

**TOWN OF SOUTH WINDSOR
INLAND WETLANDS, WATERCOURSES AND CONSERVATION APPLICATION**

Application # 20-52 W

Date Received 10/7/20

INSTRUCTIONS

1. **Fifteen applications (15) with map and plans (2 copies)** shall be submitted together with the fee set forth in the Inland Wetlands, Watercourses and Conservation Regulations, Town of South Windsor. (See Regulations, Section VII – X)
2. The South Windsor Inland Wetlands, Watercourses and Conservation Regulations should be reviewed with respect to the standards and criteria for application Evaluation. (See Regulations, Sections VII – X)
3. The applicant understands that this application is to be considered complete only when all information and documents required by the Agency have been submitted. The applicant shall also complete the state filing form.

A. Applicant's Name: Town of South Windsor

Address: 1540 Sullivan Avenue, South Windsor CT 06074

Phone: (home) (860) 644-2511 (work) _____ (email) _____

B. Legal owner's name: Same as Above

Address _____

Phone (home) _____ (work) _____ (email) _____

(List additional owners, addresses, and phone numbers on back of application)

- C. If the applicant is not the owner of the subject property; a letter by the owner(s) authorizing the proposed regulated activity set forth in the application must accompany this form and will be part of the application.

D. Project Name (if any) Replacement of Main Street Bridge over Podunk River
Project Address Main Street over Podunk River

1. Contact Person (if further information is needed)

Jeffrey B. Doolittle, P.E. (Town Engineer) _____ (work) (860) 644-2511 Ext. 245 _____ (fax) (860) 644-7280

- E. The geographical location of the property which is to be affected by the proposed regulated activities including a description of the land in sufficient detail to allow identification of the property on the Inland Wetland and Watercourse Map.

Assessor's map # N/A Parcel # N/A Zone N/A

F. Names of all abutting property owners from records in Town Clerk's office. (use separate sheet if necessary)

Attached

G. Have you notified all abutting property owners (from records in Town Clerk's office) by certified letter that an application is pending before the Agency?

yes

☒ ** (you are required to supply a copy of the letter with the list of the names of the abutters)**

H. Purpose and description of all proposed regulated activity(s) including amount of disturbance in square feet and types of fill and the time element involved:

Please refer to narrative for a more detailed purpose description of the project.

I. A class A-2 map of the property drawn to 1" = 40', showing the area to be developed, extent of the wetlands and watercourses affected, topography, existing and proposed activities and names and locations of adjacent property owners must be submitted.

J. Amount of regulated area disturbance (within upland review area or regulated buffers) 0.222 Acres.

K. Acreage of wetlands and watercourses in regulated areas to be altered: 0.0007 Acres

L. Acreage of wetlands and watercourses to be created: 0 Acres

M. Lineal feet of proposed stream alteration: 50 Feet

N. Total land area of project and percentage, which is wetlands: _____

Total Land Area of Project = 0.234 A.C., 5.3% of project area is wetlands and watercourse

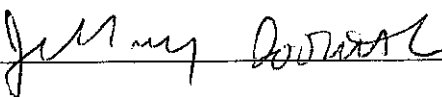
O. Identify all other permits or approvals that have been issued, applied for, or required with respect to the proposed activity set forth in this application. (These may include but not be limited to, local Planning & Zoning, Zoning Board of Appeals, D.E.P., F.E.M.A., D.O.T., The Army Corps of Engineers, and any other State, Local or Federal Permits.) _____

Flood Management from local P&Z and ACOE/DEEP (Pending Permit determination from Interagency Coordination Meeting)

P. The applicant (or designated representative) hereby attests that a sign will be posted at the following location(s) On Main Street

By Podunk River Name Jeffrey B. Doolittle, P.E. (Town Engineer)

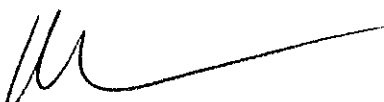
on or before the following date October, 2020

Signature: 

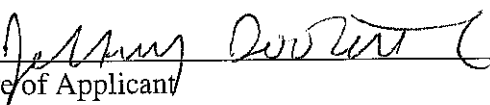
These signs must be displayed continuously for at least ten (10) days prior to scheduled meeting (see Regulations, Section 7.3a). The applicant is responsible for maintaining the sign during this period.

