AGENDA

The Packet for this meeting is available at [https://mansfield.civicweb.net/filepro/documents/232791/?preview=233560&splitscreen=true].

VIRTUAL MEETING

This meeting will be held virtually. This meeting may be viewed live at https://mansfieldct.gov/video. A video recording of the meeting will be available on YouTube at "MANSFIELD CONNECTICUT STREAMING CHANNEL" (https://mansfieldct.gov/video) no more than seven (7) days after the meeting. Please email planzonedept@mansfieldct.org or call 860.429.3330 by 3:00 PM on the day of the meeting to receive instructions for how to participate remotely.

The Planning and Zoning Commission receives public comment outside of a public hearing in writing only. Submit comments via email at planzonedept@mansfieldct.org, or by USPS mail at 4 South Eagleville Road, Mansfield, CT 06268. To be included in the current meeting packet comments must be received before 3:00 pm on the day of the meeting. Written public comment received after 3:00 pm on the day of the meeting will be shared at the next meeting.

Items marked with an (*) were uploaded to the packet after the initial publication.

1. CALL TO ORDER AND ROLL CALL

2. CONSENT AGENDA

A. Approval of Minutes 3 - 4
12-15-2025 IWA Minutes

3. COMMUNICATIONS

A. Conservation Commission 5 - 7
Conservation Commission - Janurary 21 2026 - Regular Meeting Minutes DRAFT

B. Inland Wetlands Agent Monthly Report 8
2026-2-2 IWA Business Report

4. OLD BUSINESS

5. NEW BUSINESS

A. Application of the Town of Mansfield, Department of Public Works, for Replacement of Bridge over Fenton River on Gurleyville Road (IWA File #1641) 9 - 96
W1641 Application
W 1641 Wetlands Delineation Report
W1641 Project Description w/Photos&Maps
W1641 NDDB Assessment 2025 10 24
W1641 Site Plan

Move to receive application W1641 of the Town of Mansfield Department of Public Works for Bridge Replacement on Gurleyville Road. As the proposed

work may have a significant impact on wetlands, schedule a public hearing for 6:05 p.m. on Monday, March 2, 2026, in the Council Chambers of the Audrey P. Beck Municipal Building, 4 South Eagleville Road, Mansfield, CT, and refer the application to the Conservation Commission for review and comment.

6. OTHER COMMUNICATIONS AND BILLS

7. REPORTS FROM OFFICERS AND COMMITTEES

8. ADJOURNMENT

MANSFIELD
CONNECTICUT

Inland Wetlands Agency Meeting

December 15, 2025

MINUTES

Members Present:	S. Accorsi, P. Aho, Z. Anglin, B. Chandy, K. Fratoni, K. Rawn, V. Ward, C. Wutsch
Members Absent:	J. DeVivo
Alternates Present:	A. Marcellino, J. Walters, R. Zaicek
Alternates Absent:	
Staff Present:	J. Kaufman Director of Planning and Development; J. Woodmansee, Assistant Director of Planning and Development; M. Stankov, Environmental Planner/Inland Wetlands Agent S. Forand, Administrative Assistant Specialist

1. CALL TO ORDER AND ROLL CALL

Aho called the meeting to order at 6:04 p.m. Members present are Accorsi, Aho, Anglin, Fratoni, Rawn, Ward, Wutsch and Alternates Marcellino, Walters, and Zaicek. Alternate Marcellino was seated for absent member.

2. CONSENT AGENDA

A. **Approval of Minutes**

Wutsch MOVED, Ward seconded, to approve the Consent Agenda as presented.

Motion PASSED (9-0-0)

Motion passed by consent;

- Move to approve the December 1, 2025 IWA Meeting Minutes.

3. COMMUNICATIONS

A. Conservation Commission

B. Inland Wetlands Agent Monthly Report

4. OLD BUSINESS

5. NEW BUSINESS

A. **Jurisdictional Determination J39 - Beaver Dam Breach at Sawmill Brook Park just beyond Eversource Boundaries**

M. Stankov presented a detailed overview of the project for the Applicant.

Accorsi MOVED, Wutsch seconded, to find that the proposed removal of the Beaver Dam located at Sawmill Brook Park is a wildlife management practice per Section 130A-4.B.1 of the Inland Wetlands Regulations of the Town of Mansfield and, as it is unlikely to disturb the natural and indigenous character of the wetland or watercourse, constitutes a nonregulated use and requires no permit from this agency.

Motion PASSED (9-0-0)

6. OTHER COMMUNICATIONS AND BILLS

7. REPORTS FROM OFFICERS AND COMMITTEES

8. ADJOURNMENT

Aho adjourned the meeting at 6:10 p.m.

Respectfully submitted,

Sandy Forand
Administrative Assistant Specialist

MINUTES

Members Present: **(**Chair) M. Soares, M. Davis, J. Knighton, E. King, C. Rittenhouse, and W. Ouimet

Members Absent:

Alternates Present: A. Bowman

Alternates Absent:

Staff Present: M. Stankov

1. CALL TO ORDER AND ROLL CALL

Soares called the meeting to order at 7:01 p.m. Members present are **(**Chair) M. Soares, A. Bowman, M. Davis, J. Knighton, E. King, C. Rittenhouse, and W. Ouimet. Alternate A. Bowman is seated for retired member J. Silander.

2. APPROVAL OF MINUTES

Rittenhouse MOVED, Bowman seconded approval of the November 19, 2025, minutes as presented.

Motion PASSED (6-0-1) with Soares abstaining.

3. OPPORTUNITY FOR PUBLIC COMMENT

A. No members of public attending

4. OLD BUSINESS

A. Easement Monitoring

After Action Report: Mountainview Estates

B. Water Quality Sampling

Recommend to table until we receive feedback from the town attorney

Discussion of alternative approaches if groundwater is flagged by the attorney.

Rittenhouse MOVED to table until feedback is received from the town attorney, Soares seconded.

Motion PASSED unanimously.

5. NEW BUSINESS

A. Commendation of Recently Retired Members

John Silander joined the Conservation Commission in June 1995, serving the Town of Mansfield for 30 years. With an esteemed career as a research ecologist and faculty member in UConn's Department of Ecology & Evolutionary Biology, he brought to the commission a deep understanding of natural systems and a persistent enthusiasm for their preservation. John has been a tireless and vocal advocate – at the State and local levels – for land conservation, public open space, and preservation of valuable and declining habitats like wetlands. For too many items that can be listed here, he has provided thorough reviews and commentary, often highlighting the leading scientific understanding that should be considered, on proposed development projects and land-use planning, such as our Plans of Conservation & Development (2015 and 2025), zoning, inland-wetland regulations and their enforcement. In addition to these contributions, John volunteered additional time to attend site walks at potential project sites and conduct monitoring visits of Mansfield's open spaces protected by conservation restrictions. It is hard to fully estimate the size and breadth of the positive and lasting impact that he has had on this Commission, this community, and its residents.

Meg Harper joined the Conservation Commission in 2016, serving the Town of Mansfield for over 9 years. With her life-long career in this region as an archaeologist and historian, Meg added unique and under-represented expertise to the Commission's review of IWA permit applications and land-use planning/management. From her start on the Commission, she voiced the legitimate concern that, due to how Connecticut defines inland wetlands, many seeps and springs do not meet the definition and go unprotected. Without protection, alterations from development can eliminate or directly impact those wetlands, as well as result in impacts to the natural hydrologic processes in the surrounding land area. Throughout her time, Meg was an engaged and attentive Commissioner and dedicated to our charge to advocate for the protection of streams, wetlands, and waterbodies.

B. UConn Golfing Facility – Scoping Comments and Feedback

2026 01 14 Golf Practice Facility CEPA Scoping Comments

Stankov provided an overview of the scoping comments and PZC additions, including adding the Depot Campus as an alternative site.

Discussion of chemical inputs and whether any monitoring will occur, especially with regard to movement off site or into groundwater.

Rittenhouse MOVED, Davis seconded, that the Conservation Commission endorses the scoping comments and those of PZC, including consideration of the Depot Campus as an alternative site. The Conservation Commission additionally asks for confirmation that the species present in the Waxman Conifer Collection are represented and catalogued elsewhere at UConn.

Motion PASSED unanimously.

6. REPORTS FROM COMMISSION MEMBERS

A. Stankov and Knighton reported that a grant was submitted to install bioreactors in some local streams. This is a Town, Local Farm, and UConn partnership.

7. COMMUNICATIONS

The following communications were noted:

A. CT Association of Wetlands Scientists Annual Meeting
Wednesday, March 4, 2026, 8:30 am – 4:30 pm
Aqua Turf Club, 556 Mulberry St, Southington, CT 06479

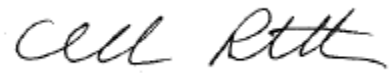
FUTURE MEETINGS

The next meeting of the Conservation Commission is scheduled for February 18, 2026.

ADJOURNMENT

Motion to adjourn at 8:09 pm.

Respectfully Submitted:



Chadwick Rittenhouse
Secretary

MEMO

To: Inland Wetlands Agency

CC: Conservation Commission

From: Michael Stankov, Environmental Planner/Inland Wetlands Agent

Date: 1/20/2026

Subject: Monthly Business Report – December/January 2025

AGENT APPROVALS

W-26-0012, Town of Mansfield, 230 Clover Mill Road (Assessor's Parcel ID 23.60.7-230), new septic system for replacement of bath house at bicentennial pond, ~140 feet from edge of wetlands, (Issued 12/16/2025)

W-26-0011, Eagleville Partners LLC, 204 N Eagleville Road (Assessor's Parcel ID 15.21.17), Emergency Replacement of Septic System in location, ~30 feet from edge of wetlands (Issued 1/14/2026)

W-26-0016, Skips Wastewater Service, 247 Hanks Hill Road (Assessor's Parcel ID 17.65.12), Replace failing septic system in situ, ~50 feet from edge of wetlands (Issued 1/28/2026)

W-26-0017, Olivia Morrow and Kyle Tiersch, Candide Lane (Assessor's Parcel ID 31.89.5-1), New Single Family home per subdivision plans + Topdressing of existing permitted driveway, ~10 feet from edge of wetlands (Issued 1/15/2026)

W-26-0018, Countyline Septic, 97 Stafford Road (Assessor's Parcel ID 36.82.26), Replace failing septic system in-site, 50 feet from edge of wetlands (Issued 1/28/2026)

For more information on these applications, please email planzonedept@mansfieldct.org.

Town of Mansfield

Submission Date	Jan 28, 2026 12:03 PM
Project Name	State Project 0077-0249 Replacement of Bridge No. 04730 Gurleyville Road over Fenton River
Address of Subject Property	Gurleyville Road over Fenton River [41.814590, -72.225303]
Tax Assessor Parcel Identification Number(s)	N/A - Bridge on town road
Tax Assessor Parcel Identification Number(s)	N/A - Bridge on town road
Tax Assessor Parcel Identification Number(s)	N/A - Bridge on town road
Project Description	This project proposes full replacement of Bridge No. 04730. The existing bridge, built in 1970, is 43' long with a roadway width of 23'-7". The proposed structure will be 53'-9" long, and will have a roadway width of 30' to accommodate two (2) 10' travel lanes and two (2) 5' shoulders. The bridge is within a FEMA Zone A. Both State-only and State/Federal wetlands abut the project area. Riprap atop granular fill is proposed on the adjacent embankments for stabilization. Riprap atop granular fill with washed-in natural streambed material is proposed along the channel banks within the structure. This project includes proposed full-depth pavement reconstruction of 650' of the roadway surrounding the project site. A pull-off parking area is also proposed East of Bridge No. 04730 along the Eastbound side of Gurleyville Road. CHA (agent) is submitting this Inland Wetland Application on behalf of the Town of Mansfield.
Is the applicant the property owner?	Yes
Are there multiple applicants?	No
Applicant Name	Town of Mansfield
Applicant Address	4 South Eagleville Road Storrs, CT, 06268
Applicant Email	dpw@mansfieldct.org

Applicant Phone Number	(860) 429-3331
Applicant Interest in Property:	Owner
Are there multiple property owners?	No
Property Owner Name	Town of Mansfield
Property Owner Address	4 South Eagleville Road Storrs, CT, 06268
Property Owner Email	dpw@mansfieldct.org
Property Owner Phone	(860) 429-3331
Tax Assessor Parcel ID Number(s)	N/A - Bridge on town road
Have any agents been authorized to represent the applicant regarding this application?	Yes
How many agents have been authorized to represent the applicant regarding the application?	1
First Agent Name	Sarah Manstan
First Agent Address	400 Capital Boulevard, Suite 301 Rocky Hill, CT, 06067
First Agent Email	smanstan@chasolutions.com
First Agent Phone	(860) 885-1047
Total Land Area of Subject Property (Acres)	0.88
Is some or all of the property located in a flood zone?	Yes

What is the zoning of the property?	RAR-90, FH
Does the most recent CTDEEP Natural Diversity Database Map identify an area of concern on the property?	Yes
Upload request for CT DEEP review and Department response.	0077-0249_NDDB_Response_20251024.pdf 39.89 KB 0077-0249_NDDB_Submitted_20251020.pdf 241.86 KB
In which USGS Quadrangle is the property located? Select all that apply:	Spring Hill (41)
In which sub-regional drainage basin is the project located? Check all that apply:	3207
The subject property contains (select all that apply):	Wetlands, Watercourse(s)
The subject property is within 150 feet of (select all that apply):	Wetlands, Watercourse(s)
Describe the general character of the land (hilly, flat, wooded, well-drained, etc.)	The Fenton River flows from north to south beneath the Bridge. To the NW of the bridge is undeveloped forest. There is an agricultural field to the SE. CT State Wetlands are present south of the bridge bisected by the Fenton River. State/Federal Wetlands are present in two (2) small patches north of the bridge on the West bank of the Fenton River, and (1) long patch South of the CT State Wetlands. Please see attached Wetland Delineation Report dated 08/27/2023 for additional description of wetland areas at the subject property.
Will there be any disturbance in the wetlands/watercourse/water body?	Yes
How close will the proposed activity be from the edge of wetlands/watercourses?	0
Does the area of activity drain toward the wetlands/watercourses?	Yes
What type of machinery will be used?	Excavators, backhoe, dump trucks, semi-trucks, crane(s), drilling rig & trucks, sheet pile driving equipment.
Does the proposed project include any of the following? Select all that apply:	None of the above activities are proposed as part of the project
Briefly describe the activities you propose in the wetlands or	- Removal of existing abutments/wingwalls and construction/installation of proposed abutments/wingwalls.

watercourse:	- Use of water-handling cofferdams and temporary cofferdams. - Placement of riprap for streambank stabilization and scour protection. - Slope grading. - Tree clearing for construction equipment access. Impact totals: Temporary = 1400 sf Permanent = 1000 sf
Quantify the area of disturbance in the wetlands/watercourses:	2400
Quantify the volume of materials being extracted from the wetlands/watercourses:	144
Quantify the volume of materials being deposited in the wetlands/watercourses:	94
Quantify the volume of materials being dispersed throughout the site in the wetlands/watercourses:	0
Briefly describe the activities you propose within the upland review area:	- Full depth reconstruction of approach roadway - Roadway grading to adjust profile - Embankment slope grading to meet new roadway profile - Construction of gravel pull-off parking area - Improvements to existing drainage (NE of bridge) - Reconstruction of existing trail parking area (NW of bridge) - Reconstruction of existing driveway at 266 Gurleyville Road (SW of bridge) Impact totals: Temporary = 23,000 sf Permanent = 13,600 sf
Quantify the area of disturbance within 150 feet of wetlands/watercourses:	36600
Quantify the volume of materials being extracted within 150 feet of wetlands/watercourses:	2216
Quantify the volume of materials being deposited within 150 feet of wetlands/watercourses:	280
Quantify the volume of materials being dispersed within 150 feet of wetlands/watercourses:	0
Please describe the proposed erosion and sedimentation controls:	- Sedimentation and erosion control fencing - Erosion control matting - Sedimentation control sacks around drainage catch basins - Post-construction plantings & wetland/turf grass establishment (see PMT-08 in Environmental Permit Plans)
Are measures other than erosion and sedimentation controls proposed to protect the wetlands/watercourses?	Yes

Please describe the proposed wetland protection measures:

- Only minimum amount of riprap necessary for slope stabilization/protection channel banks is proposed.
- Post-construction plantings proposed to restore wetland areas.
- Use of temporary water handling cofferdams and temporary cofferdams around the project site for construction of the new bridge abutments, wingwalls, and grading restoration work.
- Debris shield will be installed under the old bridge superstructure for demolition.

Will the proposed activities impact the wetlands/watercourses of an adjoining property?

No

Identify potential impact to neighboring municipalities (select all that apply):

None of the above

What alternatives have you considered that would have less impact to the wetlands/watercourses?

The proposed replacement of Bridge No. 04730 with a Prestressed Concrete Deck Unit Bridge was considered against two other replacement alternatives: Full Replacement with a Steel Beam Bridge and Full Replacement with a Prestressed Concrete Solid Deck Beam Bridge. All three Full Replacement options considered would result in similar wetlands/watercourse impacts. The Prestressed Concrete Deck Unit Bridge was selected of the 3 due to its durability, reduced need for future maintenance, usage of more familiar materials resulting in greater quality control, and improvements provided in hydraulic performance over the other two alternates.

No rehabilitation alternatives were considered because the required goals of this project are not possible to achieve without full replacement of the bridge:
- The rail system on the bridge requires replacement to meet current MASH/NCHRP 350 safety standards. This cannot be achieved without full replacement because the strands of the existing prestressed concrete beams would be damaged.
- The load rating of the bridge needs to be increased to meet safety standards. This cannot be achieved through rehabilitation of the existing bridge because the load rating of the existing prestressed concrete beams cannot be increased.
- Roadway width on the bridge needs to be increased to meet FHWA standards and Town requirements, and to incorporate 5’ wide shoulders per Town request. This can only be accomplished through replacement of the bridge.
- The scour critical deficiency of the bridge needs to be eliminated to ensure structural stability of the bridge. This cannot be accomplished without replacing the existing abutments and foundation.
- The superstructure of the bridge is nearing the end of its service life and requires replacement.

Upload completed Statewide Inland Wetlands and Watercourses Activity Reporting Form:

PDF CTDEEP-IWW-Activity-Reporting-Form.pdf
318.67 KB

Upload site plan and any other information being provided to assist the Agency in understanding your proposal.

