

Staff Report

Devens
Enterprise
Commission

Date: July 20, 2022

To: **Devens Enterprise Commission**

From: Peter Lowitt, DEC Director and Neil Angus, Environmental Planner

RE: **Level 2 Unified Permit WPA NOI for Willow Brook Culvert Replacement**

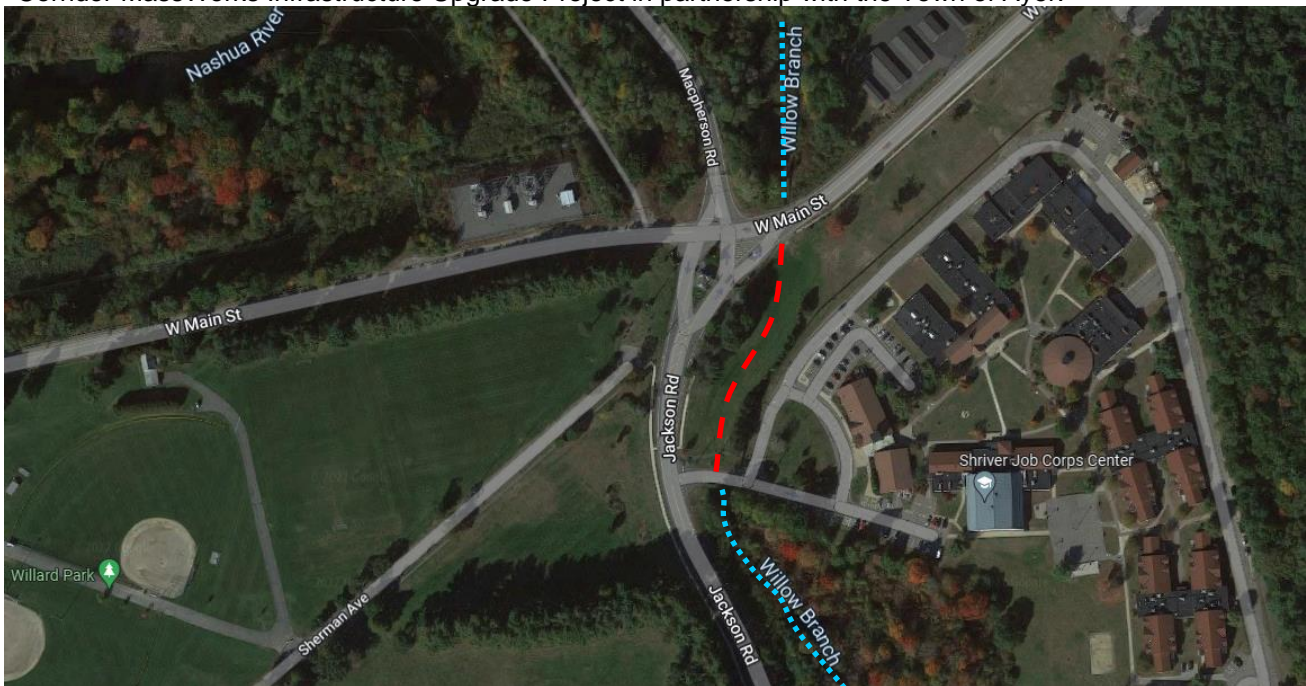
Owner: MassDevelopment

Applicant: MassDevelopment

Location: Portion of Willow Brook running parallel to Jackson Road from the Shriver Job Corps driveway to West Main Street at the Verbeck Gate, Devens, MA

Zoning: Open Space and Recreation, Zone II Water Resources Protection Overlay

Premises and Proposed Project: MassDevelopment has submitted a Level 2 Unified Permit application including a Wetlands Notice of Intent (NOI) under the MA Wetlands Protection Act and is seeking approval from the DEC, acting as the Conservation Commission, for the replacement of approximately 400 linear feet of corrugated metal pipe (CMP) installed by the Army over 40 years ago that carries the flows of Willow Brook and has become seriously corroded leading to frequent failure and dangerous sinkholes. This project will replace the 60" CMP with 60" HDPE Corrugated Plastic Pipe and is part of the larger West Main Street Corridor MassWorks Infrastructure Upgrade Project in partnership with the Town of Ayer:



MassDevelopment had identified this culverted portion of Willow Brook to be daylighted – similar to the upper section of Willow Brook that was done in 2015. Unfortunately, since then, PFAS remedial investigations have uncovered high concentrations in this location and until a remedy is put in place, the daylighting cannot happen as it could lead to off-site transportation of PFAS contamination. As the culvert pipe frequently collapses, it is essential to replace it until the PFAS remedy is in place and daylighting can occur without negatively impacting water quality in Willow Brook and the wetlands, streams and rivers it drains into. MassDevelopment is still committed to daylighting this portion of the brook.

As the proposed activity will have direct wetland impacts, MassDevelopment is seeking a Wetland Order of Conditions to undertake this work. The actual work will be done by Onyx, the contractor that is currently working on the West Main Street corridor project in Ayer.

