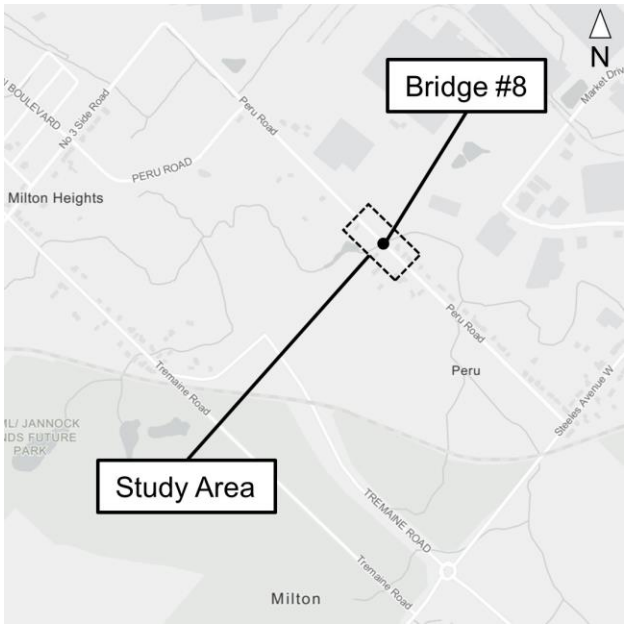
Peru Road Bridge Removal and Cul-De-Sac Implementation

Preliminary Information Package

The Study

The Town of Milton has initiated a Schedule 'B' Municipal Class Environmental Assessment for the removal of Bridge #8 on Peru Road and associated cul-de-sac implementation. Bridge #8 is located approximately 800m north of Steeles Avenue West. Historical studies related to the development in this general area have identified that Bridge #8 requires removal. The removal of Bridge #8 will result in a dead-end of Peru Road on each side of the current bridge, which will require the installation of cul-de-sacs. The purpose of this study is to explore the method of bridge removal, and options for cul-de-sacs geometry and location to allow local, emergency and maintenance traffic to safely maneuver.



Municipal Class Environmental Assessment Process

Municipal infrastructure projects are subject to the Ontario Environmental Assessment Act (EA Act). Projects are considered approved subject to compliance with an approved Municipal Class Environmental Assessment (MCEA) process. The MCEA outlines a comprehensive 5 Phase approach to project planning that provides a rational approach to consider the natural, social, cultural, built and economic environment including advantages and disadvantages of alternative solutions and their trade-offs to determine a recommended solution for addressing the problem or opportunity. This includes consultation with agencies, directly affected stakeholders and the public throughout the process.

This project is being planned as a Schedule 'B' Project in accordance with the EA Act, which includes the following:

- Identifying the problem or opportunity;
- Completing an inventory of existing environments (socio-economic, cultural, natural, engineering);
- Developing and evaluating alternative solutions;
- Identifying a Recommended Solution; and,
- Preliminary design for the Recommended Solution.

Background Studies and Existing Conditions

The following background studies are scheduled to be completed over the course of this study to establish the existing conditions of the study area and to inform the evaluation of alternative solutions:

- Cultural Heritage Evaluation Report
- Cultural Heritage Report
- Topographic Survey
- Legal Survey
- Scoped Environmental Impact Study
- Tree Inventory and Protection Plan
- Stormwater Management Plan
- Geotechnical Investigation

Identification of Alternative Solutions

For the purposes of this study, Peru Road is considered to have a north-south orientation, with private properties on both the east and west sides of the road.

Problem / Opportunity Statement

The removal of Bridge #8 will result in a dead-end of Peru Road on each side of the current bridge, which will require the installation of cul-de-sacs to allow local, emergency, and maintenance traffic to safely cul-de-sac. A variety of alternative solutions were considered for the installation of cul-de-sacs on each side of Bridge #8, as well as for the removal of Bridge #8.

It should be noted that the north cul-de-sac needs to accommodate a WB-20 transport truck (a 22.4 m long interstate semi-truck and trailer), whereas the south cul-de-sac needs to accommodate maintenance and emergency vehicles. The WB-20 transport truck has a larger turning radius than maintenance and emergency vehicles; and therefore, requires a larger cul-de-sac.

