TOWN OF MONROE
APPLICATION FOR PERMIT
INLAND WETLANDS COMMISSION
7 Fan Hill Road, Monroe, CT 06468
Tel. (203)452-2809

FOR OFFICE USE ONLY:
Application Number _____
File Number: _____
Submittal Date: _____
Application Fee Collected _____
Public Hearing Fee Collected _____
Date of Receipt: _____
Extensions (cumulative ≤ 65 days) _____

Public Hearing Start: _____ End _____
Hearing: Start: _____ End _____
Deliberation: Start: _____ End _____
Approval Date: _____ Denial Date: _____
270 Days Up: _____
Permit Expiration: _____

As the applicant, it is your responsibility to provide the information the Commission needs in order to process your application and make a fair determination of the issues. If you fail to supply the information it may result in delay, a denial of your application or both. We recommend that you read the Inland Wetlands and Watercourses Regulations and that you request a meeting with the Land Use Department prior to submitting your application. There is no charge to the applicant for this meeting.

SECTION A: Information about the property

1. **Location of the Property:**
   Street Address: 417 MAIN STREET
   Assessor's Map Number: 46
   Parcel Number: 1
2. **Where is the property deed found in the Monroe Land Records?**
   Volume: 2201 Page: 854
3. **Is the property located within a public water supply watershed?**
   ☐ No
   ☑ Yes (*If " Yes, " the Applicant must send a copy of this application BY CERTIFIED MAIL ON OR BEFORE THE DATE OF THE APPLICATION to the Aquarion Water Company of Connecticut, 714 Black Rock Road, Easton, CT 06612, and the Commissioner of Public Health, 410 Capitol Avenue, Hartford, CT 06106; See Regulations Section 8.3).*
4. **Is the property located within 500 feet of a town boundary?**
   ☑ No
   ☐ Yes *(If" Yes ", the applicant must notify the Inland Wetland Agency of the adjacent municipality by certified mail and submit the receipt with this application).*
5. **Is the property subject to an existing conservation easement?**
   ☑ No
   ☐ Yes *(If" Yes ", the applicant must notify the party holding such restriction by certified mail no later than sixty days prior to the filing of this permit application, or submit a letter from the party holding the restriction verifying that the application is in compliance with the terms of the restriction; see Regulations Section 7.9c & 7.9d).*
6. **Is there a flood plain located on the property?**
   ☑ No
   ☐ Yes *(If" Yes ", indicate elevation and location of flood plain on the submission plan).*
7. **Please attach a list of the names and mailing addresses of all landowners within 100 feet of the property.**

SECTION B: Information about the applicant

8. **Applicant's name and contact information:**
   Name: 415 MAIN STREET ASSOCIATES, LLC
   Address: 2620 NICHOLS AVENUE, STRATFORD CT 06614
   Telephone: 203-377-7700 Fax: _____ Email: 203-377-7700
9. **What is the Applicant's interest in the property?**
   ☑ Owner
   ☐ Option to purchase
   ☐ Other _____

Application No. _____ File No._____

Applicant's representative's name and contact information:

Name: SAME AS APPLICANT

Business Name: _____

Business Address: _____

Telephone: _____ Fax: _____ Email: _____

10. Engineer's name and contact information:

Name: J. EDWARDS & ASSOCIATES LLC - C/O JASON EDWARDS

Business Name: _____

Business Address: 227 STEPNEY ROAD, EASTON CT 06612

Telephone: 203.268.4205 Fax: _____ Email: jason@jedwardsassoc.com

11. Owner's name and contact information:

Name: SAME AS APPLICANT

Address: _____

Telephone: _____ Fax: _____ Email: _____

Owner's signature_____ (granting permission for submission of application by the applicant)

Please note the following:

If the applicant is not the current owner, this application must include the owner's signature or a written, witnessed consent to submit this application, signed and dated by the owner. Only the applicant and the agent listed on this application will receive copies of official action and correspondence.

SECTION C: Information about the proposed activity

(Please attach additional sheets if necessary)

12. Select one or more of the following types of Application requested:

- ☑ Regulated Activity
- ☐ Subdivision Report/Referral
- ☐ Renewal/Extension of Issued Permit Number _____
- ☐ Including Site Remediation
- ☐ Map Amendment
- ☐ Regulation Amendment

13. Describe the proposed activity covered by this application:

PIPING EXISTING INTERMITTENT WATERCOURSE

SEE ATTACHED NARRATIVE AND IMPACT ASSESSMENT

14. List all activities which take place in regulated areas, including the upland review areas:

FILLING AND GRADING

15. List the total acreage of the following:

Overall project site: 9.1AC

Wetlands on the property: 4.6AC

Upland review areas on the property: 2.3AC

16. List the total area of the regulated areas to be altered:

Wetlands: .09 acres; 4000SF sq. ft.

Upland review areas (within 100 feet of a wetland or 150 feet of a watercourse): 0.14 acres; 6000 sq. ft.

Total Regulated area to be altered (a + b above) for determination of fee: _____acres;_____sq. ft.

17. What alternatives to the proposed regulated activity did you consider? Why did you choose the activity proposed in this application as opposed to the alternatives considered? (See Regulations *Section 7.5f)*

1. EXTEND THE PIPING FURTHER INTO THE POND.

18. List all measures of Low Impact Design/Development that have been incorporated into this application in order to minimize impact to wetlands.

WETLAND MITTIGATION AND REMEDIATION PLANS.

SECTION D: Determination of Application Fee

(See Regulations Section 19)

19. Select type of Application Fee (choose one):

☐	Residential Use = $300.00	
☑	Commercial Use = $500.00	$500
☐	Regulation Amendment = $500.00	
☐	Map Amendment = $150.00	
☐	Permit Modification = $100.00	
☐	Renewal/Extension of Issue Permit = $100.00	

20. Select the following additional fees that apply for regulated areas proposed to be disturbed:

Square Feet of Disturbed Area:

☐	Less than 1,000 square feet = $50.00	
☐	1,000 to 5,000 square feet = $100.00	
☑	More than 5,000 square feet = $100.00 (base amount)	$5

*(Plus $5.00 for every **additional** 5,000 square feet rounded up)*

Disturbed Area (Line 17c) (-) 5,000 sq.ft. (÷) 5,000 sq.ft. (x) $5.00 per sq.ft. rounded up...

21. Department of Environmental Protection State Surcharge $60.00

22. TOTAL APPLICATION FEE: $565

****** Please note the Application Fees/State Fee must be payable to the Town of Monroe. Applicants paying with a personal check must include their driver's license number and telephone number on the check.***

SECTION E: Required support documents

(See Regulations Section 7)

Please indicate (check box) that the following documents have been included with the application:

23. Submit ten (10) copies of the following:

- ☐ Completed Inland Wetlands Application.
- ☐ A description of all filling and/or excavation activities within regulated areas (include estimates of quantity).
- ☐ A Soils Report by a Soil Scientist (include a sketch of flagged wetland areas within said report).
- ☐ A minimum of two alternative plans/sketches that were considered prior to choosing the proposed plans.
- ☐ A report from the Monroe Health Department.
- ☐ A Wetlands Assessment Report.
- ☐ An area plan showing all abutting properties and applicable downstream drainage systems.

24. Submit seven **(7)** reduced copies of the following (all plans must be folded):

- ☐ Reduced copies, **18' x 24'**, of the site plan showing existing and proposed conditions in relation to the wetlands, watercourses and upland review areas. Please include a location map, delineate the 100-foot wetland setback (upland review area) and/or the l50-foot watercourse setback (upland review area) in red, and incorporate an area plan showing all abutting properties and applicable downstream drainage systems. All plans must have a bar scale.

Application No._____ File No._____

25. Submit three **(3)** copies of the following (all plans must be folded):

□ Full size copies of the site plan, **24' x 36'**, showing existing and proposed conditions in relation to the wetlands, watercourses and upland review areas. Please include a location map, delineate the 100-foot wetland setback (upland review area) and/or the l50-foot watercourse setback (upland review area) in red, and incorporate an area plan showing all abutting properties and applicable downstream drainage systems. All plans must have a bar scale.

26. Submit two (2) copies of the following:

□ Drainage calculations, if applicable.

27. Submit one (1) copy of the following:

□ A list of the names and mailing addresses of all abutting property owners.

□ A completed **D.E.E.P** report form (available at the Inland Wetlands Office or on the Town Website at www.monroect.org/Town Hall Departments/Inland Wetlands/Applications & Forms).

□ Verification in writing that all wetlands have been flagged and the property address/location is adequately delineated and/or marked at the property.

□ A completed bond form listing all wetlands related work and protective measures for same (available at the Inland Wetlands Office or on the Town Website at www.monroect.org/Town Hall Departments/Inland Wetlands/Applications & Forms).

PLEASE INCLUDE TEN (10) COPIES OF ANY FUTURE SUPPORTING DOCUMENTATION SUBMITTED TO THE COMMISSION (Plans: 3 Full Size copies - 24' x 36', and 7 Reduced Size copies - 18' x 24'). Plans prepared by engineers, surveyors and architects must be signed and sealed. The Commission may request additional copies of the application or supporting documents at any time.

Title of original submission plan (include author and date) _____

_____

The undersigned applicant hereby consents for the owner, in the case where the applicant is not the owner, to necessary and proper access to the above mentioned property by the Inland Wetlands Commissioners, the Inland Wetlands Agent and other appropriate Town staff and/or authorized Town Consultants, at reasonable times, both before and after any permit has been granted or denied by the Commission, for the purpose of evaluating the application, monitoring compliance or correcting any violation of the Inland Wetlands and Watercourses Regulations brought about through actions or inactions of the applicant of permittee.

The undersigned warrants the truth of all statements contained herein and in all supporting documents according to the best of the applicant's knowledge and belief.

The undersigned applicant understands and agrees that the Commission may request additional information and it is the applicant's responsibility to provide this information in a timely fashion and to the Commission's satisfaction. If the information provided is incomplete or inaccurate, in the opinion of the Commission, the Commission may deny the application or request an extension to be granted by the Applicant in order to act within the legal time limits.

Type or Print the Name of the Applicant: Raymond W. Gontar, Mgr

Signature of Applicant: Raymond W. Gontar

Connecticut Department of
ENERGY & ENVIRONMENTAL PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

GIS CODE #: ___ ___ ___ ___ ___ ___ ___ ___ ___ ___
For DEEP Use Only

Statewide Inland Wetlands & Watercourses Activity Reporting Form

Please complete this form in accordance with the instructions on pages 2 and 3 and mail to:
DEEP Land & Water Resources Division, Inland Wetlands Management Program, 79 Elm Street, 3rd Floor, Hartford, CT 06106
Incomplete or incomprehensible forms will be mailed back to the inland wetlands agency.

PART I: Must Be Completed By The Inland Wetlands Agency

1. DATE ACTION WAS TAKEN: year: _____ month: _____
2. ACTION TAKEN (see instructions - one code only): _____
3. WAS A PUBLIC HEARING HELD (check one)? yes ☐ no ☐
4. NAME OF AGENCY OFFICIAL VERIFYING AND COMPLETING THIS FORM:
   (print name) _____ (signature) _____

PART II: To Be Completed By The Inland Wetlands Agency Or The Applicant

5. TOWN IN WHICH THE ACTIVITY IS OCCURRING (print name): MONROE
   does this project cross municipal boundaries (check one)? yes ☐ no ☑
   if yes, list the other town(s) in which the activity is occurring (print name(s)): _____, _____
6. LOCATION (see instructions for information): USGS quad name: _____ or number: 93
   subregional drainage basin number: 7102
7. NAME OF APPLICANT, VIOLATOR OR PETITIONER (print name): 415 MAIN STREET ASSOCIATES LLC
8. NAME & ADDRESS OF ACTIVITY / PROJECT SITE (print information): 417 MAIN STREET, MONROE
   briefly describe the action/project/activity (check and print information): temporary ☐ permanent ☑ description:
   PIPE EXISTING INTERMITTENT WATERCOURSE
9. ACTIVITY *PURPOSE* CODE (see instructions - one code only): D
10. ACTIVITY *TYPE* CODE(S) (see instructions for codes): 1, 2, 10, _____
11. WETLAND / WATERCOURSE AREA ALTERED (see instructions for explanation, must provide acres or linear feet):
    wetlands: .09 acres open water body: 0 acres stream: 0 linear feet
12. UPLAND AREA ALTERED (must provide acres): 0.14 acres
13. AREA OF WETLANDS / WATERCOURSES RESTORED, ENHANCED OR CREATED (must provide acres): 0.02 acres

PART III: To Be Completed By The DEEP

DATE RECEIVED: DATE RETURNED TO DEEP:

FORM COMPLETED: YES NO FORM CORRECTED / COMPLETED: YES NO

417 MAIN STREET

PROJECT NARRATIVE

The property located at 417 Main Street is currently occupied by 3commercial building buildings and a single-family home. The commercial building occupants are Vazzy's Restaurant, Hometown Tool, Allstate & Effigy. The residence is a rental property. The parcel has a total area of 9.11 Acres. Approximately 4.6 acres of the property are inland wetlands. Most of that wetland is a large pond, the pond outlets to a short intermittent watercourse(IWC) that then flows to a pipe which exits the site under Main Street.

