federal Local Bridge Program project:

Survey

1. The consultant performs the topographic field survey and delineation of wetland boundaries (state and federal).

2. A title plan Mylar is prepared by the consultant from the topographic field survey. In addition, property lines, street lines, and property owner names and addresses are shown. A survey or construction base line should also be shown for reference.

3. A Schedule of Property Owners is prepared by the consultant to indicate the probable properties that are anticipated to be directly impacted by the project.

4. The ConnDOT Office of Rights-of-Way, if requested by the municipality, undertakes the title search based upon the information contained on the title plan Mylar and the Schedule of Property Owners.

5. Following acceptance of the preliminary design, if rights-of-way are required, the consultant prepares individual property taking maps. (See Item #1 under Final Design.) For further information, refer to the manual entitled, "Rights-of-Way Acquisitions, A Procedure Guide for Design/Rights-of-Way Coordination for the Federal Local Bridge Program".

Preliminary Engineering

1. Hydrology is developed by the consultant for use in the hydraulics analyses. The calculated flows are compared to previously published data (e.g., FEMA and S.C.E.L. studies).

2. Hydraulics are analyzed for the project by the consultant for the 2 year, 10 year, 50 year, 100 year and 500 year storms. On designs that convey watercourses greater than 1 square mile, the engineer performing the analysis must be approved by ConnDOT on a project-by-project basis. The procedure for Department approval is outlined in the CE Manual. Approval requests for previously qualified engineers to work on other State projects will not require the resubmission of a resume. However, an approval request for the current project together with a copy of the Department's prior approval letter and an updated list of hydraulic designs performed by the candidate is required.

3. A scour analysis is performed by the consultant to determine the contraction and local scour depths, and to recommend scour countermeasures. Below is the Department's policy concerning the need and nature of bridge scour evaluations for new and rehabilitated bridges. Compliance with this policy is mandatory for projects with Federal funding, and is strongly encouraged for projects receiving State funding.

   Scour Evaluation Studies

   Department of Transportation design practice states that substructures for bridges over waterways shall be designed to safely support the structure subjected to the design scour. ***All bridge scour evaluations shall be conducted in conformance with the procedures contained within the FHWA document entitled "Scour at Bridges" (HEC-18) and the Department's Drainage Manual.***

Bridges over water must be classified into one of three general categories: Low Risk (NBIS Item 113 Rating of 8 or 9), Scour Susceptible (NBIS Item 113 Rating of 4, 5 or 7[3]) or Scour Critical (NBIS Item 113 Rating of 3 or below). Following is an explanation of the categories of scour reports:

- *Detailed (Level II) Bridge Scour Evaluations and Re-evaluation Reports* – These are comprehensive studies accomplished in conformance with the requirements of HEC-18 and the Department's Drainage Manual.
- *Comparative Scour Evaluations* – These studies are developed using the data obtained from Level II evaluations as a basis for determining the scour vulnerability of bridges having similar characteristics. Comparative evaluations are not as detailed as Level II reports; however, they do provide NBIS ratings and the associated general scour classification.
- *USGS Screening Reports* – These studies, conducted by the United States Geological Survey, were undertaken to identify low risk bridges and to prioritize the remaining structures for further study. They are less detailed than either Level II Reports or Comparative Evaluations.

New Bridges over Waterways

Level II Scour Evaluations shall be performed for all new bridges over waterways unless one or more of the following conditions apply:

- The bridge has been designed to span the entire floodplain for the superflood (500-year recurrence interval) or the critical design event if less than the 500 year flood.
- The structure foundations will be set directly on sound bedrock.
- The abutment footings will be protected with riprap designed in accordance with the methods outlined in the latest version of "Bridge Scour and Stream Instability Countermeasures" (HEC-23) or successor documents. It should be noted that the use of riprap as the sole means of providing scour protection for new bridges is

[3] *The NBIS Item 113 rating of 7 is reserved for bridge locations at which countermeasures have been installed to mitigate a previous scour problem. If the structure is a clear span bridge (no piers) and if the countermeasures have been designed in accordance with the procedures contained within HEC-23, the bridge may be considered "low risk." When countermeasures are placed adjacent to piers to correct a previous scour condition, the bridge is classified as "scour susceptible."*

discouraged and should be used only where it has been demonstrated that alternate, preferred means of designing bridges to be safe from scour-related failure are not feasible. (Refer to the ConnDOT Bridge Design Manual for preferred foundation types).

Reconstructed or Rehabilitated Bridges

Generally, scour evaluations shall be performed for all bridges, which are to be reconstructed or rehabilitated where significant capital investment is involved and where the bridge has been classified as scour susceptible or scour critical. A significant capital investment correlates to the following improvement categories:

- Deck Replacement
- Superstructure Replacement or Widening
- Modification or Major Repairs to Substructure Units

Scour evaluations will not be required where structures to be reconstructed or rehabilitated have previously been classified as low risk under the Department's Bridge Scour Evaluation Program or for scour susceptible bridges which are not undergoing substructure modification and have had countermeasures installed following a Level II study.

Bridges that have been classified as scour susceptible or scour critical shall have hydrologic, hydraulic and scour evaluations performed which are sufficiently detailed to satisfy all applicable design and permitting requirements. If a detailed (Level II) scour evaluation has already been performed, the designer shall modify the results of this document as necessary to incorporate the "Modified Abutment Equations" contained within the Department's Drainage Manual. All necessary scour countermeasures for scour susceptible or scour critical bridges shall be incorporated into the overall project plans, as appropriate.

Scour Report Format

All bridge scour evaluation reports must be presented using the following format:

A. Table of Contents

B. Executive Summary – The following items must be included:

1) A brief description of the report findings as well as the engineer's recommendations regarding scour countermeasures or countermeasure design.

2) Executive Summary Table containing the items listed below:

a) Recommend NBIS Item 113 Rating (Scour Critical Bridges)

b) Recommend NBIS Item 71 Rating (Waterway Adequacy)

c) Recommend NBIS Item 61 Rating (Channel and Channel Protection)

d) Scour Risk Designation (Low Risk, Scour Susceptible or Scour Critical)

e) Depth of Potential Scour (Provide the range of values computed for the various flood events analyzed.)

f) Foundation Type (Known/Unknown)

g) Recommendation(s) (Monitor, Install Countermeasures or Design Foundation for Predicted Scour)

3) Other Relevant Data – Any additional information, which, in the consultant's judgement, is valuable as a quick reference within this capsule summary, should be included in the narrative.

C. Background/Site Conditions – Provide a narrative description of the existing structure (if applicable), the stream reach adjoining the bridge site and any other relevant information obtained from data gathering efforts.

D. Hydrology and Hydraulics – Provide a description of the watershed properties, hydrologic methods used in the determination of peak flows and a tabulation of the maximum flow rates for the various return frequencies. At a minimum, the 10, 50, 100 and 500-year floods shall be presented for scour evaluations of existing bridges. With respect to new bridges, it is normally acceptable to evaluate only the 100 and 500-year floods unless a flood of lesser magnitude is the maximum scour-producing event.

With respect to the hydraulic analysis, a description of the program employed to develop design water surface profiles, flow depths and velocities should be provided. Further, methodologies used in the determination of the starting water surface elevations or boundary conditions must be described.

E. Scour Results – Describe the findings of the scour evaluation in narrative and tabular formats.

F. Structural Review/Foundation Stability Analysis – Provide a narrative description, as appropriate.

G. Conclusions and Recommendations – Summarize the findings of the Bridge Scour Evaluation and provide recommendations with respect to countermeasure or foundation design.

H. Report Graphics

1. Location Plan
2. Site Plan
3. Scour Depth Cross Sections – For each flood event analyzed, provide a cross section (Elevation View) at the upstream face of the bridge on which the various components of total scour have been depicted for all substructure units. Where foundation information is available, the depth and configuration shall also be depicted. This section must be drawn to scale and must indicate the design flood elevation, the low chord elevation and the overtopping elevation.

I. Technical Appendices

1. Field Evaluation Notes or Sketches (as appropriate)
2. Photographs
3. Hydrologic Computations
4. Water Surface Profile Computations
5. Scour Calculations
6. Geotechnical Data – Riverbed and soil sample characteristics and/or subsurface investigation findings
7. Countermeasure Design Computations and Sketches (as appropriate)
8. Pile Stability Computations (as appropriate)

4. A geotechnical evaluation, including soil borings, is conducted by the consultant to determine the requirements for the bridge foundation design, and to determine the location and depths of existing footings for abutments to be left in place.

5. A preliminary engineering report is prepared by the consultant to summarize the results of the above preliminary engineering studies, and in certain instances, to recommend a scope of work for either replacing or rehabilitating the structure. Included in the report should be a summary of the appropriate Connecticut Geometric Highway Design guideline parameters (required, existing and proposed) and justification for any items that require a design exception.

6. A structure type study is prepared by the consultant, subsequent to the determination and approval of the scope of work, to evaluate a minimum of three alternate designs for replacing or rehabilitating the bridge structure.

Preliminary Design

1. A design/rights-of-way meeting is conducted between the municipality, the consultant and ConnDOT to discuss the probable rights-of-way requirements for the project.

2. ConnDOT prepares a rights-of-way agreement between ConnDOT and the municipality if the municipality requests that ConnDOT acquire any necessary rights-of-way for the project. The municipality may acquire rights-of-way on their own provided the acquisitions are made in accordance with the federal "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970". For those municipalities that choose to handle rights-of-way work themselves, a manual is available entitled "Rights-of-Way Acquisitions Manual, An Information Guide to ConnDOT Procedures".

3. Section 106 historic documentation, if required, is prepared by the consultant and sent to obtain approval by ConnDOT, the State Historic Preservation Office, FHWA and the Advisory Council on Historic Preservation.

4. Archaeological resources investigations are conducted by a specialist contracted by ConnDOT.

5. A programmatic Section 4(f) evaluation (if required) is prepared by the consultant and forwarded to ConnDOT for further processing.

6. A Section 6(f) evaluation (if required) is coordinated by ConnDOT.

7. The consultant submits a 30% complete design plan package to ConnDOT for review and approval prior to the scheduling of a public information meeting.

8. Upon approval by ConnDOT of the 30% design plans, the municipality schedules a public information meeting to be conducted by the consultant and the municipality.

9. Following the public information meeting, the ConnDOT prepares the necessary request for a waiver of the design public hearing requirement.

10. A categorical exclusion request memorandum is prepared by ConnDOT and forwarded to FHWA for approval.

11. If any of the appropriate Connecticut Geometric Highway Design and/or AASHTO design guidelines (as applicable) cannot be achieved with the proposed design, a request for a design exception is prepared by the consultant with assistance provided by ConnDOT. The design exception request must be signed by the appropriate municipal official.

12. A request for design approval is prepared by the ConnDOT using information supplied by the consultant, and the municipality requests permission from ConnDOT to proceed to final design.

Regulatory Approvals

The following documents, as appropriate, are prepared by the consultant to obtain the required regulatory approvals for the project:

1. DEP Flood Management Certification.
2. Municipal Inland Wetlands and Watercourses Agency Permit Application.
3. DEP Tidal Wetlands and/or Structures and Dredging Permit Application.
4. DEP Certificate of Permission Application.
5. DEP Stream Channel Encroachment Line Permit Application.
6. Corps of Engineers Permit Application (typically a Programmatic General Permit concurrence).
7. U.S. Coast Guard Bridge Permit Application and/or navigation lighting approval or waiver.
8. Department of Health Services Change in Land Use Permit Application.
9. DEP Section 401 Water Quality Certificate Application (if required).

ConnDOT reviews all of the above, prior to their submission to the appropriate government agency, with the exception of Item #2.

Final Design

1. As soon as possible after design approval has been received (see Item #12 under Preliminary Design), property-taking maps (if required) are prepared by the consultant and reviewed by ConnDOT. When approved, an unsigned vellum of each map is sent to the ConnDOT Office of Rights-of-Way to continue with the rights-of-way acquisition process.

2. Rights-of-Entry, if required, are obtained by the consultant or the municipality.

3. Utility coordination is handled by the consultant.

4. The agreement between ConnDOT and the municipality for construction, inspection and maintenance is prepared by ConnDOT and forwarded to the municipality for signature. Processing of the agreement is handled in the same fashion as for the design agreement.

5. The consultant submits four (4) copies each of the contract plans, specifications and cost estimates (PS&E) at the 70% and 90% complete stages of final design, and two (2) copies of the PS&E package at the 100% complete stage, for review by ConnDOT. The cost estimates must separate federal and state participating contract pay items from the non-participating contract pay items.

6. The CLE compiles the final contract document package and prepares the Detailed Estimate Sheet and the final Proposal Estimate sheets.

7. ConnDOT reviews the above submittals, and if acceptable, authorizes the construction phase based on availability of funds. The following prerequisites must be completed before construction funds are committed:

   (a) ConnDOT Office of Rights-of-Way issues a Rights-of-Way Certificate when required. A Rights-of-Way certificate is issued by the ConnDOT Office of Rights-of-Way when all of the required acquisitions are completed (maps filed and instruments recorded in the municipality's land records).

   (b) ConnDOT certifies that all Federal, State, and Local Permits have been acquired.

   (c) ConnDOT prepares PS&E Approval memorandum, which initiates the requests for FHWA authorization to advertise.

   (d) ConnDOT requests FHWA authorization to advertise.

   (e) FHWA authorizes advertising of project.

8. At this stage, the design and rights-of-way phases of the project are complete and the municipality prepares to advertise the project for construction bids. (See manual entitled, "Guidelines for Municipalities, Advertising, Bidding and Award of Contracts for the Federal Local Bridge Program").

9. ConnDOT issues the authorization to advertise letter to the municipality.

Construction Advertising

1. Final Preparation for Advertising:

   (a) ConnDOT meets with the Municipality and/or its Consultant Engineer to forward the following documents and to discuss the requirements for advertising, bidding and award of the project:

      (1) Complete contract special provisions (originals).
      (2) Original Mylar construction plans.
      (3) Reduced scale prints of any standard drawings referenced on the plans.
      (4) Complete schedule of Prices for inclusion with Bid Proposal Documents and reduced versions for inclusions with Notice to Contractors.
      (5) Design Report
      (6) Engineer's Final Estimate (CONFIDENTIAL)
      (7) Calendar Days Chart

   (b) Municipality (or its Consultant Engineer) requests State Wage Schedules from State Labor department. Request must be made no sooner than 20 days or later than 10 days prior to the advertising date. State Wage Schedules are included at the back of the contract special provisions. Note: Federal Wage Schedules are amended frequently and federal regulations require that the latest version be used.

   (c) Municipality (or its Consultant Engineer) prepares the following:

      (1) Legal Notice.
      (2) Notice to Contractors.
      (3) Bid Proposal Documents.

2. Municipality forwards to the ConnDOT copies of the resumes of (a) the municipal personnel administrating the construction contracts, and (b) the consultant inspection personnel for approval by the ConnDOT Office of Construction.

3. Municipality publishes legal notices advertising the project in at least two newspapers having a substantial circulation in the project area, and notifies ConnDOT of scheduled bid opening (date, time and place). A 28-day advertising period is recommended (a minimum of at least 21 days is required). The Disadvantaged Business Enterprises (DBE) set-aside percentage shall be included in the legal notices.

4. Municipality issues Bid Proposal documents to any prospective bidder who submits a written request. Municipality maintains a log of all contractors who have been issued Bid Proposal documents and/or plans and specifications.

5. Any addenda to the project must be submitted to ConnDOT for approval prior to being issued. Municipality issues any addenda to the project no later than ten (10) calendar days preceding the scheduled bid opening date to all prospective bidders who have Bid Proposal

documents. Addenda must be sent via Certified Mail or by FAX with an acknowledgement of receipt. Note: Addenda must be issued to incorporate amendments to the Federal Wage Schedules that are published in the Federal Register 10 days prior to the opening of bids.

6. Municipality publicly opens and announces bids.

7. Municipality forwards pre-Award documents to the apparent low bidder. The Municipality shall send copies of the completed pre-Award documents to ConnDOT.

8. Municipality audits all bids computations and forwards the following to ConnDOT:
   (a) Certified copies of all bids received and a Statement of correctness of bids.
   (b) Detailed bid breakdown by items of the lowest three bids with the names of the bidders.
   (c) List of all bidders with the names of bidders and total bid amounts.
   (d) A bid analysis and a justification for accepting (or rejecting) the low bid if the lowest responsible bid is less than 20 percent under or more that 10 percent over the Engineer's Construction Estimate.
   (e) Statement of low Bidder's Qualifications.
   (f) Statement that the affirmative action and disadvantaged business enterprise aspects of the contract have been complied with.
   (g) Statement that the low bidder is a firm registered with the Secretary of State.
   (h) Recommendation to accept (or reject) the low bid.
   (i) Copies of the transmittal letters for all of the above documents shall be sent to ConnDOT.

9. ConnDOT reviews documents submitted per above items. ConnDOT also obtains final funding approval.

10. Municipality authorized to award Contract per letter from ConnDOT.

11. Municipality prepares Contract documents, awards and executes contract, and arranges with ConnDOT for the time, place, and date of the pre-construction meeting. Municipality notifies contractor to provide copy of Builder's Risk Insurance certificate at the pre-construction meeting.

    Representatives of the following parties are notified to attend the pre-construction meeting:

    - The municipality (including a traffic official);
    - Consultant designer;
    - Consultant inspector;
    - Local Bridge Program (Tel. 860-594-3389);
    - ConnDOT District Construction office;
    - All affected utility companies;
    - Any affected railroads;
    - ConnDOT Laboratory (Tel. 860-258-0321);
    - State Labor Department (Tel. 860-240-4288).

12. Municipality submits to ConnDOT:
    - Two copies of the letter awarding the Contract.
    - Five conformed copies of Contract.
    - Notice of pre-constructing meeting.

13. Pre-Construction meeting is held, and contractor is ordered to proceed by the municipality.

14. Construction begins. Municipality pays contractor's invoices and requests reimbursement from ConnDOT's Office of Construction District office.

    Note: Field changes, contract time extensions, change in liquidated damages or other actions that will change the project cost or duration must receive advance approval in writing from the ConnDOT District Construction Office. Significant changes in the project will require a supplemental agreement.

15. Periodically throughout the project, ConnDOT personnel will visit the project to review the project's progress, and monitor compliance with record-keeping procedures.

16. When it appears that the construction work is substantially complete, the municipality or its consultant must arrange a semi-final inspection to determine if any additional work is needed to complete the project satisfactorily. ConnDOT representatives *must* be invited to participate in the semi-final inspection.

17. Upon completion of the work identified in the semi-final inspection, the municipality schedules a final inspection. ConnDOT representatives must be invited to participate in the final inspection. As-built drawings should be completed, or nearly so, by the time of the final inspection.

18. ConnDOT audits the project, adjusts accounts, and notifies the municipality of the findings.

INSTRUCTIONS FOR COMPLETING THE PRELIMINARY APPLICATION

Completing the Preliminary Application (see attachment) is the first step in the application process. Because there are specific legal requirements that must be met, application must be made using the attached form, a photocopy of the form, or the form from the Local Bridge Program web page. Other forms are not acceptable, and may delay processing of the application. It must contain the following information:

Town/City/Borough of: Name of the municipality responsible for the bridge project.

Bridge Location: The name of the road that the structure carries and the feature (road, river, railroad, etc.) that the bridge crosses.

Bridge Number: The 5 or 6-digit number assigned to the structure by ConnDOT's Bridge Safety & Evaluation Section.

Length of Span: The clear span between abutment faces or culvert sides, measured along the centerline of the road that the bridge carries.

Sufficiency Rating: The sufficiency rating calculated from the most recent bridge inspection report.

Priority Rating: The priority rating can be found on the list of eligible bridges in the appendices. If there is no priority rating shown in the list of eligible bridges, it can be computed from the inspection report using the formula found in Section 2 of the Program Regulations, or it can be left blank, and the Department will compute it.

Evaluation & Rating Performed by: Check "*State Forces*" if the rating data shown and the description of existing conditions given was performed by ConnDOT (an inspection conducted by a consultant under contract to perform bridge inspections for ConnDOT's Bridge Safety & Evaluation Section should be shown as being accomplished by State forces). Check "*Others*" if the rating data shown and the description of existing conditions given were performed by someone other than ConnDOT, such as the Town Engineer or a consulting engineer. If the rating is based on an inspection by someone other than ConnDOT, a copy of the inspection report must be included.

If Others, Name of Professional Engineer: The name of the Connecticut-Licensed Professional Engineer who actually evaluated the bridge, if the evaluation was not done by ConnDOT.

Connecticut Professional Engineers License Number: The license number of the Professional Engineer who actually evaluated the bridge, if the evaluation was not done by ConnDOT.

Engineer's Address: The address of the Connecticut-Licensed Professional Engineer who actually evaluated the bridge, if the evaluation was not done by ConnDOT.

Description of Existing Condition of Structure: Attach a description of the current condition of the bridge. This should generally include the latest inspection report.

Description of Scope of Project: Attach a description of the proposed work to be done. At this point in the project, which may be before detailed engineering is performed, only rough estimates may be available. If available, preliminary plans (2 copies), specifications, quantity estimates and hydraulic data should be included. One or more of the following codes can be used to describe the scope of the project:

Bridge Repair Codes

Letter Code	Description
A	Bridge replacement (in place)
B	Bridge replacement (New Alignment)
C	Superstructure replacement
D	Superstructure repair or strengthening
E	Deck replacement
F	Deck repair
G	Substructure repair / modification
H	Full field painting (abrasive blast cleaning or overcoating)
I	Bridge demolition
J	Bridge railing / sidewalk repair
K	Culvert repair / extension / rehabilitation
L	Bridge widening
M	Temporary bridge
N	Bearing replacement or repair
O	Peen cover plates
P	Pin-and-hanger repair or replacement
Q	Field touch-up painting
R	Bridge drainage system repair or replacement
S	Pin-and-hanger elimination-splice plates
T	Pin-and-hanger fail safe system
U	Joint repair or replacement
V	Waterproof membrane w/ bituminous concrete overlay
W	Cathodic protection
X	Other overlays (bituminous, latex modified concrete, thin polymer, etc.
Y	New bridge on new roadway system
Z	Install environmental or structural monitoring system
AA	Install / repair Incident Management System
BB	Install / repair lighting system
CC	Raise superstructure
DD	Install / repair sign supports
EE	Scour protection
FF	Seismic retrofit
GG	Install / repair fire suppression system
HH	Install / repair inspection equipment
II	Install fencing (use only when fencing is installed onto existing bridge)
JJ	Install structure mounted noise barrier
KK	Mechanical rehabilitation on moveable bridges
LL	Electrical rehabilitation on moveable bridges

Name of Municipal Official to Contact: The name of the municipal official who will be responsible for administering the project, and who can be contacted if any questions arise. Copies of all correspondence will be sent to this person.

Mailing Address: The mailing address for the municipal official who will be the official contact. This will be the address where all agreements and legal notices are sent.

Telephone Number: The telephone number, with area code, for the listed municipal official.

FAX Number: The facsimile telephone number with area code, for the listed municipal official.

E-mail: The e-mail address for the municipal official who will be handling administration of the project. E-mail will only be used for informal, "unofficial" contacts. All formal notices will be sent by U.S. mail.

Preliminary Cost Figures:

Preliminary Engineering Fees: The estimated cost of designing the project; include a breakdown of fees. This cost may not exceed an amount equal to 15% of the Estimated Construction Costs.

Rights-of-Way Cost: The estimated cost of acquiring any property, easements, rights, etc. needed to construct the project.

Municipally Owned Utility Relocation: The cost of relocating any utilities owned by a municipality. Costs are eligible for reimbursement if the utilities are owned by any municipality in the State, including regional authorities. Privately owned utilities (such as CL&P, SBC, ComCast, Yankee Gas, etc.) are not eligible.

Estimated Construction Costs: The engineer's estimate of construction costs, based upon the preliminary plans and specifications. A detailed estimate with estimated quantities and unit prices should be attached, if available.

Construction Engineering: The estimated cost of engineering and related services needed during construction, such as construction inspection, materials testing, review of shop drawings, etc. This amount may not exceed an amount equal to 15% of the Estimated Construction Costs.

Contingencies: The amount to be set aside for unforeseen problems and extra work. This amount may not exceed an amount equal to 10% of the Estimated Construction Costs.

Total Estimated Project Cost: The grand total of all above eligible costs.

Financial Aid Data:

Project Reimbursement Request: This is the Total Estimated Project Cost, from the bottom of page #1 of the Preliminary Application, multiplied by 0.8 (80%). Please note that only a limited number of bridges will qualify for Federal funding; qualifying bridges will be denoted by a "Y" in the "Federal Eligible" column of Appendix 1. This should remain blank if a State grant is being requested.

Allowable Grant Percentage: The grant percentage that the municipality is eligible for. This percentage can be found in Appendix 2. This grant percentage will remain fixed for the life of the project, regardless of changes in future fiscal years. This should remain blank if Federal Reimbursement is being requested.

Project Grant Request: The dollar amount of the grant request. This amount is the Total Project Cost multiplied by the Grant Percentage.

Project Loan Request: The amount of the loan that is being requested, if any. The maximum amount that may be requested is an amount equal to 50% of total project costs, (6% interest, 10-year life, payable quarterly).

Schedule:

Note: Dates may be actual or estimated, depending upon circumstances, but all dates should show month, day and year. For example, state "April 30, 2012", not "Spring 2012" or "mid-2012", etc. It is understood that estimated dates for future events are approximate and subject to change.

Public Hearing Held: The date that a public meeting is planned to inform the public of the project. This does not have to be a "formal" hearing with a word-for-word transcript, as long as the public is provided an opportunity to comment on the project and minutes are kept.

Design Completion: The date that all final plans, specifications and estimates will be completed.

Property Acquisition Completion: The date that all Rights-of-Way activities will be completed.

Utilities Coordination Completion: The anticipated date that all arrangements with utility companies will be completed.

Advertising: The anticipated date that the invitation for construction bids will be made.

Supplemental Application Submission: The anticipated date that the supplemental application and all of its support documentation will be submitted. This date can be any time after the final design is complete. Please note that this date must be within 270 days of the Commitment to Fund date. This item does not apply to federally funded projects.

Start of Construction: The date that construction is anticipated to begin.

Completion of Construction: The date that construction is anticipated to completed.

