

EX#13

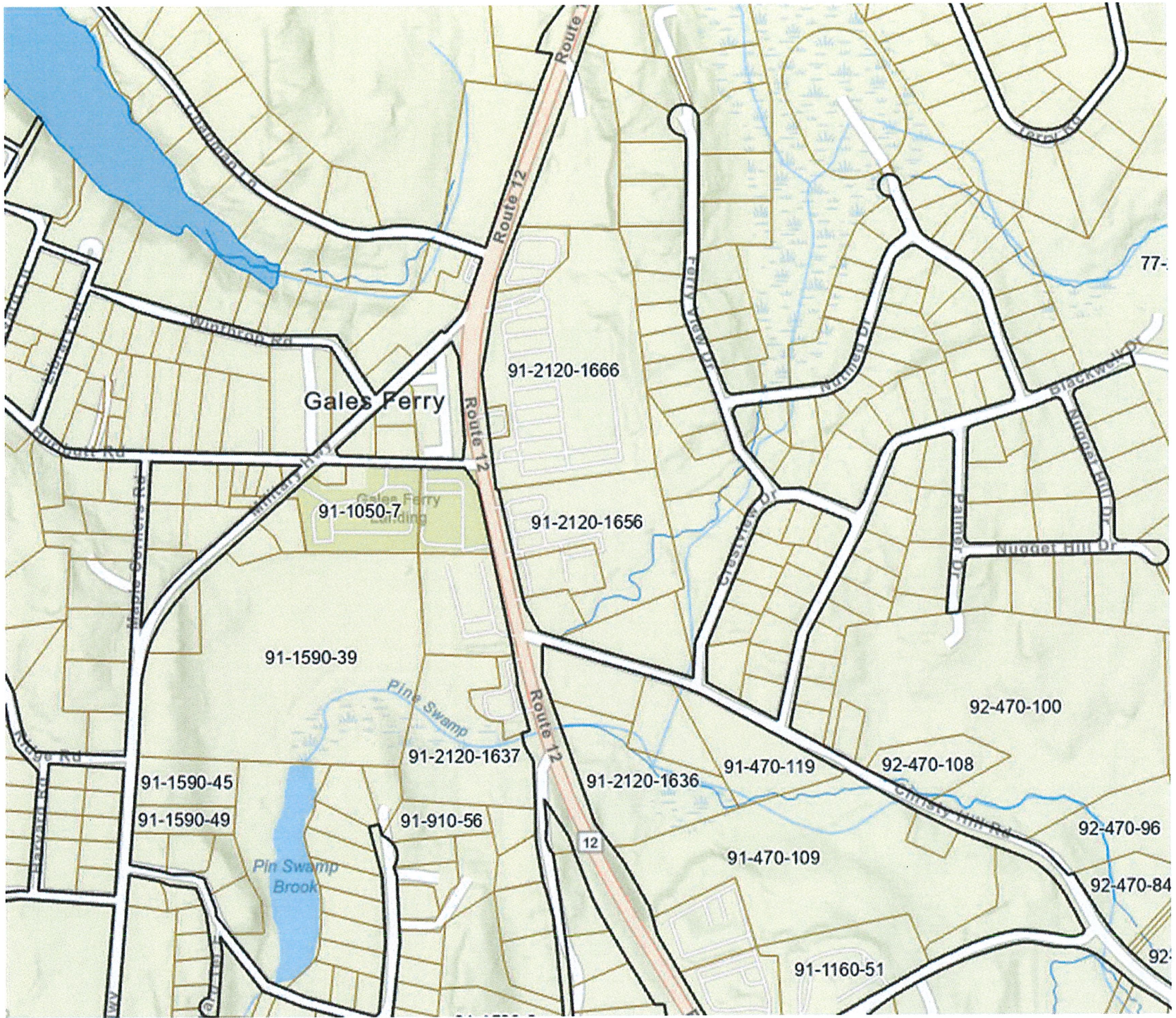
RECEIVED

APR 07 2026

Land Use Department

Public Hearing: IWWC#26-3SITE - 25 Harvard Terrace (MAP ID: 9/910/25) & 39 Military Hwy (MAP ID: 92/1590/39), Gales Ferry CT,- Applicant/Agent, Town of Ledyard, - Property Owners, Avalonia Land Conservancy Inc. & C.R Klewin LLC, for regulated activities, including maintenance and repair of existing stormwater inlet and outlet infrastructure, and removal of a beaver dam and other obstructions at both locations to improve drainage and reduce flooding. (Submitted 2/26/26, Date of Receipt 3/3/26, PH set for 4/7/26, PH close by 5/11/26, DRD-35-days from close of PH)