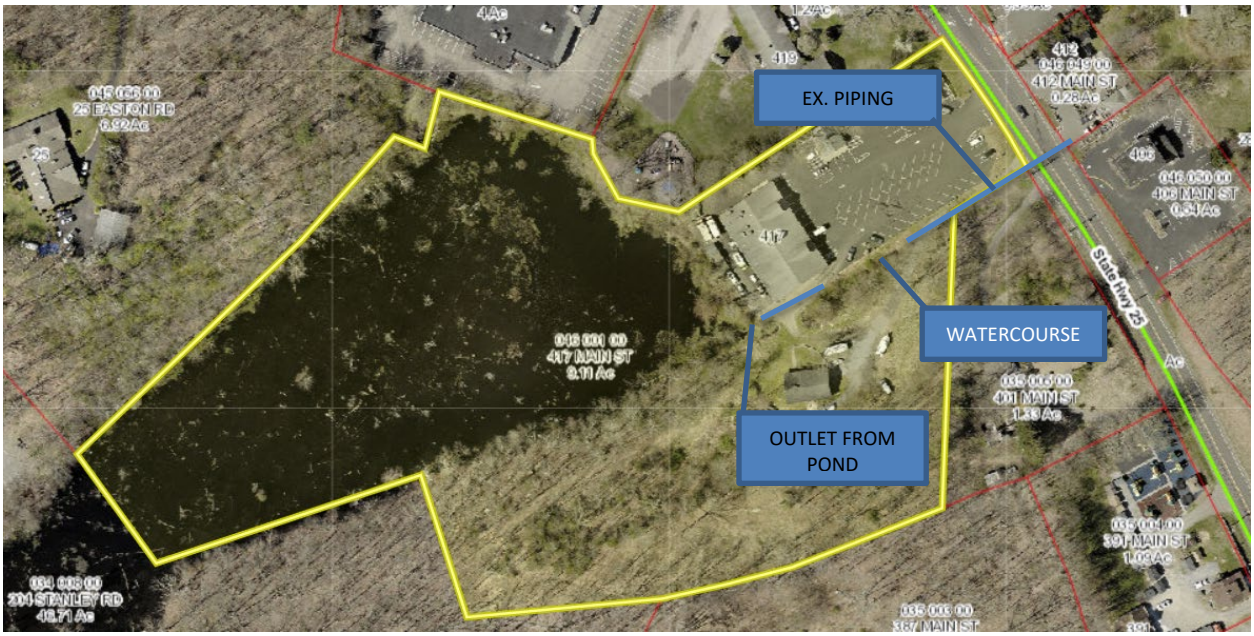


Figure 1 - 2020 AERIAL

The watercourse is located directly adjacent to the commercial parking lot and driveway. It also acts as a barrier between the residence and the commercial uses. This location leads to an accumulation of debris from wind, maintenance, and runoff. This results in a poor-quality wetland. The proposed wetlands remediation and creation area is directly connected to the pond system and will be isolated from the active site. In our opinion, the benefit of the newly created wetland and mitigation will more than offset the impact of the piped watercourse. An impact assessment report from Steven Danzer, PHD is included with this application.

The desire to pipe this intermittent water course is driven by multiple factors

1. The current drainage structures, piping and headwalls are in poor condition and need replacement. This work on its own would be a significant impact to the IWC.

2. Cleaning and maintenance of this IWC must be completed regularly and is costly to the owner. It is also potentially impactful.

3. The commercial parking was constructed at edge of the bank leading down to IWC. This is a steep slope and it is a safety issue. The proposed plan eliminates this bank and the unsafe

condition.

4. The IWC acts as a barrier between the commercial and residential uses. Piping the IWC will eliminate this barrier and improve the development potential of the large upland area to the south. This property is located in very near the intersection of RT 59 and Stepney Green, making it a prime area for future development in the center of Stepney.

In summary, this proposal results in the elimination of a maintenance and safety problem while adding development potential to Stepney and providing an improved wetland area around the existing pond.

DG COMMERCIAL LLC
234 MAIN ST
MONROE, CT 6468

CENTRAL CONN COAST Y M C A INC
204 STANLEY RD
MONROE, CT 6468

STEPNEY LLC
4666 MAIN ST
BRIDGEPORT, CT 6606

BNM BUILDERS + DEVELOPERS LLC
PO BOX 110095
TRUMBULL, CT 6611

415 MAIN STREET ASSOCIATES LLC
2620 NICHOLS AVE
STRATFORD, CT 6614

STEPNEY ORCHARD LLC
25 EASTON RD
MONROE, CT 6468

STEPNEY BAPTIST CHURCH INC
419 MAIN ST
MONROE, CT 06468-1136

,

417 MAIN STREET

PROJECT NARRATIVE

The property located at 417 Main Street is currently occupied by 3commercial building buildings and a single-family home. The commercial building occupants are Vazzy's Restaurant, Hometown Tool, Allstate & Effigy. The residence is a rental property. The parcel has a total area of 9.11 Acres. Approximately 4.6 acres of the property are inland wetlands. Most of that wetland is a large pond, the pond outlets to a short intermittent watercourse(IWC) that then flows to a pipe which exits the site under Main Street.

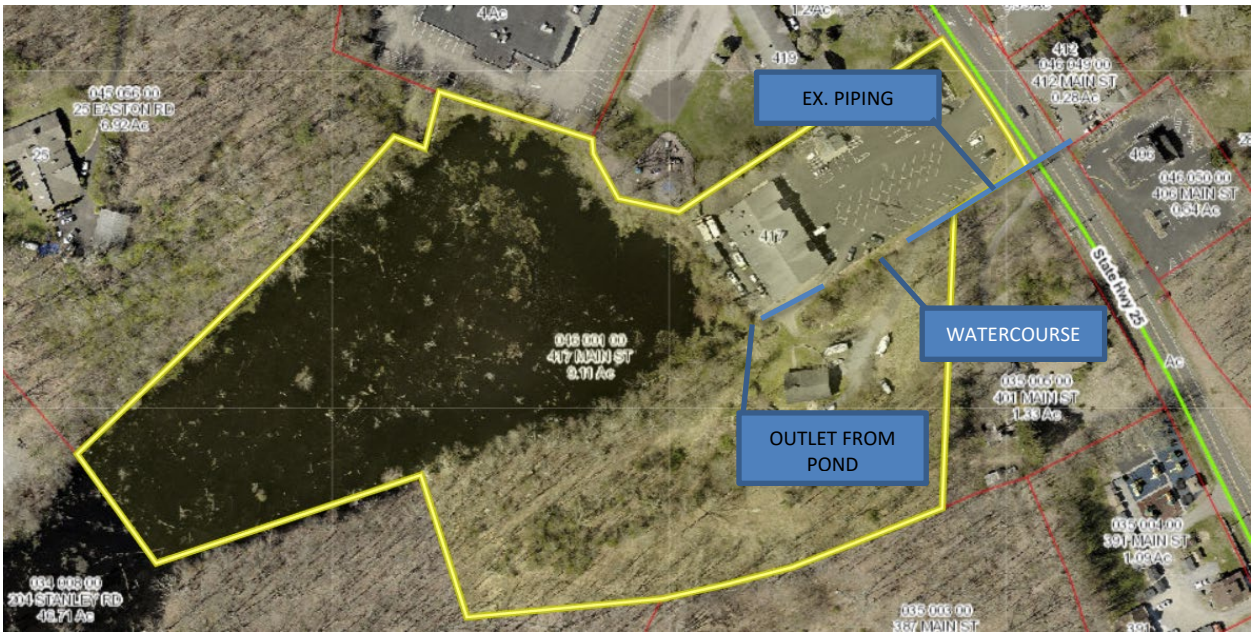


Figure 1 - 2020 AERIAL

The watercourse is located directly adjacent to the commercial parking lot and driveway. It also acts as a barrier between the residence and the commercial uses. This location leads to an accumulation of debris from wind, maintenance, and runoff. This results in a poor-quality wetland. The proposed wetlands remediation and creation area is directly connected to the pond system and will be isolated from the active site. In our opinion, the benefit of the newly created wetland and mitigation will more than offset the impact of the piped watercourse. An impact assessment report from Steven Danzer, PHD is included with this application.

The desire to pipe this intermittent water course is driven by multiple factors

1. The current drainage structures, piping and headwalls are in poor condition and need replacement. This work on its own would be a significant impact to the IWC.

2. Cleaning and maintenance of this IWC must be completed regularly and is costly to the owner. It is also potentially impactful.

3. The commercial parking was constructed at edge of the bank leading down to IWC. This is a steep slope and it is a safety issue. The proposed plan eliminates this bank and the unsafe

condition.

4. The IWC acts as a barrier between the commercial and residential uses. Piping the IWC will eliminate this barrier and improve the development potential of the large upland area to the south. This property is located in very near the intersection of RT 59 and Stepney Green, making it a prime area for future development in the center of Stepney.

In summary, this proposal results in the elimination of a maintenance and safety problem while adding development potential to Stepney and providing an improved wetland area around the existing pond.

417 MAIN STREET
415 MAIN STREET,LLC
SITE IMPROVEMENTS
IN
MONROE, CONNECTICUT

PERMIT SET – NOT FOR CONSTRUCTION

SHEET LIST

J. EDWARDS & ASSOCIATES LLC
ENGINEERING • SURVEYING • SITE PLANNING

227 Stepney Road Easton, CT 06612
Phone:203.268.4205 Fax: 203.268.5604
www.jedwardsassoc.com

STATE OF CONNECTICUT JOSEPH R. EDWARDS No. 10927 LICENSED PROFESSIONAL ENGINEER

STATE OF CONNECTICUT JASON A. EDWARDS No. LICENSED LAND SURVEYOR

407 MAIN STREET - (CT ROUTE 25)
MONROE, CONNECTICUT

REVISIONS

#	DATE	DESCRIPTION

DATE: 10-06-22
PROJECT #: S5702
DRAWING FILE: S5702
DRAWN BY: /JE
SCALE:

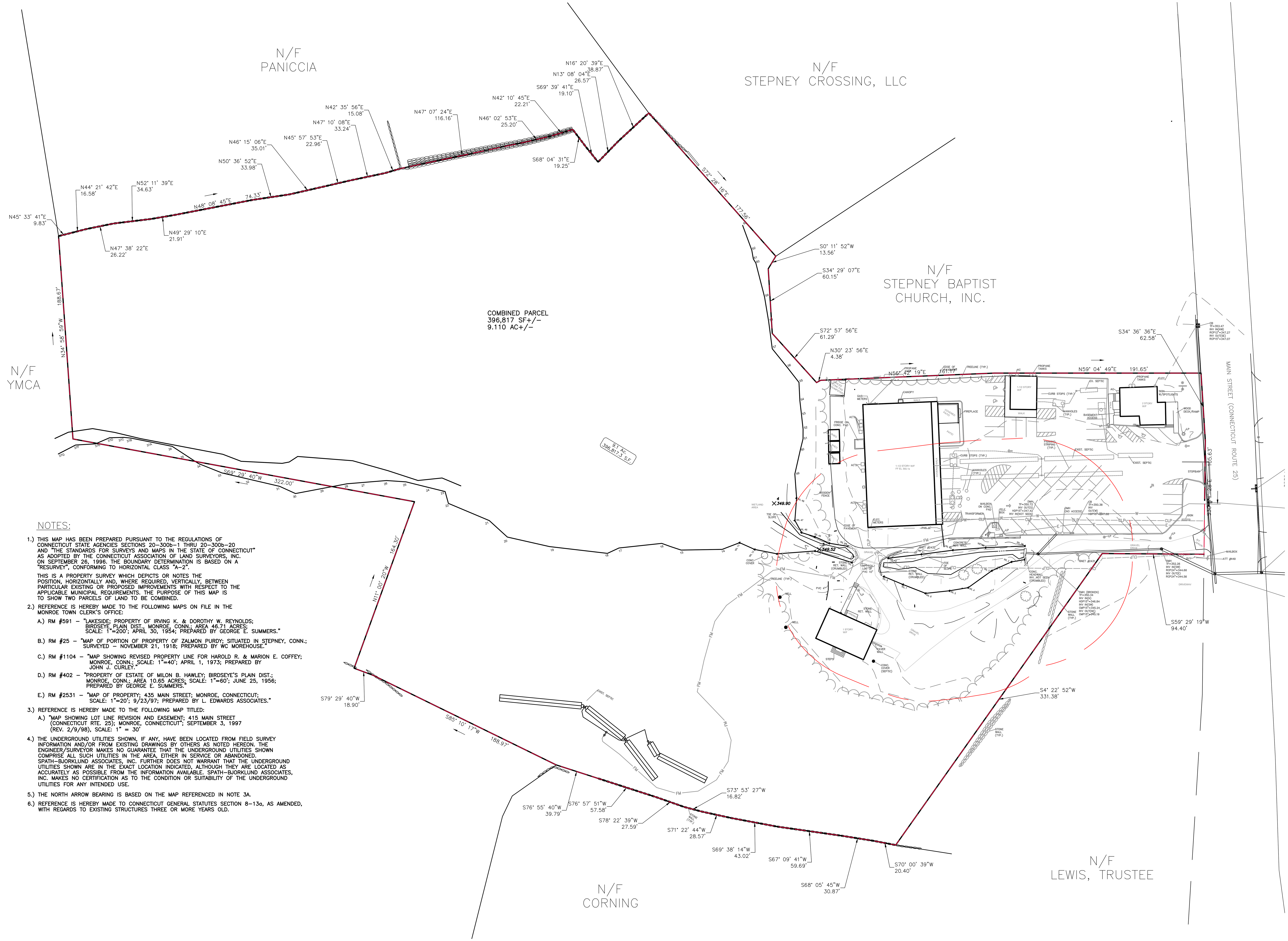
TITLE

TITLE SHEET

SHEET NUMBER

1.0

K:\PROJECTS\5702 GANIM\DRAWINGS\2022\SITE PLAN BASE



NOTES:

1.) THIS MAP HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20–300b–1 THRU 20–300b–20 AND "THE STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996. THE BOUNDARY DETERMINATION IS BASED ON A "RESURVEY", CONFORMING TO HORIZONTAL CLASS "A–2".

THIS IS A PROPERTY SURVEY WHICH DEPICTS OR NOTES THE POSITION, HORIZONTALLY AND, WHERE REQUIRED, VERTICALLY, BETWEEN PARTICULAR EXISTING OR PROPOSED IMPROVEMENTS WITH RESPECT TO THE APPLICABLE MUNICIPAL REQUIREMENTS. THE PURPOSE OF THIS MAP IS TO SHOW TWO PARCELS OF LAND TO BE COMBINED.

2.) REFERENCE IS HEREBY MADE TO THE FOLLOWING MAPS ON FILE IN THE MONROE TOWN CLERK'S OFFICE:

A.) RM #591 – "LAKESIDE; PROPERTY OF IRVING K. & DOROTHY W. REYNOLDS; BIRDSEYE PLAIN DIST., MONROE, CONN.; AREA 46.71 ACRES; SCALE: 1"=200'; APRIL 30, 1954; PREPARED BY GEORGE E. SUMMERS."

