

LBM Engineering, LLC

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CIVIL ENGINEERING - LAND DEVELOPMENT - SITE PLANS - STORMWATER MANAGEMENT

**PRELIMINARY Inland Wetlands Permit Narrative
428 Fire St., Oakdale, Connecticut**

February 18, 2026

PURPOSE: The property owner is seeking Inland Wetlands permit approval to correct a permit violation and to access and use rear portions of his land.

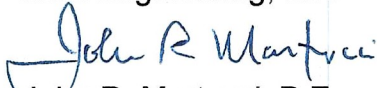
EXISTING CONDITIONS: The crossing of Hunts Brook is located on the south side of Fire Street, approximately one quarter mile northwest of the intersection of Fire Street and East Lake Road. The crossing consists of an embankment made of field stone that was placed in Hunts Brook by farmers in the late 1800's. The waters of the brook flow through the voids in the field stone fill. The brook rarely overtops the road. When it does, the road acts as a dam with the flow over the surface being 2 – 3 inches deep and 15+/- feet wide, lasting 4 – 5 hours.

Attached is an abbreviated report using U.S. Geological Survey StreamStats on-line program (streamstats.usgs.gov/ss). The report shows the crossing has a drainage area of 0.29 square miles (185 acres) and an estimated 10-year flow rate of 60 cubic feet per second (CFS).

PROPOSED ACTIVITIES: The property owner would like to leave the embankment as-is. The brook flows through the stone embankment without erosion on the upstream or downstream sides. If the road is overtopped, the flow velocities are not erosive.

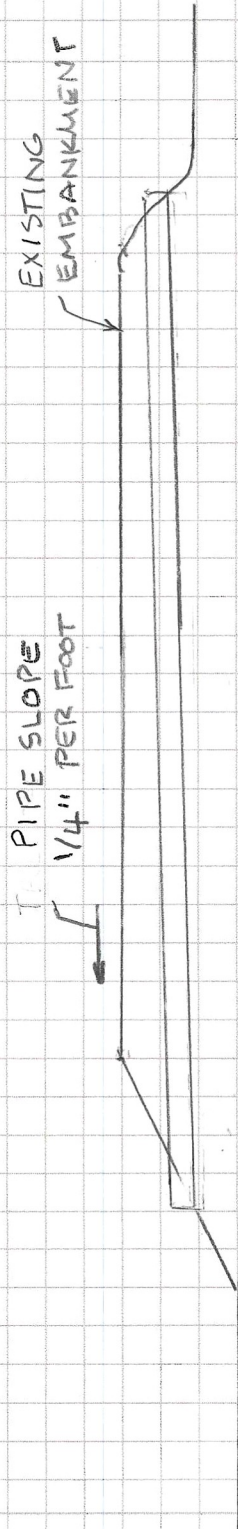
FEASIBLE AND PRUDENT ALTERNATIVES: A feasible and prudent alternative would be to install two more 6-inch PVC pipes for a total of three. (See attached detail) The additional flow capacity would speed up the draw-down time. The downside is an increase in soil disturbance.

Submitted by:
LBM Engineering, LLC


John R. Martucci, P.E.

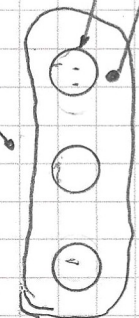
PREPARED BY JRM	DATE PREPARED 2/26	LBM Engineering, LLC 11 HALLY LANE COLCHESTER, CONNECTICUT 06415 TEL: (860)-416-9809 EMAIL: JOHN@LBMENGINEERING.COM	JOB NUMBER	PAGE NUMBER
CHECKED BY	DATE CHECKED		CLIENT NAME	TOTAL PAGES

428 FIRE STREET DETAILS



CROSS SECTION
LOOKING SOUTH
NO SCALE

6" OF 2" MINUS PROCESSED



3-6" PVC SCH 40 18" O.D.
6"-3/4" STONE BEDDING
WRAP W/ FILTER FABRIC

PIPE TRENCH DETAIL
NO SCALE

EXISTING EMBANKMENT

PIPE SLOPE 1/4" PER FOOT

6" OF 2" MINUS PROCESSED

3-6" PVC SCH 40 18" O.D.