Signature: The Application must be signed by the Chief Executive of the municipality, unless another municipal official has been authorized by the municipality's legislative body or charter. If the application is submitted by someone other than the chief executive, proof of authorization by the municipality's legislative body must be submitted along with the application.

APPENDIX 1 – ELIGIBLE BRIDGES OVER 20 FEET

See the list posted on the Local Bridge Program Web site.

APPENDIX 2 - GRANT PERCENTAGES FOR MUNICIPALITIES

Grant percentages were not calculated for FY2012.

APPENDIX 3 - LOCAL BRIDGE LEGISLATION

Following are excerpts from the Connecticut General Statutes and Public Acts, which relate to Local Bridges. They are included as a convenience to the reader of this manual, and are not intended to be a complete list of all relevant Statutes. The reader is cautioned that these are not certified copies, and to check that there have been no revisions to the Statute before relying upon it.

CGS SECTIONS 13A-175P - 13A-175W: LOCAL BRIDGE PROGRAM

Sec. 13a-175p. Definitions. The following terms, as used in sections 13a-175p to 13a-175w, inclusive, shall have the following meanings unless the context clearly indicates a different meaning or intent:

(1) "Commissioner" means the Commissioner of Transportation.

(2) "Eligible bridge" means a bridge located within one or more municipalities in the State, the physical condition of which requires that it be removed, replaced, reconstructed, rehabilitated or improved as determined by the commissioner.

(3) "Eligible bridge project" means the removal, replacement, reconstruction, rehabilitation or improvement of an eligible bridge by one or more municipalities.

(4) "Grant percentage" means a percentage established by the commissioner for each municipality by (A) ranking all municipalities in descending order according to each such municipality's adjusted equalized net grand list per capita as defined in section 10-261; and (B) determining a percentage for each such municipality on a scale from not less than 10% to not more than 33% based upon such ranking. In any case where a municipality does not have an adjusted equalized net grand list per capita such municipality shall be deemed to have the adjusted equalized net grand list per capita of the town in which it is located.

(5) "Local bridge program" means the local bridge program established pursuant to sections 13a-175p to 13a-175u, inclusive.

(6) "Local Bridge Revolving Fund" means the Local Bridge Revolving Fund created under section 13a-175r.

(7) "Municipality" means any town, city, borough, consolidated town and city, consolidated town and borough, district or other political subdivision of the state, owning or having responsibility for the maintenance of all or a portion of an eligible bridge.

(8) "Physical condition" means the physical condition of a bridge based on its structural deficiencies, sufficiency rating and load capacity all as determined by the commissioner.

(9) "Priority list of eligible bridge projects" means the priority list of eligible bridge projects established by the commissioner in accordance with the provisions of section 13a-175s.

(10) "Project costs" means the total costs of a project determined by the commissioner to be necessary and reasonable.

(11) "Project loan" means a loan made to a municipality from the Local Bridge Revolving Fund and evidenced by the municipality's project loan obligation.

(12) "Project loan agreement" means a loan agreement with respect to a project loan as provided for in subsection (c) of section 13a-175s.

(13) "Project loan obligation" means an obligation of a municipality issued to evidence indebtedness under a project loan agreement and payable to the state for the benefit of the Local Bridge Revolving Fund.

(14) "Project grant" means a grant-in-aid made to a municipality pursuant to section 13a-175s.

(15) "Supplemental project obligation" means bonds or serial notes issued by a municipality for the purpose of financing the portion of the costs of an eligible bridge project not met from the proceeds of a project grant or project loan.

(P.A. 84-254, S. 8, 62.)

Sec. 13a-175q. Local bridge program. The establishment of a program for the removal, replacement, reconstruction, rehabilitation or improvement of local bridges is a matter of statewide concern affecting the health, safety and welfare of the inhabitants of the state and of persons traveling within the state. It is the policy of the state to establish a timely and efficient method for municipalities to participate in this program and in furtherance thereof, sections 13a-175p to 13a-175w, inclusive, are intended to provide authority for municipalities to approve local bridge projects, and, in connection therewith, to authorize project loan agreements, and the issuance of project loan obligations and supplemental project obligations. For the purpose of ensuring and encouraging participation by municipalities in the benefits of the local bridge program, the powers of municipalities are expressly enlarged and expanded to include the power to do all things necessary and incident to their participation in the local bridge program under sections 13a-175p to 13a-175w, inclusive.

(P.A. 84-254, S. 9, 62.)

Sec. 13a-175r. Local Bridge Revolving Fund. There is established and created a fund to be known as the "Local Bridge Revolving Fund". The state shall deposit in said fund (1) all proceeds of bonds issued by the state for the purpose of making project loans and project grants to municipalities, including proceeds of any special tax obligation bonds which are issued for the purpose of funding the local bridge program through project loans and grants, (2) any and all payments made by municipalities in respect of project loans including loan interest, (3) all appropriations for the purpose of making project loans and project grants, and (4) any additional moneys from any other source available for deposit into said fund. Moneys deposited in said fund shall be held by the treasurer separate and apart from all other moneys, funds and accounts. Investment earnings credited to the assets of said fund shall become part of the assets of said fund. Any balance remaining in said fund at the end of a fiscal year shall be carried forward in said fund for the fiscal year next succeeding. Amounts in the Local Bridge Revolving Fund shall be expended only for the purpose of funding project loans and project grants or for the purchase or redemption of special tax obligation bonds issued pursuant to sections 13b-74 to 13b-77, inclusive.

(P.A. 84-254, S. 10, 62; P.A. 89-240, S. 1, 3.)

History: P.A. 89-240 added provisions re proceeds of grants to be deposited in fund, added new Subdiv. (3) re appropriations deposited in fund and relettered Subdiv. (3) as Subdiv. (4).

Sec. 13a-175s. Procedure for making project grants and loans under local bridge program. (a) The commissioner shall maintain a list of eligible bridges and shall establish a priority list of eligible bridge projects for each fiscal year. In establishing such priority list, the commissioner shall consider the physical condition of each eligible bridge.

(b) In each fiscal year the commissioner may make project loans to municipalities in the order of the priority list of eligible bridge projects to the extent of moneys available therefor in the Local Bridge Revolving Fund. Each municipality undertaking an eligible bridge project may apply for and receive a project loan or loans. The aggregate amount of project loans made to a municipality with respect to any project shall be equal to the amount requested by the municipality up to an amount not to exceed 50% of the project costs allocable therefore to such municipality.

(c) Each project loan shall be made pursuant to a project loan agreement between the state, acting by and through the commissioner, and the borrowing municipality and shall be evidenced by a project loan obligation of the borrowing municipality issued in accordance with section 13a-175t. Each project loan agreement shall be in the form prescribed by the commissioner, provided that each project loan agreement shall provide for a project loan obligation bearing interest at the rate of 6% per annum payable quarterly and maturing no later than 10 years from the date of such obligation.

(d) In each fiscal year the commissioner may make project grants to municipalities in the order of the priority list of eligible bridge projects to the extent moneys are available therefore. Each municipality undertaking an eligible bridge project may apply for and receive a project grant equal to its grant percentage multiplied by the project costs allocable to such municipality.

(e) All applications for project loans and project grants for the fiscal year ending June 30, 1985, shall be filed with the commissioner no later than October 1, 1984, and for each succeeding fiscal year all such applications shall be filed with the commissioner no later than March first of the fiscal year next preceding. The commissioner may for good cause extend the period of time in which any such application may be filed.

(f) A project grant or project loan shall not be made to a municipality with respect to an eligible bridge project unless: (1) each municipality undertaking such project has available to it, or has made arrangements satisfactory to the commissioner to obtain, funds to pay that portion of the project costs for which it is legally obligated and which are not met by project loans or project grants; (2) each municipality undertaking such project provides assurances satisfactory to the commissioner that it will undertake and complete such project with due diligence and that it will operate and maintain the eligible bridge properly after completion of such project; (3) each municipality undertaking such project and seeking a project loan or a project grant has filed with the commissioner all applications and other documents prescribed by the commissioner; (4) each municipality undertaking such project and seeking a project loan or a project grant has established separate accounts for the receipt and disbursement of the proceeds of project loans and project grants; and (5) in any case in which an eligible bridge is owned or maintained by more than one municipality, evidence satisfactory to the commissioner that all such municipalities are legally bound to complete their respective portions of such project. Notwithstanding any provisions of this subsection, the commissioner may make an advance grant to a municipality for the purpose of funding the engineering cost of an eligible bridge project. Such grant shall equal the municipality's grant percentage multiplied by the engineering cost, which cost shall not exceed fifteen per cent of the construction cost of the project, provided the amount of such advance shall be deducted from the total grant for the project.

(g) Notwithstanding the provisions of subsections (b) and (d) of this section, the commissioner may make project grants and project loans with respect to an eligible bridge project without regard to the priority list of eligible bridge projects if a public emergency exists requiring the immediate removal, replacement, reconstruction, rehabilitation or improvement of the eligible bridge of such project to protect the public health and safety.

(P.A. 84-254, S. 11, 62; P.A. 88-60, S. 2; P.A. 89-240, S. 2, 3.)

History: P.A. 88-60 amended Subsec. (g) to allow the commissioner to make an advance grant to a municipality to fund engineering costs of an eligible bridge project; P.A. 89-240 deleted Subsec. (b) re allocation of funds between projects and fund, deleted Subdiv. (1) of Subsec. (f) re approval by commissioner of preliminary plans and specifications and relettered Subsecs. (c), (d), (e), (f), (g) and (h) as Subsecs. (b), (c), (d), (e), (f), (g)

Sec. 13a-175t. Project loans. Municipal procedures. (a) A municipality may authorize (1) the execution and delivery of project loan agreements; (2) the issuance and sale of project loan obligations to finance its obligations under a project loan agreement; and (3) the issuance and sale of its supplemental project obligations, in accordance with such statutory and other legal requirements as govern the issuance of obligations and the making of contracts by the municipality. Obligations authorized under this section shall be subject to the debt limitation provisions of section 7-374.

(b) The legislative body of a municipality shall hold at least one public hearing on an eligible bridge project, including the authorization of project loan obligations and supplemental project obligations with respect thereto, prior to its vote on the approval or disapproval of the eligible bridge project and the authorization of financing therefore. Notice of the time, place and purpose of the hearing shall be published in a newspaper having general circulation in the municipality not less than five days prior to the day on which such hearing is to be held. For purposes of this subsection, such five-day period shall include the day upon which such notice is first published, and shall include any Saturday, Sunday or legal holiday, which may intervene between such publication and the day on which such hearing is held, but shall not include the day upon which such hearing is held.

(c) Each project loan obligation issued pursuant to this section shall bear interest at the rate of 6% per annum payable quarterly, shall mature in such amounts and at such time or times not later than 10 years from the date thereof and shall contain such other terms and provisions as the project loan agreement under which it is issued provides.

(d) Project loan obligations and supplemental project obligations shall be general obligations of the issuing municipality and each such obligation shall recite that the full faith and credit of the issuing municipality are pledged for the payment of the principal thereof and interest thereon.

(e) Whenever a municipality has authorized the issuance of project loan obligations or supplemental project obligations, it may authorize the issuance of temporary notes in anticipation of the receipt of the proceeds from the issuance of its project loan obligations or supplemental project obligations. Such temporary notes may be renewed from time to time by the issuance of other notes, provided that any such renewals shall conform to all legal requirements and limitations applicable thereto, including the requirements and limitations set forth in sections 7-378 and 7-378a.

(f) Except as otherwise provided in this section, project loan obligations, supplemental project obligations and temporary notes issued in anticipation of the receipt of the proceeds thereof shall be issued by a municipality in accordance with such statutory and other legal requirements as govern the issuance of such obligations generally by such municipality, including, where applicable, the provisions of chapter 109.

(P.A. 84-254, S. 12, 62.; P.A. 87-224, S. 1, 4.)

History: P.A. 87-224 amended Subsec. (b) by changing the time notice of a hearing is published from at least ten days to not less than five days prior to the day on which the hearing is held, and by defining the five-day period.

Sec. 13a-175u. Regulations. The commissioner shall adopt such regulations in accordance with the provisions of chapter 54 as may be necessary to give effect to and carry out the purposes of sections 13a-175p to 13a-175t, inclusive.

(P.A. 84-254, S. 13, 62.)

Sec. 13a-175v. Interlocal Agreements. If an eligible bridge is located or maintained by more than one municipality, the municipalities owning such eligible bridge may enter into an interlocal agreement concerning such eligible bridge. Such interlocal agreement may provide, among other things, that one municipality shall be responsible for undertaking and completing an eligible bridge project, maintaining such eligible bridge project, applying for a project loan or a project grant, or both, for such eligible bridge project and repaying a project loan for such eligible bridge project. A municipality is authorized to enter into such an interlocal agreement by vote of its legislative body and the provisions of sections 7-339a to 7-3391, inclusive, shall not be applicable to such interlocal agreement. Any such agreement entered into prior to May 27, 1987, is validated.

(P.A. 87-224, S. 2, 4.)

Sec. 13a-175w. Eligibility of municipality which enter into interlocal agreement for project loan or grant. In any case in which an eligible bridge is owned or maintained by more than one municipality and such municipalities enter into or have entered into an interlocal agreement authorized by section 13a-175v, the commissioner may deem the municipality which has agreed pursuant to such

interlocal agreement to undertake, complete and maintain an eligible bridge project to be the only municipality eligible for a project grant or a project loan, or both, concerning such eligible bridge project and the commissioner may make a project loan or project grant, or both, to such municipality without regard to the ownership or other interests of any other municipality in such eligible bridge.

(P.A. 87-224, S. 3, 4.)

Secs. 13a-175x to 13a-175z. Reserved for future use.

CGS SECTION 13A-86A (FORMERLY PA 97-214)

Sec. 13a-86a. Geometric design standards for bridges, exceptions. Factors re bridge rehabilitation or new construction. Development or construction of projects by municipal governments. Immunity from liability. (a) In the event site conditions, environmental factors, engineering factors or considerations of community standards and custom would reasonably allow for a departure from the standards for geometric design with respect to bridges established by the American Association of State Highway and Transportation Officials or by the Department of Transportation, the Department may approve exceptions to such standards without waivers.

(b) In choosing between the rehabilitation of an existing bridge and the construction of a new bridge, whether on the existing location or on a new location, the department and any affected municipality shall weigh the following factors:

(1) The functional classification of the highway;

(2) the load capacity and geometric constraints of the bridge within its existing footprint and the availability of alternative routes;

(3) the comparative long-term costs, risks and benefits of rehabilitation and new construction;

(4) the requirements of state standards for geometric design;

(5) disruption to homes and businesses;

(6) environmental impacts;

(7) the potential effects on the local and state economies;

(8) cost-effectiveness;

(9) mobility;

(10) safety, as determined by factors such as accident history for motorists, pedestrians and bicyclists; and

(11) the impact on the historic, scenic and aesthetic values of the municipality in which the bridge is or may be located.

(c) The department shall implement policies and programs to allow municipal governments to develop projects or construct projects, or both, in consultation with the department, in accordance with federal laws and regulations if federal funds are used.

(d) The state or a municipality, any state or municipal agency or any employee thereof or any engineer retained in connection with a bridge project shall not be liable for any injury or damage to any person or property caused by the selection of design standards that enable an existing bridge, which was initially constructed not less than twenty-five years prior to the effective date of this act, to be repaired or rehabilitated in substantially the same configuration that existed before such repair or rehabilitation, provided nothing in this subsection shall be construed to relieve the state, any municipality or any

person from liability under section 13a-144 or 13a-149 of the general statutes arising out of structural or design defects in any such bridge or negligence in the maintenance, repair or rehabilitation of any such bridge.

(P.A. 97-214, S. 1.)

PUBLIC ACT 87-584 (TOWN BRIDGE STUDY)

AN ACT CONCERNING MUNICIPAL ASSISTANCE AND ESTABLISHING A LOCAL PROPERTY TAX RELIEF TRUST FUND

Sec. 15. The Department of Transportation shall conduct a state-wide study of town roads and bridges in which the Department shall evaluate and catalog the following:

(1) The age of such roads and bridges; (2) the physical condition of such roads and bridges; (3) the present and future use of such roads and bridges; and (4) the cost of repairing, reconstructing and maintaining such roads and bridges. The Department of Transportation shall provide each municipality in the state with the information collected by the department while cataloging and evaluating such roads and bridges. The Department of Transportation shall, on the basis of such information, recommend a priority list of town road and reconstruction projects. The Department shall submit a report of its findings and recommendations to the governor and the joint standing committees of the general assembly on finance, revenue and bonding and on transportation on or before January 15, 1988.

MISCELLANEOUS BRIDGE & HIGHWAY PROVISIONS

Sec. 13a-80h. Agreement setting forth responsibilities of municipality and Commissioner of Transportation re acquisition of real property required for certain bridge projects. At the request of any municipality which is undertaking a project to rehabilitate, replace or demolish a bridge which supports a municipal road using state or federal highway funds, the Commissioner of Transportation may enter into an agreement with such municipality which sets forth the responsibilities of the parties in connection with the acquisition of real property, as defined in subsection (a) of section 13a-73, or rights of ingress to and egress from land, which is required for such project. The commissioner shall exercise his authority pursuant to this section in the same manner as authorized and exercised by the commissioner in acquiring real property for state highway purposes subject to the terms of the agreement between the commissioner and the municipality.

(P.A. 95-325, S. 2, 16.)

History: P.A. 95-325 effective July 13, 1995.

Sec. 13a-89. Appeal to commissioner from posted weight restriction. Any person may appeal to the commissioner from the restriction of the use of any bridge imposed by the posting of a maximum weight notice as provided in section 13a-121. Upon such appeal the commissioner shall inspect such bridge and may, after due notice thereof to all parties in interest and hearing thereon, order the authority having control of such bridge to increase its capacity to such extent as he finds public convenience and necessity require. If such authority fails to make such repairs or reconstruction as are necessary so to

increase the capacity of such bridge within sixty days after receiving notice from the commissioner to do so, the commissioner may so repair or reconstruct such bridge and the authority having control of such bridge shall be liable for the cost of such repair or reconstruction.

(1949 Rev., S. 2187; 1958 Rev., S. 13-74; 1963, P.A. 226, S. 89.)

History: 1963 act replaced previous provisions: See title history.

Sec. 13a-99. Towns to build and repair highways and bridges. Towns shall, within their respective limits, build and repair all necessary highways and bridges, and all highways to ferries as far as the low water mark of the waters over which the ferries pass, except when such duty belongs to some particular person. Any town, at its annual meeting, may provide for the repair of its highways for periods not exceeding five years and, if any town fails to so provide at such meeting, the selectmen may provide for such repairs for a period not exceeding one year.

(1949 Rev., S. 2117; 1958 Rev., S. 13-2; 1963, P.A. 226, S. 99.)

History: 1963 act replaced previous provisions: See title history.

When towns are liable to maintain bridges on turnpike roads. 4 D. 198; 1 C. 1. Town to maintain road in borough, formerly turnpike. 25 C. 86. Town and turnpike company not both liable to maintain same road. 27 C. 48. Herbage in a highway belongs to the landowner. 28 C. 165. Dedication of highway provable by public use. 29 C. 157; 31 C. 308. Towns have no duty or power to build bridges between this and adjoining states. 29 C. 356. City of Hartford liable for defective sidewalks. 30 C. 118. No municipal corporation obliged to lay out or maintain highways except by statute. 31 C. 213. Legislature may create highway district out of several towns. 170 U. S. 309. Admissibility of evidence that others safely crossed ice. 33 C. 57. Highway surveyor may widen roadway within highway limits. 36 C. 165. Municipalities may remove earth from one highway to another. 38 C. 50. Municipalities not liable for negligence in public duty to repair highways. 38 C. 90; 71 C. 686. Dedication of a system of highways; loss of public rights by laches. 40 C. 410. Town cannot divert spring in highway for watering trough. 44 C. 521. Town liable for nuisance caused in doing lawful act. 45 C. 550; 47 C. 314. Town may change form of dedicated highway. 50 C. 259. Town voluntarily operating drawbridge liable for negligence. 63 C. 587. History of law; duty to repair applies to highways by dedication. 74 C. 360. Care of streets is a governmental duty; no liability except by statute. 74 C. 573; 79 C. 94; 81 C. 392. History of exception where duty belongs to some particular person. 75 C. 695. Of sidewalk, as part of highway. 76 C. 105. See 71 C. 655; 77 C. 307; 80 C. 296. This section measures the liability imposed by section 13a-149. 81 C. 68; 89 C. 30. Building new roadway several feet above old one not repairing. 75 C. 271. Municipality cannot enter private property to abate conditions there which tend to create defect. 80 C. 291. Discretion of municipality as to methods to be used. 79 C. 94. This section does not apply to state aid or trunk line highways. 94 C. 594. Town is under duty to maintain roadway of bridge over railroad, although railroad is obliged to maintain superstructure of bridge. 100 C. 437. Does not apply to defect caused by opening in street made by trolley company in repairing its roadbed. 103 C. 121; id., 605. See note to Sec. 13a-149. Town's obligation for sidewalks not modified by section 13a-144. 109 C. 336. Where town builds road under section 13a-173 as a contractor with the state, jury may reasonably find it entered contract for special benefit and pecuniary profit, thereby depriving itself of governmental immunity from liability. 120 C. 148. Cited. 121 C. 616; 124 C. 344; 160 C. 295. Cited. 193 C. 589. Cited. 226 C. 684, 695.
Cited. 12 CA 153, 157. Cited. 29 CA 18, 24, 25.

City becomes responsible for condition of highways when town and city consolidate. 3 CS 418. Cited. 4 CS 401; 5 CS 193. Duty of New Haven not impaired by special act 576 of 1937. 8 CS 204. Cited. 25 CS 305; 27 CS 469, 472.

Sec. 13a-99a. Town roads lying within, intersecting or crossing state highway rights-of-way. (a) Whenever a town road or a portion thereof lies within the limits of a state highway right-of-way or passes over or under a state highway right-of-way, such road or portion thereof shall be state highway property subject to an easement to the town for travel. The local traffic authority, as defined in section 14-297, shall have the jurisdiction over any portion of a town road within an easement created by this subsection.

(b) Any portion of a town road lying within the limits of a state highway right-of-way, which town road is no longer maintained or used by such town, shall be deemed legally abandoned as a public highway and title to such portion of such town road shall vest in the state.

(c) When a town road crosses or intersects a state highway right-of-way at grade level, the responsibility for maintenance of that portion of the town road from the edge of the state highway right-

of-way to the edge of the traveled portion of the state highway shall remain with the town; and any liability for neglect or default of maintenance of such portion of the town road shall be in accordance with section 13a-149. When a town road passes over or under a state highway right-of-way, the responsibility for maintenance of the road shall remain with the town; and any liability for neglect or default of such maintenance shall be in accordance with section 13a-149.

(1967, P.A. 209, S. 1-3; P.A. 77-78; P.A. 90-342, S. 4, 5.)

History: P.A. 77-78 added the words "or intersects" in Subsec. (c); P.A. 90-342 added provision in Subsec. (a) providing the local traffic authority with jurisdiction over any portion of a town road within an easement.

Cited. 21 CA 633, 641. Subsec. (a): Cited. 21 CA 633, 641. Subsec. (c): Cited. 21 CA 633, 641, 642.

Sec. 13a-100. Expense of bridges between towns. Necessary bridges between towns, except when otherwise specially provided by law, shall be built and kept in repair by such towns, and the expense thereof shall be apportioned between them according to the total revenue received yearly from direct taxation in each of such towns, as averaged for the three fiscal years next preceding.

(1949 Rev., S. 2119; 1958 Rev., S. 13-4; 1963, P.A. 226, S. 100.)

History: 1963 act replaced previous provisions: See title history.

What constitutes a bridge. 26 C. 583; 44 C. 25; 64 C. 568.

Sec. 13a-101. Bridges over artificial watercourses. Any bridge or passageway over any artificial watercourse on a highway which it is not the duty of the commissioner to maintain shall be constructed and maintained by the person owning or controlling such watercourse and shall be of such width and carrying capacity as are approved by the board of selectmen of the town, provided, if at any time the board of selectmen finds that any such existing bridge or passageway has become insufficient to permit the traveling public to use it with safety, the board of selectmen shall cause such bridge or passageway to be reconstructed so as to make it sufficient or shall cause a new sufficient bridge or passageway to be constructed. The town and the person owning or controlling the watercourse shall each pay an equitable portion of the cost of reconstructing such existing bridge or passageway or of constructing a new sufficient bridge or passageway, which equitable apportionment shall be based upon the respective needs of the town and the person for such change in such bridge or passageway, and the board of selectmen is authorized to enter into an agreement with such person determining the portion to be paid by each, provided, if the board of selectmen and such person cannot agree upon an equitable apportionment of such cost, either may apply to the superior court in the judicial district within which such bridge or passageway is situated, or, if said court is not in session, to any judge thereof, for a determination of the portion of the cost to be borne by each, and said court or such judge, after causing notice of the pendency of such application to be given to the other party, shall appoint a state referee to make such determination. Such referee, having given at least ten days' notice to the parties interested of the time and place of the hearing, shall hear both parties, shall view the bridge or passageway and take such testimony as such referee deems material, and shall thereupon determine the portion of the cost to be borne by each and forthwith report to the court. If the report is accepted by the court, such determination shall, subject to right of appeal as in civil actions, be conclusive upon both parties.

(1949 Rev., S. 2200; 1951, S. 1192d; 1957, P.A. 211, S. 1; 1958 Rev., S. 13-9; 1963, P.A. 226, S. 101; P.A. 78-280, S. 2, 127.)

History: 1963 act replaced previous provisions: See title history; P.A. 78-280 substituted "judicial district" for "county".

See Sec. 13a-90 re bridges over artificial watercourses which Transportation Commissioner is responsible for maintaining.

Sec. 13a-102. Court may direct construction or repair of bridge. When any town neglects to construct or repair a bridge across a river in a highway in such town, or when it is necessary to construct or repair any such bridge between towns or judicial districts and the towns liable therefor neglect, or do not agree, to construct or repair it, the superior court of the judicial district in which either town is situated, on complaint of any person, and legal notice given to the town liable for such construction or repairs, shall inquire by itself or committee into the public necessity and convenience thereof; and, if no sufficient reason is shown to the contrary, and such town or towns do not undertake to construct or repair such bridge within such time as the court directs, it may appoint some suitable person to do the same; and the expense thereof, being allowed by said court, shall be paid by such town or towns. Said court or such committee may estimate the damages, if any, sustained by any person or corporation by the construction of such bridge, due notice having been given to such person or corporation to appear and be heard, and, upon return of the report of any such committee into court, the same proceedings may be had in regard to such report and damages as are provided in sections 13a-52 to 13a-72, inclusive, for persons interested in laying out or altering a highway, in regard to remonstrance and reassessment of damages.