Gales Ferry

91-2120-1666

91-1050-7

91-2120-1656

91-1590-39

91-2120-1637

91-2120-1636

91-470-119

92-470-100

92-470-108

91-1590-45

91-1590-49

91-910-56

91-470-109

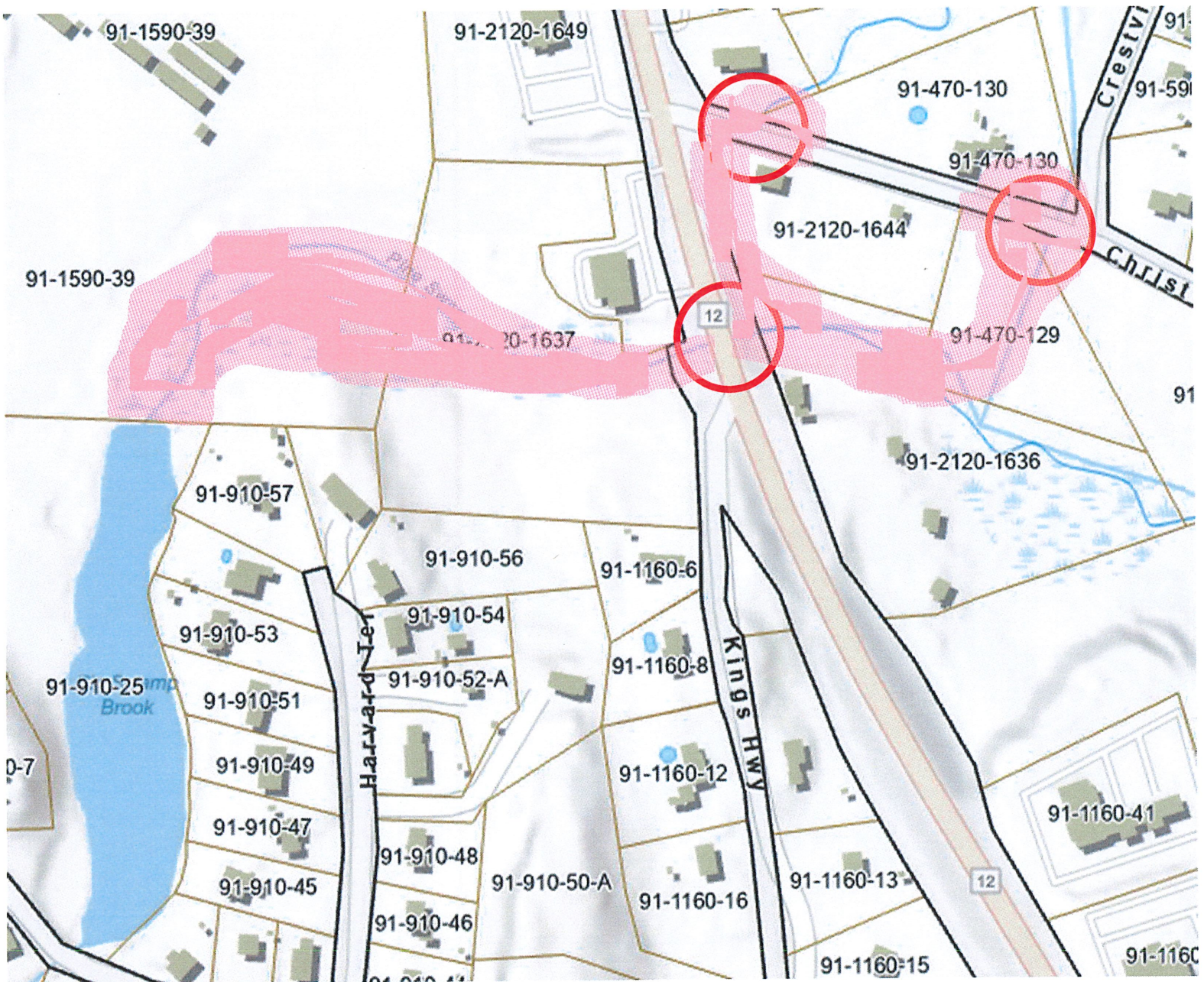
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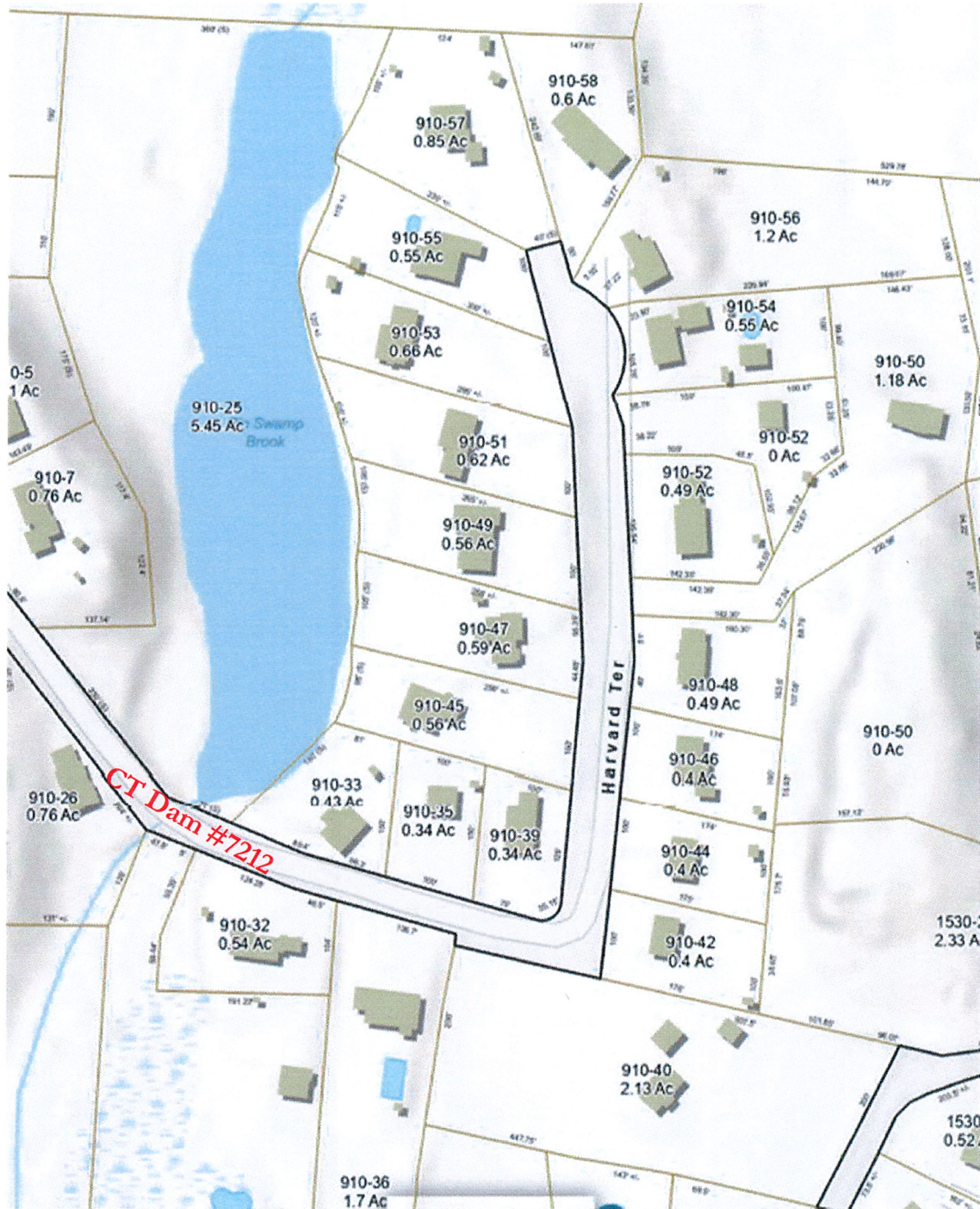
92-470-84