B.) RM #25 – "MAP OF PORTION OF PROPERTY OF ZALMON PURDY; SITUATED IN STEPNEY, CONN.; SURVEYED – NOVEMBER 21, 1918; PREPARED BY WC MOREHOUSE."

C.) RM #1104 – "MAP SHOWING REVISED PROPERTY LINE FOR HAROLD R. & MARION E. COFFEY; MONROE, CONN.; SCALE: 1"=40'; APRIL 1, 1973; PREPARED BY JOHN J. CURLEY."

D.) RM #402 – "PROPERTY OF ESTATE OF MILON B. HAWLEY; BIRDSEYE'S PLAIN DIST.; MONROE, CONN.; AREA 10.65 ACRES; SCALE: 1"=60'; JUNE 25, 1956; PREPARED BY GEORGE E. SUMMERS."

E.) RM #2531 – "MAP OF PROPERTY; 435 MAIN STREET; MONROE, CONNECTICUT; SCALE: 1"=20'; 9/23/97; PREPARED BY L. EDWARDS ASSOCIATES."

3.) REFERENCE IS HEREBY MADE TO THE FOLLOWING MAP TITLED:

A.) "MAP SHOWING LOT LINE REVISION AND EASEMENT; 415 MAIN STREET (CONNECTICUT RTE. 25); MONROE, CONNECTICUT"; SEPTEMBER 3, 1997 (REV. 2/9/98), SCALE: 1" = 30'

4.) THE UNDERGROUND UTILITIES SHOWN, IF ANY, HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR FROM EXISTING DRAWINGS BY OTHERS AS NOTED HEREON. THE ENGINEER/SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. SPATH–BJORKLUND ASSOCIATES, INC. FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. SPATH–BJORKLUND ASSOCIATES, INC. MAKES NO CERTIFICATION AS TO THE CONDITION OR SUITABILITY OF THE UNDERGROUND UTILITIES FOR ANY INTENDED USE.

5.) THE NORTH ARROW BEARING IS BASED ON THE MAP REFERENCED IN NOTE 3A.

6.) REFERENCE IS HEREBY MADE TO CONNECTICUT GENERAL STATUTES SECTION 8–13a, AS AMENDED, WITH REGARDS TO EXISTING STRUCTURES THREE OR MORE YEARS OLD.

PERMIT SET – NOT FOR CONSTRUCTION

J. EDWARDS & ASSOCIATES LLC
ENGINEERING • SURVEYING • SITE PLANNING
227 Stepney Road Easton, CT 06612
Phone:203.268.4205 Fax: 203.268.5604
www.jedwardsassoc.com

STATE OF CONNECTICUT LARRY B. EDWARDS No. 10937 LICENSED PROFESSIONAL ENGINEER

STATE OF CONNECTICUT JASON EDWARDS LICENSED LAND SURVEYOR

407 MAIN STREET - (CT ROUTE 25)
MONROE, CONNECTICUT

REVISIONS

#	DATE	DESCRIPTION

DATE: 10-06-22
PROJECT #: S5702
DRAWING FILE: S5702
DRAWN BY: /JE
SCALE: 1"=40'

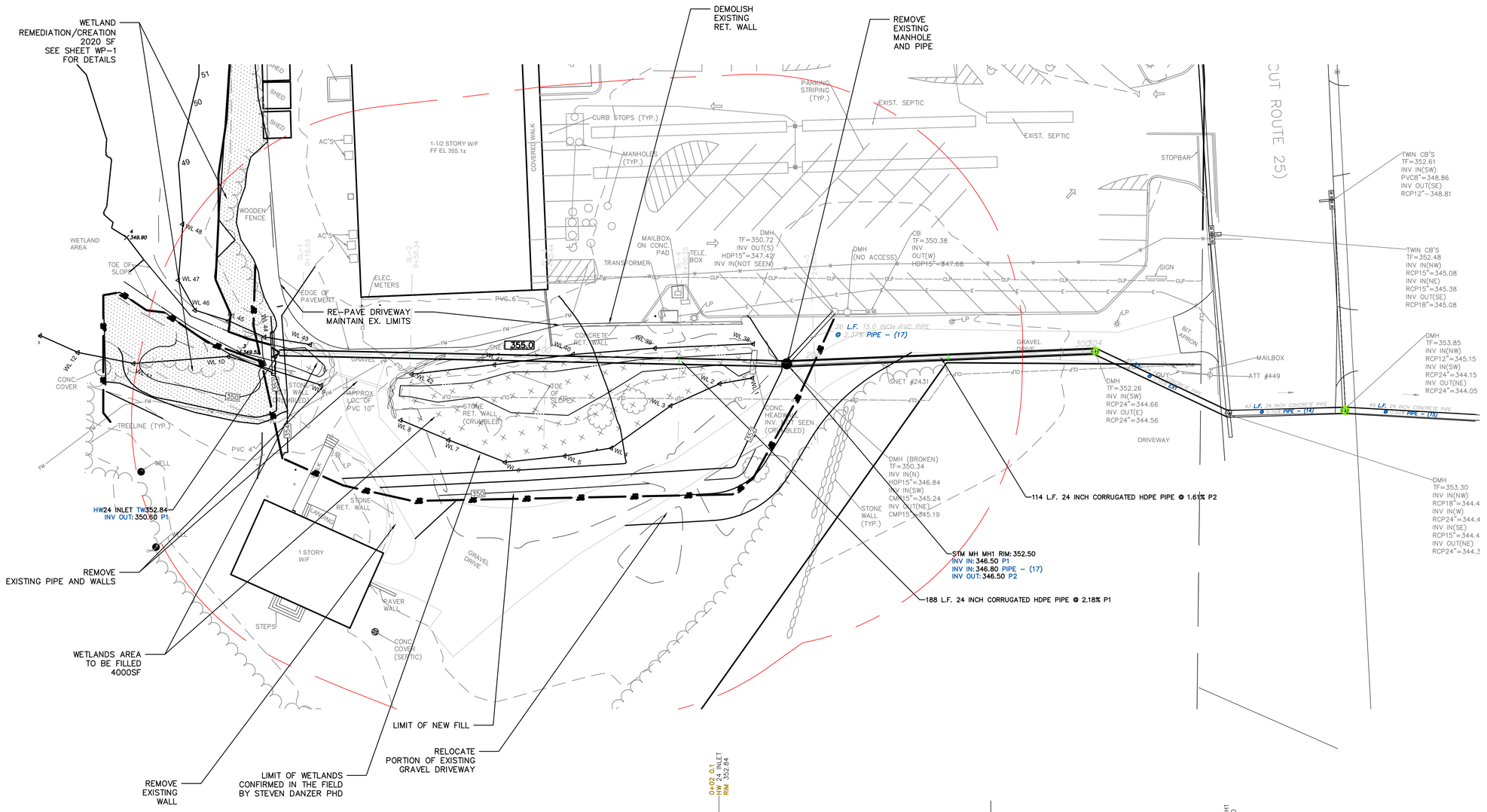
TITLE

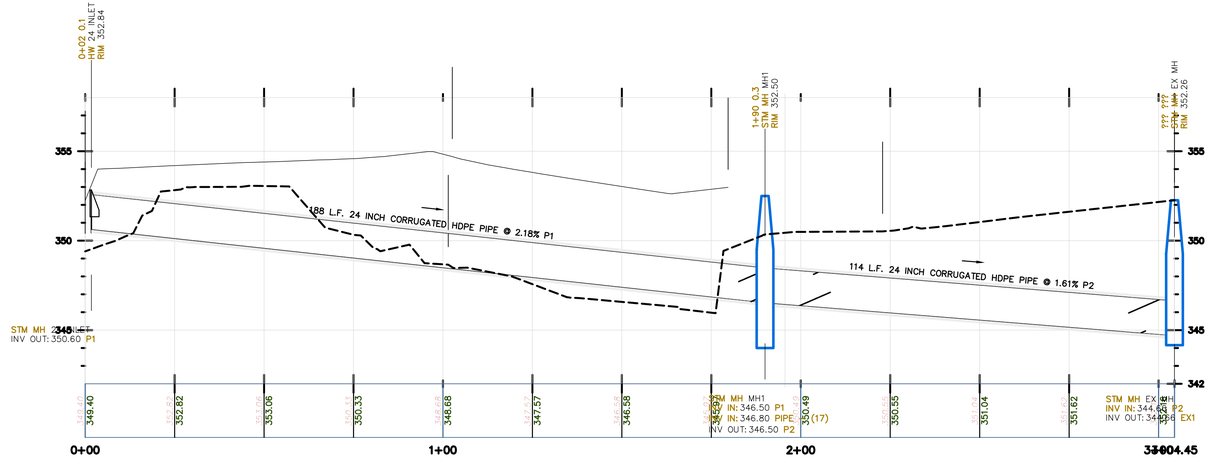
EXISTING CONDITIONS

SHEET NUMBER

2.0

K:\PROJECTS\5702 GANIM\DRAWINGS\2022\SITE PLAN BASE





PROFILE OF NEW PIPE RUN
1" = 5' HORIZ. / 1" = 1' VERT.

PERMIT SET – NOT FOR CONSTRUCTION

J. EDWARDS & ASSOCIATES LLC
ENGINEERING • SURVEYING • SITE PLANNING
227 Stepney Road Easton, CT 06612
Phone:203.268.4205 Fax: 203.268.5604
www.jedwardsassoc.com

STATE OF CONNECTICUT JEFFREY R. EDWARDS No. 16927 LICENSED PROFESSIONAL ENGINEER

STATE OF CONNECTICUT JASON EDWARD... No. LICENSED LAND SURVEYOR

407 MAIN STREET - (CT ROUTE 25)
MONROE, CONNECTICUT

REVISIONS

#	DATE	DESCRIPTION

DATE:	10-06-22
PROJECT #:	S5702
DRAWING FILE:	S5702
DRAWN BY:	/JE
SCALE:	1"=20

TITLE

SITE PLAN

SHEET NUMBER

2.1

K:\PROJECTS\5702 GANIM\DRAWINGS\2022\SITE PLAN BASE

GENERAL NOTES

1. The proposed improvements indicated on these plans are shown as one of many possible layouts. Any variation from these plans is to be approved by a professional engineer.

Topography and existing features are based on a survey titled prepared by J. Edwards Associataes, LLC.

2. Owner:
415 Main Street LLC.

3. Total area of site is 9.2 acres

4. Total area of on-site wetlands is 4.6 acres.

5. Inland wetlands delineated by Steven Danzer, PHD.

6. The location of underground utilities, if any, is unknown. Call Before-You-Dig 1-800-922-4455.

7. It is the contractor's responsibility to verify all on-site and off-site field conditions and establish that no changes have occurred since the issuance of this plan. The design engineer is to be notified of any field conditions which conflict with this plan.

8. All construction methods, materials and system installations are to conform to Town of Trumbull Standards and Town of Monroe Standards and/or CT DOT Standard Specification for Roads, Bridges and Incidental Construction Form 818, 2020 as amended.

9. Proposed utilities are to be underground.

10. No debris and stumps to be buried on site.

11. Retaining walls, if any, are to be designed by a structural engineer.

12. All roadway drainage construction shall be overseen by an independent Professional Engineer licensed in the State of Connecticut to certify that the installation is in accordance with the design documents. Video inspection of all drainage pipes must be submitted to Town prior to final sign off for Certificate of Occupancy.

13. Sanitary sewer mains, laterals and manholes must be pressure tested and videoed prior to acceptance. All final construction plans and specs shall be submitted to the Trumbull Engineering Department for review.

14. Water hydrant locations are approved by the Town Fire Marshall.

15. Proposed sewer connections are approved by Town of Trumbull WPCA.

16. A certification letter and Mylar as-built plans will be required by Town upon project completion.

24. The contractor shall submit shop drawings for all drainage, detention, and sewer structures to design engineer for his approval prior to installation.

EROSION CONTROL AND STORM WATER POLLUTION CONTROL PLAN

Erosion and sediment control measures will be constructed in accordance with the Town of Trumbull Standards and 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, Dep Bulletin 34.

1. The Storm water Pollution Control Plan shall include all erosion and sedimentation control shown on the approved maps and detail sheets. These controls are assumed to be the minimum required, and the contractor may be required to install additional measures as site conditions and weather warrant.

2. All erosion and sediment control devices will be installed prior to the start of clearing and grubbing operations and excavation work. All the devices will be maintained as specified in this document until the disturbed earth has been paved or vegetated, at which time the devices will be removed.

3. All construction methods, materials and system installations are to conform to all applicable local and state regulations.

4. Grading to be according to all applicable regulations and normal standards of good practice.

5. Land disturbance will be kept to a minimum. Restabilization will be scheduled as soon as practicable.

6. Stockpiles of topsoil and common fill shall be located outside regulated areas where possible. They should be surrounded with silt fence and temporarily stabilized by seeding with a 50-50 mix of annual and perennial rye grass at the rate of one pound per 1,000 square feet of surface area shall be employed between March 15 and June 15 or August 1 and October 1. Mulch with straw or hay at the rate of 70 to 90 pounds per 1,000 square feet until stabilized.

7. All control measures will be maintained in effective condition throughout the construction period until the area is stabilized.

8. Maintenance of the erosion controls shall consist of inspection at the start of each work day with special attention afforded following storm events. Noted deficiencies shall be corrected immediately. Accumulated sediment shall be removed from the erosion control device and dispersed temporarily on the upland portion of the disturbed area. Additional seeding or mulching shall be employed as required.

9. The contractor is to inspect the site daily during construction to insure the integrity of the erosion controls.

10. A site monitor shall be required to inspect all soil erosion controls after every rain event and or at least once per week.

11. The contractor is to have available at all times extra silt fence, hay bale mulch, grass seed and riprap to implement additional erosion control measures not foreseen in this plan.

12. Prior to closing the site down for winter, if required, the contractor shall schedule a meeting with the project engineer to review site conditions and make recommendations to minimize erosion during the winter. The meeting is to be held no later than October 1,of any given year.

13. Accumulated sediment is to be disposed of in an area approved by the design engineer.

14. Catch basins shall be protected with silt sacks, haybales, and/or silt fence during construction until all disturbed areas are stabilized.

15. Water breaks, silt fence, haybales and other measures are to be maintained until drainage is complete and site is stabilized with vegetated cover.