(1949 Rev., S. 2123; 1958 Rev., S. 13-7; 1963, P.A. 226, S. 102; P.A. 78-280, S. 2, 4, 127.)

History: 1963 act replaced previous provisions: See title history; P.A. 78-280 substituted "judicial district(s)" for "county(ies)".

State's attorney cannot complain. 9 C. 32.

Sec. 13a-105. Contracts for highway construction. When any town has determined to construct or reconstruct any highway, section of highway or bridge, which construction or reconstruction is to be paid for from funds allotted to such town under the provisions of sections 13a-175a to 13a-175f, inclusive, and the commissioner has entered into an agreement with the selectmen of such town, as provided by sections 13a-175e and 13a-175f, said commissioner shall call for bids and award a contract for such construction or reconstruction in the manner provided by section 13a-95, except that, if, in the opinion of said commissioner, it is to the best interest of the state and such town, the commissioner may award to such town a contract for such construction or reconstruction upon such terms and conditions as the commissioner determines, provided the estimated unit prices under any contract so awarded shall not be in excess of ten per cent more than the average unit prices prevailing during the preceding twelve months for similar work in the state and provided such town shall have authorized the selectmen to enter into such contract in the name and on behalf of such town. Nothing in this section shall be construed to eliminate the use of force account work for the repair of town aid highways. The commissioner may, subject to the approval of the selectmen or legislative body of such town, enter into an agreement with a third party for additional construction or reconstruction works when requested to do so by such third party, provided such third party shall, immediately upon certification by the commissioner, pay to the State Treasurer the full cost to the state of such additional construction or reconstruction works. If under such agreement such additional construction or reconstruction works are carried out by such third party, they shall conform with all requirements and regulations of such town and such as may be prescribed by the commissioner.

(1949 Rev., S. 2178; 1958 Rev., S. 13-65; 1963, P.A. 226, S. 105; 1967, P.A. 701, S. 11; 1971, P.A. 582, S. 1; P.A. 02-89, S. 16.)

History: 1963 act replaced previous provisions: See title history; 1967 act corrected obsolete statutory references; 1971 act added provisions re agreements between commissioner and third party for additional construction or reconstruction work; P.A. 02-89 replaced reference to Sec. 13a-175h with reference to Sec. 13a-175f, reflecting the repeal of Sec. 13a- 175h by the same public act, and made technical changes for purposes of gender neutrality.

Sec. 13a-106. Competitive bids not required when material available at price acceptable to commissioner. When any town highway is maintained, improved, constructed or reconstructed on a force account basis by expenditure of funds allocated under sections 13a-175a to 13a-175f, inclusive, the furnishing of gravel, sand or wood posts by competitive bids under section 4a-57 shall not be required

when suitable material, meeting Department of Transportation specifications, is available to the town at a unit price acceptable to the commissioner.

(1953, S. 1184d; 1958 Rev., S. 13-66; 1963, P.A. 226, S. 106; 1967, P.A. 701, S. 12; 1969, P.A. 768, S. 89.)

History: 1963 act replaced previous provisions: See title history; 1967 act changed obsolete statutory references; 1969 act substituted commissioner and department of transportation for highway commissioner and department; P.A. 02-89 replaced reference to Sec. 13a-175h with reference to Sec. 13a-175f, reflecting the repeal of Sec. 13a-175h by the same public act.

Sec. 13a-109. Apportionment of cost for work on bridge. The commissioner or any municipality or other person who has performed any work on any bridge for a portion of the cost of which any other municipality or person is liable shall, within thirty days after the completion of such work, mail to each person liable for a portion of the cost of such work a statement of the total cost of such work, showing the proportionate share assessed against each interested party, and such amount assessed against each interested party shall thereupon become due and, if not paid within thirty days, shall bear interest at the rate of six per cent per annum and shall be collectible in an action at law brought to the superior court for the judicial district wherein such bridge is located.

(1949 Rev., S. 2273; 1958 Rev., S. 13-129; 1963, P.A. 226, S. 109; P.A. 78-280, S. 24, 127.)

History: 1963 act replaced previous provisions: See title history; P.A. 78-280 substituted superior court for "any court of competent jurisdiction" and "judicial district" for "county".

That county or town has no money in its treasury, no defense against action to recover amount due. 70 C. 437.

Sec. 13a-111. Railings on bridges and highways. The party bound to maintain any bridge or highway shall erect and maintain a sufficient railing or fence on the sides of such bridge and on the sides of such parts of such road as are so made or raised above the ground as to be unsafe for travel. The specifications for railings or fences on state highways or bridges required to be erected and maintained pursuant to this section shall be constructed equal to, or better than, the current specifications and policies approved by the Commissioner of Transportation for the installation and maintenance of roadside appurtenances. A railing or fence that is reasonably maintained under said specifications shall be deemed sufficient under the provisions of this section.

(1961, P.A. 43; 1963, P.A. 226, S. 111; P.A. 98-182, S. 14, 22.)

History: 1963 act replaced previous provisions: See title history; P.A. 98-182 deleted the requirement for the commissioner to promulgate regulations, required the specifications for railings or fences to be constructed equal to or better than current specifications and policies, effective July 1, 1998.

See Sec. 13a-152 re damages for failure to maintain railing or fence.

Annotations to former statute: Proof of compliance with former provision deemed to raise conclusive presumption defendant discharged duty. 122 C. 99. Standard not generally applicable; applies only to highways specified. 129 C. 700.

Sec. 13a-120. Traffic authority to maintain warning signs. The traffic authority of any city, town or borough shall erect and maintain suitable warning signs on highways under the jurisdiction of such traffic authority, legible from a distance of one hundred feet and located at a reasonable distance in each direction from schoolhouses or at a reasonable distance from the ends of hard surfaced highways, which signs shall designate the proximity of such schoolhouses or the ends of such hard surfaced highways; and such traffic authority shall erect and maintain similar warning signs in respect to bridges, dangerous curves and intersecting highways. All new and replacement signs, signals or markings erected in accordance with the requirements of this section shall conform to the specifications of the manual on uniform traffic control devices as approved and revised by the State Traffic Commission.

(1949 Rev., S. 2137; 1958 Rev., S. 13-21; 1963, P.A. 226, S. 120; 337.)

History: 1963 acts added mandatory requirement of maintenance of signs in re bridges, curves and intersections required that new and replacement signs, signals, etc. conform to specifications in manual on uniform traffic control devices and restated previous provisions: See title history.

Cited. 225 C. 217, 222.

Sec. 13a-121. Notice of load capacity; appeal. When the load-carrying capacity of any bridge on any highway is such that it will not carry safely any vehicle or combination of vehicle and trailer or semitrailer or any other object within the limits of the weights specified in section 14-267a, the authority having control of such bridge shall maintain notice at each end of such bridge legible at a distance of fifty feet, stating the maximum weight of vehicle which such bridge will carry safely. Any person may appeal from the restriction of the use of such bridge under the provisions of section 13a-89.

(1949 Rev., S. 2186; 1955, S. 1189d; 1958 Rev., S. 13-73; 1963, P.A. 226, S. 121; P.A. 79-188, S. 3, 10.)

History: 1963 act replaced previous provisions: See title history; P.A. 79-188 substituted Sec. 14-267a for reference to repealed Sec. 14-268.

See Sec. 13a-88 re load capacity of bridges.
See Sec. 13a-151 re violation of load capacity of bridge.
See Sec. 14-269 re exemptions from weight restrictions for certain vehicles engaged in construction work.

When read with section 14-222 amounts to a penal statute. Where there was no evidence that the sign on the bridge was legible for fifty feet, the defendants were not proved guilty of reckless driving beyond a reasonable doubt. 24 CS 155.

Sec. 13a-130. Bridges over railroad tracks. The bottom timbers of all bridges constructed over any railroad track shall be not less than eighteen feet above the rails, unless the Commissioner of Transportation requires a lesser height and prescribes the same in writing.

(1949 Rev., S. 2124; 1958 Rev., S. 13-8; 1963, P.A. 226, S. 130; P.A. 75-486, S. 33, 69; P.A. 77-614, S. 571, 587, 610; P.A. 78-303, S. 85, 136.)

History: 1963 act replaced previous provisions: See title history; P.A. 75-486 substituted public utilities control authority for public utilities commission; P.A. 77-614 and P.A. 78-303 substituted commissioner of transportation for public utilities control authority, effective January 1, 1979.

Sec. 13a-149. Damages for injuries by means of defective roads and bridges. Any person injured in person or property by means of a defective road or bridge may recover damages from the party bound to keep it in repair. No action for any such injury sustained on or after October 1, 1982, shall be brought except within two years from the date of such injury. No action for any such injury shall be maintained against any town, city, corporation or borough, unless written notice of such injury and a general description of the same, and of the cause thereof and of the time and place of its occurrence, shall, within ninety days thereafter be given to a selectman or the clerk of such town, or to the clerk of such city or borough, or to the secretary or treasurer of such corporation. If the injury has been caused by a structure legally placed on such road by a railroad company, it, and not the party bound to keep the road in repair, shall be liable therefor. No notice given under the provisions of this section shall be held invalid or insufficient by reason of an inaccuracy in describing the injury or in stating the time, place or cause of its occurrence, if it appears that there was no intention to mislead or that such town, city, corporation or borough was not in fact misled thereby.

(1949 Rev., S. 2126; 1951, S. 1180d; 1958 Rev., S. 13-11; 1959, P.A. 372; 1963, P.A. 226, S. 149; P.A. 76-222, S. 2; P.A. 82-5; P.A. 86-338, S. 14.)

History: 1959 act extended time for giving notice of injury due to snow and ice from ten to thirty days; 1963 act replaced previous provisions: See title history; P.A. 76-222 changed deadline for notice to town officer from sixty to ninety days after injury and deleted special provision re injury from defect caused by ice and/or snow; P.A. 82-5 required that actions for injuries sustained on or after October 1, 1982, be brought within two years of the injury; P.A. 86-338 deleted provision which exempted an injured person from the requirement of giving written notice if an action is commenced by complaint setting forth the same information as required in the notice within the time limited for the giving of such notice.

See Sec. 7-163a re municipal liability for ice and snow on public sidewalks.
See Sec. 7-308 re municipalities' assumption of liability for damages caused by firemen.

Historical review of law. 75 C. 694; 81 C. 68. Nature of liability. 66 C. 360; 71 C. 686; 75 C. 291; 84 C. 657; 103 C. 605; 104 C. 88; 108 C. 555. Elements necessary to support recovery. 81 C. 66; 104 C. 87; 108 C. 555. Purpose of law is protection of travelers. 81 C. 393; 88 C. 151. One departing from traveled way for his own convenience cannot recover. 80 C. 154; 91 C. 542. Statute does not apply to wrongful exclusion from highway. 76 C. 311. One whose negligence contributes to injury cannot recover. 66 C. 36; 79 C. 42; 82 C. 527; 86 C. 506; 89 C. 24; 98 C. 86; 103 C. 605. One may use highway little traveled. 66 C. 36. Stumbling as excuse. 70 C. 554. Plaintiff's use of defective materials in himself repairing bridge. 22 C. 290. Carrying too heavy a load. 47 C. 73; 91 C. 542. Accident or negligence of fellow traveler contributing to injury. 40 C. 238; 71 C. 697; 75 C. 291; 81 C. 241; 86 C. 506; 104 C. 88. Illegal act of person injured as debarring remedy. 82 C. 663. No liability for consequential damage. 17 C. 475; 66 C. 360. Evidence as to damage. 74 C. 475. Allegation of injury to person and property joinable in one count. 22 C. 290. Plaintiff may prove his peril and danger to enhance his damages. 22 C. 290; 27 C. 300. Special damage must be alleged. 43 C. 565. Basis of damages; when punitive allowed. 24 C. 491; 47 C. 74. Injury from branch of tree falling in road not recoverable; 34 C. 9; 85 C. 128; so from weight falling from flagpole. 34 C. 136. Open basement descent held not a defect in sidewalk. 50 C. 536. Nuisance distinguished; 48 C. 220; so defect in plan of street. 69 C. 353; 81 C. 67. Excavation outside limits of highway. 89 C. 24. Reasonable obstructions not defects. 73 C. 199; 75 C. 349; 76 C. 311; 78 C. 145; 82 C. 527; 89 C. 343. Objects calculated to frighten horses. 30 C. 129; 39 C. 381; id., 435. Whether defect exists is question of fact. 37 C. 414; 118 C. 288; 128 C. 272; but see 124 C. 285. Duty extends to highway actually in use; 78 C. 62; highways by dedication; 31 C. 308; 72 C. 231; 73 C. 359; id., 576; 74 C. 360; abandonment of road by turnpike company. 46 C. 216. Defects in bridges; 1 R. 270; id., 448; 2 R. 436; where turnpike company has been dissolved; 18 C. 32; dangerous draw; 69 C. 651; burden of proof. 24 C. 491. Ice and snow on highway. 48 C. 467; 49 C. 134. Sidewalks. 30 C. 118; 40 C. 377; id., 406; id., 456; 78 C. 396; 79 C. 44; ice thereon. 37 C. 615; 44 C. 117; 51 C. 412; 104 C. 85. Knowledge of defect; 94 C. 542; when presumed; 39 C. 228; 40 C. 375; 72 C. 672; 79 C. 385; 89 C. 24; 118 C. 288; 128 C. 272; where defendant itself causes defect; 40 C. 460; 67 C. 434; 98 C. 85; knowledge of policeman; 70 C. 115; 94 C. 692; 118 C. 288; knowledge question of fact; 30 C. 118; 94 C. 693; 104 C. 94; no liability for secret defects. 27 C. 300. Extent of protection required; degree of care. 27 C. 300; 78 C. 396; 79 C. 385; 80 C. 291; 82 C. 530; crosswalks. 79 C. 659. Duty to provide against results of fright of ordinarily gentle horse. 75 C. 288. Duty to erect fence; section 13a-111 distinguished. 75 C. 288; 81 C. 65; 89 C. 24; 105 C. 361. Duty to give warning of dangerous conditions. 36 C. 320; 37 C. 298; 67 C. 428; 69 C. 103; 70 C. 122. Failure in duty question of fact. 39 C. 439; 46 C. 218; 67 C. 433; 69 C. 354; 72 C. 680; 75 C. 289; 85 C. 693. Statutory notice; necessity; 66 C. 387; 81 C. 274; id., 287; in case of railway bound to repair; 54 C. 9; 64 C. 381; 75 C. 693; see 74 C. 475; waiver of notice; 46 C. 61; action may lie at common law, and then notice not necessary; 84 C. 349; id., 654; 94 C. 231; giving of notice must be alleged in complaint; 81 C. 274; 85 C. 221; 106 C. 62; sufficiency of notice. 46 C. 264; 50 C. 497; 51 C. 421; 53 C. 212; 58 C. 45; 59 C. 219, 225; 63 C. 268; 64 C. 376; 67 C. 437; 72 C. 673; 73 C. 312; 74 C. 437; 81 C. 300; 86 C. 45; 91 C. 181; 92 C. 552; 98 C. 312. Liability of turnpike company; 7 C. 86; of town for defect in borough; 40 C. 205; of borough; 65 C. 311; 77 C. 308; of city. 74 C. 360; 80 C. 296; 85 C. 693. Town not liable where some other party is. 75 C. 693. Platform extending into highway; nuisance. 98 C. 524. Action by town against person causing defect. 74 C. 152; 91 C. 255. Abutting owner not liable for defect in sidewalk. 48 C. 532; 102 C. 401; 108 C. 200. Action against both town and railway. 79 C. 379; 103 C. 121. Railroad "structures." 46 C. 217; 50 C. 216; 54 C. 589; 74 C. 475. Several defects may be alleged in one complaint; 72 C. 667; amending complaint after hearing in damages. 69 C. 554. Burden of proof. 86 C. 506. Admissibility of evidence that others safely crossed sidewalk. 33 C. 57; 89 C. 24. Admissibility of evidence of condition of sidewalk before accident. 104 C. 95. See note to section 13a-99. Liability of municipality where alleged defect is caused by negligence of licensee excavating under a permit. 92 C. 367. Municipality's right of recovery over does not accrue until its liability has been finally adjudicated. Id., 667. Negligence of municipality in allowing minor defect to exist is a question of fact. Id., 365. Snow and ice on sidewalk. 93 C. 548; id., 625; knowledge of city must consist of knowledge of precise defect. Id., 628. Obligation of street railway company operating on trunk line highway. 94 C. 237. Right of town to remove shade tree in highway but outside traveled part. Id., 439. How great a part of width must be kept open for travel; covered tile drain near side of road giving way under weight of motor truck. Id., 538. Limitations of doctrine of no liability for error in plan. Id., 539. Liability of state for defect in trunk line highway is same as that of town in an ordinary road; id., 542; 105 C. 359; and likewise in case of state aid highway. Id., 596. Silent policeman not itself a defect, but may become so if allowed to remain out of position. Id., 694. Excavation in traveled part of highway; contributory negligence where accident happens in sunlight. 98 C. 84. Evidence of other accidents to show municipality's knowledge. 94 C. 693. Ten- day notice required where automobile runs into pile of ice and snow. 96 C. 7; Contributory negligence in having defective lights on automobile. Id. Whether defect counted on in complaint is same as that described in statutory notice is a question for the court. 98 C. 314. Embankment six feet from traveled part of highway may be a defect. 105 C. 361. Tree protruding over traveled part of road. 106 C. 63. Definition of defect in highway. 106 C. 63; id., 380. Fire hose left across sidewalk to guard against rekindling of fire not a defect. Id., 381. Complaint containing allegations showing notice was not given within statutory period is demurrable. Id., 394. Whether period for giving notice runs before existence of injury could be known, quaere. Id., 394. Whether shoulders of road are within "traveled portion of highway," quaere. 108 C. 196. Abutting owner's liability for nuisance on sidewalk or in proximity thereto. Id., 200. Action against both abutting owner and municipality. Id. Indemnification of city of New Haven by abutting owner under special charter provision. Id., 70. When act of third party in sanding sidewalk inures to benefit of municipality. Id., 559. State not liable for defect in sidewalk on side of trunk line highway within town. 109 C. 336. Town has no duty to keep in repair shoulders of state highway used by public as footpath. 130 C. 84. Remedy for injuries caused by snow and ice on sidewalk is against city, not abutting owner. 123 C. 453. City not liable for nuisance where sidewalk on grade became dangerous only when icy and city could do nothing practicable by way of construction to make it more safe. 120 C. 499. Duty of city is not to exercise reasonable care to make streets entirely safe, but only to make them reasonably safe. 116 C. 568; 124 C. 284. Failure to warn or safeguard against danger from flagstone upheaved by hurricane constituted violation of statutory duty, when city had ample means and opportunity. 128 C. 483. What constitutes a defect; small cavity at edge of walk not. 124 C. 283. Hidden defect; constructive notice and duty of city to inspect. 128 C. 464. Placing of catch basin and cover is a

governmental function but if they create condition rendering street not reasonably safe for public travel, they may be defect within statute. 109 C. 324, 327; 118 C. 427. Unsafe wall abutting sidewalk is not defect within statute. 109 C. 668. Liability is not based on negligence, but on breach of statutory duty; section 52-114 does not apply. 119 C. 479; 133 C. 246. Statute affords exclusive remedy for defects due to neglect rather than positive act of municipality, whether or not defect is a nuisance; apart from statute, municipality is liable for condition it created by positive act on highway amounting to nuisance. 126 C. 402; 131 C. 691; 133 C. 245. Jury to say if municipality should make fence sufficient to guard against skidding; effect on duty of city of failure of railway company to make rails safe. 129 C. 699. Defect must be sole and essential cause of injury; if negligence of plaintiff's intestate or of third party is also a proximate cause, no recovery. 118 C. 480; 124 C. 463. Where injury is result of defect combined with accident or natural cause, municipality is liable unless accident or natural cause was so direct and separate as to be sole proximate cause. 119 C. 168. Fundamental test is whether defect was sole cause in producing damage. Where plaintiff slipped on ice which had filled up long-existing defect, city not liable on ground defect was cause of plaintiff's fall. 130 C. 410; 131 C. 239. Municipality not liable for negligence in performing function of construction and maintenance, but for defective condition which is proximate cause of injury. 131 C. 239. City not liable where maintenance of nuisance by or negligence of another is a proximate cause of injury which concurred with sidewalk defect to bring it about. 134 C. 89. Notice of defect may be imputed to city after passage of time. 118 C. 288; 128 C. 272. Length of time defect in sidewalk must have existed in order to charge municipality with notice is question of fact. 131 C. 239. Statute cited. 110 C. 77; 115 C. 385; id., 716; 121 C. 613; 124 C. 677; 128 C. 710; 129 C. 259; 132 C. 395. Action for death due to highway defect survives; not a penal statute within meaning of section 52-599. 22 C. 80. Whether notices of injury were served and whether they were intended to be or were misleading to city are questions of fact. 113 C. 145. Purpose and elements of notice; entire absence of general description of injury is fatal. 120 C. 577. "Do not know full extent of my injuries" is insufficient description. 123 C. 685. "Got hurt" insufficient. 127 C. 711. Notice alleging "bruises on other parts of legs and body" inaccurate, but not a total failure of description preventing recovery for fracture of spine. 131 C. 430. Notice that decedent fell "upon a sidewalk of a highway known as North Elm Street" is insufficient. 117 C. 70. Notice failing entirely to state cause of injury is invalid; knowledge of facts by officers of city will not obviate necessity of compliance with statute. 117 C. 401. Notice giving cause as "defective sidewalk," without describing defect, is sufficient. 123 C. 152. Special law validating defective notice held constitutional. 124 C. 183. Sixty-day notice held not a condition precedent where action was based on negligence of railroad company at common law in permitting dangerous condition on bridge. 126 C. 558. Section applies to highway by dedication; common convenience and necessity with respect to establishment of highway reviewed. 130 C. 298. Duty of plaintiff to recite statutory notice given in complaint or to annex it thereto. 134 C. 569. Defect not too slight as matter of law to justify an award of damages. Where hole was made and maintained by state, failure of city to repair was not sole proximate cause. 134 C. 686. Bottle of syrup on walk for forty- five minutes does not warrant finding of constructive notice. 134 C. 694. Whether a condition of highway constitutes defect must be determined in each case upon the basis of its particular circumstances. 135 C. 469. From photographs of raised flagstone in sidewalk and other evidence, jury might reasonably have found that defendant had notice of defect. 135 C. 473. Elapsed time insufficient as a matter of law to sustain a finding of constructive notice and an opportunity of remedying the condition. 135 C. 484. Sidewalk within boundaries of state highway. Where there was no finding that sidewalk was constructed by state, it was held that, as between town and state, the town was liable for plaintiff's injuries. 135 C. 619. When city assumes control of sidewalks, it must exercise reasonable care to keep them in a reasonably safe condition. 136 C. 553. Cited. 137 C. 288. Statute is designed to protect travelers only; provides no right of recovery to an abutting landowner for damage from a defective highway. 138 C. 116. Cited. 138 C. 367; 139 C. 256; 140 C. 279. Constructive notice. 141 C. 126. Cited. 144 C. 282. Breach of duty on part of municipality must be shown. 144 C. 739. Special act of state legislature validating notice given municipality does not constitute breach of cooperation clause in insurance policy by municipality. 145 C. 368. Unlike most negligence actions, plaintiff has burden of proving due care for action brought under this statute. 147 C. 149. If certain portions of street are devoted to purpose other than travel, travelers leaving way provided for them and attempting to cross such reserved portions may not assume such portions are free from danger or unusual conditions. 148 C. 349. Ordinarily the length of time a defect in a sidewalk must exist in order to charge a municipality with notice of its existence is a question of fact. 148 C. 548. Defect must have existed for such a length of time that the city was charged with notice of it and had a reasonable opportunity to remedy the defect. Id. What constitutes defect discussed. 150 C. 514. Where statutory notice relied solely on accumulated water, as distinguished from snow and ice, as the claimed defective condition and cause of the accident, and plaintiff testified that he actually lost control of his car on a film of ice, he cannot recover from the city. 151 C. 343. Cited. 153 C. 439; 159 C. 150. Cited. 162 C. 295. Cited. 167 C. 509. Overhanging tree limb which did not obstruct or hinder travel was not a "defect" in the highway. 177 C. 268−270. Cited. 183 C. 473, 475. Sec. 52-572h does not apply to actions for personal injuries based on this statute; liability of defendant under statute is for breach of statutory duty and does not arise from negligence. 184 C. 205, 206, 212. Cited. 186 C. 229, 234; Id., 300, 305; Id., 692−695. Special act limiting liability of New Britain could not stand where clear policy statement in this section that municipal liability for damages should not be limited. 193 C. 589, 594, 601. Cited. 196 C. 509, 512. Cited. 211 C. 370, 381. Cited. 213 C. 307, 316, 325. Cited. Id., 446, 477. P.A. 86-338 cited. 214 C. 1, 6, 7. Cited. Id. Cited. 218 C. 1, 5. Cited. 219 C. 179, 184−186, 190−192, 196−198, 201, 203; Id., 641−644. Cited. 224 C. 23, 27. Cited. 225 C. 177−185. P.A. 86- 338, tort reform act of 1986, cited. Id. Cited. Id., 217, 219−223. P.A. 86-338, tort reform act of 1986, cited. Id. Cited. 226 C. 282, 293, 294; Id., 757, 767. Section does not bar an employer from seeking reimbursement under Sec. 31-293(a). 231 C. 370, 371, 373−378. Cited. 235 C. 408, 409, 412. Cited. 240 C. 105. P.A. 86-338 cited. Id. In order for liability to obtain under this section, defendant must have notice of an actual defect and not merely notice of potential defects or conditions likely to create a defect. 246 C. 638.