91-1160-51

77-

12





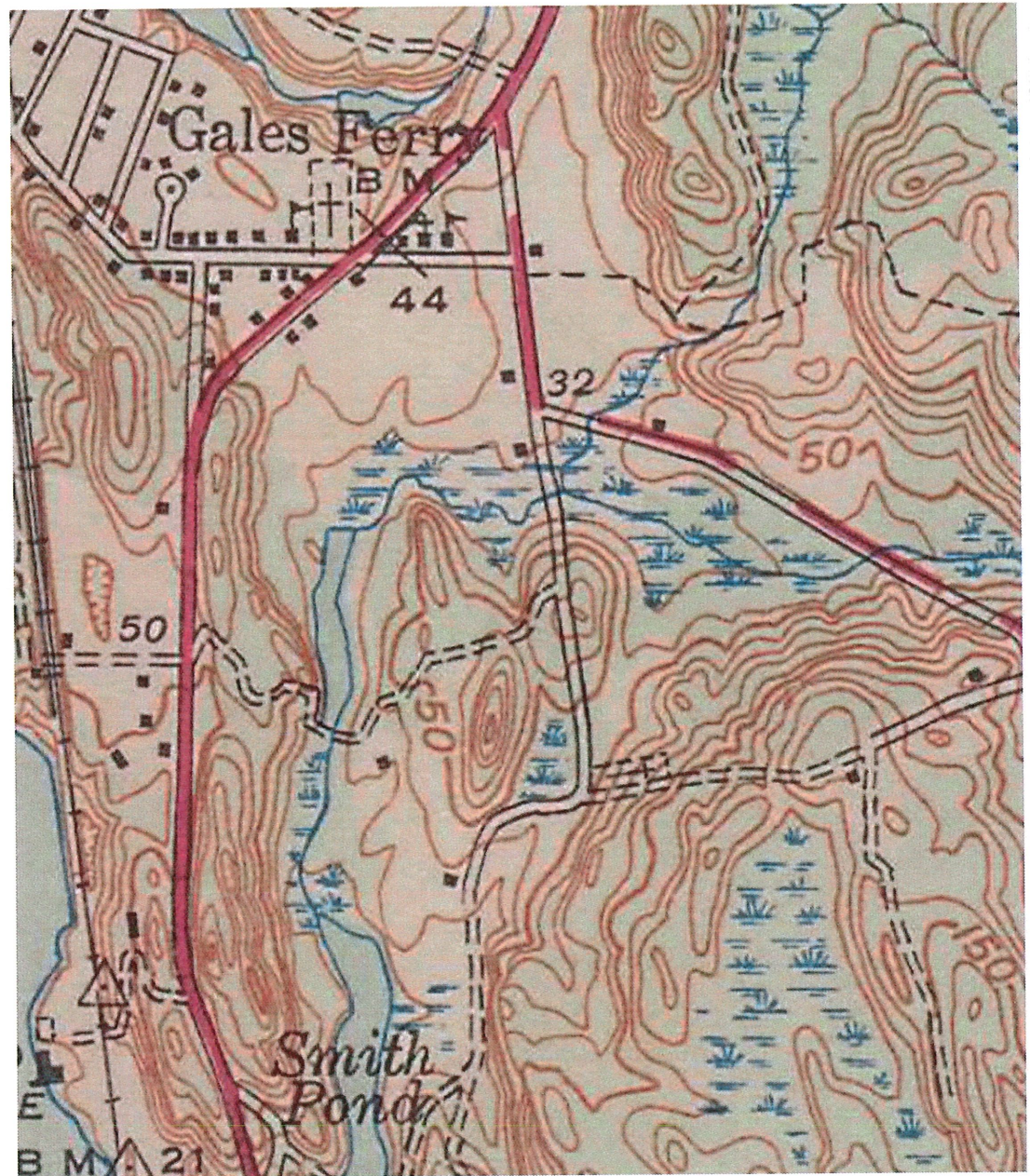
Edition of June 1893, reprinted Aug. 1915.

