SOLLI ENGINEERING

August 4, 2021

Planning and Zoning Department
Town of Monroe
7 Fan Hill Road
Monroe, CT 06468
(203) 452-2809

RE: Excavation/Filling Permit Application
10 & 36 Main Street
Monroe, Connecticut 06468
Project Number: 2008001

Dear Commission Members,

On behalf of the Applicant, 10 & 36 Main Street LLC, please find enclosed an application for an Excavation/Filling Permit for the proposed activities located at 10 & 36 Main Street in Monroe, Connecticut. The project entails earthwork, drainage & erosion control measures, including the construction of a stormwater quality basin, to prepare the site for future development. A total of 167,790 CY of fill is to be imported to the site and placed in structural lifts, to an average elevation of 328 feet. At the completion of the filling operation, the entire limit of disturbance will be seeded to provide stabilization and erosion control.

Please review the attached items and requisite fees provided herein. If you have any comments or questions, please provide them at your earliest convenience. We look forward to working with you on this application.

Respectfully,

Solli Engineering, LLC

Kevin Solli, P.E.
Principal

CC: Scott Schatzlein, P.E. (Town Engineer)
Stephen Finn (Esq.)
Arnold Karp
Paul Stone

Enclosures: Excavation/Filling Permit Application
Engineering Memorandum
List of Abutting Property Owners
Waiver Letter
Bond Estimate Form
Plan Set
Wetland and Watercourse Delineation Report

501 Main Street, Suite 2A
Monroe, CT 06468
Office: (203) 880-5455

351 Newbury Street, Suite 303
Boston, MA 02115
Office: (617) 203-3160

www.SolliEngineering.com

EXCAVATION / FILLING PERMIT
APPLICATION

TOWN OF MONROE
PLANNING & ZONING DEPARTMENT
7 Fan Hill Road, Monroe, CT 06468
Tel. (203) 452-2812

FOR OFFICE USE:
EFP – _____
File Number – _____

Project Name: Excavation/Filling Permit Application

Street Address: 10 & 36 Main Street

Zoning District: Business District 2 (B-2)

Lot Acreage: 14.35 (Total) **Assessor Map Number:** 4 **Lot Number:** 35/00 & 36/00

Brief Description and Purpose/Reasons for Excavation / Filling: The project proposes earthwork activities and the import of fill material from various sites to 10 & 36 Main Street, to fill to an average elevation of approximately 328 feet. The purpose of the proposed fill activity is to prepare the site for future development. Please see the Engineering Memorandum included as a part of this application for more information.

Also attach detailed Project Narrative as required in the Zoning Regulations

❖ ***TAKE NOTE: It is the applicant's responsibility to provide all the information the Commission will need in order to process the application and make a fair determination of the issues. If an applicant fails to supply timely or sufficient information, it may result in delay, denial of the application, or both. Applicants are highly recommended to be represented by qualified representatives and to consult the Town of Monroe Plan of Conservation and Development, as well as the detailed application requirements and standards set forth in the Town of Monroe Subdivision, Zoning and Inland Wetlands Regulations.***

- **Pre-Submission Conference** – Contact the Planning and Zoning Administrator (203-452-2812) to schedule one or more preliminary pre-submission conferences with staff (***this is highly recommended***).

- **Formal Application Submission** – Provide **eleven (11) paper application sets** (***plans folded and materials collated into individual sets***) **and one (1) pdf CD** including the following materials: (a) signed application form; (b) supporting application narrative; (c) supporting investigative and impact analyses reports; (d) 100-foot abutters list; and (e) complete set of Site Plans. The application submission will be reviewed by the **Commission** and the Town's **Application Review Team (ART)** consisting of Department Staff from Planning and Zoning, Engineering, Wetlands, Fire Marshal, Police (traffic authority), Health and Building.

- **Sealed and Certified Plans** – All required A-2 and T-2 Surveys, Site Plans, Architectural Plans and supporting analyses Reports as prepared by consultant engineers, surveyors, landscape architects, architects, etc. must be current and include an original seal and live signature certification.

- **Project Timeline** – Following official receipt of an application, a **Project Timeline** listing milestone dates and actions to be followed during the review will be emailed to the applicant's Primary Project Contact.

Application No. _____ **File No.** _____

APPLICATION FEE

Excavation / Filling Permit Base Fee: $675.00 minimum or $100 per acre (whichever is greater).....$ 1,288**
Connecticut State Surcharge..... $ 60.00

Payable to the Town of Monroe **TOTAL APPLICATION FEE:** **$** 1,348 *

Include driver's license number and telephone number on fees paid with a personal check.

**Calculated from total acreage of proposed excavation/fill activities

APPLICATION INFORMATION

1. **Where is the property deed found in the Monroe Land Records?**

   a) Date: 12/27/2017 Volume: 1987 Page: 0113

2. **What is the origin of the application property (i.e., when and how was the current property created?) List recorded maps of previous subdivision, resubdivision and lot line adjustments involving the property:**

   See Engineering Memorandum included as part of this Submission.

3. **Supporting Maps and Project Narrative:** **Refer to Zoning Regulations §6.4**

   - **Attach all required Maps, Reports and Project Narratives as required by the Zoning Regulations.**

PRIMARY PROJECT CONTACT

4. **Primary Contact Name:** Kevin Solli, P.E. / Solli Engineering, LLC
   Business Address: 501 Main Street, Suite 2A, Monroe, CT 06468
   Phn/Cell: 203-880-5455 Email: Kevin@SolliLLC.com

   The Primary Project Contact will be sent all correspondence (primarily via email) during the course of the project review and is responsible for distributing to the other project representatives.

PROJECT TEAM INFORMATION

5. **Owner's Name:** 10 & 36 Main Street LLC
   Address: 16 Cross Street, New Canaan, CT 06840
   Phn/Cell: (203) 972-3366 Email: akarp@karpassociatesinc.com

6. **Applicant's name:** 10 & 36 Main Street LLC
   Address: 16 Cross Street, New Canaan, CT 06840
   Phn/Cell: (203) 972-3366 Email: akarp@karpassociatesinc.com
   Interest in property: ■ Owner □ Contract Vendee □ Tenant □ Other _____

7. **Application Professionals** ***Name*** ***Phone/Cell*** ***Email***
   Surveyor: Bryan Nesteriak, P.E., LS / Accurate Land Surveying, LLC, 203-881-8145, bn@bbengrs.com
   Engineer: Kevin Solli, P.E. / Solli Engineering, LLC, (203) 880-5455, Kevin@SolliLLC.com
   Landscape Architect: Mary Blackburn, PLA / Solli Engineering, LLC, (203) 880-5455, Mary@SolliLLC.com
   Architect: _____
   Other: _____

Application No. _____ File No. _____

8. **Is the property located within a flood plain?**

□ No ■ Yes If "yes" ■ 100-year □ 500-Year **Contact Flood Plain Administrator at 203-452-2812.**

9. **Is the property located within 500 feet of a town boundary?**

□ No ■ Yes **Abutting town(s):** Trumbull _____ _____

10. **Is the property subject to an existing conservation or preservation restriction (i.e., Conservation Easement)?**

■ No

□ Yes **Provide a notarized statement pursuant to CT Public Act 05-124 indicating:**

- **The proposed application involves only interior building alterations; OR**
- **Written notice of such application has been sent by certified mail, return receipt requested, not later than sixty (60) days prior to the filing of the application to the party holding the conservation or preservation Restriction; OR**
- **In lieu of notice, provide a letter from the holder or holder's authorized agent, verifying that the application is in compliance with the terms of the restriction.**

11. **Is the property located within a public water supply watershed?**

■ No

□ Yes Name of watershed: _____

NOTE: **Within seven (7) days of application submission, the applicant is required to also send a copy of the application to the Aquarion Water Company of Connecticut, 714 Black Rock Road, Easton, CT 06612, and to the Connecticut Commissioner of Public Health, 410 Capitol Avenue, Hartford, CT 06106; and provide evidence documenting same to the Planning and Zoning Department.**

12. **Are there inland wetlands, watercourses, lakes or ponds or other water related resources on or within 100 feet of the property; and/or is there a named watercourse within 150 feet of the property?**

Attach Soil Scientist inspection report/verification and delineation report and survey map.

□ No ■ Yes Area of property regulated 2.47 (ac) 17.21 (% of property)

Contact the Inland Wetlands Department 203-452-2809 prior to proceeding with this application.

13. **Previous or Current Wetland Permits or Violations for Property (list Wetland File #s and dates):**

_____

14. **Describe topographic conditions and assess to what extent slopes 15% and greater may limit development potential or which otherwise require specialized engineering to support future development?**

3.35 ac (25% and greater) 1.41 ac (15-15%) 1.44 ac (10-15%) 8.15 ac (0-10%)

Attach a separate narrative with a Slopes Map showing the location and acreage of sloped areas:

15. **Are any waivers of the Zoning Regulations application requirements requested?**

□ No ■ Yes **Attached a separate written request and rational in support thereto.**

Application No. _____ **File No.** _____

16. Quantify the proposed disturbance, excavation and/or filling activity:

Total area proposed to be disturbed: 12.88 (acres) 561,131 (square feet)

- □ Cubic yards of Excavation 15,219 (cubic yards)
- □ Cubic yards of Fill 183,009 (cubic yards)
- □ Cubic yards of Export (removal from site) N/A (cubic yards)
- □ Cubic yards of Import (brought onto the site) 167,790 (cubic yards)

17. Export / Import activities: **Attach supporting reports and plans.**

Origin of imported fill material: Commercially available material from local sources. A significant amount of fill will come from 127 Main Street in Monroe.

Fill material content and condition: Fill suitable to be used as structural fill within future building and parking area

Destination of exported material: N/A

Truck transport route within Town: Route 25 (Main Street)

18. Topsoil

- ■ Topsoil will be scraped and stockpiled with erosion controls onsite prior to grading
- □ Topsoil will be brought in for final site restoration/stabilization: _____ (cubic yards)

19. Describe method(s) of earth movement and site stabilization:

The earth movement will involve several machines as indicated on Sheet 2.21 included within this application. Material will be trucked in, stockpiled, and then placed in structural lifts.

At the completion of the filling operation, the entire limit of disturbance will be seeded to provide stabilization and erosion control.

20. Will Storm Water Detention and/or Retention be needed for this proposal?

- □ No **Provide reasons - attach additional sheets as necessary:**
- ■ Yes **Provide list of provisions - attach stormwater report or additional sheets as necessary:**

The project proposes the construction of one stormwater quality basin for future site development. Please see the Engineering Memorandum for more information.

21. Have Storm Water Quality Control measures been included in this proposal?

- □ No **Provide reasons - attach additional sheets as necessary:**
- ■ Yes **Provide list of measures - attach stormwater report or additional sheets as necessary:**

Vegetated water quality swales, level spreaders, and a stormwater quality basin have been proposed. Please see the Engineering Memorandum for more information.

22. Have Low Impact Development (LID) measures been considered as additional features for this proposal?

- □ No **Provide reasons – attach stormwater report or additional sheets as necessary:**
- ■ Yes **Provide list of LID measures - attach stormwater report or additional sheets as necessary:**

Diversion swales with stone check dams, temporary sediment basins and other items have been included as soil erosion measures.

LID measures will be included in any future development reflective of the potential development plan.

Application No. _____ File No. _____

I(we) hereby certify that I(we) make this application as or on behalf of and with the full authority of the owner(s) of the property or premises and am aware of and understand the Zoning, Subdivision and Inland Wetlands Regulations pertinent to the application and affirm that the statements and information provided are accurate and true. Further, all the undersigned hereby authorizes the Town of Monroe and its agents, to access the premises for the purpose of application investigation, site review, inspection of improvements or construction, and enforcement of the Town's Regulations and Ordinances, and the General Statutes of the State of Connecticut, as may be applicable.

All the undersigned warrant the truth of all statements contained herein and in all supporting documents according to the best of their knowledge and belief. Further, all the undersigned understand and agree that the Planning and Zoning Commission and/or its Staff/Consultants may request additional information and it is the applicant's/owner's responsibility to provide this information in a timely fashion and to the Commission's satisfaction. If the information provided is incomplete or inaccurate, the Commission may deny the application or request an extension to be granted by the applicant/owner in order to act within applicable legal time limits.

This agreement shall be binding on all heirs, executors, administrators, successors and assigns of all undersigned.

APPLICANT(S) – (Both Applicant and Owner Notarized Signatures are required)

10 & 36 Main Street LLC
Applicant Name Printed

Arnold Karp
Authorized Signature M. Member

7/22/21
Date

_____
Additional Applicant
(Provide additional sheets as needed)

_____
Authorized Signature

_____
Date

Subscribed and sworn to by Arnold M. Karp *on this day of* July 22nd, *20* 21, *before me:*

Michelle Sirois
Notary Public, Justice of the Peace, Commissioner of the Superior Court

MICHELLE SIROIS
NOTARY PUBLIC
MY COMMISSION EXPIRES SEPT. 30, 2023

Please note the following: This application must include the owner's signature and notarization or a written, notarized consent to submit this application, signed and dated by the owner.

OWNER(S) – (Both Applicant and Owner Notarized Signatures are required)

10 & 36 Main Street LLC
Owner Business Name

Arnold M. Karp
Authorized Member Name Printed

Arnold Karp
Authorized Signature M. Member

7/22/21
Date

Subscribed and sworn to by Arnold M. Karp *on this day of* July 22nd, *20* 21, *before me:*

Michelle Sirois
Notary Public, Justice of the Peace, Commissioner of the Superior Court

MICHELLE SIROIS
NOTARY PUBLIC
MY COMMISSION EXPIRES SEPT. 30, 2023

ABBUTERS – 100 FEET OF 10-36 MAIN STREET, MONROE, CT
PROJECT #2008001

1 Victoria Drive **Monroe, CT 06468**	**012/047/0A**	**FSI DYO5 LLC** **C/O Frank S Imburgia Jr - MGR** **90 Goodway Dr** **Rochester, NY 14623**
2 Victoria Drive **Monroe, CT 06468**	**012/ 047/ 02**	**Gen IV LLC** **c/o O & G INDUSTRIES INC** **112 Wall St.** **Torrington, CT 06790**
5 Victoria Drive **Monroe, CT 06468**	**004/037/04**	**Victoria Drive Associates LLC** **Mark Christo MGR** **26 Arrowhead Dr** **Monroe, CT 06468**
1 Main Street **Monroe, CT 06468**	**004/039/00**	**One-Fifteen Main St Monroe LLC** **C/O Mitchell De Esso - MGR** **7182 Main St.** **Trumbull, CT 06611**
4 Main Street **Monroe, CT 06468**	**004/037/02**	**7192 Main St LLC** **C/O Mitchell De Esso - MBR** **7182 Main St.** **Trumbull, CT 06611**
7 Main Street **Monroe, CT 06468**	**004/ 002/ 00**	**One-Fifteen Main St Monroe LLC** **C/O Mitchell De Esso - MGR** **7182 Main St.** **Trumbull, CT 06611**
15 Main Street **Monroe, CT 06468**	**004/ 003/ 00**	**One-Fifteen Main St Monroe LLC** **C/O Mitchell De Esso - MGR** **7182 Main St.** **Trumbull, CT 06611**
27 Main Street **Monroe, CT 06468**	**004/ 004/ 00**	**JETAA LLC** **Meeta Reddy MRG MBR** **27 Main St.** **Monroe, CT 06468**
37 Main Street **Monroe, CT 06468**	**004/ 005/ 00**	**Pernek Karl** **215 Old Newtown Rd.** **Monroe, CT 06468-1101**
Main Street **Trumbull CT, 06611**	**C/01/00028/000**	**Munson Builders Inc** **55 Chambers St.** **Fairfield, CT 06825**

SOLLI ENGINEERING

August 4, 2021

Planning and Zoning Department
Town of Monroe
7 Fan Hill Road
Monroe, CT 06468
(203) 452-2812

RE: Excavation/Filling Permit Application Waiver Request
10 & 36 Main Street
Monroe, Connecticut 06468
Project Number: 2008001

Dear Commission Members:

On behalf of 10 & 36 Main Street LLC, we respectfully request waivers for the proposed Excavation/Filling Permit Application for proposed construction activities located at 10 & 36 Main Street, Monroe, Connecticut. The project proposes earthwork operations and the placement of 167,790 CY of fill material on the property.

In accordance with section §6.4.23 of the Monroe Zoning Regulations, we are requesting waivers for the following regulations:

- Per section §6.4.9.C – No change in contour shall be made within twenty-five (25) feet of any property line.

  We are requesting a waiver from this section as the application involves two parcels which share a common property line, of which grading is proposed to occur across in order to join the two parcels together and eliminate a large grade change along the property line.

- Per section §6.4.9.D – No artificial slope greater than fourteen degrees (14°) to the horizontal (or maximum four feet horizontal to one foot vertical) shall be created within fifty feet of any property line.

  This waiver is requested as part of the project's future site development plan and construction preparation. This process will allow the excavation and fill within the project site to occur only once during a limited short duration basis, instead of multiple phases during the construction process.

- Per section §6.4.9.P – All permitted such activities regardless of permitted location shall not include, permit or involve materials from offsite locations.

  We are requesting the commission grant a waiver to process (Sorting, grading, crushing) materials from offsite locations in order to place those materials onsite.

These waivers are requested as part of the project's future site development plan and construction preparation. These waivers will allow the excavation and fill within the project site to progress smoothly and to adequately prepare the site for future development.

Please let us know if you have any questions regarding the waivers requested. We look forward to working with you in the processing of this application.

Respectfully,

Solli Engineering, LLC

Kevin Solli, P.E.
Principal

CC: Scott Schatzlein, P.E. (Town Engineer)
Richard Schultz (Town Planner)
Stephen Finn
Arnold Karp
Paul Stone

WILLIAM KENNY ASSOCIATES LLC

SOIL SCIENCE
ECOLOGICAL SERVICES
LAND USE PLANNING
LANDSCAPE ARCHITECTURE

April 22, 2021

Mr. Chris Pawlowski
Solli Engineering
501 Main Street, Suite 2-A
Monroe, CT 06468

Re: Wetland and Watercourse Delineation
10 & 36 Main Street, Monroe, Connecticut

Dear Mr. Pawlowski:

As requested, we visited the referenced properties to determine the presence or absence of wetlands and/or watercourses, to demarcate (flag) the boundaries of wetlands and watercourses identified, and to identify onsite soil types. This letter includes the methods and results of our investigation, which we completed today, April 22, 2021. In summary, one inland wetland system was identified and delineated. The system, which is located in the eastern portion of 10 Main Street, is a woodland wetland.

Regulatory Definitions

The Inland Wetlands and Watercourses Act (Connecticut General Statutes §22a-38) defines inland wetlands as "land, including submerged land...which consists of any soil types designated as poorly drained, very poorly drained, alluvial, and floodplain." Watercourses are defined in the act as "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 the state or any portion thereof." The Act defines Intermittent Watercourses as having 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.

Methodology

A second order soil survey in accordance with the principles and practices noted in the USDA publication *Soil Survey Manual* (1993) was completed at the subject site. The classification system of

195 TUNXIS HILL CUTOFF S
FAIRFIELD, CT 06825
PHONE: 203 366 0588
FAX: 203 366 0067
www.wkassociates.net

the National Cooperative Soil Survey was used in this investigation. Soil map units identified at the project site generally correspond to those included in the *Soil Survey of the State of Connecticut* (USDA 2005).

Wetland determinations were completed based on the presence of poorly drained, very poorly drained, alluvial, or floodplain soils. Soil types were identified by observation of soil morphology (soil texture, color, structure, etc.). To observe the morphology of the property's soils, test pits and/or borings (maximum depth of two feet) were completed at the site.

Intermittent watercourse determinations were made based on the presence of 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.

Wetland boundaries were demarcated (flagged) with pink surveyor's tape (hung from vegetation) or small flags (on wire stakes) labeled "William Kenny Associates" that are generally spaced a maximum of every 50 feet. Complete boundaries are located along the lines that connect these sequentially numbered flags. The wetland boundaries are subject to change until adopted by local, state, or federal regulatory agencies.

Results

The approximate 14.2-acre commercial properties are located at 10 and 36 Main Street in Monroe, Connecticut. Main Street borders the western property boundary and Victoria Drive borders the northern property boundary. Property improvements include asphalt drives and parking areas. The vegetative cover in the eastern portion of the properties is a broadleaved deciduous woodland. An invasive dominated meadow is present in the western and central portions of the properties.

One inland wetland system was identified and delineated. The system, which is located in the eastern portion of 10 Main Street, is a woodland wetland. Wetland soils are primarily poorly drained and very poorly drained and formed from glacial till deposits or formed from alluvial deposits. The approximate location of the system is shown on the attached map. The boundary of the system was marked at the site with flags numbered 1 to 34.

Six soil map units were identified on the property (two wetland and four upland). Each map unit represents a specific area on the landscape and consists of one or more soils for which the unit is named. Other soils (inclusions that are generally too small to be delineated separately) may account for 10 to 15 percent of each map unit. The mapped units are identified in the following table by name and symbol and typical characteristics (parent material, drainage class, high water table, depth to bedrock, and slope). These characteristics are generally the primary characteristics to be considered in land use planning and management. A description of each characteristic and their land use implications follows the table. A complete description of each soil map unit can be found in the *Soil Survey of the State of Connecticut* (USDA 2005), and at *https://soilseries.sc.egov.usda.gov/osdname.aspx.* On the day of the review, the upland soil was moist and the wetland soil was wet to inundated. The sky was clear and air temperatures were in the 50's ^{o} F.

Map Unit Sym.	Map Unit Name	Parent Material	Slope (%)	Drainage Class	High Water Table Depth (ft)	High Water Table Kind	High Water Table Mos.	Depth To Bedrock (in)
	Upland Soil							
50	Sutton fine sandy loam	Loose Glacial Till	3-8	Moderately Well Drained	1.5-3.5	Apparent	Nov-Apr	>60
60	Canton and Charlton soils	Loose Glacial Till Loose Glacial Till	0-15 0-15	Well Drained Well Drained	>6.0 >6.0	-- --	-- --	>60 >60
306	Udorthents - Urban Land Complex	Excavated or Filled Soil (>2 feet)	0-45	Well Drained to Somewhat Poorly Drained	1.5->6.0	Apparent	Nov-May	>60
		Pavement & structures account for 85% or more of the area. Additional investigations required to determine characteristics						
308	Udorthents, Smoothed	Excavated or Filled Soil (>2 feet)	0-45	Well Drained to Somewhat Poorly Drained	1.5->6.0	Apparent	Nov-May	>60
	Wetland Soil							
3	Ridgebury	Compact Glacial Till	0-8	Poorly Drained	0.0-1.5	Perched	Nov-May	>60
	Leicester	Loose glacial Till	0-3	Poorly Drained	0.0-1.5	Apparent	Nov-May	>60
	Whitman extremely stony fine sandy loam	Compact Glacial Till	0-3	Very Poorly Drained	0.0-0.5	Perched	Sep-Jun	>60
108	Saco silt loam	Alluvium	0-3	Very Poorly Drained	0.0-0.5	Apparent	Sep-June	>60

Parent material is the unconsolidated organic and mineral material in which soil forms. Soil inherits characteristics, such as mineralogy and texture, from its parent material. Glacial till is unsorted, nonstratified glacial drift consisting of clay, silt, sand, and boulders transported and deposited by glacial ice. Glacial outwash consists of gravel, sand, and silt, which are commonly stratified and deposited by glacial melt water. Alluvium is material such as sand, silt, or clay, deposited on land by streams. Organic deposits consist of decomposed plant and animal parts.

A soil's texture affects the ease of digging, filling, and compacting and the permeability of a soil. Generally sand and gravel soils, such as outwash soils, have higher permeability rates than most glacial till soils. Soil permeability affects the cost to design and construct subsurface sanitary disposal facilities and, if too slow or too fast, may preclude their use. Outwash soils are generally excellent sources of natural aggregates (sand and gravel) suitable for commercial use, such as construction sub base material. Organic layers in soils can cause movement of structural footings. Compacted glacial till layers make excavating more difficult and may preclude the use of subsurface sanitary disposal systems or increase their design and construction costs if fill material is required.

Generally, soils with steeper slopes increase construction costs, increase the potential for erosion and sedimentation impacts, and reduce the feasibility of locating subsurface sanitary disposal facilities.

Drainage class refers to the frequency and duration of periods of soil saturation or partial saturation during soil formation. Seven classes of natural drainage classes exist. They range from excessively drained, where water is removed from the soil very rapidly, to very poorly drained, where water is removed so slowly that free water remains at or near the soil surface during most of the growing season. Soil drainage affects the type and growth of plants found in an area. When landscaping or gardening, drainage class information can be used to assure that proposed plants are adapted to existing drainage conditions or that necessary alterations to drainage conditions (irrigation or drainage systems) are provided to assure plant survival.

High water table is the highest level of a saturated zone in the soil in most years. The water table can affect the timing of excavations; the ease of excavating, constructing, and grading; and the supporting capacity of the soil. Shallow water tables may preclude the use of subsurface sanitary disposal systems or increase design and construction costs if fill material is required.

The depth to bedrock refers to the depth to fixed rock. Bedrock depth affects the ease and cost of construction, such as digging, filling, compacting, and planting. Shallow depth bedrock may preclude the use of subsurface sanitary disposal systems or increase design and construction costs if fill material is required.

Conclusions

Today, we investigated the properties at 10 and 36 Main Street in Monroe, Connecticut and identified and delineated one inland wetland system. Thank you for the opportunity to assist you. If you should have any questions or comments, please do not hesitate to contact us.

Sincerely,

William L. Kenny, PWS, PLA
Soil Scientist

Alexander Wojtkowiak
Soil Scientist

Enclosure

Ref. No. 4851

SOIL LEGEND

UPLAND
50 SUTTON FINE SANDY LOAM
60 CANTON AND CHARLTON SOILS
306 UDORTHENTS-URBAN LAND COMPLEX
308 UDORTHENTS, SMOOTHED

WETLAND
3 RIDGEBURY, LEICESTER AND WHITMAN SOILS
108 SACO SILT LOAM

WILLIAM KENNY ASSOCIATES LLC

SOIL SCIENCE
ECOLOGICAL SERVICES
LAND USE PLANNING
LANDSCAPE ARCHITECTURE

195 TUNXIS HILL CUTOFF S
FAIRFIELD, CT 06825
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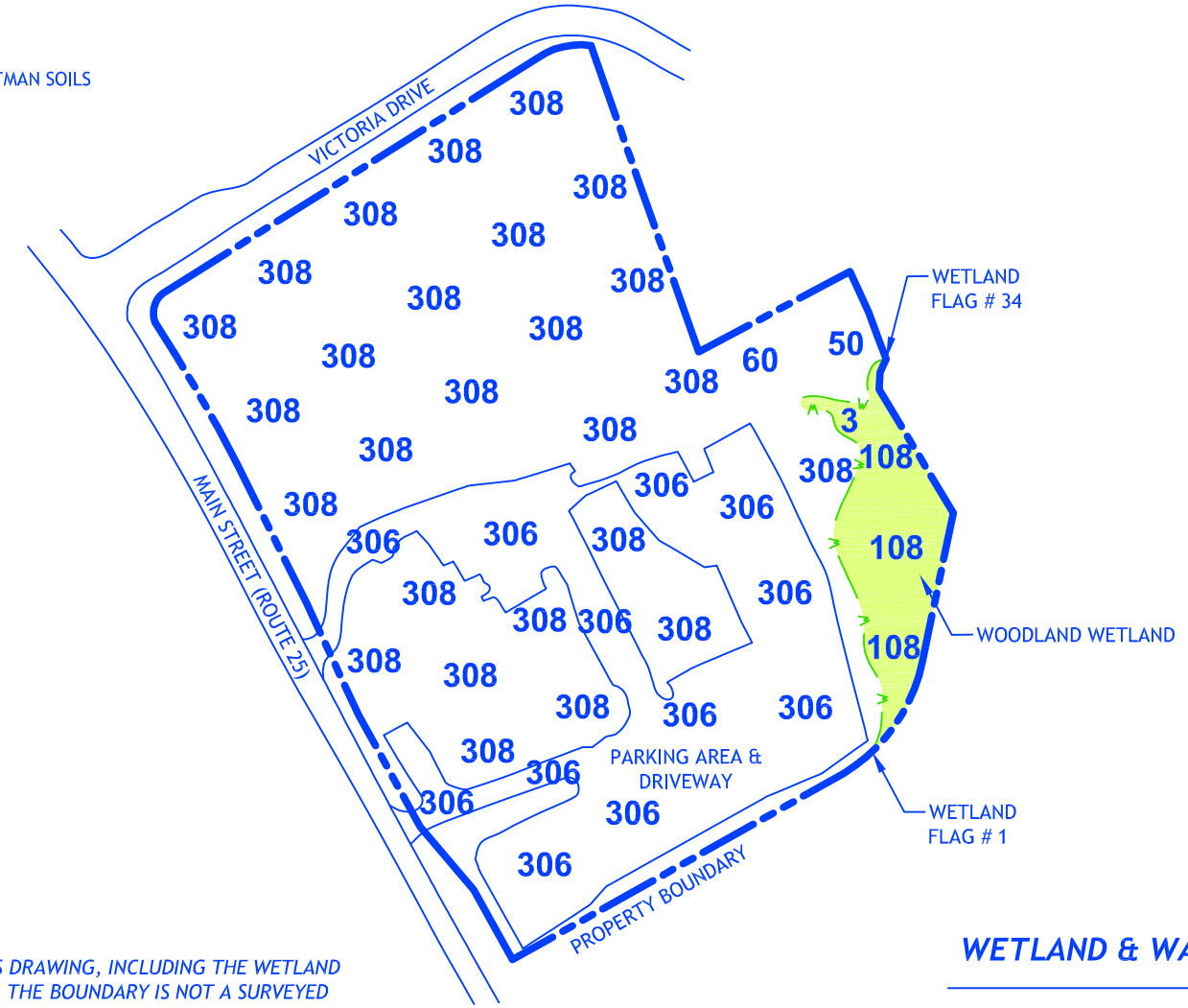


NOTES:
- *INFORMATION SHOWN ON THIS DRAWING, INCLUDING THE WETLAND BOUNDARY, IS APPROXIMATE. THE BOUNDARY IS NOT A SURVEYED REPRESENTATION OF WHAT WAS FIELD MARKED (FLAGGED).*
- *WETLAND AND SOIL INFORMATION PROVIDED BY WILLIAM KENNY ASSOC. OTHER INFORMATION TAKEN FROM A DRAWING PREPARED BY ACCURATE LAND SURVEYING, LLC.*
- ***50, 60, 306, 308, 3** AND **108** ARE SOIL MAPPING UNIT SYMBOLS. SEE WETLAND DELINEATION REPORT FOR THE SOIL MAP UNIT NAMES AND ADDITIONAL RELATED INFORMATION.*

I CERTIFY THAT THIS WETLAND MAP SUBSTANTIALLY REPRESENTS THE SOILS AND WETLANDS MAPPED IN THE FIELD

WILLIAM L. KENNY, SOIL SCIENTIST

WETLAND & WATERCOURSE MAP

10 & 36 MAIN STREET
MONROE, CONNECTICUT

SCALE: NOT TO SCALE
DATE: APRIL 22, 2021

Ref. No. 4851

NORTH

TOWN OF MONROE

Issued: 10-9-07

BOND ESTIMATE FORM (Private Site Development)

☐ PLANNING & ZONING COMMISSION
MEETING DATE _____

APPLICANT: 10 & 36 Main Street LLC
ENGINEER: Solli Engineering, LLC
TEL.: 203-880-5455

*APPLICATION NO: _____
*FILE NO: _____
DATE: August 4, 2021

PROJECT NAME: Excavation/Filling Permit Application

PROJECT LOCATION: 10 & 36 Main Street

*BOND RECOMMENDATION

NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	COST	Comments by Town Engr. Unit Price*	Comments by Town Engr. Cost*
1.	Sedimentation and Erosion Control Measures	L.S.	1	$2,000	$2,000		
2.	Silt Fence or Hay Bales	L.F.	1,930	$3.00	$5,790		
3.	Topsoil, Seed, Fertilizing, and Mulching (entire disturbed area)	S.F.	509,365	$0.20	$101,873		
4.	Landscaping (extent to provide for restoration and aesthetic considerations)	L.S.	1	$3,000	$3,000		
5.	Grading (for site restoration that will provide safe and stable conditions)	L.S.	1	$3,000	$3,000		
6.	Other						
	(+) 10% for Contingencies				$11,567		
* To be filled in by the Town				Total Cost =	$127,230	*	

Submitted by: Chris Pawlowski

Approved by: _____

Total costs as determined by the Town Engineer represent adjusted values assuming a Municipal bid arrangement with inflation, noting that the terms of the bond may be in effect for up to 10 or more years (statutory time allowance for performance of requirements).

ENGINEERING MEMORANDUM

To: Town of Monroe, Application Review Team

From: Kevin Solli, P.E. / Solli Engineering
Chris Pawlowski, EIT / Solli Engineering

Subject: Excavation / Filling Permit Application
10 & 36 Main Street, Monroe, Connecticut 06468

Date: July 26, 2021

CC: Arnold Karp / Karp Associates, Inc.

Solli Engineering, LLC has prepared this Memorandum to provide an analysis of the earthwork, zoning compliance, grading design, soil erosion control measures and stormwater management associated with the proposed excavation/filling activity located at 10 & 36 Main Street in Monroe, Connecticut. The design is in compliance with applicable Town of Monroe regulations as well as other applicable state and federal requirements. The following summarizes the proposed project activities.

Property Description:

The project site is comprised of 10 & 36 Main Street in Monroe, Connecticut. The total site is approximately 14.35 acres, comprised of 5.22 acres within 10 Main Street and 9.13 acres within 36 Main Street. The site is bound by Main Street (Route 25) to the west, Victoria Drive to the north, and commercial developed land to the east and south. Both properties are owned by 10 & 36 Main Street LLC and zoned Business District 2 (B-2). See Figure 1, Site Location Map, for a depiction of the project location.

The project site was visited by a certified soil scientist from William Kenny Associates, LLC on April 22, 2021. William Kenny Associates determined that one inland wetland system was identified and delineated. The system, which is located in the eastern portion of 10 Main Street, is a woodland wetland. No wetland soils or watercourses were found within the property of 36 Main Street. See the Wetland Delineation Report, prepared by William Kenny Associates, LLC for additional detail on the site wetlands assessment.

Property History:

Prior to 1984, 36 Main Street consisted of land totaling approximately 2.35 acres and was bounded by Main Street (Route 25) to the west, a children's camp to the north, a former railway to the east and 10 Main Street to the south. A residential dwelling occupied this property at that time but was later demolished. In 1984, a land transfer of the railway parcel and a portion of the children's camp site were deeded over to 36 Main Street creating the current 5.4-acre parcel. This land was occupied by a dwelling unit and driveway associated with the camp site; these site features

have since been demolished. The site has remained vacant since these features were demolished. Over the years, the site has grown over with woody vegetation, consisting of evergreens and deciduous trees.

The property at 10 Main Street was previously occupied by a ±34,000 SF building and an additional ±11,567 warehouse. The buildings were owned and operated by Vishay Intertechnology, Inc. the buildings were demolished at some time in 2013, and the site has remained vacant since that time.

Project Narrative:

The project proposes to import approximately 167,790 cubic yards of fill material from various sites to 10 & 36 Main Street, to fill to an average elevation of approximately 328 feet. The project proposes to place fill over an area on the property, which is subject to an environmental land use restriction, while the balance of the fill is proposed to support future site development. A substantial portion of the fill will be sourced from the property of 127 Main Street as part of the site development project approved by the Town of Monroe Inland Wetlands and Planning & Zoning Commissions. The project site can be accessed off Main Street (Route 25), which will serve as the main site entrance. Temporary construction fence is to be placed along Main Street. See the Cut/Fill Analysis Plan, Figure 7, for additional details.

The soil erosion and sediment control measures proposed for the filling activity have been designed in accordance with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control. The soil erosion and sediment control measures proposed as part of this project include mulch berms, geotextile silt fences, stone check dams, temporary diversion swales, construction entrances, dust control measures, riprap stabilization, silt sack inlet protection for existing drainage features, and a sediment basin. During construction, this basin will detain sediment-laden runoff from contributing drainage areas. The sediment basin is proposed in a low-lying area and has been sized to provide a minimum storage as required per the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control. Sediment Basin #1 is located at the northeastern end of the property. See plan Sheet 2.21, Grading & Soil Erosion Control Plan for more detail on the soil erosion and sediment control measures.

At the completion of the filling operation, the entire limit of disturbance will be seeded to provide stabilization and erosion control as well as provide improved curve numbers and time of concentrations compared to that of existing conditions, decreasing peak flows. At the completion of the project, the sediment will be removed from the basin and the sediment basin will be seeded and maintained to provide additional storm water detention until future potential development commences. A progress reporting form has also been prepared for the project and can be found in Appendix C.

Drainage Analysis:

The stormwater management plan and design for 10 & 36 Main Street is intended to be in compliance with the 2004 Connecticut Stormwater Quality Manual, while taking prevailing site conditions and practical considerations into account.

Stormwater runoff analysis, for both existing and proposed conditions, was performed using the software package Hydroflow Hydrograph Extension. This software uses computer implementation of the SCS-TR-55 methodology to compute volumes and rates of runoff. The watershed area, rainfall depths and intensity, curve number and time of concentration are factors that influence the computed results and are shown in the Hydrology Report in Appendix B.

Rainfall depths were taken from NOAA's National Weather Service Atlas 14, Point Precipitation Frequency Estimates and were used for calculating the volumes and rates of runoff for this project. The depths are listed in Table 1 below:

Table 1: Rainfall Data

Return Period	24-hr Rainfall Depth (in)
2-year	3.56
5-year	4.63
10-year	5.51
25-year	6.72
50-year	7.62
100-year	8.60

Hydraflow Hydrographs Extension automatically computes the rainfall intensity from its own IDF curves when the rainfall intensity data is provided. Table 2 shows the data that was used to generate the IDF curves. This information was taken from the NOAA's National Weather Service Atlas 14, Point Precipitation Frequency Estimates.

Table 2: IDF Table

Intermediate Intensity Values (in/hr)				
Return Period	**5-Minute**	**15-Minute**	**30-Minute**	**60-Minute**
2-year	5.10	2.83	1.97	1.26
5-year	6.31	3.51	2.44	1.56
10-year	7.32	4.07	2.83	1.81
25-year	8.71	4.84	3.36	2.15
50-year	9.76	5.42	3.77	2.42
100-year	10.80	6.03	4.19	2.68

Existing Hydrology:

According to NRCS Soil Survey Geographic database for the State of Connecticut, the majority of the site is comprised of Canton and Charlton soils with 15 to 25 percent slopes. These soils have a hydrologic soil group rating of B. See Figure 3, Soil Survey Map, in Appendix A for more detail regarding soil boundaries.

Approximately 14.85 acres were analyzed for stormwater management purposes. Based on existing drainage patterns, the 14.85-acre area was considered one existing drainage area, labeled Existing Drainage Area 1 (EDA-1). The approximate location and delineation of this drainage area can be seen on Sheet DA-1, Existing Drainage Area Map, found in Appendix B.

EDA-1 has a contributing area of approximately 14.85 acres. This area encompasses the majority of the site starting at the crown within Main Street (Route 25) and reaching all the way east until the edge of the existing wetlands. The majority of runoff from EDA-1 flows east, overland, into the existing wetlands onsite. Pre-existing conditions were considered in the analysis, as 36 Main Street was previously comprised of mostly woods.

Characteristics of this drainage area is summarized in Table 3.

Table 3: Existing Drainage Area Characteristics

Drainage Area	Area (Acres)	Curve Number (CN)	Time of Concentration (Minutes)
EDA-1	14.71	72	17.5

Existing peak flows and volumes of runoff for all analyzed storm-events are summarized in Table 3. Calculations for the existing hydrology can be found in Appendix B.

Table 4: Existing Peak Flows

Drainage Area	Peak Flow (cfs)					
	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
EDA-1	13.79	23.65	32.43	45.06	54.79	65.55

Proposed Hydrology:

The proposed grading of the excavation/fill activity consists of drainage areas that are of similar patterns to existing contributing areas, within the 14.85 acres analyzed. Based on the proposed drainage patterns, the 14.85-acre area was divided into three (3) contributing drainage areas, labeled Proposed Drainage Area 1A (PDA-1A), Proposed Drainage Area 1B (PDA-1B) and Proposed Drainage Area 1C (PDA-1C). The approximate location and delineation of these drainage areas can be seen on Sheet DA-2, Proposed Drainage Area Map, found in Appendix B.

PDA-1A has a contributing area of approximately 12.03 acres. This encompasses the majority of the site covering from Route 25 all the way to the proposed Stormwater Basin #1. The majority of runoff from PDA-1A flows east, overland, into Stormwater Basin #1 located to the west of the existing wetlands area. PDA-1A is proposed to be seeded and established in the finished condition.

PDA-1B has a contributing area of approximately 1.81 acres. This area is comprised of southern end of the property, including grass and stone lined swales. Outside of the swales and existing woodlands, the area is to be seeded and established in the finished condition. Runoff from PDA-1B will travel east, overland, before entering the proposed swales and discharging into the existing wetlands along the eastern property line.

PDA-1C has a contributing area of approximately 1.01 acres. This area is comprised of the land directly to the west of the existing wetlands, most of which is existing woods that is to remain untouched. Runoff from PDA-1C will travel overland before reaching the existing wetlands onsite.