PDF 0077-0249_Site-Plans.pdf
5.95 MB

PDF 0077-0249_Wetland-Delineation-Report.pdf
5 MB

0077-0249_Project-Description-Photos-....pdf
4.03 MB

Is the property located within a designated Aquifer Protection Area?	Yes
Is the property located within the Willimantic Reservoir public drinking supply watershed?	Yes
Applicant/Property Owner	signature
Date Submitted	Jan 28, 2026

www.ecomapsllc.com | 42 Bar Gate Trail, Killingworth CT 06419 | (248) 885-5477 | michelle@ecomapsllc.com

August 27, 2023

CHA Consulting, Inc.
Attn: Stephany L. Dubina (SDubina@chacompanies.com)
Tom Sawtelle (TSawtelle@chacompanies.com)

RE: **Wetland Delineation Report, CT DOT State Project No. 0077-0249**
Rehabilitation of Bridge No. 04730 carrying Gurleyville Road over the Fenton River
Mansfield, CT

Ms. Dubina and Mr. Sawtelle,

At the request of CHA, I conducted an inspection of the area demarcated on the Wetlands Delineation Limits Map which was provided in the Request for Proposals for the above-referenced project. A sketch map of flagged locations is included in Attachment A: Wetland Sketch Map. The purpose of the inspection was to delineate federal and State of Connecticut jurisdictional wetlands and watercourses and was conducted by myself, a soil scientist as defined in the Connecticut General Statutes, Title 22a, Chapter 440, Inland Wetlands and Watercourses Act, Section 22a-38.

Regulated Wetlands and Watercourses

In Connecticut wetlands are defined as "land, including submerged land, not regulated pursuant to sections 22a-28 to 22a-35, inclusive, which consists of any of the soil types designated as poorly drained, very poorly drained, alluvial, and floodplain by the National Cooperative Soils Survey, as may be amended from time to time, of the Natural Resources Conservation Service of the United States Department of Agriculture."

Watercourses are defined as being "rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs, and all other bodies of water, natural or artificial, vernal, or intermittent, public, or private, which are contained within, flow through or border upon this state or any portion thereof, not regulated pursuant to sections 22a-28 to 22a-35, inclusive. Intermittent watercourses shall be delineated by a defined permanent channel and bank and the occurrence of two or more of the following characteristics: (A) Evidence of scour or deposits of recent alluvium or detritus, (B) the presence of standing or flowing water for a duration longer than a particular storm incident, and (C) the presence of hydrophytic vegetation."

Federal Wetlands are defined as "Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do

support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Federal wetlands are delineated based on three-parameters looking at soils, vegetation, and hydrology.

State and federal wetland resource areas were delineated by examining the upper 18" of the soil profile and those areas that met the criteria noted above were demarcated in the field with sequentially numbered pink and black flagging.

Site Description and Wetlands

The delineation was focused on the overpass of Bridge 04730 (herein the Bridge) and adjacent areas along Gurleyville Road and the Fenton River, located in the Town of Mansfield, Connecticut. The Fenton River flows from north to south beneath the Bridge and is abutted by undeveloped forest, a historic cemetery, an early-successional field and a managed agricultural field to the northwest, northeast, southwest and southeast, respectively.

The limit of the active channel (Ordinary High Water (OHW)) was staked in the field with blue flagging atop wooden stakes with the elevation of the OHW demarcated in black writing. The location of OHW stakes is presented in both Attachment A: Wetland Sketch Map and in Attachment F: OHW Data Form.

Within and adjacent to the delineation area, observed invasive vegetation included Japanese barberry (*Berberis thunbergii*), multiflora rose (*Rosa multiflora*), and Asiatic bittersweet (*Celastrus orbiculatus*). Japanese barberry was noted as being particularly dense in the understory northwest of the Bridge.

<u>Wetland W1 (Flags W1-1 through W1-12)</u>

This palustrine, emergent wetland exists as a low-lying floodplain along the western bank of the Fenton River approximately 130 feet north of the Bridge. The State and federal wetland boundaries are coincident and appear to be hydrologically sustained by a locally-high water table and through overflow from the Fenton River during high-water conditions. Flagged wetland resources begin (flag W1-1) and end (W1-12) at the OHW limit within the Fenton River as shown in the Wetland Sketch Map in Attachment A.

<u>Wetland W2 (Flags W2-1 through W2-24 and W2-1A through W2-16A)</u>

Wetland W2 originates west of the Bridge within a large forested wetland beyond the delineation area and flows east via a narrow, man-made channel that runs parallel to Gurleyville Road. At the overpass of a the Nipmuck walking trail footbridge the wetland begins to widen out to a palustrine emergent system along the edge of the managed field. The wetland continues southeast and flows, via a small (10-12" concrete culvert) beneath a gravel driveway, and discharges to the Fenton River near stake OHW-2A.

Within a majority of the delineation area, wetland W2 exists as an emergent wetland dominated by non-woody, herbaceous vegetation situated along the western edge of a managed field. The field is regulated as Connecticut floodplain and is flagged with the CT2 series flagging as shown in Attachment A: Wetland Sketch Map.

<u>Wetland W3 (Flags W3-1 through W3-6)</u>

This wetland exists within a local depression abutted by historic stone walls at the eastern end of an abandoned (no longer functioning) drainage structure (See Attachment D: Site Photographs, Photos 12 through 16). The State and federal wetland boundaries are coincident

within wetland W3. Flagged wetland resources begin (flag W3-1) and end (W3-6) at the OHW limit within the Fenton River between OHW stakes OHW-6A and OHW-7A as shown in the Wetland Sketch Map in Attachment A.

Wetland CT1 (Flags CT1-1 to CT1-9)

The area flagged as wetland CT1 is located within a managed agricultural field (likely hay) southeast of the Bridge. This wetland is regulated only under State jurisdiction in that the flagged area lacks the three qualifying characteristics of soils, vegetation and hydrology necessary to qualify as a federally-regulated wetland but contains soil types designated as poorly drained, very poorly drained, alluvial, and/or floodplain by the National Cooperative Soils Survey (NRCS). Soil conditions observed in the field were generally consistent with NRCS mapping that depicts the area as Occum fine, sandy loam (Attachment B: Soils Map). Occum soils are found in floodplain areas are nearly level soils on floodplains, subject to common flooding. Flag CT1-1 connects to stake OHW-6 immediately southeast of the Bridge

Wetland CT2 (Flags CT2-1 to CT2-8)

Wetland CT2 is located immediately southwest of the Bridge and, similar to Wetland CT1, is regulated only under State jurisdiction. The observed floodplain soils are located within the generally flat topography located between the Fenton River and the base of the hill located approximately 180 feet to the west of the River. Soils were generally consistent with NRCS mapping as Occum series. The wetland connects to the federal wetland (W2 series) at flag W2-11/CT2-8 where it then follows the W2 wetland line to the west.

The wetland abuts the Fenton River and continues west to wetland W2 as shown in Attachment A: Wetland Sketch Map.

Fenton River

Within the delineation area, the Fenton River flows from north to south beneath the Bridge and is approximately 40-50 feet wide throughout with little sinuosity. The River is fairly shallow (<4 feet deep) and contains a mix of riffles, small pools and runs and the substrate is predominantly sand with some cobbles and boulders. Stream flow is classified by CT DEEP as Class 3 meaning that streamflow is moderately altered. According to a sign posted near the Bridge, the River is a "Special Trout Area".

Wetland Soil Types

To aid in the evaluation of wetland soils which may occur in the project area, digitally available soil survey information was obtained from the Natural Resources Conservation Service (Attachment B: Soils Map). Although the NRCS soil data is not representative of exact, on-site conditions, it provides a general representation of soil characteristics and the soil catena present in the region. The following is a description of wetland and upland soil types observed on the site.

The NRCS Soil Survey Geographic Database (SSURGO) maps the soils within the project area as Occum fine, sandy loam north and south of the Bridge and as Ridgebury, Leicester and Whitman soils east of the Bridge as described below:

Occum fine, sandy loam

The Occum series consists of very deep, well drained loamy soils formed in alluvial sediments. They are nearly level soils on floodplains, subject to common flooding. Slope ranges from 0 to 3 percent.

Ridgebury, Leicester and Whitman soils

A somewhat poorly to very poorly drained soil, typically found in drainageways or in low-lying positions on hills that is made up of a combination of the following:

Ridgebury: Very deep, somewhat poorly and poorly drained soils formed in lodgment till derived mainly from granite, gneiss and/or schist. They are commonly shallow to a densic contact, i.e. a compacted horizon. They are nearly level to gently sloping soils in depressions in uplands. They also occur in drainageways in uplands, in toe-of-slope positions of hills, drumlins, and ground moraines, and in till plains.

Leicester: Very deep, poorly drained soils formed in coarse-loamy till. They are nearly level or gently sloping soils in drainageways and low-lying positions on hills. Slope ranges from 0 to 8 percent.

Whitman: Very deep, very poorly drained soils formed in lodgment till derived mainly from granite, gneiss, and schist. They are shallow to a densic contact. These soils are nearly level or gently sloping soils in depressions and drainageways on uplands.

According to the Soil Survey Geographic Database made available through CT Department of Energy and Environmental Protection (CT DEEP) mapping of inland wetland soils, soils along the eastern and western banks of the Fenton River are mapped as alluvial and floodplain soils. Poorly and very poorly drained soils are mapped west of the Bridge along the south side of Gurleyville Road and include a portion of the areas flagged as Wetland 2 (W2 series).

If you have any questions regarding the concerns, please don't hesitate to contact me by email at michelle@ecomapsllc.com or by phone at 248-885-5477.

Regards,

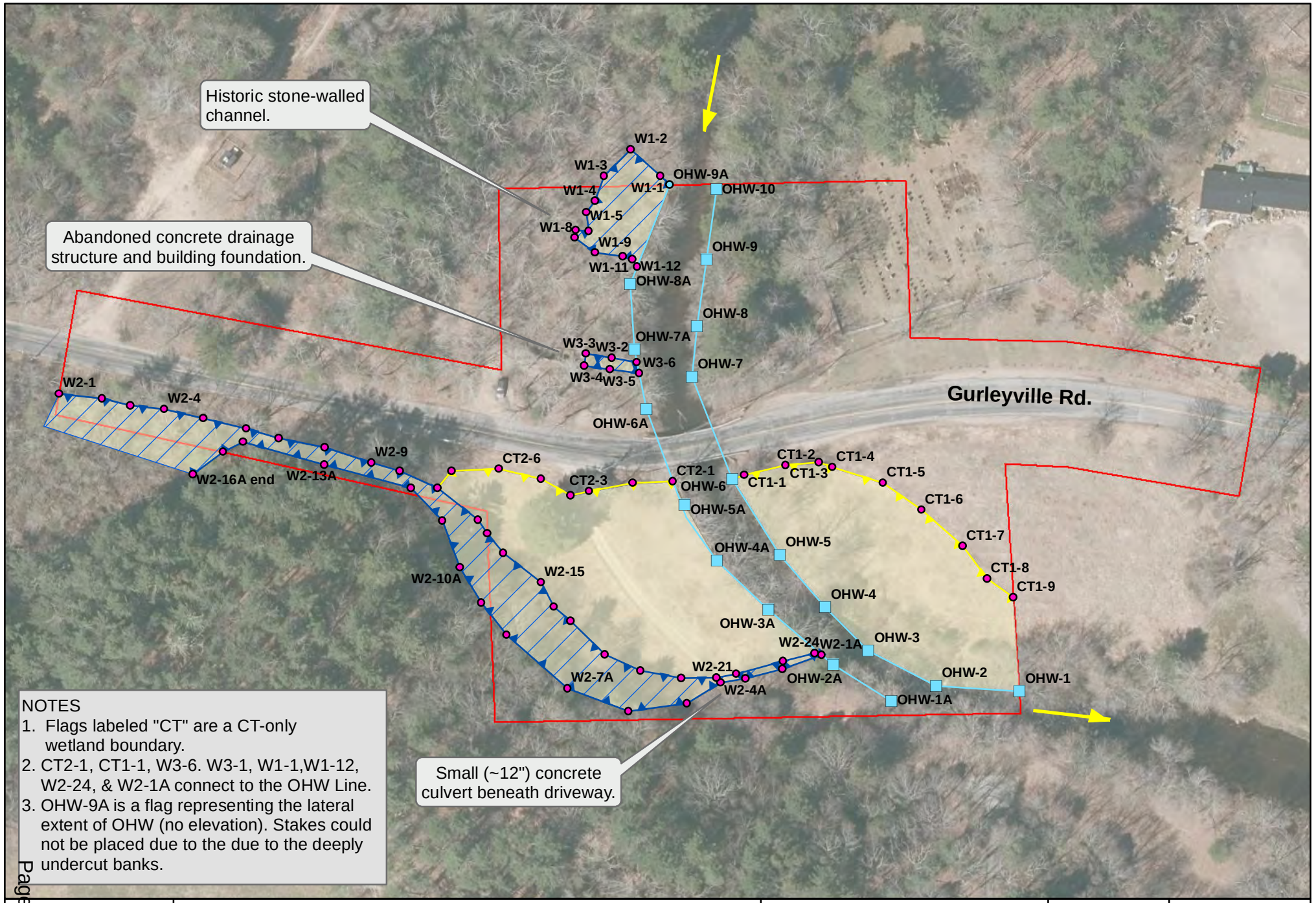
Michelle Ford

Michelle Ford, PWS, CWB®, CESSWI
Registered Professional Soil Scientist
EcoMaps, LLC.

Attachments:

Attachment A: Wetland Sketch Map
Attachment B: Soils Map
Attachment C: ACOE Wetland Determination Data Forms
Attachment D: Site Photographs
Attachment E: Wetland Functions and Values evaluation form
Attachment F: OHW Data Form

Attachment A
Wetland Sketch Map



NOTES
1. Flags labeled "CT" are a CT-only wetland boundary.
2. CT2-1, CT1-1, W3-6. W3-1, W1-1,W1-12, W2-24, & W2-1A connect to the OHW Line.
3. OHW-9A is a flag representing the lateral extent of OHW (no elevation). Stakes could not be placed due to the due to the deeply undercut banks.

Field Sketch Map
CT DOT 077-0249
Gurleyville Rd.
Mansfield, CT

Legend

- OHW Flag
- OHW Stake
- Wetland Flag
- CT-only Wetland Boundary
- Federal Wetland Boundary
- Active Channel (OHW)
- Federal Wetland
- CT Wetland
- Delineation Limits (approx.)

Map Notes:
1. Locations as shown are approximate and for field location of flags only.
2. Wetlands delineated by M. Ford on 8/14/2023.

N W E S

1 inch = 100 feet

Delineation & Mapping by:
ECOmaps LLC
www.ecomapsllc.com

Attachment B
Soils Map

Soil Map—State of Connecticut
(Att. B: Soils Map)

Map Scale: 1:2,040 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 30 60 120 180

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut
Survey Area Data: Version 22, Sep 12, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 14, 2022—Oct 6, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
3	Ridgebury, Leicester, and Whitman soils, 0 to 8 percent slopes, extremely stony	1.8	13.5%
34A	Merrimac fine sandy loam, 0 to 3 percent slopes	2.3	17.5%
34B	Merrimac fine sandy loam, 3 to 8 percent slopes	1.0	7.3%
38E	Hinckley loamy sand, 15 to 45 percent slopes	2.8	21.7%
101	Occum fine sandy loam	3.4	25.8%
305	Udorthents-Pits complex, gravelly	1.0	7.4%
W	Water	0.9	6.9%
Totals for Area of Interest		**13.1**	**100.0%**

Attachment C:
ACOE Wetland
Determination Data Forms

U.S. Army Corps of Engineers **WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region** See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R	*OMB Control #: 0710-0024, Exp: 11/30/2024* *Requirement Control Symbol EXEMPT:* *(Authority: AR 335-15, paragraph 5-2a)*

Project/Site: CT DOT 0077-0249 City/County: Mansfield/Tolland Sampling Date: 8/14/2023

Applicant/Owner: CT DOT/CHA State: CT Sampling Point: W1-4up

Investigator(s): M. Ford Section, Township, Range:

Landform (hillside, terrace, etc.): Floodplain Local relief (concave, convex, none): None Slope %: <5%

Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 41.815 Long: -72.226 Datum: NAD83

Soil Map Unit Name: Occum fine, sandy loam NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
Sample plot is located upgradient of wetland abutting the Fenton River within an area of historic manipulation. Many areas of pit and mound and historic stone features (foundations, drainageways, hiking trail, etc.).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: W1-4up

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	60	Yes	FAC
2. *Fraxinus pennsylvanica*	10	No	FACW
3.			
4.			
5.			
6.			
7.			
	70	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1. *Pinus strobus*	3	No	FACU
2. *Fraxinus pennsylvanica*	3	No	FACW
3. *Acer rubrum*	5	No	FAC
4. *Berberis thunbergii*	60	Yes	FACU
5. *Rosa multiflora*	10	No	FACU
6.			
7.			
	81	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Berberis thunbergii*	20	Yes	FACU
2. *Eurybia divaricata*	10	No	UPL
3. *Dryopteris carthusiana*	30	Yes	FACW
4. *Thalictrum dioicum*	3	No	FACU
5. *Toxicodendron radicans*	3	No	FAC
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	66	=Total Cover	
Woody Vine Stratum (Plot size: 30)			
1. *Toxicodendron radicans*	6	Yes	FAC
2. *Celastrus orbiculatus*	15	Yes	FACU
3.			
4.			
	21	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	43	x 2 =	86
FAC species	74	x 3 =	222
FACU species	111	x 4 =	444
UPL species	10	x 5 =	50
Column Totals:	238 (A)		802 (B)

Prevalence Index = B/A = 3.37

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point W1-4up

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/3	100					Sandy	Fine, sandy loam
6-12	10YR 3/4	100					Sandy	Fine, sandy loam
12-18	10YR 4/6	100					Sandy	Sandy

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region
See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: CT DOT 0077-0249 City/County: Mansfield/Tolland Sampling Date: 8/14/2023

Applicant/Owner: CT DOT/CHA State: CT Sampling Point: W1-4wet

Investigator(s): M. Ford Section, Township, Range:

Landform (hillside, terrace, etc.): Floodplain Local relief (concave, convex, none): None Slope %: 0

Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 41.815 Long: -72.226 Datum: NAD83

Soil Map Unit Name: Occum fine, sandy loam NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes X	No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Sample plot is located within a wetland abutting the Fenton River within an area of historic manipulation. Many areas of pit and mound and historic stone features (foundations, drainageways, hiking trail, etc.) in the area.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches): 1
Water Table Present?	Yes X	No ____	Depth (inches): 12
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: W1-4wet

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	40	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	40	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1. *Acer rubrum*	40	Yes	FAC
2. *Fraxinus pennsylvanica*	5	No	FACW
3.			
4.			
5.			
6.			
7.			
	45	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Laportea canadensis*	10	No	FACW
2. *Symplocarpus foetidus*	50	Yes	OBL
3. *Impatiens capensis*	20	Yes	FACW
4. *Scutellaria lateriflora*	3	No	OBL
5. *Callitriche palustris*	3	No	OBL
6. *Rosa multiflora*	3	No	FACU
7.			
8.			
9.			
10.			
11.			
12.			
	89	=Total Cover	
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	56	x 1 =	56
FACW species	35	x 2 =	70
FAC species	80	x 3 =	240
FACU species	3	x 4 =	12
UPL species	0	x 5 =	0
Column Totals:	174 (A)		378 (B)

Prevalence Index = B/A = 2.17

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point W1-4wet

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-26	10YR 2/1	100					Mucky Sand	Mucky mineral
26-36	10YR 5/6	65	10YR 5/2	30	RM	M	Sandy	
			2.5YR 4/3	5	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- X Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

Deep, mucky mineral soil atop native floodplain soils.