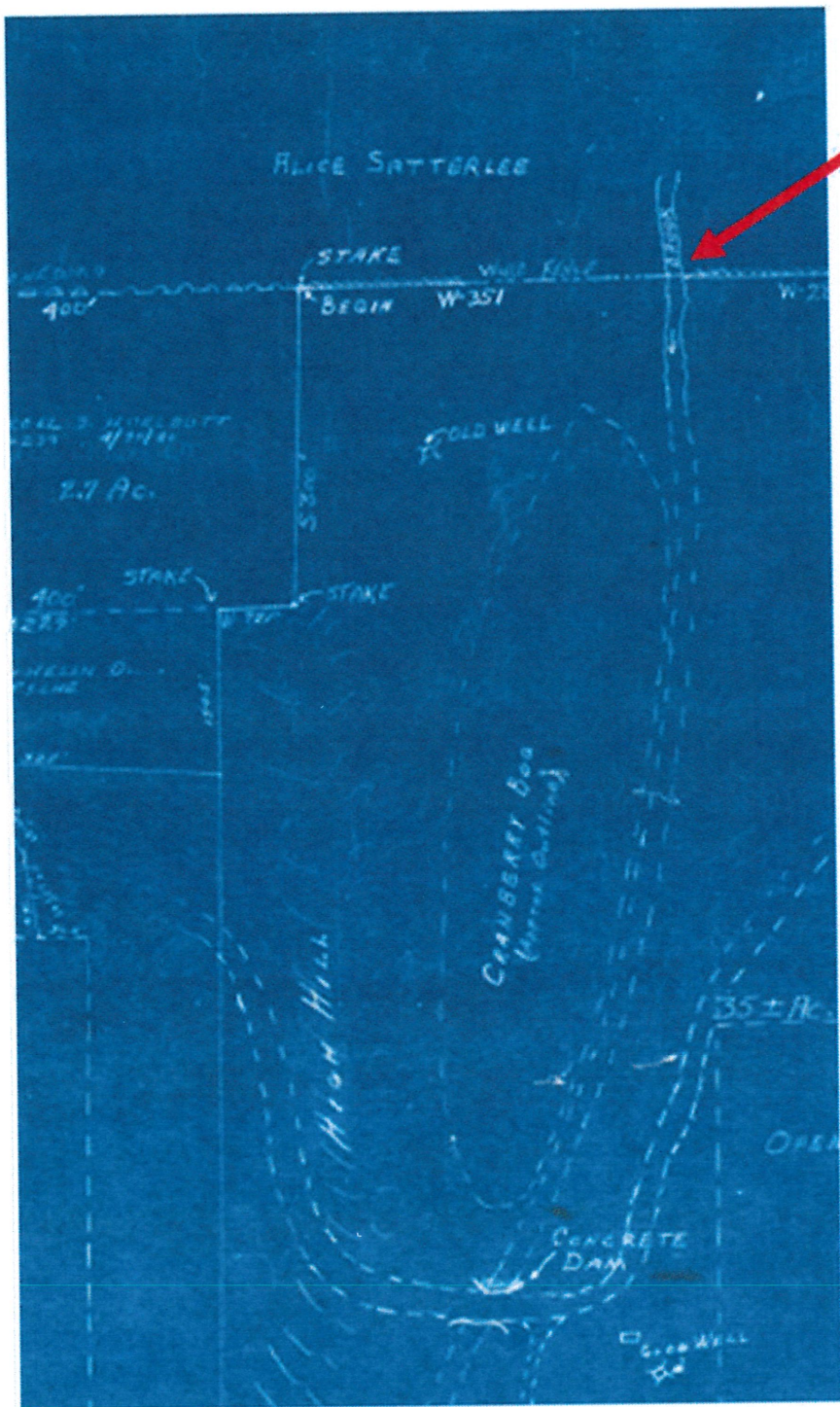
NEW LONDON, CT.



Polyconic projection. 1927 North American datum  
5000 yard grid based on U. S. zone system, A  
10000 foot grid based on Connecticut  
rectangular coordinate system

UNCASVILLE, CONN.