The undersigned hereby applies for the regulated activities listed in paragraph H above, for a Inland Wetlands, Watercourses and Conservation permit for the property described herein and confirms that:

1. She/he is familiar with the currently effective Inland Wetlands, Watercourses and Conservation Regulations of the Town of South Windsor.
2. She/he understands that at any time during the review period, the Agency may require the applicant to provide more information about the wetlands and/or watercourses in question and/or any proposed activity.
3. All information submitted in the application for review shall be considered factual, or in the case of anticipated activity, binding. A knowing failure of the applicant or any of her/his agents to provide correct information, or performance exceeding the levels of activity anticipated, shall be sufficient grounds for revocation of any permit under these regulations.
4. By making this application, the applicant gives permission to the Inland Wetlands, Watercourses and Conservation Commission members and/or its representative to enter the portions of the premises which are subject of the application for the purpose of inspection and investigation and otherwise evaluating the merits of the application both before and after a final decision has been issued.

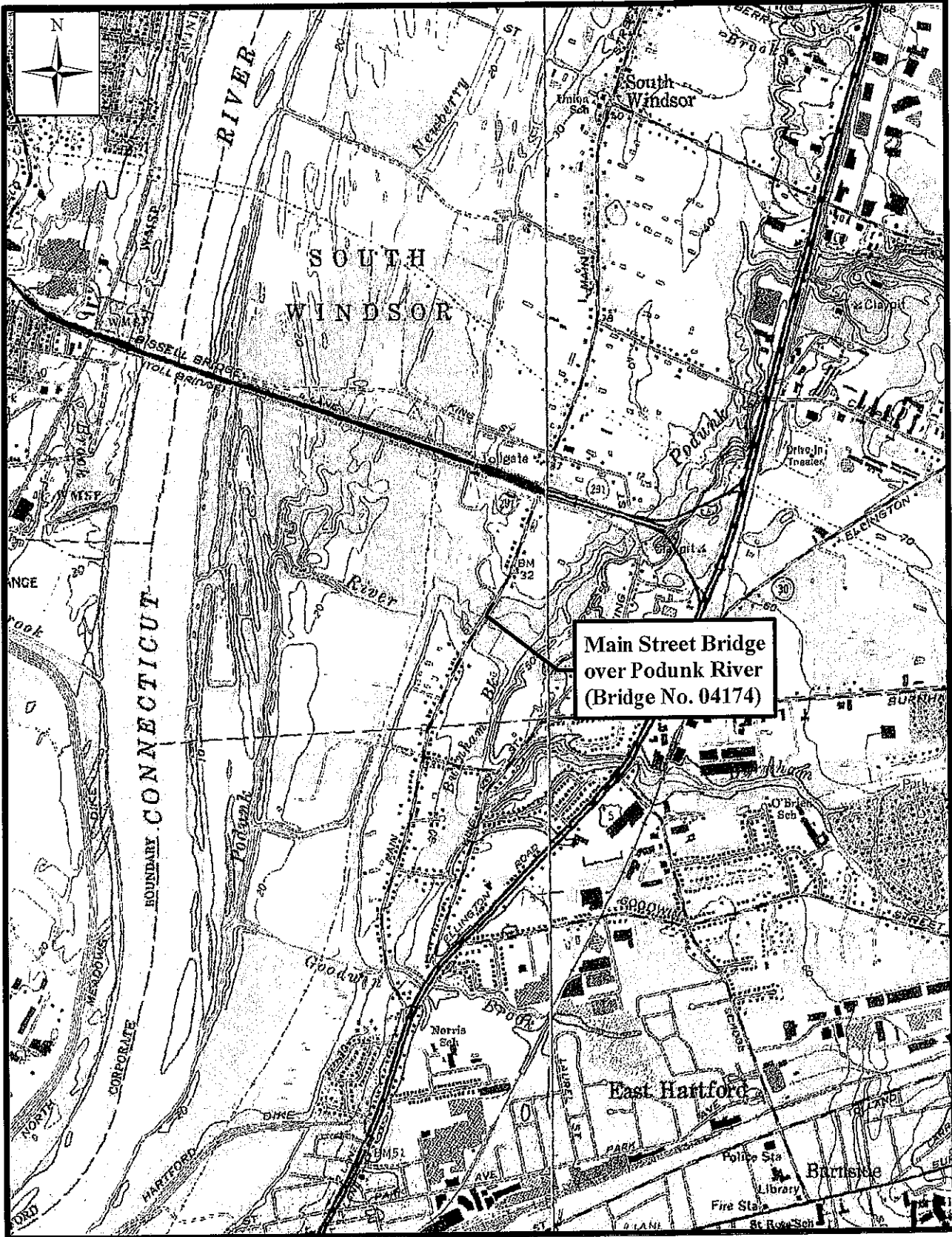

Signature of Owner of Property

Date 10/6/20


Signature of Applicant

Date 10/5/2020

USGS LOCATION MAP



WMC
CONSULTING ENGINEERS
87 HOLMES ROAD
NEWINGTON, CT 06111

MAIN STREET BRIDGE OVER PODUNK RIVER

SCALE: 1" = 2000'

DATE: 03/29/14

LOCATION:

SOUTH WINDSOR, CT

Replacement of Main Street Bridge over Podunk River

EXISTING SITE CONDITIONS

Existing Bridge No. 04174 is a single span structure, which carries Main Street over the Podunk River in the Town of South Windsor. The bridge is located on Main Street about 0.4 miles south of I-291. The existing structure was reconstructed in 1981 and originally constructed in 1907. The bridge is a single span structure with an overall length of 33'-5" and a clear span length of about 28'-6". The bridge carries two lanes of bi-directional traffic. The deck has a total width (out-to-out) of over 35'-3" and a travel width of 31'-6" curb-to-curb. The concrete parapets are jersey barrier shaped (sloped face) with a thickness at the base of 1'-9" on the east side and 2'-0" on the west side. The bridge consists of a superstructure constructed of steel girders and stringers supported on brownstone masonry abutments and wingwalls. The existing Main Street Bridge is within an area identified on the Connecticut Department of Energy and Environmental Protection (DEEP) Natural Diversity Data Base (NDDB) maps (Refer to Attachment B for DEEP NDDB Map and correspondence letter). Also, the Bridge is located within FEMA Zone AE, with a regulatory Floodway, and outside Connecticut Aquifer Protection Areas (See Attachment B).