Characteristics of these drainage areas are summarized in Table 5. A map depicting proposed drainage areas can be found in Appendix B.

Table 5: Proposed Drainage Area Characteristics

Drainage Area	Area (Acres)	Curve Number (CN)	Time of Concentration (Minutes)
PDA-1A	12.03	61	26.6
PDA-1B	1.81	58	10.5
PDA-1C	1.01	47	10.8

Proposed peak flows and volumes for all analyzed storms are summarized in Table 5. Calculations for the proposed hydrology can be found in Appendix C.

Table 5: Proposed Peak Flows

Drainage Area	Peak Flow (cfs)					
	2-yr	**5-yr**	**10-yr**	**25-yr**	**50-yr**	**100-yr**
PDA-1A	4.05	9.02	13.89	21.37	27.36	34.18
PDA-1B	0.55	1.48	2.42	3.89	5.06	6.43
PDA-1C	0.02	0.19	0.46	1.02	1.52	2.12
Overall (PDA-1)	**2.50**	**7.80**	**10.89**	**19.02**	**26.67**	**31.85**

In an effort to improve the quality of the stormwater discharged from the site, the project will retain the water quality volume within the proposed Stormwater Quality Basin (Basin #1). Basin #1 will also provide additional storage for future development plans while as reducing the peak rate of runoff during the proposed excavation and filling activities. The basin is designed to provide a total storage capacity of approximately 26,615 cubic feet at a peak elevation of 298.82 during the 100-year storm to maximize the amount of detention on the site, with a required water quality volume of 3,708 cubic feet, and a provided stormwater quality volume of 3,885 cubic feet. With a top elevation of 300.00 for the proposed basin and a peak elevation of 298.82 during the 100-year storm, the basin provides a minimum of 1' of freeboard. Stormwater is discharged from the water quality basin via an outlet control structure (OCS-1). The outlet control structure is a Connecticut State Highway Department, "C-L" top, standard catch basin configuration in which the top of frame acts as a weir. The outlet control structure features an 18" orifice with an invert of 294.50 and discharges through a 24" HDPE pipe to a level spreader. For more details on the configuration and drainage features of Stormwater Basin #1 and OCS-1, see Sheet 2.21, Grading & Soil Erosion Control Plan.

The proposed stormwater quality basin (Basin #1) is designed to attenuate the overall peak discharge rate for the 2-, 5-, 10-, 25-, 50-, and 100-year storm event; so that the overall proposed peak flow is less than the overall existing peak flow. The SCS TR-55 methodology was used to compute the peak discharge rates. Refer to Appendix B for calculations of the existing and proposed hydrology. The existing discharge rates and the proposed peak discharge rates, associated with the filling activities, are summarized in the table below (proposed rates are depicted in bold).

Table 6: Peak Flows Comparison

Drainage Area	Peak Flow (cfs)					
	2-yr	**5-yr**	**10-yr**	**25-yr**	**50-yr**	**100-yr**
EDA-1	13.79	23.65	32.43	45.06	54.79	65.55
PDA-1	**2.50**	**7.80**	**10.89**	**19.02**	**26.67**	**31.85**

In addition to the water quality volume provided in the stormwater quality basin, there are also two grass-lined swales proposed as a water quality measure. Both swales are proposed up-gradient of Basin #1. The swales both feature a 2' depth with a longitudinal slope of 2%.

Post-Construction Site Maintenance:

The property owner shall maintain its property at 10 & 36 Main Street, Monroe, Connecticut in accordance with this site maintenance plan, as follows, to maintain the aesthetic quality and cleanliness of the site:

- There are to be no construction activities within the wetland areas, those areas will remain undisturbed as required.
- Main Street shall be checked for potential perimeter erosion, trash, spillage, and pavement conditions during these inspections.
- The sediment traps shall be inspected bi-annually in May and November and cleaned of excessive sediment and debris.
- Maintain each construction entrance anti-tracking pads with silt fence along the edge of the pads.

Earthwork Analysis:

The proposed excavation and filling project will have slopes that range from approximately 1.0 percent within the parking area to 30-50 percent within landscaped fill slopes around the edge of the project site. Elevations will range from a high of approximately 346 feet, in the northwest corner of the site, to a low of approximate 292 feet edge of the existing wetlands along the eastern property edge. The project was designed in order to raise the grades of the site to be closer to the elevations along Main Street (Route 25) in order to support future site development. There will be a proposed filling of 183,009 CY, and a cut of 15,219 CY, resulting in a net import of 167,790 CY. The majority of the excavation/ filling activities are to take place outside of the regulated area. Within the regulated area, there will be a proposed filling of 2,029 CY, and a cut of 2,680 CY, resulting in a net export of 651 CY. No fill is to be placed within the 100-year floodplain.

Supporting Documents:

Appendix A: **Figures**
Site Location Map (Figure 1)
FEMA Flood Map (Figure 2)
Soil Survey Map (Figure 3)
National Diversity Database Map (Figure 4)
Regulated Area Map (Figure 5)
Slope Area Map (Figure 6)
Cut/Fill Exhibit (Figure 7)

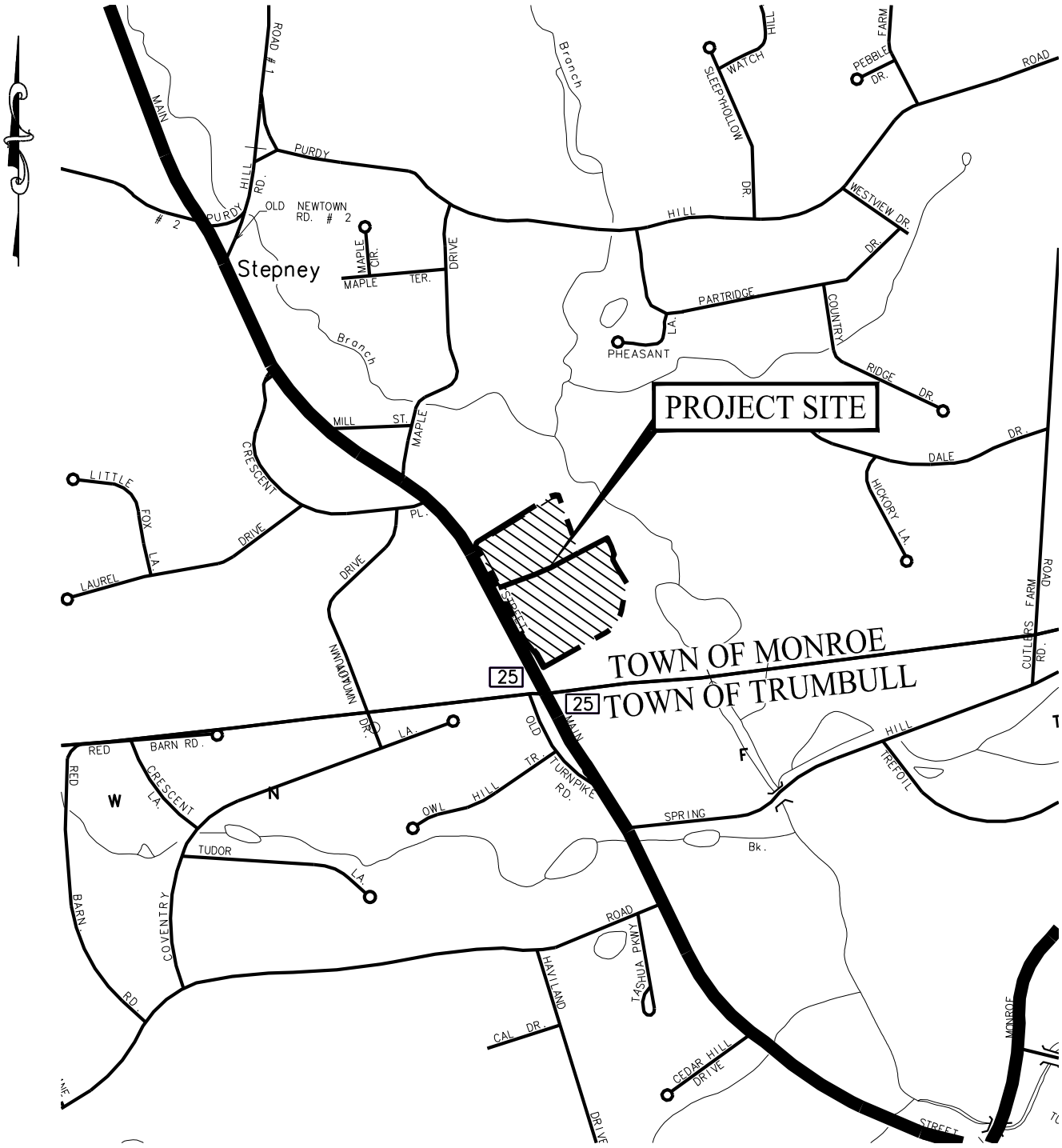
Appendix B: **Hydrology**
Existing Drainage Area Map (DA-1)
Proposed Drainage Area Map (DA-2)
NOAA Atlas Precipitation Data
Watershed Model Schematic
Hydraflow Stormwater Analysis
Hydraflow Return Period Recap Report
Hydraflow Summary Reports
Hydrawflow Stormwater Pond Report
Curve Number Calculations
Time of Concentration Calculations
Water Quality Volume Calculations

Appendix C: **Inspections**
Excavation/Fill Permit Progress Report Form

Appendix D: **Plans**
Grading & Soil Erosion Control Plan (Sheet 2.21)
Reclamation Plan (Sheet 2.61)

APPENDIX A
FIGURES

Site Location Map (Figure 1)
FEMA Flood Map (Figure 2)
Soil Survey Map (Figure 3)
Natural Diversity Database Map (Figure 4)
Regulated Area Map (Figure 5)
Slope Area Map (Figure 6)
Cut/Fill Exhibit (Figure 7)



NOTE: BASE MAP INFORMATION TAKEN FROM
HTTP://CT.GOV/DOT, MAP NUMBERS 084 AND 144

1000 0 500 1000

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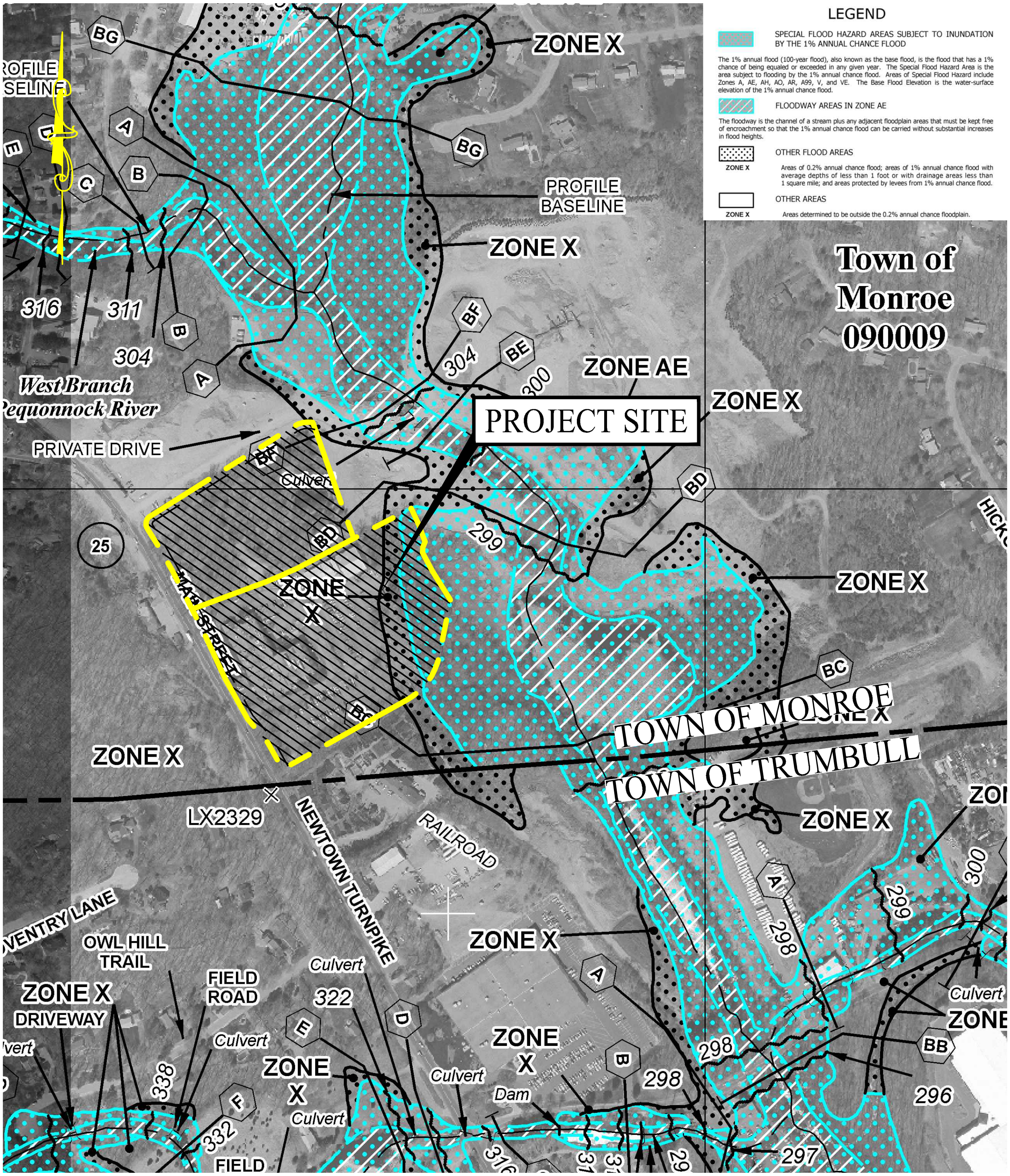
SITE LOCATION MAP

10 & 36 MAIN STREET
MONROE, CONNECTICUT

Project #:	2008001
Plan Date:	07/26/21
Scale:	1" = 1000'
Figure:	1



NOTE: BASE MAP INFORMATION TAKEN FROM MSC.FEMA.GOV, AREA NUMBER 09001C0286F

500 0 250 500

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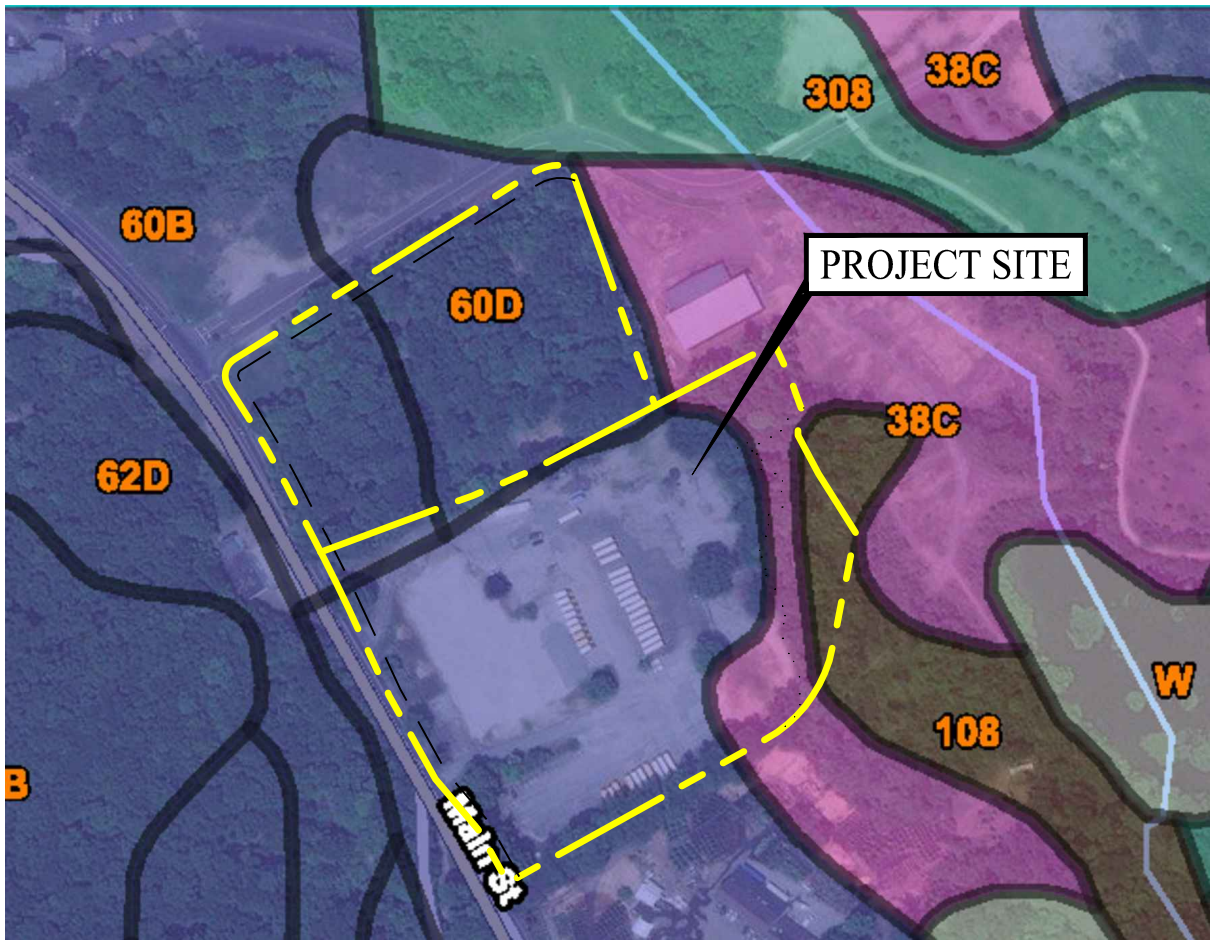
FEMA FLOOD MAP

10 & 36 MAIN STREET
MONROE, CONNECTICUT

Project #:	2008001
Plan Date:	07/26/21
Scale:	1" = 500'
Figure:	2



Map unit symbol	Map unit name	Rating
38C	Hinckley loamy sand, 3 to 15 percent slopes	A
60B	Canton and Charlton fine sandy loams, 3 to 8 percent slopes	B
60D	Canton and Charlton soils, 15 to 25 percent slopes	B
108	Saco silt loam	B/D
306	Udorthents-Urban land complex	B

NOTE: BASE MAP INFORMATION TAKEN FROM THE
NATURAL RESOURCES CONSERVATION SERVICE, URL:
HTTP://WEBSOILSURVEY.NRCS.USDA.GOV
DATE OF IMAGE: JUNE 03, 2021.

300 0 150 300

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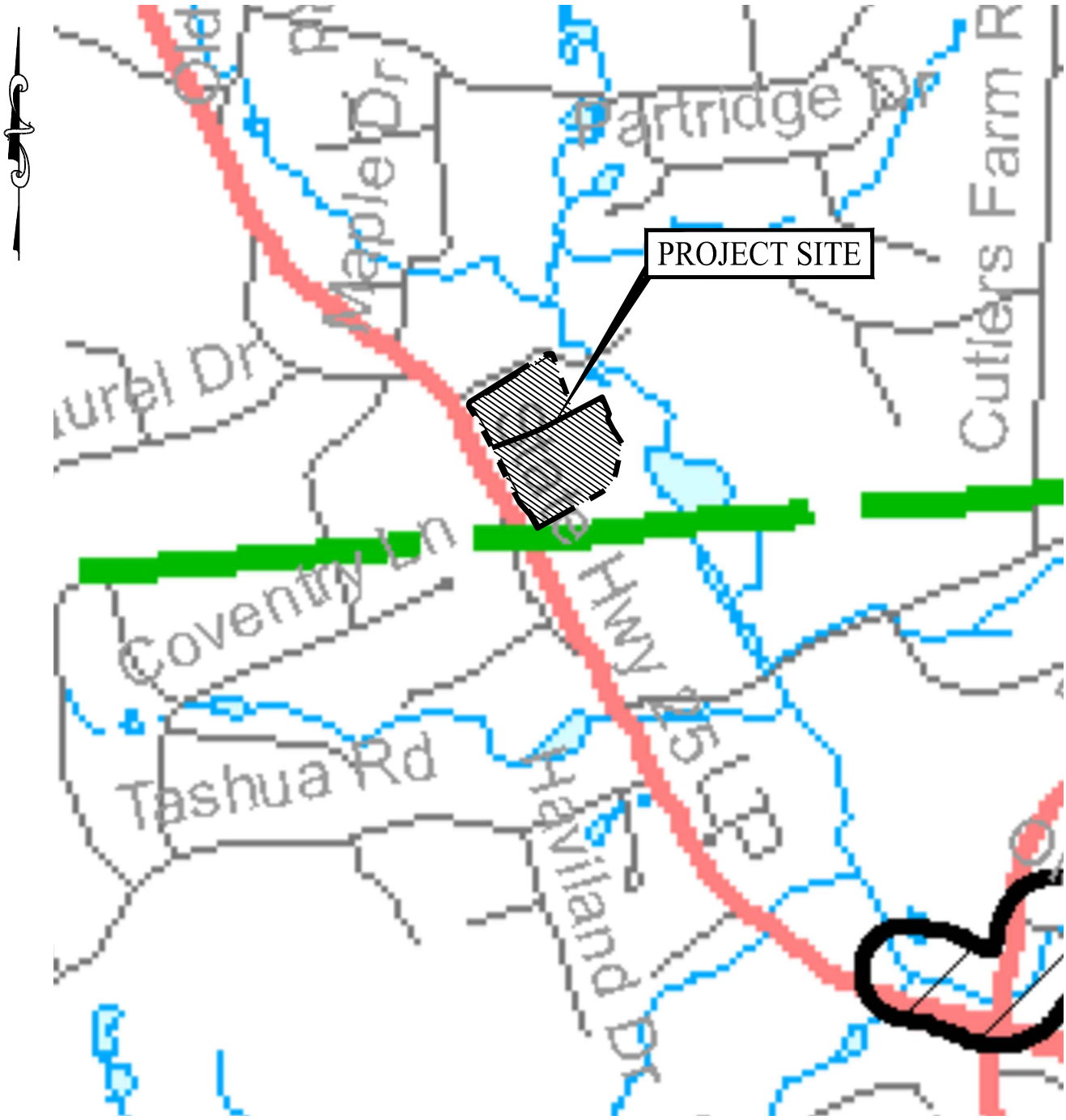
SOIL SURVEY MAP

10 & 36 MAIN STREET
MONROE, CONNECTICUT

Project #:	2008001
Plan Date:	07/26/21
Scale:	1" = 300'
Figure:	3



NOTE: BASE MAP INFORMATION TAKEN FROM CT DEEP NATURAL DIVERSITY DATA BASE AREAS, MONROE, CT DECEMBER 2019 (MAP ND085.PDF)
URL:HTTPS://PORTAL.CT.GOV/DEEP/ENDANGERED-SPECIES/NATURAL-DIVERSITY-DATA-BASE-MAP

1000 0 500 1000

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NATURAL DIVERSITY MAP

10 & 36 MAIN STREET
MONROE, CONNECTICUT

Project #:	2008001
Plan Date:	07/26/21
Scale:	1" = 1000'
Figure:	4

GENERAL NOTES

1. WETLANDS WERE DELINEATED AND FLAGGED BY WILLIAM KENNY ASSOCIATES, LLC ON APRIL 22,2021.

WETLAND AREA TABLE	
AREA	ACRES
PROPERTY AREA	14.35±
WETLANDS ON PROPERTY	0.86±
UPLAND REVIEW AREA ON PROPERTY	2.47±
WETLANDS TO BE ALTERED	0.00±
UPLAND REVIEW AREA TO BE ALTERED	1.19±
TOTAL REGULATED AREA TO BE ALTERED	1.19±

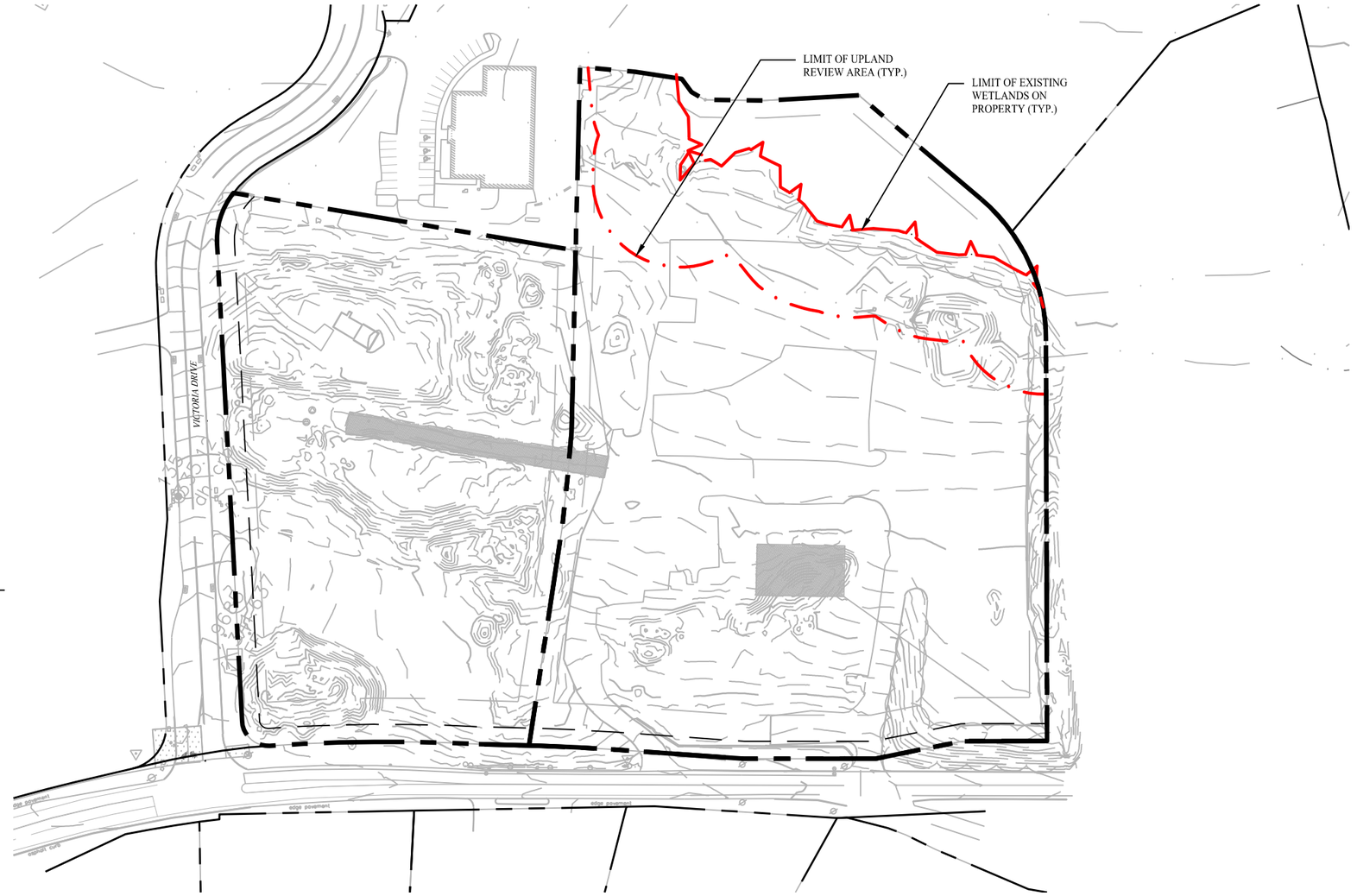
LEGEND

PROPERTY LINE

RIGHT-OF-WAY LINE

LIMIT OF WETLANDS

LIMIT OF UPLAND REVIEW AREA



150 0 75 150

Rev. #:	Date	Description

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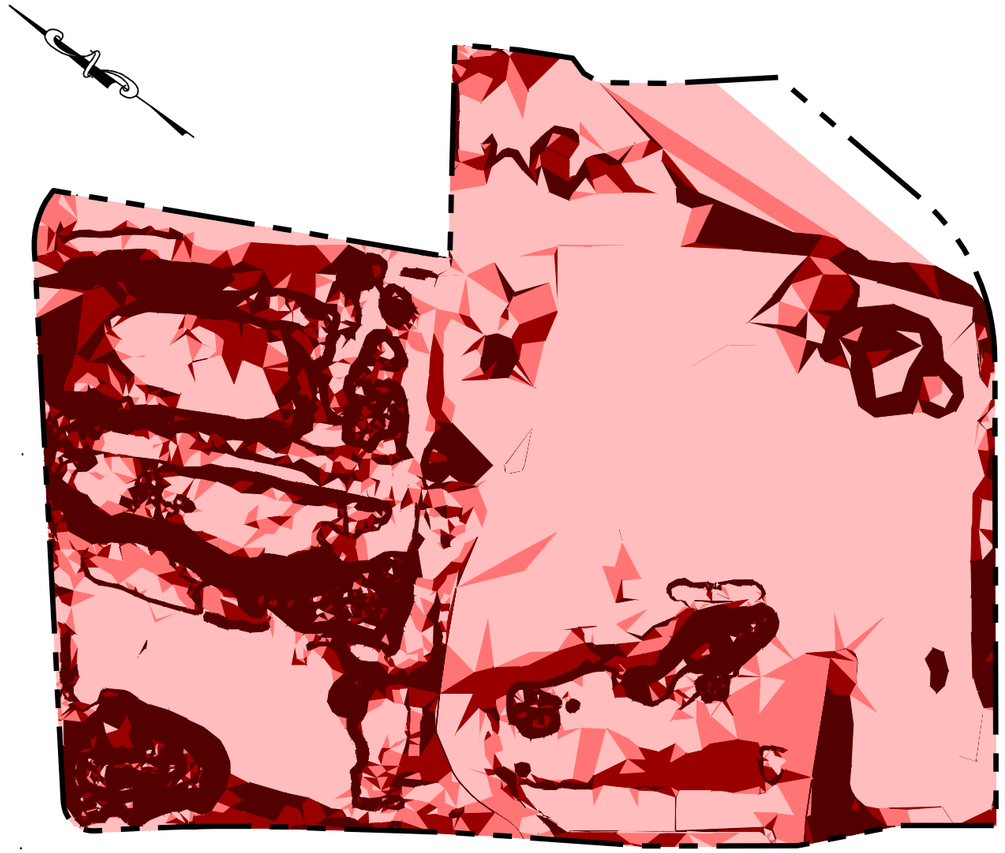
Drawn By:	MDM
Checked By:	KMS
Project #:	2008001
Plan Date:	07/26/21
Scale:	1" = 150'

Project: EXCAVATION/ FILLING PERMIT APPLICATION
10 & 36 MAIN STREET
MONROE, CONNECTICUT

Sheet Title: REGULATED AREA MAP

SHEET #: FIG. 5



Slopes Table				
Number	Minimum Slope	Maximum Slope	Color	Area
1	0.00%	10.00%		343209.84
2	10.00%	15.00%		62739.07
3	15.00%	25.00%		61398.43
4	25.00%	25000.00%		145981.52

150 0 75 150

Rev. #: Date Description

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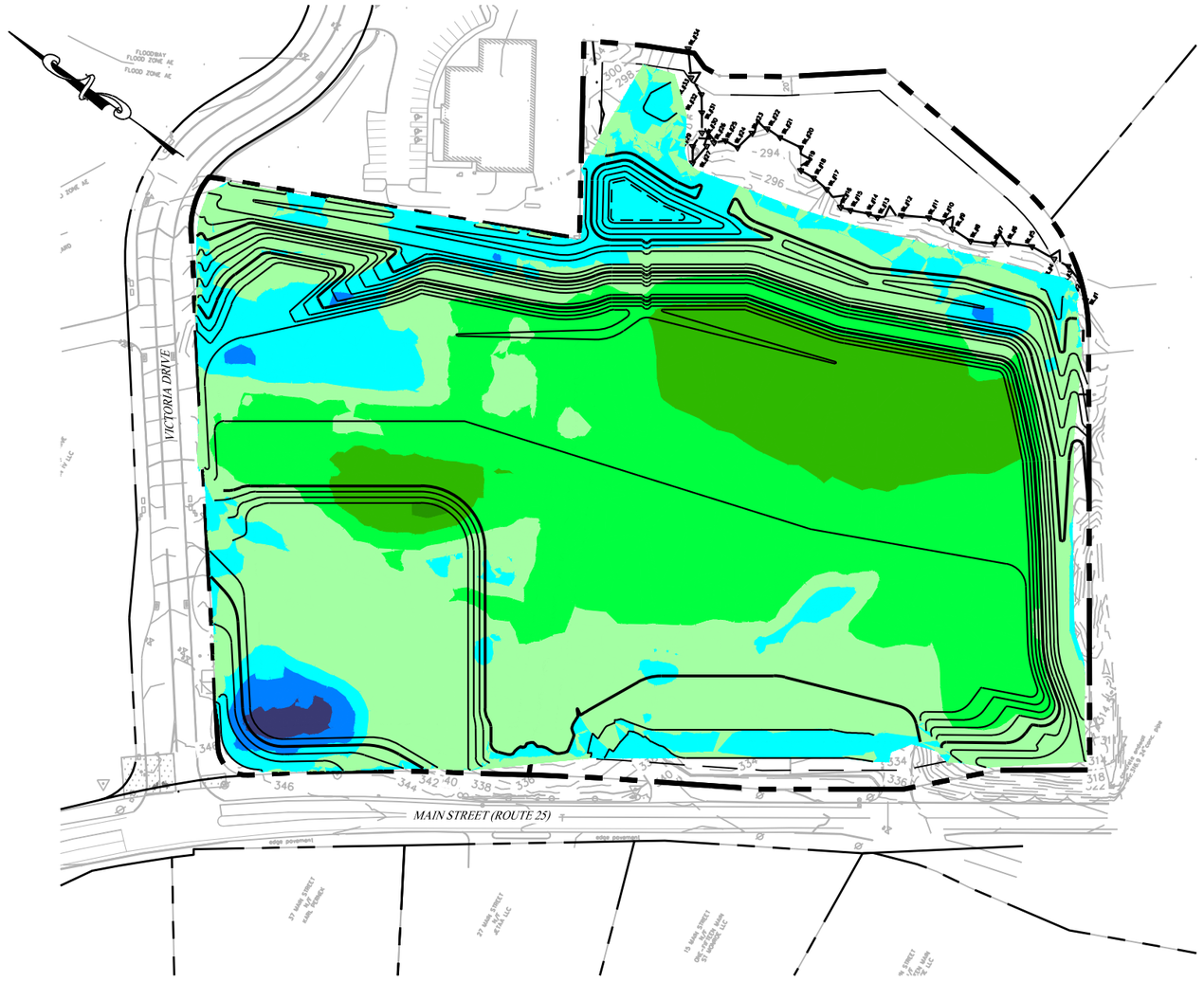
Checked By:	KMS
Project #:	2008001
Plan Date:	07/26/21
Scale:	1" = 150'

Project: EXCAVATION/ FILLING PERMIT APPLICATION
10 & 36 MAIN STREET
MONROE, CONNECTICUT

Sheet Title: SLOPE AREA MAP

SHEET #: FIG. 6



Elevations Table				
Number	Minimum Elevation	Maximum Elevation	Color	Area
1	−30.000	−20.000	🟦	2837.34
2	−20.000	−10.000	🟦	7544.78
3	−10.000	0.000	🟦	87911.10
4	0.000	10.000	🟩	209601.82
5	10.000	20.000	🟩	173381.84
6	20.000	30.000	🟩	62615.63
7	30.000	40.000	🟩	470.38

150 0 75 150

Rev. #:	Date	Description

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Drawn By:	AWC
Checked By:	KMS
Project #:	2008001
Plan Date:	07/26/21
Scale:	1" = 150'

Project:
EXCAVATION/ FILLING PERMIT APPLICATION
10 & 36 MAIN STREET
MONROE, CONNECTICUT

Sheet Title:
CUT/FILL EXHIBIT

SHEET #:
FIG. 7

APPENDIX B
HYDROLOGY

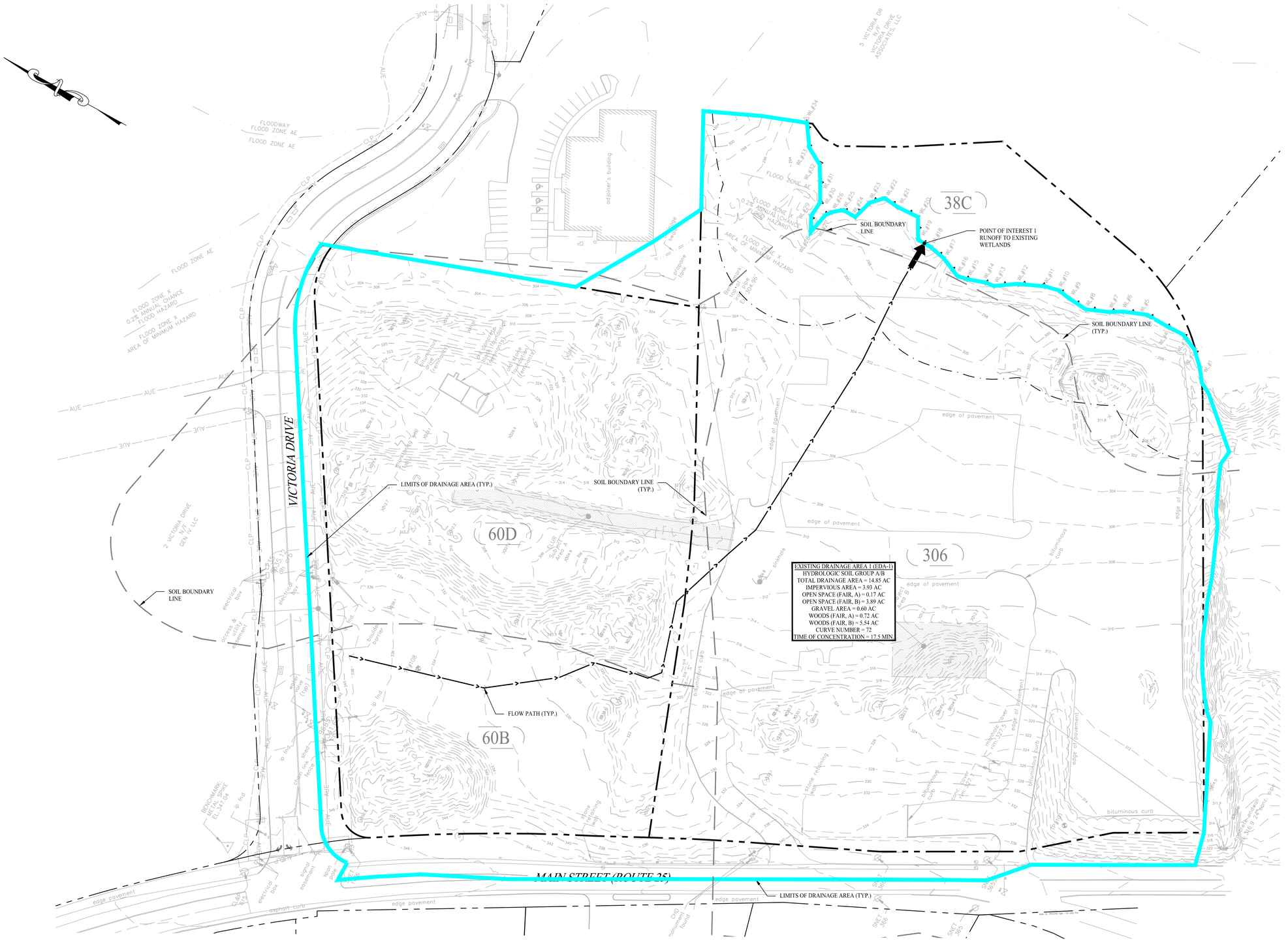
Existing Drainage Area Map (DA-1)
Proposed Drainage Area Map (DA-2)
NOAA Atlas Precipitation Data
Watershed Model Schematic
Hydraflow Stormwater Analysis
Hydraflow Return Period Recap Report
Hydraflow Summary Reports
Hydraflow Stormwater Pond Report
Curve Number Calculations
Time of Concentration Calculations
Water Quality Calculations

GENERAL NOTES

1. THE STORMWATER MANAGEMENT PLAN AND DESIGN IS INTENDED TO BE IN COMPLIANCE WITH THE 2000 CONNECTICUT DEPARTMENT OF TRANSPORTATION (CTDOT) DRAINAGE MANUAL AND THE 2004 CONNECTICUT STORMWATER QUALITY MANUAL.
2. STORMWATER RUNOFF ANALYSIS WAS CALCULATED USING THE SCS TR-55 METHODOLOGY.
3. PRE-EXISTING CONDITIONS WERE EVALUATED FOR THE DRAINAGE CALCULATIONS.

LEGEND

- PROPERTY LINE
- LIMITS OF EXISTING DRAINAGE AREA
- FLOW PATH
- 51B — HYDROLOGIC SOIL GROUP
- SOIL BOUNDARY LINE



EXISTING DRAINAGE AREA 1 (EDA-1)
HYDROLOGIC SOIL GROUP A/B
TOTAL DRAINAGE AREA = 14.85 AC
IMPERVIOUS AREA = 3.93 AC
OPEN SPACE (FAIR, A) = 0.17 AC
OPEN SPACE (FAIR, B) = 3.89 AC
GRAVEL AREA = 0.60 AC
WOODS (FAIR, A) = 0.72 AC
WOODS (FAIR, B) = 5.54 AC
CURVE NUMBER = 72
TIME OF CONCENTRATION = 17.5 MIN.