In action pursuant to this section, costs may be taxed against a defendant municipality. 4 CA 30, 32. Savings clause of section must be pleaded and evidence introduced to prove its elements. Id., 315, 317. Cited. 5 CA 104, 105. Cited. 8 CA 169, 173. Cited. 11 CA 1−4, 7, 9. Cited. 15 CA 185, 187. Cited. Id., 668, 669, 675. Cited. 16 CA 213, 215, 216, 221. Cited. 21 CA 633, 635, 640, 642. Cited. 25 CA 67−70, 75, 76, 78, 80, 81. Cited. 26 CA 407−411, 413; Id., 534−538. Cited. 27 CA 487, 488, 490, 492. Cited. 28 CA 449−452, 454, 455, 457. Cited. 29 CA 565, 572; judgment reversed, see 228 C. 358 et seq. Cited. Id., 791, 792, 796, 797. Cited. 30 CA 594, 606. Cited. 31 CA 906. Cited. 33 CA 56, 57, 59. Cited. Id., 754, 755, 758, 759. Cited. 36 CA 158, 159. Cited. 38 CA 14, 15, 17, 19. Cited. 39 CA 289, 303−305. Cited. 40 CA 179, 180, 181. Cited. 45 CA 413. Notice provisions discussed. 47 CA 365.

Walkway deemed to be road or bridge since it was on public property leading from city street to public school and there was reasonable anticipation that the public would make use of it. Id., 734. Plaintiff could not prevail on claim that because section contains its own limitation period court improperly relied on Sec. 52-584, which is applicable to negligence cases in general; trial court properly determined statute of limitations was not tolled during plaintiff's illness because this section contains no such tolling provision. 48 CA 60.

Cited. 3 CS 12. Section grants right of action. 4 CS 401. Contributory act of another. 4 CS 481. Civil liability of property owner in absence of an ordinance creating it. Id. Complaint based on nuisance. 5 CS 81; id., 268; 16 CS 222. No action at common law in absence of negligence. 5 CS 88. Cited. 5 CS 193. Sidewalk built for travel under normal conditions is devoid of defect. 5 CS 312. Cited. 7 CS 143; id., 297; 9 CS 79; 10 CS 521. Suit against both city and town. 11 CS 114. Cited. 12 CS 267; 283; 309. Action against Waterbury must be read with city charter. 14 CS 403. Terms of statute may not be waived. 15 CS 442. Cited. 17 CS 114; 18 CS 501. Governmental immunity not a defense to action under this section. 18 CS 124. Cited. 20 CS 142. See note to section 13a-144. Action against city under this section and against another defendant for nuisance can be joined but claim must be in alternative. 22 CS 74, 76. Complaint demurrable where plaintiff did not allege exercise of due care. 22 CS 75; or freedom from contributory negligence. Id., 77. Whether path in public park was part of public highway system and was being used by plaintiff as traveler within meaning of this section are questions of fact to be determined on trial of case. 22 CS 456. Cited. 23 CS 132; 152. Where plaintiff brought action under section 7-465 against local board of education to recover for injuries resulting from school bus accident, held action should have been brought under this section. 25 CS 305. Cited. 26 CS 74. Municipality liable for invisible stop sign. 29 CS 352. Cited. 44 CS 45, 47−52.
Notice: What is sufficient. 2 CS 41; 14 CS 365; 18 CS 330; 19 CS 43. Concerning ice and snow. 8 CS 471. Improperly addressed. 5 CS 493; 16 CS 136. Condition precedent to recovery. 7 CS 245. Contents of. 7 CS 379. General description of "defective road." 10 CS 22. How "time" of injury is stated. 12 CS 246. Burden of plaintiff to prove that defective notice was not intended to mislead municipality. 14 CS 106. Requirement not obviated because officer has knowledge of the fact. 15 CS 442. Not required if action based on negligence. 16 CS 222. Commencement of action as alternative to. 17 CS 420. See note to section 13a-152. Dicta that giving of prescribed notice is condition precedent to exercise of right of action. 21 CS 65. Saving clause serves to obviate inaccuracies in description of injuries. Comparison with section 13a-144. 23 CS 113. Redrafted count of complaint, substituted after demurrer, should have alleged requisite notice had been given. 23 CS 147. Purpose of notice requirement. 25 CS 358. Cited. 31 CS 442. Cited. 44 CS 389.
Statute applied to the City of New Haven. 2 CS 41; 4 CS 401, 481; 5 CS 88, 193, 312; 6 CS 44, 491; 7 CS 245, 297; 9 CS 79; 29 CS 75. A malfunctioning traffic light is a defect in the highway. 29 CS 108.
Although a notice will not be held invalid because of inaccuracy in describing the cause of the injury, where there is in effect no cause of injury stated the notice is invalid. 3 Conn. Cir. Ct. 644, 647.

Sec. 13a-175f. Purchase of materials by Transportation Department and towns. Commissioner to test materials. The Commissioner of Transportation upon reasonable request of the selectmen or other authority having charge of highways of any town shall allow such town to join with the department in the purchase of materials used for the laying out, construction, repair, reconstruction or maintenance of any highway or bridge. The commissioner shall conduct such tests as are necessary to insure the quality of such materials.

(1967, P.A. 701, S. 9; 1969, P.A. 768, S. 118; P.A. 81-463, S. 4, 10.)

History: 1969 act replaced highway commissioner with commissioner of transportation; P.A. 81-463 repealed requirement that the commissioner, upon request of a town, furnish supervision, inspectors and engineers for purposes connected with the laying out, construction and maintenance of highways and bridges and added provisions requiring the commissioner to perform quality testing of materials used for such purposes and allowing towns to join with the department in the purchase of such materials.

See Sec. 13b-31 re Transportation Commissioner's authority to furnish supervision, inspectors and engineers to assist towns in highway and bridge projects.

Sec. 13a-175j. Emergency aid for roads, bridges, and dams to repair damage resulting from natural disaster. Any balance of appropriations in excess of that required to be distributed to the towns, under the formulas set forth in sections 13a-175a to 13a-175d, inclusive, as of June 30, 1977, and annually thereafter, may be made available by the Governor, upon application of the selectman or other authority having charge of highways in any town, to be used to defray, in whole or part, the cost of repairs, improvements, alteration or replacement of roads, bridges and dams in such town which, in the opinion of the Governor, with the advice of the Commissioner of Transportation, in the case of roads or bridges, and the Commissioner of Environmental Protection, in the case of dams, constitute a threat to public safety as a result of damage resulting from a natural disaster. Any such balance shall not lapse but shall continue to be available and shall not be transferred to the General Fund.

(P.A. 78-182, S. 1, 2.)

Sec. 13b-31. Town highways. The Commissioner of Transportation may, upon application of the selectmen or other authority having charge of highways of any town, furnish supervision, inspectors and engineers for any purpose connected with the laying out, repair, reconstruction or maintenance of any highway or bridge. Any expense incurred in furnishing any such assistance shall be paid by the town to the State Treasurer on certification by the commissioner.

(1969, P.A. 768, S. 72.)

See Sec. 13a-175f re joint purchase of materials for use in highway or bridge projects by Transportation Department and town.

CHAPTER 446I – WATER RESOURCES: STREAM CHANNEL ENCROACHMENT

Sec. 22a-342. (Formerly Sec. 25-4a). Establishment of stream channel encroachment lines. Permits for encroachments, required findings. Fees. The commissioner shall establish, along any tidal or inland waterway or flood-prone area considered for stream clearance, channel improvement or any form of flood control or flood alleviation measure, lines beyond which, in the direction of the waterway or flood-prone area, no obstruction, encroachment or hindrance shall be placed by any person, and no such obstruction, encroachment or hindrance shall be maintained by any person unless authorized by said commissioner. The commissioner shall issue or deny permits upon applications for establishing such encroachments based upon his findings of the effect of such proposed encroachments upon the flood-carrying and water storage capacity of the waterways and flood plains, flood heights, hazards to life and property, and the protection and preservation of the natural resources and ecosystems of the state, including but not limited to ground and surface water, animal, plant and aquatic life, nutrient exchange, and energy flow, with due consideration given to the results of similar encroachments constructed along the reach of waterway. Each application for a permit shall be accompanied by a fee as follows: (1) No change in grades and no construction of above-ground structures, two hundred fifty dollars; (2) a change in grade and no construction of above- ground structures, five hundred dollars; and (3) a change in grade and above-ground structures or buildings, two thousand five hundred dollars. The commissioner may adopt regulations, in accordance with the provisions of chapter 54, to prescribe the amount of the fees required pursuant to this section. Upon the adoption of such regulations, the fees required by this section shall be as prescribed in such regulations.

(1963, P.A. 435, S. 1; 1971, P.A. 872, S. 45; P.A. 73-590, S. 2, 3; P.A. 90-231, S. 11, 28; P.A. 91-369, S. 26, 36; P.A. 98-209, S. 5.)

History: 1971 act replaced references to water resources commission with references to environmental protection commissioner; P.A. 73-590 clarified applicable waterways as "tidal or inland" and required that findings contain effect of encroachment upon water storage capacity, floodplains and upon protection and preservation of natural resources and ecosystems; Sec. 25-4a transferred to Sec. 22a-342 in 1983; P.A. 90-231 required the payment of application fees and provided that on and after July 1, 1995, the fees shall be prescribed by regulations; P.A. 91-369 restated commissioner's authority to adopt regulations setting the fees required by this section; P.A. 98-209 prohibited hindrances beyond stream channel encroachment lines and prohibited maintenance of obstructions, encroachments or hindrances beyond such lines.

See Sec. 7-147 re municipal ordinances. See Sec. 22a-27i re exemption of municipality for one year. See Sec. 22a-360 re boundaries for structures.

Annotation to former section 25-4a: Cited. 179 C. 250, 252.

Annotations to present section: Cited. 215 C. 616, 618, 619, 621, 622, 625—630, 632. Cited. 235 C. 448, 457. Cited. 239 C. 124. Cited. 24 CA 163, 166.

Sec. 22a-342a. Civil penalty. Any person who places any obstruction, encroachment or hindrance within any stream channel encroachment line established by the Commissioner of Environmental Protection pursuant to section 22a-342 without a permit issued under said section, or is maintaining any such obstruction, encroachment or hindrance placed without such a permit, or in violation of the terms and conditions of such permit shall be liable for a civil penalty of not more than one thousand dollars for each offense. Each violation shall be a separate and distinct offense and in the case of a continuing violation, each day's continuance thereof shall be deemed to be a separate and distinct offense. The Commissioner of Environmental Protection may request the Attorney General to bring a civil action in the superior court for the judicial district of Hartford to seek imposition and recovery of such civil penalty.

(P.A. 87-438, S. 2; P.A. 88-230, S. 1, 12; 88-364, S. 42, 123; P.A. 90-98, S. 1, 2; P.A. 93-142, S. 4, 7, 8; P.A. 95-220, S. 4—6; P.A. 98-209, S. 6.)

History: P.A. 88-230 replaced "judicial district of Hartford-New Britain at Hartford" with "judicial district of Hartford", effective September 1, 1991; P.A. 88-364 made technical change; P.A. 90-98 changed the effective date of P.A. 88-230 from September 1, 1991, to September 1, 1993; P.A. 93-142 changed the effective date of P.A. 88-230 from September 1, 1993, to September 1, 1996, effective June 14, 1993; P.A. 95-220 changed the effective date of P.A. 88-230 from September 1, 1996, to September 1, 1998, effective July 1, 1995; P.A. 98-209 prohibited maintenance of obstructions, encroachments or hindrances beyond stream channel encroachment lines without a permit.

Cited. 215 C. 616, 625.

Sec. 22a-343. (Formerly Sec. 25-4b). Determination of lines. The commissioner, in establishing such encroachment lines, shall base their location on the boundaries of the area which would be inundated by a flood similar in size to one or more recorded floods which have caused extensive damages in such area or on a size of flood computed by accepted methods applicable generally throughout the state or a region thereof. The determination of the size of the flood and the boundaries of the inundated area shall take into consideration the effects of probable future developments. The position of the lines may vary from the boundaries of the inundated area so as to minimize the area of land to be regulated when a portion of the inundated area does not contribute to the flood-carrying capacity of the waterway. The position of the lines shall, insofar as practical, equitably affect riparian properties and interests depending upon existing topography and shall be interdependent throughout the reaches of the waterway, and shall conform with the requirements of the federal government imposed as conditions for the construction of flood control projects. When the existing waterway, because of natural or man-made constrictions, is such that such lines cannot be established by standard engineering methods, a channel may be adopted, whereby the removal of such constrictions may be anticipated so that reasonable lines can be established by methods applicable to the state generally. When the flood boundary falls along the channel banks, the lines shall be placed at the top of the bank.

(1963, P.A. 435, S. 2; 1971, P.A. 872, S. 46.)

History: 1971 act replaced reference to water resources commission with reference to environmental protection commissioner; Sec. 25-4b transferred to Sec. 22a-343 in 1983.

Annotation to former section 25-4b: Cited. 179 C. 250, 252.

Annotations to present section: Cited. 215 C. 616, 625, 626.

Sec. 22a-344. (Formerly Sec. 25-4c). Public hearing. Order establishing lines. The commissioner or a hearing examiner, designated by him, shall hold a public hearing to review the proposed encroachment lines along any waterway or flood-prone area prepared in accordance with section 22a-343 with due consideration of the equities involved. Notice of such hearing shall be given by mail to all property owners known to be affected by the proposed lines and shall be published three times in a newspaper having a general circulation in the area involved. The commissioner shall take appropriate steps to inform the public and the interested property owners of the proposals by making suitable maps available in the office of the town clerk of the town wherein the property is located for inspection, study and discussion. After consideration of all testimony and pertinent facts at his disposal

and with due regard for the public interest and the rights of respective property owners, the commissioner may approve the location of the lines as proposed or as modified and thereupon shall establish such lines by order. Such order shall be recorded with appropriate maps with the town clerks of the respective towns involved. Notice of such order establishing or altering such line or lines shall be mailed to all persons known to be affected thereby and shall be published three times in a newspaper having a general circulation in the area involved. Any person aggrieved by any order of the commissioner as to the location of such line may appeal therefrom, in accordance with the provisions of section 4-183, except venue for such appeal shall be in the judicial district of New Britain.

(1963, P.A. 435, S. 3; 1971, P.A. 872, S. 47; P.A. 76-436, S. 465, 681; P.A. 77-603, S. 105, 125; P.A. 80-483, S. 162, 186; P.A. 88-230, S. 1, 12; P.A. 90-98, S. 1, 2; P.A. 93-142, S. 4, 7, 8; P.A. 95-220, S. 4—6; P.A. 99-215, S. 24, 29.)

History: 1971 act replaced references to water resources commission with references to environmental protection commissioner and authorized designated hearing examiners to conduct hearings; P.A. 76-436 replaced court of common pleas with superior court, effective July 1, 1978; P.A. 77-603 replaced previous appeal provisions with requirement that appeals be made in accordance with Sec. 4-183, but retained venue in Hartford county; P.A. 80-483 replaced Hartford county with judicial district of Hartford-New Britain; Sec. 25-4c transferred to Sec. 22a-344 in 1983; P.A. 88-230 replaced "judicial district of Hartford-New Britain" with "judicial district of Hartford", effective September 1, 1991; P.A. 90-98 changed the effective date of P.A. 88-230 from September 1, 1991, to September 1, 1993; P.A. 93-142 changed the effective date of P.A. 88-230 from September 1, 1993, to September 1, 1996, effective June 14, 1993; P.A. 95-220 changed the effective date of P.A. 88-230 from September 1, 1996, to September 1, 1998, effective July 1, 1995; P.A. 99-215 replaced "judicial district of Hartford" with "judicial district of New Britain", effective June 29, 1999.

See Sec. 52-192 re precedence of appeal.

Annotation to former section 25-4c: Cited. 179 C. 250, 252.

Annotations to present section: Cited. 215 C. 616, 625.

Sec. 22a-345. (Formerly Sec. 25-4d). Nonconforming uses. Taking of existing structures by commissioner. When the establishment of such lines in accordance with sections 22a-342 to 22a-348, inclusive, requires that they be placed through portions of or so as to include entire existing structures within the regulated area, such structures or portions thereof shall be considered as a nonconforming use of the area, except that, if the structure is destroyed or damaged to the extent of more than fifty per cent of the fair market value, such structure shall be replaced or repaired only through a permit from the commissioner, provided the commissioner may define types of structures which may be reconstructed within such lines without a permit. Whenever the commissioner finds that existing structures or encroachments within the lines established constitute a hazard to life and property in the event of flood, he is empowered to take such land and structure as provided by chapter 835 and cause removal of such encroachment.

(1963, P.A. 435, S. 4; 1971, P.A. 872, S. 48.)

History: 1971 act replaced references to water resources commission with references to environmental protection commissioner; Sec. 25-4d transferred to Sec. 22a-345 in 1983.

Cited. 215 C. 616, 625.

Sec. 22a-346. (Formerly Sec. 25-4e.) Encroachment as nuisance. After the commissioner has established such lines on any waterway or flood plain, any obstruction, encroachment or hindrance of any nature placed within such lines in the direction of the waterway, without specific authorization of the commissioner, shall be considered a public nuisance. The Attorney General shall, at the request of the commissioner, institute proceedings to enjoin and abate any such nuisance.

(1963, P.A. 435, S. 5; 1971, P.A. 872, S. 49.)

History: 1971 act replaced references to water resources commission with references to environmental protection commissioner; Sec. 25-4e transferred to Sec. 22a-346 in 1983.

See Sec. 22a-362 re structures or fill.

Cited. 215 C. 616, 625.

Sec. 22a-347. (Formerly Sec. 25-4f). Regulations and procedures. The commissioner may, subject to the provisions of subsection (a) of section 22a-6, adopt, revise and amend such rules, regulations and procedures as are necessary to carry out the purposes of sections 22a-342 to 22a-348, inclusive, in the public interest.

(1963, P.A. 435, S. 6; 1971, P.A. 872, S. 50.)

History: 1971 act replaced reference to water resources commission with reference to environmental protection commissioner and added phrase limiting commissioner's power to make and revise regulations and procedures; Sec. 25-4f transferred to Sec. 22a-347 in 1983.

See chapter 54 (Sec. 4-166 et seq.) re administrative procedure.

Cited. 215 C. 616, 625.

Sec. 22a-348. (Formerly Sec. 25-4g). Municipal powers. (a) The provisions of sections 22a-342 to 22a-348, inclusive, shall not affect the provision of section 7-147 authorizing any town, city or borough to establish such lines within its jurisdiction prior to the establishment of lines by the commissioner, provided the commissioner may alter any lines, however established, upon finding such alterations are necessary to effectuate the purpose of said sections 22a-342 to 22a-348, inclusive, and section 25-69. If the commissioner has established lines within a municipality, the commissioner shall have exclusive jurisdiction over any encroachments within such lines.

(b) Notwithstanding the provisions of subsection (a), any town, city or borough may establish such lines at any time to comply with the eligibility provisions of the National Flood Insurance Program (44 CFR Part 59 et seq.).

(1963, P.A. 435, S. 7; 1971, P.A. 872, S. 51; P.A. 84-16; P.A. 88-327, S. 2, 3.)

History: 1971 act replaced references to water resources commission with references to environmental protection commissioner; Sec. 25-4g transferred to Sec. 22a-348 in 1983; P.A. 84-16 added Subsec. (b) authorizing towns to establish lines to comply with the National Flood Insurance Program; P.A. 88-327 added provisions to Subsec. (a) re exclusive jurisdiction of commissioner of environmental protection.

Cited. 215 C. 616, 625.

Sec. 22a-349. (Formerly Sec. 25-4h). Permitted agricultural use. The provisions of sections 22a-342 to 22a-348, inclusive, shall not be deemed to restrict agricultural or farming uses of lands located within the stream channel encroachment lines including the building of fences, provided this section shall not apply to farm buildings and farm structures.

(P.A. 75-114, S. 1, 2.)

History: Sec. 25-4h transferred to Sec. 22a-349 in 1983.

Cited. 215 C. 616, 618, 621, 622, 625—627, 629—632. Cited. 239 C. 124. Cited. 24 CA 163, 167.

Sec. 22a-349a. General permits for minor activities. Regulations. (a) The Commissioner of Environmental Protection may issue a permit for any minor activity regulated under sections 22a-342 to 22a-349, inclusive, except for any activity covered by an individual permit, if the commissioner determines that such activity would cause minimal environmental effects when conducted separately and would cause only minimal cumulative environmental effects, and will not cause any increase in flood heights or in the potential for flood damage or flood hazards. Such activities may include routine minor maintenance and routine minor repair of existing structures; replacement of existing culverts; installation of water monitoring equipment, including but not limited to staff gauges, water recording and water quality testing devices; removal of unauthorized solid waste; extension of existing culverts and stormwater outfall pipes; placement of greenhouses or hoophouses lacking concrete foundations;

construction of irrigation and utility lines; and safety improvements with minimal environmental impacts within existing rights-of-way of existing roadways. Any person, firm or corporation conducting an activity for which a general permit has been issued shall not be required to obtain an individual permit under any other provision of said sections 22a-342 to 22a-349, inclusive, except as provided in subsection (c) of this section. A general permit shall clearly define the activity covered thereby and may include such conditions and requirements as the commissioner deems appropriate, including but not limited to, management practices and verification and reporting requirements. The general permit may require any person, firm or corporation, conducting any activity under the general permit to report, on a form prescribed by the commissioner, such activity to the commissioner before it shall be covered by the general permit. The commissioner shall prepare, and shall annually amend, a list of holders of general permits under this section, which list shall be made available to the public.

(b) Notwithstanding any other procedures specified in said sections 22a-342 to 22a- 349, inclusive, any regulations adopted thereunder, and chapter 54, the commissioner may issue, revoke, suspend or modify a general permit in accordance with the following procedures: (1) The commissioner shall publish in a newspaper having a substantial circulation in the affected area or areas notice of intent to issue a general permit; (2) the commissioner shall allow a comment period of thirty days following publication of such notice during which interested persons may submit written comments concerning the permit to the commissioner and the commissioner shall hold a public hearing if, within said comment period, he receives a petition signed by at least twenty-five persons; (3) the commissioner may not issue the general permit until after the comment period; and (4) the commissioner shall publish notice of any permit issued in a newspaper having substantial circulation in the affected area or areas. Any person may request that the commissioner issue, modify or revoke a general permit in accordance with this subsection.

(c) Subsequent to the issuance of a general permit, the commissioner may require any person, firm or corporation, to apply for an individual permit under the provisions of said sections 22a-342 to 22a-349, inclusive, for all or any portion of the activities covered by the general permit, if in the commissioner's judgment the purposes and policies of such sections would be best served by requiring an application for an individual permit. The commissioner may require an individual permit under this subsection only if the affected person, firm or corporation has been notified in writing that an individual permit is required. The notice shall include a brief statement of the reasons for the decision and a statement that upon the date of issuance of such notice the general permit as it applies to the individual activity will terminate.

(d) Any general permit issued under this section shall require that any person, firm or corporation intending to conduct an activity covered by such general permit shall, at least sixty days before initiating such activity, give written notice of such intention to the inland wetlands agency, zoning commission, planning commission or combined planning and zoning commission and conservation commission of any municipality which will or may be affected by such activity, and to the department which shall make such notices available to the public. The general permit shall specify the information which must be contained in the notice. An inland wetlands agency, planning and zoning commission, conservation commission or any person may submit written comments to the commissioner concerning such activity not later than twenty-five days prior to the date that the activity is proposed to begin.

(e) The commissioner may adopt regulations in accordance with the provisions of chapter 54 to carry out the purposes of this section.

(P.A. 91-263, S. 4, 8; P.A. 92-162, S. 16, 25.)

History: P.A. 92-162 amended Subsec. (d) to provide that any person may submit comments to the commissioner concerning regulated activities permitted under this section prior to commencement of such activities and changed the deadline for such comments from thirty days prior to such commencement to twenty-five days.

CGS CHAPTER 467A: FLOOD MANAGEMENT

Sec. 25-68b. Definitions. As used in sections 25-68b to 25-68h, inclusive:

(1) "Activity" means any proposed state action in a floodplain or that impacts natural or man-made storm drainage facilities, including, but not limited to, the following: (a) Any structure, obstruction or encroachment proposed for emplacement within the floodplain area; (b) any proposal for site development which increases peak runoff rates; (c) any grant or loan which affects land use, land use planning or the disposal of state properties in floodplains, or (d) any program regulating flood flows within the floodplain;

(2) "Base flood" means that flood which has a one per cent chance of being equaled or exceeded in any year, as defined in regulations of the National Flood Insurance Program (44 CFR 59 et seq.) or that flood designated by the commissioner pursuant to section 25-68c. Any flood so designated by the commissioner shall have at least a one per cent chance of being equaled or exceeded in any year. Such flood may be designated as the A or V zones on maps published by the National Flood Insurance Program. The "base flood for a critical activity" means the flood that has at least a .2 per cent chance of being equaled or exceeded in any year. Such flood may be designated as the B zone on maps published for the National Flood Insurance Program;

(3) "Commissioner" means the Commissioner of Environmental Protection;

(4) "Critical activity" means any activity, including, but not limited to, the treatment, storage and disposal of hazardous waste and the siting of hospitals, housing for the elderly, schools or residences, in the .2 per cent floodplain in which the commissioner determines that a slight chance of flooding is too great;

(5) "Floodplain" means that area located within the real or theoretical limits of the base flood or base flood for a critical activity;

(6) "Flood-proofing" means any combination of structural or nonstructural additions, changes or adjustments which reduce or eliminate flood damage to real estate or improved real property, to water and sanitary facilities, and to structures and their contents;

(7) "Freeboard" means a safety factor, expressed in feet above a calculated flood level, that compensates for unknown factors contributing to flood heights greater than the calculated height, including, but not limited to, ice jams, debris accumulations, wave actions, obstructions of bridge openings and floodways, the effects of urbanization on the hydrology of a watershed, loss of flood storage due to development and sedimentation of a watercourse bed.

(P.A. 84-536, S. 1.)