The following alternative solutions were identified to address the problems and opportunities for this study:

Bridge Removal Alternative Solutions

- **Alternative 1:** Superstructure Removal (leave concrete abutments and foundations in place)
- **Alternative 2:** Superstructure Removal and Partial Removal of Substructure
- **Alternative 3:** Complete Removal

The alternative solutions listed above are illustrated in the figures attached to this memo.

Cul-de-sac Alternative Solutions

- **North Cul-de-sac Alternative 1 (N1):** Cul-de-sac located only on the east side of Peru Road
- **North Cul-de-sac Alternative 2 (N2):** Cul-de-sac located only on the west side of Peru Road
- **North Cul-de-sac Alternative 3 (N3):** Cul-de-sac centered on Peru Road
- **South Cul-de-sac Alternative 1 (S1):** Circular Cul-de-sac located only on the west side of Peru Road
- **South Cul-de-sac Alternative 2 (S2):** Circular Cul-de-sac located only on the east side of Peru Road

- **South Cul-de-sac Alternative 3 (S3):** Circular Cul-de-sac centered on Peru Road
- **South Cul-de-sac Alternative 4 (S4):** "Hammerhead" style turnaround located only on the west side of Peru Road
- **South Cul-de-sac Alternative 5 (S5):** "Hammerhead" style turnaround centered Peru Road

Criteria for Evaluating Alternative Solutions

The framework for the evaluation process for this project takes into consideration the broad definition of the environment and the environmental components as identified in the Environmental Assessment Act. Based on the environmental components, a list of criteria was established to measure the suitability of each alternative, taking into consideration the trade-offs, advantages and disadvantages to address the Problem / Opportunity Statement. The assessment is based on the existing environmental conditions compiled through field visits and background studies. The criteria proposed to be used to assess each alternative are summarized below in **Table 1**.

Table 1: Evaluation Criteria for Alternative Solutions

Evaluation Component	Criteria
Socio-Economic Environment	• Community Effects (impacts to public and private land including acquisition, access and/or displacement of facilities) • Air Quality • Noise • Public Safety • Change in the appearance of the surrounding landscape • Legislation and Policy
Cultural Environment	• Built Heritage and Cultural Landscapes • Archaeological Resources • Indigenous Lands
Natural Environment	• Terrestrial Ecosystems, including species at risk • Aquatic Ecosystems, including species at risk • Management of road runoff • Climate change mitigation and adaption
Technical / Engineering and Cost	• Constructability • Utilities • Maintenance Operations • Service life of structure, including meeting existing and future needs • Construction cost

Evaluation Framework for Alternative Solutions

The alternative solutions will be evaluated in a three-step process as detailed below.

Step 1: Screen each alternative solution to ensure it is technically and economically viable while meeting the needs of the Problem / Opportunity Statement. Any alternative solution that does not pass this screening will not be carried through to the next step.

Step 2: Evaluate remaining alternative solutions utilizing the evaluation criteria in Table 1.

Step 3: Select the Recommended Solution.

The Project Team understands that some alternatives that directly impact private buildings will likely result in a significant negative impact to the socio-economic environment. However, these alternative solutions need to be evaluated to comply with the EA process. Some alternative solutions may not proceed to Step 2 of the evaluation framework due to these negative impacts to permanent structures and thus would not be eligible to be the Recommend Solution in Step 3.

The intent is to select a preferred solution that satisfies the Problem / Opportunity Statement while also having the least negative and most beneficial impact.

Community Engagement

This information package is intended to provide an overview of the project to the general public. Additional information will be provided at the Public Information Centre and will include details on the alternative solutions under consideration, the evaluation process, the preliminary preferred alternative solution and the next steps in the study. The Public Information Centre will be held on February 9, 2023 at 6:30 pm to 8:30 pm at the Milton Education Village Innovation Centre, 555 Industrial Drive, Milton. We encourage all those interested in this study to attend the information centre and discuss with the Project Team.