U.S. Army Corps of Engineers **WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region** See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R	*OMB Control #: 0710-0024, Exp: 11/30/2024* *Requirement Control Symbol EXEMPT:* *(Authority: AR 335-15, paragraph 5-2a)*

Project/Site: CT DOT 0077-0249 City/County: Mansfield/Tolland Sampling Date: 8/14/2023

Applicant/Owner: CT DOT/CHA State: CT Sampling Point: W2-16up

Investigator(s): M. Ford Section, Township, Range:

Landform (hillside, terrace, etc.): Floodplain Local relief (concave, convex, none): None Slope %: 0

Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 41.814 Long: -72.226 Datum: NAD83

Soil Map Unit Name: Occum fine, sandy loam NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 8

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: W2-16up

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Solidago rugosa*	30	Yes	FAC
2. *Eutrochium maculatum*	60	Yes	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	90 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1. *Persicaria arifolia*	2	No	OBL
2.			
3.			
4.			
	2 =Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	62	x 1 =	62
FACW species	0	x 2 =	0
FAC species	30	x 3 =	90
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	92 (A)		152 (B)

Prevalence Index = B/A = 1.65

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point W2-16up

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 3/2	100					Sandy	Fine, sandy loam
5-18	5YR 3/3	90	2.5YR 3/4	5	C	M	Sandy	Fine, sandy loam
			10YR 5/2	5	D	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- X Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

U.S. Army Corps of Engineers **WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region** See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R	***OMB Control #: 0710-0024, Exp: 11/30/2024*** ***Requirement Control Symbol EXEMPT:*** ***(Authority: AR 335-15, paragraph 5-2a)***

Project/Site: CT DOT 0077-0249 City/County: Mansfield/Tolland Sampling Date: 8/14/2023

Applicant/Owner: CT DOT/CHA State: CT Sampling Point: W2-16wet

Investigator(s): M. Ford Section, Township, Range:

Landform (hillside, terrace, etc.): Floodplain Local relief (concave, convex, none): None Slope %: 0

Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 41.814 Long: -72.226 Datum: NAD83

Soil Map Unit Name: Occum fine, sandy loam NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No	**Is the Sampled Area**
Hydric Soil Present?	Yes X No	**within a Wetland?** **Yes** X **No**
Wetland Hydrology Present?	Yes X No	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- X High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- Marl Deposits (B15)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X Shallow Aquitard (D3)
- X Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):
Water Table Present?	Yes X	No	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes X	No	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: W2-16wet

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Pilea fontana*	10	No	FACW
2. *Onoclea sensibilis*	20	Yes	FACW
3. *Saxifraga pensylvanica*	5	No	OBL
4. *Thelypteris palustris*	5	No	FACW
5. *Solidago rugosa*	20	Yes	FAC
6. *Eupatorium maculatum*	10	No	OBL
7.			
8.			
9.			
10.			
11.			
12.			
	70 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1. *Persicaria arifolia*	2	No	OBL
2.			
3.			
4.			
	2 =Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	17	x 1 =	17
FACW species	35	x 2 =	70
FAC species	20	x 3 =	60
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	72 (A)		147 (B)

Prevalence Index = B/A = 2.04

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point W2-16wet

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/2	100					Sandy	Fine, sandy loam
4-8	10YR 5/3	92	7.5YR 5/6	3	C	M	Sandy	Fine, sandy loam
			10yr 4/2	5	C	M		
8-16	10YR 3/2	90	2.5YR 3/4	10	C	M	Sandy	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- X Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Cobbles/Stone

Depth (inches): 16

Hydric Soil Present? **Yes** X **No** ___

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region
See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: CT DOT 0077-0249 City/County: Mansfield/Tolland Sampling Date: 8/14/2023

Applicant/Owner: CT DOT/CHA State: CT Sampling Point: W3-3up

Investigator(s): M. Ford Section, Township, Range:

Landform (hillside, terrace, etc.): Altered topo/mound Local relief (concave, convex, none): None Slope %: 0

Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 41.815 Long: -72.226 Datum: NAD83

Soil Map Unit Name: Occum fine, sandy loam NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
Sample plot is located within an area of altered topography adjacent to a historic, man-made drainage structure.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: W3-3up

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	60	Yes	FAC
2. *Fraxinus pennsylvanica*	20	Yes	FACW
3. *Tsuga canadensis*	10	No	FACU
4. *Quercus alba*	5	No	FACU
5.			
6.			
7.			
	95	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1. *Euonymus alatus*	3	No	UPL
2. *Quercus alba*	5	No	FACU
3. *Fraxinus pennsylvanica*	10	Yes	FACW
4. *Pinus strobus*	10	Yes	FACU
5.			
6.			
7.			
	28	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Berberis thunbergii*	60	Yes	FACU
2. *Eurybia divaricata*	20	Yes	UPL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	80	=Total Cover	
Woody Vine Stratum (Plot size: 30)			
1. *Toxicodendron radicans*	2	No	FAC
2.			
3.			
4.			
	2	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	62	x 3 =	186
FACU species	90	x 4 =	360
UPL species	23	x 5 =	115
Column Totals:	205 (A)		721 (B)

Prevalence Index = B/A = 3.52

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point W3-3up

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/3	100					Sandy	Fine, sandy loam
8-14	10YR 3/4	100					Sandy	Fine, sandy loam
14-20	10YR 4/6	100					Sandy	Fine, sandy loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region
See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: CT DOT 0077-0249 City/County: Mansfield/Tolland Sampling Date: 8/14/2023

Applicant/Owner: CT DOT/CHA State: CT Sampling Point: W3-3wet

Investigator(s): M. Ford Section, Township, Range:

Landform (hillside, terrace, etc.): Altered topo/mound Local relief (concave, convex, none): None Slope %: 0

Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 41.815 Long: -72.226 Datum: NAD83

Soil Map Unit Name: Occum fine, sandy loam NWI classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes X	No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Sample plot is located within an area of altered topography adjacent to a historic, man-made drainage structure. Normal circumstances present. Altered features are historic.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Sparsely Vegetated Concave Surface (B8)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- ____ Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ____ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches): 6
Water Table Present?	Yes X	No ____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: W3-3wet

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Impatiens capensis*	30	Yes	FACW
2. *Pilea fontana*	10	Yes	FACW
3. *Callitriche stagnalis*	10	Yes	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	50 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	40	x 2 =	80
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	50 (A)		90 (B)

Prevalence Index = B/A = 1.80

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point W3-3wet

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 2/1	100					Mucky Sand	
18-20	10YR 4/6	95	10YR 5/6	5	D	M	Loamy/Clayey	Fine, sandy loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- X Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

Soils observed include a thick layer of decompsed plant material and fine, sandy loam. The flagged swale exists between two, historic stone walls and connects directly to the River. Although the walls and channel are man-made it has remained unaltered for an extensive period of time and has become naturalized with accumulated material.

U.S. Army Corps of Engineers **WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region** See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R	*OMB Control #: 0710-0024, Exp: 11/30/2024* *Requirement Control Symbol EXEMPT:* *(Authority: AR 335-15, paragraph 5-2a)*

Project/Site: CT DOT 0077-0249 City/County: Mansfield/Tolland Sampling Date: 8/14/2023

Applicant/Owner: CT DOT/CHA State: CT Sampling Point: OHW8up

Investigator(s): M. Ford Section, Township, Range:

Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope %: 0

Subregion (LRR or MLRA): LRR R, MLRA 144A Lat: 41.815 Long: -72.225 Datum: NAD83

Soil Map Unit Name: Occum fine, sandy loam NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
Sample plot is located within an upland area between the Fenton River and a historic cemetery off Gurleyville Road.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: OHW8up

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus strobus*	80	Yes	FACU
2. *Tsuga canadensis*	15	No	FACU
3.			
4.			
5.			
6.			
7.			
	95	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1. *Pinus strobus*	5	Yes	FACU
2. *Tsuga canadensis*	3	Yes	FACU
3.			
4.			
5.			
6.			
7.			
	8	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Maianthemum canadense*	5	Yes	FACU
2. *Eurybia divaricata*	5	Yes	UPL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	10	=Total Cover	
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	108	x 4 =	432
UPL species	5	x 5 =	25
Column Totals:	113 (A)		457 (B)

Prevalence Index = B/A = 4.04

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point OHW8up

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 4/3	100					Sandy	Sandy loam
8-18	10YR 4/4	100					Sandy	Sandy loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

Attachment D:
Site Photographs

Photo 1. View of Bridge 04730 and the Fenton River facing north.

Photo 2. View of Bridge 04730 facing north..

Photo 3. Gurleyville Road approaching Bridge 04730. Photo facing east.

Photo 4. Small, historic cemetery located northeast of Bridge 04730. Photo facing northwest.

Photo 5. Fenton River south of Bridge 04730. Photo facing south.

Photo 6. View of wetland CT1 located southeast of Bridge 04730. Photo facing northwest.

Photo 7: View of wetland CT1 facing southeast.

Photo 8. Dense vegetation within wetland CT2 located southwest of Bridge 04730. Photo facing north.

Photo 9. View of wetland CT2 along the south side of Gurleyville Road west of Bridge 04730.

Photo 10. A portion of wetland W2 that includes a portion of wetland CT2 shown in the distance. Photo facing northeast.

Photo 11. View toward wetland W2 from within wetland CT2 facing west.

Photo 12. Abandoned concrete structure abutting wetland W3. Photo facing east toward the Fenton River (photo center).

Photo 13. Abandoned concrete structure abutting wetland W3. Photo facing west.

Photo 14. Stone walls within wetland W3. Photo facing west.

Photo 15: Abandoned concrete structure and walled "channel" upgradient of wetland W3. Photo facing east.

Photo 16. Wetland W3 at the edge of the abandoned concrete structure. Photo facing east toward the Fenton River.

Photo 17. View of wetland W1 facing east.

Photo 18. Wetland W1 and Bridge 04730 (photo top center) facing southeast.

Photo 19: Wetland W1 abutting the Fenton River. Photo facing east.

Photo 20. Southern portion of wetland W1 facing southeast.

Attachment E:
Wetland Functions and Values Evaluation Forms

Wetland Function-Value Evaluation Form

Total area of wetland: 0.09 ac | Human made? No | Is wetland part of a wildlife corridor? No | or a "habitat island"? No

Adjacent land use: Undeveloped forest and hiking trail | Distance to nearest roadway or other development: ~140'

Dominant wetland systems present: PEM | Contiguous undeveloped buffer zone present? Yes

Is the wetland a separate hydraulic system? No | If not, where does the wetland lie in the drainage basin? Middle

How many tributaries contribute to the wetland? 1 | Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D.: W1

Latitude: 41.815 | Longitude: -72.226

Prepared by: M.Ford | Date: 8/14/2023

Wetland Impact:
Type: TBD | Area: TBD

Evaluation based on:
Office: X | Field: X

Corps manual wetland delineation completed? Y: X | N:

Function/Value	Suitability Y/N	Rationale (Reference#)*	Principal Function(s)/Value(s)	Comments
Groundwater Recharge/Discharge	Y	1,2,4,5,6,7,11,12		Limited but present
Floodflow Alteration	Y	5,6,8,9,10,13		Limited but present
Fish and Shellfish Habitat	N			
Sediment/Toxicant Retention	Y	4,5,10,13,14	X	Deep mucky mineral soils benefit sediment/toxicant retention
Nutrient Removal	Y	3,5,6,7,9,10,12,14		Limited but present
Production Export	Y	1,2,12		
Sediment/Shoreline Stabilization	Y	6,7,9		
Wildlife Habitat	Y	2,3,4,5,6,7,8		Small wetland but some wildlife habitat present
Recreation	Y	6,9		Wetland is adjacent to established hiking trail
Educational/Scientific Value	Y	1,2		
Uniqueness/Heritage	Y	12,16,18,19,22,23,24		Presence of old stone foundation and features add to this F/V.
Visual Quality/Aesthetics	Y	1,5,6,7,11		
ES Endangered Species Habitat	Y	1		Mapped NDDB habitat (June 2023)
Other				

Notes:

*Refer to backup list of numbered considerations.

Wetland Function-Value Evaluation Form

Total area of wetland: 0.5+ ac | Human made? No | Is wetland part of a wildlife corridor? No | or a "habitat island"? No

Adjacent land use: Managed field at residential property and forested hillside | Distance to nearest roadway or other development: 10'

Dominant wetland systems present: PEM | Contiguous undeveloped buffer zone present? No

Is the wetland a separate hydraulic system? No | If not, where does the wetland lie in the drainage basin? Middle

How many tributaries contribute to the wetland? 1 | Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D.: W2

Latitude: 41.814 | Longitude: -72.227

Prepared by: M.Ford | Date: 8/14/2023

Wetland Impact:

Type: TBD | Area: TBD

Evaluation based on:

Office: X | Field: X

Corps manual wetland delineation completed? Y: X | N:

Function/Value	Suitability Y/N	Rationale (Reference#)*	Principal Function(s)/Value(s)	Comments
Groundwater Recharge/Discharge	Y	1,2,3,4,6,11		Limited but present
Floodflow Alteration	Y	5,6,8,9,10	X	Potential for floodwater retention present
Fish and Shellfish Habitat	N			
Sediment/Toxicant Retention	Y	3,4,5,6		Limited but present due to slow-moving water and vegetation
Nutrient Removal	Y	3,5,6,7,9,10,11	X	present due to slow-moving water and vegetation
Production Export	Y	1,2,12		Abundance of flowering plants beneficial for pollinators present
Sediment/Shoreline Stabilization	N			
Wildlife Habitat	Y	1,7,8		Limited
Recreation	N			Hiking trail runs adjacent to but not within the wetland
Educational/Scientific Value	Y	1,13		Limited
Uniqueness/Heritage	Y	1,7,22		Limited
Visual Quality/Aesthetics	Y	5,7,9,11,12		Views available from adjacent hiking trail
ES Endangered Species Habitat	Y	1		Mapped NDDB habitat (June 2023)
Other				

Notes:

*Refer to backup list of numbered considerations.

Wetland Function-Value Evaluation Form

Total area of wetland 0.01 Human made? Yes Is wetland part of a wildlife corridor? No or a "habitat island"? No

Adjacent land use Managed field at residential property and forested hillside Distance to nearest roadway or other development ~50'

Dominant wetland systems present PEM Contiguous undeveloped buffer zone present? No

Is the wetland a separate hydraulic system? No If not, where does the wetland lie in the drainage basin? Middle

How many tributaries contribute to the wetland? 1 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. W3

Latitude 41.815 Longitude -72.226

Prepared by: M.Ford Date 8/14/2023

Wetland Impact:

Type TBD Area TBD

Evaluation based on:

Office X Field X

Corps manual wetland delineation completed? Y X N

Function/Value	Suitability Y/N	Rationale (Reference#)*	Principal Function(s)/Value(s)	Comments
Groundwater Recharge/Discharge	Y	1,2,4,6,10,11,12	X	Limited due to small size of wetland
Floodflow Alteration	Y	5,6,7,8,10		Some backwater retention available given proximity to the Fenton River
Fish and Shellfish Habitat	N			
Sediment/Toxicant Retention	Y	4,5,6		Limited
Nutrient Removal	Y	7		Very limited due to small size of wetland
Production Export	N			
Sediment/Shoreline Stabilization	N			
Wildlife Habitat	N			
Recreation	N			
Educational/Scientific Value	Y	11,12		
Uniqueness/Heritage	Y	11,12,22,23	X	Old stone foundation and historic drainage feature found adjacent to wetland
Visual Quality/Aesthetics	Y	1,5		Limited
ES Endangered Species Habitat	Y	1		Mapped NDDB habitat (June 2023)
Other				

Notes:

*Refer to backup list of numbered considerations.

Wetland Function-Value Evaluation Form

Total area of wetland 0.50 ac Human made? No Is wetland part of a wildlife corridor? Yes or a "habitat island"? No

Adjacent land use Undeveloped forest, ag. fields, cemetery Distance to nearest roadway or other development 0'

Dominant wetland systems present R2UB Contiguous undeveloped buffer zone present? Yes

Is the wetland a separate hydraulic system? No If not, where does the wetland lie in the drainage basin? Middle

How many tributaries contribute to the wetland? 10+ Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. Fenton River

Latitude 41.815 Longitude -72.225

Prepared by: M.Ford Date 8/14/2023

Wetland Impact:

Type TBD Area TBD

Evaluation based on:

Office X Field X

Corps manual wetland delineation completed? Y X N

	Function/Value	Suitability Y/N	Rationale (Reference#)*	Principal Function(s)/Value(s)	Comments
	Groundwater Recharge/Discharge	Y	1,2,4,6,7,11,12,15		Water permanence and shallow water table allow for this function
	Floodflow Alteration	Y	8,9,13		
	Fish and Shellfish Habitat	Y	1,4,7,8,9,10,12,13,14,15,16,17	X	The river is designated by the State as a "Special Trout Area"
	Sediment/Toxicant Retention	Y	1,2,8,9,10,11		Limited but present
	Nutrient Removal	Y	5		
	Production Export	Y	1,4,5,6,10,11,13		
	Sediment/Shoreline Stabilization	Y	1,2,3,6,8,9		
	Wildlife Habitat	Y	2,3,4,6,7,8		
	Recreation	Y	2,5,6,7		Fishing is primary recreation activity available
	Educational/Scientific Value	Y	1,2,5,6,9,11		Access is limited
	Uniqueness/Heritage	Y	11,12,14,16,17,18,19,20,22,27,28		Historic foundations adjacent to River
	Visual Quality/Aesthetics	Y	1,2,7,8,10,11,12		
ES	Endangered Species Habitat	Y	1		
	Other				

Notes:

*Refer to backup list of numbered considerations.