Rev. #:	Date	Description

Graphic Scale: 50 0 50 100

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351 Newbury Street, Boston, MA 02115 T: (617) 203-3160 F: (203) 880-9695

Drawn By:	CJP
Checked By:	LAM
Approved By:	KMS
Project #:	2008001
Plan Date:	07/26/21
Scale:	1" = 50'

Kevin Solli, P.E.
CT 25759

Project:

EXCAVATION/FILLING PERMIT APPLICATION

10 & 36 MAIN STREET
MONROE, CONNECTICUT

Sheet Title: EXISTING DRAINAGE AREA MAP

Sheet #: DA-1

GENERAL NOTES

1. THE STORMWATER MANAGEMENT PLAN AND DESIGN IS INTENDED TO BE IN COMPLIANCE WITH THE 2000 CONNECTICUT DEPARTMENT OF TRANSPORTATION (CTDOT) DRAINAGE MANUAL AND THE 2004 CONNECTICUT STORMWATER QUALITY MANUAL.
2. STORMWATER RUNOFF ANALYSIS WAS CALCULATED USING THE SCS TR-55 METHODOLOGY.

LEGEND

- PROPERTY LINE
- LIMITS OF EXISTING DRAINAGE AREA
- FLOW PATH
- 51B — HYDROLOGIC SOIL GROUP
- SOIL BOUNDARY LINE

Rev. #: Date Description

Graphic Scale: 50 0 50 100

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501 Main Street, Monroe, CT 06468 T: (203) 880-5455 F: (203) 880-9695
351 Newbury Street, Boston, MA 02115 T: (617) 203-3160 F: (203) 880-9695

Drawn By:	CJP
Checked By:	LAM
Approved By:	KMS
Project #:	2008001
Plan Date:	07/26/21
Scale:	1" = 50'

Kevin Solli, P.E.
CT 25759

Project:

EXCAVATION/FILLING PERMIT APPLICATION

10 & 36 MAIN STREET
MONROE, CONNECTICUT

Sheet Title: PROPOSED DRAINAGE AREA MAP

Sheet #: DA-2

NOAA Atlas 14, Volume 10, Version 3
Location name: Monroe, Connecticut, USA*
Latitude: 41.2987°, Longitude: -73.2479°
Elevation: 346.16 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.363** (0.277-0.464)	**0.425** (0.324-0.544)	**0.526** (0.400-0.676)	**0.610** (0.462-0.787)	**0.726** (0.534-0.968)	**0.813** (0.587-1.10)	**0.904** (0.635-1.26)	**1.00** (0.673-1.43)	**1.15** (0.742-1.67)	**1.26** (0.799-1.87)
10-min	**0.514** (0.392-0.658)	**0.602** (0.459-0.771)	**0.745** (0.567-0.959)	**0.864** (0.654-1.12)	**1.03** (0.756-1.37)	**1.15** (0.831-1.56)	**1.28** (0.900-1.79)	**1.42** (0.954-2.02)	**1.63** (1.05-2.37)	**1.79** (1.13-2.65)
15-min	**0.604** (0.462-0.774)	**0.708** (0.540-0.907)	**0.877** (0.667-1.13)	**1.02** (0.770-1.31)	**1.21** (0.889-1.61)	**1.36** (0.978-1.84)	**1.51** (1.06-2.10)	**1.68** (1.12-2.38)	**1.91** (1.24-2.79)	**2.10** (1.33-3.12)
30-min	**0.840** (0.642-1.08)	**0.984** (0.751-1.26)	**1.22** (0.927-1.57)	**1.41** (1.07-1.83)	**1.68** (1.24-2.24)	**1.89** (1.36-2.55)	**2.10** (1.47-2.91)	**2.32** (1.55-3.29)	**2.62** (1.70-3.82)	**2.86** (1.81-4.23)
60-min	**1.08** (0.822-1.38)	**1.26** (0.961-1.62)	**1.56** (1.19-2.01)	**1.81** (1.37-2.34)	**2.15** (1.58-2.86)	**2.42** (1.74-3.26)	**2.68** (1.87-3.71)	**2.96** (1.98-4.19)	**3.33** (2.15-4.85)	**3.61** (2.29-5.35)
2-hr	**1.39** (1.07-1.77)	**1.64** (1.26-2.09)	**2.05** (1.57-2.61)	**2.38** (1.81-3.05)	**2.84** (2.10-3.77)	**3.19** (2.31-4.30)	**3.56** (2.51-4.92)	**3.95** (2.66-5.57)	**4.52** (2.93-6.54)	**4.97** (3.16-7.31)
3-hr	**1.61** (1.24-2.04)	**1.90** (1.46-2.41)	**2.38** (1.83-3.03)	**2.78** (2.12-3.55)	**3.33** (2.47-4.40)	**3.74** (2.72-5.02)	**4.17** (2.96-5.78)	**4.66** (3.14-6.55)	**5.37** (3.49-7.74)	**5.95** (3.78-8.72)
6-hr	**2.02** (1.57-2.54)	**2.41** (1.87-3.04)	**3.05** (2.36-3.85)	**3.58** (2.75-4.54)	**4.31** (3.22-5.67)	**4.86** (3.56-6.50)	**5.44** (3.89-7.51)	**6.11** (4.13-8.52)	**7.10** (4.63-10.2)	**7.93** (5.06-11.5)
12-hr	**2.48** (1.94-3.10)	**2.99** (2.34-3.75)	**3.83** (2.98-4.81)	**4.53** (3.50-5.70)	**5.48** (4.12-7.17)	**6.20** (4.57-8.25)	**6.96** (5.01-9.57)	**7.85** (5.33-10.9)	**9.18** (6.01-13.1)	**10.3** (6.59-14.9)
24-hr	**2.91** (2.29-3.62)	**3.56** (2.80-4.43)	**4.63** (3.62-5.77)	**5.51** (4.29-6.90)	**6.72** (5.09-8.76)	**7.62** (5.67-10.1)	**8.60** (6.24-11.8)	**9.77** (6.66-13.5)	**11.6** (7.59-16.4)	**13.1** (8.40-18.8)
2-day	**3.28** (2.59-4.05)	**4.07** (3.22-5.03)	**5.37** (4.23-6.65)	**6.45** (5.05-8.02)	**7.94** (6.05-10.3)	**9.02** (6.76-11.9)	**10.2** (7.50-14.0)	**11.7** (8.01-16.1)	**14.1** (9.27-19.8)	**16.2** (10.4-23.0)
3-day	**3.57** (2.83-4.39)	**4.44** (3.52-5.46)	**5.86** (4.63-7.23)	**7.04** (5.53-8.72)	**8.66** (6.63-11.2)	**9.85** (7.41-13.0)	**11.2** (8.23-15.3)	**12.8** (8.78-17.5)	**15.5** (10.2-21.6)	**17.7** (11.4-25.2)
4-day	**3.84** (3.06-4.70)	**4.76** (3.78-5.83)	**6.26** (4.96-7.69)	**7.50** (5.91-9.26)	**9.22** (7.07-11.9)	**10.5** (7.89-13.8)	**11.9** (8.75-16.2)	**13.6** (9.33-18.5)	**16.4** (10.8-22.8)	**18.8** (12.1-26.6)
7-day	**4.61** (3.69-5.61)	**5.61** (4.48-6.84)	**7.25** (5.77-8.86)	**8.61** (6.82-10.6)	**10.5** (8.06-13.4)	**11.9** (8.96-15.5)	**13.4** (9.85-18.0)	**15.2** (10.5-20.6)	**18.0** (12.0-25.0)	**20.5** (13.3-28.9)
10-day	**5.35** (4.30-6.50)	**6.41** (5.14-7.79)	**8.13** (6.50-9.91)	**9.56** (7.60-11.7)	**11.5** (8.89-14.7)	**13.0** (9.82-16.8)	**14.6** (10.7-19.5)	**16.4** (11.4-22.1)	**19.2** (12.8-26.6)	**21.6** (14.0-30.3)
20-day	**7.62** (6.16-9.19)	**8.78** (7.08-10.6)	**10.7** (8.58-12.9)	**12.2** (9.79-14.9)	**14.4** (11.1-18.1)	**16.0** (12.1-20.4)	**17.7** (13.0-23.3)	**19.6** (13.6-26.2)	**22.2** (14.8-30.5)	**24.4** (15.8-33.9)
30-day	**9.48** (7.69-11.4)	**10.7** (8.68-12.9)	**12.7** (10.3-15.3)	**14.4** (11.5-17.4)	**16.7** (12.9-20.8)	**18.4** (13.9-23.3)	**20.2** (14.8-26.2)	**22.1** (15.4-29.3)	**24.6** (16.4-33.5)	**26.5** (17.3-36.8)
45-day	**11.8** (9.58-14.1)	**13.1** (10.6-15.7)	**15.2** (12.3-18.3)	**17.0** (13.7-20.5)	**19.4** (15.1-24.0)	**21.3** (16.1-26.7)	**23.2** (16.9-29.8)	**25.0** (17.5-33.1)	**27.4** (18.4-37.2)	**29.2** (19.0-40.3)
60-day	**13.7** (11.2-16.3)	**15.0** (12.3-17.9)	**17.3** (14.0-20.7)	**19.1** (15.4-23.0)	**21.7** (16.9-26.7)	**23.7** (18.0-29.6)	**25.6** (18.7-32.7)	**27.5** (19.3-36.2)	**29.8** (20.1-40.4)	**31.5** (20.6-43.4)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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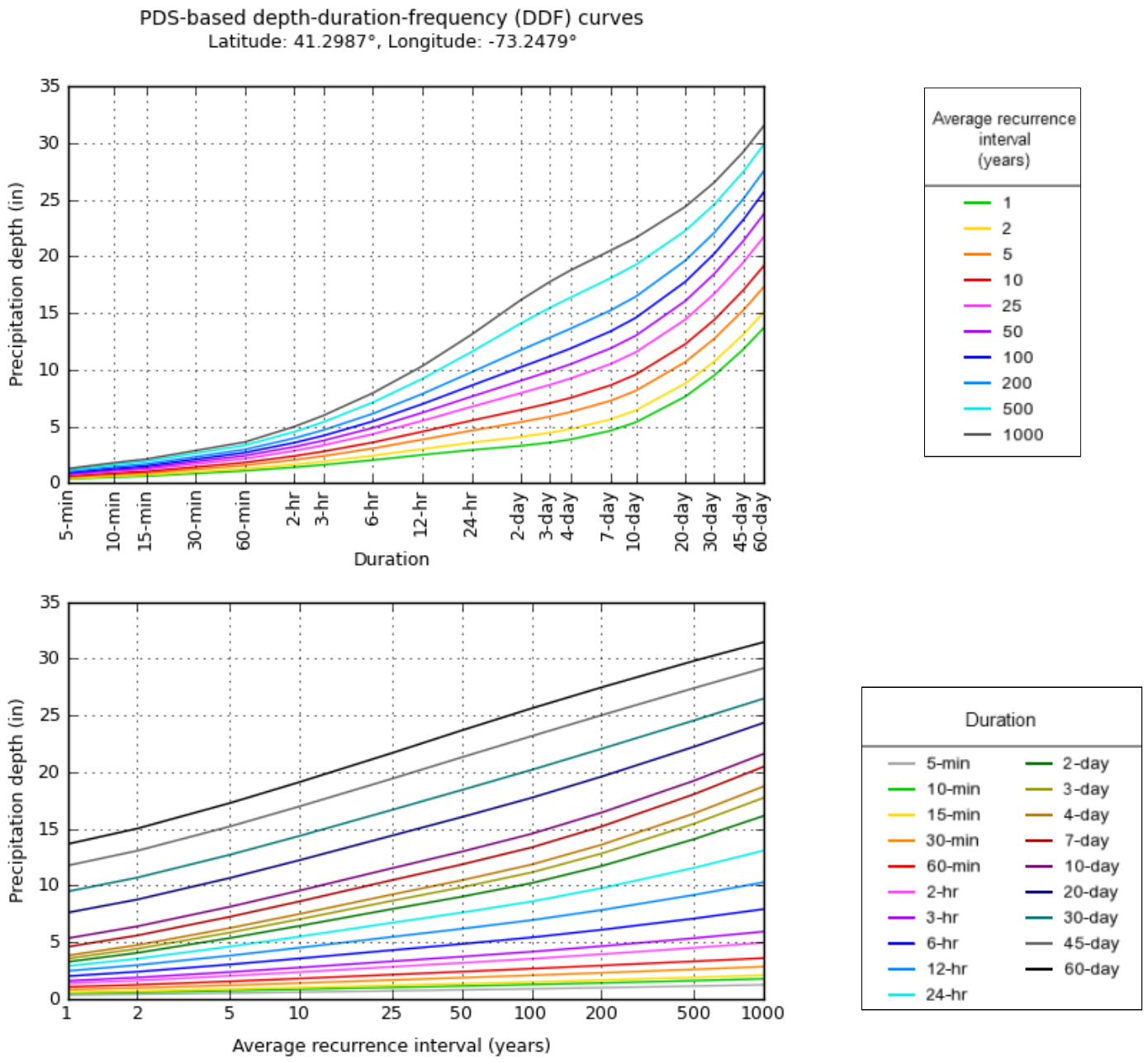
PF graphical



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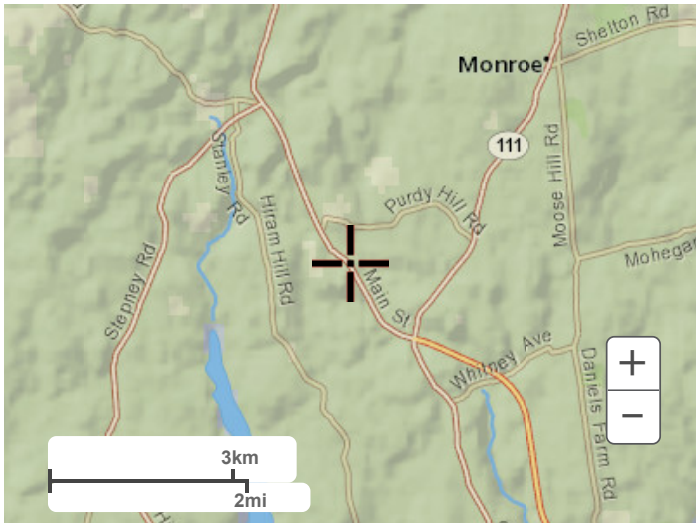
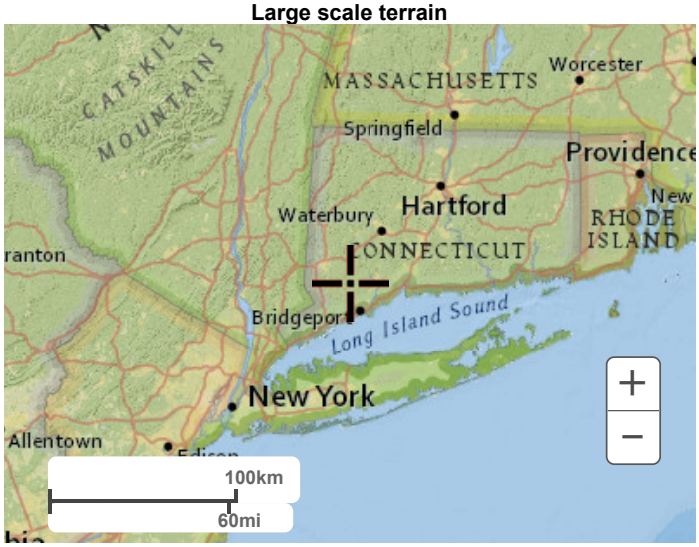
Maps & aerials

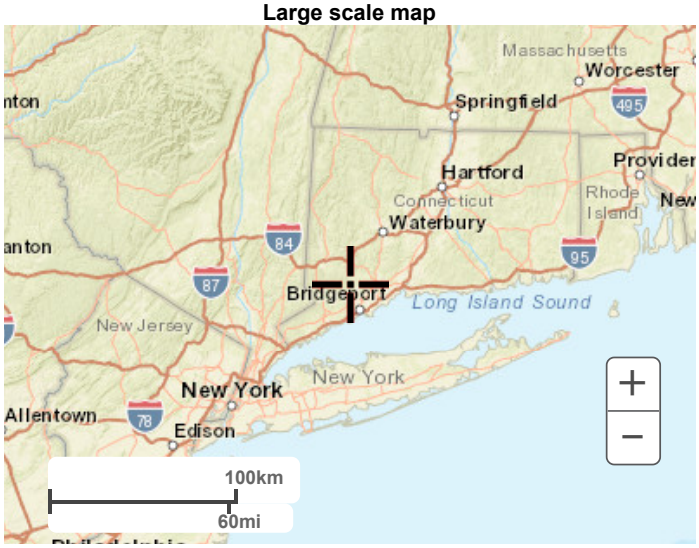
Small scale terrain



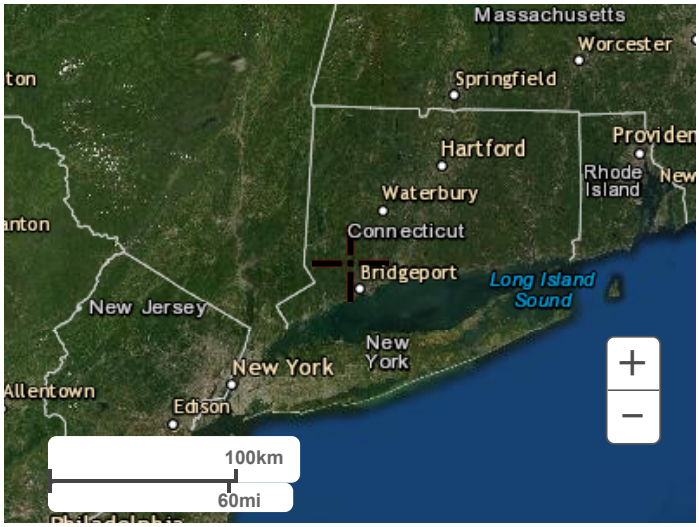
Large scale terrain



Large scale map



Large scale aerial



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Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Disclaimer

NOAA Atlas 14, Volume 10, Version 3
Location name: Monroe, Connecticut, USA*
Latitude: 41.2987°, Longitude: -73.2479°
Elevation: 346.16 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**4.36** (3.32-5.57)	**5.10** (3.89-6.53)	**6.31** (4.80-8.11)	**7.32** (5.54-9.44)	**8.71** (6.41-11.6)	**9.76** (7.04-13.2)	**10.8** (7.62-15.1)	**12.0** (8.08-17.1)	**13.8** (8.90-20.1)	**15.1** (9.59-22.4)
10-min	**3.08** (2.35-3.95)	**3.61** (2.75-4.63)	**4.47** (3.40-5.75)	**5.18** (3.92-6.69)	**6.17** (4.54-8.23)	**6.91** (4.99-9.37)	**7.69** (5.40-10.7)	**8.54** (5.72-12.1)	**9.75** (6.31-14.2)	**10.7** (6.79-15.9)
15-min	**2.42** (1.85-3.10)	**2.83** (2.16-3.63)	**3.51** (2.67-4.51)	**4.07** (3.08-5.25)	**4.84** (3.56-6.45)	**5.42** (3.91-7.35)	**6.03** (4.24-8.40)	**6.70** (4.49-9.50)	**7.65** (4.95-11.1)	**8.42** (5.33-12.5)
30-min	**1.68** (1.28-2.15)	**1.97** (1.50-2.52)	**2.44** (1.85-3.13)	**2.83** (2.14-3.65)	**3.36** (2.47-4.48)	**3.77** (2.72-5.10)	**4.19** (2.93-5.81)	**4.63** (3.11-6.57)	**5.24** (3.39-7.63)	**5.72** (3.62-8.47)
60-min	**1.08** (0.822-1.38)	**1.26** (0.961-1.62)	**1.56** (1.19-2.01)	**1.81** (1.37-2.34)	**2.15** (1.58-2.86)	**2.42** (1.74-3.26)	**2.68** (1.87-3.71)	**2.96** (1.98-4.19)	**3.33** (2.15-4.85)	**3.61** (2.29-5.35)
2-hr	**0.696** (0.535-0.886)	**0.820** (0.630-1.04)	**1.02** (0.782-1.31)	**1.19** (0.906-1.53)	**1.42** (1.05-1.88)	**1.60** (1.16-2.15)	**1.78** (1.25-2.46)	**1.98** (1.33-2.79)	**2.26** (1.47-3.27)	**2.49** (1.58-3.66)
3-hr	**0.534** (0.412-0.678)	**0.632** (0.487-0.802)	**0.793** (0.609-1.01)	**0.925** (0.707-1.18)	**1.11** (0.822-1.46)	**1.25** (0.907-1.67)	**1.39** (0.986-1.92)	**1.55** (1.05-2.18)	**1.79** (1.16-2.58)	**1.98** (1.26-2.90)
6-hr	**0.337** (0.262-0.424)	**0.402** (0.312-0.507)	**0.509** (0.394-0.643)	**0.598** (0.460-0.758)	**0.720** (0.538-0.947)	**0.811** (0.595-1.09)	**0.908** (0.649-1.25)	**1.02** (0.690-1.42)	**1.19** (0.773-1.70)	**1.32** (0.844-1.93)
12-hr	**0.206** (0.161-0.258)	**0.248** (0.194-0.311)	**0.318** (0.247-0.399)	**0.376** (0.290-0.473)	**0.455** (0.342-0.595)	**0.514** (0.379-0.685)	**0.577** (0.415-0.794)	**0.652** (0.442-0.903)	**0.762** (0.498-1.09)	**0.855** (0.547-1.24)
24-hr	**0.121** (0.095-0.151)	**0.148** (0.117-0.184)	**0.193** (0.151-0.240)	**0.230** (0.179-0.287)	**0.280** (0.212-0.365)	**0.318** (0.236-0.421)	**0.358** (0.260-0.492)	**0.407** (0.277-0.561)	**0.482** (0.316-0.682)	**0.546** (0.350-0.783)
2-day	**0.068** (0.054-0.084)	**0.085** (0.067-0.105)	**0.112** (0.088-0.139)	**0.134** (0.105-0.167)	**0.165** (0.126-0.214)	**0.188** (0.141-0.249)	**0.213** (0.156-0.293)	**0.244** (0.167-0.334)	**0.293** (0.193-0.413)	**0.336** (0.217-0.480)
3-day	**0.050** (0.039-0.061)	**0.062** (0.049-0.076)	**0.081** (0.064-0.100)	**0.098** (0.077-0.121)	**0.120** (0.092-0.156)	**0.137** (0.103-0.181)	**0.155** (0.114-0.213)	**0.178** (0.122-0.243)	**0.215** (0.141-0.300)	**0.246** (0.159-0.350)
4-day	**0.040** (0.032-0.049)	**0.050** (0.039-0.061)	**0.065** (0.052-0.080)	**0.078** (0.062-0.097)	**0.096** (0.074-0.124)	**0.109** (0.082-0.143)	**0.124** (0.091-0.169)	**0.142** (0.097-0.193)	**0.170** (0.112-0.238)	**0.195** (0.126-0.277)
7-day	**0.027** (0.022-0.033)	**0.033** (0.027-0.041)	**0.043** (0.034-0.053)	**0.051** (0.041-0.063)	**0.062** (0.048-0.080)	**0.071** (0.053-0.092)	**0.080** (0.059-0.107)	**0.091** (0.062-0.122)	**0.107** (0.071-0.149)	**0.122** (0.079-0.172)
10-day	**0.022** (0.018-0.027)	**0.027** (0.021-0.032)	**0.034** (0.027-0.041)	**0.040** (0.032-0.049)	**0.048** (0.037-0.061)	**0.054** (0.041-0.070)	**0.061** (0.045-0.081)	**0.069** (0.047-0.092)	**0.080** (0.053-0.111)	**0.090** (0.058-0.126)
20-day	**0.016** (0.013-0.019)	**0.018** (0.015-0.022)	**0.022** (0.018-0.027)	**0.026** (0.020-0.031)	**0.030** (0.023-0.038)	**0.033** (0.025-0.043)	**0.037** (0.027-0.048)	**0.041** (0.028-0.055)	**0.046** (0.031-0.064)	**0.051** (0.033-0.071)
30-day	**0.013** (0.011-0.016)	**0.015** (0.012-0.018)	**0.018** (0.014-0.021)	**0.020** (0.016-0.024)	**0.023** (0.018-0.029)	**0.026** (0.019-0.032)	**0.028** (0.020-0.036)	**0.031** (0.021-0.041)	**0.034** (0.023-0.047)	**0.037** (0.024-0.051)
45-day	**0.011** (0.009-0.013)	**0.012** (0.010-0.014)	**0.014** (0.011-0.017)	**0.016** (0.013-0.019)	**0.018** (0.014-0.022)	**0.020** (0.015-0.025)	**0.021** (0.016-0.028)	**0.023** (0.016-0.031)	**0.025** (0.017-0.034)	**0.027** (0.018-0.037)
60-day	**0.009** (0.008-0.011)	**0.010** (0.009-0.012)	**0.012** (0.010-0.014)	**0.013** (0.011-0.016)	**0.015** (0.012-0.019)	**0.016** (0.012-0.021)	**0.018** (0.013-0.023)	**0.019** (0.013-0.025)	**0.021** (0.014-0.028)	**0.022** (0.014-0.030)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

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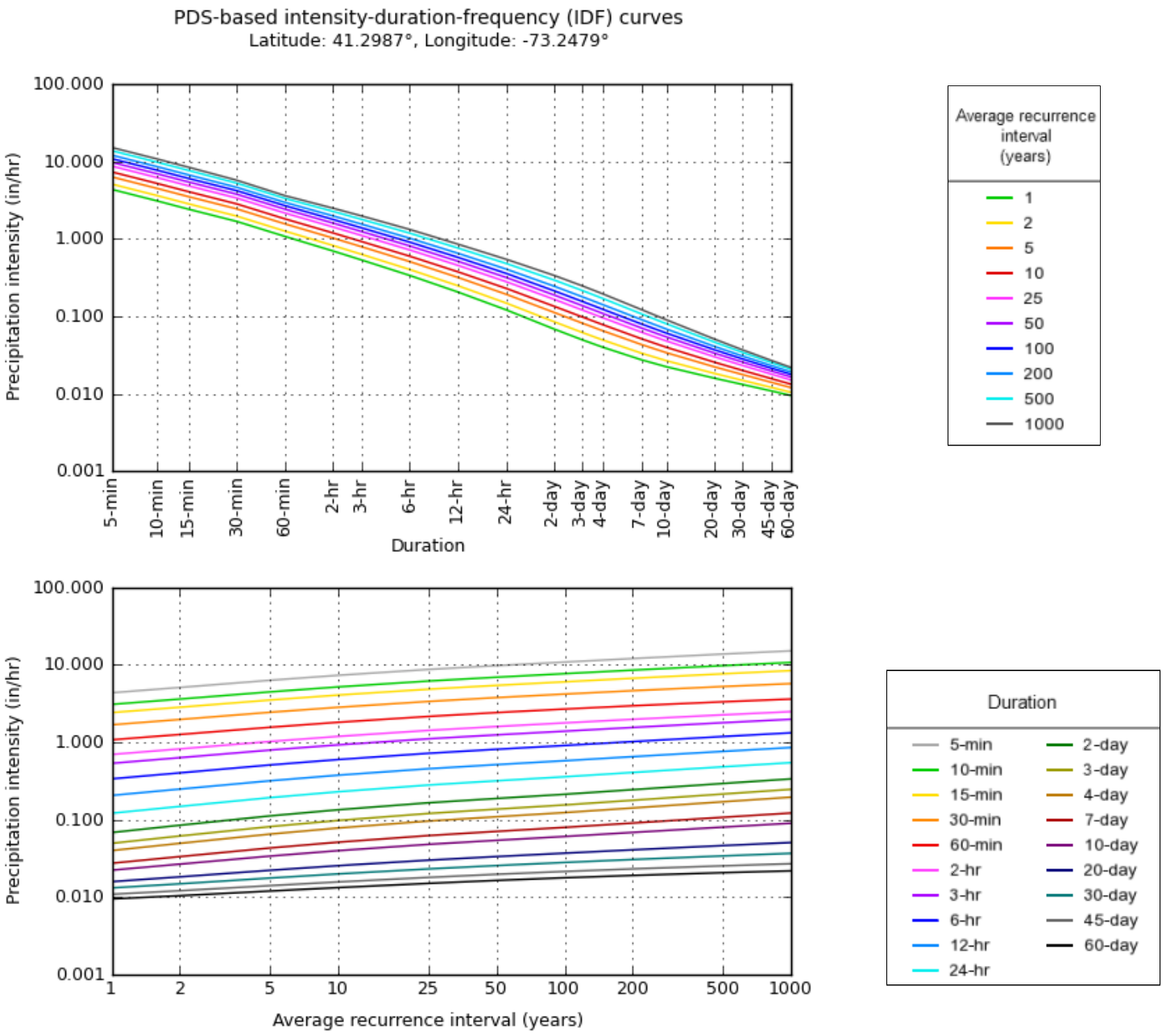
PF graphical



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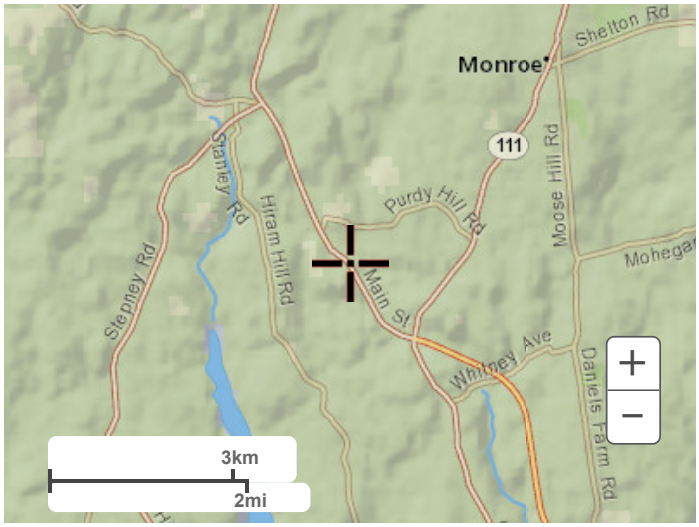
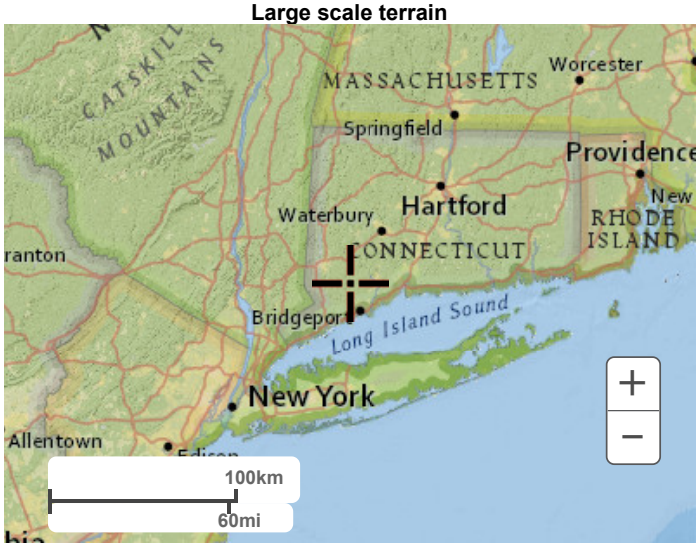
Maps & aerials

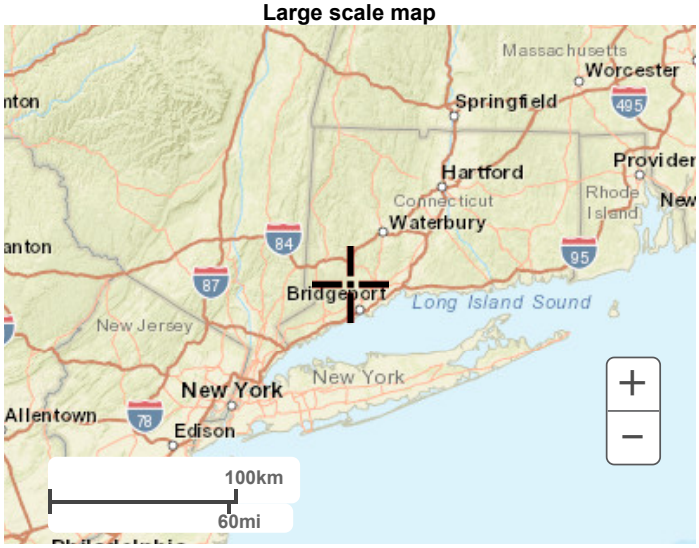
Small scale terrain



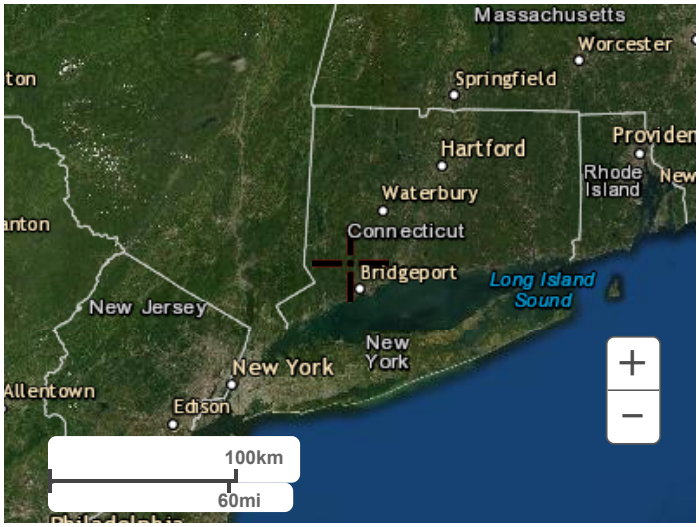
Large scale terrain



Large scale map



Large scale aerial



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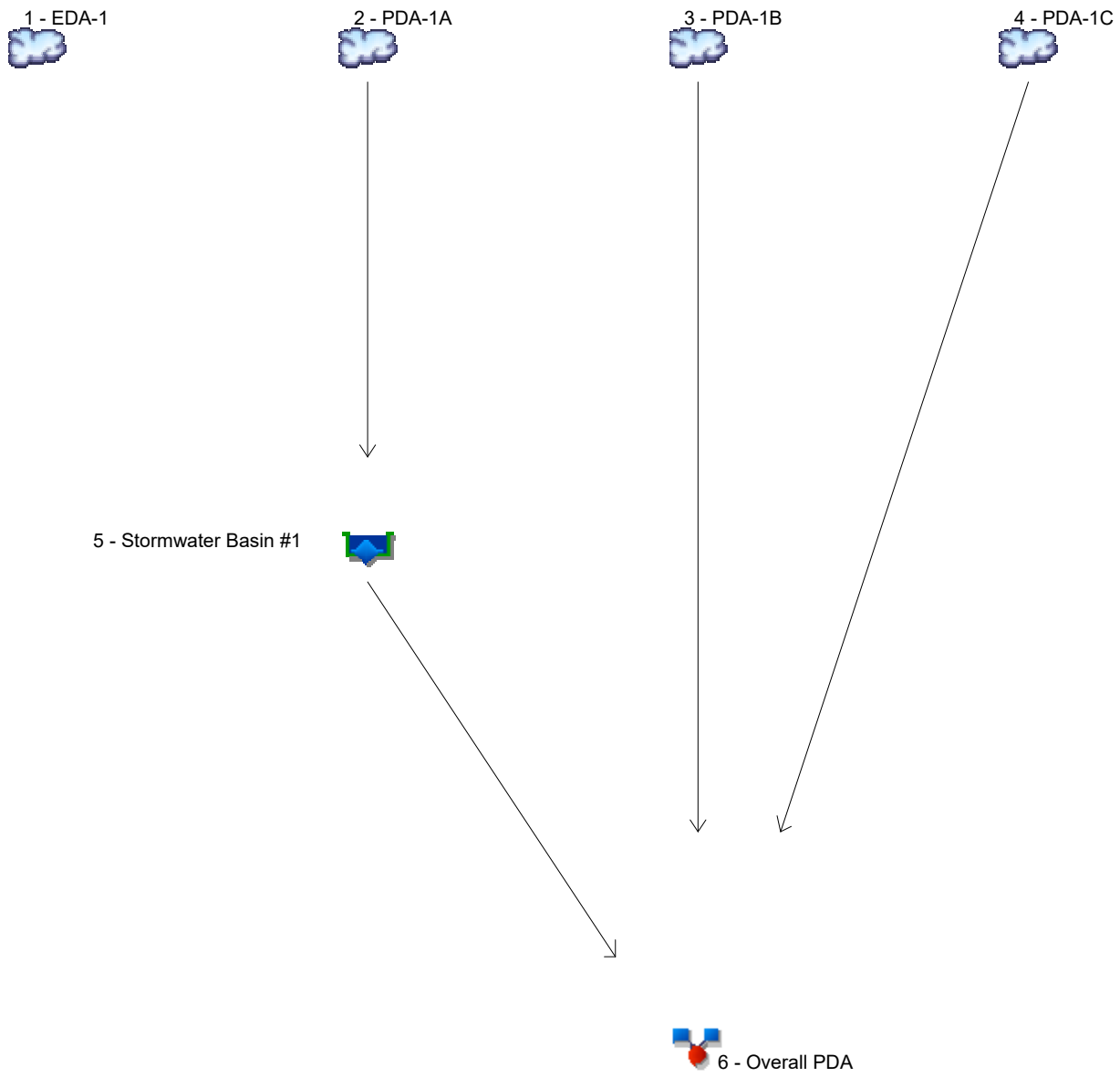
US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Disclaimer

Watershed Model Schematic

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022



Legend

Hyd.	Origin	Description
1	SCS Runoff	EDA-1
2	SCS Runoff	PDA-1A
3	SCS Runoff	PDA-1B
4	SCS Runoff	PDA-1C
5	Reservoir	Stormwater Basin #1
6	Combine	Overall PDA

Hydrograph Return Period Recap

Hyd. No.	Hydrograph type (origin)	Inflow hyd(s)	Peak Outflow (cfs)								Hydrograph Description
			1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
1	SCS Runoff	------	-------	13.79	-------	23.65	32.43	45.06	54.79	65.55	EDA-1
2	SCS Runoff	------	-------	4.054	-------	9.017	13.89	21.37	27.36	34.18	PDA-1A
3	SCS Runoff	------	-------	0.547	-------	1.480	2.421	3.885	5.064	6.427	PDA-1B
4	SCS Runoff	------	-------	0.022	-------	0.190	0.462	1.023	1.517	2.116	PDA-1C
5	Reservoir	2	-------	2.303	-------	7.132	9.849	17.22	23.88	28.36	Stormwater Basin #1
6	Combine	3, 4, 5	-------	2.498	-------	7.798	10.89	19.02	26.67	31.85	Overall PDA

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	13.79	1	734	61,838	------	------	------	EDA-1
2	SCS Runoff	4.054	1	747	26,403	------	------	------	PDA-1A
3	SCS Runoff	0.547	1	733	3,189	------	------	------	PDA-1B
4	SCS Runoff	0.022	1	753	505	------	------	------	PDA-1C
5	Reservoir	2.303	1	766	22,513	2	295.20	6,247	Stormwater Basin #1
6	Combine	2.498	1	766	26,207	3, 4, 5	------	------	Overall PDA

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	23.65	1	733	102,162	------	------	------	EDA-1
2	SCS Runoff	9.017	1	742	50,724	------	------	------	PDA-1A
3	SCS Runoff	1.480	1	730	6,495	------	------	------	PDA-1B
4	SCS Runoff	0.190	1	739	1,541	------	------	------	PDA-1C
5	Reservoir	7.132	1	755	46,833	2	295.95	9,274	Stormwater Basin #1
6	Combine	7.798	1	753	54,870	3, 4, 5	------	------	Overall PDA

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	32.43	1	733	138,432	------	------	------	EDA-1
2	SCS Runoff	13.89	1	741	74,162	------	------	------	PDA-1A
3	SCS Runoff	2.421	1	729	9,761	------	------	------	PDA-1B
4	SCS Runoff	0.462	1	733	2,720	------	------	------	PDA-1C
5	Reservoir	9.849	1	757	70,272	2	296.83	13,671	Stormwater Basin #1
6	Combine	10.89	1	750	82,753	3, 4, 5	------	------	Overall PDA

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	45.06	1	733	191,410	------	------	------	EDA-1
2	SCS Runoff	21.37	1	740	110,103	------	------	------	PDA-1A
3	SCS Runoff	3.885	1	729	14,853	------	------	------	PDA-1B
4	SCS Runoff	1.023	1	730	4,726	------	------	------	PDA-1C
5	Reservoir	17.22	1	752	106,213	2	297.94	20,311	Stormwater Basin #1
6	Combine	19.02	1	752	125,792	3, 4, 5	------	------	Overall PDA

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	54.79	1	732	232,498	------	------	------	EDA-1
2	SCS Runoff	27.36	1	739	138,970	------	------	------	PDA-1A
3	SCS Runoff	5.064	1	729	18,991	------	------	------	PDA-1B
4	SCS Runoff	1.517	1	730	6,454	------	------	------	PDA-1C
5	Reservoir	23.88	1	749	135,079	2	298.28	22,719	Stormwater Basin #1
6	Combine	26.67	1	748	160,525	3, 4, 5	------	------	Overall PDA