Future project updates will also be posted to the project webpage www.letstalkmilton.ca/peruroadea. If you would like to receive updates throughout the project, please contact the individuals below and you will be added to the project mailing list:

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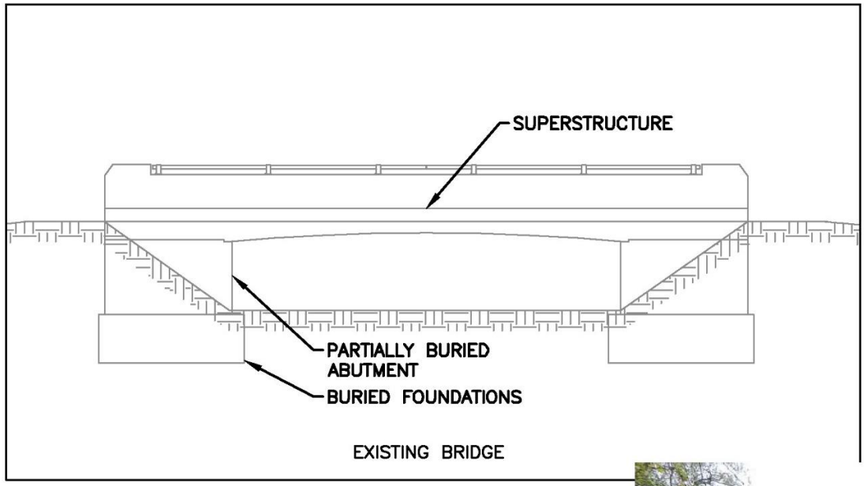
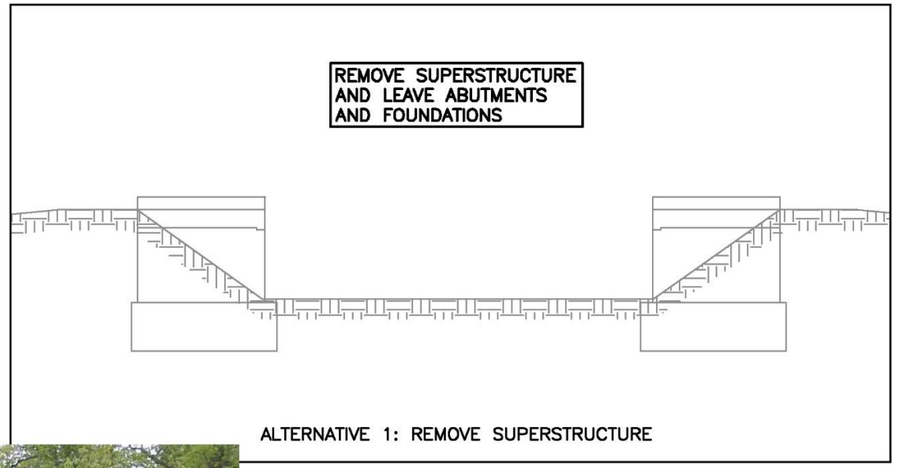
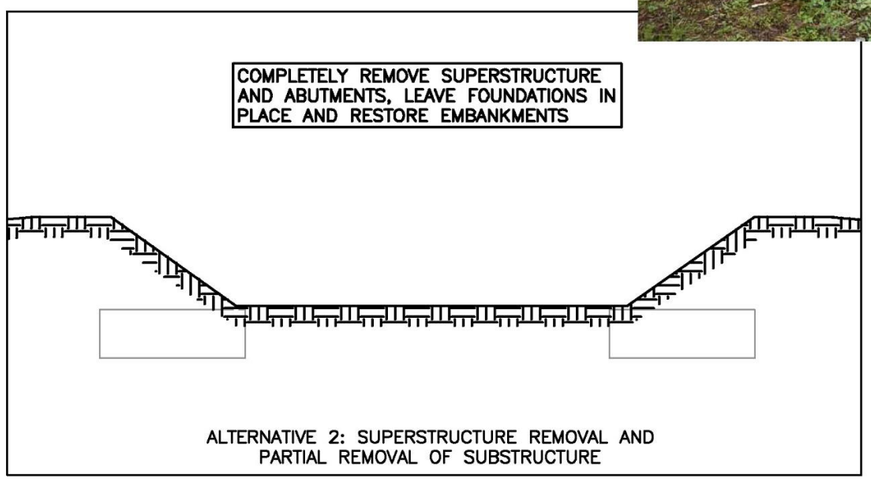