6"-3/4" STONE BEDDING WRAP W/ FILTER FABRIC

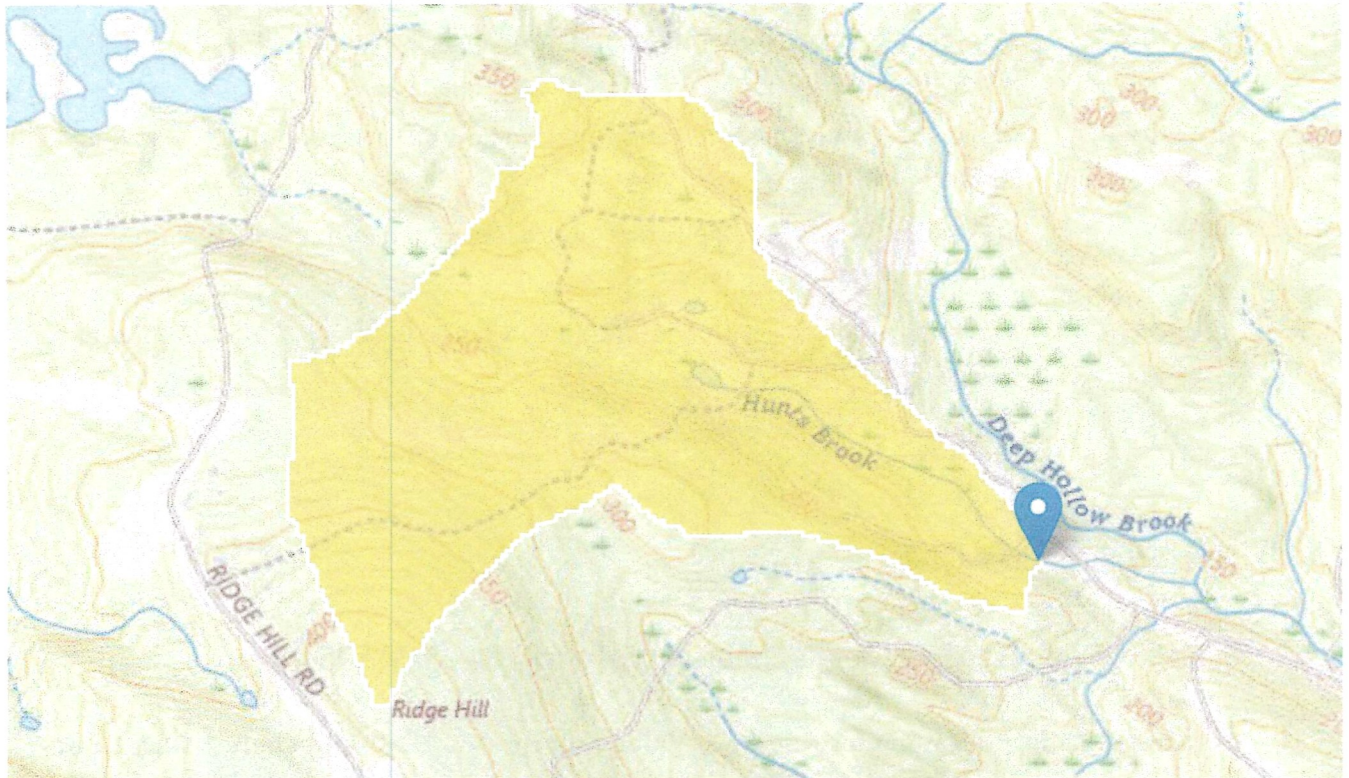
StreamStats Report

Region ID: CT

Workspace ID: CT20251201194903454000

Clicked Point (Latitude, Longitude): 41.43148, -72.17957

Time: 2025-12-01 14:49:36 -0500



Collapse All

> Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.29	square miles = 185 ACRES
I24H100Y	Maximum 24-hour precipitation that occurs on average once in 100 years	7.8	inches
I24H10Y	Maximum 24-hour precipitation that occurs on average once in <u>10 years</u>	5.07	inches
I24H200Y	Maximum 24-hour precipitation that occurs on average once in 200 years	8.89	inches

Statistic	Value	Unit
0.5-percent AEP flood	106	ft ³ /s
0.2-percent AEP flood	132	ft ³ /s

Peak-Flow Statistics Flow Report [Area-Averaged]

Statistic	Value	Unit
Drainage Area Only 50-percent AEP flood	24.5	ft ³ /s
Drainage Area Only 20-percent AEP flood	43.7	ft ³ /s
Drainage Area Only 10-percent AEP flood	59.7	ft ³ /s
Drainage Area Only 4-percent AEP flood	83.4	ft ³ /s
Drainage Area Only 2-percent AEP flood	103	ft ³ /s
Drainage Area Only 1-percent AEP flood	125	ft ³ /s
Drainage Area Only 0.5-percent AEP flood	150	ft ³ /s
Drainage Area Only 0.2-percent AEP flood	186	ft ³ /s
50-percent AEP flood	24.6	ft ³ /s
20-percent AEP flood	37	ft ³ /s
10-percent AEP flood	46.6	ft ³ /s
4-percent AEP flood	62.5	ft ³ /s
2-percent AEP flood	75.5	ft ³ /s
1-percent AEP flood	89.8	ft ³ /s
0.5-percent AEP flood	106	ft ³ /s
0.2-percent AEP flood	132	ft ³ /s

10-YEAR

Peak-Flow Statistics Citations

Ahearn, E.A., and Hodgkins, G.A., 2020, Estimating flood magnitude and frequency on streams and rivers in Connecticut, based on data through water year 2015: U.S. Geological Survey Scientific Investigations Report 2020-5054, 42 p. (<https://doi.org/10.3133/sir20205054>)

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Application Version: 4.29.4

StreamStats Services Version: 1.2.22

NSS Services Version: 2.2.1