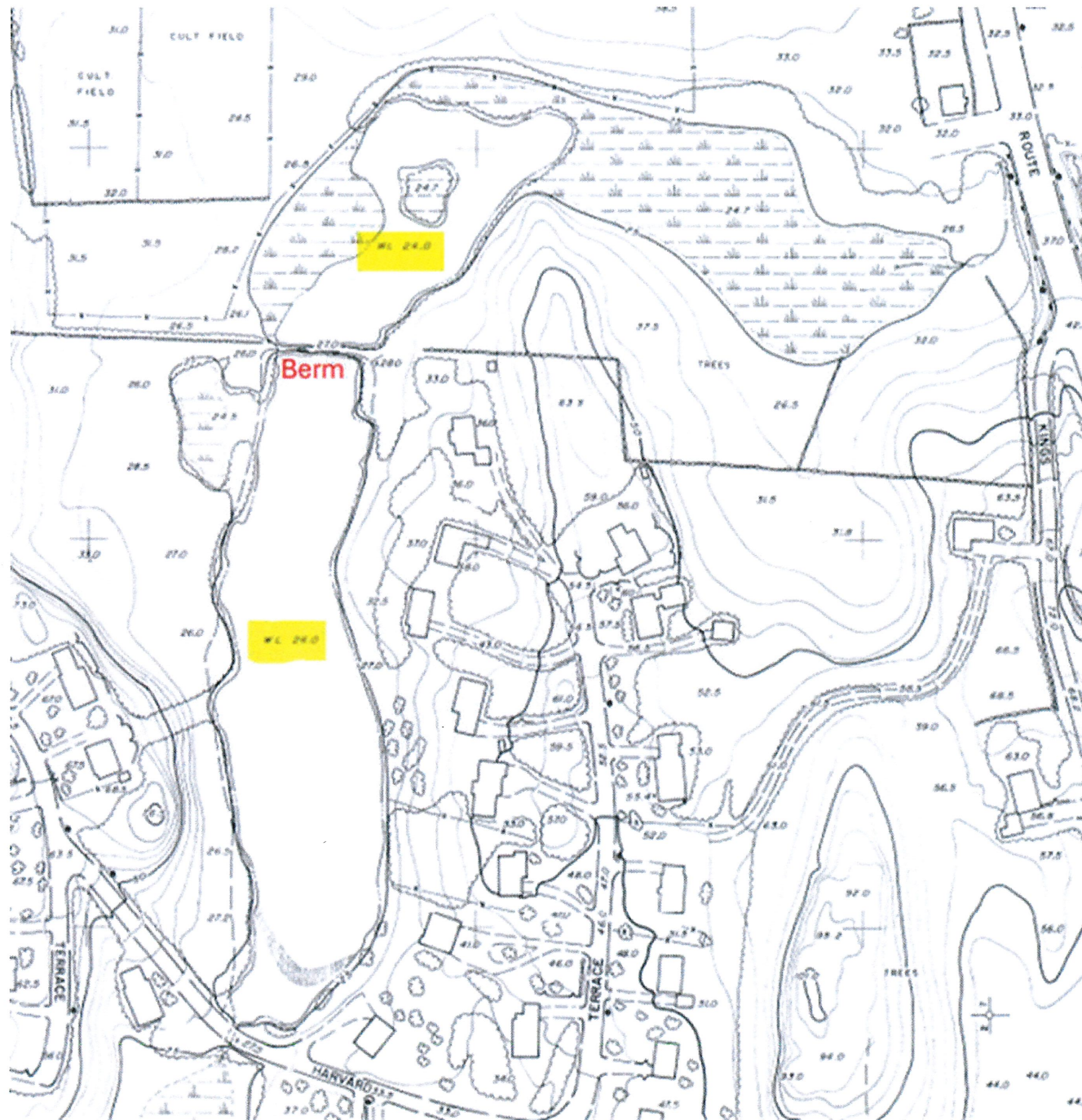


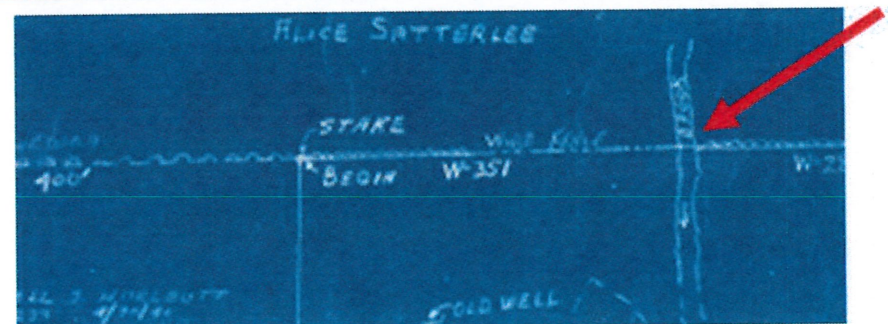
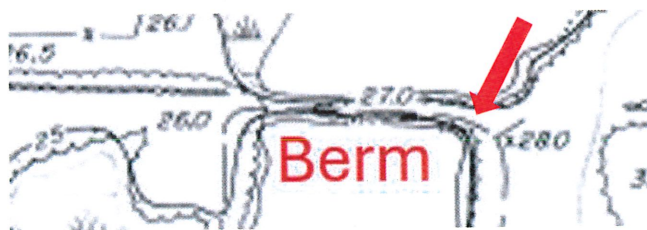


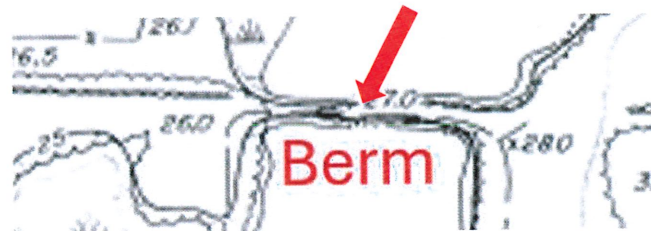
PLAN OF  
 PROPERTY CONVEYED BY  
 CARL WILSON BROWN  
 TO  
 ALBERT EDWARD GORING, JR.  
 LOCATED NEAR GAGES FERRY,  
 TOWN OF LEDYARD,  
 COUNTY OF NEW LONDON, STATE OF CONN.

Surveyed and Drawn By  
 William F. Beaumont, Jr. Eng.  
 NEW TOWN, CONN.  
 SCALE 1" = 100'. JUNE 1948

# Town Assessor's Topographic Map 91 (circa 1971)

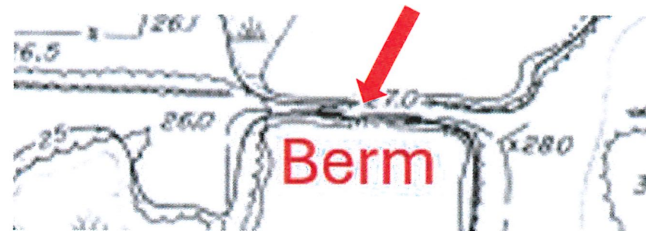






December 2, 2025

**IWWC#25-27AR- 25 Harvard Terrace & 39 Military HWY, Gales Ferry CT- Applicant/Agent, Town of Ledyard - Property Owner: Avalonia Land Conservancy Inc. & C.R Klewin LLC for an after the fact as of right determination for emergent work to cut a trench into an existing berm topped with a beaver dam to immediately alleviate flooding along CT Route 12 & Christy Hill Rd. **APPROVED****





# **Southeast Connecticut Road-Stream Crossing Assessment for Community and Wildlife Resilience: Findings Report and Restoration Opportunities**

**Prepared by:  
Jon C. Vander Werff  
Save the Sound  
Fisheries Biologist  
127 Church St, New Haven, CT 06510**



2023

**#8 Pine Swamp Brook, Structure 2 on Harvard Terrace, Ledyard**

## **Key findings from NAACC assessment:**

- **Crossing type: Inlet drop to square outlet**
- **Crossing condition: Poor**
- **Constriction severity: Severe**



## DAM SAFETY PROGRAM DAM INSPECTION REPORT FORM – FOR REGULATORY INSPECTION

Please complete this form in accordance with the instructions (DEEP-DAM-INST-002). Please note that a separate inspection report is required for each individual structure (i.e., a dam and dike on the same waterbody would require two reports, one for the dam and one for the dike).

### Part I: Summary of Dam Inspection

Dam Name:	Pine Swamp Brook Pond Dam	Inspection Date(s):	December 18, 2024
Alternate Dam Name(s):	none	CT Dam ID #:	7212
Location (Municipality):	Ledyard	Temperature / Weather:	±32°, Clear, calm
Registered? Yes or No <small>If yes, provide the 8 digit registration number found on the notification letter.</small>	Y, not available	Pool Level: <small>See Instructions</small>	±1-inch
Emergency Action Plan? Yes or No <small>If Yes, see instructions</small>	No	Impoundment Use: <small>use options listed in instructions</small>	Recreation
Hydraulic and Hydrologic Analysis? Yes or No <small>If Yes, see instructions</small>	No	Stability Analysis? Yes or No <small>If Yes, see instructions</small>	No
Overall Condition of Dam: (refer to <a href="#">Appendix A</a> located at the end of this form) Fair			

Persons present at the inspection <small>(select the tab button in the last cell to the right to create another row)</small>		
Name	Title/Position	Representing
Michael E. Fanning, P.E.	Senior Engineer	WMC Consulting Engineers
Zachary Nesdale	Inspector	WMC Consulting Engineers