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	65.55	1	732	278,440	------	------	------	EDA-1
2	SCS Runoff	34.18	1	739	172,005	------	------	------	PDA-1A
3	SCS Runoff	6.427	1	728	23,765	------	------	------	PDA-1B
4	SCS Runoff	2.116	1	729	8,525	------	------	------	PDA-1C
5	Reservoir	28.36	1	751	168,115	2	298.82	26,615	Stormwater Basin #1
6	Combine	31.85	1	746	200,405	3, 4, 5	------	------	Overall PDA

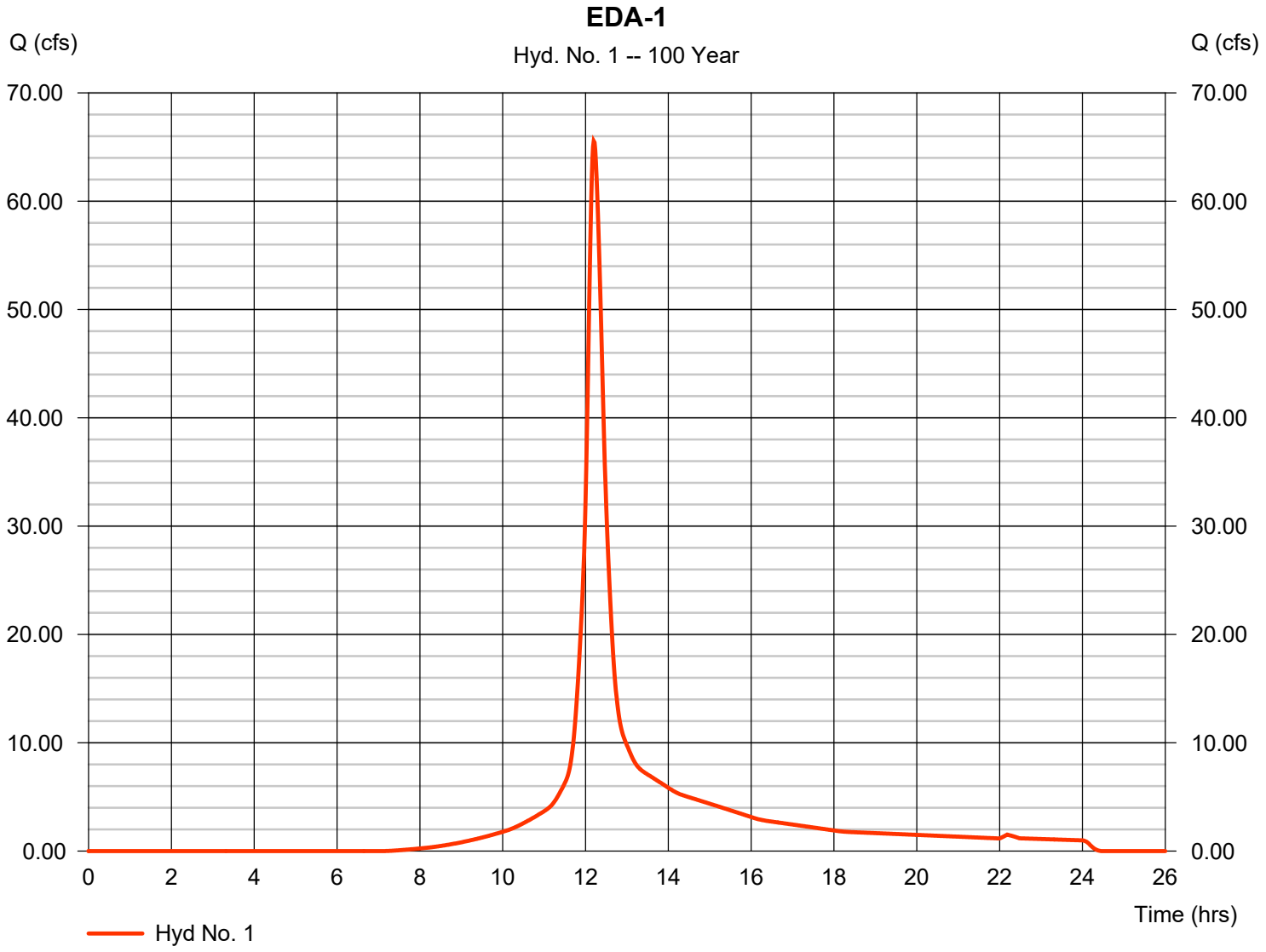
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022 Friday, 07 / 23 / 2021

Hyd. No. 1

EDA-1

Hydrograph type	=	SCS Runoff	Peak discharge	=	65.55 cfs
Storm frequency	=	100 yrs	Time to peak	=	12.20 hrs
Time interval	=	1 min	Hyd. volume	=	278,440 cuft
Drainage area	=	14.850 ac	Curve number	=	72
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	17.50 min
Total precip.	=	8.60 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484



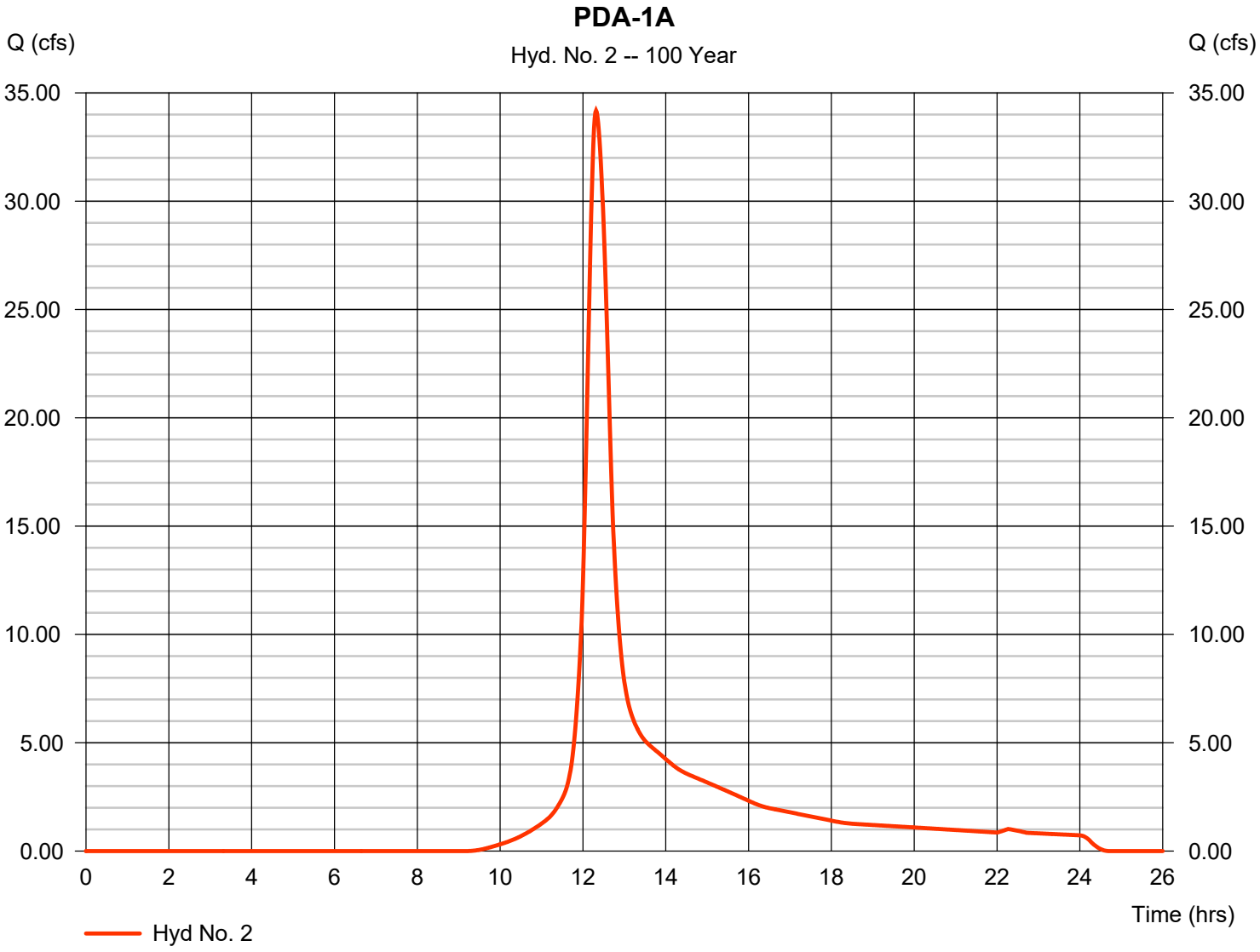
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022 Friday, 07 / 23 / 2021

Hyd. No. 2

PDA-1A

Hydrograph type	=	SCS Runoff	Peak discharge	=	34.18 cfs
Storm frequency	=	100 yrs	Time to peak	=	12.32 hrs
Time interval	=	1 min	Hyd. volume	=	172,005 cuft
Drainage area	=	12.030 ac	Curve number	=	61
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	User	Time of conc. (Tc)	=	26.60 min
Total precip.	=	8.60 in	Distribution	=	Type III
Storm duration	=	24 hrs	Shape factor	=	484



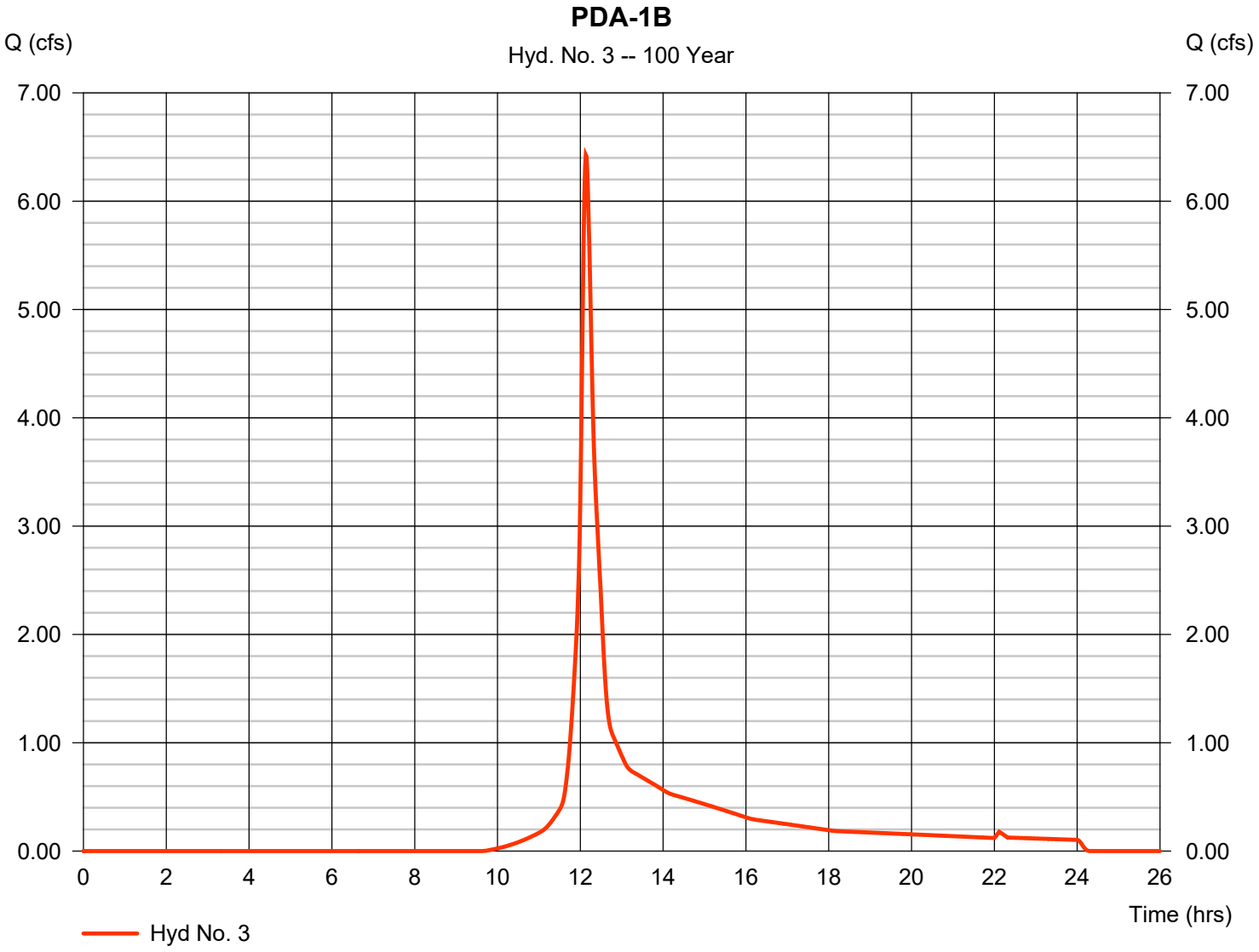
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022 Friday, 07 / 23 / 2021

Hyd. No. 3

PDA-1B

Hydrograph type	= SCS Runoff	Peak discharge	= 6.427 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.13 hrs
Time interval	= 1 min	Hyd. volume	= 23,765 cuft
Drainage area	= 1.810 ac	Curve number	= 58
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 10.50 min
Total precip.	= 8.60 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



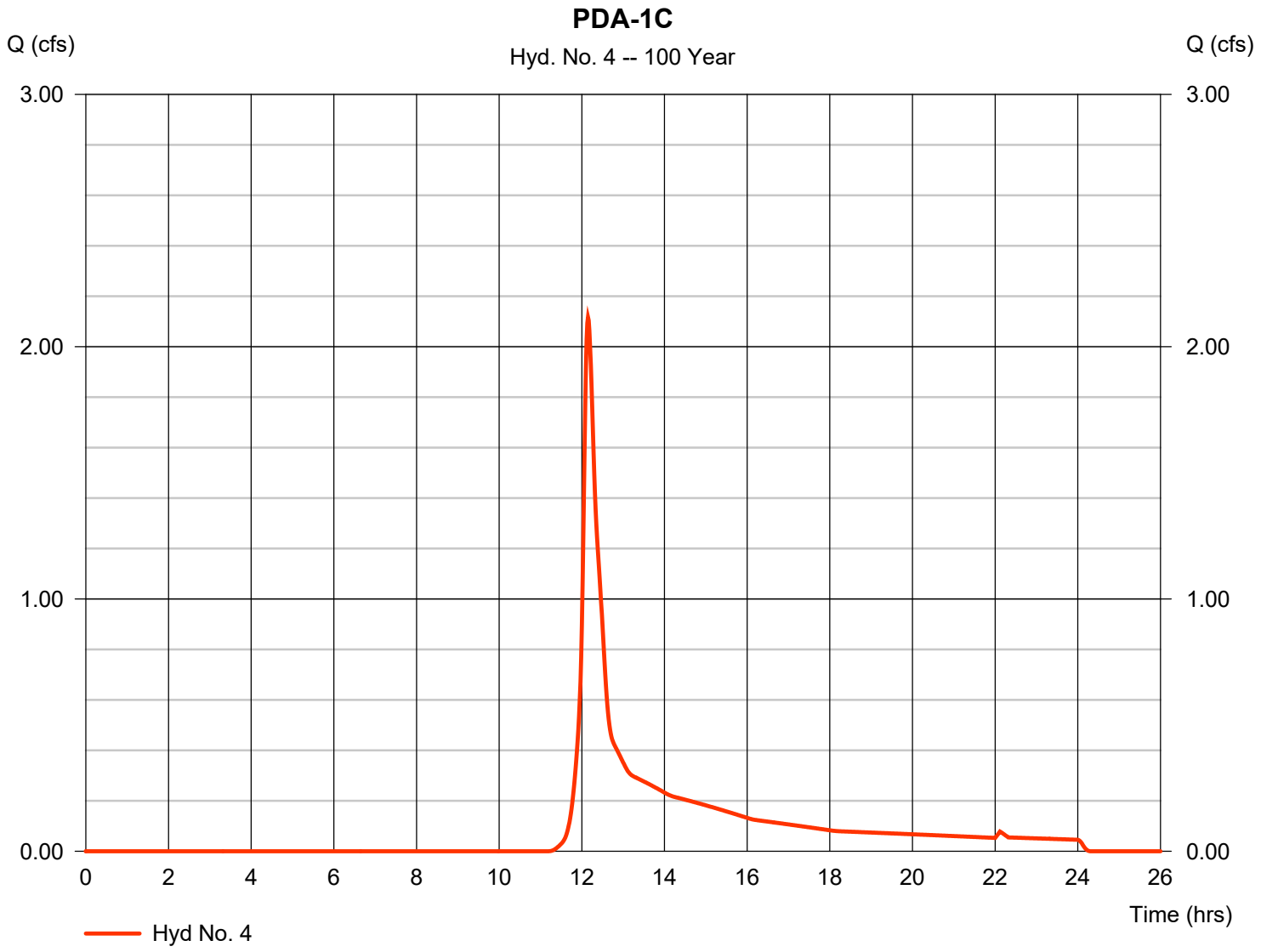
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022 Friday, 07 / 23 / 2021

Hyd. No. 4

PDA-1C

Hydrograph type	= SCS Runoff	Peak discharge	= 2.116 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.15 hrs
Time interval	= 1 min	Hyd. volume	= 8,525 cuft
Drainage area	= 1.010 ac	Curve number	= 47
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 10.80 min
Total precip.	= 8.60 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Report

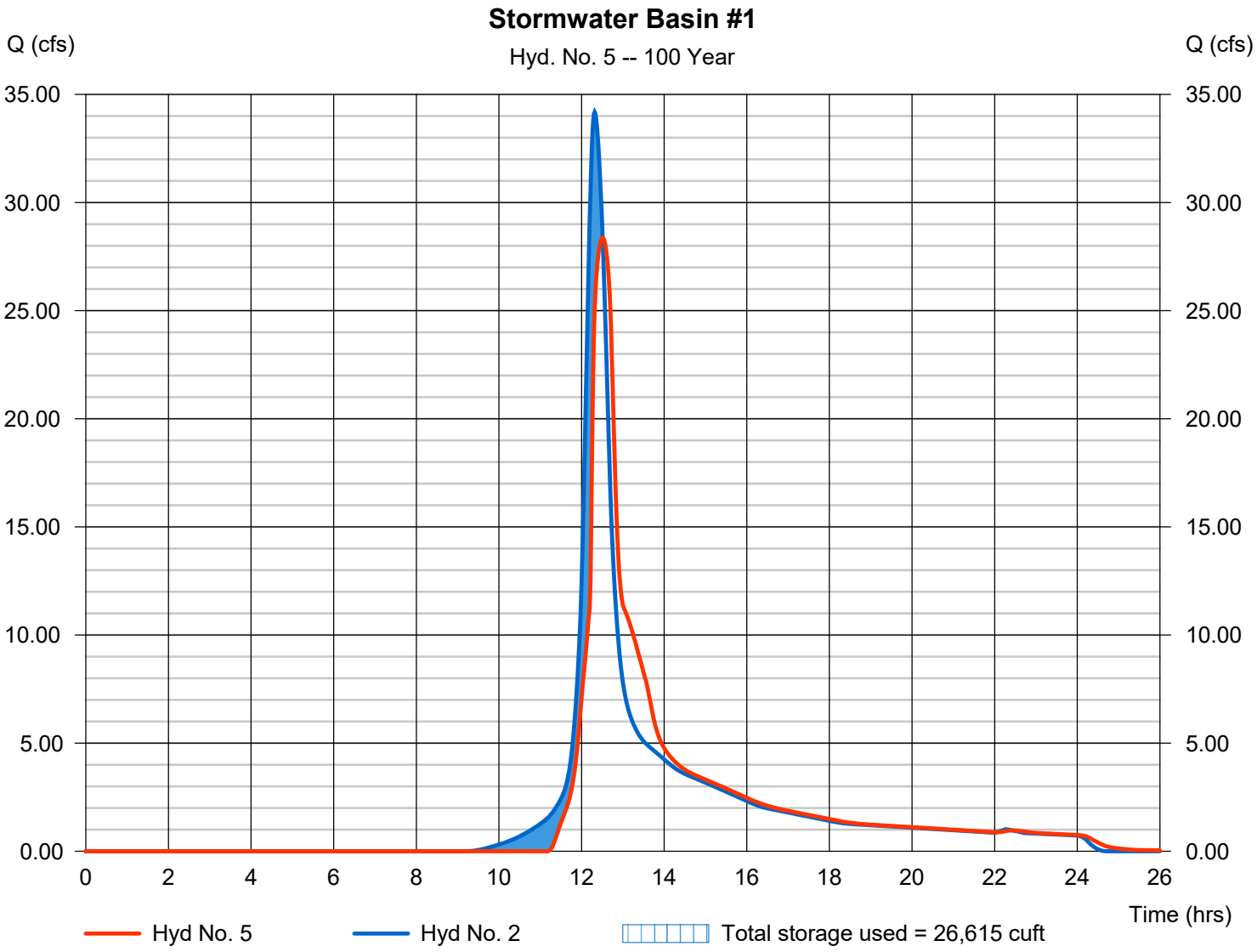
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022 Friday, 07 / 23 / 2021

Hyd. No. 5

Stormwater Basin #1

Hydrograph type	=	Reservoir	Peak discharge	=	28.36 cfs
Storm frequency	=	100 yrs	Time to peak	=	12.52 hrs
Time interval	=	1 min	Hyd. volume	=	168,115 cuft
Inflow hyd. No.	=	2 - PDA-1A	Max. Elevation	=	298.82 ft
Reservoir name	=	Stormwater Basin #1	Max. Storage	=	26,615 cuft

Storage Indication method used.

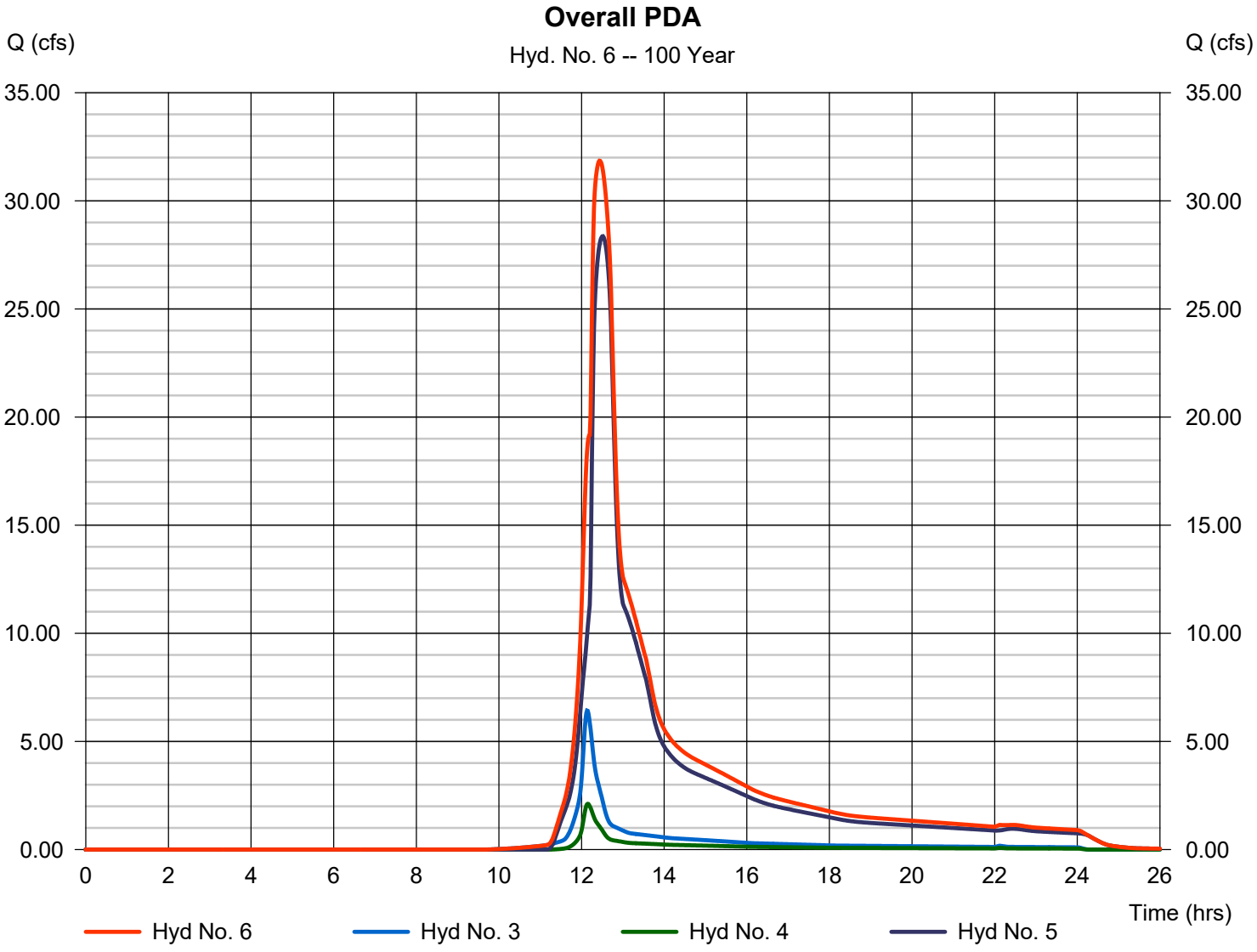


Hydrograph Report

Hyd. No. 6

Overall PDA

Hydrograph type	= Combine	Peak discharge	= 31.85 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.43 hrs
Time interval	= 1 min	Hyd. volume	= 200,405 cuft
Inflow hyds.	= 3, 4, 5	Contrib. drain. area	= 2.820 ac



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022 Friday, 07 / 23 / 2021

Hyd. No. 5

Stormwater Basin #1

Hydrograph type	= Reservoir	Peak discharge	= 28.36 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.52 hrs
Time interval	= 1 min	Hyd. volume	= 168,115 cuft
Inflow hyd. No.	= 2 - PDA-1A	Reservoir name	= Stormwater Basin
Max. Elevation	= 298.82 ft	Max. Storage	= 26,615 cuft

Storage Indication method used.

Hydrograph Discharge Table

(Printed values >= 1.00% of Qp. Print interval = 5)

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
11.33	1.889	294.76	0.413	0.395	-----	-----	-----	-----	-----	-----	-----	0.395
11.42	2.138	294.90	0.839	0.839	-----	-----	-----	-----	-----	-----	-----	0.839
11.50	2.429	295.01	1.323	1.319	-----	-----	-----	-----	-----	-----	-----	1.319
11.58	2.795	295.09	1.760	1.728	-----	-----	-----	-----	-----	-----	-----	1.729
11.67	3.387	295.17	2.229	2.174	-----	-----	-----	-----	-----	-----	-----	2.174
11.75	4.408	295.28	2.880	2.809	-----	-----	-----	-----	-----	-----	-----	2.809
11.83	6.081	295.42	3.784	3.734	-----	-----	-----	-----	-----	-----	-----	3.734
11.92	8.504	295.63	5.238	5.173	-----	-----	-----	-----	-----	-----	-----	5.173
12.00	12.46	295.94	7.148	7.096	-----	-----	-----	-----	-----	-----	-----	7.096
12.08	19.14	296.41	8.822	8.786	-----	-----	-----	-----	-----	-----	-----	8.786
12.17	26.57	297.16	10.62	10.62	-----	-----	-----	-----	-----	-----	-----	10.62
12.25	32.65	297.99	18.09	9.742	-----	-----	8.349	-----	-----	-----	-----	18.09
12.33	34.11	298.44	25.78	6.221	-----	-----	19.56	-----	-----	-----	-----	25.78
12.42	32.35	298.71	27.73	5.008	-----	-----	22.72	-----	-----	-----	-----	27.73
12.50	28.85	298.81	28.36	4.644	-----	-----	23.72	-----	-----	-----	-----	28.36
12.58	24.02	298.74	27.95	4.883	-----	-----	23.06	-----	-----	-----	-----	27.94
12.67	18.56	298.50	26.28	5.897	-----	-----	20.39	-----	-----	-----	-----	26.28
12.75	14.05	298.16	21.64	8.400	-----	-----	13.24	-----	-----	-----	-----	21.64
12.83	11.19	297.89	16.18	10.24	-----	-----	5.937	-----	-----	-----	-----	16.17
12.92	9.194	297.68	12.79	10.82	-----	-----	1.971	-----	-----	-----	-----	12.79

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Hydrograph Discharge Table

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
13.00	7.824	297.51	11.42	11.30	-----	-----	0.092	-----	-----	-----	-----	11.39
13.08	6.925	297.32	10.98	10.98	-----	-----	-----	-----	-----	-----	-----	10.98
13.17	6.340	297.12	10.53	10.53	-----	-----	-----	-----	-----	-----	-----	10.53
13.25	5.913	296.90	10.05	10.03	-----	-----	-----	-----	-----	-----	-----	10.03
13.33	5.571	296.66	9.481	9.445	-----	-----	-----	-----	-----	-----	-----	9.445
13.42	5.305	296.44	8.894	8.870	-----	-----	-----	-----	-----	-----	-----	8.870
13.50	5.097	296.24	8.325	8.285	-----	-----	-----	-----	-----	-----	-----	8.285
13.58	4.931	296.06	7.661	7.661	-----	-----	-----	-----	-----	-----	-----	7.661
13.67	4.790	295.90	6.985	6.902	-----	-----	-----	-----	-----	-----	-----	6.902
13.75	4.657	295.77	6.163	6.101	-----	-----	-----	-----	-----	-----	-----	6.101
13.83	4.522	295.68	5.588	5.497	-----	-----	-----	-----	-----	-----	-----	5.497
13.92	4.386	295.62	5.133	5.076	-----	-----	-----	-----	-----	-----	-----	5.076
14.00	4.249	295.57	4.812	4.771	-----	-----	-----	-----	-----	-----	-----	4.771
14.08	4.111	295.54	4.566	4.533	-----	-----	-----	-----	-----	-----	-----	4.533
14.17	3.978	295.51	4.362	4.336	-----	-----	-----	-----	-----	-----	-----	4.336
14.25	3.856	295.48	4.195	4.165	-----	-----	-----	-----	-----	-----	-----	4.165
14.33	3.750	295.46	4.054	4.017	-----	-----	-----	-----	-----	-----	-----	4.017
14.42	3.659	295.44	3.932	3.889	-----	-----	-----	-----	-----	-----	-----	3.889
14.50	3.578	295.43	3.826	3.778	-----	-----	-----	-----	-----	-----	-----	3.778
14.58	3.506	295.41	3.734	3.682	-----	-----	-----	-----	-----	-----	-----	3.682
14.67	3.438	295.40	3.652	3.596	-----	-----	-----	-----	-----	-----	-----	3.596
14.75	3.371	295.39	3.582	3.523	-----	-----	-----	-----	-----	-----	-----	3.523
14.83	3.304	295.38	3.514	3.453	-----	-----	-----	-----	-----	-----	-----	3.453
14.92	3.237	295.37	3.447	3.384	-----	-----	-----	-----	-----	-----	-----	3.384
15.00	3.169	295.36	3.380	3.316	-----	-----	-----	-----	-----	-----	-----	3.316
15.08	3.100	295.35	3.313	3.247	-----	-----	-----	-----	-----	-----	-----	3.247
15.17	3.031	295.34	3.247	3.179	-----	-----	-----	-----	-----	-----	-----	3.179
15.25	2.962	295.32	3.180	3.110	-----	-----	-----	-----	-----	-----	-----	3.110

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Hydrograph Discharge Table

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
15.33	2.893	295.31	3.113	3.041	-----	-----	-----	-----	-----	-----	-----	3.041
15.42	2.823	295.30	3.046	2.972	-----	-----	-----	-----	-----	-----	-----	2.972
15.50	2.752	295.29	2.974	2.901	-----	-----	-----	-----	-----	-----	-----	2.901
15.58	2.682	295.28	2.902	2.830	-----	-----	-----	-----	-----	-----	-----	2.830
15.67	2.611	295.27	2.830	2.759	-----	-----	-----	-----	-----	-----	-----	2.759
15.75	2.539	295.26	2.757	2.688	-----	-----	-----	-----	-----	-----	-----	2.688
15.83	2.468	295.25	2.685	2.617	-----	-----	-----	-----	-----	-----	-----	2.617
15.92	2.396	295.24	2.612	2.545	-----	-----	-----	-----	-----	-----	-----	2.545
16.00	2.323	295.22	2.539	2.474	-----	-----	-----	-----	-----	-----	-----	2.474
16.08	2.252	295.21	2.466	2.402	-----	-----	-----	-----	-----	-----	-----	2.402
16.17	2.183	295.20	2.394	2.331	-----	-----	-----	-----	-----	-----	-----	2.330
16.25	2.121	295.19	2.329	2.269	-----	-----	-----	-----	-----	-----	-----	2.269
16.33	2.067	295.18	2.268	2.210	-----	-----	-----	-----	-----	-----	-----	2.210
16.42	2.021	295.17	2.209	2.155	-----	-----	-----	-----	-----	-----	-----	2.155
16.50	1.982	295.16	2.156	2.104	-----	-----	-----	-----	-----	-----	-----	2.104
16.58	1.947	295.15	2.107	2.058	-----	-----	-----	-----	-----	-----	-----	2.058
16.67	1.915	295.14	2.063	2.016	-----	-----	-----	-----	-----	-----	-----	2.016
16.75	1.884	295.14	2.022	1.977	-----	-----	-----	-----	-----	-----	-----	1.977
16.83	1.853	295.13	1.984	1.941	-----	-----	-----	-----	-----	-----	-----	1.941
16.92	1.821	295.12	1.948	1.906	-----	-----	-----	-----	-----	-----	-----	1.906
17.00	1.790	295.12	1.912	1.873	-----	-----	-----	-----	-----	-----	-----	1.873
17.08	1.758	295.11	1.878	1.840	-----	-----	-----	-----	-----	-----	-----	1.840
17.17	1.727	295.11	1.843	1.807	-----	-----	-----	-----	-----	-----	-----	1.807
17.25	1.695	295.10	1.810	1.775	-----	-----	-----	-----	-----	-----	-----	1.775
17.33	1.663	295.09	1.777	1.745	-----	-----	-----	-----	-----	-----	-----	1.745
17.42	1.631	295.09	1.744	1.713	-----	-----	-----	-----	-----	-----	-----	1.713
17.50	1.599	295.08	1.710	1.682	-----	-----	-----	-----	-----	-----	-----	1.682
17.58	1.567	295.08	1.676	1.651	-----	-----	-----	-----	-----	-----	-----	1.650

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Hydrograph Discharge Table

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
17.67	1.535	295.07	1.643	1.619	-----	-----	-----	-----	-----	-----	-----	1.619
17.75	1.503	295.06	1.609	1.587	-----	-----	-----	-----	-----	-----	-----	1.587
17.83	1.471	295.06	1.574	1.555	-----	-----	-----	-----	-----	-----	-----	1.555
17.92	1.438	295.05	1.540	1.523	-----	-----	-----	-----	-----	-----	-----	1.523
18.00	1.406	295.04	1.506	1.490	-----	-----	-----	-----	-----	-----	-----	1.491
18.08	1.374	295.04	1.471	1.458	-----	-----	-----	-----	-----	-----	-----	1.458
18.17	1.344	295.03	1.437	1.426	-----	-----	-----	-----	-----	-----	-----	1.426
18.25	1.317	295.03	1.404	1.396	-----	-----	-----	-----	-----	-----	-----	1.396
18.33	1.295	295.02	1.374	1.367	-----	-----	-----	-----	-----	-----	-----	1.367
18.42	1.277	295.01	1.346	1.341	-----	-----	-----	-----	-----	-----	-----	1.341
18.50	1.264	295.01	1.322	1.318	-----	-----	-----	-----	-----	-----	-----	1.319
18.58	1.252	295.01	1.301	1.299	-----	-----	-----	-----	-----	-----	-----	1.299
18.67	1.242	295.00	1.284	1.283	-----	-----	-----	-----	-----	-----	-----	1.283
18.75	1.233	295.00	1.269	1.268	-----	-----	-----	-----	-----	-----	-----	1.268
18.83	1.223	295.00	1.255	1.255	-----	-----	-----	-----	-----	-----	-----	1.255
18.92	1.214	294.99	1.243	1.243	-----	-----	-----	-----	-----	-----	-----	1.243
19.00	1.205	294.99	1.232	1.231	-----	-----	-----	-----	-----	-----	-----	1.231
19.08	1.195	294.99	1.221	1.221	-----	-----	-----	-----	-----	-----	-----	1.221
19.17	1.186	294.99	1.211	1.211	-----	-----	-----	-----	-----	-----	-----	1.211
19.25	1.176	294.98	1.201	1.201	-----	-----	-----	-----	-----	-----	-----	1.201
19.33	1.167	294.98	1.191	1.191	-----	-----	-----	-----	-----	-----	-----	1.191
19.42	1.157	294.98	1.181	1.181	-----	-----	-----	-----	-----	-----	-----	1.181
19.50	1.148	294.98	1.171	1.171	-----	-----	-----	-----	-----	-----	-----	1.171
19.58	1.138	294.98	1.162	1.162	-----	-----	-----	-----	-----	-----	-----	1.162
19.67	1.128	294.97	1.152	1.152	-----	-----	-----	-----	-----	-----	-----	1.152
19.75	1.119	294.97	1.143	1.142	-----	-----	-----	-----	-----	-----	-----	1.143
19.83	1.109	294.97	1.133	1.133	-----	-----	-----	-----	-----	-----	-----	1.133
19.92	1.100	294.97	1.123	1.123	-----	-----	-----	-----	-----	-----	-----	1.123

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Hydrograph Discharge Table

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
20.00	1.090	294.96	1.114	1.114	-----	-----	-----	-----	-----	-----	-----	1.114
20.08	1.080	294.96	1.104	1.104	-----	-----	-----	-----	-----	-----	-----	1.104
20.17	1.071	294.96	1.095	1.094	-----	-----	-----	-----	-----	-----	-----	1.094
20.25	1.061	294.96	1.085	1.085	-----	-----	-----	-----	-----	-----	-----	1.085
20.33	1.051	294.96	1.075	1.075	-----	-----	-----	-----	-----	-----	-----	1.075
20.42	1.042	294.95	1.066	1.065	-----	-----	-----	-----	-----	-----	-----	1.066
20.50	1.032	294.95	1.056	1.056	-----	-----	-----	-----	-----	-----	-----	1.056
20.58	1.022	294.95	1.046	1.046	-----	-----	-----	-----	-----	-----	-----	1.046
20.67	1.013	294.95	1.037	1.037	-----	-----	-----	-----	-----	-----	-----	1.036
20.75	1.003	294.94	1.027	1.027	-----	-----	-----	-----	-----	-----	-----	1.027
20.83	0.993	294.94	1.017	1.017	-----	-----	-----	-----	-----	-----	-----	1.017
20.92	0.983	294.94	1.007	1.007	-----	-----	-----	-----	-----	-----	-----	1.007
21.00	0.973	294.94	0.997	0.997	-----	-----	-----	-----	-----	-----	-----	0.998
21.08	0.964	294.93	0.988	0.988	-----	-----	-----	-----	-----	-----	-----	0.988
21.17	0.954	294.93	0.978	0.978	-----	-----	-----	-----	-----	-----	-----	0.978
21.25	0.944	294.93	0.968	0.968	-----	-----	-----	-----	-----	-----	-----	0.968
21.33	0.934	294.93	0.958	0.958	-----	-----	-----	-----	-----	-----	-----	0.958
21.42	0.924	294.93	0.949	0.949	-----	-----	-----	-----	-----	-----	-----	0.949
21.50	0.915	294.92	0.939	0.939	-----	-----	-----	-----	-----	-----	-----	0.939
21.58	0.905	294.92	0.929	0.929	-----	-----	-----	-----	-----	-----	-----	0.929
21.67	0.895	294.92	0.919	0.919	-----	-----	-----	-----	-----	-----	-----	0.919
21.75	0.885	294.92	0.909	0.909	-----	-----	-----	-----	-----	-----	-----	0.909
21.83	0.875	294.91	0.899	0.899	-----	-----	-----	-----	-----	-----	-----	0.899
21.92	0.865	294.91	0.889	0.889	-----	-----	-----	-----	-----	-----	-----	0.889
22.00	0.855	294.91	0.879	0.879	-----	-----	-----	-----	-----	-----	-----	0.880
22.08	0.901	294.91	0.879	0.879	-----	-----	-----	-----	-----	-----	-----	0.879
22.17	0.952	294.91	0.896	0.896	-----	-----	-----	-----	-----	-----	-----	0.896
22.25	1.008	294.92	0.924	0.924	-----	-----	-----	-----	-----	-----	-----	0.924