Attachment F:
OHW Data Form

Appendix A: OHW Data Form

ORDINARY HIGH WATER MARK DELINEATION

DATA FORM (Part 1 – Field Work)

Project #: CT DOT 0077-0249 Date: 8/14/2023

Town/Route: Mansfield/Gurleyville Road

Watercourse/Waterbody (if available): Fenton River

Investigator(s): M. Ford
Mapping referenced: 2019 Aerial Imagery
Weather Conditions at Investigation: Sunny, humid and clear. Temp. 70-80F
Measurable precipitation in the past 72 hours? **Yes** No
Other preceding events (i.e, hurricane, dam failure upstream, etc.) that would make physical indicators unreliable? (circle one) Yes **No**
Observed Water Level: (circle one) High **Typical** Low
Notes: (Specify locations (generally) where physical indicators were located):(*Example: Upstream of bridge had the presence of litter and debris, shelving, and vegetation matted down. Downstream of the bridge had the presence of scour, shelving and exposed roots. Within the bridge/culvert water staining was present.)* Physical indicators were visible both up and downstream of Bridge 04730 and included erosion/scour, bank undercutting, root exposure, water staining (on the Bridge and on some rocks along the banks), litter removal and silt deposits (along the southeast abutment of the Bridge). Water staining was evident along the support structure of the Bridge.

OHW marked at structure inlet [X] outlet [X] N/A [ ]

[X] Photo Documentation Attached
(Depict on photos – any estimated OHW marks, flagging and physical indicators)

[X] Sketch Attached (ensure sketch is sent to central surveys)
(Depict on sketch – any estimated OHW marks, flagging and physical indicators)

Supporting Feature Identification Table			
Feature	**Description**	**Interpretations**	**Insert Check if Present**
Drift/wrack	Debris deposited as streamflow recedes (typically during/following flood events); commonly forms linear features or piles and often collects on the upstream side of inundated vegetation or other flow barriers	May indicate the spatial extent of a recent flow event; a concentration of drift features may suggest relatively frequent inundation.	
Erosion/scour	The removal of sediment or rock due to mechanical forces (e.g., water or wind)	Typically occurs within the active channel (i.e., below the OHWM) but can also result from extreme flood events or non-fluvial processes.	X
Bank undercutting	Erosion of channel banks beneath the ground surface such that a "roof" of sediment, roots, etc., remains	Typically occurs within the active channel (i.e., below the OHWM); more commonly in entrenched streams.	X
Root exposure	Exposure of previously buried roots due to erosion; common along active channel banks, particularly on the outside of bends (meanders)	Suggests the presence of active erosional processes; can also result from infrequent flood events.	X
Point bars	Depositional features found on the inside of stream bends (meanders).	Suggests relatively frequent inundation; the tops of point bars typically occur below the OHWM.	
Water staining	Staining or discoloring of natural (e.g., bedrock) or man-made (e.g., bridges) objects due to the frequent presence of water.	In bedrock or colluvial channels or confined reaches where primary indicators cannot develop, water stains are sometimes the best or only indicator of ordinary flow conditions. However, they may indicate the most frequently experienced flow level (e.g., mean flow) rather than the ordinary extent of high flows, or they may indicate the spatial extent of a recent flood.	X
Litter removal	The removal of leaves, needles, and other organic ground cover due to flowing water	May indicate the extent of recent flows (depending on the time of year) or may be useful for verifying streamflow in small or hard-to-detect streams.	X
Silt deposits	Deposition of fine sediments	Generally depositional features rather than erosional ones. Silt deposits found on a floodplain often stand in contrast to the relatively course substrate of the active channel.	X
Shelving	The presence multiple "benches" and breaks in slope along the margins of the active channel.	Suggests downcutting of the active channel. The lowest bench may represent an emerging floodplain.	
Headcut/ knickpoint	An abrupt vertical drop in the stream bed that typically migrates upstream	Sometimes indicates the upper, longitudinal extent of a headwater stream and the OHWM (i.e., the point of stream initiation).	
Macro-invertebrates	Invertebrates (animals lacking vertebral columns) that are visible to the naked eye (e.g., aquatic insect larvae, clams, crayfish, aquatic worms, etc.)	Certain aquatic species and aquatic life stages of macroinvertebrates have been found to be strongly tied to streamflow permanence (i.e., ephemeral vs. intermittent vs. perennial) in the Pacific Northwest (Mazzacano and Black 2008, Nadeau 2011, Blackburn and Mazzacano 2012).	
Note: Some potential supporting features and generalized interpretations of their utility for OHWM delineation purposes. These features do not generally indicate the precise location of the OHWM but may be useful as supplementary information (i.e., in addition to interpretation of primary indicators) for interpreting recent or long-term hydrologic and geomorphic conditions within a given stream system. This list is not exhaustive and other supporting features may occur			

Photo 1. View of Bridge 04730 and the Fenton River facing north.

Photo 2. View of Bridge 04730 facing north..

Photo 3. OHW indicated on the eastern abutment of Bridge 04730. Photo facing north.

Photo 4. Eastern abutment of Bridge 04730 showing accumulated sediment along the northern side preventing OHW painting.

Photo 5. View of the eastern abutment beneath Bridge 04730 facing east.

Photo 6. OHW painted on the western abutment of Bridge 04730. Photo facing south.

Photo 7: OHW stake 6 located southeast of Bridge 04730. Photo facing northwest.

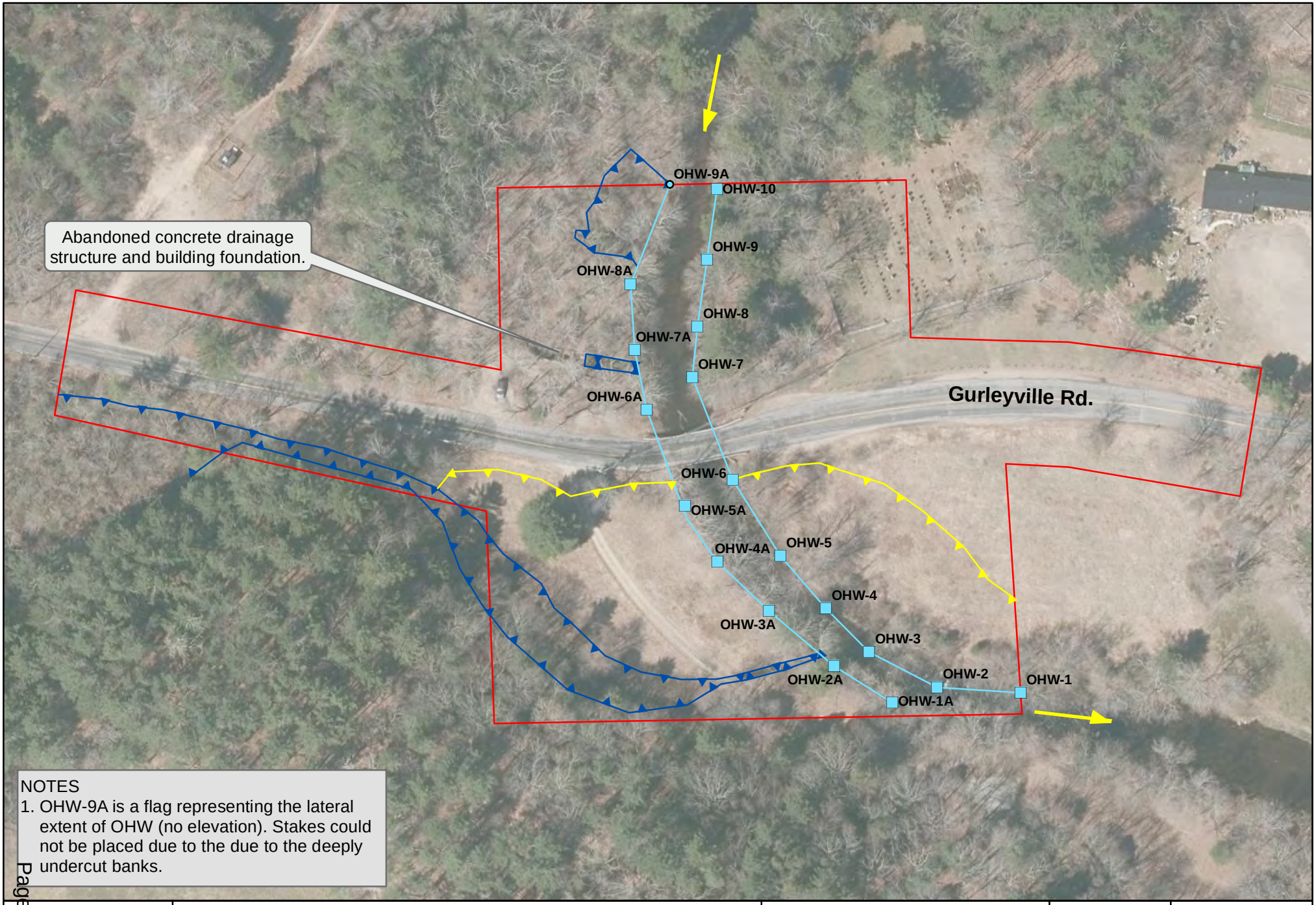
Photo 8. OHW stake 7 northeast of Bridge 04730. Photo facing southwest.

Photo 9. View of OHW stake 9 located along the eastern bank of the Fenton River north of Bridge 04730. Photo facing east.

Photo 10. Deeply undercut banks evident along portions of the Fenton River.

Photo 11. OHW stake 5 located along the eastern bank of the Fenton River south of Bridge 04730. Photo facing south.

Photo 12. Stake OHW-8A located north of Bridge 04730 along the western bank of the Fenton River. Photo facing northwest.



NOTES
1. OHW-9A is a flag representing the lateral extent of OHW (no elevation). Stakes could not be placed due to the due to the deeply undercut banks.

OHW Sketch Map
CT DOT 077-0249
Gurleyville Rd.
Mansfield, CT

Legend

- OHW Flag
- OHW Stake
- Delineation Limits (approx.)
- Active Channel (OHW)
- CT-only Wetland Boundary
- Federal Wetland Boundary

Map Notes:

1. Locations as shown are approximate and for field location of flags only.
2. Wetlands delineated by M. Ford on 8/14/2023.

N W E S

1 inch = 100 feet

Delineation & Mapping by:
ECOmaps LLC
www.ecomapsllc.com

PROJECT DESCRIPTION
Project Number: 0077-0249
Town: Mansfield, Connecticut
Replacement of Bridge No. 04730
Gurleyville Road over Fenton River

Existing Conditions

Bridge No. 04730 is a single span structure that carries Gurleyville Road over Fenton River in the Town of Mansfield, Connecticut. The bridge is located approximately 1.3 miles east of US Route 195. The bridge superstructure comprises of eight (8) prestressed concrete deck units supported by stone masonry abutments with a concrete bridge seat founded on unknown foundation (masonry likely). The bridge was built in 1970 and is approximately 53 years old. The bridge carries bi-directional traffic in an east-west direction over a 23'-7" wide roadway curb-to-curb width and has span length of approximately 42'. The Average Daily Traffic (ADT) on the bridge is estimated to be 1,512 vehicles (Year 2022, based on a Bridge Safety & Evaluation Report dated 3/9/22) and the roadway over the bridge is classified as a Rural Minor Collector. The bridge does not carry any sidewalks. Fenton River flows under the bridge from the north to the south. There are no utilities carried by the bridge and there are overhead utilities that cross the structure from the north side to the south side. The bridge is not considered to be historic.

Purpose and Need Statement

The existing bridge rail system is in poor condition due to presence of holes, section loss and cracks in rails and connections to posts. The bridge rail system also does not meet current safety standards. The existing roadway width of 23'-7" does not meet FHWA Standards (24'-0" Minimum based on ADT between 1,001-2,000 vehicles) or Connecticut Department of Transportation (CTDOT) Standards (24'-0" minimum for Rural Collector). Since the roadway width does not meet FHWA standards, the bridge is considered to be Functionally Obsolete. The bridge is also considered to be scour critical. The purpose of this project is to address deficiencies identified by recent inspections, increase the roadway width to 24' minimum in order to meet current FHWA and State Standards and eliminate scour deficiency on the bridge.

Proposed Project

Based on the condition of the existing bridge, a full bridge replacement is proposed as part of this project. The proposed work for a full bridge replacement will involve:

1. Removal of the existing bridge superstructure and masonry abutments.
2. Construction of new concrete abutments supported on drilled shaft foundations designed for scour.
3. Installation of a new superstructure to carry a 30'-0" wide roadway meeting FHWA and CTDOT design standards, accommodating (2) 12' travel lanes and (2) 5-0" wide shoulders per Town request.
4. The proposed bridge rail system will comprise of an aesthetically pleasing open bridge rail system meeting current safety standards. The deck out-to-out width is estimated to be approximately 33'-6".
5. The proposed widened span length of 53'-9" and slight skew of 9 degrees will improve the hydraulic performance of the structure and satisfy the 1.2x Bankfull(Width (BFW) of the site by providing a 50'-0" clear span.

6. The proposed superstructure will consist of multiple prestressed concrete deck units with a 6" minimum cast in place concrete deck.
7. Roadway will be reconstructed approximately 300' at both approaches to the bridge. The road profile will be raised by 1' to 1.5' at both approaches to the bridge and horizontal alignment will be shifted 6.5' to the north.
8. New guiderails will be installed at all approach corners to the bridge to meet current design standards.

Site Information

Bridge No. 04730 is located approximately 1.7 miles away from the University of Connecticut (UCONN) Storrs campus. The project location is classified as a FEMA floodplain Zone A, which is considered an area that represents a 1% annual chance of flooding, according to FEMA Flood Insurance Rate Map #0901280010C (effective date January 2, 1981).

Cultural Resources

This bridge is located in a rural agricultural residence zone according to the Town of Mansfield zoning map. Northwest of the project site is a parking lot for the Nipmuck trail and the remnants of an old sluiceway. Southwest of the bridge is the Torrey Preserve, and Riverside Burying Ground is present northeast of the bridge. The project site is also located within the Gurleyville Historic District according to the National Register of Historic Places Maps (September 2020 & May 2023).

Wetland and Environmental Resources

A wetland delineation was performed at this site in August 2023 by a soil scientist registered in the State of Connecticut to identify State and Federal wetlands resources present at the site. A patch of CT State-only wetlands is present south of the bridge on both sides of the Fenton River. A strip of State-Federal wetlands is present at the southern border of the CT wetland area. Two small patches of State-Federal wetlands are present along the western bank of the Fenton River upstream of the bridge crossing. Please see attached Wetland Delineation Report for site photos of all wetland areas.

The project is located in a Natural Diversity Database (NDDB) area per the December 2025 mapping. Coordination with CT DEEP indicated that Wood Turtles may be present at the site. A survey of the site performed in October 2025 determined that there were no Wood Turtles present at the site. However, Best Management Practices (BMPs) for Wood Turtles as provided by CT DEEP NDDB will be adhered to throughout construction. According to the U.S. Fish and Wildlife Service Information for Planning and Consultation (IPaC) resource, the Northern Long-eared Bat and the Monarch Butterfly are species that may be present at this location. However, the project is not located in a critical habitat and no activities are proposed which would adversely affect these species.

EXISTING SITE PHOTOGRAPHS

Inlet Elevation (North)

Outlet Elevation (South)

Looking Downstream

Looking Upstream

Bridge from West Approach- looking East

Bridge from East Approach- looking West

Severe Rusting observed in Bridge Railing

Stone masonry wingwall

Underside of Prestressed Concrete Deck Unites – Note Shallow Spalls with Exposed rebar