EXISTING WETLAND ENVIRONMENT

Currently, a broad floodplain with a forested wetland environment exists on both sides of Main Street. Federal and State wetlands are present on both sides of the bridge and are divided by the existing roadway embankment which supports Main Street over the Podunk River. The existing roadway embankment is comprised of approximately nine feet of fill over the adjacent grades. Presently, no formal drainage exists in the vicinity of the bridge and stormwater is allowed to sheet flow off the roadway and embankments to the existing wetlands. Please refer to the wetlands report in Attachment C.

PROJECT PURPOSE AND DESCRIPTION

The ConnDOT inspection of Bridge 04174 was performed on October 11, 2018, found the condition of the superstructure (Item 59) to be Serious Condition (Rating 3) and the Structural Evaluation (Item 67) required high priority corrective action (Rating 3). Subsequently, a portion of the southbound lane was closed. Items related to the waterway were all satisfactory. Although there is no evidence of scour, the bridge has been rated scour critical (Rating 3).

The Town proposes a complete replacement of the existing bridge with a 70-foot clear span, NEXT Type 40D Beam superstructure supported by integral abutments founded on deep H-Pile foundations and cantilevered U-type wingwalls. The replacement would also consist of removing the existing stone masonry abutments and wingwalls to elevation 16.5' +/-, which is above the ordinary high-water line at the site. Rounded stone riprap will be installed on the newly graded embankments. It is anticipated all construction work will be contained within the existing roadway fill embankments and that only minor impacts to regulated wetlands or watercourse will occur as a result of rounded riprap installation and handling water cofferdams.

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The project would also consist of reconstructing approximately 195 feet of roadway and installing new guide rail at all approaches.

No drainage structures are proposed and the embankments will be graded to allow stormwater to sheet flow to the adjacent wetlands.

WETLAND IMPACTS

Approximately 540 square feet of CT wetlands and watercourses will be impacted, which is 5.3% of the total project area. These include impacts due to grading the adjacent embankments for the new structure. It is proposed to install rounded riprap on the newly graded embankments to protect them from flooding conditions.

The remaining 94.7% of the project area is entirely within Upland Review Area, which is approximately 9,700 square feet (0.222 Ac.). These impacts are a result of reconstructing the existing roadway, proposed full height parapets, installation of proposed guide rail and associated grading along the road.