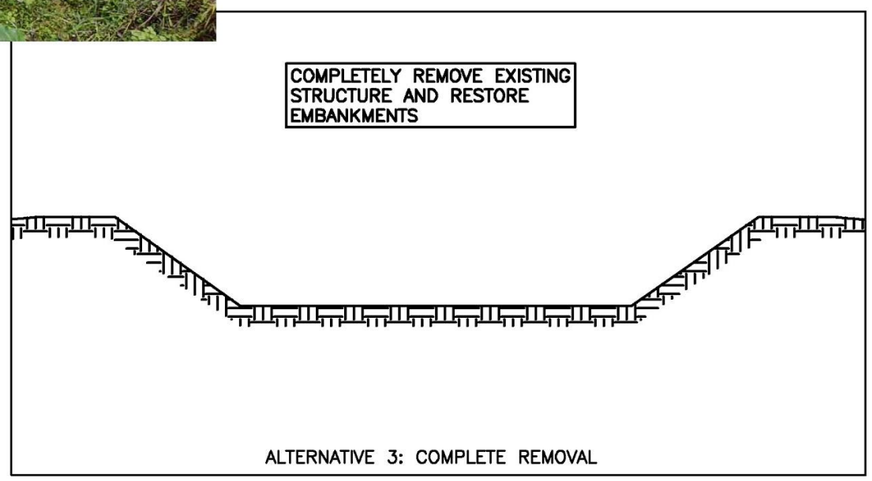
EXISTING BRIDGE



ALTERNATIVE 1: REMOVE SUPERSTRUCTURE



ALTERNATIVE 2: SUPERSTRUCTURE REMOVAL AND PARTIAL REMOVAL OF SUBSTRUCTURE



ALTERNATIVE 3: COMPLETE REMOVAL

TOWN OF MILTON

PERU ROAD BRIDGE REMOVAL EA

PRELIMINARY BRIDGE REMOVAL CONCEPTS

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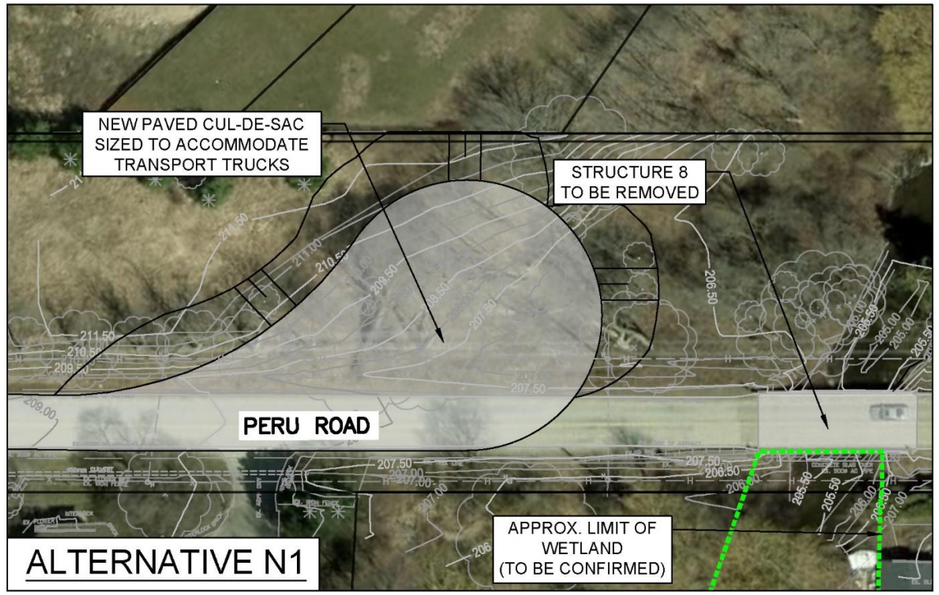