Sec. 25-68c. Powers and duties of commissioner. The commissioner shall have the following powers and duties under sections 25-68b to 25-68h, inclusive:

(1) To coordinate, monitor and analyze the floodplain management activities of state and local agencies;

(2) To coordinate flood control projects within the state and be the sole initiator of a flood control project with a federal agency;

(3) To act as the primary contact for federal funds for floodplain management activities sponsored by the state;

(4) To regulate actions by state agencies affecting floodplains except conversion by The University of Connecticut of commercial or office structures to an educational structure;

(5) To designate a repository for all flood data within the state;

(6) To assist municipalities and state agencies in the development of comprehensive floodplain management programs;

(7) To determine the number and location of state-owned structures and uses by the state in the floodplain and to identify measures to make such structures and uses less susceptible to flooding including flood-proofing or relocation;

(8) To mark or post the floodplains within lands owned, leased or regulated by state agencies in order to delineate past and probable flood heights and to enhance public awareness of flood hazards;

(9) To designate the base flood or base flood for a critical activity where no such base flood is designated by the National Flood Insurance Program. The commissioner may add a freeboard factor to any such designation;

(10) To require that any flood control project be designed to provide protection equal to or greater than the base flood.

(P.A. 84-536, S. 2; P.A. 95-230, S. 44, 45.)

History: P.A. 95-230 amended Subdiv. (4) to add exception for The University of Connecticut, effective June 7, 1995.

Sec. 25-68d. Certification of activity or critical activity within or affecting the floodplain. Exemption. (a) No state agency shall undertake an activity or a critical activity within or affecting the floodplain without first obtaining approval from the commissioner of a certification submitted in accordance with subsection (b) or exemption by the commissioner from such approval in accordance with subsection (d).

(b) Any state agency proposing an activity or critical activity within or affecting the floodplain shall submit to the commissioner information certifying that:

(1) The proposal will not obstruct flood flows or result in an adverse increase in flood elevations, significantly affect the storage or flood control value of the floodplains, cause an adverse increase in flood velocities, or an adverse flooding impact upon upstream, downstream or abutting properties, or pose a hazard to human life, health or property in the event of a base flood or base flood for a critical activity;

(2) The proposal complies with the provisions of the National Flood Insurance Program (44 CFR 59 et seq.), and any floodplain zoning requirements adopted by a municipality in the area of the proposal and the requirements for stream channel encroachment lines adopted pursuant to the provisions of section 22a-342;

(3) The agency has acquired, through public or private purchase or conveyance, easements and property in floodplains when the base flood or base flood for a critical activity is elevated above the increment authorized by the National Flood Insurance Program or the flood storage loss would cause adverse increases in such base flood flows;

(4) The proposal promotes long-term non-intensive floodplain uses and has utilities located to discourage floodplain development;

(5) The agency has considered and will use to the extent feasible flood-proofing techniques to protect new and existing structures and utility lines, will construct dikes, dams, channel alterations, seawalls, breakwaters or other structures only where there are no practical alternatives and will implement stormwater management practices in accordance with regulations adopted pursuant to section 25-68h; and

(6) The agency has flood forecasting and warning capabilities consistent with the system maintained by the National Weather Service and has a flood preparedness plan.

(c) The commissioner shall make a decision either approving or rejecting a certification within ninety days of receipt of such certification, except that in the case of an exemption any decision shall be

made within ninety days of the close of the hearing. If a certification is rejected, the agency shall be entitled to a hearing in accordance with the provisions of sections 4-176e, 4-177, 4-177c and 4-180.

(d) Any state agency proposing an activity or critical activity within or affecting the floodplain may apply to the commissioner for exemption from the provisions of subsection (b). Such application shall include a statement of the reasons why such agency is unable to comply with said subsection and any other information the commissioner deems necessary. The commissioner, after public notice of the application and an opportunity for a public hearing in accordance with the provisions of chapter 54, may approve such exemption if he determines that (1) the agency has shown that the activity or critical activity is in the public interest, will not injure persons or damage property in the area of such activity or critical activity, complies with the provisions of the National Flood Insurance Program, and, in the case of a loan or grant, the recipient of the loan or grant has been informed that increased flood insurance premiums may result from the activity or critical activity or (2) in the case of a flood control project, such project meets the criteria of subdivision (1) and is more cost-effective to the state and municipalities than a project constructed to or above the base flood or base flood for a critical activity. Following approval for exemption for a flood control project, the commissioner shall provide notice of the hazards of a flood greater than the capacity of the project design to each member of the legislature whose district will be affected by the project and to the following agencies and officials in the area to be protected by the project: The planning and zoning commission, the inland wetlands agency, the director of civil defense, the conservation commission, the fire department, the police department, the chief elected official and each member of the legislative body, and the regional planning agency. Notice shall be given to the general public by publication in a newspaper of general circulation in each municipality in the area in which the project is to be located.

(e) The failure of any agency to comply with the provisions of this section or any regulations adopted pursuant to section 25-68c shall be grounds for revocation of the approval of the certification.

(f) The provisions of this section shall not apply to any proposal by the department of transportation for a project within a drainage basin of less than one square mile.

(P.A. 84-536, S. 3; P.A. 88-317, S. 87, 107.)

History: P.A. 88-317 added references in Subsec. (c) to Secs. 4-176e, 4-177c and 4-180, effective July 1, 1989, and applicable to all agency proceedings commencing on or after that date.

Sec. 25-68e. Suspension. The provisions of sections 25-68b to 25-68h, inclusive, and any regulations adopted thereunder may be suspended by the commissioner during any disaster emergency proclaimed by the Governor pursuant to section 28-9a or during an emergency declaration or major disaster declaration declared by the President of the United States under Public Law 93-288.

(P.A. 84-536, S. 4.)

Sec. 25-68f. Floodplain designation. Where more than one flood zone has been designated for an area, the most stringent designation shall be used in fulfilling the provisions of sections 25-68b to 25-68h, inclusive.

(P.A. 84-536, S. 5.)

Sec. 25-68g. Immunity. The state, any municipality or any officer or employee thereof shall not be liable for any damage resulting from reliance on any decision made pursuant to section 25-68d.

(P.A. 84-536, S. 6.)

Sec. 25-68h. Regulations. The commissioner shall adopt regulations in accordance with the provisions of chapter 54 to implement the provisions of sections 25-68b to 25-68h, inclusive. Such regulations shall include, but not be limited to, (1) standards for stormwater management and flood flows and (2) procedures for certification or exemption of a proposal in accordance with section 25-68d.

(P.A. 84-536, S. 7.)

CGS CHAPTER 467A: ENDANGERED SPECIES

Sec. 26-310. Actions by state agencies which affect endangered or threatened species or species of special concern or essential habitats of such species. (a) Each state agency, in consultation with the commissioner, shall conserve endangered and threatened species and their essential habitats, and shall ensure that any action authorized, funded or performed by such agency does not threaten the continued existence of any endangered or threatened species or result in the destruction or adverse modification of habitat designated as essential to such species, unless such agency has been granted an exemption as provided in subsection (c) of this section. In fulfilling the requirements of this section, each agency shall use the best scientific data available.

(b) Each state agency responsible for the primary recommendation or initiation of actions on land or in aquatic habitats which may significantly affect the environment, as defined in section 22a-1c, shall ensure that such actions are consistent with the provisions of sections 26-303 to 26-312, inclusive, and shall take all reasonable measures to mitigate any adverse impacts of such actions on endangered or threatened species or essential habitat. The Secretary of the Office of Policy and Management shall consider the consistency of such proposed actions with the provision of said sections 26-303 to 26-312, inclusive, in determining whether or not an environmental impact evaluation prepared pursuant to section 22a-1b satisfies the requirements of sections 22a-1a to 22a-1h, inclusive, and regulations adopted pursuant to said sections.

(c) If the Secretary of the Office of Policy and Management, in consultation with the commissioner, determines that a proposed action violates subsections (a) or (b) of this section and there are no feasible and prudent alternatives the state agency may apply to the commissioner for an exemption. The commissioner may grant an exemption after considering the following factors: (1) The agency did not make an irreversible or irretrievable commitment of resources after initiation of consultation with the department that forecloses the opportunity for formulating and implementing feasible and prudent alternatives, (2) the benefits of the action clearly outweigh the benefits of alternative courses of action, consistent with conserving the species or its essential habitat, and such action is in the public interest, (3) the action is of regional or state-wide significance, and (4) the agency plans to take reasonable mitigation and enhancement measures necessary and appropriate to minimize the adverse impacts of the action upon the species or essential habitat, including, but not limited to, live propagation, transplantation, and habitat acquisition and improvement.

(d) If the Secretary of the Office of Policy and Management, in consultation with the commissioner, determines that a proposed action would not appreciably reduce the likelihood of the survival or recovery of an endangered or threatened species, but would result in the incidental taking of such species, the commissioner shall provide the state agency with a written statement that: (1) Specifies the impact of such incidental taking on the species; (2) specifies feasible and prudent measures and alternatives that shall be implemented as part of the proposed project in order to ensure that the action does not appreciably reduce the likelihood of the recovery of the species; and (3) sets forth terms and conditions including, but not limited to, reporting requirements to ensure compliance with this subsection. Any taking that is in compliance with the measures and alternatives specified pursuant to this subsection shall not be prohibited by sections 26-303 to 26-312, inclusive.

(P.A. 89-224, S. 8, 22.)

History: (Revisor's note: In 1993 an incorrect reference in Subsec. (b) to Sec. 36-312 was changed editorially by the Revisors to Sec. 26-312).

AUDITS FOR RECIPIENTS OF STATE FINANCIAL ASSISTANCE

Sec. 4-230. Definitions. As used in sections 4-230 to 4-236, inclusive:
(1) "Cognizant agency" means a state agency which is assigned by the secretary the responsibility for implementing the requirements of sections 4-230 to 4-236, inclusive;

(2) "Secretary" means the Secretary of the Office of Policy and Management;
(3) "State financial assistance" means assistance that a non-state entity receives or administers which is provided by a state agency or pass-through entity in the form of grants, contracts, loans, loan guarantees, property, cooperative agreements, interest subsidies, insurance or direct appropriations, but does not include direct state cash assistance to individuals or payments to a vendor;
(4) "State agency" means any department, board, commission, institution or other agency of the state;
(5) "Generally accepted accounting principles" has the meaning specified in the generally accepted auditing standards issued by the American Institute of Certified Public Accountants (AICPA);
(6) "Generally accepted government auditing standards" (GAGAS) means the generally accepted government auditing standards issued by the Comptroller General of the United States that are applicable to financial audits;
(7) "Independent auditor" means a public accountant who is licensed to practice in the state and meets the independence standards included in generally accepted government auditing standards;
(8) "Internal controls" means a process, effected by an entity's board of directors, management and other personnel, designed to provide reasonable assurance regarding the achievement of objectives in: (A) Reliability of financial reporting, (B) effectiveness and efficiency of operations and (C) compliance with applicable laws and regulations;
(9) "Municipality" means a town, consolidated town and city, consolidated town and borough, city or borough, including a local board of education as described in subsection (c) of section 7-392;
(10) "Audited agency" means a fire district, fire and sewer district, sewer district or other municipal utility, the Metropolitan District of Hartford County, a regional board of education, a regional planning agency, any other political subdivision of similar character which is created or any other agency created or designated by a municipality to act for such municipality whose average annual receipts from all sources exceed two hundred thousand dollars or any tourism district established under section 32-302;
(11) "Nonprofit agency" means any organization that is not a for-profit business and provides services contracted for by (A) the state or (B) a non-state entity. It also means private institutions of higher learning which receive state financial assistance;
(12) "Major state program" means any program, excluding an exempt program, for which total expenditures of state financial assistance by a nonstate entity during the applicable year exceed the larger of (A) one hundred thousand dollars or (B) one per cent of the total amount of state financial assistance expended, excluding expenditures of an exempt program by the nonstate entity during the audited year;
(13) "Public accountant" means an individual who meets the standards included in generally accepted government auditing standards for personnel performing government audits and the licensing requirements of the State Board of Accountancy;
(14) "Subrecipient" means a nonstate entity that receives state financial assistance from a pass-through entity, but does not include an individual who receives such assistance;
(15) "Tourism district" means a district established under section 32-302;
(16) "Nonstate entity" means a municipality, tourism district, audited agency or nonprofit agency;
(17) "Pass-through entity" means a nonstate entity that provides state financial assistance to a subrecipient;
(18) "Program-specific audit" means an audit of a single state program conducted in accordance with the regulations adopted under section 4-236;
(19) "Expended" and "expenditures" have the meanings attributed to those terms in generally accepted accounting principles, except that (A) state financial assistance received which does not specify a required use shall be assumed to be fully expended in the fiscal year of receipt, and (B) exempt programs shall be assumed to be expended in the fiscal year that the state financial assistance is received;
(20) "Exempt program" means any of the following programs: Education cost sharing, pursuant to sections 10-262f to 10-262j, inclusive; public and nonpublic school pupil transportation, pursuant to sections 10-54, 10-97, 10-266m, 10-273a, 10-277 and 10-281; special education, excess costs equity and excess costs student-based, pursuant to subsection (e) of section 10-76d, subsections (a), (b) and (c) of section 10-76g and section 10-253; school building grants-principal and interest subsidy, pursuant to chapter 173 and section 10-264h; and school construction grants pursuant to public act 97- 265 and public act 97-11 of the June 18 Special Session*; and

(21) "Vendor" means a dealer, distributor, merchant or other seller providing goods or services that are required for the conduct of a state program. Such goods or services may be for an organization's own use or for the use of beneficiaries of the state program.

(P.A. 91-401, S. 1, 20; P.A. 97-238, S. 5; P.A. 98-143, S. 17, 24; P.A. 00-66, S. 9.)
*Public act 97-265 is entitled "An Act Concerning Authorization of State Grant Commitments for School Building Projects and Clarification and Separation of the Grant and Bond Program for School Building Projects and the Grant and Bond Program for Interest Payment Subsidies" and public act 97-11 of the June 18 special session is entitled "An Act Concerning Computerized Information Sharing, the Mashantucket Pequot and Mohegan Fund, Early Retirement, School Construction, State Buildings, Nursing Homes, Executive and Legislative Councils, Commissions and Task Forces, Appropriations for the Fiscal Years Ending June 30, 1997, 1998 and 1999, Spring and Well Water Collection, Project Concern, Notice Requirements for Psychiatric Admissions, the Tax on Net Direct Subscriber Charges of Health Care Centers, Elimination of Certain Wage Inequities, Sheriffs' Fees and Expenses of the Connecticut Siting Council". (See Reference Tables captioned "Public Acts of 1997" and "Public Acts of June 18, 1997", respectively, in Volume 16 which list the sections amended, created or repealed by the acts.)

History: P.A. 97-238 redefined "audited agency" to include tourism districts; P.A. 98-143 revised definitions in Subdivs. (3), (5) to (8), inclusive, and (11) to (14), inclusive, and added new Subdivs. (15) to (21), inclusive, defining "tourism district", "nonstate entity", "pass-through entity", "program-specific audit", "expended" and "expenditures", "exempt program" and "vendor", effective June 4, 1998, and applicable to audits conducted for fiscal years commencing on and after July 1, 1998; P.A. 00-66 made a technical change in Subdiv. (19).

Sec. 4-231. When single audits required or program-specific audits. (a)(1) Each nonstate entity which expends a total amount of state financial assistance equal to or in excess of one hundred thousand dollars in any fiscal year of such nonstate entity beginning on or after July 1, 1998, shall have either a single audit or a program-specific audit made for such fiscal year, in accordance with the provisions of subdivision (2) or (3) of this subsection and the requirements of regulations adopted pursuant to section 4- 236. If a provision of the general statutes or an administrative rule, regulation, guideline, standard or policy, which is effective on July 1, 1992, requires a nonstate entity to conduct a biennial audit, the audit required under this section shall be conducted on the same biennial basis and shall cover both years of the biennial period.
(2) If the total amount of state financial assistance expended in any such fiscal year is for a single program, such nonstate entity may elect to have a program-specific audit made in lieu of a single audit.
(3) If the total amount of state financial assistance expended in any such fiscal year is for more than one program, such entity shall have a single audit made for such fiscal year.
(b) Notwithstanding any provision of the general statutes or any regulation adopted under any provision of the general statutes, each nonstate entity that expends total state financial assistance of less than one hundred thousand dollars in any fiscal year of such nonstate entity beginning on or after July 1, 1998, shall be exempt with respect to such year from complying with any statutory or regulatory requirements concerning financial or financial and compliance audits that would otherwise be applicable.
(c) No provision of this section shall be deemed to exempt a nonstate entity from complying with any statutory or regulatory provision requiring the entity to (1) maintain records concerning state financial assistance or (2) provide access to such records to a state agency.

(P.A. 91-401, S. 2, 20; P.A. 92-121, S. 1, 3; May 25 Sp. Sess. P.A. 94-1, S. 43, 130; P.A. 98-143, S. 18, 24.)

History: P.A. 92-121 amended Subsec. (a) by requiring each municipality and audited agency subject to the federal Single Audit Act to have a comprehensive audit each fiscal year and delaying the compliance of the single comprehensive audit for certain nonprofit agencies for one year; May 25 Sp. Sess. P.A. 94-1 amended Subdiv. (1) of Subsec. (a) by making technical changes, effective July 1, 1994; P.A. 98-143 deleted all former provisions and substituted new provisions re auditing requirements, effective June 4, 1998, and applicable to audits conducted for fiscal years commencing on and after July 1, 1998.

Sec. 4-232. Designation of independent auditor to conduct audit. Audit report filing. (a) Each nonstate entity which is required to be audited pursuant to sections 4- 230 to 4-236, inclusive, shall designate an independent auditor to conduct such audit. Not later than thirty days before the end of the fiscal period for which the audit is required, the nonstate entity shall file the name of such auditor with the cognizant agency. If a nonstate entity fails to make such filing, the cognizant agency may designate an independent auditor to conduct the audit.

(b) (1) Upon the completion of the audit, pursuant to sections 4-230 to 4-236, inclusive, the nonstate entity shall file copies of the audit report with state grantor agencies, the cognizant agency and if applicable, pass-through entities. Once filed, such report shall be made available by the nonstate entity for public inspection. Copies of the report shall be filed not later than thirty days after completion of such report, if possible, but not later than six months after the end of the audit period. The cognizant agency may grant an extension of not more than thirty days, if the auditor making the audit and the chief executive officer of the nonstate entity jointly submit a request in writing to the cognizant agency stating the reasons for such extension at least thirty days prior to the end of such six-month period. If the reason for the extension relates to deficiencies in the accounting system of the nonstate entity, the request shall be accompanied by a corrective action plan. The cognizant agency may, after a hearing with the auditor and officials of the nonstate entity, grant an additional extension if conditions warrant.
(2) Any nonstate entity, or auditor of such nonstate entity, which fails to have the audit report filed on its behalf within six months after the end of the fiscal year or within the time granted by the cognizant agency may be assessed, by the Secretary of the Office of Policy and Management, a civil penalty of not less than one thousand dollars but not more than ten thousand dollars. In addition to, or in lieu of such penalty, the cognizant agency may assign an auditor to perform the audit of such nonstate entity. In such case, the nonstate entity shall be responsible for the costs related to the audit. The secretary may, upon receipt of a written request from an official of the nonstate entity or its auditor, waive all such penalties if the secretary determines that there appears to be reasonable cause for the entity not having completed or provided the required audit report.

(P.A. 91-401, S. 3, 20; P.A. 98-143, S. 19, 24.)

History: P.A. 98-143 designated existing provisions as Subsec. (a), amended Subsec. (a) by substituting "nonstate entity" for "municipality, audited agency and nonprofit agency" and deleting requirement that auditor be subject to approval of cognizant agency and added new Subsec. (b) re filing of audit report, effective June 4, 1998, and applicable to audits conducted for fiscal years commencing on and after July 1, 1998.

Sec. 4-233. Conduct and scope of audits. When corrective action required. (a) Each audit required by sections 4-230 to 4-236, inclusive, shall:
(1) Be conducted in accordance with generally accepted government auditing standards, except that, for the purposes of said sections such standards shall not be construed to require economy and efficiency audits, program results audits, or program evaluations; and
(2) Except in the case of program-specific audits, cover the entire operations, including financial operations, of the nonstate entity, except that such audit may exclude public hospitals.
(b) Each such audit shall determine and report whether: (1) The financial statements of the nonstate entity are presented fairly in all material respects in conformity with generally accepted accounting principles; (2) the schedule of expenditures of state financial assistance of the nonstate entity is presented fairly in all material respects in relation to the financial statements taken as a whole; (3) in addition to the requirements of generally accepted government auditing standards, the auditor has performed procedures to obtain an understanding of internal control over state programs sufficient to (A) plan the audit to support a low assessed level of control risk for major state programs, (B) plan the testing of internal control over major state programs to support a low assessed level of control risk for the assertions relevant to the compliance requirement for each major state program, and (C) perform testing of internal controls; and (4) the nonstate entity has complied with laws, regulations and grant or contract provisions that may have a material effect upon individual compliance requirements for each major state program. In complying with the requirements of subdivision (4) of this subsection, the independent auditor shall select and test a representative number of transactions from each major state program. Each audit report shall identify which programs were tested for compliance.
(c) (1) When the total expenditures of a nonstate entity's major state programs are less than fifty per cent of such nonstate entity's total expenditures of state financial assistance, excluding exempt program expenditures, the independent auditor shall select and test additional programs as major state programs as may be necessary to achieve audit coverage of at least fifty per cent of the nonstate entity's total expenditures of state financial assistance, excluding exempt program expenditures. The provisions of this subsection shall be carried out in accordance with the regulations adopted pursuant to section 4-236 and shall be subject to the provisions of subdivision (2) of this subsection.

(2) In achieving the audit coverage in accordance with subdivision (1) of this subsection, no more than two programs which each have total state financial assistance expenditures of twenty-five thousand dollars or more but not more than one hundred thousand dollars shall be tested, if such programs are required to be tested to achieve the audit coverage of subdivision (1) of this subsection.
(d) If an audit conducted pursuant to this section finds any material noncompliance by a nonstate entity with applicable laws, regulations and grant or contract provisions, or finds any reportable condition or material weakness with respect to the internal controls of the nonstate entity concerning the matters described in subsection (b) of this section, the nonstate entity shall submit to appropriate state officials a plan for corrective action to eliminate such material noncompliance, reportable condition or material weakness.

(P.A. 91-401, S. 4, 20; P.A. 98-143, S. 20, 24.)

History: P.A. 98-143 substituted "nonstate entity" for "municipality, audited agency or nonprofit agency" throughout the section, amended Subsec. (a)(2) by inserting exception for program-specific audits, substantially amended the audit determination and report requirements of Subsec. (b) and deleted former Subsecs. (c) to (g), inclusive, substituting new Subsec. (c) re audit coverage of expenditures of state financial assistance and new Subsec. (d) re corrective action to eliminate material noncompliance, reportable condition or material weakness, effective June 4, 1998, and applicable to audits conducted for fiscal years commencing on and after July 1, 1998.

Sec. 4-234. Audits in lieu of financial or financial and compliance audits. Additional audits. (a) An audit conducted in accordance with sections 4-230 to 4-236, inclusive, shall be in lieu of any financial or financial and compliance audit of state financial assistance programs which a nonstate entity is required to conduct under any other state law or regulation. To the extent that such audit provides a state agency with the information it requires to carry out its responsibilities under state law or regulations, a state agency shall rely upon and use such information and plan and conduct its own audits accordingly in order to avoid a duplication of effort.

(b) Notwithstanding the provisions of subsection (a) of this section, a state agency shall conduct any additional audits which it deems necessary to carry out its responsibilities, upon a written determination by the executive authority of the agency, based on evidence of fiscal irregularities or noncompliance with applicable laws and regulations, and after consulting with the cognizant agency. The provisions of sections 4-230 to 4-236, inclusive, do not authorize a cognizant agency or any nonstate entity, or any subrecipient thereof, to constrain, in any manner, such state agency from carrying out such additional audits. As used in this subsection and subsection (d) of this section, "executive authority" shall be construed as defined in section 4-37e.

(c) The provisions of sections 4-230 to 4-236, inclusive, do not (1) limit the authority of state agencies to conduct, or enter into contracts for the conduct of, audits and evaluations of state financial assistance programs or (2) limit the authority of any state agency auditor or other state audit official.
(d) A state agency that performs or contracts for audits in addition to the audits conducted for recipients of state financial assistance pursuant to sections 4-230 to 4-236, inclusive, shall, consistent with other applicable law, pay for the cost of such additional audits. Such additional audits may include, but shall not be limited to, economy and efficiency audits, program results audits and program evaluations. The state agency shall use the results of the single audit as a basis for any additional requirements, and shall not duplicate the single audit unless the executive authority of such agency determines in writing that such duplication is necessary.

(P.A. 91-401, S. 5, 20; P.A. 98-143, S. 21, 24.)

History: P.A. 98-143 substituted "nonstate entity" for "municipality, audited agency or nonprofit agency" in Subsecs. (a) and (b), amended Subsec. (a) by substituting "state financial assistance programs" for "an individual state assistance program" and deleted former Subsec. (e) re requirement that audits be conducted in conjunction with federal Single Audit Act, effective June 4, 1998, and applicable to audits conducted for fiscal years commencing on and after July 1, 1998.

Sec. 4-235. Designation of cognizant agencies. Pass-through entities and subrecipients. (a) The secretary shall designate cognizant agencies for audits conducted pursuant to sections 4-230 to 4-236,

inclusive.
(b) A cognizant agency shall: (1) Ensure through coordination with state agencies, that audits are made in a timely manner and in accordance with the requirements of sections 4-230 to 4-236, inclusive; (2) ensure that corrective action plans made pursuant to section 4-233 are transmitted to the appropriate state officials; and (3) (A) coordinate, to the extent practicable, audits done by or under contract with state agencies that are in addition to the audits conducted pursuant to sections 4-230 to 4-236, inclusive; and (B) ensure that such additional audits build upon the audits conducted pursuant to said sections.
(c) (1) Each pass-through entity which is subject to the audit requirements of sections 4-230 to 4-236, inclusive, shall:
(A) Advise subrecipients of requirements imposed on them by state laws, regulations, and the provisions of contracts or grant agreements, and any supplemental requirements imposed by the pass-through entity;
(B) If the subrecipient is subject to an audit in accordance with the requirements of said sections 4-230 to 4-236, inclusive, review such audit and ensure that prompt and appropriate corrective action is taken with respect to material findings of noncompliance with individual compliance requirements or reportable conditions or material weaknesses in internal controls pertaining to state financial assistance provided to the subrecipient by the pass-through entity; or
(C) If the subrecipient is not subject to an audit in accordance with the requirements of said sections 4-230 to 4-236, inclusive, monitor the activities of subrecipients as necessary to ensure that state financial assistance is used for authorized purposes in compliance with laws, regulations, and the provisions of contracts or grant agreements.
(2) Each pass-through entity, as a condition of receiving state financial assistance, shall require each of its subrecipients to permit the independent auditor of the pass- through entity to have such access to the subrecipient's records and financial statements as may be necessary for the pass-through entity to comply with sections 4-230 to 4-236, inclusive.