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Hydrograph Discharge Table

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
22.33	0.998	294.93	0.953	0.953	-----	-----	-----	-----	-----	-----	-----	0.953
22.42	0.969	294.93	0.963	0.963	-----	-----	-----	-----	-----	-----	-----	0.963
22.50	0.937	294.93	0.959	0.959	-----	-----	-----	-----	-----	-----	-----	0.959
22.58	0.903	294.92	0.946	0.946	-----	-----	-----	-----	-----	-----	-----	0.946
22.67	0.866	294.92	0.925	0.925	-----	-----	-----	-----	-----	-----	-----	0.925
22.75	0.840	294.91	0.900	0.900	-----	-----	-----	-----	-----	-----	-----	0.900
22.83	0.833	294.91	0.878	0.878	-----	-----	-----	-----	-----	-----	-----	0.878
22.92	0.825	294.90	0.862	0.862	-----	-----	-----	-----	-----	-----	-----	0.862
23.00	0.818	294.90	0.848	0.848	-----	-----	-----	-----	-----	-----	-----	0.848
23.08	0.811	294.90	0.838	0.838	-----	-----	-----	-----	-----	-----	-----	0.838
23.17	0.803	294.90	0.830	0.829	-----	-----	-----	-----	-----	-----	-----	0.829
23.25	0.796	294.89	0.822	0.820	-----	-----	-----	-----	-----	-----	-----	0.820
23.33	0.788	294.89	0.814	0.812	-----	-----	-----	-----	-----	-----	-----	0.812
23.42	0.781	294.89	0.807	0.804	-----	-----	-----	-----	-----	-----	-----	0.804
23.50	0.773	294.89	0.800	0.796	-----	-----	-----	-----	-----	-----	-----	0.796
23.58	0.766	294.88	0.793	0.789	-----	-----	-----	-----	-----	-----	-----	0.789
23.67	0.758	294.88	0.786	0.781	-----	-----	-----	-----	-----	-----	-----	0.781
23.75	0.751	294.88	0.778	0.773	-----	-----	-----	-----	-----	-----	-----	0.773
23.83	0.743	294.88	0.771	0.766	-----	-----	-----	-----	-----	-----	-----	0.766
23.92	0.736	294.88	0.764	0.758	-----	-----	-----	-----	-----	-----	-----	0.758
24.00	0.728	294.87	0.757	0.751	-----	-----	-----	-----	-----	-----	-----	0.751
24.08	0.690	294.87	0.747	0.740	-----	-----	-----	-----	-----	-----	-----	0.740
24.17	0.602	294.86	0.723	0.713	-----	-----	-----	-----	-----	-----	-----	0.713
24.25	0.464	294.85	0.675	0.662	-----	-----	-----	-----	-----	-----	-----	0.662
24.33	0.310	294.83	0.601	0.581	-----	-----	-----	-----	-----	-----	-----	0.581
24.42	0.187	294.80	0.511	0.485	-----	-----	-----	-----	-----	-----	-----	0.485
24.50	0.095	294.77	0.424	0.405	-----	-----	-----	-----	-----	-----	-----	0.405
24.58	0.034	294.74	0.339	0.326	-----	-----	-----	-----	-----	-----	-----	0.326

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Pond Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022 Friday, 07 / 23 / 2021

Pond No. 1 - Stormwater Basin #1

Pond Data

Contours -User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 293.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	293.00	1,951	0	0
1.00	294.00	2,711	2,320	2,320
2.00	295.00	3,567	3,129	5,449
3.00	296.00	4,529	4,038	9,487
4.00	297.00	5,567	5,039	14,526
5.00	298.00	6,713	6,130	20,656
6.00	299.00	7,923	7,309	27,965
7.00	300.00	9,704	8,798	36,763

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 24.00	18.00	Inactive	0.00
Span (in)	= 24.00	18.00	0.00	0.00
No. Barrels	= 1	1	1	0
Invert El. (ft)	= 294.00	294.50	0.00	0.00
Length (ft)	= 75.00	0.67	0.00	0.00
Slope (%)	= 0.67	0.00	0.00	n/a
N-Value	= .012	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	Yes	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 7.33	30.00	Inactive	0.00
Crest El. (ft)	= 297.50	299.00	0.00	0.00
Weir Coeff.	= 3.33	2.60	3.33	3.33
Weir Type	= 1	Broad	---	---
Multi-Stage	= Yes	No	No	No

Exfil.(in/hr) = 0.000 (by Wet area)

TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	293.00	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
0.10	232	293.10	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
0.20	464	293.20	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
0.30	696	293.30	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
0.40	928	293.40	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
0.50	1,160	293.50	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
0.60	1,392	293.60	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
0.70	1,624	293.70	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
0.80	1,856	293.80	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
0.90	2,088	293.90	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
1.00	2,320	294.00	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
1.10	2,633	294.10	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
1.20	2,946	294.20	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
1.30	3,259	294.30	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
1.40	3,572	294.40	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
1.50	3,885	294.50	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
1.60	4,198	294.60	0.06 ic	0.06 ic	---	---	0.00	0.00	---	---	---	---	0.058
1.70	4,511	294.70	0.22 ic	0.22 ic	---	---	0.00	0.00	---	---	---	---	0.218
1.80	4,824	294.80	0.52 ic	0.49 ic	---	---	0.00	0.00	---	---	---	---	0.490
1.90	5,136	294.90	0.84 ic	0.84 ic	---	---	0.00	0.00	---	---	---	---	0.842
2.00	5,449	295.00	1.27 ic	1.27 ic	---	---	0.00	0.00	---	---	---	---	1.265
2.10	5,853	295.10	1.81 ic	1.78 ic	---	---	0.00	0.00	---	---	---	---	1.778
2.20	6,257	295.20	2.38 ic	2.32 ic	---	---	0.00	0.00	---	---	---	---	2.316
2.30	6,661	295.30	3.03 ic	2.96 ic	---	---	0.00	0.00	---	---	---	---	2.959
2.40	7,065	295.40	3.64 ic	3.59 ic	---	---	0.00	0.00	---	---	---	---	3.586
2.50	7,468	295.50	4.30 ic	4.28 ic	---	---	0.00	0.00	---	---	---	---	4.281
2.60	7,872	295.60	5.01 ic	4.96 ic	---	---	0.00	0.00	---	---	---	---	4.964
2.70	8,276	295.70	5.76 ic	5.65 ic	---	---	0.00	0.00	---	---	---	---	5.654
2.80	8,680	295.80	6.37 ic	6.33 ic	---	---	0.00	0.00	---	---	---	---	6.335
2.90	9,084	295.90	7.00 ic	6.92 ic	---	---	0.00	0.00	---	---	---	---	6.920
3.00	9,487	296.00	7.37 ic	7.37 ic	---	---	0.00	0.00	---	---	---	---	7.368
3.10	9,991	296.10	7.84 ic	7.84 ic	---	---	0.00	0.00	---	---	---	---	7.844
3.20	10,495	296.20	8.17 ic	8.17 ic	---	---	0.00	0.00	---	---	---	---	8.167
3.30	10,999	296.30	8.57 oc	8.47 ic	---	---	0.00	0.00	---	---	---	---	8.469
3.40	11,503	296.40	8.80 oc	8.76 ic	---	---	0.00	0.00	---	---	---	---	8.764

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Stormwater Basin #1

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
3.50	12,007	296.50	9.03 oc	9.03 ic	---	---	0.00	0.00	---	---	---	---	9.027
3.60	12,510	296.60	9.35 oc	9.27 ic	---	---	0.00	0.00	---	---	---	---	9.275
3.70	13,014	296.70	9.56 oc	9.55 ic	---	---	0.00	0.00	---	---	---	---	9.550
3.80	13,518	296.80	9.86 oc	9.77 ic	---	---	0.00	0.00	---	---	---	---	9.768
3.90	14,022	296.90	10.05 oc	10.03 ic	---	---	0.00	0.00	---	---	---	---	10.03
4.00	14,526	297.00	10.31 oc	10.25 ic	---	---	0.00	0.00	---	---	---	---	10.25
4.10	15,139	297.10	10.48 oc	10.48 ic	---	---	0.00	0.00	---	---	---	---	10.48
4.20	15,752	297.20	10.72 oc	10.72 ic	---	---	0.00	0.00	---	---	---	---	10.72
4.30	16,365	297.30	10.93 oc	10.93 ic	---	---	0.00	0.00	---	---	---	---	10.93
4.40	16,978	297.40	11.13 oc	11.13 ic	---	---	0.00	0.00	---	---	---	---	11.13
4.50	17,591	297.50	11.35 oc	11.32 ic	---	---	0.00	0.00	---	---	---	---	11.32
4.60	18,204	297.60	11.92 oc	11.15 ic	---	---	0.77	0.00	---	---	---	---	11.92
4.70	18,817	297.70	12.94 oc	10.76 ic	---	---	2.18	0.00	---	---	---	---	12.94
4.80	19,430	297.80	14.56 oc	10.55 ic	---	---	4.01	0.00	---	---	---	---	14.56
4.90	20,043	297.90	16.38 oc	10.20 ic	---	---	6.18	0.00	---	---	---	---	16.38
5.00	20,656	298.00	18.31 oc	9.68 ic	---	---	8.63	0.00	---	---	---	---	18.31
5.10	21,387	298.10	20.33 oc	8.98 ic	---	---	11.34	0.00	---	---	---	---	20.33
5.20	22,118	298.20	22.37 oc	8.07 ic	---	---	14.30	0.00	---	---	---	---	22.37
5.30	22,849	298.30	24.21 oc	7.08 ic	---	---	17.13 s	0.00	---	---	---	---	24.21
5.40	23,580	298.40	25.42 ic	6.45 ic	---	---	18.97 s	0.00	---	---	---	---	25.42
5.50	24,311	298.50	26.28 ic	5.90 ic	---	---	20.38 s	0.00	---	---	---	---	26.28
5.60	25,042	298.60	27.02 ic	5.44 ic	---	---	21.58 s	0.00	---	---	---	---	27.02
5.70	25,773	298.70	27.68 ic	5.04 ic	---	---	22.64 s	0.00	---	---	---	---	27.68
5.80	26,504	298.80	28.28 ic	4.69 ic	---	---	23.59 s	0.00	---	---	---	---	28.28
5.90	27,234	298.90	28.83 ic	4.38 ic	---	---	24.45 s	0.00	---	---	---	---	28.83
6.00	27,965	299.00	29.35 ic	4.12 ic	---	---	25.24 s	0.00	---	---	---	---	29.35
6.10	28,845	299.10	29.84 ic	3.87 ic	---	---	25.96 s	2.47	---	---	---	---	32.30
6.20	29,725	299.20	30.31 ic	3.66 ic	---	---	26.64 s	6.98	---	---	---	---	37.28
6.30	30,605	299.30	30.75 ic	3.47 ic	---	---	27.28 s	12.82	---	---	---	---	43.57
6.40	31,484	299.40	31.18 ic	3.29 ic	---	---	27.88 s	19.73	---	---	---	---	50.91
6.50	32,364	299.50	31.60 ic	3.14 ic	---	---	28.46 s	27.58	---	---	---	---	59.17
6.60	33,244	299.60	32.00 ic	2.99 ic	---	---	29.01 s	36.25	---	---	---	---	68.25
6.70	34,124	299.70	32.39 ic	2.86 ic	---	---	29.53 s	45.68	---	---	---	---	78.07
6.80	35,003	299.80	32.78 ic	2.74 ic	---	---	30.04 s	55.81	---	---	---	---	88.58
6.90	35,883	299.90	33.15 ic	2.63 ic	---	---	30.52 s	66.61	---	---	---	---	99.75
7.00	36,763	300.00	33.52 ic	2.52 ic	---	---	30.99 s	78.00	---	---	---	---	111.51

...End

Pond Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022 Friday, 07 / 23 / 2021

Pond No. 1 - Stormwater Basin #1

Pond Data

Contours -User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 293.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	293.00	1,951	0	0
1.00	294.00	2,711	2,320	2,320
2.00	295.00	3,567	3,129	5,449
3.00	296.00	4,529	4,038	9,487
4.00	297.00	5,567	5,039	14,526
5.00	298.00	6,713	6,130	20,656
6.00	299.00	7,923	7,309	27,965
7.00	300.00	9,704	8,798	36,763

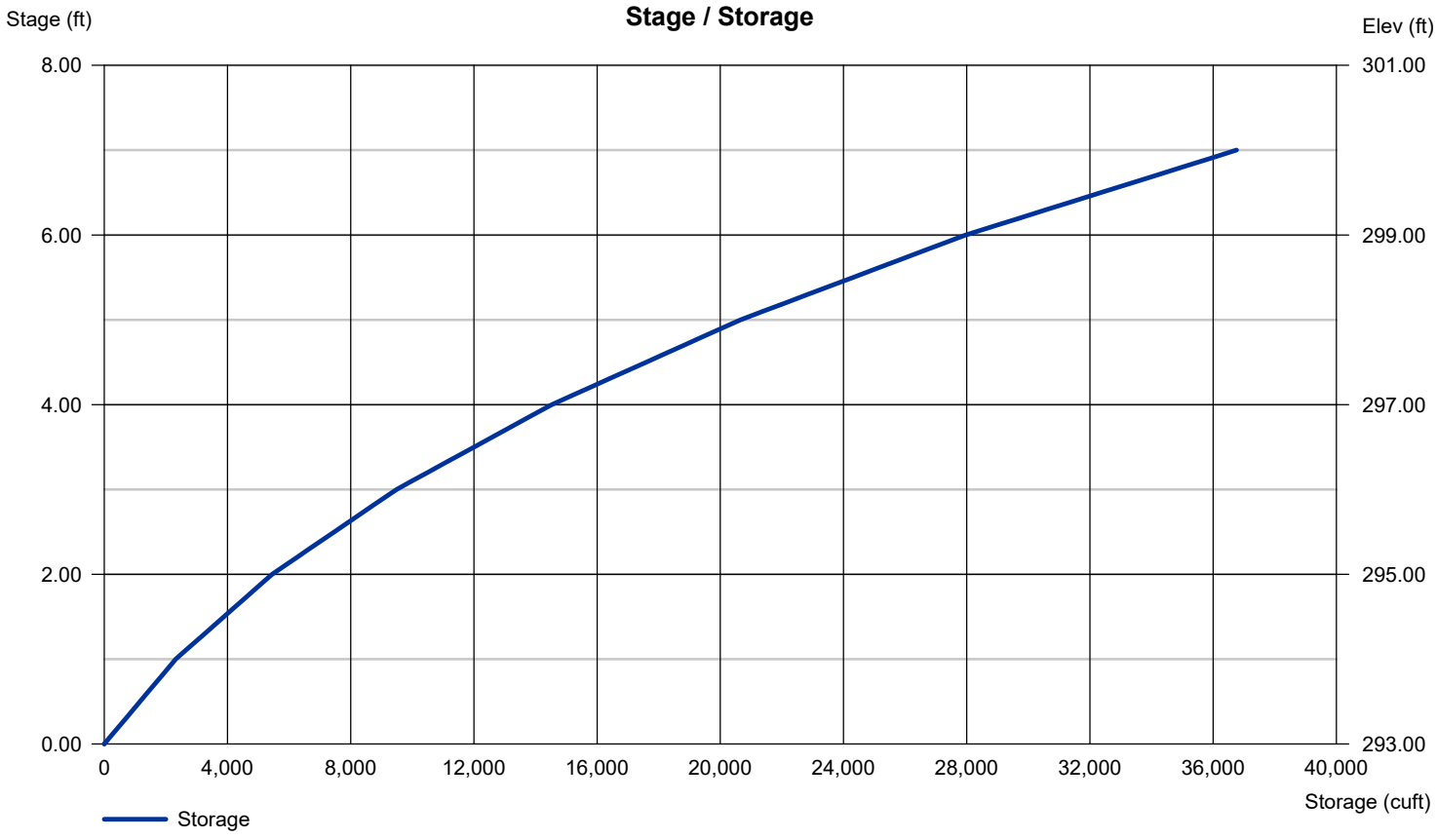
Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 24.00	18.00	Inactive	0.00
Span (in)	= 24.00	18.00	0.00	0.00
No. Barrels	= 1	1	1	0
Invert El. (ft)	= 294.00	294.50	0.00	0.00
Length (ft)	= 75.00	0.67	0.00	0.00
Slope (%)	= 0.67	0.00	0.00	n/a
N-Value	= .012	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	Yes	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 7.33	30.00	Inactive	0.00
Crest El. (ft)	= 297.50	299.00	0.00	0.00
Weir Coeff.	= 3.33	2.60	3.33	3.33
Weir Type	= 1	Broad	---	---
Multi-Stage	= Yes	No	No	No
Exfil.(in/hr)	= 0.000 (by Wet area)			
TW Elev. (ft)	= 0.00			

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).



Project	**Excavation/Fill Permit**		By **CJP**	Date	**07/26/21**
Location	**10/36 Main Street, Monroe CT**		Checked **LAM**	Date	**07/26/21**
Bold one:	**Existing** Proposed		**Existing Drainage Area 1 (EDA-1)**		

1. Runoff Curve Number (CN)

Soil Name and hydrologic group (Appendix A)	Cover description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN [1] Table 2-2	CN [1] Fig. 2-3	CN [1] Fig. 2-4	Area [X] acres [ ] mi^2 [ ] %	Product of CN x area
B	**Impervious Area**	**98**			**3.93**	**385.14**
B	**Pervious Area - Fair**	**69**			**3.89**	**268.41**
A	**Woods - Fair**	**39**			**0.72**	**28.08**
B	**Woods - Fair**	**60**			**5.54**	**332.40**
B	**Gravel Area**	**85**			**0.60**	**51.00**
A	**Pervious Area - Fair**	**49**			**0.17**	**8.33**
						0.00
						0.00
1 Use only one CN source per line				Totals =	**14.85**	**1073.36**

CN (weighted) = $\frac{\text{total product}}{\text{total area}} = \frac{1073.36}{14.85} =$ 72.28 Use CN = **72**

Project **Excavation/Fill Permit** By **CJP** Date **07/26/21**

Location **10/36 Main Street, Monroe CT** Checked **LAM** Date **07/26/21**

Bold one: Existing **Proposed** **Proposed Drainage Area 1A (PDA-1A)**

1. Runoff Curve Number (CN)

Soil Name and hydrologic group (Appendix A)	Cover description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN [1] Table 2-2	CN [1] Fig. 2-3	CN [1] Fig. 2-4	Area [x] acres [ ] mi^2 [ ] %	Product of CN x area
B	**Impervious Area**	**98**			**0.29**	**28.42**
B	**Pervious Area - Good**	**61**			**11.21**	**683.81**
A	**Pervious Area - Good**	**39**			**0.53**	**20.67**
						0.00
						0.00
						0.00
						0.00
						0.00
1 Use only one CN source per line				Totals =	**12.03**	**732.90**

CN (weighted) = $\frac{\text{total product}}{\text{total area}} = \frac{732.90}{12.03} =$ 60.92 Use CN = **61**

Project **Excavation/Fill Permit** By **CJP** Date **07/26/21**

Location **10/36 Main Street, Monroe CT** Checked **LAM** Date **07/26/21**

Bold one: Existing **Proposed** **Proposed Drainage Area 1B (PDA-1B)**

1. Runoff Curve Number (CN)

Soil Name and hydrologic group (Appendix A)	Cover description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN [1] Table 2-2	CN [1] Fig. 2-3	CN [1] Fig. 2-4	Area [x] acres [ ] mi^2 [ ] %	Product of CN x area
B	**Impervious Area**	**98**			**0.04**	**3.92**
B	**Pervious Area - Good**	**61**			**1.50**	**91.50**
A	**Pervious Area - Good**	**39**			**0.27**	**10.53**
						0.00
						0.00
						0.00
						0.00
						0.00
1 Use only one CN source per line				Totals =	**1.81**	**105.95**

CN (weighted) = $\frac{\text{total product}}{\text{total area}} = \frac{105.95}{1.81} =$ 58.54 Use CN = **59**

Project **Excavation/Fill Permit** By **CJP** Date **07/26/21**

Location **10/36 Main Street, Monroe CT** Checked **LAM** Date **07/26/21**

Bold one: Existing **Proposed** **Proposed Drainage Area 1C (PDA-1C)**

1. Runoff Curve Number (CN)

Soil Name and hydrologic group (Appendix A)	Cover description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN [1] Table 2-2	CN [1] Fig. 2-3	CN [1] Fig. 2-4	Area [x] acres [ ] mi^2 [ ] %	Product of CN x area
B	**Impervious Area**	**98**			**0.01**	**0.98**
B	**Pervious Area - Good**	**61**			**0.32**	**19.52**
A	**Pervious Area - Good**	**39**			**0.68**	**26.52**
						0.00
						0.00
						0.00
						0.00
						0.00
1 Use only one CN source per line				Totals =	**1.01**	**47.02**

CN (weighted) = $\frac{\text{total product}}{\text{total area}} = \frac{47.02}{1.01} =$ 46.55 Use CN = **47**

Project	**Excavation/Fill Permit**	By	**CJP**	Date	**07/26/21**
Location	**10/36 Main Street, Monroe, CT**	Checked	**LAM**	Date	**07/26/21**

Bold One: **Present** Developed

Bold One: **T_c** T_t through subarea **Existing Drainage Area 1 (EDA-1)**

NOTES: Space for as many as two segments per flow type can be used for each worksheet.

Include a map, schematic, or description of flow segments.

Sheet flow (Applicable to T_c Only)		Segment ID	AB			
1. Surface description (table 3-1)			Dense Grasses			
2. Manning's roughness coeff., n (table 3-1)			0.240			
3. Flow Length, L (total L ≤ 300 ft)		ft	150			
4. Two-yr 24-hr rainfall, P_2		in	3.56			
5. Land slope, s		ft/ft	0.040			
6. $T_t = \frac{0.007(nL)^{0.8}}{P_2^{0.5} s^{0.4}}$	Compute T_t	hr	0.236	+	=	0.236

Shallow concentrated flow		Segment ID	BC	CD	DE	EF
7. Surface description (paved or unpaved)			unpaved	unpaved	paved	unpaved
8. Flow length, L		ft	130	220	330	66
9. Watercourse slope, s		ft/ft	0.11	0.03	0.04	0.09
10. Average velocity, V (Conn DOT Equations 6.C.4 & C.C.5)		ft/s	5.28	2.88	4.04	4.84
11. $T_t = \frac{L}{3600\ V}$	Compute T_t	hr	0.007	+ 0.021	+ 0.023	+ 0.004

Channel flow		Segment ID				
12. Cross sectional flow area, a		ft^2				
13. Wetted perimeter, p_w		ft				
14. Hydraulic radius, r $r = \frac{a}{p_w}$	Compute r	ft				
15. Channel slope, s		ft/ft				
16. Manning's roughness coeff., n						
17. $V = \frac{1.49\ r^{2/3}\ s^{1/2}}{n}$	Compute V	ft/s				
18. Flow length, L		ft				
19. $T_t = \frac{L}{3600\ V}$	Compute T_t	hr		+	=	0.000
20. Watershed or subarea T_c or T_t (add T_t in steps 6, 11, 19)				**Hours**	=	0.291
				Minutes	=	17.5

Project	**Excavation/Fill Permit**	By	**CJP**	Date	**07/26/21**
Location	**10/36 Main Street, Monroe, CT**	Checked	**LAM**	Date	**07/26/21**

Bold One: Present **Developed**

Bold One: **T_c** T_t through subarea **Proposed Drainage Area 1A (PDA-1A)**

NOTES: Space for as many as two segments per flow type can be used for each worksheet.

Include a map, schematic, or description of flow segments.

Sheet flow (Applicable to T_c Only)		Segment ID	AB		BC		
1. Surface description (table 3-1)			Dense Grasses		Dense Grasses		
2. Manning's roughness coeff., n (table 3-1)			0.240		0.240		
3. Flow Length, L (total L ≤ 300 ft)		ft	69.72		80.28		
4. Two-yr 24-hr rainfall, P_2		in	3.56		3.56		
5. Land slope, s		ft/ft	0.14		0.01		
6. $T_t = \frac{0.007(nL)^{0.8}}{P_2^{0.5} s^{0.4}}$	Compute T_t	hr	0.078	+	0.288	=	0.366

Shallow concentrated flow		Segment ID	CD		DE		EF		
7. Surface description (paved or unpaved)			unpaved		unpaved		unpaved		
8. Flow length, L		ft	171		18		247		
9. Watercourse slope, s		ft/ft	0.01		0.33		0.02		
10. Average velocity, V (Conn DOT Equations 6.C.4 & C.C.5)		ft/s	1.35		9.31		2.04		
11. $T_t = \frac{L}{3600\ V}$	Compute T_t	hr	0.035	+	0.001	+	0.034	=	0.069

Channel flow		Segment ID	FG		GH		
12. Cross sectional flow area, a		ft^2	12		14		
13. Wetted perimeter, p_w		ft	11		16		
14. Hydraulic radius, r $r = \frac{a}{p_w}$	Compute r	ft	1.09091		0.87500		
15. Channel slope, s		ft/ft	0.02		0.36		
16. Manning's roughness coeff., n			0.025		0.033		
17. $V = \frac{1.49\ r^{2/3}\ s^{1/2}}{n}$	Compute V	ft/s	8.93		24.78		
18. Flow length, L		ft	212		88		
19. $T_t = \frac{L}{3600\ V}$	Compute T_t	hr	0.007	+	0.001	=	0.008

20. Watershed or subarea T_c or T_t (add T_t in steps 6, 11, 19)	**Hours**	=	0.443
	Minutes	=	26.6

Project	**Excavation/Fill Permit**	By	**CJP**	Date	**07/26/21**
Location	**10/36 Main Street, Monroe, CT**	Checked	**LAM**	Date	**07/26/21**

Bold One: Present **Developed**

Bold One: **T_c** T_t through subarea **Proposed Drainage Area 1B (PDA-1B)**

NOTES: Space for as many as two segments per flow type can be used for each worksheet.

Include a map, schematic, or description of flow segments.

Sheet flow (Applicable to T_c Only)		Segment ID	AB		BC		
1. Surface description (table 3-1)			Pavement		Dense Grasses		
2. Manning's roughness coeff., n (table 3-1)			0.011		0.240		
3. Flow Length, L (total L ≤ 300 ft)		ft	32.7		81.9		
4. Two-yr 24-hr rainfall, P_2		in	3.56		3.56		
5. Land slope, s		ft/ft	0.05		0.09		
6. $T_t = \frac{0.007(nL)^{0.8}}{P_2^{0.5} s^{0.4}}$	Compute T_t	hr	0.006	+	0.104	=	0.110

Shallow concentrated flow		Segment ID	CD		DE		
7. Surface description (paved or unpaved)			unpaved		unpaved		
8. Flow length, L		ft	373.1		58.5		
9. Watercourse slope, s		ft/ft	0.01		0.41		
10. Average velocity, V (Conn DOT Equations 6.C.4 & C.C.5)		ft/s	1.69		10.33		
11. $T_t = \frac{L}{3600\ V}$	Compute T_t	hr	0.061	+	0.002	+	0.063

Channel flow		Segment ID	EF		EF		
12. Cross sectional flow area, a		ft^2	10		10		
13. Wetted perimeter, p_w		ft	12		12		
14. Hydraulic radius, r $r = \frac{a}{p_w}$	Compute r	ft	0.83333		0.83333		
15. Channel slope, s		ft/ft	0.064		0.16		
16. Manning's roughness coeff., n			0.033		0.025		
17. $V = \frac{1.49\ r^{2/3}\ s^{1/2}}{n}$	Compute V	ft/s	10.12		21.11		
18. Flow length, L		ft	78.5		37.3		
19. $T_t = \frac{L}{3600\ V}$	Compute T_t	hr	0.002	+	0.000	=	0.003

20. Watershed or subarea T_c or T_t (add T_t in steps 6, 11, 19)	**Hours**	=	0.175
	Minutes	=	10.5

Project	**Excavation/Fill Permit**	By	**CJP**	Date	**07/26/21**
Location	**10/36 Main Street, Monroe, CT**	Checked	**LAM**	Date	**07/26/21**

Bold One: Present **Developed**

Bold One: **T_c** T_t through subarea **Proposed Drainage Area 1C (PDA-1C)**

NOTES: Space for as many as two segments per flow type can be used for each worksheet.

Include a map, schematic, or description of flow segments.

Sheet flow (Applicable to T_c Only)		Segment ID	**AB**			
1. Surface description (table 3-1)			**Dense Grasses**			
2. Manning's roughness coeff., n (table 3-1)			**0.240**			
3. Flow Length, L (total L ≤ 300 ft)		ft	**130**			
4. Two-yr 24-hr rainfall, P_2		in	**3.56**			
5. Land slope, s		ft/ft	**0.06**			
6. $T_t = \frac{0.007(nL)^{0.8}}{P_2^{0.5} s^{0.4}}$	Compute T_t	hr	**0.180**	+		= **0.180**

Shallow concentrated flow		Segment ID				
7. Surface description (paved or unpaved)						
8. Flow length, L		ft				
9. Watercourse slope, s		ft/ft				
10. Average velocity, V (Conn DOT Equations 6.C.4 & C.C.5)		ft/s				
11. $T_t = \frac{L}{3600\ V}$	Compute T_t	hr		+	+	=

Channel flow		Segment ID				
12. Cross sectional flow area, a		ft^2				
13. Wetted perimeter, p_w		ft				
14. Hydraulic radius, r $r = \frac{a}{p_w}$	Compute r	ft				
15. Channel slope, s		ft/ft				
16. Manning's roughness coeff., n						
17. $V = \frac{1.49\ r^{2/3}\ s^{1/2}}{n}$	Compute V	ft/s				
18. Flow length, L		ft				
19. $T_t = \frac{L}{3600\ V}$	Compute T_t	hr		+		= **0.000**

20. Watershed or subarea T_c or T_t (add T_t in steps 6, 11, 19)	**Hours**	= **0.180**
	Minutes	= **10.8**

WATER QUALITY VOLUME (WQV) COMPUTATIONS FOR DRAINAGE BASIN PDA-1A

Project: Excavation/Filling Permit Application
Location: 10 & 36 Main Street, Monroe, Connecticut
Date: 07/26/21

Water Quality Volume Calculations:

$$WQV = \frac{(1")(R)(A)}{12}$$

Where:
WQV = water quality volume (ac-ft)
R = volumentric runoff coefficient = 0.05+0.009(I)
I = percent impervious cover (see below)
A = site area in acres

$$I = \frac{A_{IMP}}{A_{TOT}} \times 100$$

Where:
I = percent impervious cover
A_{IMP} = area of impervious cover
A_{TOT} = total area of watershed

Watershed Description:	PDA-1A		
Area of impervious coverage, A_{IMP}	0.31	Acres	
Total area of watershed, A_{TOT}	14.85	Acres	
Percent impverious cover, I	2.09	%	
Volumentric runoff coefficient, R	0.07		
Water Quality Volume, WQV	0.085	ac-ft	3,708 cf

APPENDIX C
INSPECTIONS

Excavation/Fill Permit Progress Report Form

SOLLI ENGINEERING
501 Main Street, Monroe, CT 06468
T: (203) 880-5455 F: (203) 880-9695

Title: 10 & 36 Main Street Excavation/Fill Permit
Location: 10 & 36 Main Street, Monroe, CT
Permit: EFP XXXX-XX

IL #: XX
Project #: 2008001
Field Date: XX/XX/XXXX

EXCAVATION/FILL PERMIT PROGRESS REPORT

Name(s) of Individual(s) performing inspection:		AM	PM
Name of Inspecting Engineer/Position	Weather:	XXXXX	XXXXXX
	Temperature:	**H:** XX°F	**L:** XX°F

Time of Inspection:				
Start:	XX	A.M.	Fill amount imported since last inspection:	±XXXX CY
End:	XX	A.M.	Fill amount imported to date:	±XXXX CY

Work Completed

Unanticipated Field Work/Delays

Material Report

Source of Material:			
Monthly Import Amount:		**Cumulative Import Amount:**	
Is Import Material Contaminated?		**Method of Determination:**	

Condition of Site Access and Control Measures

Condition of Soil Erosion and Sedimentation Control Measures

Condition of Drainage Control Measures & Corrective or Added Measures

Additional Inspection Required:	YES	NO	**If Yes, Date:** N/A

Inspector(s) Signature(s):

APPENDIX D
PLANS

Grading & Soil Erosion Control Plan (Sheet 2.21)
Reclamation Plan (Sheet 2.61)

EROSION CONTROL AND SEDIMENT CONTROL NOTES

1. PRIOR TO THE START OF CONSTRUCTION, A PRECONSTRUCTION MEETING WITH THE ENGINEER AND THE TOWN OF MONROE LAND USE STAFF IS REQUIRED.
2. ACTUAL LOCATIONS AND APPLICATIONS OF EROSION CONTROL DEVICES SHALL BE DETERMINED IN THE FIELD PRIOR TO THE START OF CONSTRUCTION BASED ON THE EROSION AND SEDIMENT CONTROL STRATEGY. THE STRATEGY WILL REQUIRE THE CONTRACTOR TO PROVIDE APPROPRIATE CONTROLS SUCH AS STRUCTURAL PRACTICES, MAINTENANCE, AND STABILIZATION PRACTICES ALONG WITH THE PROPER DISCHARGE OR DEWATERING OF WASTEWATERS.
3. LIMITS OF DISTURBANCE SHALL BE FLAGGED IN THE FIELD BY A LICENSED SURVEYOR AND VERIFIED PRIOR TO INITIATION OF CONSTRUCTION.
4. EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED PRIOR TO ANY FILLING. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATIONS OF THE STATE OF CT DEEP "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" HANDBOOK AND 2004 CONNECTICUT STORMWATER QUALITY MANUAL. CONTROL DEVICES CONTINGENT ON INSPECTION APPROVAL BY THE TOWN OF MONROE LAND USE STAFF.
5. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED, FUNCTIONING, AND INSPECTED BY THE TOWN OF MONROE LAND USE STAFF PRIOR TO ANY SITE DISTURBANCE. ADDITIONAL MEASURES MAY BE REQUIRED DURING THE COURSE OF CONSTRUCTION AND SHALL BE IMPLEMENTED AS NEEDED. ALL SEDIMENT AND EROSION CONTROL MEASURES ARE TO BE INSPECTED PRIOR TO A HEAVY RAIN, IMMEDIATELY AFTER AND AT LEAST ONCE EACH DAY DURING EVENTS. ANY AND ALL DEFICIENCIES MUST BE CORRECTED WITHIN 24 HOURS OF DISCOVERY.
6. ALL GRADED AREAS WITH SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL SHALL BE STABILIZED WITH JUTE NETTING.
   - 6.1. LAND GRADING :
     - 6.1.1. AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED AND STRIPPED OF UNSUITABLE MATERIAL.
     - 6.1.2. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION SLIPPAGE, SETTLEMENT, SUBSIDENCE, OR OTHER RELATED PROBLEMS.
     - 6.1.3. MATERIAL SHALL BE FREE OF BRUSH, RUBBISH, ROCKS LOGS, STUMPS, BUILDING DEBRIS AND OTHER UNSUITABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
7. WHEN ALL GRADED AREAS ARE PERMANENTLY STABILIZED. REMOVE ALL EROSION AND SEDIMENT CONTROLS. REMOVE TRAPPED SEDIMENT. AFTER ALL REMOVAL, INSPECTION TO BE PERFORMED BY TOWN OF MONROE LAND USE STAFF.
8. IT SHALL BE THE RESPONSIBILITY OF THE SITE DEVELOPMENT CONTRACTOR TO ENSURE PROPER IMPLEMENTATION OF THE SOIL EROSION AND SEDIMENT CONTROLS AS SHOWN ON THIS PLAN; AND SHALL INCLUDE BUT NOT BE LIMITED TO INSTALLATION AND MAINTENANCE OF CONTROL MEASURES, INFORMING ALL PARTIES OF SUCH REQUIREMENTS AND NOTIFICATIONS OF ANY TRANSFER OF THIS RESPONSIBILITY TO OTHER PARTIES. CONTRACTOR: STUART RUDKIN, CONTACT NUMBER: (203) 505 - 1376.
9. ANY DISTRIBUTION AREA AND PILES PLANNED TO BE LEFT MORE THAN 14 DAYS WILL HAVE TO BE SEEDED OR MULCHED IMMEDIATELY.
10. WHEN ALL SURFACES ARE PERMANENTLY STABILIZED, ANY REMAINING SEDIMENT AND EROSION CONTROL DEVICES SHALL BE REMOVED AND ALL TRAPPED SEDIMENT SHALL BE REMOVED. ALL CATCH BASIN SUMPS SHALL BE CLEANED.
11. CONSTRUCTION ACTIVITIES AT THE PROJECT SITE WILL RESULT IN EMISSIONS OF FUGITIVE DUST TO THE ATMOSPHERE. THE QUANTITY OF FUGITIVE DUST GENERATED WILL BE UNCONTROLLED BUT IS DEPENDENT UPON WEATHER CONDITIONS. FUGITIVE DUST PARTICLES HAVE A GREATER PROPENSITY TO BECOME AIRBORNE DURING DRY AND BREEZY METEOROLOGICAL CONDITIONS. CONSTRUCTION ACTIVITIES AT THE SITE WHICH WILL RESULT IN PILES AND CONSTRUCTION TRAFFIC. THE CONTRACTOR WILL IMPLEMENT THE FOLLOWING REASONABLE PRECAUTIONS DURING CONSTRUCTION TO MINIMIZE THE GENERATION OF FUGITIVE DUST:
    - 11.1. USE WATER FOR DUST CONTROL OF ACTIVE CONSTRUCTION AREAS, ACTIVE UNPAVED ROADS, AND OTHER SURFACES WHICH CAN FIVE RISE TO AIRBORNE DUST. A TYPICAL PRACTICE TO BE FOLLOWED DURING SITE GRADING WILL BE TO FOLLOW THE EARTH MOVING EQUIPMENT WITH A WATER TRUCK TO IMMEDIATE WET THE NEW DISTURBED AREA.
    - 11.2. APPLY SEED FOR A VEGETATIVE COVER ON STORAGE PILES, ESPECIALLY THOSE THAT WILL REMAIN DORMANT FOR AN EXTENDED PERIOD.
    - 11.3. THE CONTRACTOR MUST CLEAN/SWEEP DAILY ALL ON-SITE PAVED ROADS AND THAT PORTION OF ANY SURROUNDING ROADS WHICH ARE USED BY CONSTRUCTION TRAFFIC, FOR THE DURATION OF THE PROJECT.
    - 11.4. INSTITUTE A MAXIMUM ON SITE SPEED LIMIT OF 10 MILES PER HOUR.
    - 11.5. THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL DURING THE CONSTRUCTION PROCESS. THE CONSTRUCTION MANAGER SHALL INSPECT THE SITE TO ASSURE DUST IS ADEQUATELY CONTROLLED. IF THE CONSTRUCTION MANAGER OR OWNERS REPRESENTATIVE FEELS DUST CONTROL MEASURES ARE NOT ADEQUATE THE CONTRACT SHALL BE REQUIRED TO INCREASE THESE MEASURES AS DIRECTED BY THE CONSTRUCTION MANAGER.
12. ALL CONSTRUCTION ACTIVITIES SHALL COMPLY WITH THE TOWN OF MONROE ZONING REGULATIONS.
13. A STORMWATER MANAGEMENT SYSTEM MAINTENANCE SCHEDULE SHALL BE IMPLEMENTED AND OFFICIALLY RECORDED BY THE INDIVIDUAL IDENTIFIED IN NOTE 8 ABOVE. THE SCHEDULE SHALL INCLUDE AS A MINIMUM:
    - 13.1. ALL ELEMENTS OF THE STORMWATER MANAGEMENT SYSTEM SHALL BE INSPECTED WEEKLY, AND AFTER ANY STORM EVENT GENERATING MORE THAN 0.5 INCHES OF RAIN.
    - 13.2. A WEEKLY INSPECTION OF THE SITE SHALL BE CONDUCTED FOR SURFACE DEBRIS.
    - 13.3. A MONTHLY INSPECTION OF ALL STORMWATER STRUCTURES AND OUTFALLS SHALL BE CONDUCTED FOR FLOATING OR SURFACE DEBRIS SEDIMENT.
    - 13.4. STRUCTURES AND OUTFALLS SHALL BE CLEANED OF SEDIMENT AND DEBRIS AT LEAST ONCE A YEAR DURING THE MONTH OF APRIL AND AT OTHER TIMES AS NECESSARY TO PREVENT THE DISCHARGE OF POLLUTANTS FROM STRUCTURES OR OUTFALLS.
    - 13.5. ALL DRIVES SHALL BE SWEPT CLEAN OF SAND, LITTER AND OTHER POSSIBLE POLLUTANTS AT LEAST TWICE A YEAR, ONCE BETWEEN NOVEMBER 14 AND DECEMBER 15 AND ONCE DURING THE MONTH OF APRIL AND AT OTHER TIMES AS DIRECTED BY THE TOWN OF MONROE.
    - 13.6. A STOCKPILE OF SEDIMENT AND EROSION CONTROLS SHALL BE KEPT ON SITE AT ALL TIMES. THIS WILL CONSIST OF AT LEAST 24 HAY BALES, UNDER COVER, EXTRA STONE FOR THE ANTI-TRACKING APRON, AT LEAST 100 FEET OF SILT FENCE AND 100 SQUARE YARDS OF NON-WOVEN FILTER FABRIC ADDITIONAL MEASURES MAY BE REQUIRED BY THE SITE MONITOR OR THE TOWN OF MONROE. THESE MEASURES ARE TO BE FATALLED BY THE REQUEST DATE.
    - 13.7. REPLACE CONSTRUCTION ENTRANCE WHEN THE CAPACITY OF THE APRON HAS REACHED THE 50% VOLUME.
14. SEDIMENT REMOVED FROM CONTROL STRUCTURES WILL BE DISPOSED OF IN A MANNER WHICH IS CONSISTENT WITH THE INTENT OF THESE PLANS.
15. 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 WITH THREE DAYS.
16. TEMPORARY FACILITIES (SWALES, CULVERTS, CHECK DAMS, ECT.) MAY BE UTILIZED AS NECESSARY TO HELP FACILITATE PROPER FUNCTIONING AND MAINTENANCE OF THE SITE.