16. Stabilization practices may include silt fences, temporary seeding, permanent seeding, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, preservation of mature vegetation and other vegetative and non-structural measures as identified in the Guidelines. Where construction activities have permanently ceased or have temporarily been suspended for more than seven days or when final grades are reached in any portion of the site, stabilization practices shall be implemented within three days. Areas which remain disturbed but inactive for at least thirty days shall receive temporary seeding and/or mulching in accordance with the Guidelines. Areas that will remain disturbed beyond the planting season, shall receive long-term, non-vegetative stabilization sufficient to protect the site through the winter.

17. Structural practices include but are not limited to earth dikes (diversions), drainage swales, sediment traps, check dams, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, outlet protection, reinforced soil retained systems, gabions and temporary or permanent sediment basins and chambers.

18. Disturbance will be limited to 1 acre at any one time. Overland drainage from uphill sources will be diverted around the disturbed portions of the site until those disturbed areas have been stabilized. If more than 1 acre is to be disturbed at one time, sediment basins must be provided. These sediment basins shall have a storage capacity of 134 cubic yards per acre of tributary area.

19. All contractors and subcontractors working on site will ensure that no litter, debris, building material or similar material is discharged to the inland wetlands.

20. Contractors will implement techniques to control the generation of dust.

21. All post construction storm water structures will be cleaned of construction sediment and any remaining silt fence shall be removed.

The property owner is assigned the responsibility for implementing this Storm water Pollution Control Plan during the construction. This responsibility includes the installation and maintenance of control measures, informing all parties engaged on the construction site of the requirements and objectives of the plan. If the land is transferred, the Planning and Zoning office shall be notified and a copy of the Storm water Pollution Control Plan shall be conveyed to the new owners. It shall become the responsibility of the new owners to implement the Storm water Pollution Control Plan for the site as outlined in this Storm water Pollution Control Plan.

CONSTRUCTION SEQUENCE

1. Install erosion control fencing and anti-tracking pads for equipment to access the State road system.

2. Excavate all stumps located in the structural area and remove to a disposal site or stockpile area to be chipped. No stumps are to be buried on site. Stumps are to be disposed of in accordance with current State law.

3. Construct temporary sediment trap #1. As fill is placed to raise the site, it may become necessary to adjust the location of the sediment trap.

4. Install temporary sediment trap #2.

5. Construct perimeter retaining walls

6. Rough grade site and construct interior roadway system.

7. Construct building foundations.

8. Install drainage pipes and structures for the interior roadway beginning at the basin and proceeding upstream. Install other underground utilities.

9. Place silt sacks in new catch basins.

13. Place, grade and compact the processed aggregate in the roadway base.

14. Commence building construction.

16. Install first course of bituminous concrete.

17. Install curbing.

18. Apply stabilization measures to remaining disturbed areas in accordance with the Stormwater Quality Management Plan (topsoil, seeding, sodding, mulching, etc.)

19. Inspect and clean drainage system as needed.

20. Install the final course of bituminous concrete pavement.

21. Temporary sediment traps will have the accumulated sediment removed and the permanent basins excavated to 6" below final grade. Install basin underdrains and final berms for the permanent detention basins to be micro graded. Place topsoil and planting and seeding shall follow.

22. Install planting materials.

23. After site is stabilized in accordance with the applicable Stormwater Quality Management Plan measures, remove temporary erosion and sediment controls.

SITE MAINTENANCE PLAN

This Site Maintenance Plan and Schedule highlights the maintenance procedures for the development. However, this does not preclude the maintenance personnel's responsibility to perform maintenance procedures properly, add other procedures as necessary and conduct maintenance in accordance with current state laws and regulations.

After construction is completed, the owner will be assigned the responsibility for implementing this Site Maintenance Plan. This responsibility includes the inspection and maintenance of control measures and informing parties engaged in activities on the site of the requirements and objectives of the plan. When the land is transferred to the Homeowners Association, this Site Maintenance Plan shall be conveyed to the Association. It shall become the responsibility of the new owners to implement the Plan. The Plan, as with any land use approval, shall run with the land.

Roadway and Parking Areas

The roadway and parking areas shall be swept with a mechanical sweeper or broom at least twice a year. One cleaning will be in the fall after the leaves are off the trees. The second will be in the spring after the last snow fall. Use of high velocity blowers is not recommended as they often "defeat the basic purpose of sweeping in an environmentally sound manner."

The sweepings shall be collected and removed from the site. The disposal method shall be determined by the personnel conducting the sweeping and shall comply with all applicable laws. In no case shall the sweepings or fall cleanup materials be allowed to enter the Storm Water Detention Basins.

Pavement markings, directional arrows and stop bars shall be inspected annually. All pavement markings and directional signs shall be replaced as necessary to insure they are clear, visible and reflective to maintain safe traffic flow.

Paved surfaces shall be crack sealed on a yearly basis and inspected for "Pot Holes". Required patching shall be done on a yearly basis every spring. Paved surfaces should be replaced every 20 years, or as site conditions warrant.

Catch Basins

The catch basins shall be cleaned twice per year. The cleaning shall be in the late fall after leaves have fallen and before snowfall. The second cleaning shall be in springtime after snow melt to remove accumulated debris and sand from the catch basin sumps. In no case, shall the sediment level exceed 50% of the sump volume of the catch basins.

A vactor truck may be used to clean the catch basins. Disposal of liquids and solids contained in the vactor truck requires specific disposal protocol and discharge permits. Operators shall be aware of the regulations. Decanted water from the catch basins may not be returned to the catch basin.

Infiltration Galleries

The detention galleries shall be inspected annually. If sediment and/or debris is observed at the inlet to the gallery system, it shall be removed.

Stormwater Treatment Unit

Unit shall be maintained in same manner as catch basins noted above.

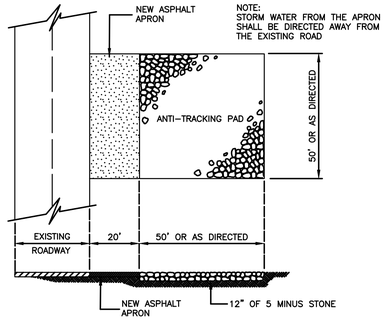
Sediment Basin

The outlet control structure shall be inspected annually in the fall to evaluate plant sustainability, water levels, slope stability and overall operation. The inlet riprap apron, spillways, and level spreader shall also be inspected and any debris removed that will inhibit their operation.

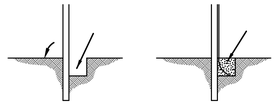
During the first two growing seasons after the initial seeding of the basin and its surrounding upland meadow, reseeding bare and thinly vegetated areas with the specified seed mixture. The dead plant material should be removed from these areas. Any maintenance of the areas should be conduced outside of vegetative growing and wildlife seasons.

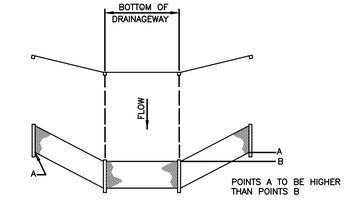
No fertilizer shall be applied to the basin or the upland review area.

Provide deer/wildlife netting over mitigation plantings to control wildlife feeding on new plantings.

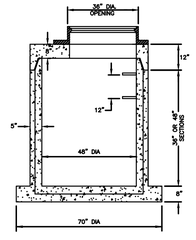


ANTI-TRACKING PAD

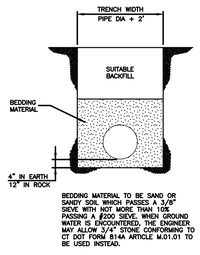




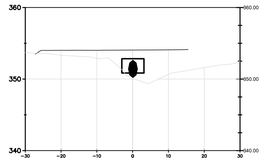
SYNTHETIC FILTER BARRIER



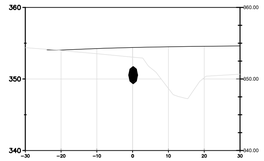
48" PRECAST CONCRETE SHALLOW TYPE MANHOLE



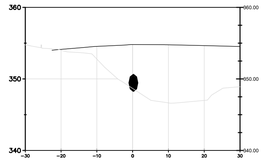
DRAINAGE PIPE TRENCH



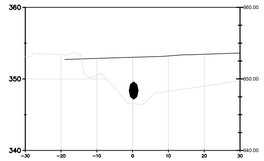
0+10



0+50



1+00



1+50

Volume	
Base Surface	Existing
Comparison Surface	fill
Cut Factor	1.000
Fill Factor	1.000
Cut volume (adjusted)	66.53 Cu. Yd.
Fill volume (adjusted)	1569.09 Cu. Yd.
Net volume (adjusted)	1502.56 Cu. Yd.<Fill>
Cut volume (unadjusted)	66.53 Cu. Yd.
Fill volume (unadjusted)	1569.09 Cu. Yd.
Net volume (unadjusted)	1502.56 Cu. Yd.<Fill>

VOLUMES COMPUTED USING AUTODESK CIVIL3D

SET - NOT FOR CONSTRUCTION

J. EDWARDS & ASSOCIATES LLC
ENGINEERING • SURVEYING • SITE PLANNING

227 Stepney Road Easton, CT 06612
Phone:203.268.4205 Fax: 203.268.5604
www.jedwardsassoc.com

STATE OF CONNECTICUT · JOSEPH R. EDWARDS · No. 10927 · LICENSED PROFESSIONAL ENGINEER

STATE OF CONNECTICUT · JASON EDWARDS · No. LICENSED LAND SURVEYOR

407 MAIN STREET - (CT ROUTE 25)
MONROE, CONNECTICUT

REVISIONS

#	DATE	DESCRIPTION

DATE: 10-06-22
PROJECT #: S5702
DRAWING FILE: S5702
DRAWN BY: /JE
SCALE: 1"=20

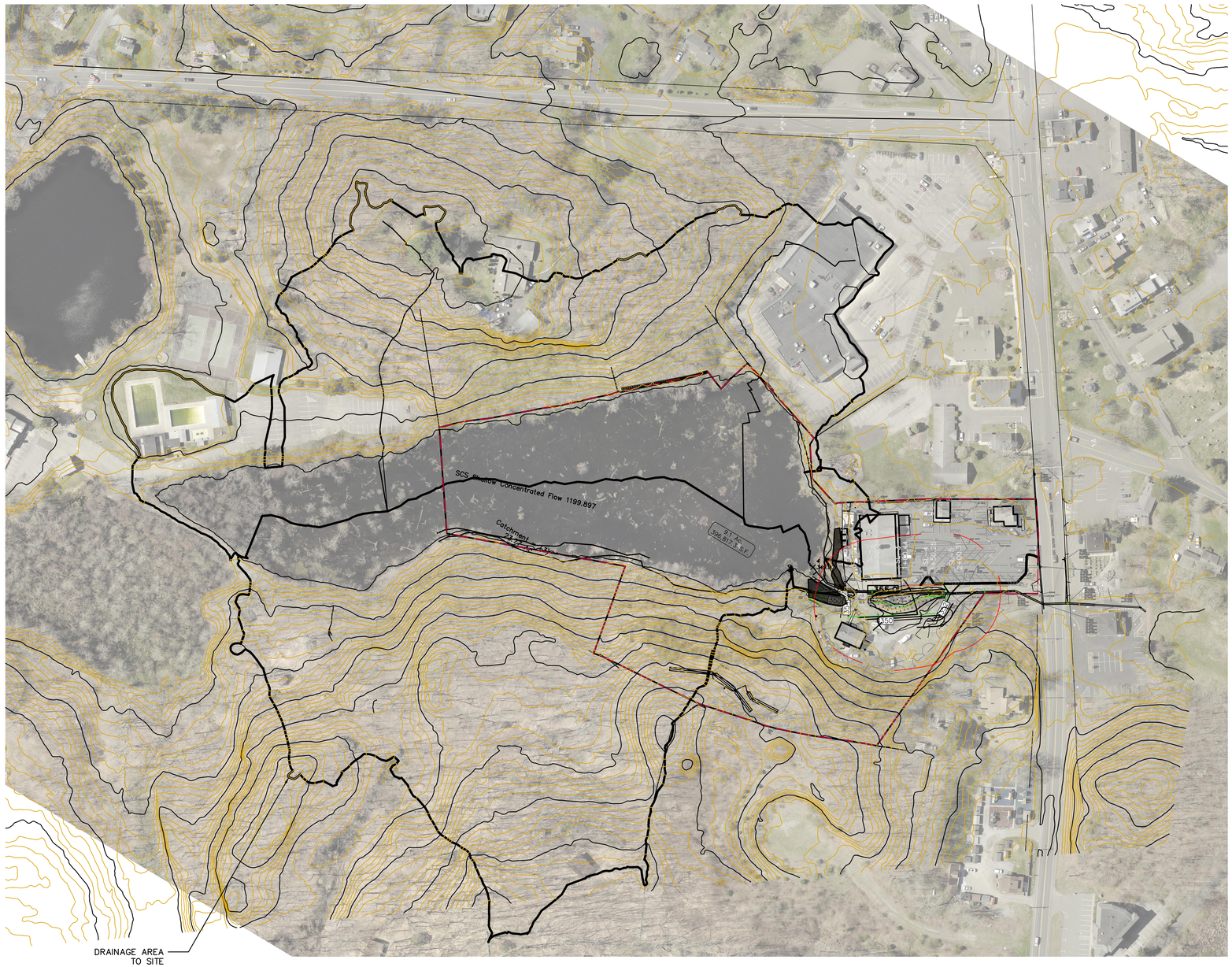
TITLE

CONSTRUCTION DETAILS

SHEET NUMBER

4.1

K:\PROJECTS\5702 GANIM\DRAWINGS\2022\SITE PLAN BASE



PERMIT SET – NOT FOR CONSTRUCTION

J. EDWARDS & ASSOCIATES LLC
ENGINEERING • SURVEYING • SITE PLANNING

227 Stepney Road Easton, CT 06612
Phone:203.268.4205 Fax: 203.268.5604
www.jedwardsassoc.com

407 MAIN STREET - (CT ROUTE 25)
MONROE, CONNECTICUT

REVISIONS

#	DATE	DESCRIPTION

DATE:	10-06-22
PROJECT #:	S5702
DRAWING FILE:	S5702
DRAWN BY:	/JE
SCALE:	1"=40'