Willow Brook is an intermittent stream and tributary of Nonacoicus Brook in Ayer – a tributary of the Nashua River so it is important to ensure this work is performed in a manner that does not negatively impact the adjacent wetlands and watercourses. The new proposed culvert pipe will tie into the existing headwall at the Shriver Job Corps driveway crossing and follow the path of the existing culvert pipe, tying into the existing headwall at West Main Street and help reduce sediment loading in Willow Brook from culvert collapses. The Applicant plans to bypass existing stream flows and has proposed a two-phased diversion plan using pumps, filter bags and other erosion controls to maintain stream flows throughout construction and protect water quality.

Wetland Performance Standards:

As part of the Notice of Intent, the Applicant must demonstrate compliance with all applicable Wetland Performance Standards:

1. *Bank.* Work cannot impair the physical stability of a bank. The project does not propose any streambank alterations
2. *Bordering Vegetated Wetland.* Work cannot destroy or impair any portion of a bordering vegetated wetland (with exceptions). The work, while close to wetlands, has proposed erosion control measures to reduce the potential for any impairments to the adjacent wetland areas on the south side of the Shriver Job Corps driveway and the north side of West Main Street.
3. *Land Under Waterways.* As this portion of the stream is culverted and Willow Brook is intermittent, there is no jurisdictional Land Under Waterbodies and Waterways (LUWW), the proposed work is not altering any land under waterways.
4. *Bordering Land Subject to Flooding (BLSF).* The Wetlands Protection Act prohibits any work that will increase the elevation to which an area will flood, or increase the velocity of water-flow during a flood.. While there is no BLSF identified in this project, the Applicant will need to ensure the temporary by-pass flows are sufficient to avoid any increase in velocity of stream flows or back ups that could cause up-stream flooding. The proposed filter bags will help with this but will need to be adequately sized to accommodate the seasonal intermittent flows.

The Applicant's submittal addresses most of these performance standards. The work must be designed and implemented to minimize adverse effects such as increased erosion, suspension or transport of pollutants, increases in turbidity or flows. Staff has recommended a few additional conditions be added to ensure potential impacts to resource areas are further minimized (see Comments and Recommendations).

Proposed Waiver Requests: none.

Process: Devens Engineering, submitted a Level 2 Permit application package, including the application, Wetland Notice of Intent, project description, and plans on June 2, 2022. A Determination of Completeness was issued on June 13, 2022. Copies of the application were received by the surrounding Towns on June 21, 2022. Legal notices were placed in Nashoba Publications on July 1 and 8, 2022. Certified Mail notice was sent to all abutters on June 14, 2022. The 30-day Town comment period expired on July 22, 2022. No comments were received. The 75 day review period for the DEC to act on this application ends on August 27, 2022.

Comments and Recommendations: This replacement is a temporary solution that will improve water quality by avoiding future collapses and corrosion. MassDevelopment has committed to pursue daylighting and restoration of this portion of Willow Brook once PFAS investigations and any remediation are complete. To further avoid temporary impacts during construction and to ensure construction and final stabilization meet all local, state and federal requirements, Staff would recommend the Commission consider the following special conditions be added to the Wetland Order of Conditions:

1. Bypass pumps and filter bags shall be sized to accommodate the largest anticipated flows. Bypass plans shall include emergency bypass procedures, in the event of storm activity and high water flows.

Bypass pumping shall not impair the water carrying capacity of Willow Brook at any time. Plans shall also include measures for blocking the existing culvert upstream and diverting stormwater flows contributing to the catch basins discharging within limits of work. Any de-watering required shall be separated from the bypass stream flows and properly contained and filtered prior to discharge.

2. Areas of rip rap shall be minimized and replaced with natural stabilization methods where feasible. The use of angular rip rap shall be avoided and rounded river stone shall be used in its place.
3. Additional controls shall be installed around the filter bags to provide additional filtration and reduce further erosion and sedimentation, if necessary.
4. Work shall be performed during low-flow conditions (generally July through August) to avoid temporary impacts and reduce bypass flows.
5. A preconstruction meeting shall be held with the contractor performing the work, including DEC Staff and MassDevelopment Staff. All erosion and sediment controls and bypass pumping equipment shall be in place prior to commencement of construction.
6. Final stabilization of all exposed areas shall be achieved using a native New England conservation seed mix. Use of Fertilizers and pesticides within 100 feet of the resource area is prohibited.
7. Work associated with this repair is confined to that as shown on the plans entitled: "GRADING, DRAINAGE AND PAVING PLAN STA. 26+50 TO 31+00", sheet C14, dated August 2021, revised 9/16/21, prepared by Ayer DPW, 25 Brook Street Ayer, Massachusetts. Any changes will require review and approval by the DEC prior to undertaking.

A Draft Wetland Order of Conditions and Record of Decision have been prepared for the Commission's consideration. If all issues have been addressed, the Commission could close the public hearing and then vote on the Wetland Order of Conditions first, then the Record of Decision. If additional information is required, or there are still open items, the Commission should continue the hearing to the August 4, 2022 meeting.

Attachments: all available on-line at: <https://www.devensec.com/level2hearingsJuly26.html>

- *Site Plan*
- *Wetland Notice of Intent*
- *Bypass Plan*
- *Determination of Completeness*
- *Draft Wetland Order of Conditions*
- *Proposed Special Conditions*
- *Draft Record of Decision*