EQUIPMENT INFORMATION

2 LARGE EXCAVATORS 380-480 SIZE
1 SMALL EXCAVATOR 85-160 SIZE
1 TRACK DOZER 450-750 SIZE
2 WHEEL LOADERS WA 500 SIZE
3 24 TON TRI-AXLE DUMP TRUCKS
2 VIBRATORY COMPACTOR ROLLERS
1 105,000 LB JAW CRUSHER
1 80' STACKING CONVEYOR

APPROXIMATELY 167,945 CUBIC YARD OF MATERIAL WILL BE IMPORTED. USING A CONVERSION RATE OF 1.37 TON/CY AND A MAXIMUM LOADING RATE OF 24 TON/TRUCK, APPROXIMATELY 9,587 TRUCK LOADS OF FILL WILL BE IMPORTED TO THE PROPERTY.

PLANNING & ZONING WAIVERS REQUIRED

- §6.4.9 C - NO CHANGE IN CONTOUR SHALL BE MADE WITHIN TWENTY-FIVE (25) FEET OF ANY PROPERTY LINE.
- §6.4.9 D - NO ARTIFICIAL SLOPE GREATER THAN FOURTEEN DEGREES (14°) TO THE HORIZONTAL (OR MAXIMUM FOUR FEET HORIZONTAL TO ONE FOOT VERTICAL) SHALL BE CREATED WITHIN FIFTY FEET OF ANY PROPERTY LINE.
- §6.4.9 P - NO SORTING, GRADING, CRUSHING OR OTHER MACHINERY FOR TREATMENT OR PROCESSING OF MATERIAL BEING REMOVED OR DEPOSITED SHALL BE ERECTED, MAINTAINED OR OPERATED ON THE PREMISES FOR WHICH A PERMIT MAY BE GRANTED, EXCEPT IN AN INDUSTRIAL DISTRICT OR IN ALL OTHER DISTRICTS WHERE CONTROLLED ROCK CRUSHING, SCREENING AND PROCESSING MAY BE PERMITTED BY THE COMMISSION ON A LIMITED SHORT DURATION BASIS AS PART OF SITE DEVELOPMENT AND CONSTRUCTION PREPARATION, PROVIDED:
  (1) SUCH CONTROLLED ACTIVITIES WILL REDUCE CONSTRUCTION TRAFFIC BY USE OF MATERIALS ONSITE.
  (2) SUCH CONTROLLED ACTIVITIES WILL NOT INVOLVE MINING OR EXCAVATION OF MORE THAN NECESSARY TO ACHIEVE SITE PREPARATION OF AN APPROVED PROJECT.

ALL PERMITTED SUCH ACTIVITIES REGARDLESS OF PERMITTED LOCATION SHALL NOT INCLUDE, PERMIT OR INVOLVE MATERIALS FROM OFFSITE LOCATIONS.

CONSTRUCTION SCHEDULE

THE ANTICIPATED STARTING DATE FOR CONSTRUCTION IS SUMMER 2021 WITH COMPLETION ANTICIPATED BY SUMMER 2023. APPROPRIATE EROSION CONTROL MEASURES AS DESCRIBED HEREIN, SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF ALL SITE CLEARING OR CONSTRUCTION ACTIVITY. SCHEDULE WORK TO MINIMIZE THE LENGTH OF TIME THAT BARE SOIL WILL BE EXPOSED.

LEGEND

PROPERTY LINE
RIGHT-OF-WAY LINE
ADJOINING LOT LINE
BUILDING SETBACK
LANDSCAPE BUFFER
MAJOR CONTOURS
MINOR CONTOURS
PROPOSED SPOT ELEVATION
GRADE TO DRAIN
SWALE
STORM DRAIN PIPE
LIMIT OF WETLANDS
LIMIT OF DISTURBANCE
CURB REMOVAL
SILT FENCE PROTECTION
MULCH BERM
TEMPORARY CONSTRUCTION FENCE
BITUMINOUS CONCRETE PAVEMENT DEMOLITION
AREA OF MANUFACTURED SELECT FILL
TYPE "CL" CATCH BASIN
FLARED END SECTION
RAMP (SWALES / DRAINAGE BASIN ACCESS)
RIP RAP
SILT SACK INLET PROTECTION
STONE CHECK DAM

GENERAL NOTES

1. EXISTING SITE CONDITIONS TAKEN FROM A PLAN ENTITLED "IMPROVEMENT LOCATION SURVEY PREPARED FOR VISHAY SPRAGUE, INC, 10 & 36 MAIN STREET, MONROE, CONNECTICUT"; DATED: MAY 21, 2021; SCALE: 1" = 60'; PREPARED BY ACCURATE LAND SURVEYING, LLC.
2. THE CONTRACTOR SHALL PRESERVE EXISTING VEGETATION WHERE POSSIBLE AND/OR AS NOTED ON DRAWINGS.
3. TOPSOIL SHALL BE STRIPPED AND STOCKPILED ON SITE FOR USE IN FINAL LANDSCAPING.
4. CLEARING LIMITS SHALL BE PHYSICALLY MARKED IN THE FIELD AND APPROVED BY THE TOWN OF MONROE PRIOR TO THE START OF WORK ON THE SITE NO CONSTRUCTION ACTIVITY, STORAGE OF VEHICLES, EQUIPMENT AND MATERIALS IS TO OCCUR BEYOND THE APPROVED LOD.
5. ALL DISTURBANCE INCURRED TO TOWN PROPERTY DUE TO CONSTRUCTION SHALL BE RESTORED TO ITS PREVIOUS CONDITION OR BETTER, TO THE SATISFACTION OF THE TOWN OF MONROE & TRUMBULL.
6. REFER TO SHEET 3.01 FOR CONSTRUCTION AND EROSION CONTROL MEASURE DETAILS.
7. NO OPERATIONS SHALL BE UNDERTAKEN ON THE SITE EXCEPT BETWEEN THE HOURS OF 8:00 AM AND 5:00 PM MONDAY THROUGH FRIDAY, EXCEPT WITH APPROVAL OF THE COMMISSION. THERE SHALL BE NO BLASTING ON THE SITE. NO ACTIVITY OF ANY TYPE SHALL BE CONDUCTED ON ANY LEGAL HOLIDAY DECLARED BY THE GOVERNMENT OF THE STATE OF CONNECTICUT OR THE UNITED STATES. TRUCK TRAFFIC IS LIMITED TO BETWEEN 9:00 AM AND 4:00 PM DAILY.
8. THE PERMITTEE SHALL PROVIDE ENGINEERING PROGRESS REPORTS PREPARED BY A CONNECTICUT STATE LICENSED CIVIL ENGINEER ON A QUARTERLY BASIS ADDITIONALLY, THE COMMISSION MAY AT ANY TIME DURING THE PERMIT DURATION REQUIRE AN ENGINEERING PROGRESS REPORT FROM THE PERMITTEE, TO BE MADE BY A LICENSED CIVIL ENGINEER. IF SUCH REPORT IS NOT RECEIVED BY THE COMMISSION WITHIN THIRTY (30) DAYS FROM THE DATE OF SUCH REQUEST, THE COMMISSION MAY ENGAGE A PROFESSIONAL ENGINEER OR LAND SURVEYOR TO DETERMINE COMPLIANCE WITH THE TERMS OF THIS REGULATION AND ALL EXPENSES IN CONNECTION THEREWITH SHALL BE PAID BY THE PERMITTEE.
9. THE TOP LAYER OF TOPSOIL FOR A DEPTH OF SIX INCHES SHALL BE SET ASIDE ON THE PREMISES AND SHALL BE RE-SPREAD IN ACCORDANCE WITH THE APPROVED CONTOUR LINES WITHIN THIRTY (30) DAYS FOLLOWING THE EXPIRATION OR REVOCATION OF THE PERMIT OR COMPLETION OF THE WORK, WHICHEVER OCCURS EARLIER.
10. PROPER MEASURES (INCLUDING THE USE OF WATER SPRAY) AND APPROPRIATE NOISE DAMPENING MEASURES (EQUIPMENT MUFFLERS, ETC) SHALL BE TAKEN TO MINIMIZE THE NUISANCE OF NOISE AND FLYING DUST OR ROCK AND LIGHTING.
11. UPON COMPLETION OF THE SITE FILLING/EXCAVATION ACTIVITIES, THE FINAL CONDITION OF THE REMAINING SITE ACCESS IS TO BE IN THE FORM OF THE ANTI-TRACKING PAD AND THE FRONTAGE CONDITIONS ARE TO BE AS SPECIFIED ON THE RECLAMATION PLAN (SHEET 2.61).ALL FILL MATERIAL BROUGHT TO THE SITE SHALL CONFORM TO THE CT DEEP STANDARDS FOR "CLEAN FILL". ANY FILL FROM ANY OTHER SITE OTHER THAN THE ONE SPECIFIED ON THE THIS PLAN WILL BE INSPECTED PRIOR TO FILLING THE SITE AND WILL BE SUBJECT TO RANDOM TESTING.
12. THERE SHALL BE NO SIGNS PERMITTED (EXCEPT CUSTOMARY TRAFFIC CONTROL, SAFETY, AND NO TRESPASSING SIGNS AS MAY BE AUTHORIZED BY THE PLANNING AND ZONING ADMINISTRATOR).

CONSTRUCTION SEQUENCE

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE/EXIT.
2. INSTALL SILT FENCE(S) ON THE SITE (CLEAR ONLY THOSE AREAS NECESSARY TO INSTALL SILT FENCE).
3. PREPARE TEMPORARY PARKING AND STORAGE AREAS.
4. HALT ALL ACTIVITIES AND CONTACT THE ENGINEER OF RECORD TO PERFORM INSPECTION AND CERTIFICATION OF BEST MANAGEMENT PRACTICES (BMPS). GENERAL CONTRACTOR SHALL SCHEDULE AND CONDUCT THE STORM WATER PRE-CONSTRUCTION MEETING WITH THE ENGINEER, AGENCIES AND GROUND-DISTURBING CONTRACTOR BEFORE PROCEEDING WITH CONSTRUCTION.
5. CONSTRUCT AND STABILIZE SEDIMENT BASIN(S) WITH APPROPRIATE OUTFALL STRUCTURES (CLEAR ONLY THOSE AREAS NECESSARY TO INSTALL BASINS).
6. BEGIN CLEARING AND GRUBBING THE SITE.
7. INSTALL THE CONSTRUCTION TRAILER (WITH SUPPORT UTILITIES; ELECTRIC, WATER, ETC.)
8. REMOVE THE EXISTING BITUMINOUS CONCRETE PAVEMENT AND BITUMINOUS CONCRETE CURB.
9. INSTALL ADDITIONAL EROSION CONTROLS AS WORK PROGRESSES, TOPSOIL AND SEED SLOPES WHICH HAVE ACHIEVED FINAL SITE GRADING.
10. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
11. THROUGHOUT CONSTRUCTION, REMOVE SEDIMENT FROM BEHIND SILT FENCES, HAY BALES AND OTHER EROSION CONTROL DEVICES, AND FROM SEDIMENTATION BASINS AND SEDIMENT TRAPS AS REQUIRED. REMOVAL SHALL BE ON A PERIODIC BASIS (EVERY SIGNIFICANT RAINFALL OF 0.10 INCH OR GREATER). INSPECTION OF EROSION CONTROL MEASURES SHALL BE ON A WEEKLY BASIS AND AFTER EACH RAINFALL OF 0.50 INCHES OR GREATER. SEDIMENT COLLECTED SHALL BE DEPOSITED AND SPREAD EVENLY UPLAND ON SLOPES DURING CONSTRUCTION.
13. THROUGHOUT THE CONSTRUCTION SEQUENCE,PERIODIC INSPECTIONS SHALL BE INCORPORATED DURING THE PROCESSING OF THIS EXCAVATION AND FILL PERMIT AT SPECIFIC MILESTONES PER TOWN STAFF DIRECTION, AND AT LEAST MONTHLY INSPECTIONS.
16. CONDUCT FINE GRADING.
17. FERTILIZE SEED AND MULCH. SEED MIXTURE TO BE INSTALLED DURING THE SPRING OR FALL SEASON ONLY. USE EROSION CONTROL BLANKETS AS REQUIRED OR ORDERED FOR SLOPES GREATER THAN 3:1 AND AS SHOWN ON LANDSCAPE PLANS OR EROSION CONTROL PLANS. FOR TEMPORARY STABILIZATION BEYOND SEEDING DATES USE ANNUAL RYE AT 40 LBS/1,000 S.F. FERTILIZE WITH 10-10-10 AT 1.0 LBS. OF NITROGEN PER 1,000 S.F. AND LIME AT 100 LBS/1,000 S.F. (MAX.).
18. UPON DIRECTION OF THE TOWN OF MONROE AGENT (AFTER THEIR FINAL INSPECTIONS HAVE BEEN PERFORMED AND CERTIFICATES OF COMPLETION FOR INLAND WETLANDS AND EXCAVATION/FILING HAVE BEEN ISSUED), EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED FOLLOWING STABILIZATION OF THE SITE.

VOLUME SUMMARY

AREA	AREA OF DISTURBANCE	CUT (CY)	FILL (CY)	NET (CY)
REGULATED AREA	51,766 SF (1.19 AC)	2,680	2,029	651 (CUT)
BALANCE OF SITE	509,365 SF (11.69 AC)	12,539	180,980	167,139 (FILL)
TOTAL	561,131 SF (12.88 AC)	15,219	183,009	167,790 (FILL)

NOTE: NO FILL IS PLANNED WITHIN THE 100-YEAR FLOOD LIMIT.

SEDIMENT BASIN CALCULATIONS

SEDIMENT BASIN #1:
CONTRIBUTING DRAINAGE AREA = 14.71± ACRES
V = [(DA)(A)(DR)(TE)(2,000LBS/TON)]/[(Y)(43,560 SQ. FT/AC)]
V = [(14.71)(50)(.40)(.80)(2,000)]/[(100)(43,560)] =0.1081 ACRE-FT/YEAR
V = 4,709 CF/YEAR
V= (4,709 CF/YEAR)(2 YEARS) = 9,418 CF
REQUIRED WET STORAGE = 2 X 1 YEAR SEDIMENT STORAGE
V = (2)(4,709) = 9,418 CF
REQUIRED BASIN #1 STORAGE = 9,418 CF
SEDIMENT BASIN #1 STORAGE CAPACITY = 17,591 ± CF
AT ELEV: 297.50'

GROUNDWATER MONITORING DATA

DATA COLLECTED BY SOLLI ENGINEERING, LLC, WEEKLY FROM 07/15/15 TO 06/14/16.

MONITORING WELL 13 (MW-13)
SURFACE ELEVATION = 291.70
MINIMUM DEPTH TO GROUNDWATER = 0.88 = 290.82

SELECT FILL REQUIREMENTS

I. SELECT FILL MATERIAL AND SELECT BACKFILL MATERIAL, PLACED WITHIN AND ADJACENT TO PROPOSED LEACHING AREAS SHALL BE COMPRISED OF CLEAN SAND AND GRAVEL, FREE OF ORGANIC MATTER AND FOREIGN SUBSTANCES. THE FILL MATERIAL SHALL MEET THE FOLLOWING REQUIREMENTS UNLESS OTHERWISE APPROVED BY A PROFESSIONAL ENGINEER FOR USE WITHIN THE LEACHING AREA:
- A. THE FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN (3) INCHES.
- B. UP TO 45% OF THE DRY WEIGHT OF THE REPRESENTATIVE SAMPLE MAY BE RETAINED ON THE #4 SIEVE (THIS IS THE GRAVEL PORTION OF THE SAMPLE).
- C. THE MATERIAL THAT PASSES THE #4 SIEVE IS THEN REWEIGHED AND THE SIEVE ANALYSIS STARTED.
- D. THE REMAINING SAMPLE SHALL MEE THE FOLLOWING GRADATION CRITERIA:

SIEVE SIZE	PERCENT PASSING WET SIEVE (REQUIRED % PASSING)	PERCENT PASSING DRY SIEVE (REQUIRED % PASSING)
#4	100	100
#10	70-100	70-100
#40	10-50	10-50
#100	0-20	0-5
#200	0-5	0-2.5

- E. PERCENT PASSING THE #40 SIEVE CAN BE INCREASED TO NO GREATER THAN 75% IF THE PERCENT PASSING THE #100 SIEVE DOES NOT EXCEED 10% AND THE #200 SIEVE DOES NOT EXCEED 5%.
- F. THE RESPONSIBILITY FOR THE PREPARATION OF A LEACHING AREA UTILIZING "SELECT MATERIAL" IS THAT OF THE LICENSED INSTALLER.
- G. THE INSTALLER SHALL TAKE THE NECESSARY STEPS TO PROTECT THE UNDERLYING NATURALLY OCCURRING SOILS FROM OVERCOMPACTION AND SILTATION ONCE EXPOSED.
- H. SELECT FILL SHALL BE PLACED BY A LICENSED INSTALLER.
- I. ANY TOPSOIL WITHIN SEPTIC AREA IS TO BE REMOVED AND REPLACED WITH SELECT FILL.
- J. FILL SHALL BE PLACED ON THE PERIMETER OF THE TRENCH AREA AND SPREAD WITH A SMALL CRAWLER, TRACTOR OR OTHER APPROVED MACHINERY.

Rev. #: Date Description

Graphic Scale: 50 0 50 100

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351 Newbury Street, Boston, MA 02115 T: (617) 203-3160 F: (203) 880-9695

Drawn By:	CJP
Checked By:	LAM
Approved By:	KMS
Project #:	2008001
Plan Date:	07/26/21
Scale:	1" = 50'

STATE OF CONNECTICUT KEVIN M. SOLLI 25759 LICENSED PROFESSIONAL ENGINEER
Kevin Solli, P.E.
CT 25759

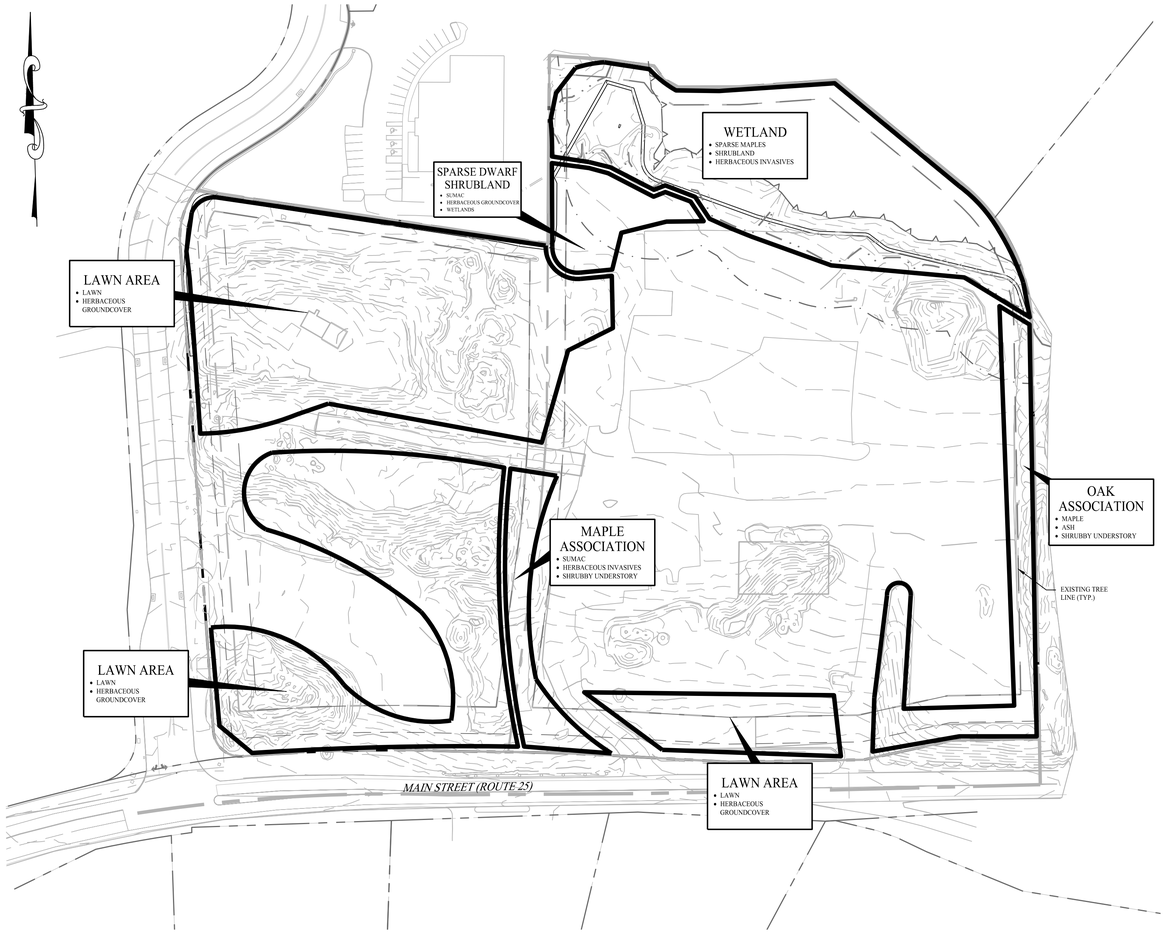
Project:

EXCAVATION/FILLING PERMIT APPLICATION

10 & 36 MAIN STREET
MONROE, CONNECTICUT

Sheet Title: GRADING & SOIL EROSION CONTROL PLAN

Sheet #: 2.21



PRE VEGETATION MAP

SCALE: 1" = 100'

POST VEGETATION MAP

SCALE: 1" = 100'

LEGEND

- PROPERTY LINE
- ADJOINING LOT LINE
- MAJOR CONTOURS
- MINOR CONTOURS
- LIMIT OF DISTURBANCE
- EXISTING TREE LINE
- PROPOSED TREE LINE
- PREVIOUSLY DELINEATED WETLANDS
- WETLAND LINE
- LIMIT OF 100' UPLAND REVIEW AREA
- SEEDED LAWN AREA
- NEW ENGLAND CONSERVATION WILDLIFE MIX
- EXISTING WOODED AREA TO REMAIN
- CONSTRUCTION ENTRANCE

GENERAL NOTES

1. EXISTING SITE CONDITIONS TAKEN FROM A PLAN ENTITLED "PROPERTY SURVEY OF 10 & 36 MAIN STREET, MONROE, CONNECTICUT" DATED: 05/21/21; SCALE: 1" = 60'; PREPARED BY ACCURATE LAND SURVEYING, LLC. REFER TO SAID PLAN FOR ALL DIMENSIONS, BEARINGS OR ANGLES OF PROPERTY LINES, EASEMENTS AND RIGHT-OF-WAYS.
2. THE AREAS OF EXISTING VEGETATION HAVE BEEN FIELD VERIFIED BY A LICENSED LANDSCAPE ARCHITECT ON 05/27/21.
3. SPECIES DEPICTED ON PRE-VEGETATION MAP INDICATE MAJOR PLANT ASSOCIATIONS AND ARE NOT INTENDED TO REPRESENT A DETAILED INVENTORY OF THE SITE'S PLANT MATERIAL.
4. A SITE RESTORATION PLAN MUST BE IMPLEMENTED IN THE EVENT FUTURE DEVELOPMENT OF THE SITE DOES NOT MATERIALIZE WITHIN TWO (2) YEARS OF THE COMPLETION OF EXCAVATION.

LAWN SEED MIX

1. PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 1" DIAMETER.
2. THE FOLLOWING SEED MIX SHALL BE SOWN AT THE RATES AS DEPICTED:

CREEPING RED FESCUE	1 LB. / 1,000 SF
PERENNIAL RYEGRASS	3 LBS. / 1,000 SF
KENTUCKY BLUEGRASS	1 LB. / 1,000 SF

3. SEED MIX SHALL BE MULCHED WITH SALT HAY OR UNROTTED SMALL GRAIN STRAW AT A RATE OF 2 TONS / ACRE OR 90 LBS. / 1,000 SF.
4. SEEDING DATES FOR THIS MIXTURE SHALL BE AS FOLLOWS:

   SPRING: APRIL 1 - MAY 31
   FALL: AUGUST 16 - OCTOBER 31

5. GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDED AREA UNTIL AN ACCEPTABLE STAND OF COVER IS ESTABLISHED.
6. ALL DISTURBED AREAS TO BE STABILIZED WITH SEED MIX AS SPECIFIED.

NEW ENGLAND CONSERVATION WILDLIFE MIX

1. PRODUCED BY NEW ENGLAND WETLAND PLANTS, INC.; WWW.NEWP.COM; 820 WEST STREET, AMHERST, MA 01002; (413) 548-8000.
2. PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 1" DIAMETER.
3. THE SEED MIX SHALL BE APPLIED AT A RATE OF 1 LB. / 1,750 SQUARE FEET.
4. SEED MIX SHALL BE MULCHED WITH SALT HAY OR UNROTTED SMALL GRAIN STRAW AT A RATE OF 2 TONS / ACRE OR 90 LBS. / 1,000 SF.
5. SEEDING DATES FOR THIS MIXTURE SHALL BE AS FOLLOWS:

   SPRING: APRIL 1 - MAY 31
   FALL: AUGUST 16 - OCTOBER 31

6. GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDED AREA UNTIL AN ACCEPTABLE STAND OF COVER IS ESTABLISHED.
7. ALL DISTURBED AREAS TO BE STABILIZED WITH SEED MIX AS SPECIFIED.

Rev. #: Date Description

Graphic Scale: 100 0 100 200

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Drawn By:	FLO
Checked By:	MFB
Approved By:	KMS
Project #:	2008001
Plan Date:	07/26/21
Scale:	1" = 100'

Mary Blackburn, P.L.A.
CT 1499

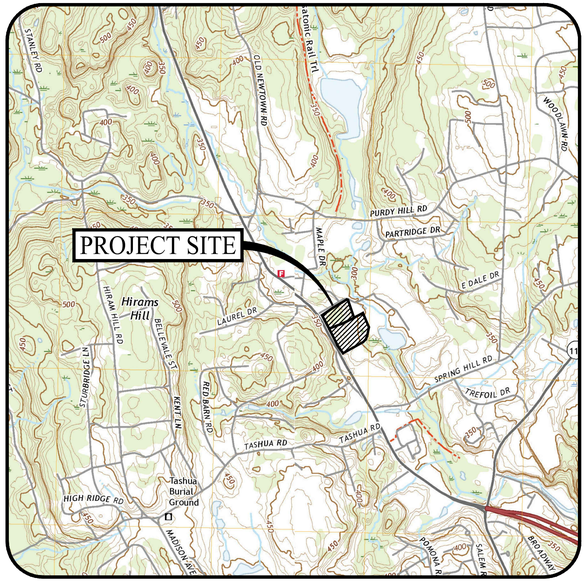
Project:

EXCAVATION/FILLING PERMIT APPLICATION

10 & 36 MAIN STREET
MONROE, CONNECTICUT

Sheet Title: RECLAMATION PLAN

Sheet #: 2.61



USGS MAP

SCALE: 1" = 1,500'

EXCAVATION/FILLING PERMIT APPLICATION

10 & 36 MAIN STREET
MONROE, CONNECTICUT

PREPARED FOR:

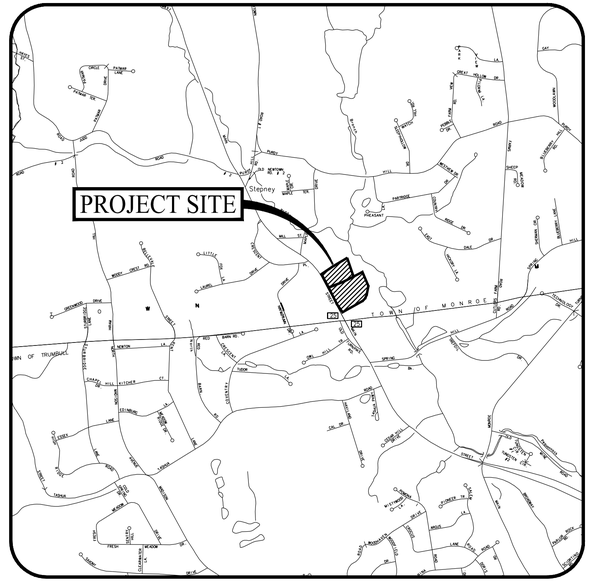
10 & 36 MAIN STREET LLC

16 CROSS STREET
NEW CANAAN, CT, 06840

PREPARED BY:

SOLLI ENGINEERING

501 MAIN STREET, MONROE, CONNECTICUT 06468



LOCATION MAP

SCALE: 1" = 1,500'

OWNER/APPLICANT

10 & 36 MAIN STREET LLC
16 CROSS STREET
NEW CANAAN, CT, 06840

PROPERTY INFORMATION

ADDRESS: 10 MAIN STREET, MONROE, CT, 06468
MAP-BLOCK-LOT: 004-036-00
ADDRESS: 36 MAIN STREET, MONROE, CT, 06468
MAP-BLOCK-LOT: 004-035-00

SITE/LANDSCAPE ARCHITECT

MARY BLACKBURN, P.L.A.,
LICENSE CT NO. 1499
SOLLI ENGINEERING, LLC
501 MAIN STREET
MONROE, CONNECTICUT 06468
(203) 880-5455

SITE/CIVIL ENGINEER

KEVIN SOLLI, P.E., CPESC, LEED AP BD+C
LICENSE NO. 25759
SOLLI ENGINEERING, LLC
501 MAIN STREET
MONROE, CONNECTICUT 06468
(203) 880-5455

STATE OF CONNECTICUT · KEVIN M. SOLLI · 25759 · LICENSED PROFESSIONAL ENGINEER

SOIL SCIENTIST

WILLIAM KENNY ASSOCIATES
ECOLOGICAL SERVICES
195 TUNXIS HILL CUTOFF SOUTH
FAIRFIELD, CT 06825
(203) 366 0588

SURVEYOR OF RECORD

BRYAN NESTERIAK, PE, LS
LICENSE NO. 23556
ACCURATE LAND SURVEYING
15 RESEARCH DR.
WOODBRIDGE, CONNECTICUT 06483
(203) 881-8145

DRAWING LIST

CIVIL PLAN SET

SHEET #	SHEET NAME	PLAN DATE	LATEST REVISION
0.00	COVER SHEET	07/26/21	N/A
1 of 1	PROPERTY SURVEY	05/21/21	N/A
1.40	SITE AREA MAP	07/26/21	N/A
2.21	GRADING & SOIL EROSION CONTROL PLAN	07/26/21	N/A
2.61	RECLAMATION PLAN	07/26/21	N/A
2.80	CROSS SECTION LOCATION PLAN	07/26/21	N/A
2.81	SITE CROSS-SECTIONS	07/26/21	N/A
2.82	SITE CROSS-SECTIONS	07/26/21	N/A
2.83	SITE CROSS-SECTIONS	07/26/21	N/A
3.01	DETAIL SHEET	07/26/21	N/A

(INCLUDED AS PART OF PLANNING AND ZONING APPLICATION ONLY)

SHEET #	SHEET NAME	PLAN DATE	LATEST REVISION
PDP	POTENTIAL DEVELOPMENT PLAN	07/26/21	N/A

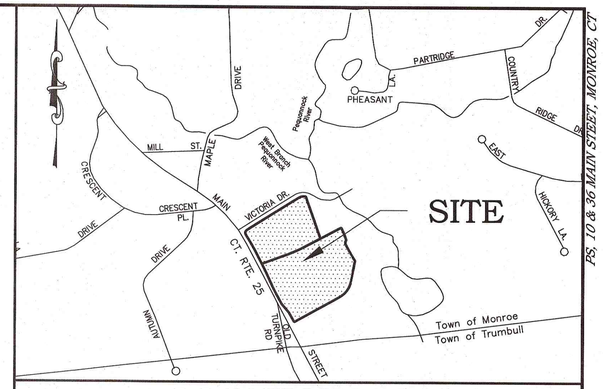
Rev. #: Date Description

Project:

EXCAVATION/FILLING PERMIT APPLICATION
10 & 36 MAIN STREET
MONROE, CONNECTICUT

Sheet Title: COVER SHEET

Sheet #: 0.00



LOCATION MAP

SCALE: 1"=800'

GENERAL SURVEY NOTES

1. THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH THE REGULATION OF CONNECTICUT STATE AGENCIES, SECTION 20-300b-1 THROUGH 20-300b-20, EFFECTIVE OCTOBER 26, 2018, AND THE "MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC.
2. THE BOUNDARY DETERMINATION SHOWN HEREON IS CONSIDERED A RESURVEY.
3. THE SURVEY CONFORMS TO HORIZONTAL CLASS A-2 ACCURACY STANDARDS BASED ON NAD83. VERTICAL DATA CONFORMS TO CLASS T-2 STANDARDS. VERTICAL & HORIZONTAL CONTROL OBTAINED FROM CT DOT BENCHMARK C-1 FROM MAP REFERENCE 9.4. VERTICAL COMPONENT OF BENCHMARK WAS BASED ON NGVD OF 1929. VALUE WAS CONVERTED TO NAVD OF 1988 BY USING THE VERTCON APPLICATION PROVIDED BY THE NATIONAL GEODETIC SERVICE.
4. THIS IS A PROPERTY. THE PURPOSE OF WHICH IS TO SHOW EXISTING CONDITIONS.
5. PROPERTIES ARE ALSO KNOWN AS TOWN OF MONROE TAX LOTS 35 AND 36 ON ASSESSORS MAP 4.
6. TOTAL AREA: 10 MAIN STREET = 397,841.9 SQ.FT. OR 9.133 ACRES
   36 MAIN STREET = 227,442.5 SQ.FT. OR 5.221 ACRES
7. PROPERTIES LIE IN ZONING DISTRICT B-2.
8. A PORTION OF 10 MAIN STREET LIES WITH MULTIPLE FLOOD ZONES, ZONE X (0.2% ANNUAL CHANCE FLOOD HAZARD) AND ZONE AE. A PORTION OF 36 MAIN STREET LIES WITHIN FLOOD ZONE X (0.2% ANNUAL CHANCE FLOOD HAZARD). ALL ARE SHOWN ON FEMA FIRM MAP 09001C0286F, EFFECTIVE DATE JUNE 18, 2010.
9. THE LOCATION OF UNDERGROUND UTILITIES, OTHER THAN DEPICTED HEREON, IF ANY, IS UNKNOWN.
10. WETLANDS DELINEATED BY WILLIAM KENNY ASSOCIATES, LLC. ON APRIL 22, 2021. FLAGS WERE LOCATED VIA CONVENTIONAL SURVEY METHODS.

MAP REFERENCES

1. PLAN ENTITLED: "BOUNDARY MAP OF PROPERTY OWNED BY THE BRIDGEPORT CHILDREN'S CAMP INC. MONROE/TRUMBULL, CONNECTICUT." SCALE: 1"=100'. DATED MARCH 10, 1983. RECEIVED FOR RECORD ON JUNE 4, 1983. PREPARED BY J&D KASPER & ASSOCIATES, ENGINEERS, SURVEYORS, PLANNERS. BRIDGEPORT, CONNECTICUT.
2. PLAN ENTITLED: "BOUNDARY SURVEY PREPARED FOR AMERICAN TRADING REAL ESTATE PROPERTIES INCORPORATED. MAIN STREET (ROUTE 25) MONROE/TRUMBULL, CT." SCALE: 1"=100'. DATED AUGUST 30, 1988. PREPARED BY CODESPOTI & ASSOCIATES, LANDSCAPE ARCHITECTURE ENGINEERING SURVEYING. 3060 MAIN STREET, SUITE 201 STRATFORD, CT 06497. JOB #2182.
3. PLAN ENTITLED: "MAP OF PROPERTY IN MONROE, CONNECTICUT. PREPARED FOR LOUIS M. & JOHN H. SNYDER." SCALE: 1"=40". DATED OCTOBER 9, 1963. RECEIVED FOR RECORD ON OCTOBER 25, 1963. CERTIFIED SUBSTANTIALLY CORRECT BY FRANK C.P. ENGINEER & SURVEYOR. MAP #694.
4. MAP ENTITLED; BOUNDARY MAP #10 MAIN STREET PREPARED FOR ENSR/AECOM MONROE, CONN." SCALE: A"=40'. DATED OCTOBER 2, 2006. PREPARED BY AESCHLIMAN LAND SURVEYING, PC. 1379 MAIN STREET EAST HARTFORD, CONN. 06108. MAP NO. 208062-1
5. PLAN ENTITLED, "RESUBDIVISION PLAN OF 2 VICTORIA DRIVE, MONROE, CONNECTICUT, PREPARED FOR KIMBALL LAND HOLDINGS, LLC & KIMBALL DEVELOPMENT, LLC, 523 PEPPER STREET, MONROE, CT 06468, (SHEET 1 OF 3, 2 OF 3 & 3 OF 3)" DATED: 04/04/14, REVISED ON 11/12/15, SCALE: 1" = 60'. PREPARED BY ACCURATE LAND SURVEYING. ON FILE IN THE TOWN OF MONROE CLERK'S OFFICE AS MAPS 3144A, 3144B AND 3144C.
6. PLAN ENTITLED, "RESUBDIVISION PLAN OF 2 VICTORIA DRIVE, MONROE, CONNECTICUT, PREPARED FOR KIMBALL LAND HOLDINGS, LLC & KIMBALL DEVELOPMENT, LLC, 523 PEPPER STREET, MONROE, CT 06468, (SHEET 1 OF 3, 2 OF 3, & 3 OF 30" DATED: 04/04/14. REVISED THRU:06/23/15, SCALE: 1"=60'. PREPARED BY ACCURATE LAND SURVEYING. ON FILE IN THE TOWN OF MONROE LAND RECORDS AS MAPS 3126A, 3126B AND 3126C.
7. PLAN ENTITLED, " ZONE CHANGE MAP OF 2 VICTORIA DRIVE & 10-26 MAIN STREET, MONROE, CONNECTICUT, PREPARED FOR KIMBALL LAND HOLDINGS, LLC & KIMBALL DEVELOPMENT, LLC & 10 MAIN STREET, LLC, 1428 MONROE TURNPIKE, MONROE, CT 06468. DATED: 10/14/14. REVISED THRU:01/08/18. SCALE: 1"=100'. PREPARED BY ACCURATE LAND SURVEYING. ON FILE IN THE TOWN OF MONROE LAND RECORDS AS MAP 3127.
8. PLAN ENTITLED, "LOT LINE REVISION PLAN OF 2 VICTORIA DRIVE & 10&36 MAIN STREET, MONROE, CONNECTICUT; PREPARED FOR 10 MAIN STREET, LLC, KIMBALL DEVELOPMENT, LLC & KIMBALL LAND HOLDINGS, LLC". DATED: 5/5/2015. ON FILE IN THE TOWN OF MONROE LAND RECORDS AS MAP 3120.
9. PLAN ENTITLED, "LOT LINE REVISION PLAN OF 2 VICTORIA DRIVE & 10&36 MAIN STREET, MONROE, CONNECTICUT; PREPARED FOR 10 MAIN STREET, LLC, KIMBALL DEVELOPMENT, LLC & KIMBALL LAND HOLDINGS, LLC". DATED: 5/14/2015, ON FILE IN THE TOWN OF MONROE LAND RECORDS AS MAP 3121.