(P.A. 91-401, S. 6, 20; P.A. 98-143, S. 22, 24.)

History: (Revisor's note: In 1997 the Revisors changed Subsec. (b)(3)(B) from "ensure that such additional audits build upon the audits conducted pursuant said sections" to "ensure that such additional audits build upon the audits conducted pursuant to said sections", thereby correcting a clerical error made during the codification of P.A. 91-401); P.A. 98-143 amended Subsec. (b) by deleting provision requiring cognizant agency to act in conjunction with federal cognizant agency designated pursuant to federal Single Audit Act, inserting "through coordination with state agencies," in Subdiv. (1) and deleting "the audit reports and" following "ensure that" in Subdiv. (2), and added new Subsec. (c) re requirements for pass-through entities, effective June 4, 1998, and applicable to audits conducted for fiscal years commencing on and after July 1, 1998.

Sec. 4-236. Regulations. (a) The secretary shall, in consultation with the Auditors of Public Accounts, appropriate state officials and representatives of nonstate entities, adopt regulations pursuant to the provisions of chapter 54 to implement the provisions of sections 4-230 to 4-235, inclusive.
(b) The secretary shall also adopt regulations, in accordance with the provisions of chapter 54, (1) concerning the recovery of grant funds based on audit findings, as the secretary deems appropriate for any grantee which is found as a result of an audit to not be in compliance with the standards established pursuant to section 4-233, and (2) establishing uniform standards which prescribe the cost accounting principles to be used in the administration of state financial assistance by the recipients of such assistance.

(P.A. 91-401, S. 7, 20; P.A. 98-143, S. 23, 24; P.A. 00-125, S. 1, 2.)

History: P.A. 98-143 amended Subsec. (a) by substituting "state officials and representatives of nonstate entities" for "state, municipal and audited agency officials and representatives of nonprofit agencies" and deleting criteria required to be included in regulations, effective June 4, 1998, and applicable to audits conducted for fiscal years commencing on and after July 1, 1998; P.A. 00-125 amended Subsec. (a) to make a technical change, and amended Subsec. (b) to make existing language re regulations Subdiv. (1) and to add Subdiv. (2) re cost accounting principles, effective May 26, 2000.

Sec. 7-396a. Audits of agencies receiving state grants. (a) Any agreement for a state grant entered into between a state agency and a public or private agency shall provide for an audit acceptable

to such state agency of any grant expenditures made by such public or private agency and, unless otherwise provided by the state agency, the cost of such audit may be considered an allowable expense under such grant agreement. The Auditors of Public Accounts shall have access to all records and accounts of such public or private agency for the fiscal year in which such grant is made. A copy of any audit performed under the provisions of this section shall be filed with the Auditors of Public Accounts. (b) Notwithstanding the provisions of subsection (a) of this section, in the case of an agreement for a state grant entered into between a state agency and a public or private agency where the state agency has received funding for such grant from the federal government, the cost of any required audit shall be considered an allowable expense under such grant agreement, provided the cost of such audit is an allowable expense under the federal grant regulations.

(P.A. 76-68, S. 6, 7; P.A. 84-316, S. 1, 2; P.A. 85-613, S. 20, 154; P.A. 87-573, S. 9, 11; P.A. 88-61, S. 1, 2; P.A. 89- 81, S. 2.)

History: P.A. 84-316 added Subsec. (c) re payment of cost of audits; P.A. 85-613 made technical changes; P.A. 87- 573 inserted a reference to reporting requirements in Subsec. (a), effective July 1, 1987, and applicable to audits for fiscal years beginning on or after that date; P.A. 88-61 authorized in Subsec. (b) the cost of the annual audits of state agency grants to be considered an allowable expense under grant agreements; P.A. 89-81 deleted former Subsec. (a), transferring provisions to Subsec. (c) of Sec. 2-90, and relettered remaining Subsecs.

WAGES & LABOR

Sec. 31-52. Preference to state citizens in construction of public buildings. Enforcement of violations. (a) In the employment of mechanics, laborers and workmen in the construction, remodeling or repairing of any public building, by the state or any of its agents or by persons contracting therewith, preference shall be given to citizens of the state, and, if they cannot be obtained in sufficient numbers, then to citizens of the United States. Any contractor who knowingly and willfully employs any person in violation of any provision of this subsection shall be fined two hundred dollars for each week or fraction of a week each such person is so employed.

(b) Each contract for the construction or repair of any building under the supervision of the state or any of its agents shall contain the following provisions: "In the employment of labor to perform the work specified herein, preference shall be given to citizens of the United States, who are, and continuously for at least three months prior to the date hereof have been, residents of the labor market area, as established by the Labor Commissioner, in which such work is to be done, and if no such qualified person is available, then to citizens who have continuously resided in the county in which the work is to be performed for at least three months prior to the date hereof, and then to citizens of the state who have continuously resided in the state at least three months prior to the date hereof." In no event shall said provisions be deemed to abrogate or supersede, in any manner, any provision regarding residence requirements contained in a collective bargaining agreement to which the contractor is a party.

(c) No person who receives an award or contract for public works projects from the state, or who receives an order or contract for which a portion of funds is derived from the state, shall knowingly employ nonresidents of the state while residents who may qualify for such work are reasonably available for employment. In the employment of nonresidents, the construction supervisor or construction inspector assigned to the public works project shall verify that the contracting employer, by reasonable efforts, sought to obtain construction job applicants from existing employment sources in Connecticut.

(d) The agent contracting on behalf of the state or any political subdivision thereof shall investigate promptly any alleged violation of this section or section 31-52a. If said agent finds evidence of such a violation, he shall immediately notify the alleged violator of such evidence and allegations. If the alleged violator fails to take corrective action within one week, or to produce evidence which satisfies said agent that no violation has occurred, said agent shall (1) institute a civil action to recover as liquidated damages for the violation of the contract an amount equal to the wages paid to any employees employed in violation of this section or section 31-52a and cost of suit, including reasonable attorney's

fees and (2) notify the office of the state's attorney in the judicial district for the area in which such work was performed so that appropriate criminal action may be instituted against the alleged violator.

(e) In contracts so financed preference in employment shall be given to citizens of the United States or any possession thereof.

(f) Nothing in this section shall abrogate or supersede any provision regarding residence requirements in a collective bargaining agreement to which the contractor is a party.

(1949 Rev., S. 7371; 1967, P.A. 757, S. 1; P.A. 78-280, S. 68, 127; P.A. 83-530, S. 2, 3; 83-552, S. 2; P.A. 97-263, S. 13.)

History: 1967 act clarified provisions and specified that one hundred dollar fine applies for each week or fraction of a week during which a person is employed in violation of Subsec. (a) where previously hundred dollar fine was the maximum fine for each offense, substituted labor market areas for towns under Subsec. (b) and added Subsecs. (c) to (e) re employment of state residents in preference to nonresidents, hiring preference to U.S. citizens and procedure to be followed in investigation of and action on violations; P.A. 78-280 required notification of state's attorney in the appropriate judicial district rather than notification of prosecuting attorney in the appropriate circuit, circuit courts having been abolished pursuant to P.A. 76-436, under Subsec. (d)(2); P.A. 83-530 added a new Subsec. (f) which prohibits this section from abrogating or superseding any residence requirement in a collective bargaining agreement to which the contractor is a party; P.A. 83- 552 amended Subsec. (b) to provide that collective bargaining agreement is not superseded by preference provisions of contract; P.A. 97-263 amended Subsec. (a) to increase amount of fine from one hundred to two hundred dollars.

See Sec. 7-112 re applicability of this section to construction, remodeling, etc. of public buildings by political subdivisions of state.

Commissioner's duty under statute is carried out when he has caused proper preference clause to be inserted in contract. 26 CS 384, 386.

Sec. 31-52a. Residents' preference in work on other public facilities. (a) In the employment of mechanics, laborers or workmen in connection with any public works project, including, but not limited to, construction, remodeling or repairing of any public facility, structure, except public buildings covered by section 31-52, site preparation or site improvement, appurtenances or highways or in preparation or improvement of any land or waterway on or in which a structure is situated or to be constructed by the state or any of its agents or by persons contracting therewith, preference shall be given to persons who are residents of the state, and, if they cannot be obtained in sufficient numbers, then to residents of other states. Nothing herein shall abrogate or supersede any provision regarding residence requirements in a collective bargaining agreement to which the contractor is a party. Any contractor who knowingly and willfully employs any person in violation of any provision of this section shall be fined two hundred dollars for each week or a fraction of a week each such person is employed.

(b) Each contract for any such project covered by this section under the supervision of the state or any of its agents shall contain the following provision: "In the employment of mechanics, laborers or workmen to perform the work specified herein, preference shall be given to residents of the state who are, and continuously for at least six months prior to the date hereof have been, residents of this state, and if no such person is available then to residents of other states."

(1967, P.A. 757, S. 2.)

Sec. 31-52b. Exceptions. The provisions of sections 31-52 and 31-52a shall not apply where the state or any subdivision thereof may suffer the loss of revenue granted or to be granted from any agency or department of the federal government as a result of said sections or regulative procedures pursuant thereto.

(1967, P.A. 757, S. 3.)

Sec. 31-53. Construction, alteration or repair of public works projects by state or political subdivision; wage rates; certified payroll. Penalties for violations. (a) Each contract for the construction, remodeling, refinishing, refurbishing, rehabilitation, alteration or repair of any public

works project by the state or any of its agents, or by any political subdivision of the state or any of its agents, shall contain the following provision: "The wages paid on an hourly basis to any mechanic, laborer or workman employed upon the work herein contracted to be done and the amount of payment or contribution paid or payable on behalf of each such employee to any employee welfare fund, as defined in subsection (h) of this section, shall be at a rate equal to the rate customary or prevailing for the same work in the same trade or occupation in the town in which such public works project is being constructed. Any contractor who is not obligated by agreement to make payment or contribution on behalf of such employees to any such employee welfare fund shall pay to each employee as part of his wages the amount of payment or contribution for his classification on each pay day."

(b) Any person who knowingly or willfully employs any mechanic, laborer or workman in the construction, remodeling, refinishing, refurbishing, rehabilitation, alteration or repair of any public works project for or on behalf of the state or any of its agents, or any political subdivision of the state or any of its agents, at a rate of wage on an hourly basis which is less than the rate customary or prevailing for the same work in the same trade or occupation in the town in which such public works project is being constructed, remodeled, refinished, refurbished, rehabilitated, altered or repaired, or who fails to pay the amount of payment or contributions paid or payable on behalf of each such employee to any employee welfare fund, or in lieu thereof to the employee, as provided by subsection (a), shall be fined not less than two thousand five hundred dollars but not more than five thousand dollars for each offense and (1) for the first violation, shall be disqualified from bidding on contracts with the state or any political subdivision until the contractor or subcontractor has made full restitution of the back wages owed to such persons and for an additional six months thereafter and (2) for subsequent violations, shall be disqualified from bidding on contracts with the state or any political subdivision until the contractor or subcontractor has made full restitution of the back wages owed to such persons and for not less than an additional two years thereafter. In addition, if it is found by the contracting officer representing the state or political subdivision thereof that any mechanic, laborer or workman employed by the contractor or any subcontractor directly on the site for the work covered by the contract has been or is being paid a rate of wages less than the rate of wages required by the contract to be paid as required by this section, the state or contracting political subdivision thereof may (A) by written notice to the contractor, terminate such contractor's right to proceed with the work or such part of the work as to which there has been a failure to pay said required wages and to prosecute the work to completion by contract or otherwise, and the contractor and his sureties shall be liable to the state or the contracting political subdivision for any excess costs occasioned the state or the contracting political subdivision thereby or (B) withhold payment of money to the contractor or subcontractor. The contracting department of the state or the political subdivision thereof shall within two days after taking such action notify the Labor Commissioner in writing of the name of the contractor or subcontractor, the project involved, the location of the work, the violations involved, the date the contract was terminated, and steps taken to collect the required wages.

(c) The Labor Commissioner may make complaint to the proper prosecuting authorities for the violation of any provision of subsection (b).

(d) For the purpose of predetermining the prevailing rate of wage on an hourly basis and the amount of payment or contributions paid or payable on behalf of each employee to any employee welfare fund, as defined in subsection (h), in each town where such contract is to be performed, the Labor Commissioner shall (1) hold a hearing at any required time to determine the prevailing rate of wages on an hourly basis and the amount of payment or contributions paid or payable on behalf of each person to any employee welfare fund, as defined in subsection (h), upon any public work within any specified area, and shall establish classifications of skilled, semiskilled and ordinary labor, or (2) adopt and use such appropriate and applicable prevailing wage rate determinations as have been made by the Secretary of Labor of the United States under the provisions of the Davis-Bacon Act, as amended.

(e) The Labor Commissioner shall determine the prevailing rate of wages on an hourly basis and the amount of payment or contributions paid or payable on behalf of such employee to any employee welfare fund, as defined in subsection (h), in each locality where any such public work is to be constructed, and the agent empowered to let such contract shall contact the Labor Commissioner, at least ten but not more than twenty days prior to the date such contracts will be advertised for bid, to ascertain

the proper rate of wages and amount of employee welfare fund payments or contributions and shall include such rate of wage on an hourly basis and the amount of payment or contributions paid or payable on behalf of each employee to any employee welfare fund, as defined in subsection (h), or in lieu thereof the amount to be paid directly to each employee for such payment or contributions as provided in subsection (a) for all classifications of labor in the proposal for the contract. The rate of wage on an hourly basis and the amount of payment or contributions to any employee welfare fund, as defined in subsection (h), or cash in lieu thereof, as provided in subsection (a), shall, at all times, be considered as the minimum rate for the classification for which it was established. Prior to the award of any contract subject to the provisions of this section, such agent shall certify in writing to the Labor Commissioner the total dollar amount of work to be done in connection with such public works project, regardless of whether such project consists of one or more contracts. Upon the award of any contract subject to the provisions of this section, the contractor to whom such contract is awarded shall certify, under oath, to the Labor Commissioner the pay scale to be used by such contractor and any of his subcontractors for work to be performed under such contract.

(f) Each employer subject to the provisions of this section or section 31-54 shall (1) keep, maintain and preserve such records relating to the wages and hours worked by each employee and a schedule of the occupation or work classification at which each mechanic, laborer or workman on the project is employed during each work day and week in such manner and form as the Labor Commissioner establishes to assure the proper payments due to such employees or employee welfare funds under this section or section 31-54, and (2) submit monthly to the contracting agency a certified payroll which shall consist of a complete copy of such records accompanied by a statement signed by the employer which indicates that (A) such records are correct; (B) the rate of wages paid to each mechanic, laborer or workman and the amount of payment or contributions paid or payable on behalf of each such employee to any employee welfare fund, as defined in subsection (h) of this section, are not less than the prevailing rate of wages and the amount of payment or contributions paid or payable on behalf of each such employee to any employee welfare fund, as determined by the Labor Commissioner pursuant to subsection (d) of this section, and not less than those required by the contract to be paid; (C) the employer has complied with the provisions of this section and section 31-54; (D) each such employee is covered by a workers' compensation insurance policy for the duration of his employment, which shall be demonstrated by submitting to the contracting agency the name of the workers' compensation insurance carrier covering each such employee, the effective and expiration dates of each policy and each policy number; (E) the employer does not receive kickbacks, as defined in 41 USC 52, from any employee or employee welfare fund; and (F) pursuant to the provisions of section 53a-157a, the employer is aware that filing a certified payroll which he knows to be false is a class D felony for which the employer may be fined up to five thousand dollars, imprisoned for up to five years, or both. This subsection shall not be construed to prohibit a general contractor from relying on the certification of a lower tier subcontractor, provided the general contractor shall not be exempted from the provisions of section 53a- 157a if he knowingly relies upon a subcontractor's false certification. Notwithstanding the provisions of section 1-210, the certified payroll shall be considered a public record and every person shall have the right to inspect and copy such records in accordance with the provisions of section 1-212. The provisions of sections 31-59(a), 31-59(b), 31- 66 and 31-69 which are not inconsistent with the provisions of this section or section 31-54 shall apply to this section. Failing to file a certified payroll pursuant to subdivision (2) of this subsection is a class D felony for which the employer may be fined up to five thousand dollars, imprisoned for up to five years, or both.

(g) The provisions of this section shall not apply where the total cost of all work to be performed by all contractors and subcontractors in connection with new construction of any public works project is less than four hundred thousand dollars or where the total cost of all work to be performed by all contractors and subcontractors in connection with any remodeling, refinishing, refurbishing, rehabilitation, alteration or repair of any public works project is less than one hundred thousand dollars.

(h) As used in this section, section 31-54 and section 31-89a, "employee welfare fund" means any trust fund established by one or more employers and one or more labor organizations or one or more other third parties not affiliated with the employers to provide from moneys in the fund, whether through the purchase of insurance or annuity contracts or otherwise, benefits under an employee welfare plan;

provided such term shall not include any such fund where the trustee, or all of the trustees, are subject to supervision by the Commissioner of Banking of this state or any other state or the Comptroller of the Currency of the United States or the Board of Governors of the Federal Reserve System, and "benefits under an employee welfare plan" means one or more benefits or services under any plan established or maintained for employees or their families or dependents, or for both, including, but not limited to, medical, surgical or hospital care benefits; benefits in the event of sickness, accident, disability or death; benefits in the event of unemployment, or retirement benefits.

(1949 Rev., S. 7372; March, 1950, S. 3018d, 3019d; 1961, P.A. 486, S. 1; 1963, P.A. 240, S. 1; 1967, P.A. 494, S. 1; P.A. 73-566, S. 1; P.A. 75-90, S. 1, 2; P.A. 77-442; 77-614, S. 161, 610; P.A. 79-325; P.A. 80-482, S. 200, 348; P.A. 83- 537, S. 2; P.A. 85-355, S. 1−3; P.A. 87-9, S. 2, 3; P.A. 91-74, S. 1; 91-407, S. 40, 42; P.A. 93-392, S. 1; 93-435, S. 65, 95; P.A. 97-263, S. 14.)

History: 1961 act added provisions re political subdivision and employee welfare funds and added Subsecs. (f) and (g) re records and schedules which must be kept and re inapplicability of provisions where total cost of work is less than five thousand dollars; 1963 act substituted "alteration" for "remodeling" and "public works project" for references to public buildings; 1967 act added Subsec. (h) defining "employee welfare fund" and "benefits under an employee welfare plan" and substituted references to Subsec. (h) for references to Sec. 31-78; P.A. 73-566 amended Subsec. (b) to add provisions re termination of contract when discovery is made that employees are being paid less than the amount required under contract; P.A. 75-90 added references to remodeling, refurnishing, refurbishing and rehabilitation of projects in Subsecs. (a), (b) and (g); P.A. 77-442 added Subdiv. (2) in Subsec. (d) requiring commissioner to adopt and use appropriate and applicable prevailing wage rate determinations made by U.S. Secretary of Labor; P.A. 77-614 replaced bank commissioner with banking commissioner within the department of business regulation and made banking department the division of banking within that department, effective January 1, 1979; P.A. 79-325 replaced former provisions of Subsec. (g) which had rendered section inapplicable where total cost of project is less than fifty thousand dollars with provision rendering provisions inapplicable to new construction projects where total cost is less than fifty thousand dollars and to remodeling, refinishing etc. projects where total cost is less than ten thousand dollars; P.A. 80-482 restored banking division as independent department with commissioner as its head following abolition of business regulation department; P.A. 83-537 amended Subsec. (e) to require the local agent to contact the labor commissioner, to ascertain proper wage rates and payment levels, at least ten but not more than twenty days prior to putting the contract out to bid; P.A. 85-355 amended Subsec. (e) to require the agent to certify the total cost of work to be done on the public works project, and to require the contractor to certify the pay scale to be used on the project after having been awarded the contract and amended Subsec. (g) to make the prevailing wage requirements inapplicable to projects costing less than two hundred thousand dollars if new construction, or to projects costing less than fifty thousand dollars if remodeling; pursuant to P.A. 87-9 "banking commissioner" was changed editorially by the Revisors to "commissioner of banking"; P.A. 91-74 made a technical change in Subsec. (a), amended Subsec. (b) to increase fines from one hundred dollars to not less than two thousand five hundred dollars but not more than five thousand dollars and amended Subsec. (g) by changing the cost thresholds from two hundred thousand dollars to four hundred thousand dollars and from fifty thousand dollars to one hundred thousand dollars; P.A. 91-407 changed effective date of P.A. 91-74 from October 1, 1991, to July 1, 1991; P.A. 93-392 deleted reference to Sec. 51-53 in Subsec. (a) and added Subdiv. (2) in Subsec. (f) requiring employers subject to the state prevailing wage laws to file weekly certified payrolls with the contracting public agency and designating such certified payrolls as public records; P.A. 93-435 made technical change in Subsec. (a) to reinstate language in existence prior to amendment made by P.A. 93-392, effective June 28, 1993; P.A. 97-263 amended Subsec. (b) to add Subdivs. (1) and (2) disqualifying bidders from bidding on contracts with the state until certain requirements are met and to add provision permitting the withholding of payment of money to the contractor or subcontractor, amended Subsec. (d) to change "employee" to "person", amended Subsec. (f) to require monthly submission of certified payroll and to make failure to file a certified payroll a class D felony, and amended Subsec. (h) by redefining "employee welfare fund" to include one or more other third parties not affiliated with the employers.

See Sec. 7-112 re applicability of section to construction, remodeling or repair of public buildings by state agencies and political subdivisions of the state.

See Sec. 31-53a re (1) payments to mechanics, laborers and workmen from accrued payments withheld under the terms of a contract terminated pursuant to subsection (b) of this section, and their right of action and intervention, (2) the Labor Commissioner's duty to prepare and distribute lists of persons or firms found to be in violation of this section or barred from federal contracts pursuant to the Davis-Bacon Act, and (3) limitation on awarding of contracts to such persons or firms.

Where an employee is working under a contract which violates the statute or fails to provide for pay at least equal to the prevailing wages as fixed by the board, the state is in no position to claim that, if he is injured, compensation should not be based on the prevailing wage as so determined. 135 C. 498. Cited. 223 C. 573, 574, 578, 580, 582−587, 591−594.
Cited. 36 CA 29, 32, 38−40.
Subsec. (a): Cited. 223 C. 573, 581, 583, 585. Cited. 36 CA 29, 38, 40.
Subsec. (b): Cited. 223 C. 573, 583, 585. Cited. 36 CA 29, 30.
Subsec. (d): Cited. 223 C. 573, 584, 587, 590.
Subsec. (e): Cited. 223 C. 573, 584, 585.

Subsec. (f): Cited. 223 C. 573, 581, 584, 585, 592−594.
Subsec. (h): Cited. 44 CA 397.

Sec. 31-53a. List of violators. Limitation on awarding of contracts. Distribution of accrued payments. Right of action. (a) The State Comptroller or the contracting authority acting pursuant to section 31-53 is hereby authorized and directed to pay to mechanics, laborers and workmen from any accrued payments withheld under the terms of a contract terminated pursuant to subsection (b) of said section 31-53 any wages found to be due such mechanics, laborers and workmen pursuant to said section 31-53. The Labor Commissioner is further authorized and directed to distribute a list to all departments of the state and political subdivisions thereof giving the names of persons or firms whom he has found to have disregarded their obligations under said section 31-53 and section 31-76c to employees and subcontractors on public works projects or to have been barred from federal government contracts in accordance with the provisions of the Davis-Bacon Act, 49 Stat. 1011 (1931), 40 USC 276a-2. No contract shall be awarded by the state or any of its political subdivisions to the persons or firms appearing on this list or to any firm, corporation, partnership, or association in which such persons or firms have an interest until a period of up to three years, as determined by the Labor Commissioner, has elapsed from the date of publication of the list containing the names of such persons or firms.

(b) If the accrued payments withheld under the terms of a contract terminated pursuant to subsection (b) of section 31-53 are insufficient to reimburse all the mechanics, laborers and workmen with respect to whom there has been a failure to pay the wages required pursuant to said section 31-53, such mechanics, laborers and workmen shall have the right of action and of intervention against the contractor and his sureties conferred by law upon persons furnishing labor or materials, and in such proceedings it shall be no defense that such mechanics, laborers and workmen accepted or agreed to accept less than the required wages or that such persons voluntarily made refunds.

(P.A. 73-566, S. 2; P.A. 78-362, S. 1, 3; P.A. 91-74, S. 2; 91-407, S. 40, 42; P.A. 93-392, S. 2; P.A. 97-263, S. 15.)

History: P.A. 78-362 required that list distributed by commissioner to departments of the state and to its political subdivisions contain names of those who have been barred from federal government contracts in accordance with provisions of Davis-Bacon Act in Subsec. (a); P.A. 91-74 amended Subsec. (a) by increasing the period of ineligibility from three years to five years; P.A. 91-407 changed effective date of P.A. 91-74 from October 1, 1991, to July 1, 1991; P.A. 93-392 amended Subsec. (a) to add reference to Sec. 31-76c, to require that list distributed by labor commissioner to departments of the state and to its political subdivisions contain names of those who have violated overtime laws of the state on public works projects and to decrease the period of ineligibility from five to a maximum of three years, as determined by the commissioner; P.A. 97-263 incorporated changes to Sec. 31-53 by reference.

Cited. 223 C. 573, 574, 577, 580−583, 587, 592, 593.