**Hydrologic and Hydraulic Analysis of**  
**Road Crossing Culverts Tributary to**  
**Pine Swamp Brook Dam**

**Harvard Terrace  
Ledyard, Connecticut**

**Prepared For:**

**Town of Ledyard  
741 Colonel Ledyard Highway  
Ledyard, Connecticut 06339**

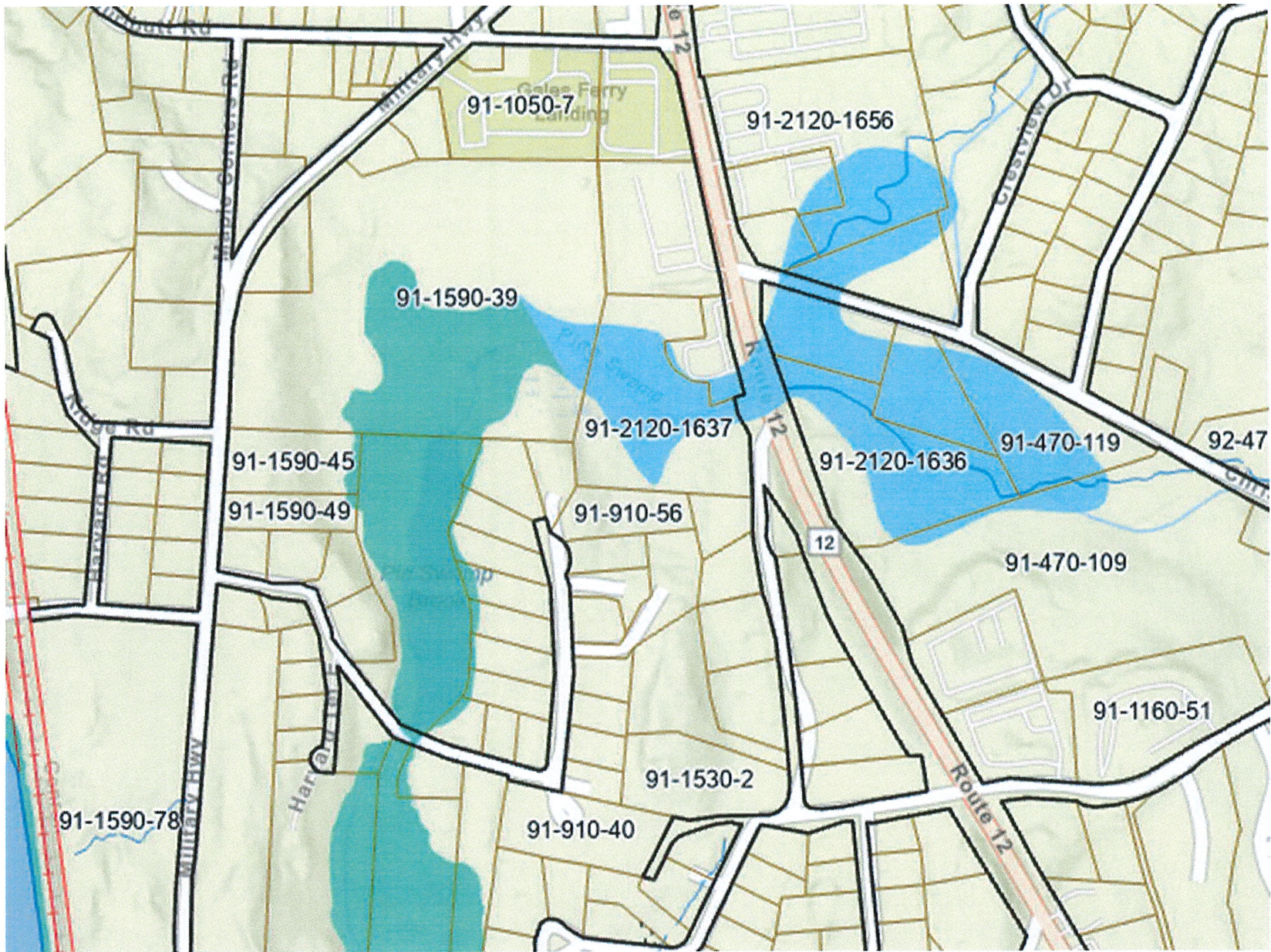
**December 15, 2025**

Prepared By:  
**CLA Engineers, Inc.**  
Consulting Engineers  
317 Main Street  
Norwich, CT 06360  
Ph: 860-886-1966 F: 860-886-9165  
[www.claengineers.com](http://www.claengineers.com)

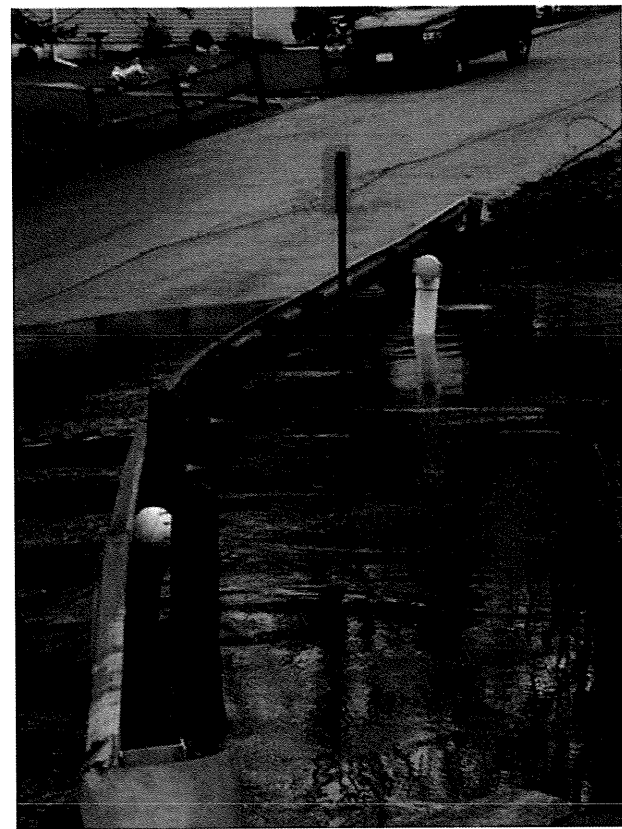
The culverts combined are classified as an Intermediate structure and should be capable of passing flow associated with the 100-year storm event (231 cfs). Analysis showed that overtopping of the Harvard Terrace is expected to occur during the 25-year storm event, which was determined to produce a peak flow of 159 cfs.