No.	Date	REVISION DESCRIPTION

SCALE: 1"=60'

0 30 60 120 180

ACCURATE LAND SURVEYING, LLC
15 RESEARCH DRIVE, WOODBRIDGE, CT 06525, TEL: 203.881.8145
501 MAIN STREET, MONROE, CT 06468, TEL: 203.880.5455

PROPERTY SURVEY

OF

10 & 36 MAIN STREET
MONROE, CONNECTICUT

STATE OF CONNECTICUT — BRYAN R. NESTERIAK — No. 23556 — LICENSED LAND SURVEYOR

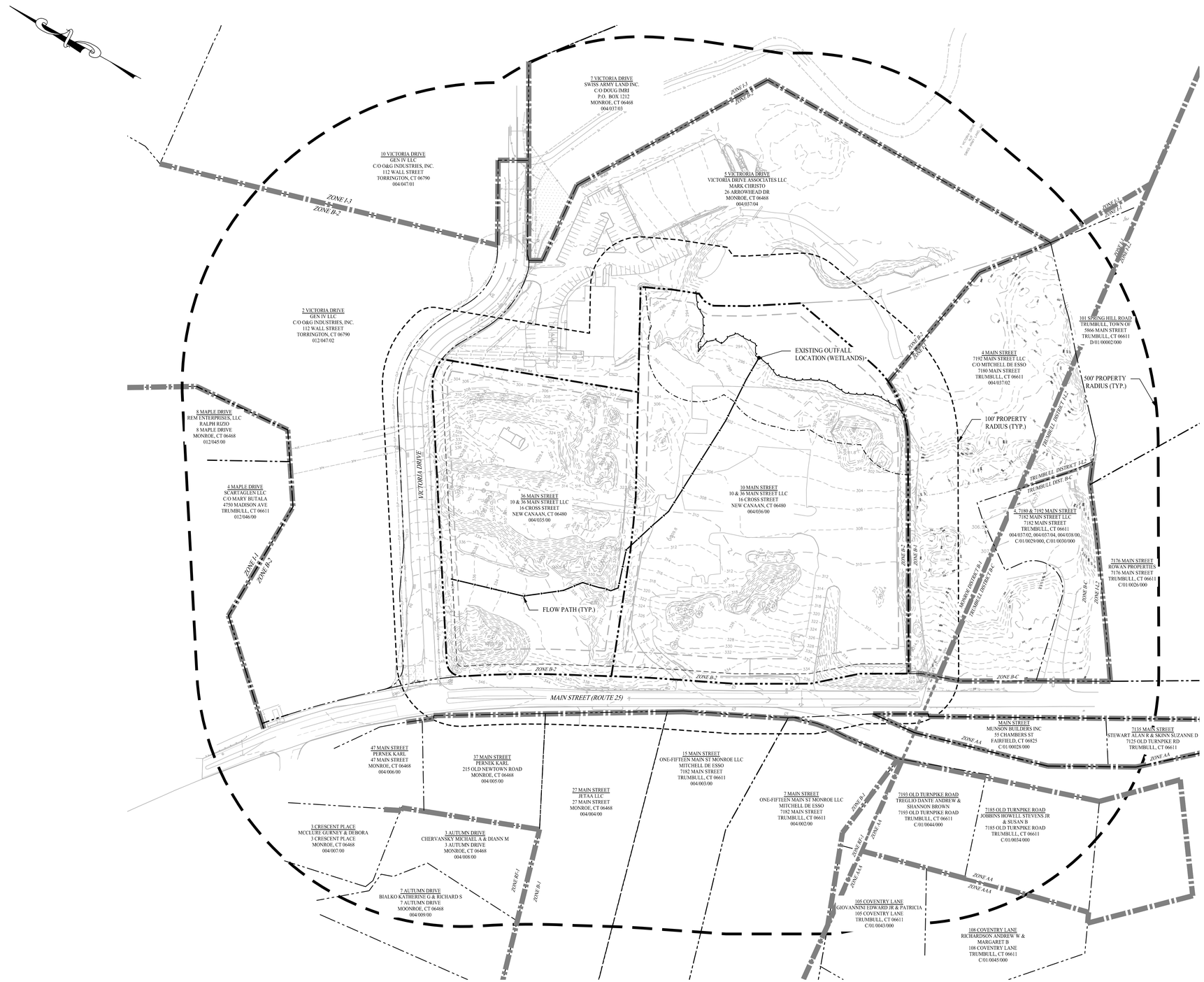
TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

BRYAN R. NESTERIAK, PE, LS 23556

Date	5/21/2021
Scale	1"=60'
Job No.	397
Drawing No.	1 of 1

LEGEND

- C.H.D. Conn. Hwy. Dept. Monument
- Mon. Monument
- Iron Pin to be Set
- Conc. Monument to be Set
- I. Pipe Iron Pipe
- I.P. Iron Pin
- D.H. Drill Hole
- Pile of Stones
- L.P. Light Post
- Fnd. Found
- n/f Now or Formerly
- Property Line
- Property Line (adjoining)
- Building Setback Line
- Easement Line
- Centerline
- Ledge or Boulders
- Earth or gravel fill
- X 200.0 Existing Spot Elevation
- INV. Invert Elevation of Pipe
- Sanitary Manhole
- Drainage Manhole
- W.G. Water gate
- W.M. Water meter
- G.G. Gas gate
- Water main (existing)
- Hydrant
- SD Storm Drainage
- G Gas Main (existing)
- S Sanitary Sewer Main (existing)
- E Electrical Line (existing)
- Stone Wall
- F.P. Fence Post
- Rail Fence
- Metal/Wire Fence
- Wooden Fence
- Utility Pole
- Water Valve
- Existing Catch Basin/Pipe
- Building (existing)
- Evergreen Tree
- Deciduous Tree
- Swamp or Wetlands
- Watercourse
- 123 Existing Contours
- R.C.P. Reinforced Concrete Pipe
- C.M.P. Corrugated Metal Pipe
- O PT A Percolation Test Location
- TP 100 Deep Test Pit Location
- Stone Retaining Wall
- Retaining Wall
- Wetland Limit
- WL Wetland Flag Number
- Wetland Setback
- Benchmark
- Well (existing)
- Overhead Utility Wires
- Tree Line



GENERAL NOTES

1. EXISTING SITE CONDITIONS TAKEN FROM A PLAN ENTITLED "IMPROVEMENT LOCATION SURVEY PREPARED FOR VISHAY SPRAGUE, INC, 10 & 36 MAIN STREET, MONROE, CONNECTICUT"; DATED: MAY 21, 2021; SCALE: 1" = 60'; PREPARED BY ACCURATE LAND SURVEYING, LLC.

LEGEND

- PROPERTY LINE
- ZONE LINE
- RIGHT-OF-WAY LINE
- TOWN LINE
- 100' RADIUS FROM PROPERTY
- 500' RADIUS FROM PROPERTY

Rev. #:	Date	Description

Graphic Scale: 100 0 50 100

SOLLI ENGINEERING
501 Main Street, Monroe, CT 06468 T: (203) 880-5455 F: (203) 880-9695
351 Newbury Street, Boston, MA 02115 T: (617) 203-3160 F: (203) 880-9695

Drawn By:	MDM
Checked By:	LAM
Approved By:	KMS
Project #:	2008001
Plan Date:	07/26/21
Scale:	1" = 100'

STATE OF CONNECTICUT · KEVIN M. SOLLI · 25759 · LICENSED PROFESSIONAL ENGINEER

Kevin Solli, P.E.
CT 25759

Project:

EXCAVATION/FILLING PERMIT APPLICATION

10 & 36 MAIN STREET
MONROE, CONNECTICUT

Sheet Title:	Sheet #:
SITE AREA MAP	1.40

Jul 27, 2021 – 9:30am Anthony
X:\SE Files\Project Data\2020\2008001 – 10 & 36 Main Street – Monroe, CT\Cadd Data\Excavation and Fill Permit\2008001-1.40.dwg

EROSION CONTROL AND SEDIMENT CONTROL NOTES

1. PRIOR TO THE START OF CONSTRUCTION, A PRECONSTRUCTION MEETING WITH THE ENGINEER AND THE TOWN OF MONROE LAND USE STAFF IS REQUIRED.
2. ACTUAL LOCATIONS AND APPLICATIONS OF EROSION CONTROL DEVICES SHALL BE DETERMINED IN THE FIELD PRIOR TO THE START OF CONSTRUCTION BASED ON THE EROSION AND SEDIMENT CONTROL STRATEGY. THE STRATEGY WILL REQUIRE THE CONTRACTOR TO PROVIDE APPROPRIATE CONTROLS SUCH AS STRUCTURAL PRACTICES, MAINTENANCE, AND STABILIZATION PRACTICES ALONG WITH THE PROPER DISCHARGE OR DEWATERING OF WASTEWATERS.
3. LIMITS OF DISTURBANCE SHALL BE FLAGGED IN THE FIELD BY A LICENSED SURVEYOR AND VERIFIED PRIOR TO INITIATION OF CONSTRUCTION.
4. EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED PRIOR TO ANY FILLING. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATIONS OF THE STATE OF CT DEEP "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" HANDBOOK AND 2004 CONNECTICUT STORMWATER QUALITY MANUAL. CONTROL DEVICES CONTINGENT ON INSPECTION APPROVAL BY THE TOWN OF MONROE LAND USE STAFF.
5. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED, FUNCTIONING, AND INSPECTED BY THE TOWN OF MONROE LAND USE STAFF PRIOR TO ANY SITE DISTURBANCE. ADDITIONAL MEASURES MAY BE REQUIRED DURING THE COURSE OF CONSTRUCTION AND SHALL BE IMPLEMENTED AS NEEDED. ALL SEDIMENT AND EROSION CONTROL MEASURES ARE TO BE INSPECTED PRIOR TO A HEAVY RAIN, IMMEDIATELY AFTER AND AT LEAST DAILY DURING PROLONGED RAIN EVENTS. ANY AND ALL DEFICIENCIES MUST BE CORRECTED WITHIN 24 HOURS OF DISCOVERY.
6. ALL GRADED AREAS WITH SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL SHALL BE STABILIZED WITH JUTE NETTING.
   - 6.1. LAND GRADING :
     - 6.1.1. AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED AND STRIPPED OF UNSUITABLE MATERIAL.
     - 6.1.2. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION SLIPPAGE, SETTLEMENT, SUBSIDENCE, OR OTHER RELATED PROBLEMS.
     - 6.1.3. MATERIAL SHALL BE FREE OF BRUSH, RUBBISH, ROCKS LOGS, STUMPS, BUILDING DEBRIS AND OTHER UNSUITABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
7. WHEN ALL GRADED AREAS ARE PERMANENTLY STABILIZED. REMOVE ALL EROSION AND SEDIMENT CONTROLS. REMOVE TRAPPED SEDIMENT. AFTER ALL REMOVAL, INSPECTION TO BE PERFORMED BY TOWN OF MONROE LAND USE STAFF.
8. IT SHALL BE THE RESPONSIBILITY OF THE SITE DEVELOPMENT CONTRACTOR TO ENSURE PROPER IMPLEMENTATION OF THE SOIL EROSION AND SEDIMENT CONTROLS AS SHOWN ON THIS PLAN; AND SHALL INCLUDE BUT NOT BE LIMITED TO INSTALLATION AND MAINTENANCE OF CONTROL MEASURES, INFORMING ALL PARTIES OF SUCH REQUIREMENTS AND NOTIFICATIONS OF ANY TRANSFER OF THIS RESPONSIBILITY TO OTHER PARTIES. CONTRACTOR: STUART RUDKIN, CONTACT NUMBER: (203) 505 - 1376.
9. ANY DISTRIBUTION AREA AND PILES PLANNED TO BE LEFT MORE THAN 14 DAYS WILL HAVE TO BE SEEDED OR MULCHED IMMEDIATELY.
10. WHEN ALL SURFACES ARE PERMANENTLY STABILIZED, ANY REMAINING SEDIMENT AND EROSION CONTROL DEVICES SHALL BE REMOVED AND ALL TRAPPED SEDIMENT SHALL BE REMOVED. ALL CATCH BASIN SUMPS SHALL BE CLEANED.
11. CONSTRUCTION ACTIVITIES AT THE PROJECT SITE WILL RESULT IN EMISSIONS OF FUGITIVE DUST TO THE ATMOSPHERE. THE QUANTITY OF FUGITIVE DUST GENERATED WILL BE UNCONTROLLED BUT IS DEPENDENT UPON WEATHER CONDITIONS. FUGITIVE DUST PARTICLES HAVE A GREATER PROPENSITY TO BECOME AIRBORNE DURING DRY AND BREEZY METEOROLOGICAL CONDITIONS. CONSTRUCTION ACTIVITIES AT THE SITE WHICH WILL RESULT IN PILES AND CONSTRUCTION TRAFFIC. THE CONTRACTOR WILL IMPLEMENT THE FOLLOWING REASONABLE PRECAUTIONS DURING CONSTRUCTION TO MINIMIZE THE GENERATION OF FUGITIVE DUST:
    - 11.1. USE WATER FOR DUST CONTROL OF ACTIVE CONSTRUCTION AREAS, ACTIVE UNPAVED ROADS, AND OTHER SURFACES WHICH CAN FIVE RISE TO AIRBORNE DUST. A TYPICAL PRACTICE TO BE FOLLOWED DURING SITE GRADING WILL BE TO FOLLOW THE EARTH MOVING EQUIPMENT WITH A WATER TRUCK TO IMMEDIATE WET THE NEW DISTURBED AREA.
    - 11.2. APPLY SEED FOR A VEGETATIVE COVER ON STORAGE PILES, ESPECIALLY THOSE THAT WILL REMAIN DORMANT FOR AN EXTENDED PERIOD.
    - 11.3. THE CONTRACTOR MUST CLEAN/SWEEP DAILY ALL ON-SITE PAVED ROADS AND THAT PORTION OF ANY SURROUNDING ROADS WHICH ARE USED BY CONSTRUCTION TRAFFIC, FOR THE DURATION OF THE PROJECT.
    - 11.4. INSTITUTE A MAXIMUM ON SITE SPEED LIMIT OF 10 MILES PER HOUR.
    - 11.5. THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL DURING THE CONSTRUCTION PROCESS. THE CONSTRUCTION MANAGER SHALL INSPECT THE SITE TO ASSURE DUST IS ADEQUATELY CONTROLLED. IF THE CONSTRUCTION MANAGER OR OWNERS REPRESENTATIVE FEELS DUST CONTROL MEASURES ARE NOT ADEQUATE THE CONTRACT SHALL BE REQUIRED TO INCREASE THESE MEASURES AS DIRECTED BY THE CONSTRUCTION MANAGER.
12. ALL CONSTRUCTION ACTIVITIES SHALL COMPLY WITH THE TOWN OF MONROE ZONING REGULATIONS.
13. A STORMWATER MANAGEMENT SYSTEM MAINTENANCE SCHEDULE SHALL BE IMPLEMENTED AND OFFICIALLY RECORDED BY THE INDIVIDUAL IDENTIFIED IN NOTE 8 ABOVE. THE SCHEDULE SHALL INCLUDE AS A MINIMUM:
    - 13.1. ALL ELEMENTS OF THE STORMWATER MANAGEMENT SYSTEM SHALL BE INSPECTED WEEKLY, AND AFTER ANY STORM EVENT GENERATING MORE THAN 0.5 INCHES OF RAIN.
    - 13.2. A WEEKLY INSPECTION OF THE SITE SHALL BE CONDUCTED FOR SURFACE DEBRIS.
    - 13.3. A MONTHLY INSPECTION OF ALL STORMWATER STRUCTURES AND OUTFALLS SHALL BE CONDUCTED FOR FLOATING OR SURFACE DEBRIS SEDIMENT.
    - 13.4. STRUCTURES AND OUTFALLS SHALL BE CLEANED OF SEDIMENT AND DEBRIS AT LEAST ONCE A YEAR DURING THE MONTH OF APRIL AND AT OTHER TIMES AS NECESSARY TO PREVENT THE DISCHARGE OF POLLUTANTS FROM STRUCTURES OR OUTFALLS.
    - 13.5. ALL DRIVES SHALL BE SWEPT CLEAN OF SAND, LITTER AND OTHER POSSIBLE POLLUTANTS AT LEAST TWICE A YEAR, ONCE BETWEEN NOVEMBER 14 AND DECEMBER 15 AND ONCE DURING THE MONTH OF APRIL AND AT OTHER TIMES AS DIRECTED BY THE TOWN OF MONROE.
    - 13.6. A STOCKPILE OF SEDIMENT AND EROSION CONTROLS SHALL BE KEPT ON SITE AT ALL TIMES. THIS WILL CONSIST OF AT LEAST 24 HAY BALES, UNDER COVER, EXTRA STONE FOR THE ANTI-TRACKING APRON, AT LEAST 100 FEET OF SILT FENCE AND 100 SQUARE YARDS OF NON-WOVEN FILTER FABRIC ADDITIONAL MEASURES MAY BE REQUIRED BY THE SITE MONITOR OR THE TOWN OF MONROE. THESE MEASURES ARE TO BE FATALLED BY THE REQUEST DATE.
    - 13.7. REPLACE CONSTRUCTION ENTRANCE WHEN THE CAPACITY OF THE APRON HAS REACHED THE 50% VOLUME.
14. SEDIMENT REMOVED FROM CONTROL STRUCTURES WILL BE DISPOSED OF IN A MANNER WHICH IS CONSISTENT WITH THE INTENT OF THESE PLANS.
15. 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 WITH THREE DAYS.
16. TEMPORARY FACILITIES (SWALES, CULVERTS, CHECK DAMS, ECT.) MAY BE UTILIZED AS NECESSARY TO HELP FACILITATE PROPER FUNCTIONING AND MAINTENANCE OF THE SITE.

EQUIPMENT INFORMATION

2 LARGE EXCAVATORS 380-480 SIZE
1 SMALL EXCAVATOR 85-160 SIZE
1 TRACK DOZER 450-750 SIZE
2 WHEEL LOADERS WA 500 SIZE
3 24 TON TRI-AXLE DUMP TRUCKS
2 VIBRATORY COMPACTOR ROLLERS
1 105,000 LB JAW CRUSHER
1 80' STACKING CONVEYOR

APPROXIMATELY 167,945 CUBIC YARD OF MATERIAL WILL BE IMPORTED. USING A CONVERSION RATE OF 1.37 TON/CY AND A MAXIMUM LOADING RATE OF 24 TON/TRUCK, APPROXIMATELY 9,587 TRUCK LOADS OF FILL WILL BE IMPORTED TO THE PROPERTY.

PLANNING & ZONING WAIVERS REQUIRED

- §6.4.9 C - NO CHANGE IN CONTOUR SHALL BE MADE WITHIN TWENTY-FIVE (25) FEET OF ANY PROPERTY LINE.
- §6.4.9 D - NO ARTIFICIAL SLOPE GREATER THAN FOURTEEN DEGREES (14°) TO THE HORIZONTAL (OR MAXIMUM FOUR FEET HORIZONTAL TO ONE FOOT VERTICAL) SHALL BE CREATED WITHIN FIFTY FEET OF ANY PROPERTY LINE.
- §6.4.9 P - NO SORTING, GRADING, CRUSHING OR OTHER MACHINERY FOR TREATMENT OR PROCESSING OF MATERIAL BEING REMOVED OR DEPOSITED SHALL BE ERECTED, MAINTAINED OR OPERATED ON THE PREMISES FOR WHICH A PERMIT MAY BE GRANTED, EXCEPT IN AN INDUSTRIAL DISTRICT OR IN ALL OTHER DISTRICTS WHERE CONTROLLED ROCK CRUSHING, SCREENING AND PROCESSING MAY BE PERMITTED BY THE COMMISSION ON A LIMITED SHORT DURATION BASIS AS PART OF SITE DEVELOPMENT AND CONSTRUCTION PREPARATION, PROVIDED:
  (1) SUCH CONTROLLED ACTIVITIES WILL REDUCE CONSTRUCTION TRAFFIC BY USE OF MATERIALS ONSITE.
  (2) SUCH CONTROLLED ACTIVITIES WILL NOT INVOLVE MINING OR EXCAVATION OF MORE THAN NECESSARY TO ACHIEVE SITE PREPARATION OF AN APPROVED PROJECT.

ALL PERMITTED SUCH ACTIVITIES REGARDLESS OF PERMITTED LOCATION SHALL NOT INCLUDE, PERMIT OR INVOLVE MATERIALS FROM OFFSITE LOCATIONS.

CONSTRUCTION SCHEDULE

THE ANTICIPATED STARTING DATE FOR CONSTRUCTION IS SUMMER 2021 WITH COMPLETION ANTICIPATED BY SUMMER 2023. APPROPRIATE EROSION CONTROL MEASURES AS DESCRIBED HEREIN, SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF ALL SITE CLEARING OR CONSTRUCTION ACTIVITY. SCHEDULE WORK TO MINIMIZE THE LENGTH OF TIME THAT BARE SOIL WILL BE EXPOSED.

LEGEND

PROPERTY LINE
RIGHT-OF-WAY LINE
ADJOINING LOT LINE
BUILDING SETBACK
LANDSCAPE BUFFER
MAJOR CONTOURS
MINOR CONTOURS
PROPOSED SPOT ELEVATION
GRADE TO DRAIN
SWALE
STORM DRAIN PIPE
LIMIT OF WETLANDS
LIMIT OF DISTURBANCE
CURB REMOVAL
SILT FENCE PROTECTION
MULCH BERM
TEMPORARY CONSTRUCTION FENCE
BITUMINOUS CONCRETE PAVEMENT DEMOLITION
AREA OF MANUFACTURED SELECT FILL
TYPE "CL" CATCH BASIN
FLARED END SECTION
RAMP (SWALES / DRAINAGE BASIN ACCESS)
RIP RAP
SILT SACK INLET PROTECTION
STONE CHECK DAM

GENERAL NOTES

1. EXISTING SITE CONDITIONS TAKEN FROM A PLAN ENTITLED "IMPROVEMENT LOCATION SURVEY PREPARED FOR VISHAY SPRAGUE, INC, 10 & 36 MAIN STREET, MONROE, CONNECTICUT"; DATED: MAY 21, 2021; SCALE: 1" = 60'; PREPARED BY ACCURATE LAND SURVEYING, LLC.
2. THE CONTRACTOR SHALL PRESERVE EXISTING VEGETATION WHERE POSSIBLE AND/OR AS NOTED ON DRAWINGS.
3. TOPSOIL SHALL BE STRIPPED AND STOCKPILED ON SITE FOR USE IN FINAL LANDSCAPING.
4. CLEARING LIMITS SHALL BE PHYSICALLY MARKED IN THE FIELD AND APPROVED BY THE TOWN OF MONROE PRIOR TO THE START OF WORK ON THE SITE NO CONSTRUCTION ACTIVITY, STORAGE OF VEHICLES, EQUIPMENT AND MATERIALS IS TO OCCUR BEYOND THE APPROVED LOD.
5. ALL DISTURBANCE INCURRED TO TOWN PROPERTY DUE TO CONSTRUCTION SHALL BE RESTORED TO ITS PREVIOUS CONDITION OR BETTER, TO THE SATISFACTION OF THE TOWN OF MONROE & TRUMBULL.
6. REFER TO SHEET 3.01 FOR CONSTRUCTION AND EROSION CONTROL MEASURE DETAILS.
7. NO OPERATIONS SHALL BE UNDERTAKEN ON THE SITE EXCEPT BETWEEN THE HOURS OF 8:00 AM AND 5:00 PM MONDAY THROUGH FRIDAY, EXCEPT WITH APPROVAL OF THE COMMISSION. THERE SHALL BE NO BLASTING ON THE SITE. NO ACTIVITY OF ANY TYPE SHALL BE CONDUCTED ON ANY LEGAL HOLIDAY DECLARED BY THE GOVERNMENT OF THE STATE OF CONNECTICUT OR THE UNITED STATES. TRUCK TRAFFIC IS LIMITED TO BETWEEN 9:00 AM AND 4:00 PM DAILY.
8. THE PERMITTEE SHALL PROVIDE ENGINEERING PROGRESS REPORTS PREPARED BY A CONNECTICUT STATE LICENSED CIVIL ENGINEER ON A QUARTERLY BASIS. ADDITIONALLY, THE COMMISSION MAY AT ANY TIME DURING THE PERMIT DURATION REQUIRE AN ENGINEERING PROGRESS REPORT FROM THE PERMITTEE, TO BE MADE BY A LICENSED CIVIL ENGINEER. IF SUCH REPORT IS NOT RECEIVED BY THE COMMISSION WITHIN THIRTY (30) DAYS FROM THE DATE OF SUCH REQUEST, THE COMMISSION MAY ENGAGE A PROFESSIONAL ENGINEER OR LAND SURVEYOR TO DETERMINE COMPLIANCE WITH THE TERMS OF THIS REGULATION AND ALL EXPENSES IN CONNECTION THEREWITH SHALL BE PAID BY THE PERMITTEE.
9. THE TOP LAYER OF TOPSOIL FOR A DEPTH OF SIX INCHES SHALL BE SET ASIDE ON THE PREMISES AND SHALL BE RE-SPREAD IN ACCORDANCE WITH THE APPROVED CONTOUR LINES WITHIN THIRTY (30) DAYS FOLLOWING THE EXPIRATION OR REVOCATION OF THE PERMIT OR COMPLETION OF THE WORK, WHICHEVER OCCURS EARLIER.
10. PROPER MEASURES (INCLUDING THE USE OF WATER SPRAY) AND APPROPRIATE NOISE DAMPENING MEASURES (EQUIPMENT MUFFLERS, ETC) SHALL BE TAKEN TO MINIMIZE THE NUISANCE OF NOISE AND FLYING DUST OR ROCK AND LIGHTING.
11. UPON COMPLETION OF THE SITE FILLING/EXCAVATION ACTIVITIES, THE FINAL CONDITION OF THE REMAINING SITE ACCESS IS TO BE IN THE FORM OF THE ANTI-TRACKING PAD AND THE FRONTAGE CONDITIONS ARE TO BE AS SPECIFIED ON THE RECLAMATION PLAN (SHEET 2.61).ALL FILL MATERIAL BROUGHT TO THE SITE SHALL CONFORM TO THE CT DEEP STANDARDS FOR "CLEAN FILL". ANY FILL FROM ANY OTHER SITE OTHER THAN THE ONE SPECIFIED ON THE THIS PLAN WILL BE INSPECTED PRIOR TO FILLING THE SITE AND WILL BE SUBJECT TO RANDOM TESTING.
12. THERE SHALL BE NO SIGNS PERMITTED (EXCEPT CUSTOMARY TRAFFIC CONTROL, SAFETY, AND NO TRESPASSING SIGNS AS MAY BE AUTHORIZED BY THE PLANNING AND ZONING ADMINISTRATOR).

CONSTRUCTION SEQUENCE

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE/EXIT.
2. INSTALL SILT FENCE(S) ON THE SITE (CLEAR ONLY THOSE AREAS NECESSARY TO INSTALL SILT FENCE).
3. PREPARE TEMPORARY PARKING AND STORAGE AREAS.
4. HALT ALL ACTIVITIES AND CONTACT THE ENGINEER OF RECORD TO PERFORM INSPECTION AND CERTIFICATION OF BEST MANAGEMENT PRACTICES (BMPS). GENERAL CONTRACTOR SHALL SCHEDULE AND CONDUCT THE STORM WATER PRE-CONSTRUCTION MEETING WITH THE ENGINEER, AGENCIES AND GROUND-DISTURBING CONTRACTOR BEFORE PROCEEDING WITH CONSTRUCTION.
5. CONSTRUCT AND STABILIZE SEDIMENT BASIN(S) WITH APPROPRIATE OUTFALL STRUCTURES (CLEAR ONLY THOSE AREAS NECESSARY TO INSTALL BASINS).
6. BEGIN CLEARING AND GRUBBING THE SITE.
7. INSTALL THE CONSTRUCTION TRAILER (WITH SUPPORT UTILITIES; ELECTRIC, WATER, ETC.)
8. REMOVE THE EXISTING BITUMINOUS CONCRETE PAVEMENT AND BITUMINOUS CONCRETE CURB.
9. INSTALL ADDITIONAL EROSION CONTROLS AS WORK PROGRESSES, TOPSOIL AND SEED SLOPES WHICH HAVE ACHIEVED FINAL SITE GRADING.
10. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
11. THROUGHOUT CONSTRUCTION, REMOVE SEDIMENT FROM BEHIND SILT FENCES, HAY BALES AND OTHER EROSION CONTROL DEVICES, AND FROM SEDIMENTATION BASINS AND SEDIMENT TRAPS AS REQUIRED. REMOVAL SHALL BE ON A PERIODIC BASIS (EVERY SIGNIFICANT RAINFALL OF 0.10 INCH OR GREATER). INSPECTION OF EROSION CONTROL MEASURES SHALL BE ON A WEEKLY BASIS AND AFTER EACH RAINFALL OF 0.50 INCHES OR GREATER. SEDIMENT COLLECTED SHALL BE DEPOSITED AND SPREAD EVENLY UPLAND ON SLOPES DURING CONSTRUCTION.
13. THROUGHOUT THE CONSTRUCTION SEQUENCE,PERIODIC INSPECTIONS SHALL BE INCORPORATED DURING THE PROCESSING OF THIS EXCAVATION AND FILL PERMIT AT SPECIFIC MILESTONES PER TOWN STAFF DIRECTION, AND AT LEAST MONTHLY INSPECTIONS.
16. CONDUCT FINE GRADING.
17. FERTILIZE SEED AND MULCH. SEED MIXTURE TO BE INSTALLED DURING THE SPRING OR FALL SEASON ONLY. USE EROSION CONTROL BLANKETS AS REQUIRED OR ORDERED FOR SLOPES GREATER THAN 3:1 AND AS SHOWN ON LANDSCAPE PLANS OR EROSION CONTROL PLANS. FOR TEMPORARY STABILIZATION BEYOND SEEDING DATES USE ANNUAL RYE AT 40 LBS/1,000 S.F. FERTILIZE WITH 10-10-10 AT 1.0 LBS. OF NITROGEN PER 1,000 S.F. AND LIME AT 100 LBS/1,000 S.F. (MAX.).
18. UPON DIRECTION OF THE TOWN OF MONROE AGENT (AFTER THEIR FINAL INSPECTIONS HAVE BEEN PERFORMED AND CERTIFICATES OF COMPLETION FOR INLAND WETLANDS AND EXCAVATION/FILLING HAVE BEEN ISSUED), EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED FOLLOWING STABILIZATION OF THE SITE.

VOLUME SUMMARY

AREA	AREA OF DISTURBANCE	CUT (CY)	FILL (CY)	NET (CY)
REGULATED AREA	51,766 SF (1.19 AC)	2,680	2,029	651 (CUT)
BALANCE OF SITE	509,365 SF (11.69 AC)	12,539	180,980	167,139 (FILL)
TOTAL	561,131 SF (12.88 AC)	15,219	183,009	167,790 (FILL)

NOTE: NO FILL IS PLANNED WITHIN THE 100-YEAR FLOOD LIMIT.

SEDIMENT BASIN CALCULATIONS

SEDIMENT BASIN #1:
CONTRIBUTING DRAINAGE AREA = 14.71± ACRES
V = [(DA)(A)(DR)(TE)(2,000LBS/TON)]/[(V)(43,560 SQ. FT/AC)]
V = [(14.71)(50)(.40)(.80)(2,000)]/[(100)(43,560)] =0.1081 ACRE-FT/YEAR
V = 4,709 CF/YEAR
V= (4,709 CF/YEAR)(2 YEARS) = 9,418 CF
REQUIRED WET STORAGE = 2 X 1 YEAR SEDIMENT STORAGE
V = (2)(4,709) = 9,418 CF
REQUIRED BASIN #1 STORAGE = 9,418 CF
SEDIMENT BASIN #1 STORAGE CAPACITY = 17,591 ± CF
AT ELEV: 297.50'

GROUNDWATER MONITORING DATA

DATA COLLECTED BY SOLLI ENGINEERING, LLC, WEEKLY FROM 07/15/15 TO 06/14/16.

MONITORING WELL 13 (MW-13)
SURFACE ELEVATION = 291.70
MINIMUM DEPTH TO GROUNDWATER = 0.88 = 290.82

SELECT FILL REQUIREMENTS

1. SELECT FILL MATERIAL AND SELECT BACKFILL MATERIAL, PLACED WITHIN AND ADJACENT TO PROPOSED LEACHING AREAS SHALL BE COMPRISED OF CLEAN SAND AND GRAVEL, FREE OF ORGANIC MATTER AND FOREIGN SUBSTANCES. THE FILL MATERIAL SHALL MEET THE FOLLOWING REQUIREMENTS UNLESS OTHERWISE APPROVED BY A PROFESSIONAL ENGINEER FOR USE WITHIN THE LEACHING AREA:
   - A. THE FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN (3) INCHES.
   - B. UP TO 45% OF THE DRY WEIGHT OF THE REPRESENTATIVE SAMPLE MAY BE RETAINED ON THE #4 SIEVE (THIS IS THE GRAVEL PORTION OF THE SAMPLE).
   - C. THE MATERIAL THAT PASSES THE #4 SIEVE IS THEN REWEIGHED AND THE SIEVE ANALYSIS STARTED.
   - D. THE REMAINING SAMPLE SHALL MEE THE FOLLOWING GRADATION CRITERIA:

SIEVE SIZE	PERCENT PASSING REQUIRED % PASSING WET SIEVE	PERCENT PASSING DRY SIEVE
#4	100	100
#10	70-100	70-100
#40	10-50	10-50
#100	0-20	0-5
#200	0-5	0-2.5

   - E. PERCENT PASSING THE #40 SIEVE CAN BE INCREASED TO NO GREATER THAN 75% IF THE PERCENT PASSING THE #100 SIEVE DOES NOT EXCEED 10% AND THE #200 SIEVE DOES NOT EXCEED 5%.
   - F. THE RESPONSIBILITY FOR THE PREPARATION OF A LEACHING AREA UTILIZING "SELECT MATERIAL" IS THAT OF THE LICENSED INSTALLER.
   - G. THE INSTALLER SHALL TAKE THE NECESSARY STEPS TO PROTECT THE UNDERLYING NATURALLY OCCURRING SOILS FROM OVERCOMPACTION AND SILTATION ONCE EXPOSED.
   - H. SELECT FILL SHALL BE PLACED BY A LICENSED INSTALLER.
   - I. ANY TOPSOIL WITHIN SEPTIC AREA IS TO BE REMOVED AND REPLACED WITH SELECT FILL.
   - J. FILL SHALL BE PLACED ON THE PERIMETER OF THE TRENCH AREA AND SPREAD WITH A SMALL CRAWLER, TRACTOR OR OTHER APPROVED MACHINERY.

Rev. #: Date Description

Graphic Scale: 50 0 50 100

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Drawn By:	CJP
Checked By:	LAM
Approved By:	KMS
Project #:	2008001
Plan Date:	07/26/21
Scale:	1" = 50'

STATE OF CONNECTICUT KEVIN M. SOLLI 25759 LICENSED PROFESSIONAL ENGINEER
Kevin Solli, P.E.
CT 25759

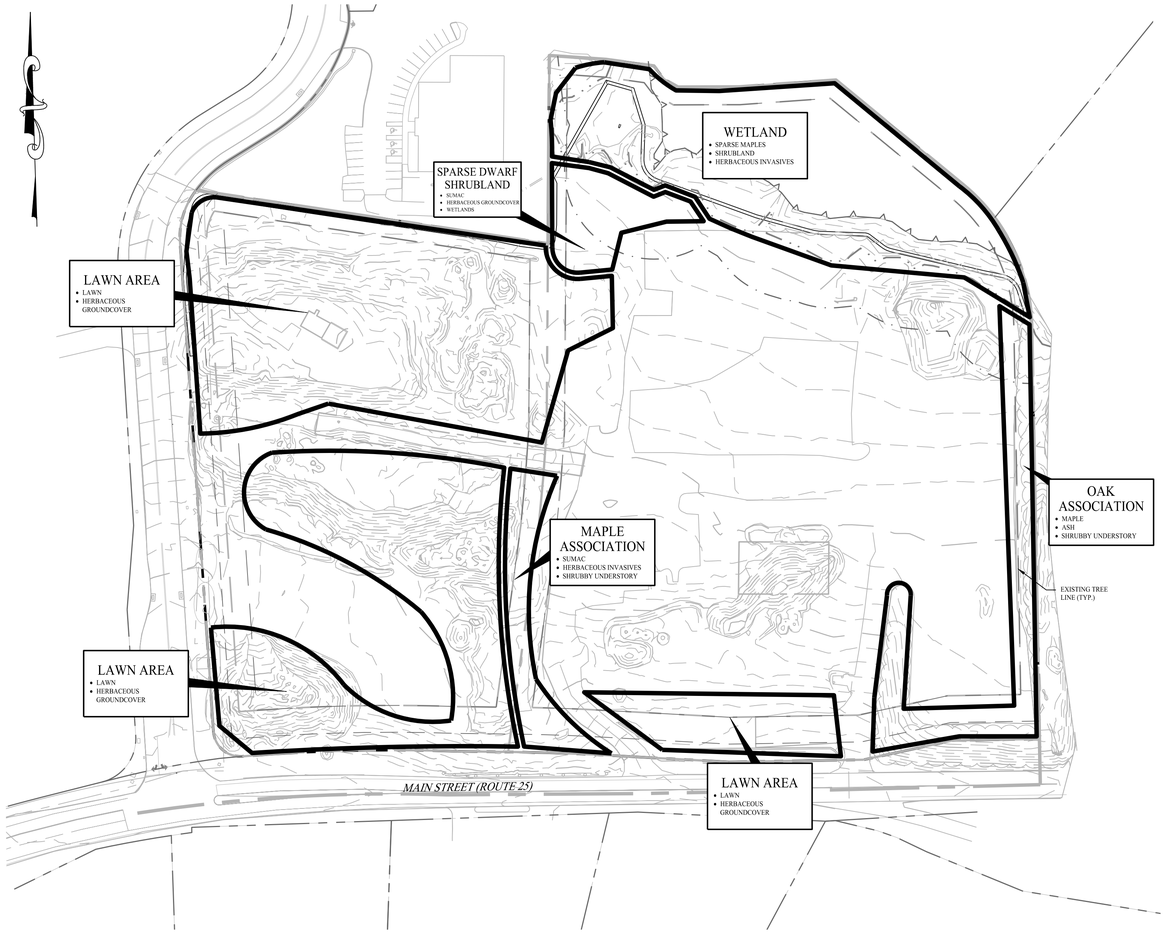
Project:

EXCAVATION/FILLING PERMIT APPLICATION

10 & 36 MAIN STREET
MONROE, CONNECTICUT

Sheet Title: GRADING & SOIL EROSION CONTROL PLAN

Sheet #: 2.21



PRE VEGETATION MAP

SCALE: 1" = 100'

POST VEGETATION MAP

SCALE: 1" = 100'

LEGEND

- PROPERTY LINE
- ADJOINING LOT LINE
- MAJOR CONTOURS
- MINOR CONTOURS
- LIMIT OF DISTURBANCE
- EXISTING TREE LINE
- PROPOSED TREE LINE
- PREVIOUSLY DELINEATED WETLANDS
- WETLAND LINE
- LIMIT OF 100' UPLAND REVIEW AREA
- SEEDED LAWN AREA
- NEW ENGLAND CONSERVATION WILDLIFE MIX
- EXISTING WOODED AREA TO REMAIN
- CONSTRUCTION ENTRANCE

GENERAL NOTES

1. EXISTING SITE CONDITIONS TAKEN FROM A PLAN ENTITLED "PROPERTY SURVEY OF 10 & 36 MAIN STREET, MONROE, CONNECTICUT" DATED: 05/21/21; SCALE: 1" = 60'; PREPARED BY ACCURATE LAND SURVEYING, LLC. REFER TO SAID PLAN FOR ALL DIMENSIONS, BEARINGS OR ANGLES OF PROPERTY LINES, EASEMENTS AND RIGHT-OF-WAYS.
2. THE AREAS OF EXISTING VEGETATION HAVE BEEN FIELD VERIFIED BY A LICENSED LANDSCAPE ARCHITECT ON 05/27/21.
3. SPECIES DEPICTED ON PRE-VEGETATION MAP INDICATE MAJOR PLANT ASSOCIATIONS AND ARE NOT INTENDED TO REPRESENT A DETAILED INVENTORY OF THE SITE'S PLANT MATERIAL.
4. A SITE RESTORATION PLAN MUST BE IMPLEMENTED IN THE EVENT FUTURE DEVELOPMENT OF THE SITE DOES NOT MATERIALIZE WITHIN TWO (2) YEARS OF THE COMPLETION OF EXCAVATION.

LAWN SEED MIX

1. PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 1" DIAMETER.
2. THE FOLLOWING SEED MIX SHALL BE SOWN AT THE RATES AS DEPICTED:

CREEPING RED FESCUE	1 LB. / 1,000 SF
PERENNIAL RYEGRASS	3 LBS. / 1,000 SF
KENTUCKY BLUEGRASS	1 LB. / 1,000 SF

3. SEED MIX SHALL BE MULCHED WITH SALT HAY OR UNROTTED SMALL GRAIN STRAW AT A RATE OF 2 TONS / ACRE OR 90 LBS. / 1,000 SF.
4. SEEDING DATES FOR THIS MIXTURE SHALL BE AS FOLLOWS:

   SPRING: APRIL 1 - MAY 31
   FALL: AUGUST 16 - OCTOBER 31

5. GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDED AREA UNTIL AN ACCEPTABLE STAND OF COVER IS ESTABLISHED.
6. ALL DISTURBED AREAS TO BE STABILIZED WITH SEED MIX AS SPECIFIED.

NEW ENGLAND CONSERVATION WILDLIFE MIX

1. PRODUCED BY NEW ENGLAND WETLAND PLANTS, INC.; WWW.NEWP.COM; 820 WEST STREET, AMHERST, MA 01002; (413) 548-8000.
2. PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 1" DIAMETER.
3. THE SEED MIX SHALL BE APPLIED AT A RATE OF 1 LB. / 1,750 SQUARE FEET.
4. SEED MIX SHALL BE MULCHED WITH SALT HAY OR UNROTTED SMALL GRAIN STRAW AT A RATE OF 2 TONS / ACRE OR 90 LBS. / 1,000 SF.
5. SEEDING DATES FOR THIS MIXTURE SHALL BE AS FOLLOWS:

   SPRING: APRIL 1 - MAY 31
   FALL: AUGUST 16 - OCTOBER 31

6. GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDED AREA UNTIL AN ACCEPTABLE STAND OF COVER IS ESTABLISHED.
7. ALL DISTURBED AREAS TO BE STABILIZED WITH SEED MIX AS SPECIFIED.