Riverside Burying Ground located northeast of bridge

Remnants of Old Sluiceway located northwest of bridge

Remnants of Old Sluiceway

Special Trout Area

USGS QUADRANGLE MAP

PROJECT NO. 0077-0249 BRIDGE NO. 04730
GURLEYVILLE ROAD OVER FENTON RIVER

N

USGS QUAD #41
SPRING HILL, CT

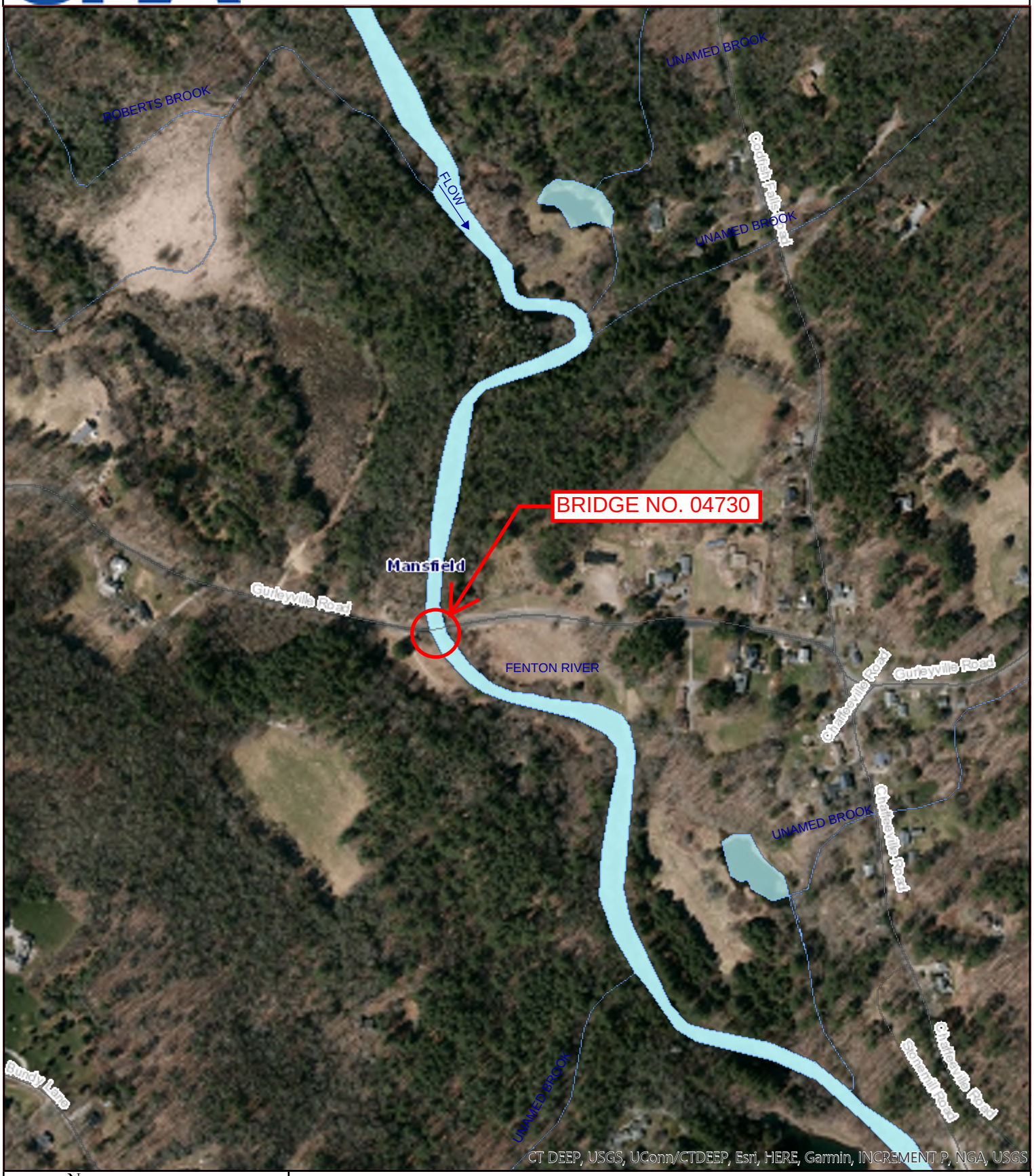
Created: May 2023

1 INCH = 2,000 FEET

0 1,000 2,000 4,000 6,000 Feet

DETAILED AERIAL MAP

PROJECT NO. 0077-0249 BRIDGE NO. 04730
GURLEYVILLE ROAD OVER FENTON RIVER



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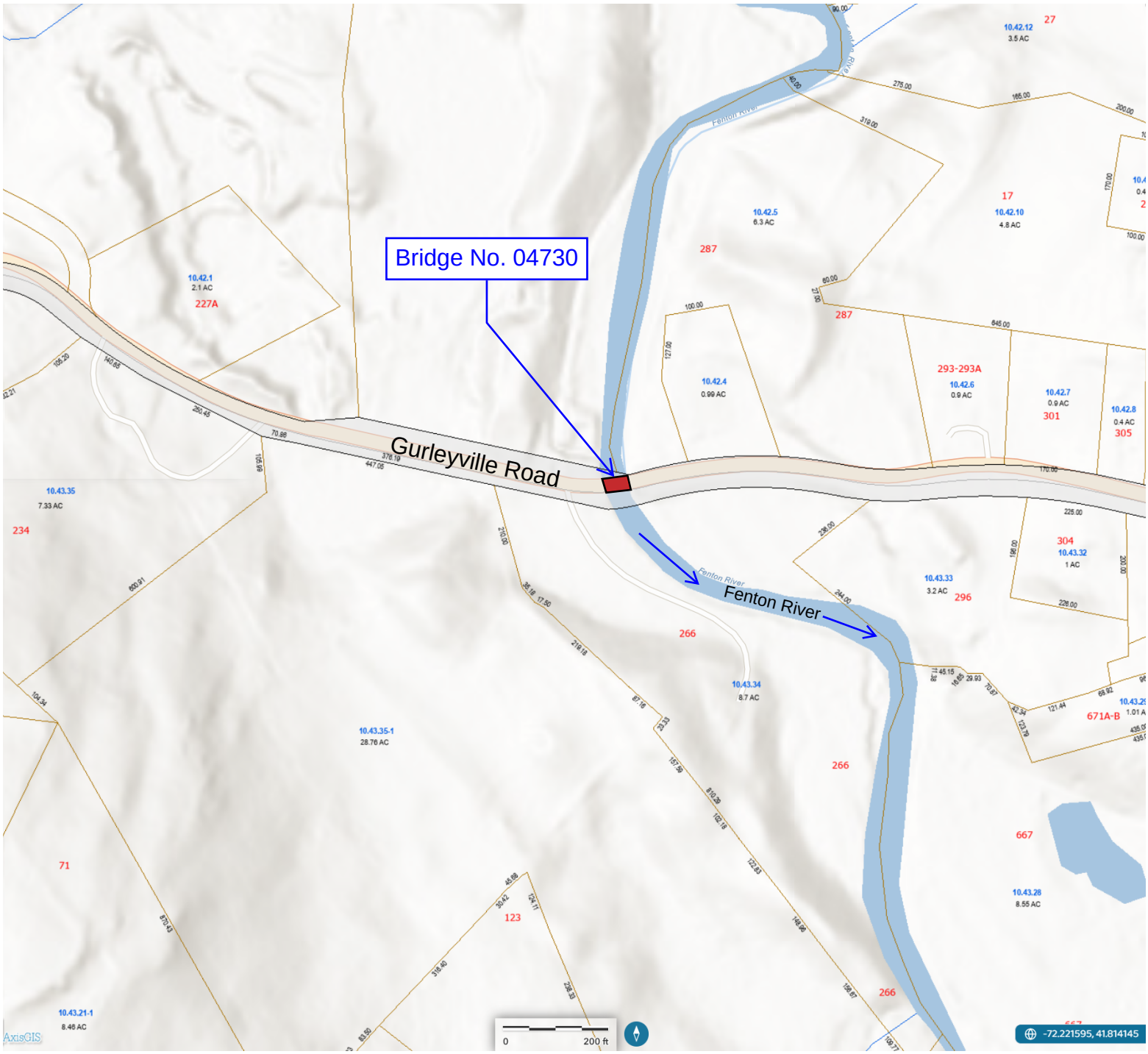
CTECO
AERIAL MAP
MANSFIELD, CT

Created: May 2023

1 INCH = 500 FEET

0 250 500 1,000 1,500 Feet

Mansfield Assessor's Map



Connecticut Department of Energy & Environmental Protection

portal.ct.gov/DEEP

10/24/2025

Stephany Dubina
CHA COMPANIES, INC.
400 Capital Blvd
Rocky Hill, CT 06067
sdubina@chasolutions.com

Subject: 0077 0249
Filing #: 134563
NDDB - New Determination Number: 202508064

Expiration Date: 10/24/2027

Location: Bridge 04730, Gurleyville Road over Fenton River, Mansfield, CT

I have reviewed Natural Diversity Database (NDDB) maps and files regarding this project. According to our records, there are State-listed species (RCSA Sec. 26-306) that may be influenced by activities within the proposed project area.

- **Wood turtle (*Glyptemys insculpta)* State Special Concern**

Wood turtles are riverine and riparian obligates, overwintering and mating in clear, cold, primarily sand-gravel and rock bottomed streams and foraging in riparian zones, fields and upland forests during the late spring and summer. They hibernate in the banks of the river in submerged tree roots between November 1 and March 31. Their summer habitat focuses within 90m (300ft of rivers) and they regularly travel 300m (0.2 mile) from rivers during this time. During summer they seek out early successional habitat: pastures, old fields, woodlands, powerline cuts and railroad beds bordering or adjacent to streams and rivers. Their habitat in Connecticut is already severely threatened by fragmentation of riverine, instream, riparian, and upland habitats, but is exacerbated by heavy adult mortality from machinery, cars, and collection. This is compounded by the species late maturity, low reproductive potential, and high nest and hatchling depredation rates.

Your land disturbance activity will include significant areas within and around rivers and streams, and you will need to take precautions to avoid impacting hibernating adults. Consult with a qualified herpetologist to assess your work impact zone for the potential to impact overwintering wood turtle. A qualified herpetologist will hold a valid state permit: Scientific Collector Permits

- Do not begin instream activity and bank disturbance in suitable overwintering habitat within a river or stream during the turtle's dormant period (November 1- March 31).

To prevent turtle access and entry into your upland work zone between April 1- October 31:

- Exclusionary practices will be required to prevent any turtle access into construction areas. These

measures will need to be installed at the limits of disturbance as shown on the plans, or be specifically designated by a qualified herpetologist.
- Exclusionary fencing be at least 20 inches tall and must be secured to and remain in contact with the ground and be regularly maintained (at least bi-weekly and after major weather events) to secure any gaps or openings at ground level that may let animal pass through.
- Prior to construction, all turtles occurring within fencing work area will be relocated to suitable habitat outside disturbance area. This should be performed by a qualified professional familiar with habitat requirements and behavior of the species.
- The Contractor must search the work area each morning prior to any work being done.
- All construction personnel working within the turtle habitat must be apprised of the species description and the possible presence of a listed species.
- Any turtles encountered within the immediate work area shall be carefully moved to an adjacent area outside of the excluded area and fencing should be inspected to identify and remove access point. These animals are protected by law and no turtles should be relocated from the site.
- In areas where silt fence is used for exclusion, it shall be removed as soon as the area is stable to allow for reptile and amphibian passage to resume.
- Special precautions must be taken to avoid degradation of wetland habitats including any wet meadows and seasonal pools.

Your submission information indicates that your project requires a state permit, license, registration, or authorization, or utilizes state funding or involves state agency action. This NDDB - New determination may be utilized to fulfill the Endangered and Threatened Species requirements for state-issued permit applications, licenses, registration submissions, and authorizations.

Please be aware of the following limitations and conditions:

Natural Diversity Database information includes all information regarding listed species available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Natural History Survey and cooperating units of DEEP, land owners, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as enhance existing data. Such new information is incorporated into the Database and accessed through the ezFile portal as it becomes available. New information may result in additional review, and new or modified restrictions or conditions may be necessary to remain in compliance with certain state permits.

- During your work listed species may be encountered on site. A report must be submitted by the observer to the Natural Diversity Database promptly and additional review and restrictions or conditions may be necessary to remain in compliance with certain state permits. Please fill out the appropriate survey form and follow the instructions for submittal.
- Your project involves the state permit application process or other state involvement, including state funding or state agency actions; please note that consultations with your permit analyst or the agency may result in additional requirements. In this situation, additional evaluation of the proposal by the DEEP Wildlife Division may be necessary and additional information, including but not limited to species-specific site surveys, may be required. Any additional review may result in specific restrictions or conditions relating to listed species that may be found at or in the vicinity of the site.
- If your project involves preparing an Environmental Impact Assessment, this NDDB consultation and determination should not be substituted for biological field surveys assessing on-site habitat and species presence.
- The NDDB - New determination for the 0077 0249 as described in the submitted information and summarized at the end of this document is valid until 10/24/2027. This determination applies only to the

project as described in the submission and summarized at the end of this letter. Please re-submit an updated Request for Review if the project's scope of work and/or timeframe changes, including if work has not begun by 10/24/2027.

If you have further questions, please contact me at the following:

Shannon Kearney
CT DEEP Bureau of Natural Resources
Wildlife Division
Natural Diversity Database
79 Elm Street
Hartford, CT 06106-5127
(860) 424-3170
Shannon.Kearney@ct.gov

Please reference the Determination Number 202508064 when you e-mail or write. Thank you for consulting the Natural Diversity Data Base.

Shannon Kearney
Wildlife Division- Natural Diversity Data Base
79 Elm Street
Hartford, CT 06106-5127
(860) 424-3170
Shannon.Kearney@ct.gov

Application Details:

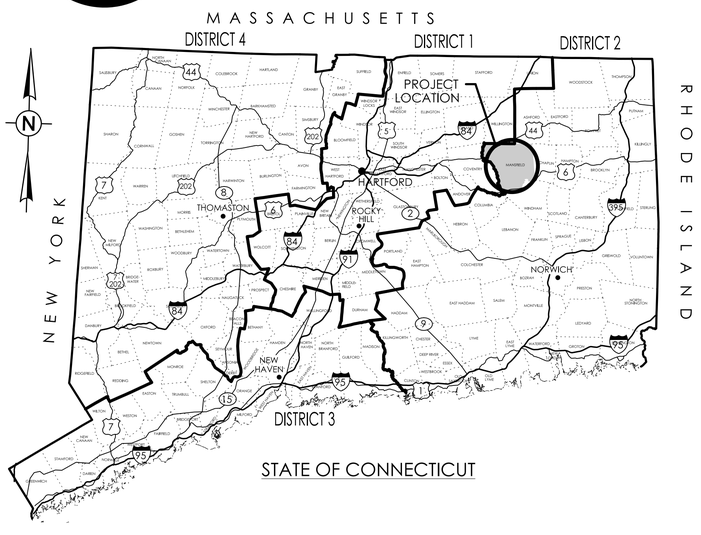
Project involves federal funds or federal permit:	Yes
Project involves state funds, state agency action, or relates to CEPA request:	Yes
Project requires state permit, license, registration, or authorization:	No
DEEP enforcement action related to project:	
Project Type:	Bridge and Culvert Work
Project Sub-type:	New Bridge Including Upland and In-water work
Project Name:	0077 0249
Project Description:	Bridge No. 04730 is a single span structure that carries Gurleyville Road over Fenton River in the Town of Mansfield, Connecticut. The bridge is located approxi

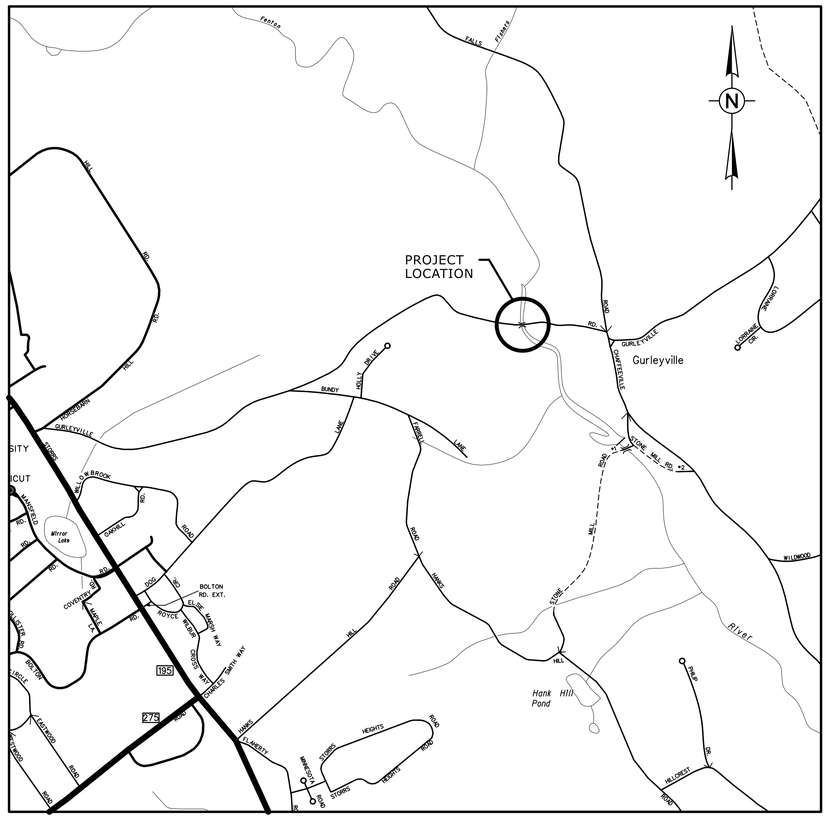
CONNECTICUT DEPARTMENT OF TRANSPORTATION

ENVIRONMENTAL PERMIT PLANS FOR STATE PROJECT 0077-0249 REPLACEMENT OF BRIDGE NO. 04730 GURLEYVILLE ROAD OVER FENTON RIVER

Town of

MANSFIELD





LOCATION PLAN - TOWN OF MANSFIELD
SCALE: 1" = 1,000'

LIST OF DRAWINGS	
DRAWING NO.	DRAWING TITLE
PMT-01	TITLE SHEET
PMT-02	GENERAL SITE PLAN
PMT-03	WETLAND/WATERCOURSE IMPACT PLAN
PMT-04	100-YEAR FLOOD IMPACT PLAN
PMT-05	BRIDGE ELEVATION PLAN
PMT-06	BRIDGE SECTION PLAN
PMT-07	STAGING/WATER HANDLING PLANS AND DETAILS
PMT-08	PERMIT PLANTING PLAN

GENERAL NOTES:

1. THESE PLANS ARE NOT FOR CONSTRUCTION AND ARE INTENDED ONLY FOR ENVIRONMENTAL PERMITTING PURPOSES. THESE PLANS HOLD AUTHORITY FOR ALL ACTIVITIES CONCERNING THE REGULATED AREA. FOR DETAILED PLANIMETRIC INFORMATION AND PAYMENT, REFER TO THE APPLICABLE CONTRACT DOCUMENTS.
2. FOR A DESCRIPTION OF THE WATERCOURSES, WETLANDS AND WETLAND SOILS, SEE RELEVANT SECTIONS OF THE PERMIT APPLICATION.
3. 400 FOOT GRID BASED ON CONNECTICUT COORDINATE SYSTEM N.A.D. 1983 (2011). VERTICAL DATUM BASED ON NAVD OF 1988.
4. ALL CONSTRUCTION ACTIVITIES WILL BE CONDUCTED IN ACCORDANCE WITH THE DEPARTMENT'S STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, FACILITIES AND INCIDENTAL CONSTRUCTION, FORM 819 SECTION 1.10 AND WILL ALSO FOLLOW REQUIRED BEST MANAGEMENT PRACTICES (BMPs) AND SEDIMENT AND EROSION CONTROL MEASURES IN ACCORDANCE WITH THE DEEP CONNECTICUT GUIDELINES FOR SOIL EROSION & SEDIMENT CONTROL AND THE DEEP CONNECTICUT STORMWATER QUALITY MANUAL.

DESIGNED BY:
GARG CONSULTING SERVICES, INC

ENVIRONMENTAL PERMIT PLANS
PLAN DATE: NOVEMBER 3, 2025

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK: GARG CONSULTING SERVICES, INC. 209A Main Colonial Highway Rocky Hill, CT 06067 Tel: (860) 563-0852

DESIGNER/DRAFTER: CHECKED BY:

SCALE AS NOTED

CONNECTICUT DEPARTMENT OF TRANSPORTATION

PROJECT TITLE: REPLACEMENT OF BRIDGE NO. 04730 GURLEYVILLE ROAD OVER FENTON RIVER

TOWN(S): MANSFIELD

DRAWING TITLE: TITLE SHEET

PROJECT NO.: 0077-0249

DRAWING NO.: PMT-01

SHEET NO.: 01

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PLOTTED DATE: 11/3/2025

BEGIN PROJECT NO. 0077-0249
CUT BITUMINOUS CONCRETE PAVEMENT
BEGIN FULL DEPTH RECONSTRUCTION
MEET EXISTING PAVEMENT
℄ STA. 3+00.00

END PROJECT NO. 0077-0249
CUT BITUMINOUS CONCRETE PAVEMENT
END FULL DEPTH RECONSTRUCTION
MEET EXISTING PAVEMENT
℄STA. 9+50.00

GURLEYVILLE ROAD
CT-195

N/F UNIVERSITY OF CT ET AL

LIMIT OF 150' UPLAND REVIEW AREA

BITUMINOUS CONCRETE DRIVEWAY (COMMERCIAL)

BITUMINOUS CONCRETE DRIVEWAY (COMMERCIAL)

APPROX. STREET LINE

BITUMINOUS APRON AT TRAILHEAD

STATE/FEDERAL WETLANDS

STATE-ONLY WETLANDS

2H:1V SLOPE (MAX) (TYP)

N/F PERTTI J PELTO

BITUMINOUS CONCRETE DRIVEWAY

INSTALL CTDOT SIGN NO. 51-2009 (FENTON RIVER)

PROPOSED LIMITS OF CLEARING AND GRUBBING FOR OVERHEAD UTILITY RELOCATION

36" OF STANDARD RIPRAP ON 12" OF GRANULAR FILL WITH WASHED IN NATURAL STREAMBED MATERIAL (SEE NOTE 1)

PROPOSED BRIDGE NO. 04730

EXISTING 100-YEAR FLOOD (CALCULATED)

TEMPORARY CONSTRUCTION EASEMENT LINE

D.R.O.W.