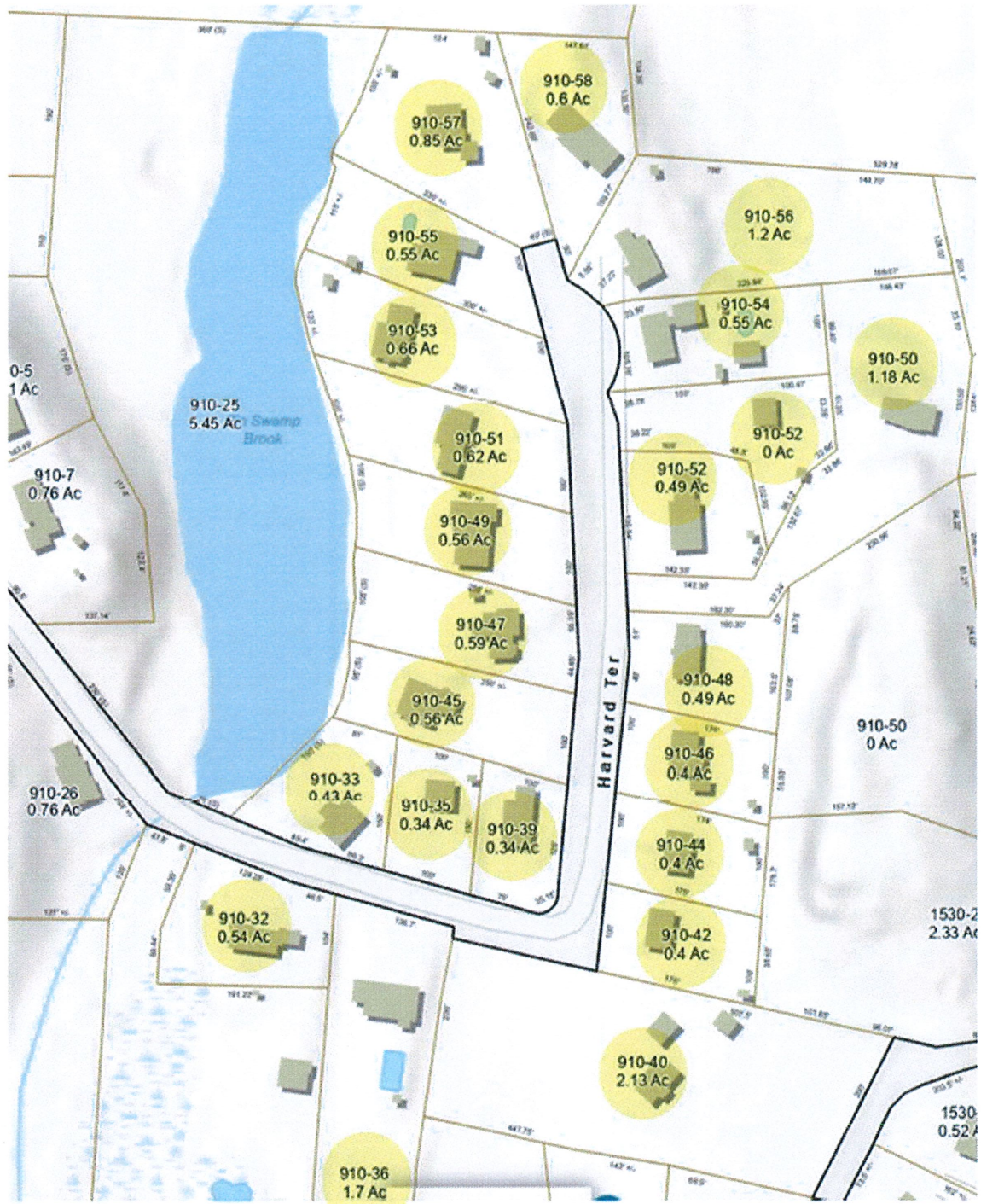
While the effect of the stone and earthen berm surrounding the concrete inlet structure was not analyzed, it is our belief that its presence restricts flow to this structure during heavier rain events, which ultimately negatively impacts the culverts combined hydraulic capacity. Nonetheless, the combined hydraulic capacity of both culverts is not sufficient to pass the 25-year storm event and therefore, it can be concluded that overtopping of Harvard Terrace will likely occur more frequently than current design standards recommend.

This will result in the dam and roadway being more frequently exposed to hydraulic forces that will cause erosion and damage like that experienced in recent years. This will ultimately increase the risk that the temporary measures installed to reinforce the dam will fail which could lead to more serious implications and possible dam failure. While dam failure may not result in significant damage or loss of life due to the dam's classification, it would result in the loss of direct access into and out of the neighborhood and the possible loss of potable water.

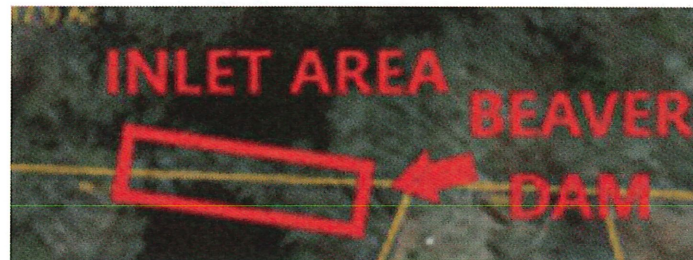


## March 2010 Flooding Event









910-25  
5.45 Ac

75' (S)