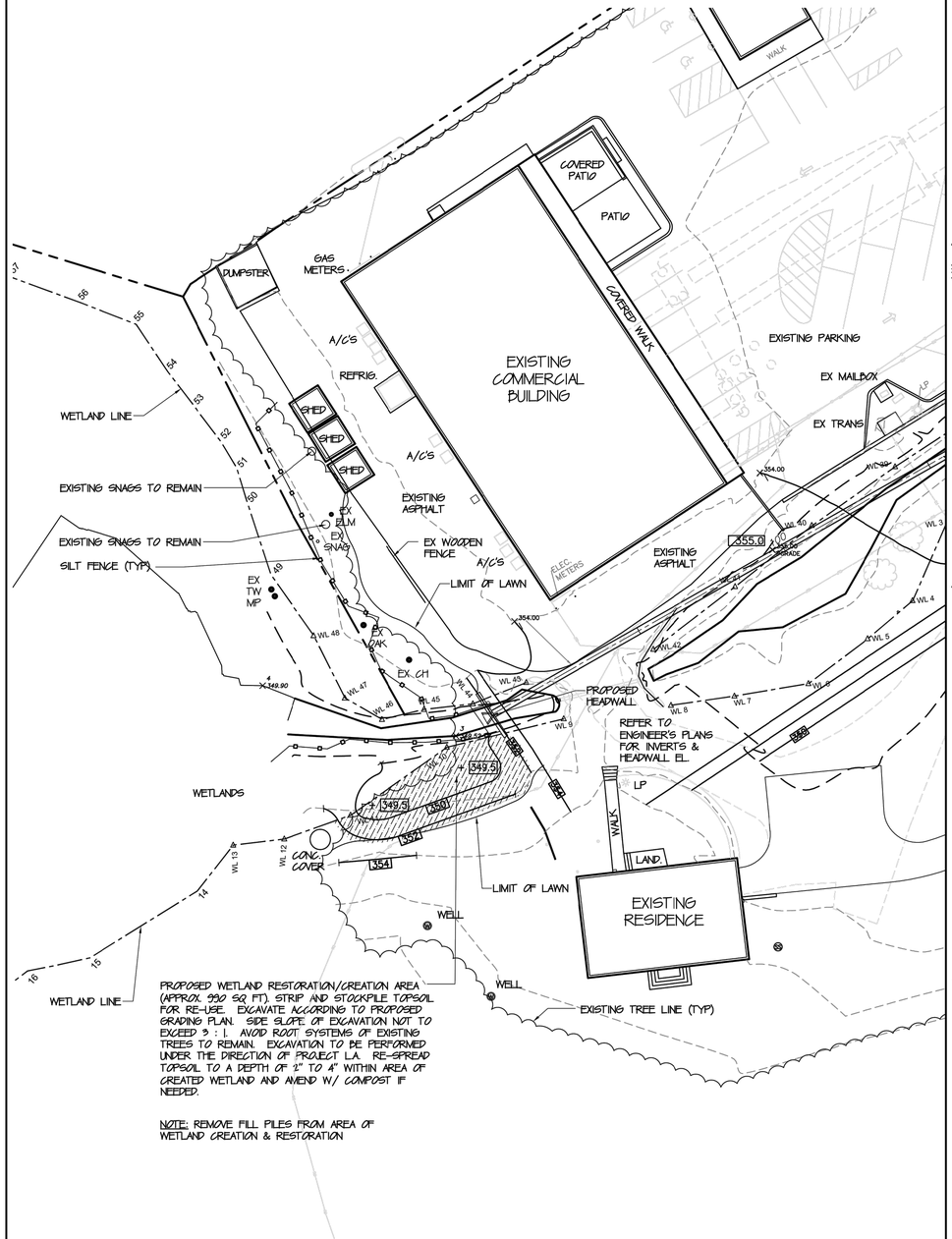
TITLE

DRAINAGE AREA MAP

SHEET NUMBER

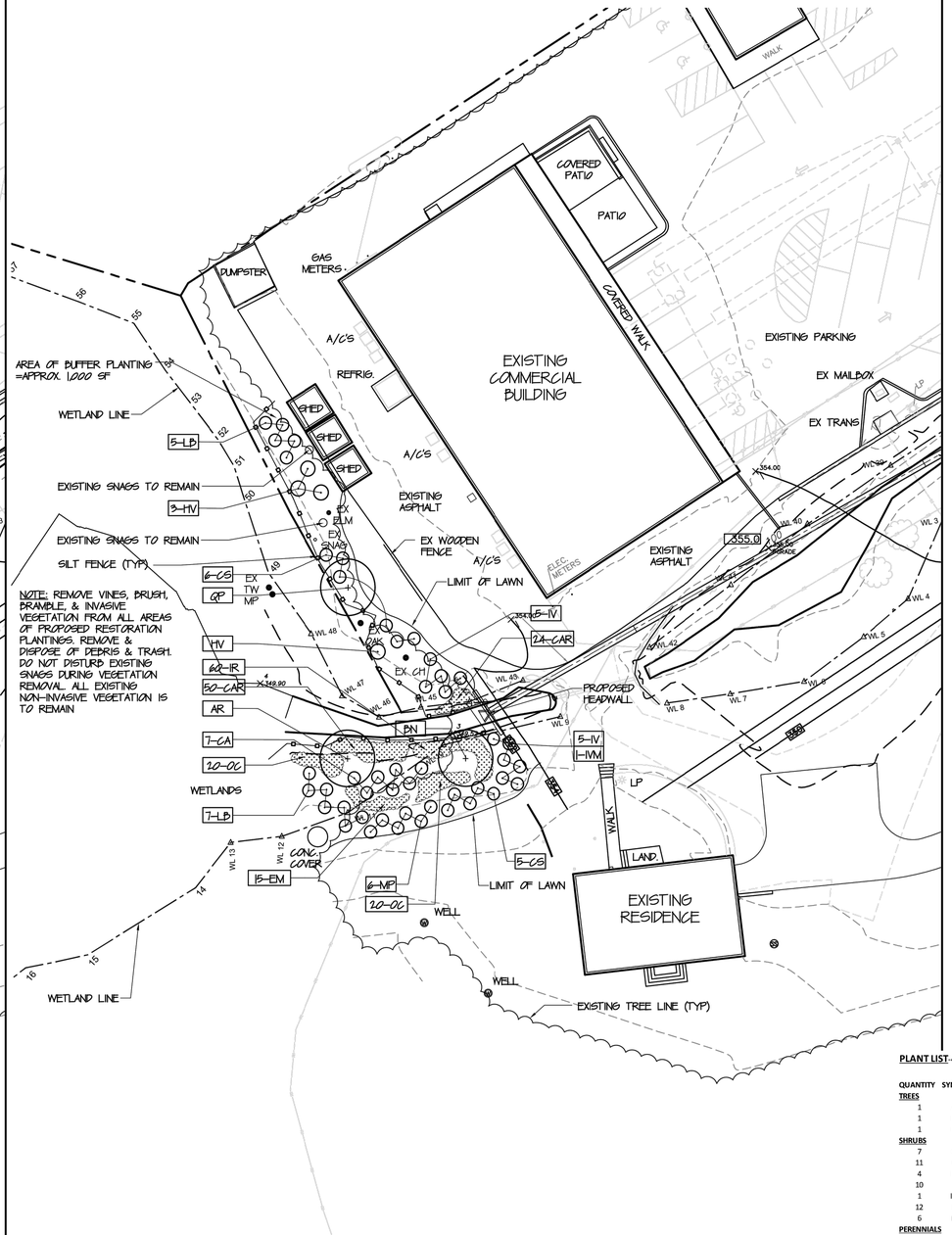
5.1

K:\PROJECTS\5702 GANIM\DRAWINGS\2022\SITE PLAN BASE



WETLAND CREATION PLAN

SCALE: 1" = 20'-0"



WETLAND & BUFFER PLANTING PLAN

SCALE: 1" = 20'-0"

PLANTING LEGEND

PROPERTY LINE

PROPOSED NATIVE SHRUBS

PROPOSED NATIVE TREE

PROPOSED NATIVE PERENNIALS

EXISTING TREE TO REMAIN (PROTECT)

PROPOSED AREA OF WETLAND CREATION (EXCAVATE)

WETLAND LINE — WL 10

PROPOSED SILT FENCE

PLANTING NOTES:

1. CONTACT CALL BEFORE YOU DIG AT 800-922-4455 TO HAVE UNDERGROUND UTILITY LINES MARKED PRIOR TO START OF ANY EXCAVATION WORK.
2. ANY INVASIVE VEGETATION WITHIN THE WORK AREA TO BE REMOVED IS TO BE FLAGGED BY LANDSCAPE ARCHITECT, REMOVED BY HAND AND DISPOSED OF IN AN OFF-SITE LOCATION.
3. EXACT LOCATION OF PLANTINGS, SPECIES TYPES AND QUANTITIES MAY VARY FROM THIS PLAN BASED ON SITE PLAN REVISIONS AND/OR ACTUAL FIELD CONDITIONS.
4. PLANT SPECIES SUBSTITUTIONS MAY BE MADE WITH THE APPROVAL OF THE PROJECT LANDSCAPE ARCHITECT PRIOR TO PLANTING. SUBSTITUTED PLANTS SHALL BE AT AN EQUAL OR GREATER SIZE AS NOTED USING A SIMILAR TYPE PLANT.
5. ALL PLANTING METHODS SHALL BE IN ACCORDANCE WITH THE 'AMERICAN STANDARDS FOR NURSERY STOCK' LATEST EDITION, AS PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.
6. IN THE EVENT OF A DISCREPANCY BETWEEN THE QUANTITIES OF PLANTS IN THE 'PLANT LIST' AND THE ACTUAL QUANTITIES SHOWN ON THE PLAN THE PLAN SHALL GOVERN.
7. ALL PLANTING WORK SHALL BE PERFORMED EITHER BY HAND OR BY TRACKED EQUIPMENT.
8. ANY PLANTINGS SUSCEPTIBLE TO DEER BROWSING SHALL BE SPRAYED WITH ORGANIC DEER REPELLENT.
9. PLANTINGS SHALL BE HAND WATERED OR WATERED WITH A TEMPORARY IRRIGATION SYSTEM UNTIL ESTABLISHMENT.
10. BASE MAP INFORMATION WAS TAKEN FROM PLAN ENTITLED "SITE GRADING PLAN" PREPARED BY J. EDWARDS & ASSOCIATES, LLC ENGINEERING AND SURVEYING, DATED OCTOBER 20, 2022. ADDITIONAL INFORMATION WAS ADDED FROM MEASUREMENTS TAKEN BY TRACY CHALIFOUX LLC.

WORK SEQUENCE:

1. INSTALL EROSION CONTROLS AND TREE PROTECTION (IF NEEDED) AS SHOWN ON PLAN.
2. STRIP AND STOCKPILE TOPSOIL (FOR RE-USE) PRIOR TO PERFORMING PROPOSED EARTHWORK.
3. EXCAVATE NEW WETLAND AREA UNDER THE DIRECTION OF PROJECT LANDSCAPE ARCHITECT OR QUALIFIED PROFESSIONAL. SIDE SLOPES OF EXCAVATED AREA SHALL NOT EXCEED 3 : 1.
4. RE-SPREAD STOCKPILED TOPSOIL TO A DEPTH OF APPROXIMATELY 4 TO 6 INCHES.
5. INSTALL NATIVE TREES, SHRUBS AND PERENNIALS.
6. PROVIDE 2" ON NON-DYED MULCH IMMEDIATELY BENEATH ALL NEW TREES AND SHRUBS OUTSIDE OF THE WETLANDS. DO NOT APPLY MULCH IN WETLANDS.
7. FINE RAKE, SEED AND HAY MULCH TO RESTORE ALL DISTURBED LAWN AREAS.
8. REMOVE EROSION CONTROLS AFTER SITE IS STABLE.

PLANT LIST 407 Main Street, Monroe, CT

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	NOTES
TREES						
1	AR	Acer rubrum	Swamp Red Maple	2"-2 1/2" cal.		B&B
1	BN	Betula nigra 'Heritage'	Heritage River Birch	8'-10' ht.		Multi- Stem, B&B
1	QP	Quercus palustris	Pin Oak	2"-2 1/2" cal.		B&B
SHRUBS						
7	CA	Clethra alnifolia	Sweet Pepperbush	3'- 3 1/2' ht.	6' O.C.	Full, Heavy, Container
11	CS	Cornus sericea	Red Osier Dogwood	3'- 3 1/2' ht.	6' O.C.	Full, Heavy, Container
4	HV	Hamamelis vernalis	Vernal Witchhazel	3'-3 1/2' ht.	6' O.C.	Full, Heavy, Container
10	IV	Ilex verticillata 'Winter Red'	Winterberry Holly	3'-3 1/2' ht.	6' O.C.	Full, Heavy, Container
1	IVM	Ilex verticillata 'Southern Gentlemen'	Southern Gentleman Holly	3'-3 1/2' ht.	6' O.C.	Full, Heavy, Container
12	LB	Lindera benzoin	Spicebush	3'-3 1/2' ht.	6' O.C.	Full, Heavy, Container
6	MP	Myrica pensylvanica	Northern Bayberry	3'-3 1/2' ht.	6' O.C.	Full, Heavy, Container
PERENNIALS						
74	CAR	Carex pensylvanica	Sedge	1 Gallon	18" O.C.	Full, Heavy, Container
15	EM	Eupatorium maculatum	Joe-pye Weed	1 Gallon	24" O.C.	Full, Heavy, Container
60	IR	Iris versicolor	Blueflag Iris	1 Gallon	18" O.C.	Full, Heavy, Container
40	OC	Osmunda cinnamomea	Cinnamon Fern	1 Gallon	24" O.C.	Full, Heavy, Container

Note: In non-wetland areas, provide beneath trees and shrubs 2" of non-dyed bark mulch.