36" OF STANDARD RIPRAP ON 12" OF GRANULAR FILL WITH WASHED IN NATURAL STREAMBED MATERIAL (SEE NOTE 1)

50' CLEAR SPAN

FENTON RIVER

N/F ROBERT MOSKOWITZ

24" RC PIPE END
INV = 279.77
$Q_{(100YR)}$ = 16.35 CFS
$V_{(100YR)}$ = 5.20 FPS

PROPOSED LIMITS OF CLEARING AND GRUBBING

INSTALL CTDOT SIGN NO. 51-2009 (FENTON RIVER)

NEW UTILITY POLE AND RELOCATED OVERHEAD UTILITIES (BY OTHERS) (TYP)

PROPOSED LIMITS OF CLEARING AND GRUBBING FOR OVERHEAD UTILITY RELOCATION

4' BY 4' MODIFIED RIPRAP APRON AT ALL CORNERS OF BRIDGE (TYP)

N/F TOWN OF MANSFIELD (CEMETERY)

RELOCATE UTILITY POLE AND OVERHEAD UTILITIES (BY OTHERS)

N/F TOWN OF MANSFIELD

150' OF 24" RCP DRAIN
S=0.5%

PROCESSED AGGREGATE BASE PULL-OFF

EROSION CONTROL MATTING (TYP)

SEDIMENTATION CONTROL SYSTEM (TYP)

STATE-ONLY WETLANDS

LIMIT OF 150' UPLAND REVIEW AREA

TYPE 'C-L' CATCH BASIN

BITUMINOUS CONCRETE DRIVEWAY (COMMERCIAL)

N/F ROBERT MOSKOWITZ

N/F PERTTI J PELTO

APPROX. STREET LINE

COORDINATE GRID
NAD 83 (2011)
CONNECTICUT

LEGEND

- 36" STANDARD RIPRAP ON 12" GRANULAR FILL AND WASHED-IN NATURAL STREAMBED MATERIAL
- 36" STANDARD RIPRAP ON 12" GRANULAR FILL
- EROSION CONTROL MATTING TYPE D
- PROCESSED AGGREGATE
- PROCESSED AGGREGATE PULL-OFF
- STATE/FEDERAL WETLANDS LIMIT
- STATE-ONLY WETLANDS LIMIT
- 100YR — EXISTING 100-YEAR FLOOD (CALCULATED)
- OHW — ORDINARY HIGH WATER (OHW)
- SURVEYED EDGE OF WATER
- SEDIMENTATION CONTROL SYSTEM

NOTE

1. WASH-IN NATURAL STREAMBED MATERIAL UP TO ORDINARY HIGH WATER (EL. 280.5± UPSTREAM AND DOWNSTREAM).

ENVIRONMENTAL PERMIT PLANS
PLAN DATE: NOVEMBER 3, 2025

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:

GARG CONSULTING SERVICES, INC.
209A Main Diagonal Highway
Rocky Hill, CT 06067
Tel: (860) 563-0582

DESIGNER/DRAFTER: D. McKAY, P.E. CHECKED BY: D. SHI, P.E.

HORIZONTAL SCALE 1" = 30'

CONNECTICUT DEPARTMENT OF TRANSPORTATION

PROJECT TITLE: **REPLACEMENT OF BRIDGE NO. 04730 GURLEYVILLE ROAD OVER FENTON RIVER**

TOWN(S): **MANSFIELD**

DRAWING TITLE: **GENERAL SITE PLAN**

PROJECT NO.: **0077-0249**

DRAWING NO.: **PMT-02**

SHEET NO.: **02**

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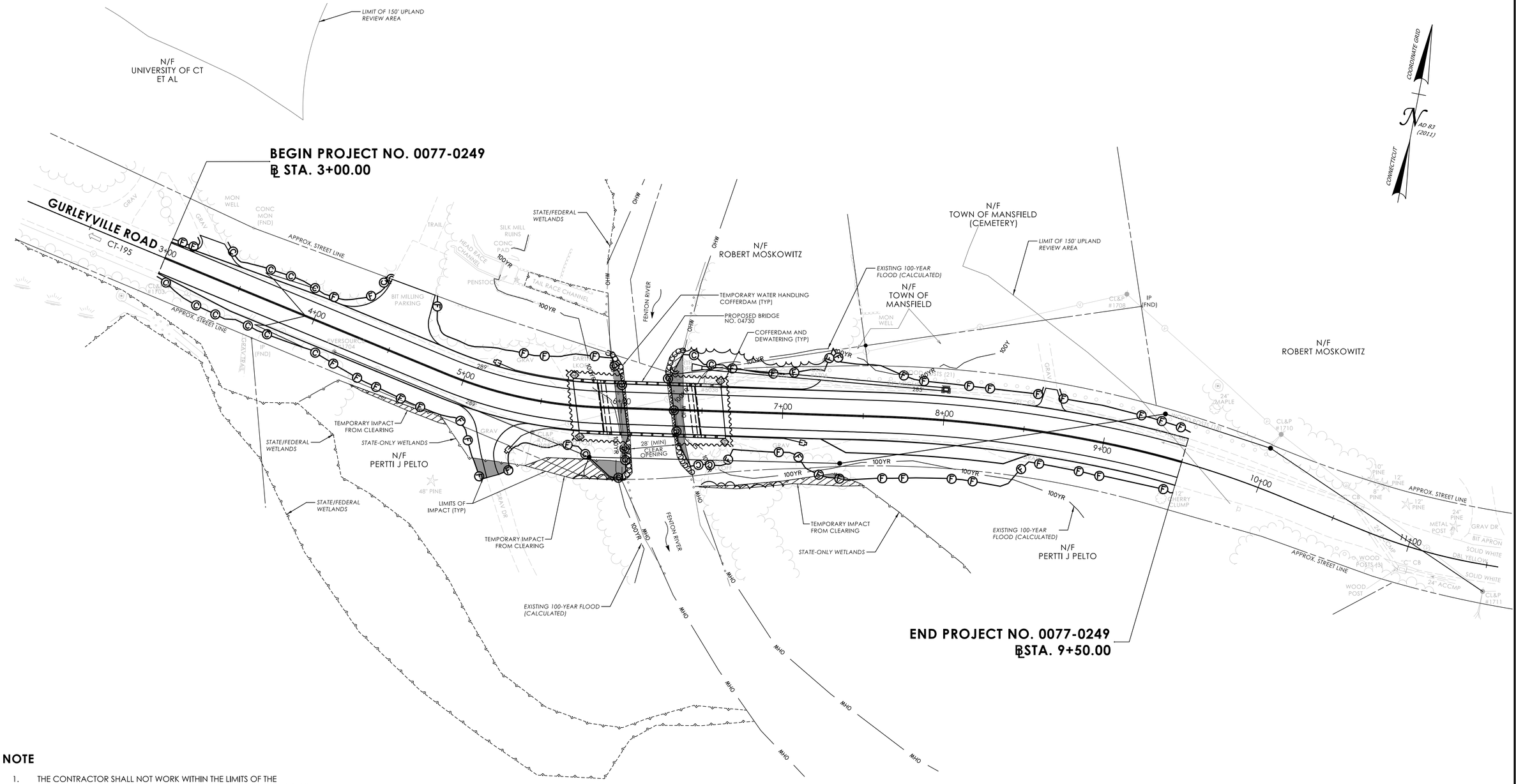

NOTE

1. THE CONTRACTOR SHALL NOT WORK WITHIN THE LIMITS OF THE WETLANDS AND WATERCOURSE WITH THE EXCEPTION OF THOSE AREAS DELINEATED AS TEMPORARY OR PERMANENT IMPACTS TO THE WETLANDS AND WATERCOURSE. ALL DISTURBED AREAS SHALL BE RESTORED.

LEGEND

- TEMPORARY INLAND WETLAND/WATERCOURSE IMPACT
- PERMANENT INLAND WETLAND/WATERCOURSE IMPACT
- COFFERDAM AND DEWATERING
- TEMPORARY WATER HANDLING COFFERDAM

STATE ONLY WETLAND IMPACT TABLE (SF [AC])

	IMPACTS
PERMANENT IMPACTS	400 SF [0.009 AC]
TEMPORARY IMPACTS	900 SF [0.021 AC]
TOTAL IMPACTS	1,300 SF [0.030 AC]

STATE/FEDERAL WETLAND IMPACT TABLE (SF [AC])

	WETLAND IMPACTS	WATERCOURSE IMPACTS	TOTAL IMPACTS
PERMANENT IMPACTS	0 SF [0.000 AC]	600 SF [0.014 AC]	600 SF [0.014 AC]
TEMPORARY IMPACTS	0 SF [0.000 AC]	500 SF [0.011 AC]	500 SF [0.011 AC]
TOTAL IMPACTS	0 SF [0.000 AC]	1,100 SF [0.025 AC]	1,100 SF [0.025 AC]

UPLAND REVIEW AREA IMPACT TABLE (SF [AC])

	IMPACTS
PERMANENT IMPACTS	23,000 SF [0.528 AC]
TEMPORARY IMPACTS	13,600 SF [0.312 AC]
TOTAL IMPACTS	36,600 SF [0.840 AC]

ENVIRONMENTAL PERMIT PLANS

PLAN DATE: NOVEMBER 3, 2025

REV. | DATE | REVISION DESCRIPTION

SIGNATURE BLOCK:

GARG CONSULTING SERVICES, INC.
2094A Silas Deane Highway
Rocky Hill, CT 06067
Tel: (860) 563-0582

DESIGNER/DRAFTER: D. McKAY, P.E. CHECKED BY: D. SHI, P.E.

HORIZONTAL SCALE 1" = 30' (0, 30', 60')

CONNECTICUT DEPARTMENT OF TRANSPORTATION

PROJECT TITLE: REPLACEMENT OF BRIDGE NO. 04730 GURLEYVILLE ROAD OVER FENTON RIVER

TOWN(S): MANSFIELD

DRAWING TITLE: WETLAND/WATERCOURSE IMPACT PLAN

PROJECT NO.: 0077-0249

DRAWING NO.: PMT-03

SHEET NO.: 03

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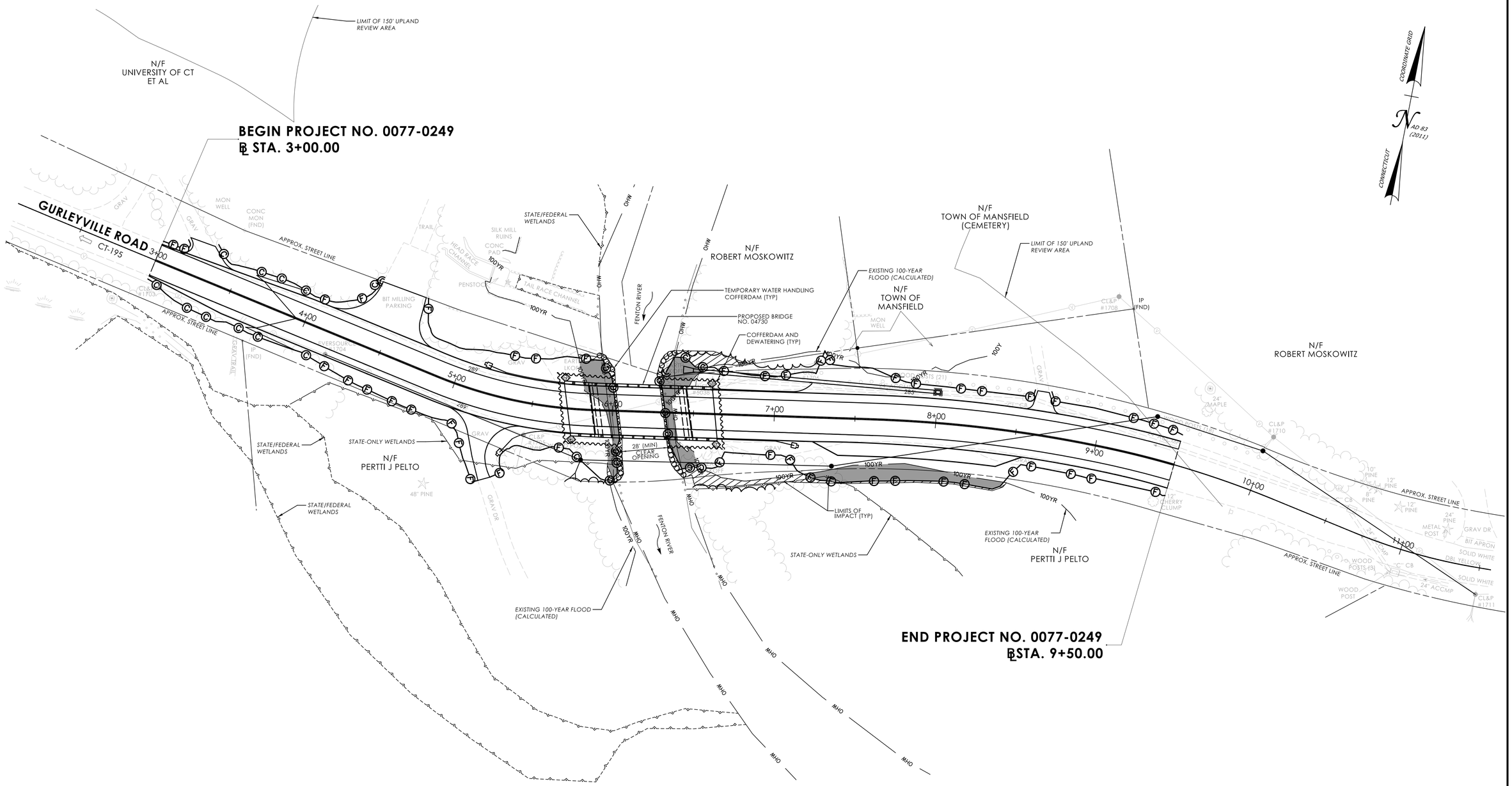

LEGEND

- TEMPORARY FLOODPLAIN IMPACT
- PERMANENT FLOODPLAIN IMPACT
- COFFERDAM AND DEWATERING
- TEMPORARY WATER HANDLING COFFERDAM

100-YEAR FLOOD VOLUME IMPACT TABLE (CY)

CUT IN FLOODPLAIN	FILL IN FLOODPLAIN
50 CY	10 CY

ENVIRONMENTAL PERMIT PLANS

PLAN DATE: NOVEMBER 3, 2025

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:
GARG CONSULTING SERVICES, INC.
2016A Silas Deane Highway
Rocky Hill, CT 06067
Tel: (860) 563-0360

DESIGNER/DRAFTER: D. McKAY, P.E. CHECKED BY: D. SHI, P.E.

HORIZONTAL SCALE 1" = 30' (0, 30', 60')

CONNECTICUT DEPARTMENT OF TRANSPORTATION

PROJECT TITLE: REPLACEMENT OF BRIDGE NO. 04730 GURLEYVILLE ROAD OVER FENTON RIVER

TOWN(S): MANSFIELD

DRAWING TITLE: 100-YEAR FLOOD IMPACT PLAN

PROJECT NO.: 0077-0249

DRAWING NO.: PMT-04

SHEET NO.: 04

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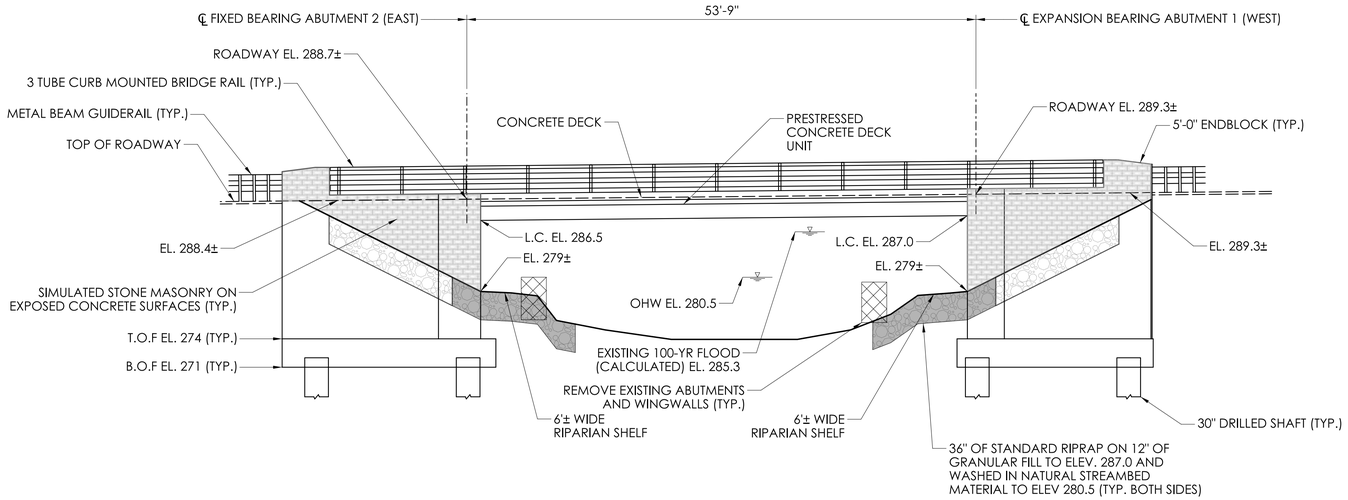
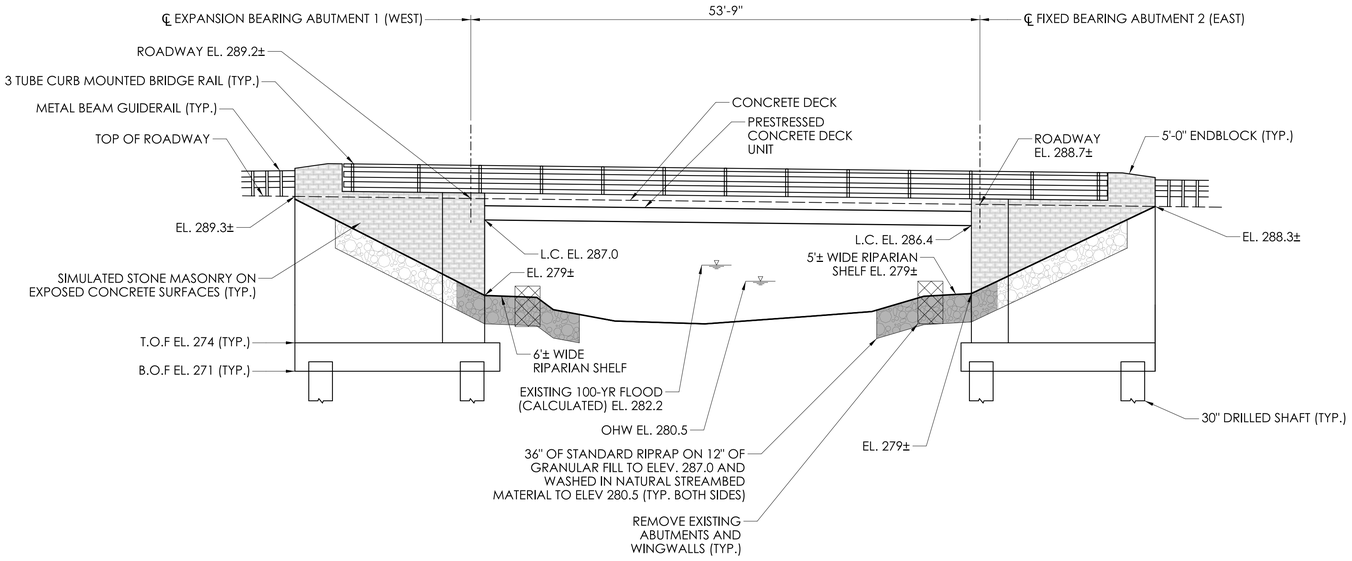
PLOTTED DATE: 11/3/2025



NORTH (UPSTREAM) ELEVATION (1 / PMT-05)

SCALE: 1/8"=1'-0"



SOUTH (DOWNSTREAM) ELEVATION (2 / PMT-05)

SCALE: 1/8"=1'-0"

NATIVE STREAMBED MATERIAL NOTES

1. NATIVE STREAMBED MATERIAL EXCAVATED DURING THE INSTALLATION OF THE STRUCTURE SHALL BE STOCKPILED AND THEN REPLACED TO THE DEPTH SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH THE SPECIAL PROVISION "EXCAVATION AND REUSE OF EXISTING CHANNEL BOTTOM MATERIAL."