Sec. 31-54. Rate of wages for work on state highways. The Labor Commissioner shall hold a hearing at any required time to determine the prevailing rate of wages upon any highway contract within any specified area on an hourly basis and the amount of payment or contributions paid or payable on behalf of each employee to any employee welfare fund, as defined in section 31-53, upon any classifications of skilled, semiskilled and ordinary labor. Said commissioner shall determine the prevailing rate of wages on an hourly basis and the amount of payment or contributions paid or payable on behalf of each employee to any employee welfare fund, as defined in section 31-53, in each locality where any highway or bridge is to be constructed, and the Commissioner of Transportation shall include such rate of wage on an hourly basis and the amount of payment or contributions paid or payable on behalf of each employee to any employee welfare fund, as defined in section 31-53, or in lieu thereof, in cash as part of wages each pay day, for each classification of labor in the proposal for the contract and in the contract. The rate and the amount so established shall, at all times, be considered as the minimum rate of wage on an hourly basis and the amount of payment or contributions to an employee welfare fund, or cash in lieu thereof, for the classification for which it was established. Any contractor who pays any person at a lower rate of wage on an hourly basis or the amount of payment or contributions paid or payable on behalf of each employee to any employee welfare fund, as defined in section 31-53, or where he is not obligated by any agreement to make payment or contributions to the employee welfare funds, as defined in section 31-53, and fails to pay the amount of such payment or contributions directly to the employee as a part of his wages each pay day, than that so established for the classifications of work

specified in any such contract shall be fined not more than two hundred dollars for each offense. The provisions of this section shall apply only to state highways and bridges on state highways.

(1949 Rev., S. 2206; March 1950, S. 1194d; 1961, P.A. 486, S. 2; 1967, P.A. 494, S. 2; 1969, P.A. 768, S. 260; P.A. 97-263, S. 17.)

History: 1961 act added establishment of rate on hourly basis and provisions re employee welfare funds; 1967 act replaced references to Sec. 31-78 with references to Sec. 31-53; 1969 act replaced highway commissioner with commissioner of transportation; P.A. 97-263 increased amount of fine from one hundred to two hundred dollars.

See Sec. 7-112 re applicability of this section to construction, remodeling, etc. of public buildings by political subdivisions of state.

Sec. 31-55. Posting of wage rates by contractors doing state work. Every contractor or subcontractor performing work for the state subject to the provisions of section 31-53 or 31-54 shall post the prevailing wages as determined by the Labor Commissioner in prominent and easily accessible places at the site of work or at such place or places as are used to pay its employees their wages.

(1955, S. 3020d; P.A. 97-263, S. 16.)

History: P.A. 97-263 incorporated changes to Secs. 31-53 and 31-54 by reference.

Sec. 31-56. Hours of labor on state bridges. Each contract entered into by the Commissioner of Transportation for the construction, alteration or repair of a state bridge shall contain a provision to the effect that no person shall be employed to work or be permitted to work more than forty-eight hours in any week on any work provided for in such contract. The operation of such limitation of hours of work may be suspended during an emergency, upon the approval of the Commissioner of Transportation.

(1949 Rev., S. 2208; 1963, P.A. 240, S. 2; 1969, P.A. 768, S. 261.)

History: 1963 act added reference to alteration of bridges; 1969 act replaced highway commissioner with commissioner of transportation.

Sec. 31-57b. Awarding of contracts to occupational safety and health law violators prohibited. No contract shall be awarded by the state or any of its political subdivisions to any person or firm or any firm, corporation, partnership or association in which such persons or firms have an interest (1) which has been cited for three or more willful or serious violations of any occupational safety and health act 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 or the 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 or court having jurisdiction or (2) which has received one or more criminal convictions related to the injury or death of any employee in the three-year period preceding the bid. Any person who knowingly provides false information concerning the information required pursuant to this section shall be assessed a civil penalty of not less than five hundred dollars nor more than five thousand dollars and shall be disqualified from bidding on or participating in a contract with the state or any of its political subdivisions for five years from the date of the final determination that the information is false. Any political subdivision or any state agency receiving false information pursuant to this section shall notify the Commissioner of Administrative Services and, upon receipt of such notice, the commissioner shall conduct a hearing in accordance with the provisions of chapter 54. Upon a determination that false information was provided, the commissioner shall impose a civil penalty in accordance with the provisions of this section. Such civil penalty shall be paid to the Treasurer or to an official of the political subdivision, as the case may be. Any civil penalty imposed pursuant to this section may be collected in a civil proceeding by any official of a political subdivision authorized to institute civil actions or, in the case of the state, by the attorney general, upon complaint of the Commissioner of Administrative Services.

(P.A. 89-367, S. 6.)

Sec. 31-57d. Disqualification of certain contractors from bidding on, applying for or participating in public works contracts with the state: Disqualification by Commissioner of Transportation; procedure; causes. Exception permitting disqualified contractor to participate in contract or subcontract. (a) As used in this section, the term "contractor" shall mean any person, firm or corporation which has contracted or seeks to contract with the state, or to participate in such a contract, in connection with any public works of the state or a political subdivision of the state.

(b) Disqualification of a contractor is a serious action that shall be used only in the public interest and for the state government's protection and not for purposes of punishment or in lieu of other applicable enforcement or compliance procedures. The causes for and consequences of disqualification under this section shall be separate from and in addition to causes for and consequences of disqualification under sections 4b- 95, 31-53a, 31-57a and 31-57b.

(c) The Commissioner of Transportation may disqualify any contractor, for up to two years, from bidding on, applying for, or participating as a subcontractor under, contracts with the state, acting through the Department of Transportation, for one or more causes set forth under subsection (d) of this section. The commissioner may initiate a disqualification proceeding only after consulting with the Attorney General and shall provide notice and an opportunity for a hearing to the contractor who is the subject of the proceeding. The hearing shall be conducted in accordance with the contested case procedures set forth in chapter 54. The commissioner shall issue a written decision within ninety days of the last date of such hearing and state in the decision the reasons for the action taken and, if the contractor is being disqualified, the period of such disqualification. The existence of a cause for disqualification does not require that the contractor be disqualified. In determining whether to disqualify a contractor, the commissioner shall consider the seriousness of the contractor's acts or omissions and any mitigating factors. The commissioner shall send the decision to the contractor by certified mail, return receipt requested. The written decision shall be a final decision for the purposes of sections 4-180 and 4-183.

(d) Causes for disqualification from bidding on, or participating in, contracts shall include the following:

(1) Conviction or entry of a plea of guilty or nolo contendere for or admission to commission of a criminal offense as an incident to obtaining or attempting to obtain a public or private contract or subcontract, or in the performance of such contract or subcontract;

(2) Conviction or entry of a plea of guilty or nolo contendere or admission to the violation of any state or federal law for embezzlement, theft, forgery, bribery, falsification or destruction of records, receiving stolen property or any other offense indicating a lack of business integrity or business honesty which affects responsibility as a state contractor;

(3) Conviction or entry of a plea of guilty or nolo contendere or admission to a violation of any state or federal antitrust, collusion or conspiracy law arising out of the submission of bids or proposals on a public or private contract or subcontract;

(4) A willful failure to perform in accordance with the terms of one or more public contracts, agreements or transactions;

(5) A history of failure to perform or of unsatisfactory performance of one or more public contracts, agreements or transactions; or

(6) A willful violation of a statutory or regulatory provision or requirement applicable to a public contract, agreement or transaction.

(e) For purposes of a disqualification proceeding under this section, conduct may be imputed as follows:

(1) The fraudulent, criminal or other seriously improper conduct of any officer, director, shareholder, partner, employee or other individual associated with a contractor may be imputed to the contractor when the conduct occurred in connection with the individual's performance of duties for or on behalf of the contractor and the contractor knew of or had reason to know of such conduct. The term "other seriously improper conduct" shall not include advice from an attorney, accountant or other paid consultant if it was reasonable for the contractor to rely on such advice.

(2) The fraudulent, criminal or other seriously improper conduct of a contractor may be imputed to any officer, director, shareholder, partner, employee or other individual associated with the contractor who participated in, knew of or had reason to know of the contractor's conduct.

(3) The fraudulent, criminal or other seriously improper conduct of one contractor participating in a joint venture or similar arrangement may be imputed to other participating contractors if the conduct occurred for or on behalf of the joint venture or similar arrangement and these contractors knew of or had reason to know of such conduct.

(f) The commissioner may reduce the period or extent of disqualification, upon the contractor's request, supported by documentation, for the following reasons:

(1) Newly discovered material evidence;

(2) Reversal of the conviction upon which the disqualification was based;

(3) Bona fide change in ownership or management;

(4) Elimination of other causes for which the disqualification was imposed; or

(5) Other reasons the commissioner deems appropriate.

(g) The commissioner may grant an exception permitting a disqualified contractor to participate in a particular contract or subcontract upon a written determination that there is good cause, in the interest of the public, for such action.

(P.A. 93-220, S. 2, 3.)

History: P.A. 93-220 effective July 2, 1993.

APPENDIX 4 - REGULATIONS

STATE OF CONNECTICUT

REGULATIONS

OF

DEPARTMENT OF TRANSPORTATION

CONCERNING

LOCAL BRIDGE PROGRAM

Sec. 13a-175u-1. Definitions

The following terms shall have the following respective meanings:

(a) "AASHTO" means the American Association of State Highway and Transportation Officials, 444 North Capitol Street, N.W., Suite 249, Washington, D.C. 20001.

(b) "AENGLC" means as of the date grant percentages are determined in accordance with Section 3 of these regulations, the adjusted equalized net grand list per capita of a town prepared as of the immediately preceding January 1 by the State pursuant to Section 10-261 of the General Statutes.

(c) "Bridge design requirements" means the design requirements for a span established by the "Standard Specifications for Highway Bridges" of AASHTO and, in addition, the following:

(1) minimum life expectancy of 20 years after construction completion;

(2) an HS-20 limit for a newly constructed or rehabilitated span, except that a municipality may approve a lesser load limit for a rehabilitated span so long as such load limit is not less than a 12-ton single unit load limit;

(3) compliance with DOT guidelines for fatigue of existing structural elements;

(4) guide railings of a safe design at the leading ends of a span;

(5) upgrading of existing parapet and traffic railings to AASHTO standards.

(d) "Bridge" means a structure with defined abutments with a distance between the faces of abutments of 6 feet or more, measured along the centerline of the bridge, and whose superstructure is integral with the roadway.

(e) "Coding Guide" means the "Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges", dated December 1995, as may be updated from time to time, prepared by the Federal Highway Administration.

(f) "Commissioner" means the Commissioner of the Department of Transportation.

(g) "Commitment to fund" means a commitment issued to a municipality by the Commissioner to fund the project costs of an eligible bridge project through a project grant, a project loan, or both, in accordance with Section 5 of these regulations.

(h) "Condition rating of substructure" means the numerical rating of from 0 to 9 applicable to the substructure of a bridge determined in accordance with the criteria set forth in the Coding Guide.

(i) "Condition rating of superstructure" means the numerical rating of from 0 to 9 applicable to the condition of the superstructure of a bridge determined in accordance with the criteria set forth in the Coding Guide.

(j) "Construction contract" means an agreement between a municipality and a contractor whereby the contractor undertakes to complete the removal, replacement, reconstruction, rehabilitation or improvement of an eligible bridge.

(k) "Culvert" means (a) a box culvert with a distance between the faces of side walls of 6 feet or more whose superstructure is not integral with the roadway, or (b) a concrete or metal arched structure or a metal plate pipe structure with an interior span length of 6 feet or more. A prefabricated metal, concrete or other pipe culvert does not constitute a "culvert".

(l) "Culvert condition rating" means the numerical rating of from 0 to 9 applicable to the condition of a culvert determined in accordance with the criteria set forth in the Coding Guide.

(m) "Deck condition rating" means the numerical rating of from 0 to 9 applicable to the condition of the deck of a bridge determined in accordance with the criteria set forth in the Coding Guide.

(n) "Eligible bridge" means:

(1) a bridge which has a condition rating of 4 or less given to any of the following components: superstructure, substructure, or deck condition, or an appraisal rating of 2 or less given to the structure evaluation or waterway adequacy, or

(2) a culvert with a culvert condition rating of 4 or less.

(o) "Eligible bridge project" means the removal, replacement, reconstruction, rehabilitation or improvement of an eligible bridge by one or more municipalities.

(p) "Factor" means the number equal to the following:

$$\frac{\text{(High AENGLC-Low AENGLC)}}{23}$$

(q) "Filing date" means with respect to any fiscal year the filing date set forth in Section 5 of these regulations.

(r) "Fiscal year" means the fiscal year of the State.

(s) "Grant percentage" means the number equal to the following:

33 - (Municipal AENGLC-Low AENGLC)
Factor

(t) "High AENGLC" means the AENGLC of a town which is higher than the AENGLC of any other town.

(u) "Inventory rating in tons" means the numerical rating denoting the safe sustained load capacity of a structure, determined in accordance with the Load Factor Method described in the Manual for Condition Evaluation of Bridges. The live load used in the analysis shall be the MS18 (HS 20) truck or lane loading, whichever controls.

(v) "Local bridge revolving fund" means the local bridge revolving fund created under Section 13a-175r of the Connecticut General Statutes.

(w) "Low AENGLC" means the AENGLC of a town which is lower than the AENGLC of any other town.

(x) "Managing municipality" means the municipality designated by those municipalities filing joint preliminary and supplemental applications pursuant to Section 5 of these regulations to act as the municipalities' liaison with the Department of Transportation and to coordinate the efforts of such municipalities in undertaking and completing an eligible bridge project.

(y) "Manual for Condition Evaluation of Bridges" means the most recent edition of the "Manual for Condition Evaluation of Bridges, 1994", dated September 1996, with interim revisions as may be updated from time to time, prepared by the AASHTO Subcommittee On Bridges And Structures, and published by AASHTO.

(z) "Municipality" means any town, city, borough, consolidated town and city, consolidated town and borough, district or other political subdivision of the State, owning or having responsibility for the maintenance of all or a portion of an eligible bridge.

(aa) "Municipal AENGLC" means the AENGLC of a municipality, but if no AENGLC is determined for the municipality, then it is the AENGLC of the town in which the municipality is located.

(bb) "Municipal official" means the chief elected official, town manager, city manager, or other official of a municipality duly authorized to act on behalf of such municipality in connection with the local bridge program.

(cc) "Physical condition" means the physical condition of a span based on its structural deficiencies, sufficiency rating and load capacity all as determined by the Commissioner.

(dd) "Preliminary application" means an application prepared in accordance with subsections (a), (b), and (c) of Section 5 of these regulations.

(ee) "Priority list of eligible bridge projects" means the priority list determined in accordance with Section 2 of these regulations.

(ff) "Professional engineer" means a professional engineer licensed by the State of Connecticut.

(gg) "Priority rating" as determined by the Commissioner means:

(1) with respect to a bridge, the number equal to the following:

$$SR - 2\left[1 - \frac{(DC + SUB + SUP)}{27}\right] - 4\left[1 - \frac{(IR)}{36}\right]$$

"SR" means sufficiency rating
"DC" means deck condition rating
"SUB" means condition rating of substructure
"SUP" means condition rating of superstructure
"IR" means inventory rating in tons

(2) with respect to a culvert, the number equal to the following:

$$SR - 2\left[1 - \frac{(CUL)}{9}\right] - 4\left[1 - \frac{(IR)}{36}\right]$$

"SR" means sufficiency rating
"CUL" means culvert condition rating
"IR" means inventory rating in tons

(hh) "Project costs" means the costs of an eligible bridge project determined by the Commissioner to be necessary and reasonable.

(ii) "Project grant" means a grant-in-aid made to a municipality pursuant to Section 13a-175s of the Connecticut General Statutes.

(jj) "Project grant agreement" means a grant agreement between the State and a municipality with respect to a project grant.

(kk) "Project loan" means a loan made to a municipality from the local bridge revolving fund and evidenced by the municipality's project loan obligation.

(ll) "Project loan agreement" means a loan agreement with respect to a project loan as provided for in subsection (c) of Section 13a-175s of the Connecticut General Statutes.

(mm) "Project loan obligation" means an obligation of a municipality issued to evidence indebtedness under a project loan agreement and payable to the State for the benefit of the local bridge revolving fund.

(nn) "Public emergency" means a situation in which the physical condition of a bridge requires it to be closed or its load limit to be reduced substantially resulting in the isolation of, or a significant delay in the availability of emergency vehicle service to, people to such an extent that the safety of such people is jeopardized.

(oo) "Rehabilitation" means the improvement of an existing span in such manner as to preserve the existence of all or any portion of such span.

(pp) "Span" means a bridge or culvert.

(qq) “Structure evaluation” means the overall rating of the structure which takes into account all major structural deficiencies, and evaluates a bridge in relation to the level of service it provides, as compared with a new bridge built to current standards.

(rr) "Sufficiency rating" means the sufficiency rating of a span determined in accordance with the criteria set forth in the Coding Guide.

(ss) "Supplemental application" means the application described in subsection (e) of Section 5 of these regulations.

(tt) “Waterway adequacy” means the appraisal of the adequacy of waterway opening with respect to the passage of flow through the bridge.

(Effective October 24, 1984; amended October 7, 1999)

Sec. 13a-175u-2. Priority List of Eligible Bridge Projects

(a) As of July 1 of each fiscal year, the Commissioner shall establish a priority rating for each bridge or culvert which is located within one or more municipalities, and is owned in whole or in part by a municipality. Each such priority rating shall be based upon the then most recently available data obtained by or submitted to and accepted by the Commissioner.

(b) As of July 1 of each fiscal year, the Commissioner shall rank all spans for which a completed Preliminary Application has been received in the order of their priority ratings, with the span having the lowest priority rating being ranked first and the span having the highest priority rating being ranked last. The list so determined shall constitute the priority list of eligible bridge projects for the then current fiscal year.

(c) Notwithstanding the provisions of subsection (b) of this section, upon receipt by the Commissioner of an application of a municipality, which application shall include all necessary supporting data, the Commissioner may disregard the priority list of eligible bridge projects and issue a commitment to fund an eligible bridge project if a public emergency exists with respect to such project.

(Effective October 24, 1984; amended October 7, 1999)

Sec. 13a-175u-3. Grant Percentage

(a) As of March 1 of each fiscal year, the Commissioner shall determine a grant percentage for each town. The grant percentage of a town shall be applicable to any municipality located in such town.

(b) The grant percentage of a municipality determined as of March 1 of each fiscal year shall be used to determine the amount of the project grant for which a municipality would be eligible under a commitment to fund issued during the next succeeding fiscal year.

(Effective October 24, 1984; amended October 7, 1999)

Sec. 13a-175u-4. Project Costs

(a) The Commissioner shall fund through project grants and project loans only those costs of an eligible bridge project which he finds necessary and reasonable. A cost is necessary and reasonable if, in its nature or amount, it does not exceed that which would be incurred by a prudent person in the conduct of a competitive business. In determining the necessity and reasonableness of a given cost, the Commissioner shall consider the following:

(1) whether the cost is of a type generally recognized as reasonable and necessary for the performance of the project taking into account established contracting or construction practices;

(2) restraints or requirements imposed by such factors as generally accepted sound business practices, Federal and state laws and regulations, and contract terms and specifications;

(3) generally accepted accounting practices and principles appropriate under the circumstances;

(4) whether the cost would be incurred by a prudent businessman under the circumstances, considering his responsibilities to the owners of his business, his employees, his customers, the government, and the public at large; and

(5) any limitations or exclusions set forth in these regulations or the applicable project grant agreement or project loan agreement.

(b) In any given project the reasonableness or necessity of certain items of cost may be difficult to determine. In order to avoid a possible subsequent disallowance or dispute based on a cost being found unnecessary or unreasonable, a municipality may seek advance approval from the Commissioner as to the treatment to be accorded such cost.

(c) Those items of cost which ordinarily will be considered eligible project costs include:

(1) preliminary engineering activities, including engineering studies undertaken to determine whether a bridge is eligible for inclusion on the priority list of eligible bridge projects, provided that the aggregate cost thereof does not exceed 15% of the construction costs of the project;

(2) property acquisition;

(3) construction engineering services including inspection and materials testing, provided that the cost thereof does not exceed 15% of the construction costs of the project;

(4) construction costs;

(5) municipally owned utility adjustment and relocation costs; and

(6) in the case where a municipality undertakes a project using its own labor, equipment and material, the following:

(A) payroll costs of municipal employees working on the project;

(B) burden and fringe costs, such as FICA, vacation pay, sick leave pay, and pension contributions, of such employees so long as such costs can be audited;

(C) documented costs of materials;

(D) costs per hour of an item of equipment so long as such costs can be audited; if such costs cannot be audited then the then current equipment charges published by the Federal Emergency Management Agency.

(d) Any project costs incurred prior to the start of construction of an eligible bridge project will be eligible for reimbursement so long as actual construction of the project for which such costs were incurred commences no earlier than the date upon which the Commissioner issues a commitment to fund the project.

(e) Those items of cost which ordinarily will not be eligible for local bridge program funding include:

(1) administration, including the wages or salaries of municipal employees not working directly on the project;

(2) overhead costs of a municipality performing construction on its own account; and

(3) interim or final audits.

(Effective October 24, 1984; amended October 7, 1999)

Sec. 13a-175u-5. Application for Project Grants and Project Loans; Issuance of Commitments to Fund

(a) A municipality must file a completed preliminary application with the Commissioner on or before March 1 in each fiscal year, unless otherwise extended by the Commissioner, in order to be eligible to receive a commitment to fund during the fiscal year next following such date.

(b) Any municipality which submits a completed preliminary application and which does not receive a commitment to fund as provided in subsection (a) of this section shall be required to resubmit such preliminary application for it to be reconsidered for funding during the next succeeding fiscal year, or shall notify the Commissioner in writing that the municipality wants such preliminary application as previously submitted to be so reconsidered.

(c) A preliminary application shall provide all information requested by the Commissioner on the Preliminary Application form.

(d) Following each filing date the Commissioner shall rank in the order of the priority list of eligible bridge projects then in effect each preliminary application which is complete. On or before June 30 of the then current fiscal year, the Commissioner shall issue commitments to fund, in the order of such priority list, each eligible bridge project the construction of which is scheduled to commence within the next succeeding fiscal year, to the extent moneys therefore are available, provided, however, that a municipality may request a waiver of the construction commencement date from the Commissioner if justification can be provided for not commencing construction of an eligible bridge project within the next succeeding fiscal year. However, for eligible projects for which the preliminary application was filed on or before October 1, 1984, or such later date as may be established by the Commissioner, commitments to fund shall be issued by the Commissioner within 90 days of such date.

(e) A commitment to fund shall lapse (1) as to a project loan or a project grant if the municipality's supplemental application as filed with the Commissioner contains estimated project costs

in excess of those set forth in the municipality's preliminary application and insufficient moneys remain to fund the amount of the project loan or project grant or both, as the case may be, being requested, or (2) a municipality fails to file with the Commissioner within 270 days of the date its commitment to fund is issued, unless any such date is extended by the Commissioner for good cause shown, a completed supplemental application which shall contain all information requested by the Commissioner on the Supplemental Application form.

(f) In the case of an eligible bridge project involving more than one municipality, only one preliminary application and one supplemental application shall be filed. Each such application shall contain all the information required by these regulations with respect to each participating municipality and the preliminary application shall designate the managing municipality.

(Effective October 24, 1984; amended October 7, 1999)

Sec. 13a-175u-6. Funding

(a) After a supplemental application is deemed complete by the Commissioner he shall enter into a project loan agreement or a project grant agreement or both, as the case may be, with the filing municipality, pursuant to which the State shall, on the date all of the conditions precedent to funding are met, pay to the municipality the project grant or make the project loan, or both.

(b) Subject to the terms and conditions set forth in each project grant agreement and project loan agreement, the Commissioner shall be obligated to fund the amount of project costs equal to the sum of (1) the municipality's grant percentage multiplied by the project costs allocable to such municipality and (2) the project loan amount requested by the municipality up to 50% of the project costs allocable to it.

(c) In addition to any other conditions precedent to funding the project established by the Commissioner, each project grant agreement and project loan agreement shall include the following conditions precedent to funding, if applicable:

(1) certified copies of all bids of contractors;

(2) written justification for awarding the construction contract to any person other than the lowest bidder;

(3) evidence that the municipality and contractor have entered into a legally binding construction contract;

(4) the municipality has available to it, or has made arrangements satisfactory to the Commissioner to obtain, funds to pay that portion of the project costs for which it is legally obligated and which are not met by project loans or project grants;

(5) the municipality has established a tax exempt proceeds fund account for the receipt and disbursement of the proceeds of project loans and project grants;

(6) in any case in which an eligible bridge is owned or maintained by more than one municipality, evidence satisfactory to the Commissioner that all such municipalities are legally bound to complete their respective portions of such project; and

(7) evidence that the legislative body of the municipality has held at least one public hearing on the eligible bridge project in accordance with subsection (b) of section 13a-175t of the Connecticut General Statutes.

(d) In addition to any other agreement of a municipality required by the Commissioner, each project grant agreement and project loan agreement shall contain the following agreements:

(1) the municipality will commence construction of the project within 30 days after the date such agreement or agreements are entered into, unless otherwise extended by the Commissioner;

(2) the municipality will complete such project no later than the date of completion set forth in its supplemental application, unless otherwise extended by the Commissioner;

(3) the municipality will operate and maintain the eligible bridge properly after completion of such project.

(Effective October 24, 1984; amended October 7, 1999)

Sec. 13a-175u-7. Project Completion

(a) Upon completion of construction a municipality will (1) certify to the Commissioner that the project is completed and (2) forward to the Commissioner an audit of the project prepared by a certified public accountant.

(b) The Commissioner will review the audit and notify the municipality of any overpayment or underpayment of project costs by the State. In case of underpayment, the Commissioner shall as soon as practicable, but in no event later than 90 days after determining such underpayment, reimburse the municipality for such underpayment. In case of overpayment the municipality shall as soon as practicable but in no event later than 90 days after such notification, reimburse the State for such overpayment.

(c) Any interest earned by a municipality from the proceeds of a project grant or a project loan shall be expended by the municipality solely for transportation purposes within the municipalities.

(Effective October 24, 1984)

APPENDIX 5 - HYDRAULIC ANALYSIS GUIDANCE DOCUMENT

Supplemental Guidelines for Preparing Riverine Hydraulic Analyses in Permit Applications Submitted to the Inland Water Resources Division Including:

- **Inland Wetlands and Watercourses Permits**
- **Stream Channel Encroachment Line Permits**
- **401 Water Quality Certifications**
- **Water Diversion Permits**
- **Dam Construction Permits**
- **Flood Management Certification Approvals**

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SECTION 1. INTRODUCTION

Purpose of Guidelines

These guidelines have been prepared by the Inland Water Resources Division (IWRD) to assist engineers in the preparation of engineering reports where hydraulic modeling is required. Such engineering reports are required to be submitted with IWRD permit applications for projects that fall within the IWRD's jurisdiction. Specifically, these guidelines detail the documentation necessary to demonstrate that a project is in compliance with the requirements of the State of Connecticut Flood Management Statutes and Regulations (Sections 25-68b through 25-68h of the Connecticut General Statutes [CGS] and Sections 25-68h-1 through 25-68h-3 of the Regulations of Connecticut State Agencies [RCSA]) applicable statutes and regulations. It also details the preferred format in which the documentation should be submitted to the Department of Environmental Protection (DEP). It does not include the modeling requirements for open channel modifications, storm drainage systems, or stormwater detention facilities. Further information on these specific types of projects may be found in RCSA Section 25-68h-3.