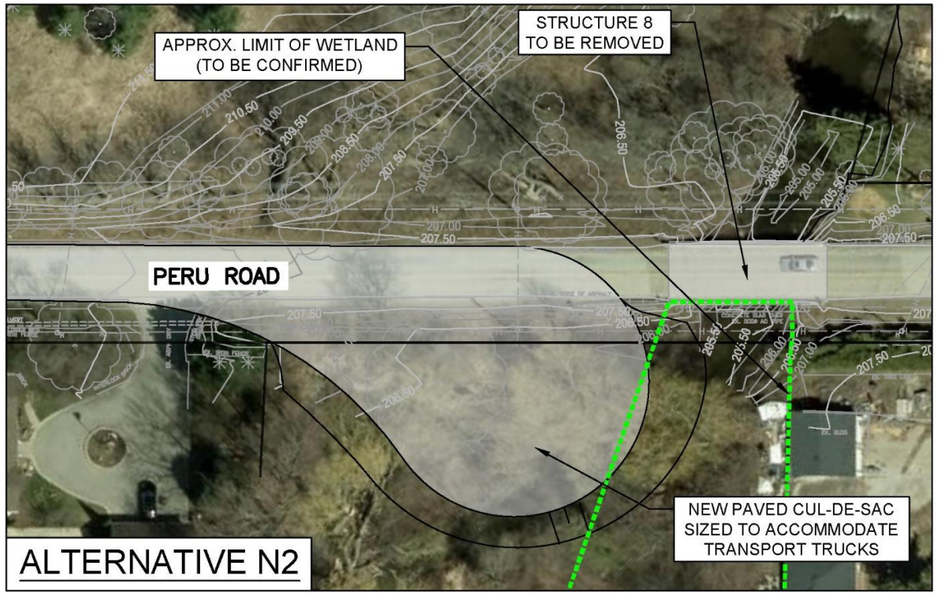

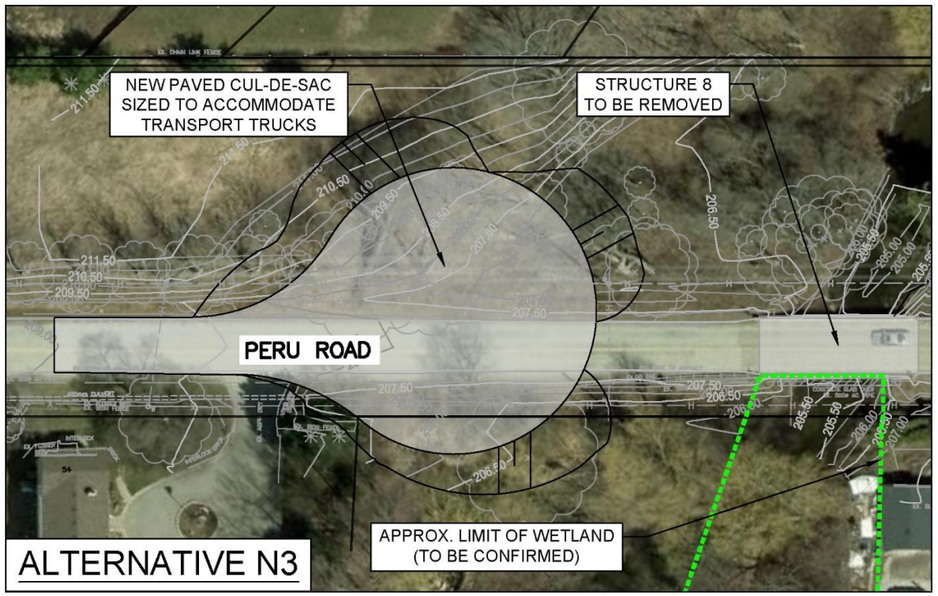

TOWN OF MILTON

PERU ROAD BRIDGE REMOVAL EA

PRELIMINARY CUL-DE-SAC CONCEPTS

CUL-DE-SAC ALTERNATIVES NORTH OF STRUCTURE 8

GM BluePlan ENGINEERING