WETLAND IMPACT AREAS

The area of permanent impacts result from the installation of the rounded riprap on a 6" base of compacted granular fill and the installation to toe boulders. (Refer to the Amount and Type of Materials Table). The areas of temporary impacts are a result of the temporary water handling cofferdams and sedimentation control limits. Both permanent and temporary impact areas are listed below (See Attachment B for Connecticut Wetlands Impact Plan):

<i>AREA OF TEMPORARY IMPACTS (WETLANDS)</i>	185 SF
<i>AREA OF TEMPORARY IMPACTS (WATERCOURSE)</i>	30 SF
<i>AREA OF PERMANENT IMPACTS (WETLANDS)</i>	300 SF
<i>AREA OF PERMANENT IMPACTS (WATERCOURSE)</i>	25 SF
<u>TOTAL AREA IMPACTED</u>	<u>540 SF</u>
<i>WATERCOURSE CREATED</i>	0 SF
<i>STREAM ALTERATION</i>	50 LF
<i>UPLAND REVIEW AREA</i>	9,700 SF

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AMOUNT AND TYPE OF MATERIALS

Impact	Fill Type	Amount (C.Y.)	Association
Watercourse	<i>Toe Boulders</i>	6	Rounded riprap support
Sub Total		6	
Wetlands	Rounded Riprap	17	Riprap embankments
	Granular Fill	6	6" Bedding Material for Riprap
	Sub Total	23	
Total		29	Total Fill in Watercourse and State Wetlands
Excavated Material		-31	Material Excavated for Riprap and Toe Boulders
Net Fill		-2	

SEDIMENTATION AND EROSION CONTROL PLAN

During construction, the contractor will be expected to maintain an effective sedimentation and erosion control plan to ensure protection of the stream environment within the project area. Requirements of the sedimentation and erosion control plans are included on the plans and have been submitted along with the application.

WATER HANDLING PLAN

During construction, Main Street will be closed to traffic. The project is to be completed in the following proposed stages:

Suggested Construction Sequence Notes:

1. Install necessary erosion and sedimentation controls.
2. Coordinate relocation of existing overhead utilities.
3. Coordinate with MDC for water main work.
4. Install debris shield (min. elevation 21.64').
5. Remove existing superstructure. the contractor shall prevent debris, tools, and/or other materials from entering into or dropping into the waterway adjacent to the structure. All debris shall be promptly cleaned up and removed from the site at the sole expense of the contractor at no additional cost to the municipality.
6. Install water handling cofferdams as shown to maintain flow. the maximum water handling cofferdam elevation shall be 15.80 feet which should provide protection for the spring day temporary storm discharge. Duration of temporary cofferdams shall be 1 month or less.
7. Install pump settling basin. Effluent from dewatered work area(s) should not be discharged directly to the stream but must be processed through treatment

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- structure(s). such structure(s) should not be located within the stream channel or adjacent wetlands. see water handling notes.
8. Remove part of existing abutments and wingwalls (stones) to elevation 16.5'. The remaining portions of the abutments shall work as cofferdams.
 9. Grade embankments and install intermediate riprap to minimum elevation of 23' (upstream) and to minimum elevation of 19' (downstream).
 10. Maintain existing drainage.
 11. Install bridge abutments and wingwalls.
 12. Install prestressed NEXT 40d beams.
 13. Remove handling water cofferdams.
 14. Install the proposed water main as shown and remove temporary relocation of water main.
 15. Complete grade embankments and install erosion control matting, as necessary.
 16. Complete remaining bridge and roadway work.
 17. Maintain necessary erosion and sedimentation controls.
 18. The sedimentation control system is to be removed after impacted areas are stabilized and vegetation has been established.

DISPOSAL OF EXCESS MATERIAL

Reinforced concrete and stone masonry from the existing structure, as well as the existing roadway fill material is expected to be removed. The Contractor shall submit, in writing, an excess material disposal plan to the Engineer and revise as requested for approval. No excess material shall be disposed of until the Engineer approves such plan. The disposal of excess material shall be in accordance with all applicable federal, state and municipal laws and requirements.

CONSTRUCTION SCHEDULE

Construction is planned to start in the Spring of 2021 and projected to last 8 months.