Note to Users

These guidelines are intended for persons with a background in hydraulic modeling, therefore it is assumed that technical terms are generally understood and do not need to be explained. Applicants should remember that these guidelines have been prepared to outline a suggested format for documenting and presenting your modeling work and are not intended to provide training in the design of bridges, roadways, commercial site development, or wetlands mitigation. Compliance with these guidelines does not create a presumption that your project will be approved. Applicants should review all applicable statutes and regulations prior to preparing an application, including, where applicable, the provisions of the coastal management statutes, Chapter 444 of the general statutes.

When is a Hydraulic Analysis Required?

In any case where changes are proposed in a floodplain or in a watercourse that may affect the conveyance of flood flows, hydraulic information as outlined in this report is required. This includes but is not limited to; bridge/culvert replacements or relocations of any kind, bridge superstructure replacement if the hydraulic opening of the bridge is changed in any way, channel modifications including the placement of bank stabilization material, fill placed in a floodplain, excavation in a floodplain, or any combination of fill and excavation. The complexity of the analysis depends on whether special circumstances exist, such as the presence of a Federal Emergency Management Agency (FEMA) floodway or stream channel encroachment lines (SCEL) at the site.

SECTION 2. GOVERNING POLICIES

The following statutes and regulations establish the Flood Management policies and practices of the DEP:

- State of Connecticut Flood Management Statutes and Regulations (CGS Sections 25-68b through 25-68h and RCSA Sections 25-68h-1 through 25-68h-3). All applications for permits in the programs administered by the IWRD are reviewed to insure that the proposed activities are in conformance with applicable flood management standards and criteria.

- National Flood Insurance Program (NFIP) (44 CFR, Chapter 1, Subchapter B, Part 60.3). The NFIP standards and criteria are the basis for the minimum requirements of the State's Flood Management Program.
- Inland Wetlands and Watercourses (CGS Section 22a-39 through 22a-45a), Dam Construction (CGS Section 22a-401 through 22a-411), Water Diversion (CGS Section 22a-365 through 22a-379a), Water Quality Certifications under Section 401 of the Federal Clean Water Act (33 USC 1341), and Stream Channel Encroachment (CGS Sections 22a-342 through 22a-349). These programs regulate Connecticut's inland water resources. Applications for permits in these programs are evaluated for environmental and flooding impacts.
- CGS Section 13a-94 requires that all structures built over or adjacent to streams in connection with state highway projects conform to the Stream Channel Encroachment Program requirements.

Most communities in Connecticut have adopted Flood Insurance Rate Maps and Floodway maps in conjunction with the NFIP administered by the FEMA for use in regulating development within floodplains. Many streams and rivers in these communities have been studied for the purpose of defining a flood plain area and a floodway area. The floodway is the central part of the floodplain that is reserved to ensure that a sufficient part of the flood plain will remain open to carry floodwaters efficiently.

The following are some of the standards and criteria that must be met in order for a project to be consistent with the State's Flood Management Policies:

- **Floodplains.** RCSA Section 25-68h-2(c)(1) prohibits any activity in a floodplain that would adversely affect the hydraulic characteristics of the floodplain. This includes floodplains in both inland areas and coastal areas. All permit applications for projects proposed within a floodplain must demonstrate that the project will not cause adverse impacts to upstream, downstream, or adjacent properties.

- **Floodways.** RCSA Section 25-68h-2(c)(5) and Section 60.3(d)(3) of NFIP regulations prohibit any activity within a regulatory floodway that would result in any increase in the base flood water surface elevation. In order for any proposed project that does not meet these standards to be approved, a map revision is required from FEMA.

10-Year Profiles. RCSA Section 25-68h-2(c)(5) prohibits any activity within a regulatory floodway that would result in an increase in the elevation of the 10-year water surface profile.

- **Stream Channel Encroachment Lines.** The State of Connecticut has established Stream Channel Encroachment Lines (SCELs) on approximately 270 miles of flood prone rivers in the state. This program differs from the Flood Management Certification program in the scope of review and the extent of jurisdiction, as well as the base flood elevations and discharges for individual watercourses. Maps showing the regulated areas are on file with the IWRD and are also on file in the Town Clerk's offices in each town where lines have been established.

  CGS Section 22a-342 requires that the DEP evaluate proposed encroachments based on the flood-carrying and water storage capacity of the waterways and floodplains, flood heights, hazards to life and property, and the protection and preservation of the natural resources and

ecosystems of the state, including but not limited to ground and surface water, animal, plant, and aquatic life, nutrient exchange, and energy flow, with due consideration given to the results of similar encroachments constructed along the reach of waterway.

- **Natural Profile.** Bridges and culverts should be designed so that the proposed water surface profile does not exceed the natural profile by more than one foot for the 100-year or SCEL floodplain analysis. This applies to the replacement of existing bridges and culverts as well as the construction of new structures. If the proposed profile does not meet this standard, documentation must be submitted justifying the basis for the design. This standard does not apply to DOT Flood Management Certifications for projects that have a drainage area of less than one square mile. These projects have been exempted by regulation from Flood Management standards. Notwithstanding the above, any increase over the existing water surface elevations will only be permitted provided no adverse impacts are created.

- **Water Resources.** The project should not adversely affect the environment or long range water resource planning or impair proper management and use of the water resources of the State.

- **Fish Habitat.** The project must provide for adequate fish passage and maintenance of fish habitat in watercourses that may support fish. DEP Fisheries should be contacted in advance for technical advice for any project which may impact fisheries

SECTION 3. FUNDAMENTALS IN MODELING RIVER HYDRAULICS

Selection of Computer Modeling Programs. Most hydraulic models used in support of permit applications are one-dimensional models for calculating water surface profiles that assume steady gradually varied flow. Programs such as HEC-2, HEC-RAS, WSP2 and WSPRO are all acceptable models, since these are models that are in the public domain and can be recreated for review. In general, no other models should be submitted to the IWRD.

Other models *may* be acceptable, with prior approval from DEP, provided they use the standard step method of solving the Energy Equation:

$$\boxed{WS_2 + a_2V_2^2/2g = WS_1 + a_1V_1^2/2g + h_e}$$

Unique situations may require specialized modeling, such as two- or three- dimensional models. If you are not using one of the above listed models, you must consult with the IWRD before submitting your application. The models used by FEMA to map floodplains assume subcritical flow and applicants recreating a FEMA study should apply the same assumption. In almost all cases, the FEMA analysis is available only on hard copy, which necessitates recreating the files for use on the computer. This should not be a problem unless the FIS utilized the U.S. Geological Survey's E431 or J635 computer programs. Neither of these programs can be run on a personal computer so it is necessary to convert the input data to another hydraulic model. In all other situations, the applicant should utilize the latest version of the same computer model as was used by FEMA, except that HEC-2 data may be run in the program HEC-RAS.

Design Discharge. If the subject site is located in a FEMA floodway or a *numbered* "A" zone, the discharge for analyzing the acceptability of a project at that site must be the same discharge used by

FEMA in establishing the floodway or *numbered* "A" zone designation for the site. If the subject site is located in an *unnumbered* "A" zone or is not located in a FEMA flood zone, such that no detailed study is available), the applicant must establish an appropriate design discharge for evaluating the acceptability of the project at that site. If an applicant uses a design discharge other than the discharge used by FEMA, the applicant must still evaluate the project using the FEMA design discharge and provide a detailed justification as to why another discharge was selected. Both the applicant's selected design discharge and the FEMA discharge analyses must be submitted in the application package. If the subject site is riverward of SCEL, an analysis using the SCEL discharge must also be submitted. If the site is located in a floodway, the 10-year discharge must also be evaluated.

Existing Conditions Model

FEMA Cross-Section Data. As a starting point for any hydraulic modeling of a river mapped by FEMA, the most recent cross sections published in the specific community's Flood Insurance Study should be used. Applicants should contact FEMA Region I – Mitigation Division at 617-223-9561 for information on how to obtain a copy of the FIS back-up data. Applicants should note that the average request takes approximately 2 to 4 weeks to fill and costs between $100 and $200.

FEMA Calibration Run. The back-up data obtained from FEMA must be run "as-is" to check for any differences which may appear simply because a different version of the same model is used, or in cases where a different model is used (as when the original is unavailable to the public). This run must be included in the application package along with a summary of any differences from the published information that may occur.

Use of Cross Sections to Define a Site. An *existing conditions model* and an *existing conditions encroached model* (if a floodway is present) should be developed by utilizing the FIS data and inserting additional cross sections where appropriate to define the project site.

This is often necessary because the FIS section locations are frequently far apart and may not be located within the project limits. In the case where FEMA has accurately modeled an existing condition, the FEMA calibration run may be used for the existing conditions run unless additional cross sections are needed to define a proposed condition. For example, additional cross sections may be needed to define the site of a bridge relocation or widening. (Note: Each cross section from the *proposed conditions model* must have a matching section in the *existing conditions mode*l.) Existing cross sections should be taken at the locations of the downstream and upstream right-of-way limits in order to define water surface elevations in the areas beyond the roadway right-of-way. Cross section locations should be consistent with the recommendations of the manual for the model utilized.

As a starting point, the inserted cross sections should utilize roughness, contraction and expansion coefficients identical to those used by FEMA. Subsequently, based on the professional judgement of the engineer, these coefficients may need to be adjusted to reflect actual field conditions or if there are difficulties in matching the FEMA model. Such adjustments should be noted and summarized. Cross sections must span the entire floodplain. These cross sections may be a combination of survey data and existing available topographic information where appropriate. If sources other than survey data are used, an explanation should be provided. The floodway limits at the inserted sections should be scaled from the FEMA floodway maps. Floodway limits may not be modified unless a map revision has been issued from FEMA.

Accuracy of Available FEMA Cross Sections. The FEMA cross sections within the study reach of the proposal should be compared to current survey information at the location of the FEMA cross sections in order to determine their accuracy. In situations where any discrepancies found between the FEMA data and the current survey information are relatively minor (generally matching to within 0.5' is acceptable), the FEMA data should be used to create the *existing conditions mode*l. The *existing conditions model* will be used for a comparison to the *proposed conditions mode*l. In cases where the discrepancies between the FEMA cross sections and the current survey information are unacceptable, or obvious input errors are noted, data from the actual site conditions should be utilized.

Map Revisions. Any request to amend or modify an existing floodway must first receive a letter or a conditional letter of map revision (LOMR or CLOMR) from FEMA before DEP will issue an approval. The purpose of a CLOMR is to ensure that the modifications will be acceptable to FEMA. A LOMR is not generally issued until a project is complete. The map revision process may be lengthy, so be sure to allow sufficient time for this process in your project schedule. The applicant should contact FEMA to obtain the most current document that outlines the procedures for obtaining a CLOMR.

When there is no Detailed FEMA Study. If FEMA has not established a flood zone with elevations on the watercourse or has not established a floodway, the applicant must develop an *existing conditions model* using field survey data and reasonable coefficients with a calculated design discharge based on a hydrologic model that is appropriate for the site such as TR-55.

In some cases where a culvert is proposed to be replaced in an area which has an unnumbered "A" zone, use of a model such as HY-8 may be acceptable for use in calculating differences in the water surface elevation upstream of the proposed culvert.

When FEMA Data is Unavailable. In some situations the FEMA input information is not available. In this case, applicants must provide the DEP a letter from FEMA indicating that the requested material cannot be supplied. Applicants may then exclusively use field survey data to produce a model that matches as closely as possible to the published FIS model. A closer match may be made by adjusting roughness, contraction, and expansion coefficients. At minimum, cross sections should be taken as close to FEMA sections as possible. On rivers with established SCEL, cross section information from the SCEL study may be available from the DEP.

Natural Conditions Model

For new or replacement bridges and culverts, a *natural conditions model* must be developed. The natural conditions model is intended to show the floodplain in the vicinity of the project as it would be without any artificial encroachments or modifications. For replacement bridges, the natural profile may be developed by modifying the *existing conditions model* to remove the bridge or culvert structure and any approach embankments. In the case where a downstream bridge or dam affects the tailwater of the bridge at the site, two models are required. The first model should show the natural conditions with all obstructions removed. The second model should show the proposed conditions with the downstream obstruction removed but the subject bridge left in place. This will more clearly demonstrate the effect of the subject bridge in comparison with natural conditions. The backwater value of the proposed bridge will be considered to be the difference between the two models.

Proposed Conditions Model

The *proposed conditions model* and *proposed conditions encroached model* (if floodway is present) is developed by modifying the *existing conditions model(s)* to reflect proposed changes. The *proposed conditions model* is compared to the *existing conditions model* to evaluate the hydraulic impacts of the project. The proposed project must not increase the water surface elevations for the 10 or 100-year floodway (encroached condition) profiles. If the proposed activity causes any increases, then the project design must be modified to eliminate these increases. If increases are shown for the unencroached 100-year profile or the SCEL profile, the impacts must be thoroughly discussed. Adverse impacts are not permissible. Additionally, for bridge and culvert projects, the proposed profile must be compared to the natural profile to determine if the design satisfies the goal of no more than one foot of backwater over the natural profile for the 100-year and/or the SCEL floodplain analysis. The applicant must satisfy this goal unless they can demonstrate unusual circumstances such as adverse property or environmental impacts.

When a floodway run is required, you must use FEMA's discharge. Do not propose increases in the floodway model over the model representing existing field conditions. Remember, proposed encroachments into the regulatory floodway will not be permitted if the project results in any increase (greater than **0.00** feet) in either the 10 or 100-year floodway (encroached condition) profiles. The IWRD will not approve an increase in the floodway elevations unless FEMA has granted a conditional letter of map revision. Some increase in the floodway elevations within the roadway right-of-way of a state project may be acceptable without FEMA's prior approval.

If the proposed unencroached 100-year water surface profile will be lower than the published information by more than 0.5 feet or if there are significant differences in the published data and the proposed water surface elevation due to modeling differences or errors in the FEMA data, you must notify FEMA by letter with a copy to the town and DEP once the project is complete and provide to FEMA the hydraulic model information with the 500 year, 100 year, 50 year and 10 year flood profiles and an equal conveyance floodway. The letter sent to FEMA should make it clear that the information is being submitted for FEMA's future mapping use and not for a current map revision, as per agreement between DEP and FEMA. The address for the FEMA Region I office (serving Connecticut) is:

J.W. McCormack Post Office and Court House
Room 442
Boston, MA 02109
617-223-9561

SECTION 4. SUMMARY AND PRESENTATION OF INFORMATION

The results of the hydraulic modeling should be clearly summarized in the engineering report to show water surface elevations, velocities and cross section information. This is best done through tables, profiles, cross section plots, and a clear narrative. A well-organized presentation can greatly facilitate timely permit reviews.

Hydraulic analyses should be submitted with the input data and full output tables. In the engineering report, conclusionary statements should be explained and fully supported by back-up data.

Copies of computer output sheets should be checked for legibility. Often these pages are too light to read after being copied.

A 3.5" computer diskette or CD (preferred) of all input files contained within the report with an index of these files should be included with the engineering report. Label the disk with the project name. By including this diskette, some additional information requests may be avoided. In addition, if a disk is included, the output of the models need not be submitted; only a hard copy of the input and the summary tables must be included in the submittal.

Narrative. A narrative sufficient to explain the project should accompany the hydraulic analyses. The narrative should contain sections for project description, natural conditions, existing conditions, proposed conditions, and the hydraulic summary. Unusual error messages identified by the hydraulic analysis should be explained and/or commented upon. A complete narrative will assist DEP staff to understand unusual circumstances or complex situations pertaining to the project. Any other information that the applicant feels will be helpful in assessing the project should also be included Make sure the copies of the engineering report, especially computer printouts and hand computation sheets are legible. If the report is bound, make sure that no portions of the computer printouts are obscured. Reports should be tabbed and labeled so that sections can be easily located.

Profiles. In a report containing more than one discharge, profiles should show existing, proposed, and natural conditions on one page for each discharge. This enables an easy comparison of the profiles. A separate page should be used for each discharge. The existing and proposed profiles should converge both upstream and downstream of the project site or at least pass through critical depth. If decreases in water surface elevation are shown, convergence within 0.5' is acceptable. If not, the analysis should be extended upstream until convergence or critical depth is reached.

Cross Section Plots. The report should include plots of the cross sections, looking downstream. Cross section plots should be clear and have proposed conditions superimposed onto the existing conditions. Computer generated plots are often of a scale which does not clearly differentiate between existing and proposed conditions. In these situations, the applicant should provide drafted plots of the project area large enough so that existing versus proposed conditions are clearly depicted. The scale of the plots should be clearly denoted. A plan sheet showing cross section locations is required.

Tables. Table fields should be clearly labeled. A separate table should be shown for each discharge. Each cross section that is used in the model should be listed together with the published FEMA water surface elevation, existing and proposed conditions. FEMA lettered sections should be labeled. Include the differences between the FEMA and the existing model, and the difference between the existing and the proposed model.

Summary

Include in the hydraulic package:

- Natural, existing, and proposed models based on the appropriate discharge.
- Computer diskette or CD (preferred) with input.
- Adequate narrative.
- Hydraulic Data Sheets.

- Profiles – one page per discharge.
- Cross sections.
- Tables – one table per discharge.
- Plans including erosion and sediment controls and water handling

NOTE: TO ALL APPLICANTS AND THEIR DESIGN TEAM.

When submitting an application requiring river hydraulic models the following fundamental information must be provided.

- **A copy of the FEMA back-up data. Note: FEMA cross-sections and flows must be used in development of the model.**
- **If FEMA back-up is not available, a copy of the original request to FEMA and the response letter back from FEMA must be provided.**
- **A disk including all runs as defined in the hydraulic Guidance Document. (NOTE: All runs must be provided on one disk under one project)**
- **No modifications to floodway boundary are permitted without approval from FEMA.**
- **The Hydraulic Analyses and results of the hydraulic modeling should be clearly summarized in the engineering report.**

This is fundamental information required in making a complete application and is not considered extra work. Failure to provide the above as minimum requirement will result in rejection of the application.

SECTION 5. OTHER IMPORTANT CONSIDERATIONS

Fish Passage. Projects must be designed to accommodate fish passage and maintain fish habitat where needed. If a culvert is proposed instead of a bridge, some methodologies used to provide fish passage are: sinking a box culvert bottom roughly one foot to allow accumulation of natural sediment in the box, providing a low flow channel, or using an inverted "U" type culvert in order to leave a natural bottom. Whenever a box culvert is proposed as a new river crossing or as a replacement for an existing bridge, it is advisable to contact the DEP Fisheries Division prior to completing plans for submittal to DEP. The main office telephone number for the DEP Fisheries Division is 860-424-3474.

Spanning the Floodway. When an existing bridge spans the floodway, with its abutments at or outside the floodway limits, a proposal to replace the bridge in kind or with a greater span will not require a floodway evaluation provided the low chord of the existing and proposed bridge is higher than the floodway elevation. This information must be clearly shown on plans and elevations. In the design of a new crossing, it is highly recommended that no part of the structure be within the floodway. This will eliminate the need for a floodway assessment but does not negate the need for obtaining an environmental permit(s) or approval of a flood management certification.

Overtopping of Local Bridges. Under certain limited conditions defined by regulation, local bridges may be allowed to overtop by floodwaters if site constraints so warrant. In this case, the

application must state how the bridge will be closed to traffic in the case of a flood, what detour routes are available, and that the bridge will be posted as being prone to flooding.

Flood Storage. When a hydraulically inadequate bridge or culvert is proposed to be replaced and a significant drop in backwater at the structure is expected, the applicant must investigate whether the subsequent loss of upstream flood storage will have an adverse downstream impact. Information provided to DEP to show the downstream impact should include the volume of storage upstream of the bridge lost in acre-feet. If the volume of storage lost is significant, more detailed flood storage routing may be required. Measures such as replacing the bridge or culvert in kind may have to be taken to avoid an adverse downstream impact.

Metric vs. English Units. Projects are sometimes designed using metric units, in compliance with past federal mandates. A hydraulic analysis that is completed in metric units may be submitted with an application; however, the summary must contain tables in both English and metric.

Tailwater Control. Occasionally a bridge or culvert will be inundated by backwater from a downstream river or from Long Island Sound. In these cases, the hydraulic analysis should generally be conducted using the design inland storm together with a ten-year tailwater elevation, unless it can be demonstrated that use of a different tailwater elevation would be appropriate. DEP should be contacted for concurrence prior to submission of the report.

Channel Restoration. Channel restoration plans must be provided for all open channel work. The plan will help restore and/or create an aquatic habitat suitable for fisheries, if applicable, as well as maintain or improve water quality, recreation, aesthetics and flow capacity. The channel restoration plan should include, as appropriate: avoidance of barriers to fish movement; formation of pools and riffles; provisions for areas of sheltered flow with use of deflectors, boulders, or low check dams; preservation of stream bank vegetation and establishment of new vegetation; use of clean natural bed materials of a suitable size; scheduling of work to minimize conflicts with spawning, stocking, and fishing season; and removal of excess debris. The plan must be designed to avoid adverse hydraulic impacts from obstructions placed in the stream. Consultation with the DEP Fisheries Division is recommended.

Temporary Hydraulic Facilities. Temporary hydraulic facilities include, among other things, temporary bridges, by-pass channels, haul roads or channel constrictions such as cofferdams. The Connecticut Department of Transportation Drainage Manual 2000 (http://www.ct.gov/dot), Chapter 6, Section 15, and Appendix 6.F describes the methodology for determining the temporary design discharge for such facilities. Such facilities must be capable of conveying the temporary design discharge for the temporary facility without endangering life or property (including the structure under construction). The temporary hydraulic facilities should not cause roadways to be overtopped or aggravate existing flooding conditions during the temporary design discharge. In the case where such facilities are utilized, the hydraulic design based on the DOT drainage manual must be provided.

Hydraulic Data Sheets. Hydraulic data sheets should accompany every hydraulic report involving a bridge. Data sheets may be found in the DOT Drainage Manual, Chapter 9, Appendix A.

Plans. Plans should be provided that are in conformance with the requirements listed in the application instructions DEP-IWRD-INST-100. Plans must include erosion and sediment controls as well as water handling and sequence of construction information.

Pre-application Meetings. In cases where a project is hydraulically complex or problems with hydraulic modeling are foreseen, a pre-application meeting with IWRD engineering staff is highly recommended.

Copies. Only one copy of a hydraulic analysis should be submitted with an application, regardless of how many total copies of the application are required. This does not include plans, which must be submitted in the appropriate number.

DEPARTMENT OF ENVIRONMENTAL PROTECTION
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INLAND WATER RESOURCES DIVISION
79 ELM STREET, THIRD FLOOR
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CONNECTICUT DEPARTMENT OF TRANSPORTATION

LOCAL BRIDGE PROGRAM

PRELIMINARY APPLICATION

Preliminary application is hereby made by the Town/City/Borough of _____
for possible inclusion in the Local Bridge Program for Fiscal Year **2012** for the following structure:

Bridge Location: _____

Bridge Number: _____ Length of Span: _____ feet

Sufficiency Rating: _____ Priority Rating: _____

Evaluation & Rating Performed by: _____ State Forces _____ Others

If Others, Name of Professional Engineer: _____

Connecticut Professional Engineers License Number: _____

Engineering Firm: _____

Engineer's Address: _____

Engineer's E-mail Address: _____

Description of Existing Condition of Structure: *(attach description)*

Description of Project Scope: _____ *(note repair code; attach narrative/preliminary plans & specifications).*

Municipal Official to Contact *(name & title)*: _____

Mailing Address: _____

Telephone: _____ FAX: _____

E-mail: _____

Schedule: (Anticipated Dates – MM/DD/YYYY)

Public Hearing Conducted: _____

Design Completion: _____

Property Acquisition Completion: _____

Utilities Coordination Completion: _____

Construction Advertising: _____

Supplemental Application Submission: _____

Start of Construction: _____

Completion of Construction: _____

Preliminary Cost Figures:

Preliminary Engineering Fees (Include Breakdown of Fees) $ _____

Rights-of-Way Cost (If applicable) $ _____

Municipally Owned Utility Relocation Cost $ _____

Estimated Construction Costs (Include Detailed Estimate) $ _____

Construction Engineering (Inspection, Materials Testing) $ _____

Contingencies *(10% of Construction Costs Only)* $ _____

Total Estimated Project Cost $ _____

Financial Aid Data:

Federal Reimbursement:
Total Estimated Project Cost multiplied by 80%:

Federal Aid Request $ _____

State Local Bridge Project Grant: *(not available)*

State Local Bridge Project Loan: *(not available)*

I hereby certify that the above is accurate and true, to the best of my knowledge and belief. I also certify that this form has not been modified in any way from that distributed by the Department of Transportation for FY 2012.

Signature: _____
(Chief Elected Official, Town Manager, or other Officer Duly Authorized)

Date: _____

Return completed applications to:

Mr. Stanley C. Juber
Administrator of the Local Bridge Program
Connecticut Department of Transportation
2800 Berlin Turnpike, P.O. Box 317546
Newington, Connecticut 06131-7546

COMMENT FORM

FY2012 Local Bridge Program Manual

In order to improve this manual for future users, your comments and suggestions would be greatly appreciated. What parts of the manual did you find:

Most helpful, and why?_____

_____

_____

_____

_____

Least helpful, and why? _____

_____

_____

_____

_____

Confusing? _____

_____

_____

_____

_____

I would like more information on: _____

_____

_____

_____

_____

General Comments: _____

_____

_____

_____

_____

Fold along dotted line

Place
Stamp
Here

Stanley C. Juber
Local Bridge Program, Room 3300
Connecticut Department of Transportation
PO Box 317546
Newington, CT 06131-7546

Fold along dotted line