Revisions	Date

Tracy Chalifoux LLC
Landscape Architect
7 King Street, Danbury, CT 06811
Office 845-364-1360
E-mail tchalifoux@gmail.com

Steven Danzer, PhD & Associates LLC
Wetlands & Environmental Consulting
www.CTWetlandsConsulting.com
203 451-8319

Wetland Boundaries • Pond & Lake Management • Construction Feasibility Considerations • Environmental Studies

Seal: State of Connecticut — Tracy Lee Chalifoux — No. 1185 — Registered Landscape Architect

Project Title: **WETLAND RESTORATION AND CREATION PLAN**

Location: 417 MAIN STREET – (CT ROUTE 25) MONROE, CONNECTICUT

Graphic Scale and North Arrow: 0 20' 40'

Date: October 20, 2022

Scale: 1"=20'-0"

Checked: SD

Drawn: TLC

Drawing Title: WETLAND CREATION PLAN, WETLAND & BUFFER PLANTING PLAN AND PLANT LIST

Drawing No.: **WP-1**

SHEET 1 OF 1

Connecticut Department of
ENERGY & ENVIRONMENTAL PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

GIS CODE #: ___ ___ ___ ___ ___ ___ ___ ___ ___ ___
For DEEP Use Only

Statewide Inland Wetlands & Watercourses Activity Reporting Form

Please complete this form in accordance with the instructions on pages 2 and 3 and mail to:
DEEP Land & Water Resources Division, Inland Wetlands Management Program, 79 Elm Street, 3rd Floor, Hartford, CT 06106
Incomplete or incomprehensible forms will be mailed back to the inland wetlands agency.

PART I: Must Be Completed By The Inland Wetlands Agency

1. DATE ACTION WAS TAKEN: year: _____ month: _____
2. ACTION TAKEN (see instructions - one code only): _____
3. WAS A PUBLIC HEARING HELD (check one)? yes ☐ no ☐
4. NAME OF AGENCY OFFICIAL VERIFYING AND COMPLETING THIS FORM:
   (print name) _____ (signature) _____

PART II: To Be Completed By The Inland Wetlands Agency Or The Applicant

5. TOWN IN WHICH THE ACTIVITY IS OCCURRING (print name): MONROE
   does this project cross municipal boundaries (check one)? yes ☐ no ☑
   if yes, list the other town(s) in which the activity is occurring (print name(s)): _____, _____
6. LOCATION (see instructions for information): USGS quad name: _____ or number: 93
   subregional drainage basin number: 7102
7. NAME OF APPLICANT, VIOLATOR OR PETITIONER (print name): 415 MAIN STREET ASSOCIATES LLC
8. NAME & ADDRESS OF ACTIVITY / PROJECT SITE (print information): 417 MAIN STREET, MONROE
   briefly describe the action/project/activity (check and print information): temporary ☐ permanent ☑ description:
   PIPE EXISTING INTERMITTENT WATERCOURSE
9. ACTIVITY *PURPOSE* CODE (see instructions - one code only): D
10. ACTIVITY *TYPE* CODE(S) (see instructions for codes): 1, 2, 10, _____
11. WETLAND / WATERCOURSE AREA ALTERED (see instructions for explanation, must provide acres or linear feet):
    wetlands: .09 acres open water body: 0 acres stream: 0 linear feet
12. UPLAND AREA ALTERED (must provide acres): 0.14 acres
13. AREA OF WETLANDS / WATERCOURSES RESTORED, ENHANCED OR CREATED (must provide acres): 0.02 acres

PART III: To Be Completed By The DEEP

DATE RECEIVED: DATE RETURNED TO DEEP:

FORM COMPLETED: YES NO FORM CORRECTED / COMPLETED: YES NO

STEVEN DANZER, PHD & ASSOCIATES LLC
Wetlands & Environmental Consulting
WWW.CTWETLANDSCONSULTING.COM
203 451-8319
WETLAND BOUNDARIES • POND & LAKE MANAGEMENT • CONSTRUCTION FEASIBILITY CONSULTATIONS • ENVIRONMENTAL STUDIES

Environmental Report

417 Main Street, Monroe, CT

Date: October 21, 2022

By: Steven Danzer Ph.D.

- Soil Scientist – Certified Nationally by the Soil Science Society of America (#353463).
  – Registered with the Society of Soil Scientists of Southern New England.
- Senior Professional Wetland Scientist - PWS #1321, Society of Wetland Scientists.
- Arborist - CT DEEP License S-5639; ISA Certified NE-7409A.

- Ph.D. - Renewable Natural Resource Studies.

INTRODUCTION

Regulated activities are proposed adjacent and within the wetlands and watercourses located at 417 Main Street, Monroe, Connecticut.

Activities include the filling of 152 LF of watercourse and adjacent wetland area, additional restoration/creation of a wetland area, and the installation of wetland buffer enhancement plantings, as indicated by submitted engineering plans prepared by J. Edwards & Associates LLC and landscape plans prepared by Tracy Chalifoux, Landscape Architect.

The purpose of this report is to document existing conditions and to assess potential impacts to the wetland resources due to the proposed activities.

1.0 Landscape, Land Use, and Watershed Context

The site consists of two parcels, formerly #411 and #407. The parcels are merged as #417 but are listed separately on the tax accessor list.

The active work area within these parcels is roughly bounded off-site by Route 25 (Main Street) to the east, a 6.25 acre pond to the west religious and commercial property to the north, and residential and underdeveloped land to the south. Under existing conditions, a shopping plaza and parking lot is located within the northern portion of the site, and a residence and driveway is located within the southern portion of the site.

An intermittent watercourse with a narrow wetland floodplain divides the northern portion of the site from the southern portion. A pond is located west of the existing commercial building and rear paved areas. According the DEEP watershed maps, the pond drains towards the Mill River, located approximately 0.45 miles west of the proposed activities, while the intermittent watercourse, connected to the pond, likely drains easterly towards Main Street and eventually towards the Pequonnock River. However, an examination of the Lidar topography suggests the entire system, including the pond, drains easterly towards Main Street.

2.0 Wetland/Watercourse Descriptions

Two wetland and/or watercourse areas are located within proximity of the work area. The wetland areas include Wetland 1: the pond and shorefront located west of the existing commercial building, and Wetland 2: the intermittent watercourse/wetland area located south of the existing parking lot and north of the driveway to the residence.

The wetlands/watercourses on the site were previously delineated by Cynthia Rabinowitz, soil scientist, sometime shortly prior to 2011. The wetland line was re-staked in 2022 by J. Edwards Associates using survey data from the Rabinowitz delineation, and then verified as still substantially correct by Steven Danzer Ph.D., soil scientist, on October 6, 2022.

Soils

The pond and modest wetland floodplain surrounding the intermittent watercourse is flanked by *Catden and Freetown soils* (poorly drained and/or very poorly drained wetland soils), while the soils within the channel of the intermittent watercourse are best characterized as within the *Fluvaquents-Udifluvents complex.* The adjacent uplands within the shopping plaza are best characterized as within *the Udorthents-Urban land complex* while the upland soils within the adjacent residence area to the south are *Agawam fine sandy loams.*

Wetland/watercourse descriptions are as follows:

2.1 Wetland Area 1– Pond and Shorefront

Description:

Wetland area 1 consists of the pond and its shorefront **(Photo 6).** The pond is approximately 6.25 acres and shared by several properties. The eastern edge of the pond is located roughly 50 feet from the edge of the existing commercial building.

The immediate shoreline of the pond is vegetated with a dense tangle or invasive and native vegetation, including several dead tree snags, Red maple, Swamp oak, Elm, Cherry, Pussy willow, Alder, Spicebush, Dogwood, Winged euonymus, Multiflora rose, Wineberry, Alder, Sensitive fern, Virginia creeper, Privet, Japanese barberry, Bittersweet, Grape, and Goldenrod. A park bench within a small cleared area is located a few feet west of the pavement, within the upland edge to the pond.

The fringe of the southeast corner of the pond has been subject to filling. The filling appeared to be old and most likely was a consequence of the installation of the forced sewer main located nearby, or possibly due to the original trenching of the intermittent watercourse located to the east. Wetland restoration/creation is proposed in this area.

Proposed activities:

Two areas for mitigation are proposed within the shorefront area as mitigation for the piping of the intermittent watercourse area.

The first mitigation area **(Photo 2)** is located within the eastern buffer to the pond west of the building. Under existing conditions, the immediate shoreline of the pond is vegetated with a dense tangle of invasive and native vegetation. Vines, brush, brambles, other invasive vegetation, debris and trash will be removed to create approximately 1000 SF of planting area. Native trees, shrubs, and perennials will be installed to create a multi-layer canopy to enhance wildlife habitat and to enhance water quality remediation functions.

The second mitigation area **(Photo 1)** is located along the southern edge of the pond within the southeast corner. Under existing conditions, this area is a combination of grass and a dense tangle of predominately invasive or nonnative vegetation. A portion of this area is located on fill soil. This area will be excavated according to the proposed grading plan to restore/create approximately 990 SF of wetland area. Native trees, shrubs, and perennials will be installed to create a multi-layer canopy to enhance wildlife habitat and to enhance water quality remediation functions.

2.2 Wetland Area 2 – Intermittent Watercourse

Wetland area 2 (**Photos 3, 4 and 5**) consists of an intermittent watercourse and a modest wetland floodplain located on its southern side. The watercourse drains easterly from the pond towards Main Street, commencing from and draining into culverts. The culverts are currently partially blocked by sediment, and the overlying masonry is collapsing. A gravel crossing between the commercial property and the residential property divides the upper segment of the watercourse from the longer lower eastern segment.

The current configuration of the watercourse is manmade, mechanically trenched through preexisting wetland soils back when the shopping plaza was developed. The northern bank of the drainage way steeply rises up to the parking lot. Across the drainageway, on the southern side, is a modest wetland floodplain that has been subject to filling over time with gravel, soil, and other debris. The filling in part is probably a result of the construction and maintenance of the adjacent gravel driveway that leads to the residence.

Under existing conditions, the watercourse and the adjacent floodplain on the southern side was observed to be mainly devoid of living vegetation, with the exception of a few scattered trees and the curious growth of several stalks of corn within the wetland floodplain along the southern bank. The lack of viable vegetation is likely due to ongoing vegetation management including what appeared to be herbicidal treatments to keep the floodway and adjacent areas free from obstruction, and due to the continual deposition of fill materials.

Under existing conditions, the watercourse and wetland area mainly functions as stormwater conveyance, and as an outlet to the pond during the wetter periods. Any biological function or value of this area has been eliminated or suppressed due to management.

Proposed activities:

The intermittent watercourse area is proposed to be filled and piped. Most of that activity will be along a 131 foot length located within the lower eastern segment. An additional 21 feet will be piped in the upper segment, west of the gravel crossing between the commercial property and the residential property.

The activity will result in elimination of the immediate watercourse/wetland area but will have a negligible impact on the upstream wetland resources due to the following considerations:

- the fact that activity will be downstream to the pond;
- the observation that under existing management conditions the area has little or no biological value;
- the lack of contiguous natural habitat to the north (paved parking) and to the south (driveway and lawn)

Furthermore, mitigation is proposed to compensate for the removal of this wetland area.

3.0 NDDB Search and Site Fauna

According to the CT DEEP Natural Diversity Database layer on CT ECO (cteco.uconn.edu) (webpage from 10/20/22 attached at the end of the report) there are no polygons on or directly adjacent to the site that indicate the presence of any State Endangered, Threatened, or Species of Special Concern. The nearest polygon is >1.13 miles away to the northeast, across several roads and numerous commercial and residential properties. Nor are there any polygons on or directly adjacent to the site that indicates the presence of any Critical Habitat.

4.0 Conclusions

Regulated activities are proposed adjacent and within the wetlands and watercourses located at 417 Main Street, Monroe, Connecticut. Activities include the filling of 152 LF of watercourse and adjacent wetland area. Mitigation is proposed to compensate for wetland impacts, to include additional creation/restoration of wetland area and the installation of wetland buffer enhancement plantings. Proposed mitigation will create a multi-layer vegetative canopy to enhance wildlife habitat and to enhance water quality remediation functions, increasing the wetland function and value to the shorefront environment.

Thank you for the opportunity to comment.

Respectfully submitted,

Signed,

Steven Danzer Ph.D.

Professional Wetland Scientist, Soil Scientist, Arborist,
Ph.D. in Renewable Natural Resource Studies