2. THE STOCKPILE SHALL BE LOCATED OUTSIDE THE WETLAND LIMITS AND PROTECTED WITH SEDIMENTATION CONTROL SYSTEM.

3. ADDITIONAL STREAMBED MATERIAL, IF REQUIRED, SHALL BE IN ACCORDANCE WITH SPECIAL PROVISION "SUPPLEMENTAL STREAMBED CHANNEL MATERIAL."

4. WASHING-IN OF EXISTING STREAMBED MATERIAL TO BE PAID UNDER "WASHING-IN SUPPLEMENTAL STREAMBED MATERIAL", SEE SPECIAL PROVISIONS.

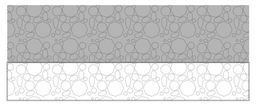
HYDRAULIC SUMMARY DATA

DRAINAGE AREA (SQ. MI.)	24.2	
DESIGN FREQUENCY (YEAR)	100	
DESIGN DISCHARGE (CFS)	3,000	
AVERAGE DAILY FLOW ELEVATION (FEET)	277.4	
DESIGN WATER SURFACE ELEVATION (FEET)	UPSTREAM 285.3	DOWNSTREAM 282.2

BANKFULL WIDTH (BFW):

BFW = 41.5 FEET
41.5 FEET X 1.2 = 49.8 FEET
49.8 FEET < 50 FOOT CLEAR OPENING

LEGEND



36" STANDARD RIPRAP ON 12" GRANULAR FILL AND WASHED-IN NATURAL STREAMBED MATERIAL

36" STANDARD RIPRAP ON 12" GRANULAR FILL

ENVIRONMENTAL PERMIT PLANS

PLAN DATE: NOVEMBER 3, 2025

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:
GARG CONSULTING SERVICES, INC.
209A Main Street Highway
Rocky Hill, CT 06067
Tel: (860) 563-0582
DESIGNER/DRAFTER: N. LEE CHECKED BY: D. McKay

SCALE AS NOTED

CTDOT CONNECTICUT DEPARTMENT OF TRANSPORTATION

PROJECT TITLE: REPLACEMENT OF BRIDGE NO. 04730 GURLEYVILLE ROAD OVER FENTON RIVER

TOWN(S): MANSFIELD

DRAWING TITLE: BRIDGE ELEVATION PLAN

PROJECT NO.: 0077-0249

DRAWING NO.: PMT-05

SHEET NO.: 05

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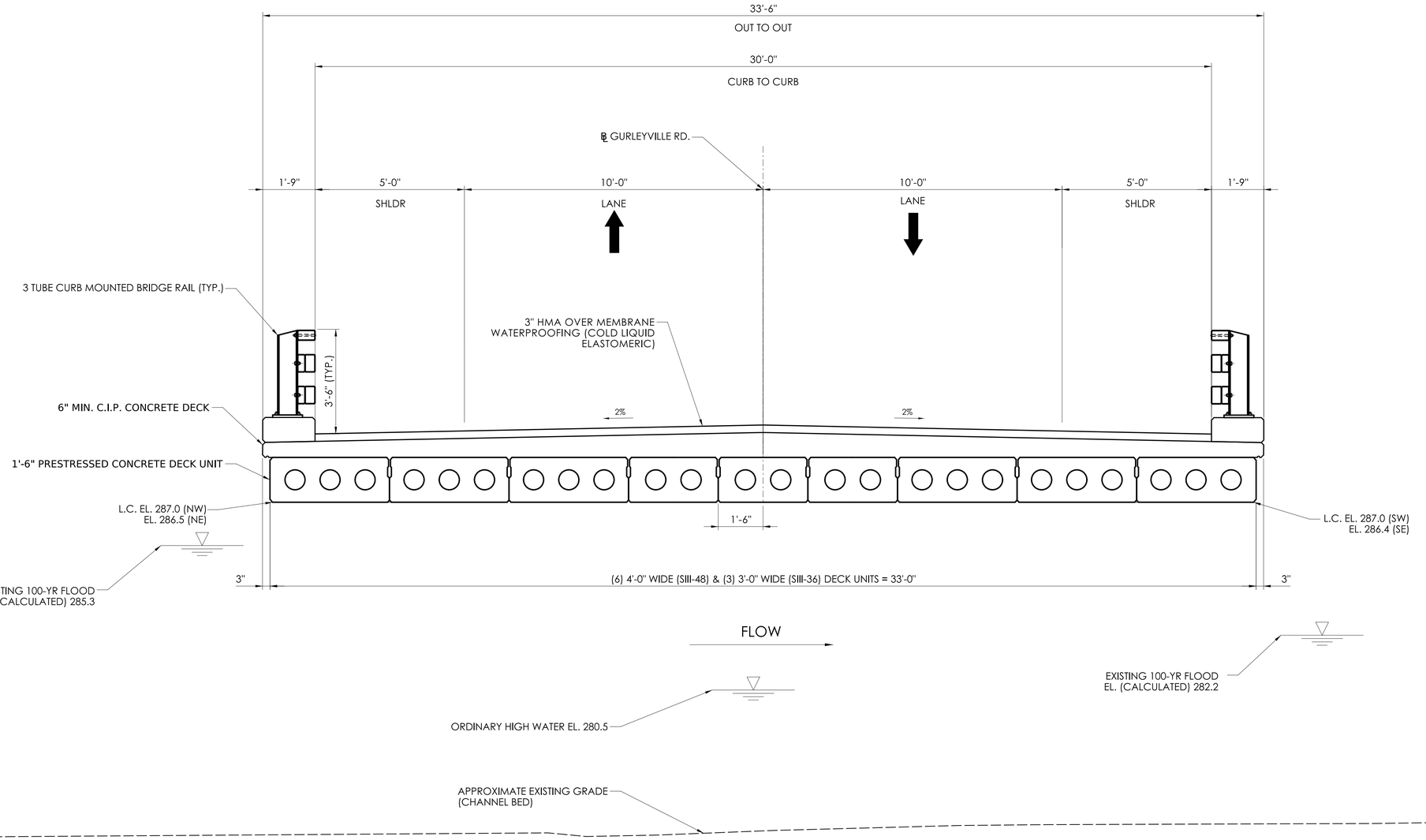

PROPOSED BRIDGE SECTION (LOOKING EAST) (1 / PMT-06)

SCALE: 1/2"=1'-0"

ENVIRONMENTAL PERMIT PLANS

PLAN DATE: NOVEMBER 3, 2025

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:

GARG CONSULTING SERVICES, INC.
209A Old Colonial Highway
Rocky Hill, CT 06067
Tel: (860) 563-0582

DESIGNER/DRAFTER: N. LEE CHECKED BY: D. McKay

SCALE AS NOTED

CONNECTICUT DEPARTMENT OF TRANSPORTATION

PROJECT TITLE: **REPLACEMENT OF BRIDGE NO. 04730 GURLEYVILLE ROAD OVER FENTON RIVER**

TOWN(S): **MANSFIELD**

DRAWING TITLE: **BRIDGE SECTION PLAN**

PROJECT NO.: **0077-0249**

DRAWING NO.: **PMT-06**

SHEET NO.: **06**

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PLOTTED DATE: 11/3/2025

WATER HANDLING NOTES

1. THE CONTRACTOR SHALL MAINTAIN WATER FLOW AND FISH PASSAGE THROUGH THE TEMPORARY WATER HANDLING SYSTEM AS REQUIRED DURUING CONSTRUCTION OF THE NEW STRUCTURE.
2. COFFERDAMS SHALL CONSIST OF ANY APPROVED SYSTEM THAT THE CONTRACTOR DESIGNS AND ELECTS TO USE WHICH WILL SAFELY CONVEY WATER FLOWS THROUGH THE CONSTRUCTION AREA, SHALL BE ABLE TO SUPPORT CONSTRUCTION ACTIVITY AND EXCAVATION, AND SHALL CONFORM TO PERMITS. COFFERDAMS ARE PAID FOR UNDER "COFFERDAM AND DEWATERING", ITEM #0204001.
3. TEMPORARY WATER HANDLING COFFERDAMS SHALL CONSIST OF PLASTIC LINER, SANDBAGS OR ANY OTHER APPROVED SYSTEM THAT THE CONTRACTOR ELECTS TO USE WHICH WILL SAFELY CONVEY WATER FLOWS AROUND THE CONSTRUCTION AREA, SHALL BE ABLE TO SUPPORT CONSTRUCTION ACTIVITY AND SHALL CONFORM TO PERMITS. TEMPORARY WATER HANDLING COFFERDAMS, IF USED, ARE PAID FOR UNDER "HANDLING WATER", ITEM #0204151A.
4. ANY WATER HANDLING SCHEME DEPICTED WITHIN THE DEPARTMENT'S "HANDLING WATER TYPICAL SCHEMATICS" MAY BE UTILIZED UNLESS SPECIFICALLY PROHIBITED. A MEANS AND METHOD FOR WATER HANDLING SYSTEM SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER FOR APPROVAL.
5. A 28 FOOT (MIN.) CHANNEL OPENING SHALL BE MAINTAINED. INSTALL COFFERDAM AND WATER HANDLING COFFERDAM ON ONE SIDE OF THE WATERCOURSE AT A TIME IF THE CONFIGURATION OF THE SYSTEM DOES NOT ALLOW FOR THE MINIMUM CHANNEL OPENING TO BE MAINTAINED IF INSTALLED SIMULTANEOUSLY ON BOTH SIDES OF THE WATERCOURSE.
6. BEFORE INITIATING CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A PLAN FOR APPROVAL THAT DEFINES THE METHODS AND MATERIALS FOR PROTECTING THE STREAM DURING CONSTRUCTION. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF THE "COFFERDAM AND DEWATERING" ITEM.
7. EQUIPMENT SHALL NOT BE PERMITTED IN THE WATERCOURSE WHEN COFFERDAM AND DEWATERING SYSTEM IS NOT IN PLACE.
8. COFFERDAMS AND WATER HANDLING COFFERDAMS SHALL NOT EXCEED IMPACT AREAS SHOWN ON THE WETLAND AND FLOODPLAIN IMPACT SHEETS OF THE PERMIT PLANS.
9. A PUMP DISCHARGE BASIN SHALL BE ESTABLISHED OUTSIDE OF THE WETLAND LIMITS AND WITHIN THE RIGHT-OF-WAY LIMITS IF POSSIBLE. THE LOCATION OF THE DEWATERING BASINS SHOWN IN THE PLANS IS APPROXIMATE. THE EXACT POSITION MAY VARY BASED ON THE PUMPING DESIGN SUBMISSION APPROVED BY THE ENGINEER. DEWATER WORK AREAS BY PUMPING TO DEWATERING BASIN.
10. FOR TEMPORARY PUMPING/INTAKES RELATED TO CONSTRUCTION WATER HANDLING, THE USE OF 2 MILLIMETER (MM) WEDGE WIRE SCREEN MUST BE USED WITH A MAXIMUM INTAKE VELOCITY OF 0.5 FEET PER SECOND (FPS).

DEMOLITION NOTES

1. REMOVAL OF EXISTING SUPERSTRUCTURE IN ITS ENTIRETY INCLUDING OVERLAY, BRIDGE RAIL, DECK, AND PRESTRESSED CONCRETE BEAMS WILL BE PAID UNDER ITEM "REMOVAL OF SUPERSTRUCTURE".
2. A DEBRIS SHIELD SHALL BE INSTALLED AT ELEV. 282.3 (MIN.) PRIOR TO REMOVAL OF SUPERSTRUCTURE.
3. REMOVAL OF EXISTING SUBSTRUCTURE INCLUDING ABUTMENTS, RETAINING WALLS, WINGWALLS AND FOOTINGS WILL BE PAID UNDER ITEM "REMOVAL OF EXISTING MASONRY".

TIME OF YEAR RESTRICTIONS

1. ANY UNCONFINED, IN-WATER WORK SHALL BE RESTRICTED TO THE PERIOD FROM JUNE 1 TO SEPTEMBER 30 INCLUSIVE.
2. NO TRIMMING, CUTTING,OR REMOVAL OF TREES WITH A 3" DBH OR GREATER PERMITTED FROM APRIL 15 TO OCTOBER 31.

UNCONFINED IN-STREAM WORK BMP NOTE

THE TOWN WILL REVIEW AND MAY APPROVE THE METHODS OF UNCONFINED IN-WATER WORK WITH CONSIDERATION OF THE FOLLOWING:

- PROPOSED SCHEDULE FOR WORK OPERATIONS
- ALL UNCONFINED IN-WATER WORK SHALL BE MINOR IN NATURE
- DISTURBANCE SHALL BE LIMITED TO AREAS THAT HAVE BEEN APPROVED FOR TEMPORARY AND PERMANENT IMPACT
- BEST MANAGEMENT PRACTICES SHALL BE UTILIZED WHEREVER POSSIBLE TO MINIMIZE TURBIDITY/SEDIMENT TRANSPORT DOWNSTREAM
- DISTURBED AREAS AND THE DURATION OF DISTURBANCE SHALL BE MINIMIZED TO THE EXTEND POSSIBLE.
- IN-STREAM WORK SHALL BE DONE DURING PERIODS OF LOW FLOW.

SUGGESTED SEQUENCE OF CONSTRUCTION

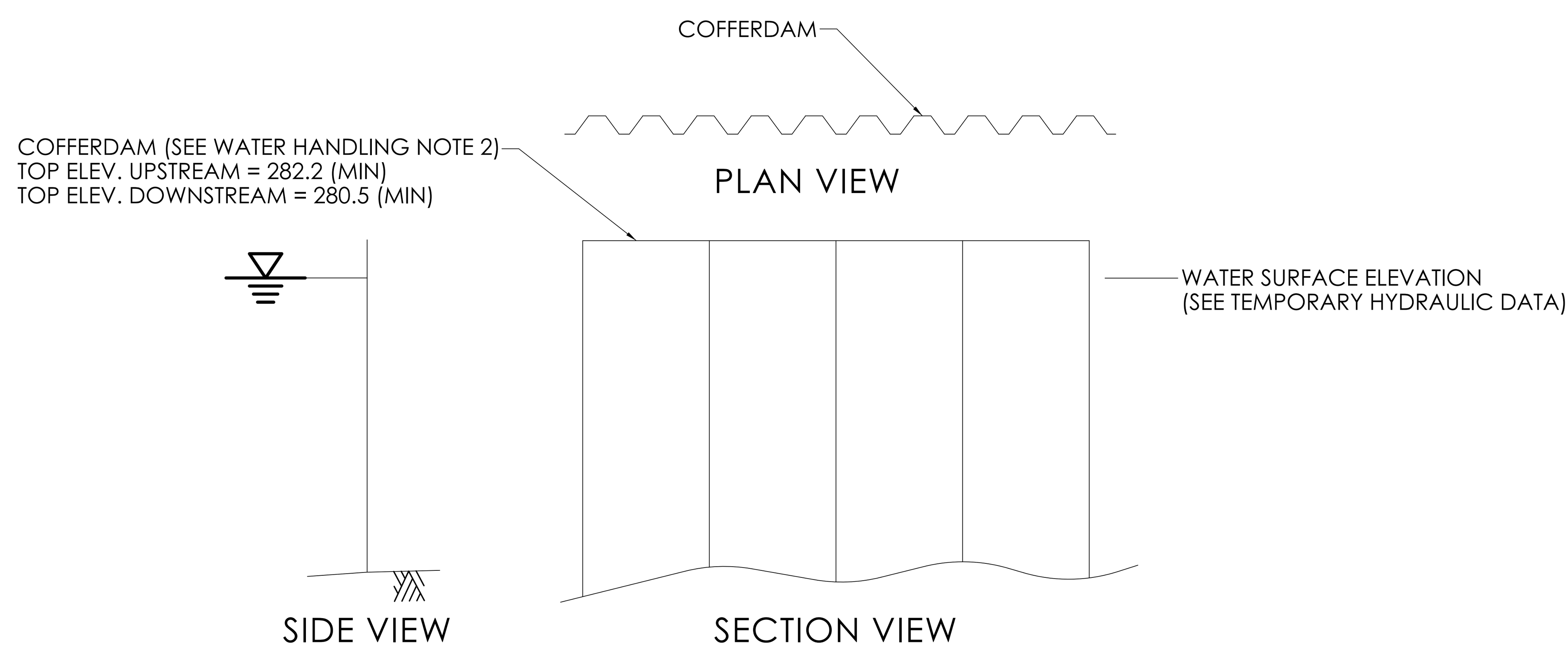
1. IMPLEMENT DETOUR AND MAINTENANCE AND PROTECTION OF TRAFFIC.
2. INSTALL SEDIMENTATION CONTROL SYSTEM (SCS), CLEAR AND GRUB THE WORK AREA, AND REMOVE TREES. RELOCATE UTILITIES. INSTALL TEMPORARY PUMP DISCHARGE BASINS.
3. INSTALL TEMPORARY WATER HANDLING COFFERDAMS. REMOVE EXISTING DRAIN AND OUTFALL AT NORTHEAST EMBANKMENT, INSTALL NEW DRAIN, OUTFALL AND RIPRAP APRON AT NORTHEAST EMBANKMENT. INSTALL DEBRIS SHIELD AND DEMOLISH BRIDGE SUPERSTRUCTURE. REMOVE DEBRIS SHIELD. DEMOLISH EXISTING SOUTHWEST AND SOUTHEAST WINGWALLS AND PORTIONS OF ABUTMENTS WITHIN TEMPORARY WATER HANDLING COFFERDAMS.
4. INSTALL COFFERDAMS. DEMOLISH EXISTING ABUTMENTS AND REMAINDER OF SUBSTRUCTURE.
5. EXCAVATE, DRILL SHAFTS, CONSTRUCT NEW SUBSTRUCTURE AND BACKFILL. REMOVE COFFERDAMS.
6. STABILIZE ASSOCIATED SLOPES AND DISTURBED AREAS. REMOVE TEMPORARY WATER HANDLING COFFERDAMS.
7. COMPLETE CONSTRUCTION OF PROPOSED BRIDGE.
8. PERFORM ROADWAY AND DRAINAGE WORK AT APPROACHES.
9. COMPLETE SITE RESTORATION AND PLANTING.
10. REMOVE EROSION AND SEDIMENTATION CONTROLS UPON PERMANENT STABILIZATION.
11. RESTORE TRAFFIC ON BRIDGE.