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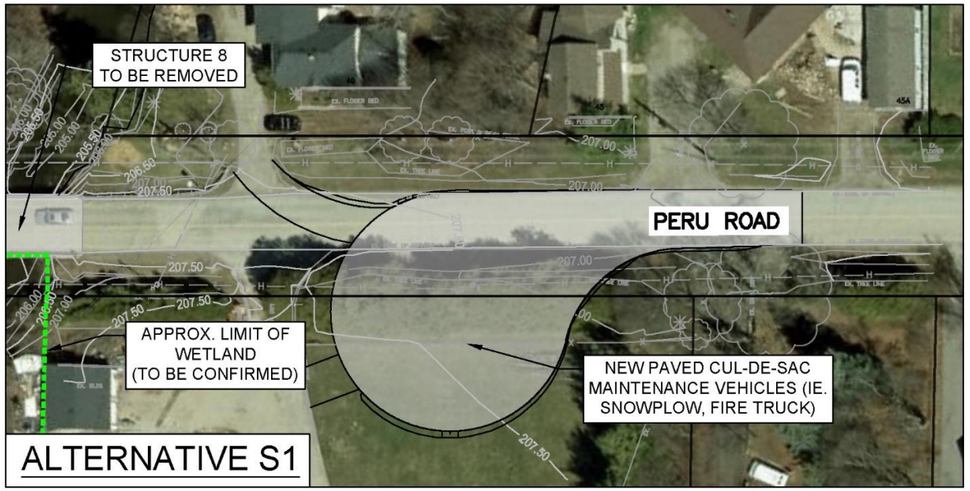
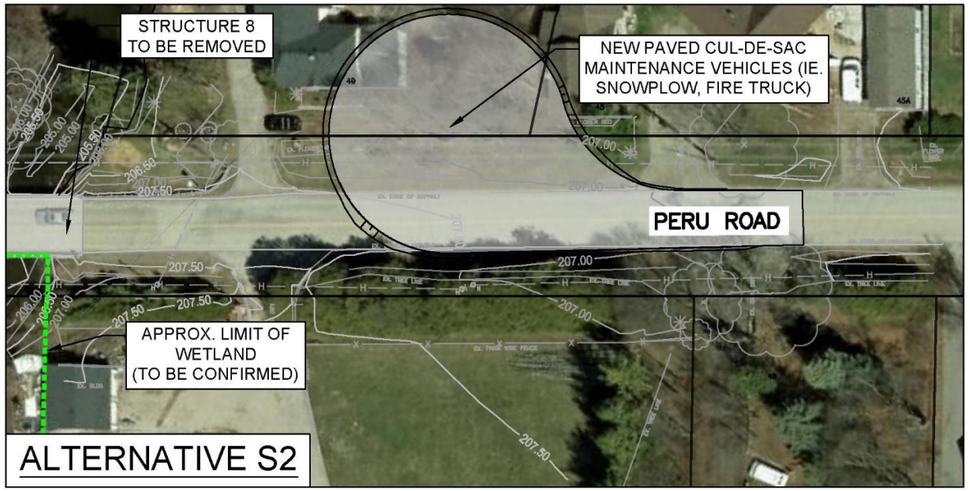


ALTERNATIVE S1



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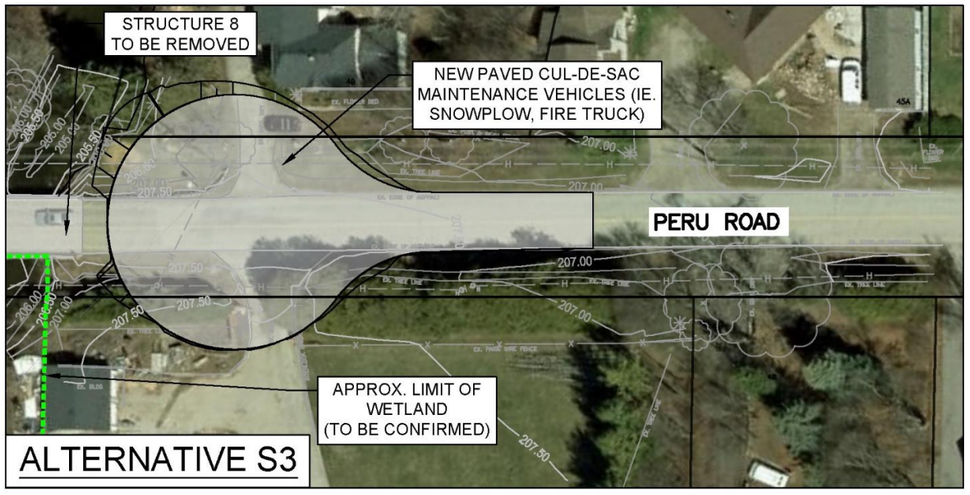