Certified Professional
Soil Scientist

--3 attachments
Site Map
Appendix A: Photos
NDDB Map from CT ECO

417 Main Street, Monroe, CT

Steven Danzer Ph.D. & Associates LLC
www.CTWetlandsConsulting.com

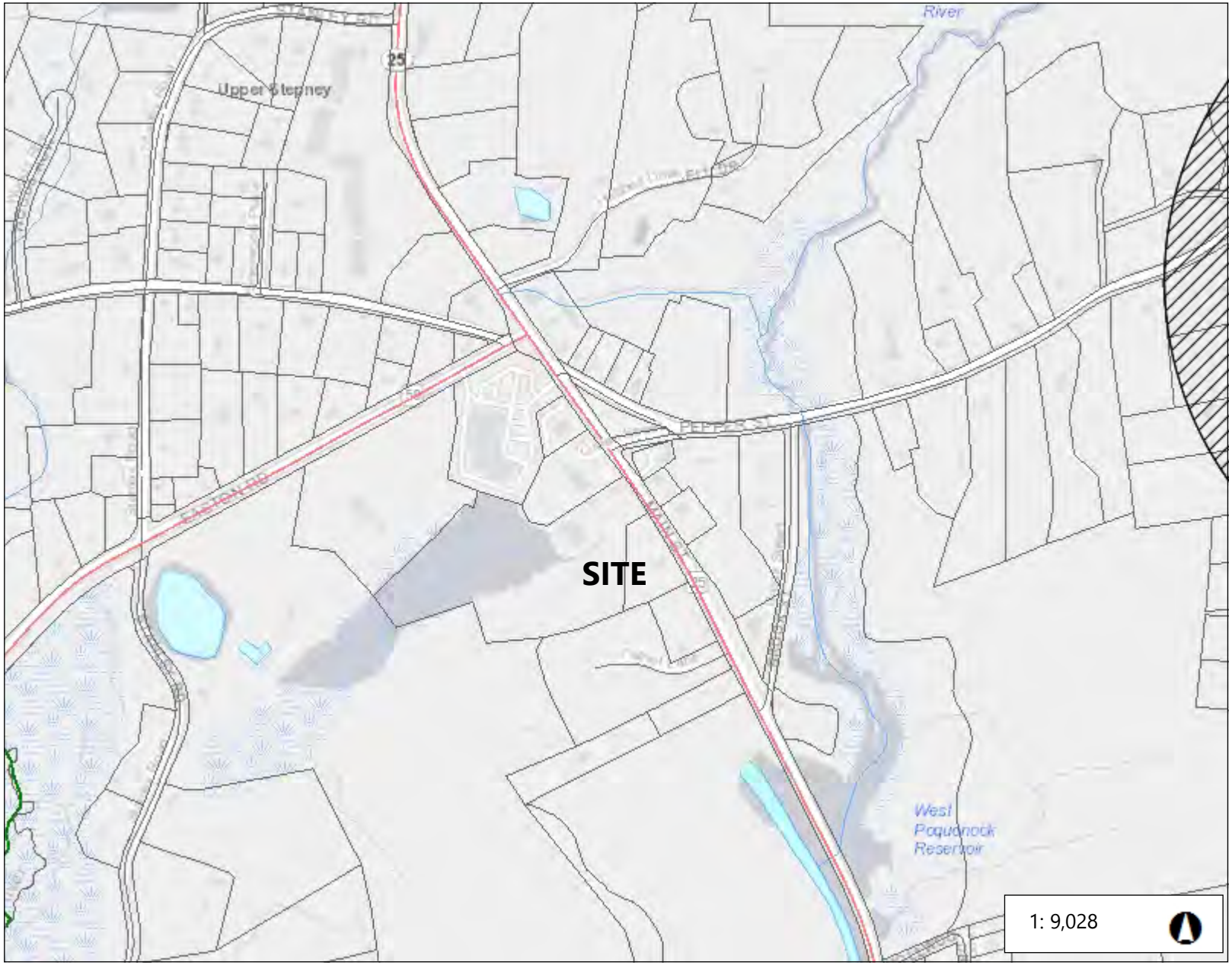
50 25 0 50 Feet

1 inch = 50 feet

N
W E
S

NDDB SEARCH

CT Environmental Conditions Online



Legend

Critical Habitat

- Beachshore, B
- Intertidal Marsh, IM
- Acidic Atlantic White Cedar Swamp
- Acidic Red/Black Spruce Basin Swa
- Circumneutral Northern White Ceda
- Floodplain Forest, FF
- Beachshore, B
- Circumneutral Spring Fen, CirSF
- Floodplain Forest, FF
- Freshwater Aquatic, FA
- Medium Fen, MF
- Poor Fen, PF
- Rich Fen, RF
- Sea Level Fen, SLF
- Coastal Woodland/Shrubland, CWS
- Dry Acidic Forest, DAF
- Dry Circumneutral Forest, DCF
- Dry Subacidic Forest, DSF
- Old Growth Forest, OGF
- Subacidic Cold Talus Forest/Woodl
- Acidic Rocky Summit Outcrop, AcR
- Alluvial Grassland/Outcrop, AllG/O
- Circumneutral Rocky Summit Outcr
- Coastal Bluffs and Headlands, CBH
- Coastal Grassland, CG

1: 9,028

0.3 0 0.14 0.3 Miles

THIS MAP IS NOT TO BE USED FOR NAVIGATION

This map is intended for general planning, management, education, and research purposes only. Data shown on this map may not be complete or current. The data shown may have been compiled at different times and at different map scales, which may not match the scale at which the data is shown on this map.

Notes

10/20/22

Appendix A.
Photos
417 Main Street, Monroe

Photo 1. Mitigation area for wetland restoration/creation: Looking west with pond to the north. **10/13/22.**

Photo 2. Mitigation area for buffer enhancements. Looking west. **10/13/22.**

Photo 3. Intermittent watercourse. Looking east, downstream from crossing. Note stalks of corn growing to the south (right of the watercourse). **10/13/22.**

Photo 4. Intermittent watercourse. Looking upstream. **10/6/22.**

Photo 5. Intermittent watercourse. Looking upstream above crossing towards wetland restoration/creation area. **10/13/22.**

Photo 6. Pond. Looking west . **10/13/22.**

ENGINEERING REPORT

FOR THE PROPOSED DEVELOPMENT OF

417 MAIN STREET

PREPARED ON: OCTOBER 14, 2022

PREPARED BY:

J. EDWARDS & ASSOCIATES, LLC
227 STEPNEY ROAD, EASTON CT, 06612

Larry Edwards, P.E.

PROJECT OVERVIEW:

The proposed project includes the piping of an existing intermittent watercourse. There is no proposed increase of impervious area therefore no storm water retention or water quality volume calculations have been provided.

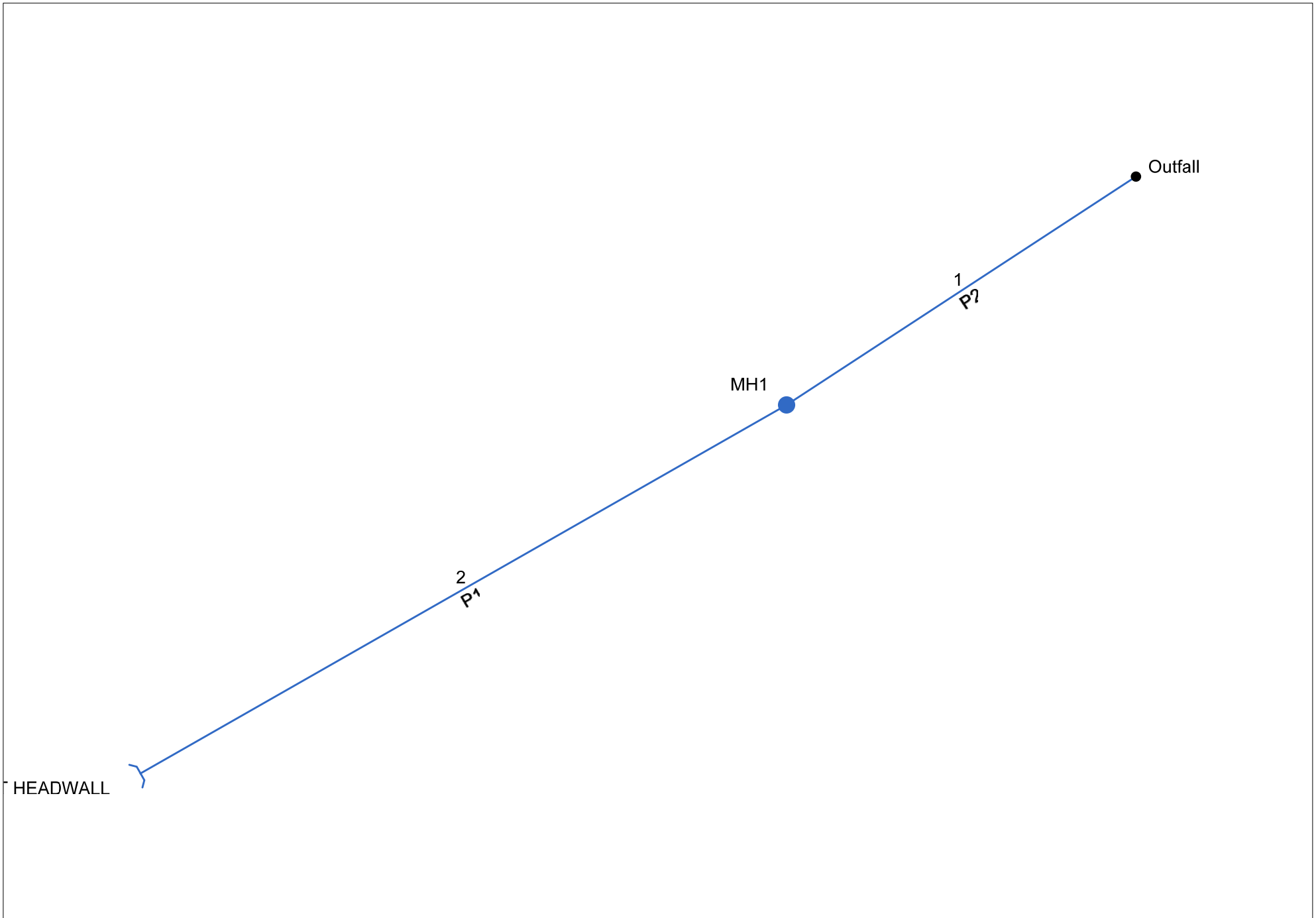
The existing intermittent watercourse serves as an outflow for a 6 acre pond west of the developed portion of the property. This pond has a tributary area of approximately 23.8 acres. The limits of this area are depicted on sheet 5.1 of the plan set that accompanies this report. It is proposed to install a 24" headwall inlet at the pond edge. This inlet will discharge to 24" piping that will then connect into the existing manhole on the east side of the site. The 24" piping will match the existing outlet of this manhole

A Hydraulic analysis was completed using Hydraflow Storm Sewers software. Current NOAA rainfall intensities were used in the calculations. The results of this analysis conclude that a 24" pipe will accommodate the calculated flow during a 25 year storm event. The details of the analysis are included the attached appendix A.

APPENDIX A
HYDRAULIC ANALYSIS

227 Stepney Road • Easton, CT • 06612 • Phone:203.268.4205 • Fax: 203.268.5604
www.jedwardsassoc.com • www.leassoc.com
Engineering • Surveying • Site Planning

Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: 102322.stm	Number of lines: 2	Date: 10/25/2022

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	108.835	146.743	MH	0.00	0.00	0.00	0.0	344.66	1.69	346.50	24	Cir	0.012	0.15	352.50	P2
2	1	193.877	3.477	Hdwl	0.00	23.77	0.50	127.0	346.50	2.11	350.60	24	Cir	0.012	1.00	352.84	P1

Project File: 102322.stm

Number of lines: 2

Date: 10/25/2022

Structure Report

Struct No.	Structure ID	Junction Type	Rim Elev (ft)	Structure			Line Out			Line In		
				Shape	Length (ft)	Width (ft)	Size (in)	Shape	Invert (ft)	Size (in)	Shape	Invert (ft)
1	MH1	Manhole	352.50	Cir	4.00	4.00	24	Cir	346.50	24	Cir	346.50
2	24_ INLET HEADWALL	OpenHeadwall	352.84	n/a	n/a	n/a	24	Cir	350.60			

Project File: 102322.stm | Number of Structures: 2 | Run Date: 10/25/2022

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	P2	15.44	24	Cir	108.835	344.66	346.50	1.691	345.64	347.92	0.10	347.92	End	Manhole
2	P1	15.48	24	Cir	193.877	346.50	350.60	2.115	347.92	352.02	n/a	352.02	1	OpenHeadwall

Project File: 102322.stm

Number of lines: 2

Run Date: 10/25/2022

NOTES: Return period = 25 Yrs.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
1	MH1	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	0.000	0.00	0.000	0.000	0.000	0.00	0.00	0.00	0.00	0.0	Off
2	24_ INLET HEAD	15.48	0.00	15.48	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	0.00	0.000	0.000	0.013	0.00	0.00	0.00	0.00	0.0	Off

Project File: 102322.stm | Number of lines: 2 | Run Date: 10/25/2022

NOTES: Inlet N-Values = 0.016; Intensity = 40.41 / (Inlet time + 3.80) ^ 0.70; Return period = 25 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)		Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)	Ave Sf (%)	Enrgy loss (ft)		
(1)	(in) (2)	(cfs) (3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(ft) (12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(K) (23)	(ft) (24)
1	24	15.44	344.66	345.64	0.98	1.54	10.06	0.66	346.30	0.000	108.835	346.50	347.92	1.42**	2.38	6.50	0.66	348.57	0.000	0.000	n/a	0.15	0.10
2	24	15.48	346.50	347.92	1.42	2.38	6.51	0.66	348.57	0.000	193.877	350.60	352.02	1.42**	2.38	6.50	0.66	352.67	0.000	0.000	n/a	1.00	n/a

Project File: 102322.stm | Number of lines: 2 | Run Date: 10/25/2022

Notes: ; ** Critical depth. ; c = cir e = ellip b = box

Hydraflow HGL Computation Procedure

General Procedure:

Hydraflow computes the HGL using the Bernoulli energy equation. Manning's equation is used to determine energy losses due to pipe friction. In a standard step, iterative procedure, Hydraflow assumes upstream HGLs until the energy equation balances. If the energy equation cannot balance, supercritical flow exists and critical depth is temporarily assumed at the upstream end. A supercritical flow Profile is then computed using the same procedure in a downstream direction using momentum principles.

Col. 1 The line number being computed. Calculations begin at Line 1 and proceed upstream.

Col. 2 The line size. In the case of non-circular pipes, the line rise is printed above the span.

Col. 3 Total flow rate in the line.

Col. 4 The elevation of the downstream invert.

Col. 5 Elevation of the hydraulic grade line at the downstream end. This is computed as the upstream HGL + Minor loss of this line's downstream line.

Col. 6 The downstream depth of flow inside the pipe (HGL - Invert elevation) but not greater than the line size.

Col. 7 Cross-sectional area of the flow at the downstream end.

Col. 8 The velocity of the flow at the downstream end, (Col. 3 / Col. 7).

Col. 9 Velocity head (Velocity squared / 2g).

Col. 10 The elevation of the energy grade line at the downstream end, HGL + Velocity head, (Col. 5 + Col. 9).

Col. 11 The friction slope at the downstream end (the S or Slope term in Manning's equation).

Col. 12 The line length.

Col. 13 The elevation of the upstream invert.

Col. 14 Elevation of the hydraulic grade line at the upstream end.

Col. 15 The upstream depth of flow inside the pipe (HGL - Invert elevation) but not greater than the line size.

Col. 16 Cross-sectional area of the flow at the upstream end.

Col. 17 The velocity of the flow at the upstream end, (Col. 3 / Col. 16).

Col. 18 Velocity head (Velocity squared / 2g).

Col. 19 The elevation of the energy grade line at the upstream end, HGL + Velocity head, (Col. 14 + Col. 18) .

Col. 20 The friction slope at the upstream end (the S or Slope term in Manning's equation).