OUTLET AREA

Harvard Ter

Harvard Ter

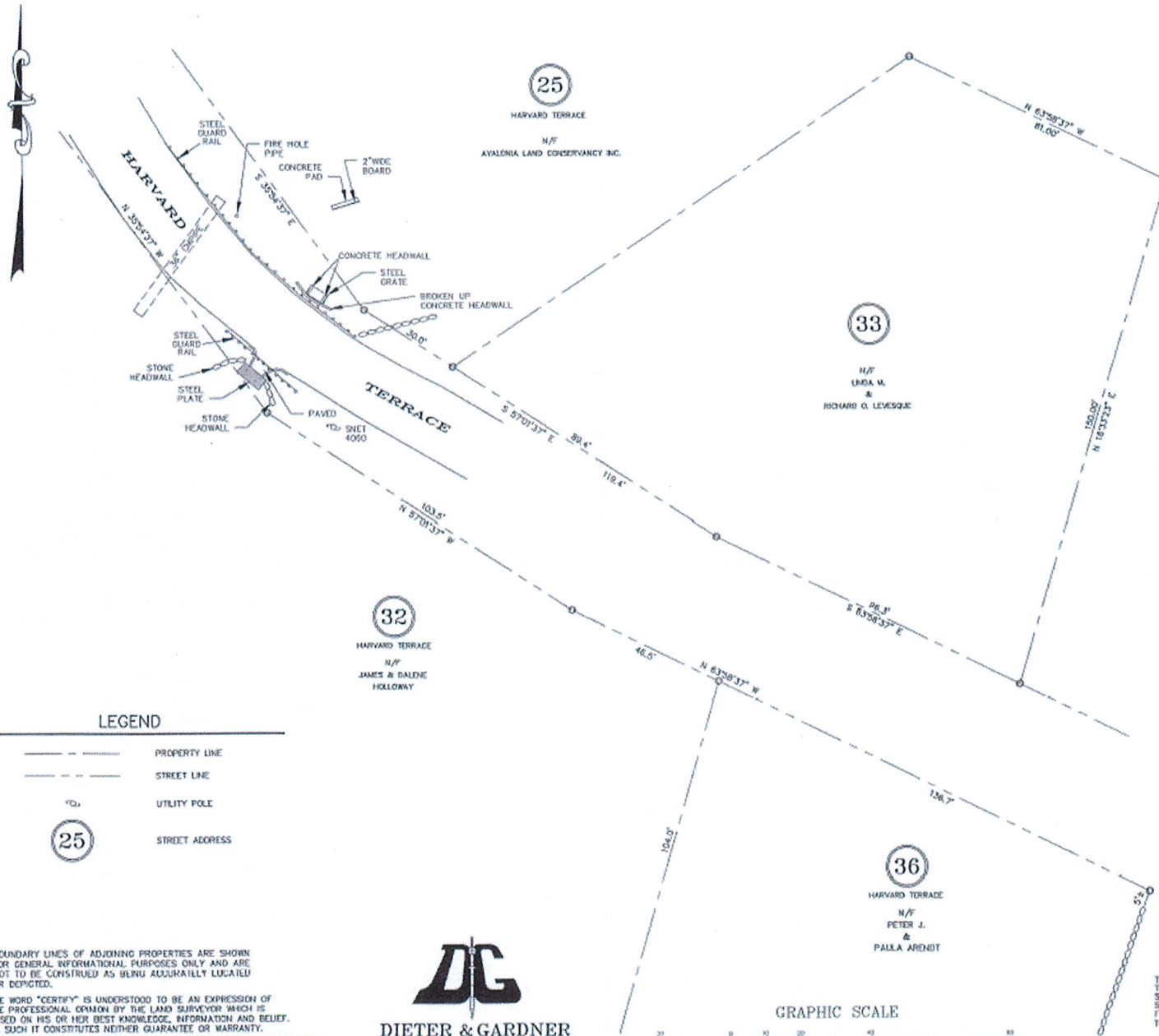
Harvard

47 8'



MAP REFERENCES:

1. PLAN OF LAND MADE FOR GEORGE L. FOOTE GALES FERRY, TOWN OF LEDYARD SCALE: 1" = 50' CHANDLER & PALMER, ENGR'S APRIL 1904.
2. PLAN OF LAND MADE FOR GEORGE L. FOOTE GALES FERRY, TOWN OF LEDYARD, SCALE: 1" = 50' CHANDLER & PALMER.
3. PLAN OF LAND MADE FOR GEORGE L. FOOTE GALES FERRY, TOWN OF LEDYARD, SCALE 1" = 50' CHANDLER & PALMER ENGR'S MAY 1958.



LEGEND

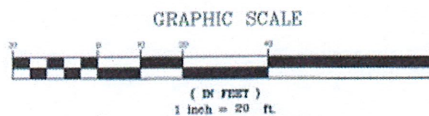
- PROPERTY LINE
- STREET LINE
- UTILITY POLE
- STREET ADDRESS

NOTE: BOUNDARY LINES OF ADJOINING PROPERTIES ARE SHOWN FOR GENERAL INFORMATION PURPOSES ONLY AND ARE NOT TO BE CONSIDERED AS BEING ACCURATELY LOCATED OR DEPICTED.

THE WORD "CERTIFY" IS UNDERSTOOD TO BE AN EXPRESSION OF THE PROFESSIONAL OPINION BY THE LAND SURVEYOR WHICH IS BASED ON HIS OR HER BEST KNOWLEDGE, INFORMATION AND BELIEF, AS SUCH IT CONSTITUTES NEITHER GUARANTEE OR WARRANTY.

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**DIETER & GARDNER**  
 LAND SURVEYORS • PLANNERS  
 1444 BRATTLE ST.  
 P.O. BOX 335  
 GALES FERRY, CT. 06335  
 (860) 464-7455  
 EMAIL: DIETER.GARDNER@YAHOO.COM



PLAN PREPARED  
 FOR THE  
 TOWN OF LEDYARD  
 HARVARD TERRACE  
 LEDYARD, CONNECTICUT  
 SCALE: 1"=20'  
 OCTOBER 2025

THIS MAP AND SURVEY HAS BEEN PREPARED IN ACCORDANCE WITH SECTIONS 20-302B-1 THROUGH 20-302B-20 OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES—MINIMUM STANDARDS OF ACCURACY, CONTENT AND CERTIFICATION FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT, ADOPTED EFFECTIVE JUNE 25, 1996, REVISED OCTOBER 26, 2016. IT IS A SURVEY CONFORMING TO HORIZONTAL ACCURACY CLASS "0". TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

TITLE: LAND SURVEYOR CT No. 1420B  
 DATE: OCTOBER 31, 2025

25

HARVARD TERRACE

N/F  
AVALONIA LAND CONSERVANCY INC.