TEMPORARY HYDRAULIC DATA

AVERAGE DAILY FLOW	45 CFS	
AVERAGE SPRING FLOW	85 CFS	
2-YEAR FREQUENCY DISCHARGE	700 CFS	
TEMPORARY DESIGN DISCHARGE	700 CFS	
TEMPORARY DESIGN FREQUENCY	2-YEAR	
TEMPORARY WATER SURFACE ELEVATION	UPSTREAM 281.1	DOWNSTREAM 279.5

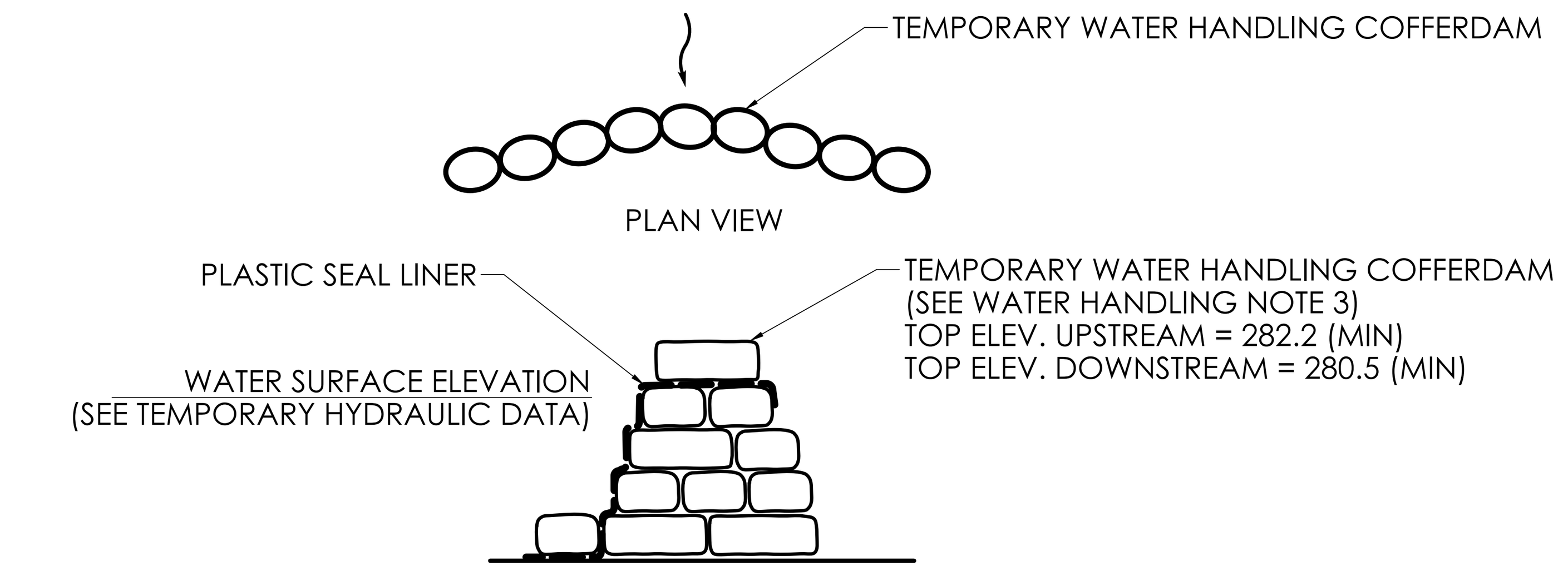
NOTE

1. TEMPORARY HYDRAULIC DATA FROM HYDRAULIC ANALYSIS REPORT FOR STATE PROJECT NO. 0077-0249, BRIDGE NO. 04730 IN MANSFIELD, GURLEYVILLE ROAD OVER FENTON RIVER, SUBMITTED: MAY 29, 2024, PREPARED FOR: STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION, PREPARED BY ECODESIGN, LLC.

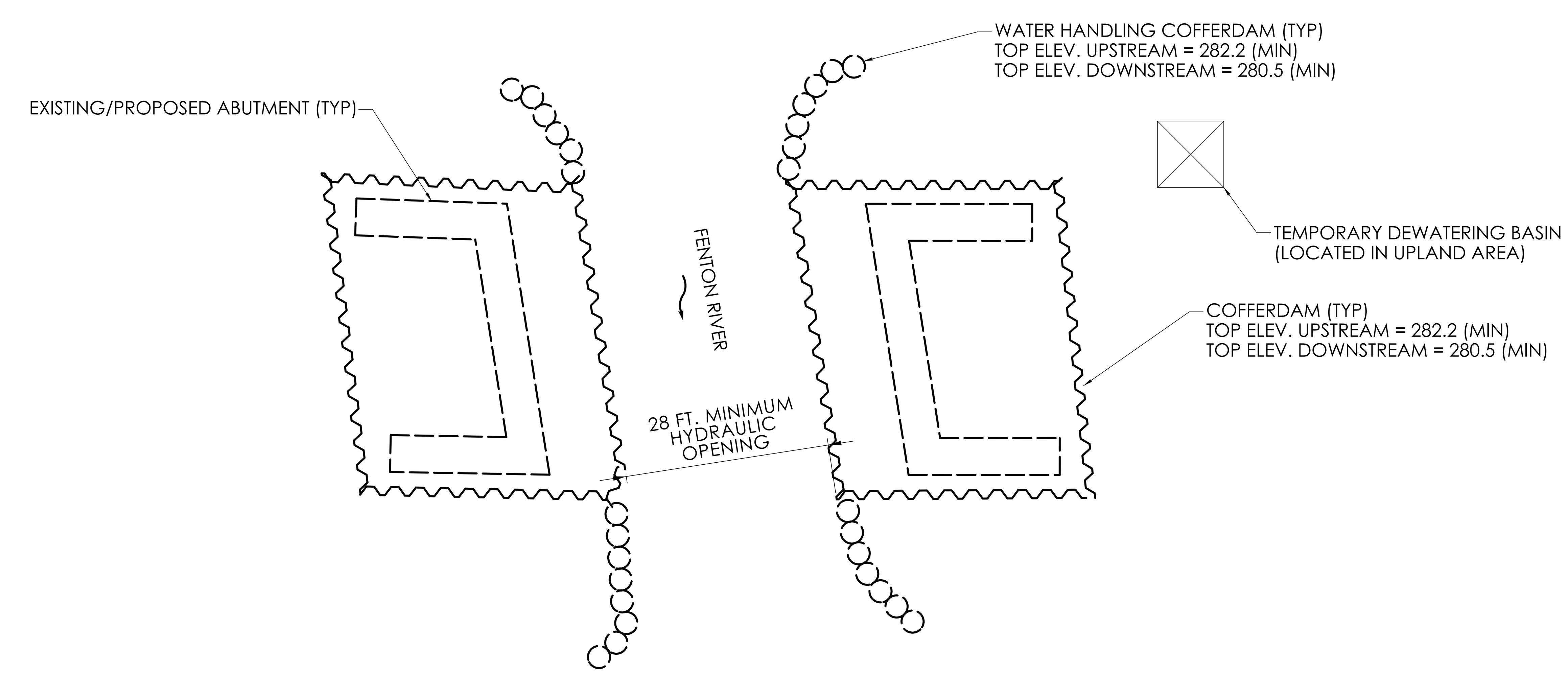


NOTE:
SHEET PILE SHOWN, ACTUAL COFFERDAM DESIGN SHALL BE BY CONTRACTOR.

COFFERDAM DETAIL
NOT TO SCALE



WATER HANDLING COFFERDAM DETAIL - SAND BAGS
NOT TO SCALE



WATER HANDLING PLAN
NOT TO SCALE

ENVIRONMENTAL PERMIT PLANS
PLAN DATE: NOVEMBER 3, 2025

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK: GARG CONSULTING SERVICES, INC. 2096A Silas Deane Highway Rocky Hill, CT 06067 Tel: (860) 563-0582	CONNECTICUT DEPARTMENT OF TRANSPORTATION	PROJECT TITLE: REPLACEMENT OF BRIDGE NO. 04730 GURLEYVILLE ROAD OVER FENTON RIVER	TOWN(S): MANSFIELD	DRAWING TITLE: STAGING/WATER HANDLING PLANS AND DETAILS	PROJECT NO.: 0077-0249	DRAWING NO.: PMT-07 SHEET NO.: 07
DESIGNER/DRAFTER: D. McKAY, P.E. CHECKED BY: D. SHI, P.E.						

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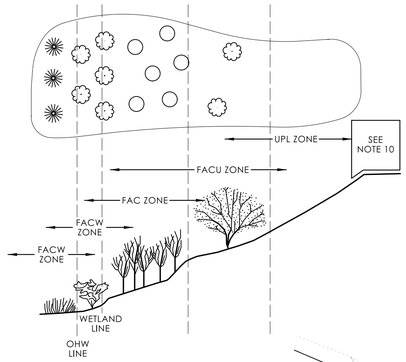
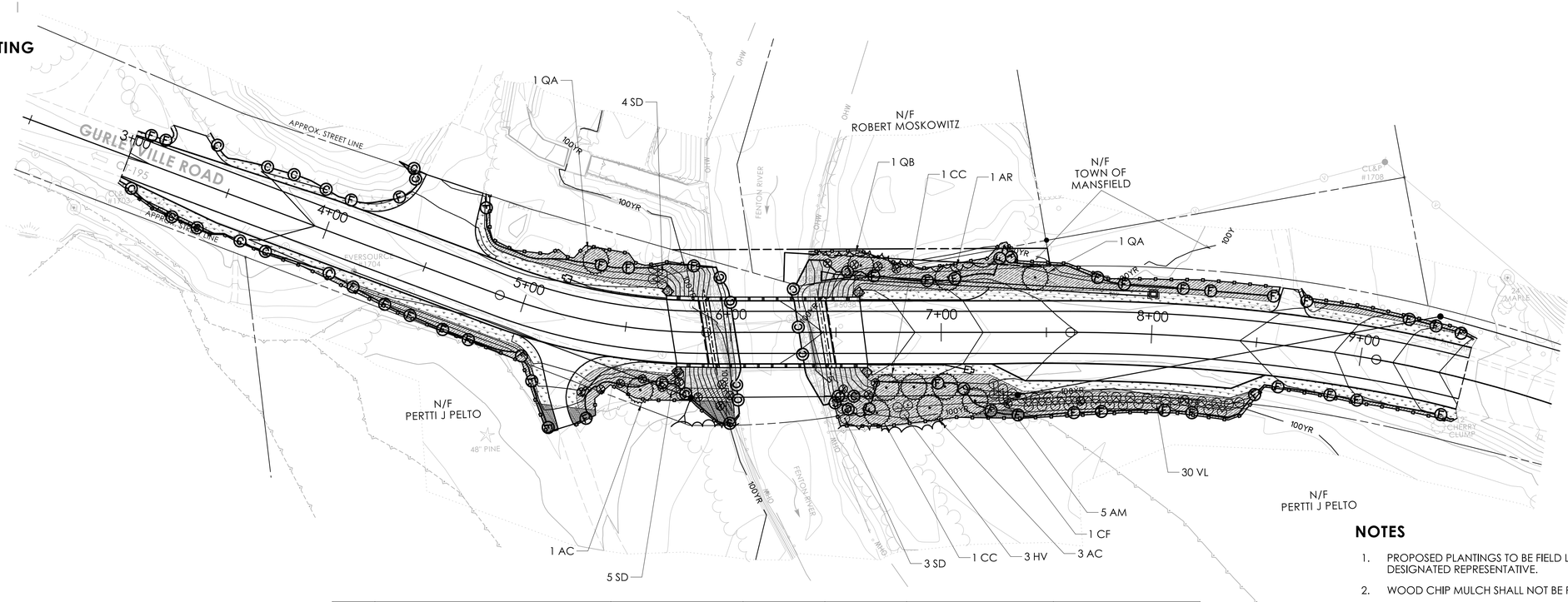
PLOTTED DATE: 11/3/2025



SCHEMATIC PLANTING



LEGEND

- 36" STANDARD RIPRAP ON 12" GRANULAR FILL AND WASHED-IN NATURAL STREAMBED MATERIAL (1,350 S.F.)
- 36" STANDARD RIPRAP ON 12" GRANULAR FILL (790 S.F.)
- STATE/FEDERAL WETLANDS LIMIT
- 100YR — EXISTING 100-YEAR FLOOD (CALCULATED)
- OHW — ORDINARY HIGH WATER (OHW)
- SURVEYED EDGE OF WATER
- SEDIMENTATION CONTROL SYSTEM
- APPROXIMATE LOCATION OF TREE TO BE REMOVED (±19 TOTAL)

KEY	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	SPACING	WETLAND INDICATOR
⊙	**TREES**					
AC	AMELANCHIER CANADENSIS	SERVICEBERRY	8/10' CLUMP	4	AS SHOWN	FAC
AR	ACER RUBRUM	RED MAPLE	2.5" CAL	1	AS SHOWN	FAC
CC	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	8-10' B.B.	2	AS SHOWN	FAC
CF	CORNUS FLORIDA	FLOWERING DOGWOOD	2.5" CAL	1	AS SHOWN	FACU
QA	QUERCUS ALBA	WHITE OAK	2.5" CAL	2	AS SHOWN	FACU
QB	QUERCUS BICOLOR	SWAMP WHITE OAK	2.5" CAL	1	AS SHOWN	FACW+
⊙	**SHRUBS**					
HV	HAMAMEMLIS VIRGINIANA	WITCH HAZEL	5-6' B.B.	3	5' O.C.	FAC-
SD	SALIX DISCOLOR	PUSSY WILLOW	6-8' B.B.	12	5' O.C.	FACW
AM	ARONIA MELANOCARPA	BLACK CHOKEBERRY	2-3' B.B.	5	5' O.C.	FAC
VL	VIBURNUM LENTAGO	NANNYBERRY VIBURNUM	3-4' B.B.	30	5' O.C.	FAC
	PERENNIALS					
	ASCLEPIAS INCARNATA	SWAMP MILKWEED	#1	24	18" O.C. (GROUPINGS OF 3)	OBL
	ASCLEPIAS SYRICA	COMMON MILKWEED	#1	24	18" O.C. (GROUPINGS OF 3)	UPL
	SEED MIX					
	TURF ESTABLISHMENT - LAWN (5,460 S.F.)			55.0 LBS.	-	-
	CONSERVATION SEEDING FOR SLOPES* (7,800 S.F.) *USE NEW ENGLAND WILDLIFE CONSERVATION MIX (SEE SPECIAL PROVISION)			5.0 LBS.	-	-
	WETLAND GRASS ESTABLISHMENT (400 S.F.)			4.0 LBS.	-	-
	TOTALS					
	PLANTS			109	-	-
	PLANTING AREA			1520 S.Y.	-	-
	CONTROL AND REMOVAL OF INVASIVE VEGETATION			870 S.Y.		

NOTES

1. PROPOSED PLANTINGS TO BE FIELD LOCATED BY MUNICIPALITY OR ITS DESIGNATED REPRESENTATIVE.
2. WOOD CHIP MULCH SHALL NOT BE PLACED IN THE WETLAND AREA.
3. ALL DISTURBED AREAS TO BE TREATED FOR INVASIVE VEGETATION BY A LICENSED PROFESSIONAL AND PROPERLY REPAIRED FOR FINAL SEEDING, PLANTING, AND RESTORATION. PAID FOR UNDER "CONTROL AND REMOVAL OF INVASIVE VEGETATION."
4. ALL PLANT MATERIALS SHALL BE NURSERY GRADE STRAIGHT SPECIES CONFORMING TO SECTION 3 OF THE AMERICAN STANDARDS FOR NURSERY STOCK.
5. DISTURBED AREAS BELOW THE WETLAND LIMIT SHALL BE RESTORED WITH WETLAND GRASS ESTABLISHMENT.
6. DISTURBED AREAS ABOVE THE WETLAND LIMIT IN UNMOWED AREAS SHALL BE RESTORED WITH CONSERVATION SEEDING FOR SLOPES OR TURF ESTABLISHMENT - LAWN.
7. AREAS BENEATH GUIDERAIL SHALL BE RESTORED WITH 6" OF COMPACTED PROCESSED AGGREGATE IN ACCORDANCE WITH CT DOT STANDARD SHEET HW-910_21.
8. EROSION CONTROL MATTING TYPE D SHALL BE PLACED ON ALL GRASSED SLOPES STEEPER THAN 3:1. SEE PLANS FOR STANDARD RIPRAP, EROSION CONTROL MATTING, AND PROCESSED AGGREGATE LIMITS.
9. NO PLANTINGS SHALL BE PLACED IN A MOW AREA.

ENVIRONMENTAL PERMIT PLANS

PLAN DATE: NOVEMBER 3, 2025

REVISION DESCRIPTION | DATE | REV.

SIGNATURE BLOCK:

FUSS & O'NEILL
ONE FINANCIAL PLAZA
HARTFORD, CT 06103
860.646.2469
www.fando.com

DESIGNER/DRAFTER: JCT CHECKED BY: JD

0 30' 60'
HORIZONTAL SCALE
1" = 30'

CTDOT
CONNECTICUT DEPARTMENT OF TRANSPORTATION

PROJECT TITLE:
REHABILITATION OF BRIDGE NO. 04730
GURLEYVILLE ROAD OVER FENTON RIVER

TOWN(S):
MANSFIELD

DRAWING TITLE:
PERMIT PLANTING PLAN

PROJECT NO.: 0077-0249

DRAWING NO.: PMT-08

SHEET NO.: 08

LASTED SAVED BY: Jacob.Tatar **FILE NAME:** J:\DWG\P2025\0301\B1L\0077-0249\Landscape\Contract_Plans\PMT_CP_0077_0249_PermitPlantingPlan.dgn
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