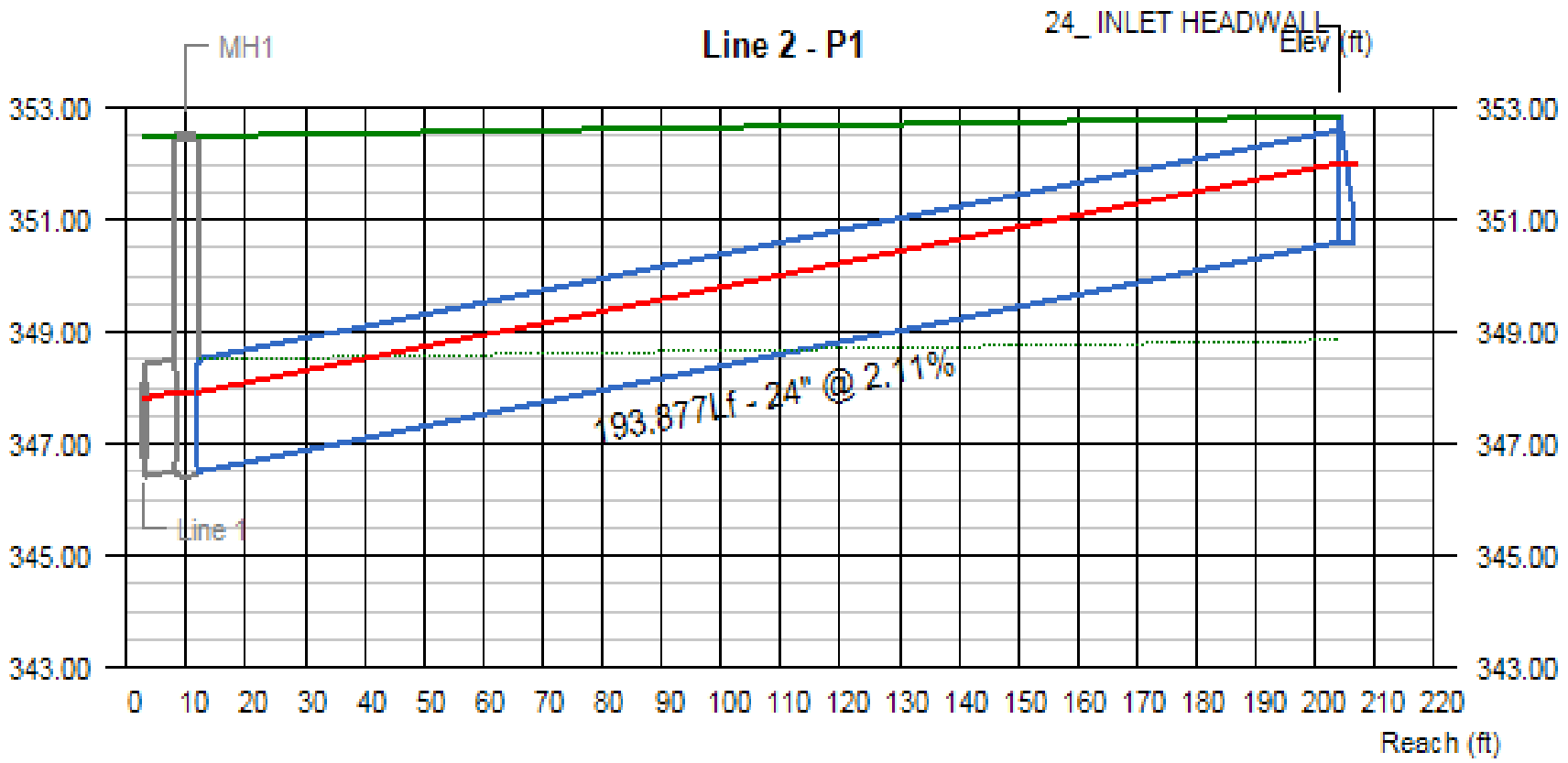
Col. 21 The average of the downstream and upstream friction slopes.

Col. 22 Energy loss. Average Sf/100 x Line Length (Col. 21/100 x Col. 12). Equals (EGL upstream - EGL downstream) +/- tolerance.

Col. 23 The junction loss coefficient (K).

Col. 24 Minor loss. (Col. 23 x Col. 18). Is added to upstream HGL and used as the starting HGL for the next upstream line(s).

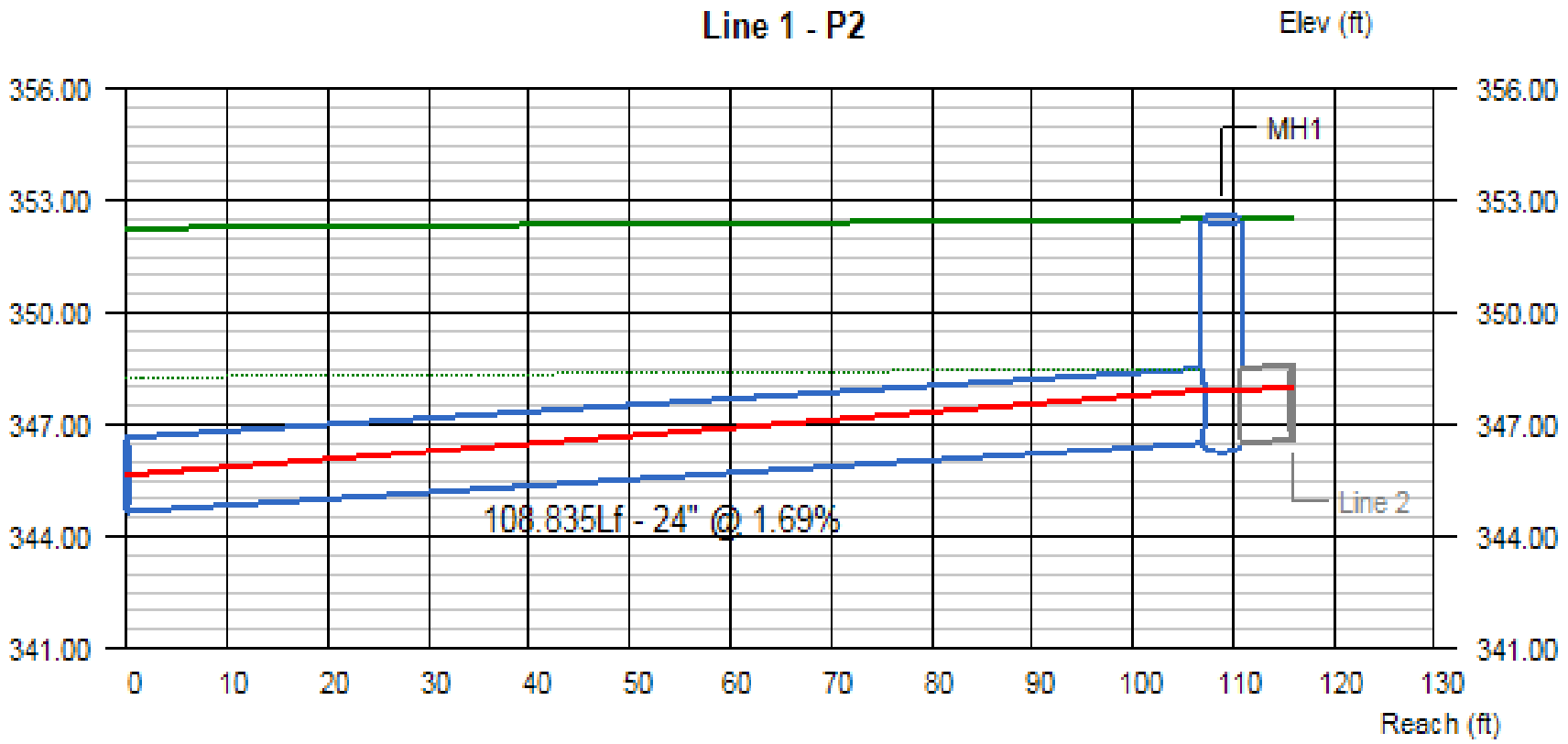
Line Profile (Line 2) - P1



Line #	Q	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
	(cfs)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
2	15.48	346.50	350.60	1.42	1.42	1.42	347.92	352.02	352.02	6.51	6.50	4.00	0.24

Project File: | No. Lines: 2 | Run Date: 10/25/2022

Line Profile (Line 1) - P2

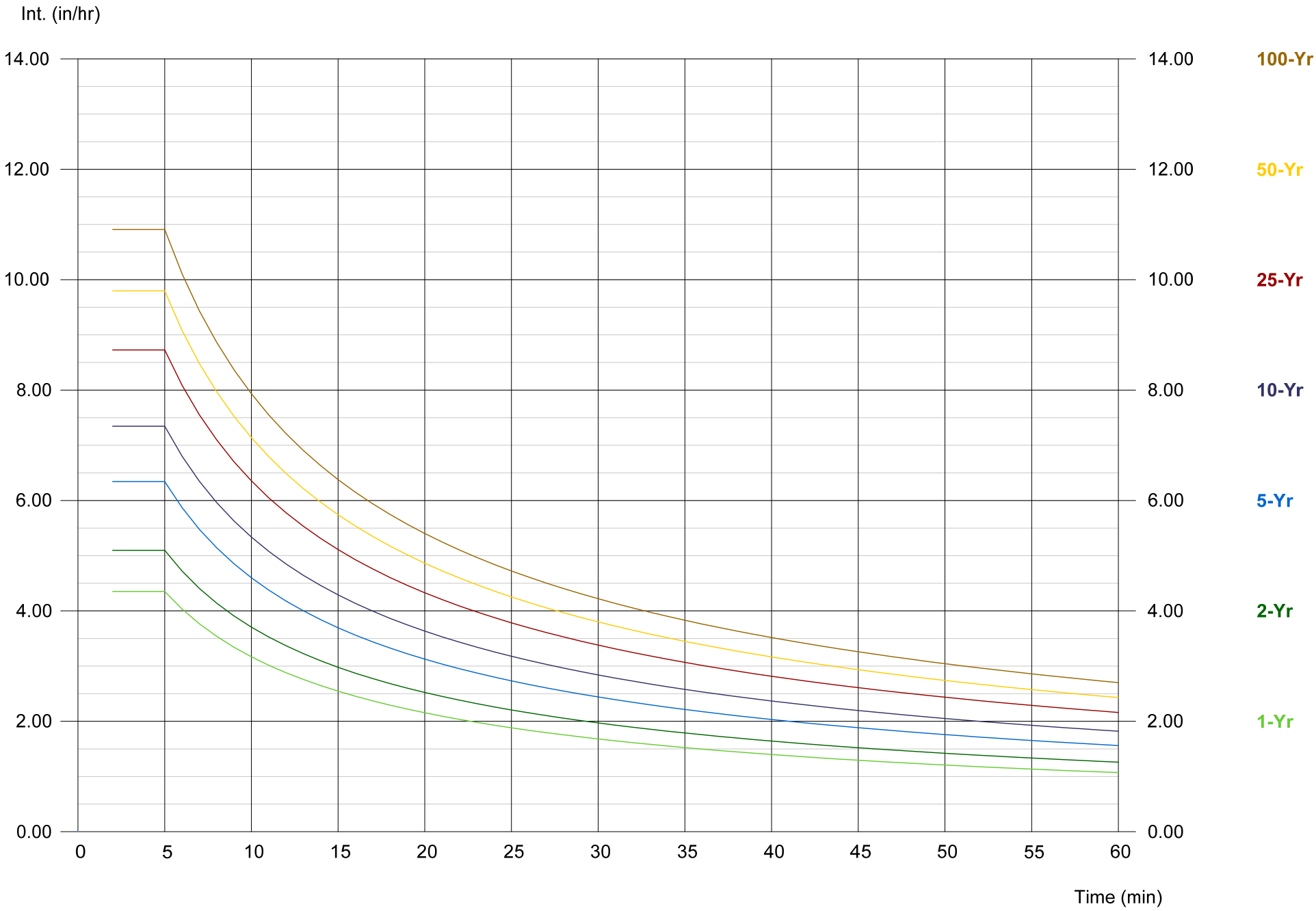


Line #	Q	Invert Elevation		Depth of Flow			Hydraulic Grade Line			Velocity		Cover	
	(cfs)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Hw (ft)	Dn (ft)	Up (ft)	Jnct (ft)	Dn (ft/s)	Up (ft/s)	Dn (ft)	Up (ft)
1	15.44	344.66	346.50	0.98	1.42	1.42	345.64	347.92	347.92	10.06	6.50	5.60	4.00

Project File: | No. Lines: 2 | Run Date: 10/25/2022

Storm Sewer IDF Curves

IDF file: MONROE-noaa.IDF



Hydraflow IDF Report

Return Period (Yrs)	Equation Coefficients (FHA)			
	B	D	E	(N/A)
1	20.6213	3.9000	0.7117	--------
2	23.2694	3.7000	0.7019	--------
3	0.0000	0.0000	0.0000	--------
5	28.6672	3.6000	0.7010	--------
10	32.9385	3.6000	0.6973	--------
25	40.4138	3.8000	0.7048	--------
50	45.2704	3.8000	0.7038	--------
100	49.7530	3.7000	0.7014	--------

Intensity = B / (Tc + D)^E

Return Period (Yrs)	Intensity Values (in/hr)											
	5 min	10	15	20	25	30	35	40	45	50	55	60
1	4.35	3.17	2.55	2.15	1.88	1.68	1.52	1.40	1.29	1.21	1.13	1.07
2	5.10	3.71	2.98	2.52	2.21	1.97	1.79	1.64	1.52	1.42	1.33	1.26
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	6.34	4.60	3.69	3.13	2.73	2.44	2.21	2.03	1.88	1.76	1.65	1.56
10	7.35	5.34	4.29	3.63	3.18	2.84	2.58	2.37	2.20	2.05	1.93	1.82
25	8.73	6.36	5.11	4.33	3.78	3.38	3.07	2.82	2.61	2.44	2.29	2.16
50	9.80	7.14	5.74	4.86	4.25	3.80	3.45	3.17	2.93	2.74	2.57	2.43
100	10.91	7.93	6.38	5.40	4.72	4.22	3.83	3.52	3.26	3.04	2.86	2.70

Tc = time in minutes. Min Tc = 5