

Project Title:	CTH SS, Meadowbrook Creek Structure	Project #:	202001
Department:	Public Works - Highways	Project Type:	Bridge
Phase:	Preliminary Design	Road Name:	Prospect Avenue
Budget Action:	As Planned	Manager:	Allison Bussler, DPW Director
Date:	January 6, 2025	Map / Image:	Click Here

CAPITAL BUDGET SUMMARY						
Year	2024	2025	2026	2027	2028	Total
Project Phase	Design		Land	Construction		Project
Expenditure Budget	\$127,000	\$0	\$174,000	\$541,000	\$0	\$842,000
Revenue Budget	\$0	\$0	\$0	\$0	\$0	\$0
Net Cost After Revenues Applied	\$127,000	\$0	\$174,000	\$541,000	\$0	\$842,000
COST DOCUMENTATION			REVENUE			
Design	\$127,000					
WisDOT Design Review	\$0					
Land Acquisition	\$174,000					
Construction	\$436,000					
Construction Management	\$87,000					
Contingency	\$18,000					
Total Project Cost	\$842,000					\$0
EXPENDITURE BUDGET	\$842,000		REVENUE BUDGET			\$0

Project Scope & Description

This project is a replacement of the CTH SS drainage structure over Meadowbrook Creek (a tributary of Pewaukee Lake). A box culvert or concrete arch are likely structure types, though various structure types will be considered. The roadway will remain a two-lane section over the structure. The roadway has a functional classification as a minor arterial, and 10-foot shoulders are anticipated. Shoulder widening may require removal of an adjacent retaining wall. Other site constraints include close proximity to two restaurants, Waukesha County's Lake Country Trail, and a Pewaukee Lake access. To minimize impacts to businesses, various roadway typical sections will be considered (rural, urban). Right of way acquisition to the ultimate width of 60/66 feet is required. Additional fee acquisition or easements beyond the ultimate width are anticipated. The project schedule for land and construction is being delayed allowing additional investigation of design alternatives, including determining feasibility of culvert lining.

Locations

Village of Pewaukee

Analysis of Need

The existing structure is a single-span structural steel plate arch with a span of approximately 10 feet. The steel structure is in poor condition with significant deterioration in the lower portion of the culvert barrel. Roadway railings/guardrail at the structure are in poor condition. The age of the existing structure is unknown. The structure has concrete headwalls that are in fair condition. The downstream headwall is continuous with a concrete retaining wall. The culvert structure has a span of 10 feet and is not classified as a bridge per Federal Highway Administration (FHWA) standards, and therefore is not eligible for federal bridge aid. The roadway functional class is minor arterial. Traffic volume on CTH SS in 2018 was 3,400 vehicles per day.

Alternatives

Rehabilitate the existing structure, which does not address all structural and geometric deficiencies.

Ongoing Operating Costs

Maintenance costs will be reduced in the early years after construction beyond 2026.

Previous Action

Approved as new project in 2020-2024 capital plan. Approved as planned in the 2021-2025, 2022-2026, and 2023-2027 capital plans. Approved with a cost update in the 2024-2028 capital plan. Approved with a delay in the 2025-2029 capital plan.