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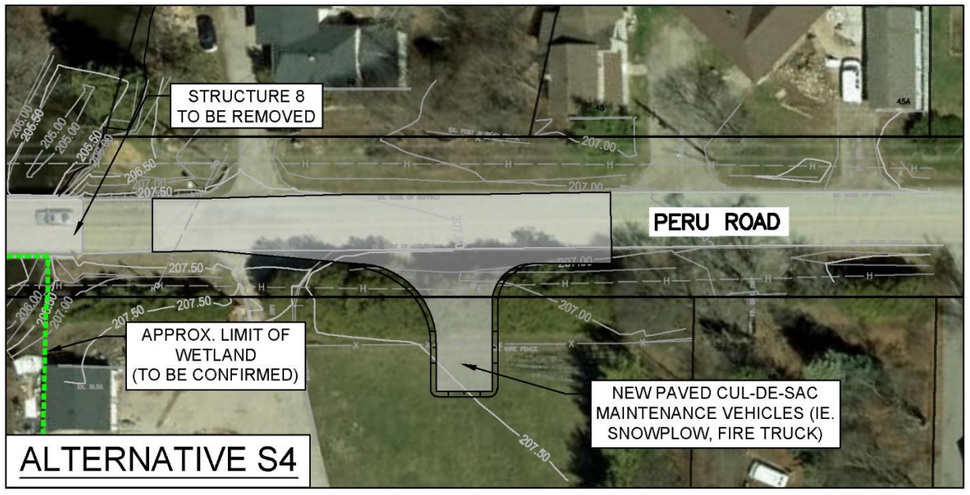

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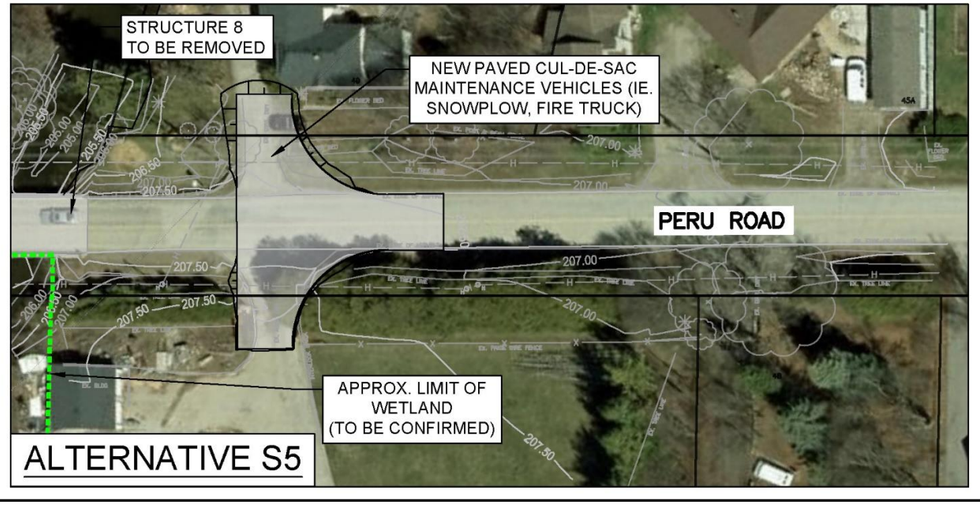

ALTERNATIVE S5

TOWN OF MILTON

PERU ROAD BRIDGE
REMOVAL EA

PRELIMINARY
CUL-DE-SAC
CONCEPTS

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