Rev. #: Date Description

Graphic Scale: 100 0 100 200

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Drawn By:	FLO
Checked By:	MFB
Approved By:	KMS
Project #:	2008001
Plan Date:	07/26/21
Scale:	1" = 100'

Mary Blackburn, P.L.A.
CT 1499

Project:

EXCAVATION/FILLING PERMIT APPLICATION

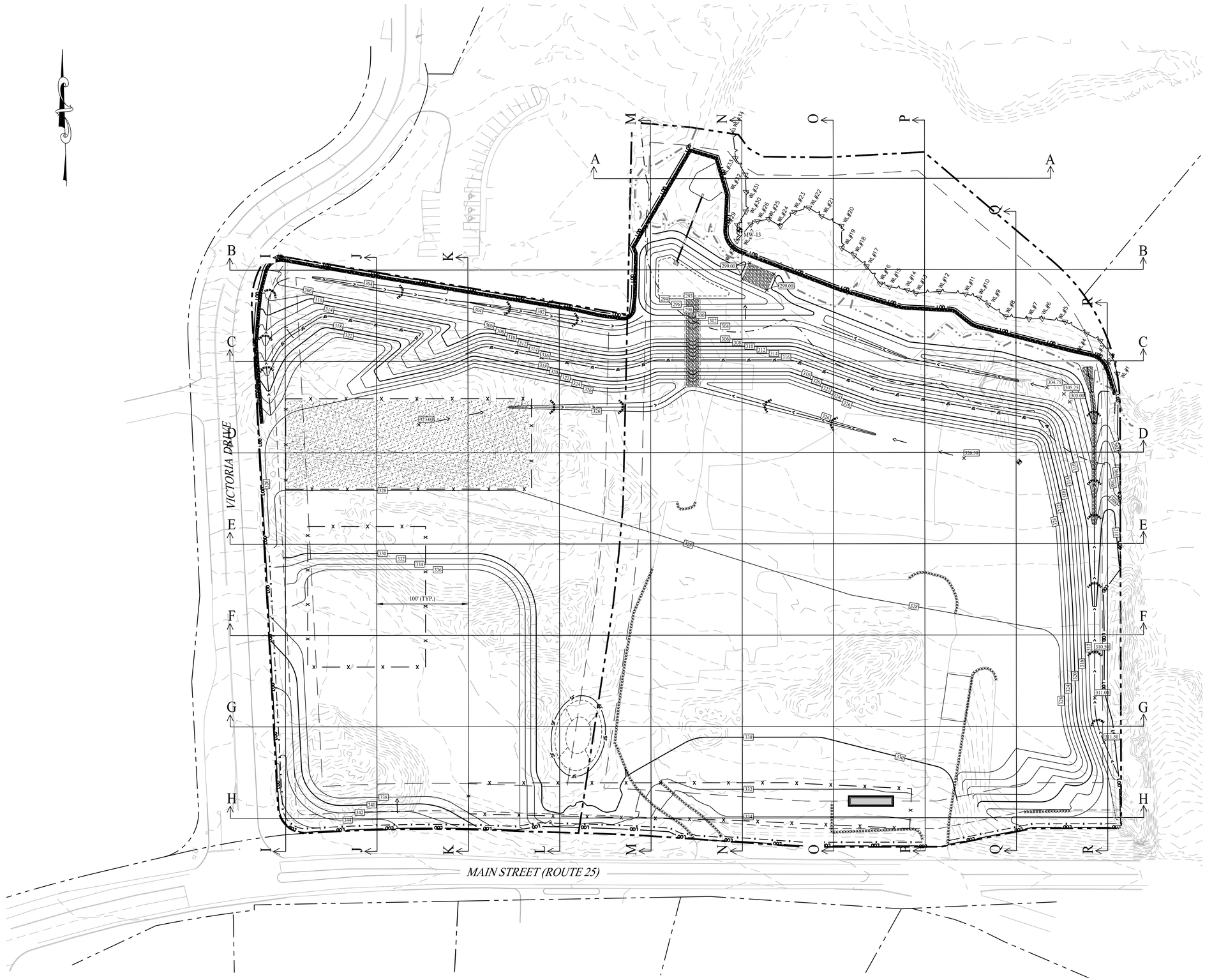
10 & 36 MAIN STREET
MONROE, CONNECTICUT

Sheet Title: RECLAMATION PLAN

Sheet #: 2.61

GENERAL NOTES

1. EXISTING SITE CONDITIONS TAKEN FROM PLANS ENTITLED "PROPERTY SURVEY OF 10 & 36 MAIN STREET MONROE, CONNECTICUT (1 OF 1)" DATED: 5/21/21; SCALE: 1" = 60'; PREPARED BY ACCURATE LAND SURVEYING, LLC. REFER TO SAID PLAN FOR ALL DIMENSIONS, BEARINGS OR ANGLES OF PROPERTY LINES, EASEMENTS AND RIGHTS-OF-WAY.
2. THESE PLANS ARE FOR PERMITTING PURPOSES ONLY AND ARE NOT FOR CONSTRUCTION. NO CONSTRUCTION OR DEMOLITION SHALL BEGIN UNTIL APPROVAL OF THE FINAL PLANS IS GRANTED BY ALL GOVERNING AND REGULATORY AGENCIES AND ISSUANCE OF A DULY AUTHORIZED CERTIFICATE OF ZONING COMPLIANCE FROM THE TOWN OF MONROE.



Rev. #: Date Description

Graphic Scale: 50 0 50 100

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Drawn By:	AWC
Checked By:	LAM
Approved By:	KMS
Project #:	2008001
Plan Date:	07/26/21
Scale:	1" = 50'

STATE OF CONNECTICUT · KEVIN M. SOLLI · 25759 · LICENSED PROFESSIONAL ENGINEER

Kevin Solli, P.E.
CT 25759

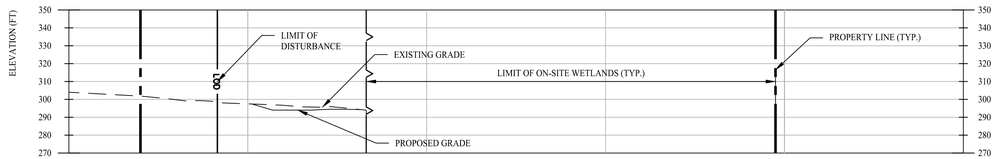
Project:

EXCAVATION/FILLING PERMIT APPLICATION

10 & 36 MAIN STREET
MONROE, CONNECTICUT

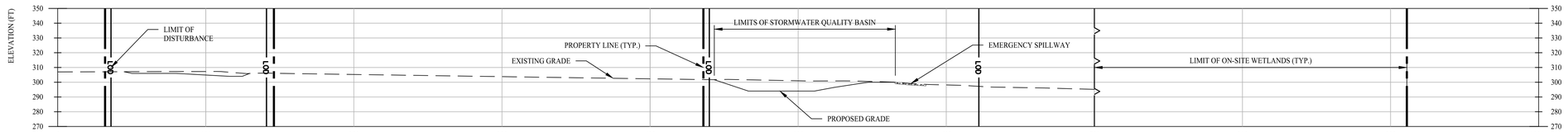
Sheet Title: CROSS SECTION LOCATION PLAN

Sheet #: 2.80



SECTION A

SCALE: H:1" = 40'
V:1" = 40'



SECTION B

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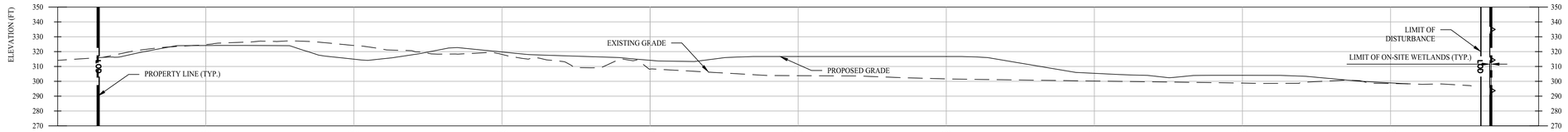
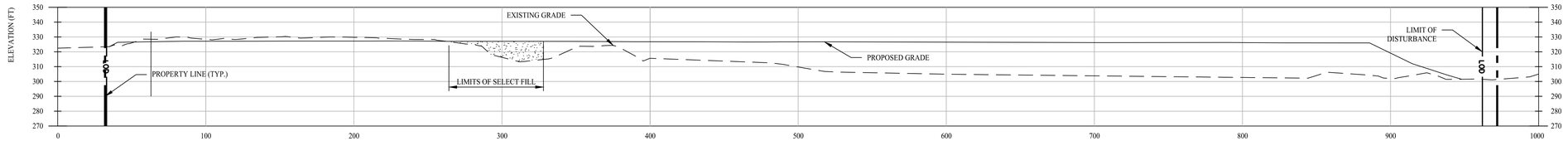


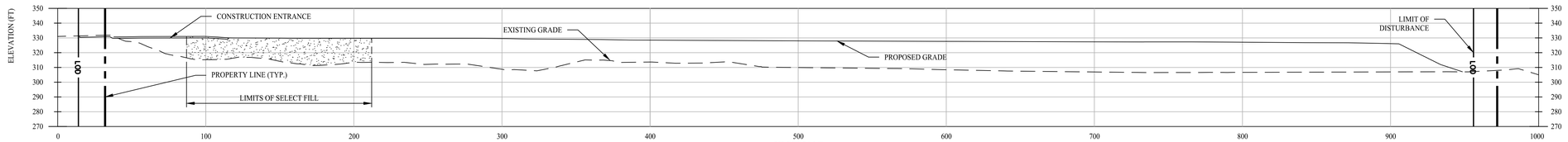
SECTION C

SCALE: H:1" = 40'
V:1" = 40'



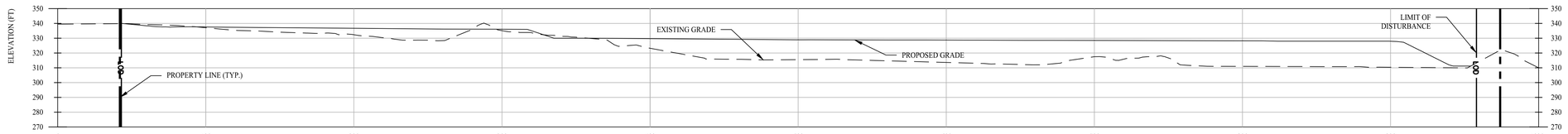
SECTION D

SCALE: H:1" = 40'
V:1" = 40'



SECTION E

SCALE: H:1" = 40'
V:1" = 40'



SECTION F

SCALE: H:1" = 40'
V:1" = 40'

Rev. #: Date Description

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Checked By:	LAM
Approved By:	KMS
Project #:	2008001
Plan Date:	07/26/21
Scale:	AS SHOWN

STATE OF CONNECTICUT KEVIN M. SOLLI 25759 LICENSED PROFESSIONAL ENGINEER

Kevin Solli, P.E.
CT 25759

Project:

EXCAVATION/FILLING PERMIT APPLICATION

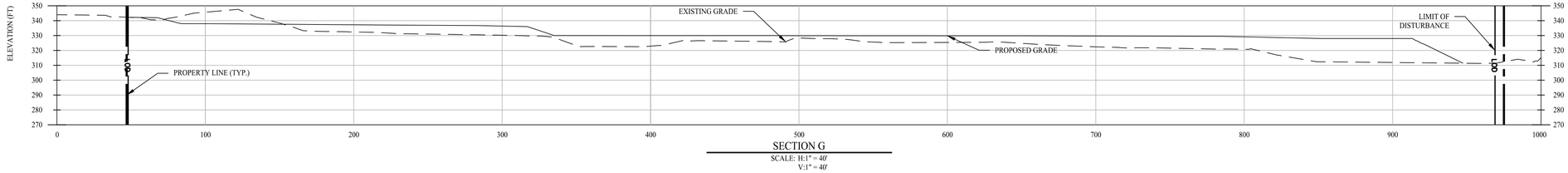
10 & 36 MAIN STREET
MONROE, CONNECTICUT

Sheet Title:

SITE CROSS SECTIONS

Sheet #:

2.81



SECTION G
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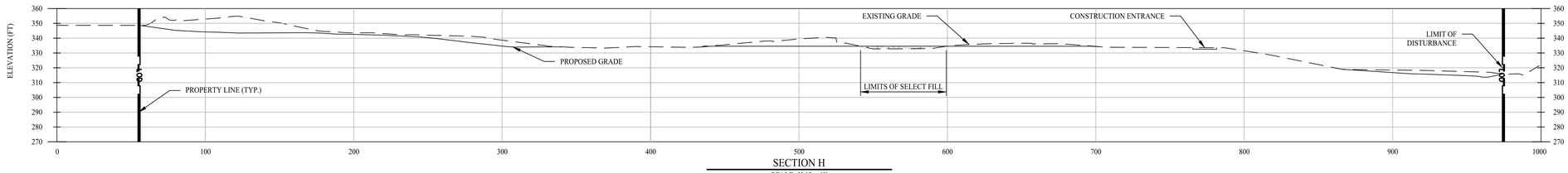

SECTION H
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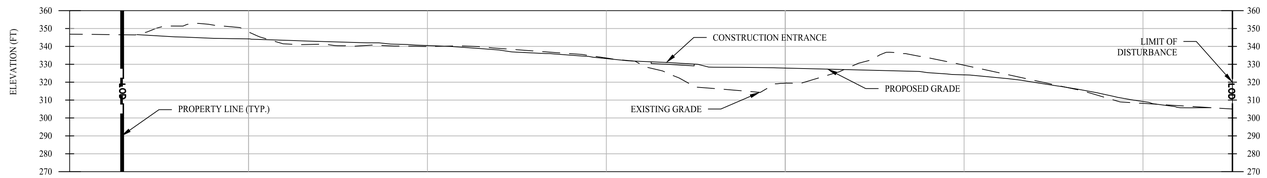

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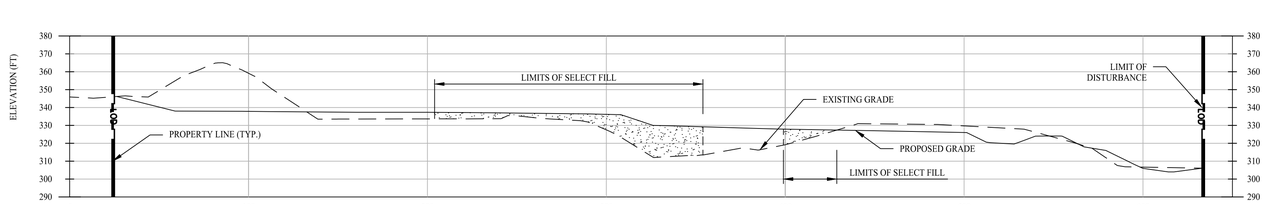

SECTION J
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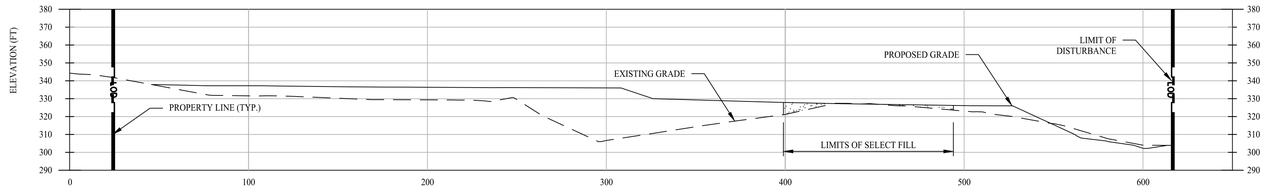

SECTION K
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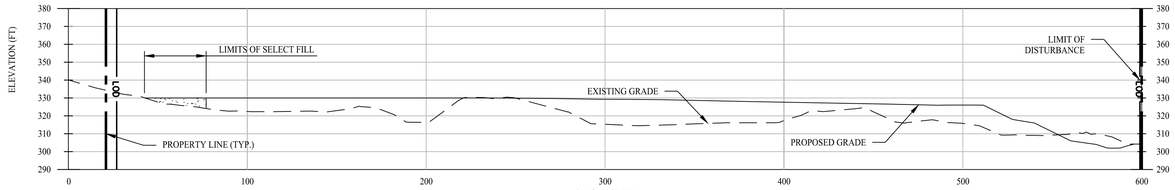
V:1" = 40'



SECTION L
SCALE: H:1" = 40'
V:1" = 40'

Rev. #: Date Description

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STATE OF CONNECTICUT KEVIN M. SOLLI 25759 LICENSED PROFESSIONAL ENGINEER

Kevin Solli, P.E.
CT 25759

Project:

EXCAVATION/FILLING PERMIT APPLICATION

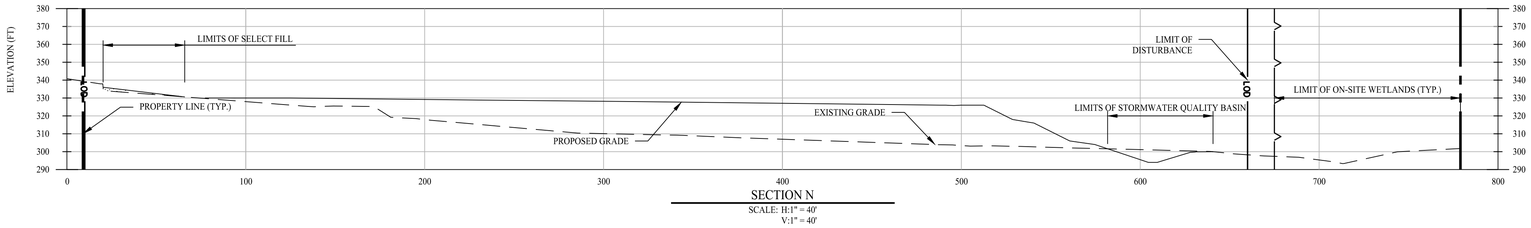
10 & 36 MAIN STREET
MONROE, CONNECTICUT

Sheet Title:

SITE CROSS SECTIONS

Sheet #:

2.82



SECTION N

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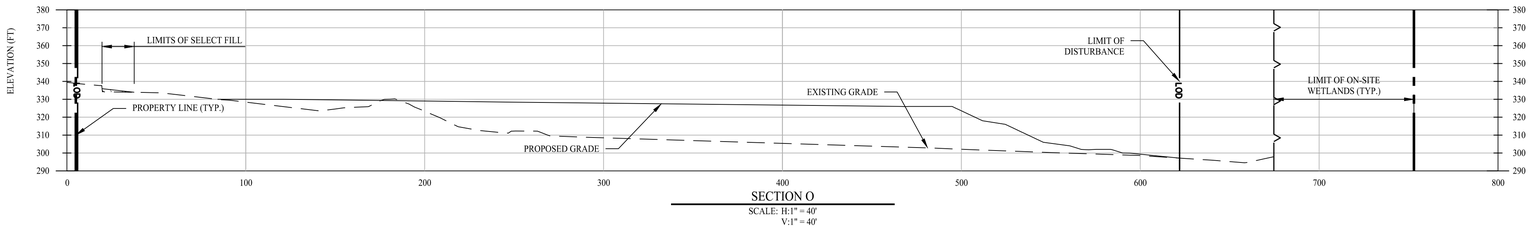

SECTION O

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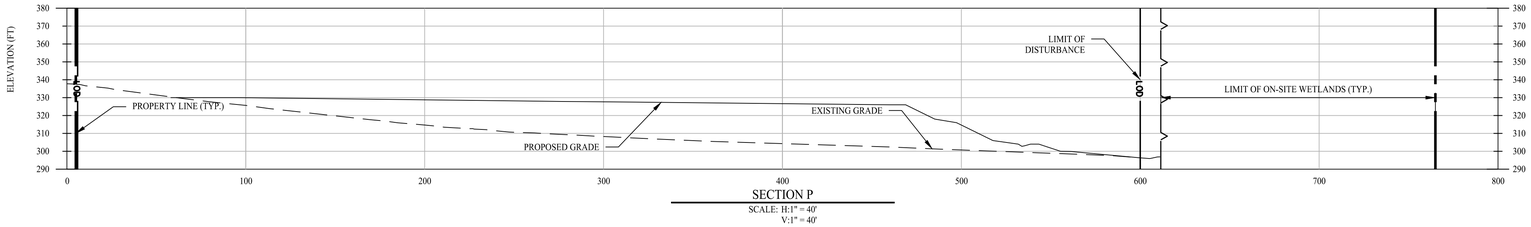

SECTION P

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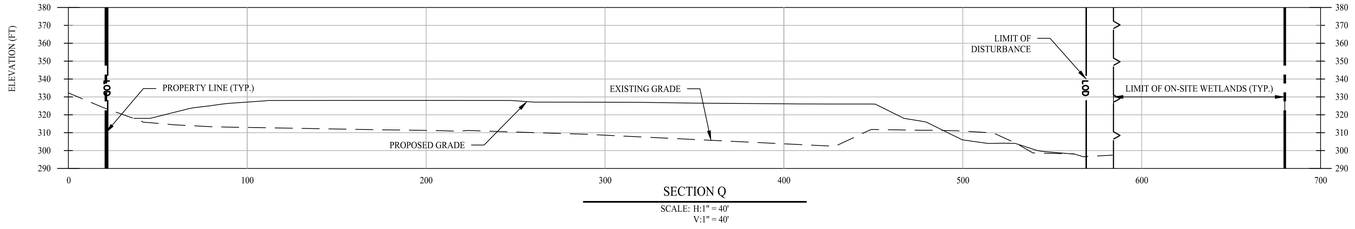

SECTION Q

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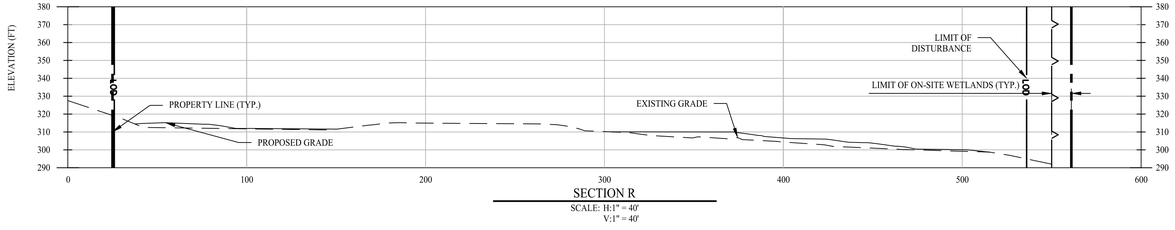

SECTION R

SCALE: H:1" = 40'
V:1" = 40'

Rev. #:	Date	Description

Graphic Scale:

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Project #:	2008001
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STATE OF CONNECTICUT KEVIN M. SOLLI 25759 LICENSED PROFESSIONAL ENGINEER

Kevin Solli, P.E.
CT 25759

Project:

EXCAVATION/FILLING PERMIT APPLICATION

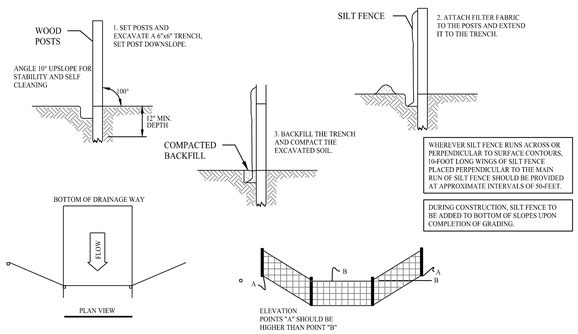
10 & 36 MAIN STREET
MONROE, CONNECTICUT

Sheet Title:

SITE CROSS SECTIONS

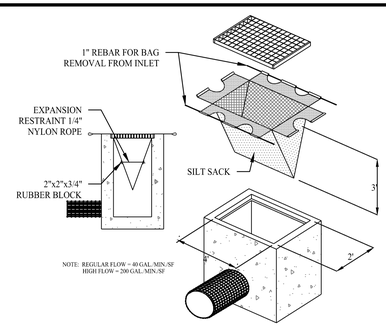
Sheet #:

2.83



SILT FENCE PROTECTION DETAIL

SCALE: NTS



SILT SACK DETAIL

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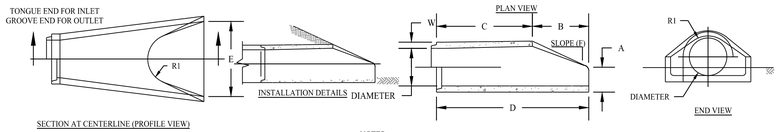

SECTION AT CENTERLINE (PROFILE VIEW)

Diameter	Dimensions							
	A	B	C	D	E	F	R1	W
12"Ø	4"	2'-0"	4'-0 7/8"	6'-0 7/8"	2'-0"	3 : 1	9"	2 9/16"
15"Ø	6"	2'-3"	3'-10"	6'-1"	2'-6"	3 : 1	11"	2 11/16"
18"Ø	9"	2'-3"	3'-10"	6'-1"	3'-0"	3 : 1	12"	2 13/16"
24"Ø	10"	3'-8"	5'-0"	6'-2"	4'-0"	3 : 1	14"	5 21/32"
30"Ø	12"	4'-6"	1'-8"	6'-2"	5'-0"	3 : 1	15"	4 17/32"
36"Ø	15"	5'-3"	2'-11"	8'-2"	6'-0"	3 : 1	20"	4 17/32"
42"Ø	21"	5'-3"	2'-11"	8'-2"	6'-6"	3 : 1	22"	4 13/32"

NOTES:

1. PRODUCED TO ASTM SPECIFICATIONS.
2. THIS DRAWING IS NOT INTENDED TO SHOW REINFORCEMENT DESIGN. EITHER AS TO PLACEMENT OR STEEL AREA. ACTUAL PROJECT SPECIFICATIONS OR CURRENT ASTM WILL GOVERN.
3. CONSULT HYDRO CONDUIT CORP. LOCAL REPRESENTATIVE FOR FURTHER DETAILS NOT LISTED ON THIS DRAWING.

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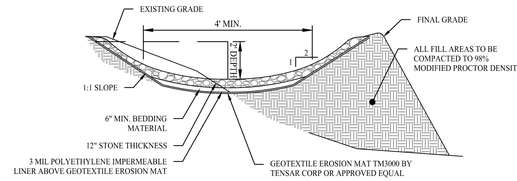
TULSA, OKLAHOMA 74158-1524
(918) 438-0230

CR 170 35 ISSUED 12/93

FLARED END SECTION DETAILS

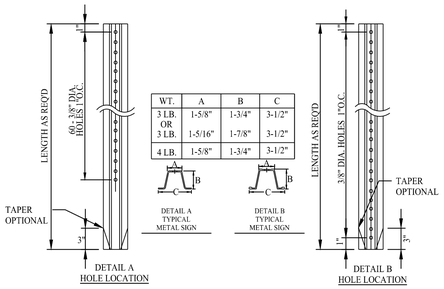
(WITH PRECAST STD, BASE AND CUSTOMER SPECIFIED OPENINGS)
FLAT TOP ECCENTRIC (CONCENTRIC ALSO AVAILABLE)

SCALE: NTS



STONE LINED DIVERSION CHANNEL WITHIN FILL SECTION DETAIL

SCALE: NTS

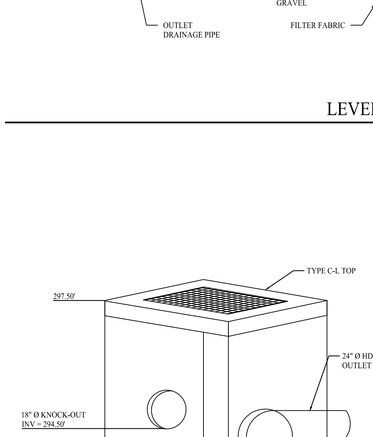


NOTES

1. STEEL FOR POSTS SHALL CONFORM TO THE MECHANICAL REQUIREMENTS OF ASTM AS 499-81 GRADE 60 AND TO THE CHEMICAL REQUIREMENTS OF ASTM AI-76 CARBON STEEL TEE RAIL HAVING NOMINAL WEIGHT OF 91 LBS OR GREATER PER LINEAR YARD.
2. AFTER FABRICATION ALL STEEL POSTS SHALL BE GALVANIZED TO MEET THE REQUIREMENTS OF ASTM A-123.
3. SIGN MOUNTING HEIGHT TO BE APPROVED BY THE ENGINEER.

TYPICAL METAL SIGN POSTS

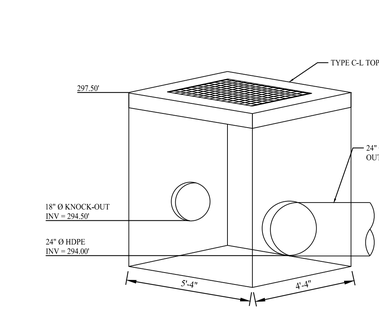
SCALE: NTS



PART NUMBER	DIM. "A"	DIM. "B"	TUBING MATERIAL	CHAIN LINK WIRE GAUGE	CHAIN LINK WIRE DIAMOND SIZE
071050	6'	10'	1-3/8" x 16 Gauge	11.5	2-1/4"
071051	6'	12'	1-3/8" x 16 Gauge	11.5	2-1/4"
071053	8'	10'	1-3/8" x 16 Gauge	11.5	2-1/4"
071072	6'	10'	1-3/8" x 16 Gauge	12.5	2-3/8"
071073	6'	12'	1-3/8" x 16 Gauge	12.5	2-3/8"
071077	6'	10'	1-3/8" x 16 Gauge	11.5	2-3/8"
071078	6'	12'	1-3/8" x 16 Gauge	11.5	2-3/8"

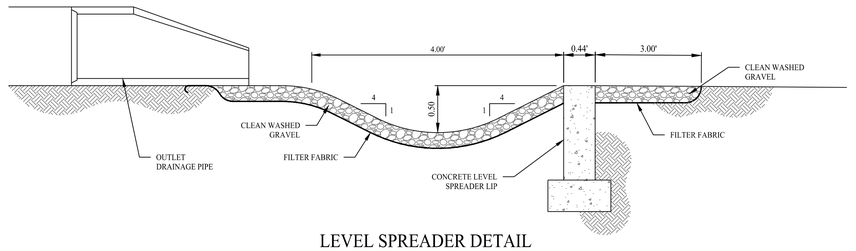
TEMPORARY CONSTRUCTION SAFETY FENCE

SCALE: NTS



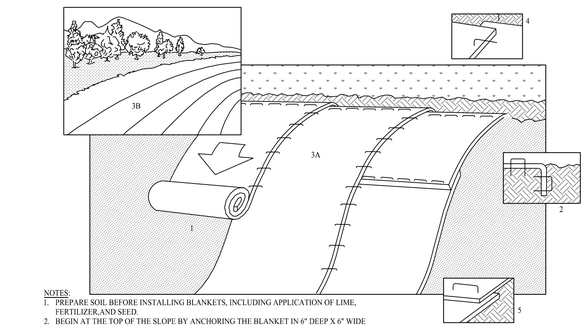
OUTLET CONTROL STRUCTURE (OCS-1)

SCALE: NTS



LEVEL SPREADER DETAIL

SCALE: NTS

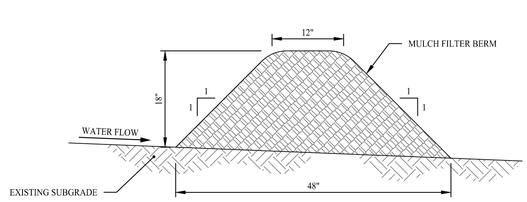


NOTES:

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER,AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 4" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.

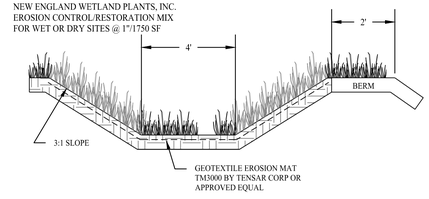
SLOPE STABILIZATION DETAIL

SCALE: NTS



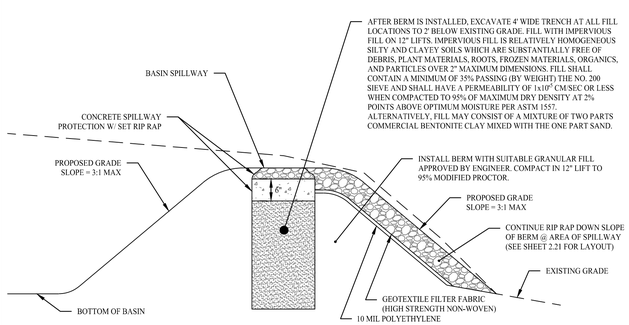
TEMPORARY MULCH BERM

SCALE: NTS



GRASS DIVERSION SWALE

SCALE: NTS



TYPICAL SPILLWAY SECTION

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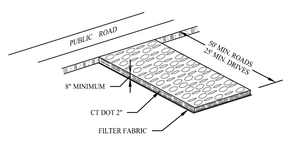


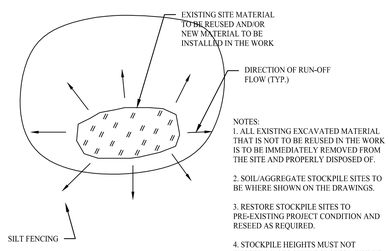
GRADATION TABLE

	CONN. DOT 2" CRUSHED GRAVEL	ASTM C-33 NO. 2	ASTM C-33 NO. 3
SQUARE MESH SIEVES	% FINER	% FINER	% FINER
2 1/2 INCHES	100	90-100	100
2 INCHES	95-100	35-70	90-100
1 1/2 INCHES	35-70	0-15	35-70
1 1/4 INCHES	0-25	---	---
1 INCHES	0-10	---	0-15
3/4 INCHES	---	0-5	---
1/2 INCHES	---	---	0-5
3/8 INCHES	---	---	---

SOURCE:
U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, STORRS, CONNECTICUT

CONSTRUCTION ENTRANCE

SCALE: NTS

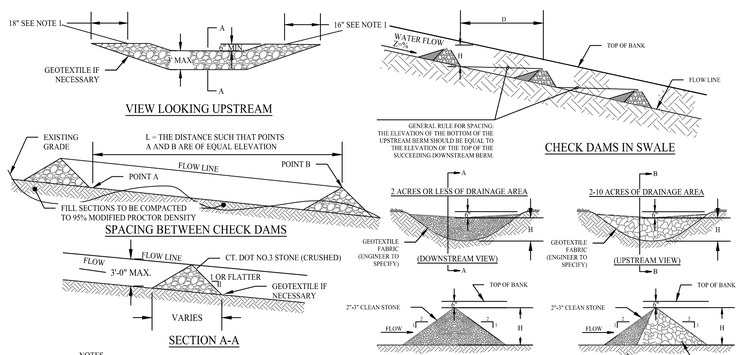


NOTES:

1. ALL EXISTING EXCAVATED MATERIAL THAT IS NOT TO BE REUSED IN THE WORK IS TO BE IMMEDIATELY REMOVED FROM THE SITE AND PROPERLY DISPOSED OF.
2. SOIL/AGGREGATE STOCKPILE SITES TO BE WHERE SHOWN ON THE DRAWINGS.
3. RESTORE STOCKPILE SITES TO PRE-EXISTING PROJECT CONDITION AND RESEED AS REQUIRED.
4. STOCKPILE HEIGHTS MUST NOT EXCEED 35'. STOCKPILE SLOPES MUST BE 2:1 OR FLATTER.

STOCKPILE AREA DETAIL

SCALE: NTS



NOTES

1. KEY STONE INTO THE DITCH BANKS AND EXTEND INTO THE ABUTMENTS A MINIMUM OF 18" TO PREVENT FLOW FROM FLANKING THE DAM.
2. THE MINIMUM DESIGN CAPACITY SHALL CONVEY A 2 YEAR-24 HOUR PEAK FLOW.

NOTE: SEE SITE MAP FOR LOCATION OF CHECK DAM(S).

STONE CHECK DAM DETAIL

SCALE: NTS

Rev. #:	Date	Description

SOLLI ENGINEERING
501 Main Street, Monroe, CT 06468 T: (203) 880-5455 F: (203) 880-9695
351 Newbury Street, Boston, MA 02115 T: (617) 203-3160 F: (203) 880-9695

Drawn By:	CJP
Checked By:	LAM
Approved By:	KMS
Project #:	2008001
Plan Date:	07/26/21
Scale:	NTS

STATE OF CONNECTICUT KEVIN M. SOLLI 25759 LICENSED PROFESSIONAL ENGINEER

Kevin Solli, P.E.
CT 25759

Project:

EXCAVATION/FILLING PERMIT APPLICATION

10 & 36 MAIN STREET
MONROE, CONNECTICUT

Sheet Title:	Sheet #:
DETAIL SHEET	3.01

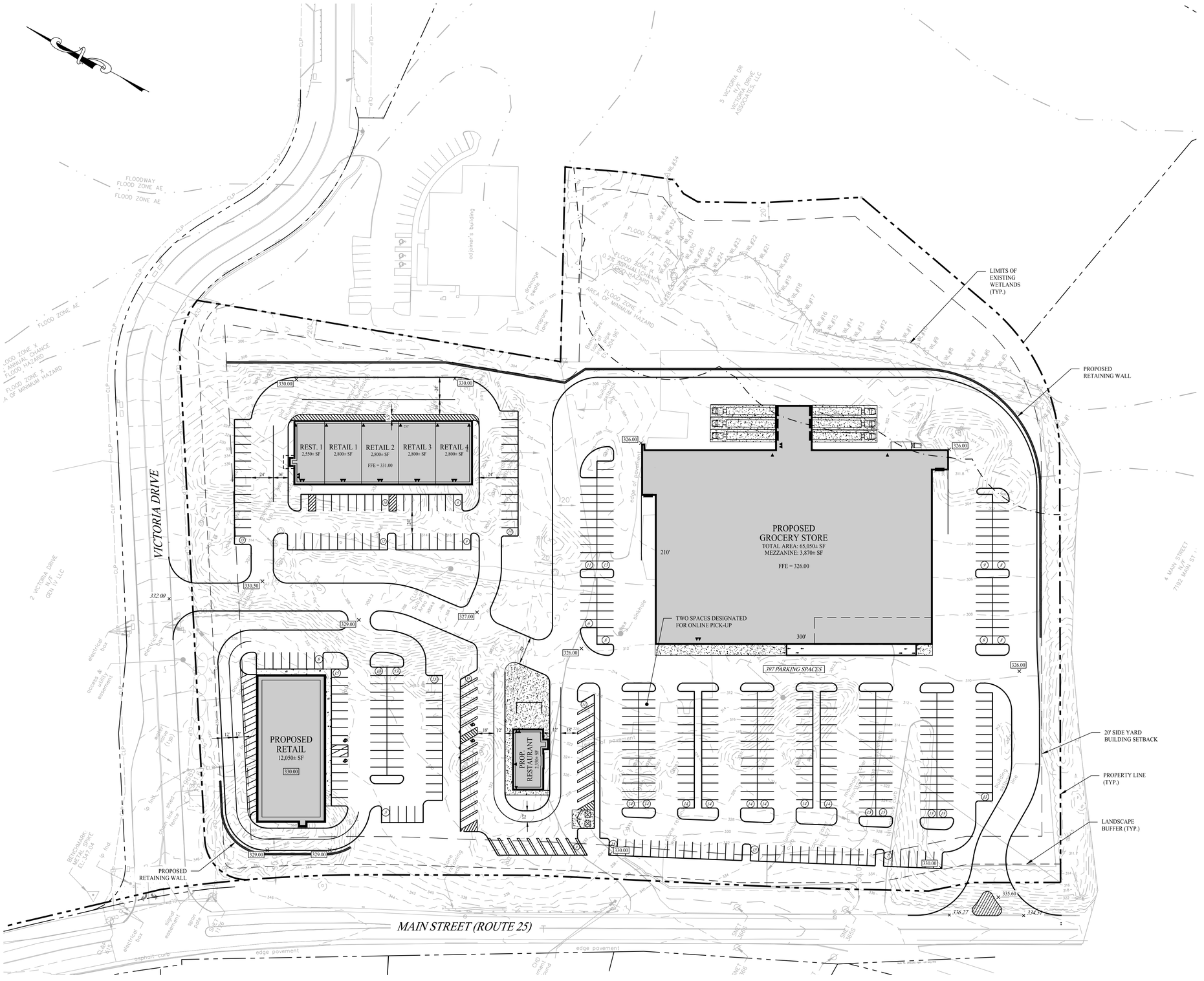
GENERAL NOTES

1. EXISTING SITE CONDITIONS TAKEN FROM A PLAN ENTITLED "IMPROVEMENT LOCATION SURVEY PREPARED FOR VISHAY SPRAGUE, INC, 10 & 36 MAIN STREET, MONROE, CONNECTICUT"; DATED: MAY 21, 2021; SCALE: 1" = 60'; PREPARED BY ACCURATE LAND SURVEYING, LLC.
2. THE SUBJECT PARCELS CONSIST OF A TOTAL AREA OF APPROXIMATELY 14.35 ACRES, LOCATED IN THE B-2 ZONING DISTRICT OF MONROE, CONNECTICUT. IN THE THE B-2 DISTRICT OF MONROE, RETAIL, RESTAURANTS & FAST-FOOD ARE PERMITTED.
3. A PORTION OF THE SITE LIES WITHIN THE 100-YEAR FLOOD PLAIN. FLOOD INFORMATION TAKEN FROM FEMA FLOOD INSURANCE RATE MAP, MAP NUMBER 9001C0286F, EFFECTIVE ON 06/18/2010.

PARKING SUMMARY

PROPOSED DEVELOPMENT	BLDG. AREA	TOWN REQ.	REQUIRED	PROVIDED
PROPOSED RETAIL	13,750 SF	5 SPACES / 1,000 SF	69	69
PROPOSED RETAIL	12,050 SF	5 SPACES / 1,000 SF	61	69
PROPOSED GROCER	65,050 SF	4 SPACES / 1,000 SF	261	287
PROPOSED FAST FOOD (W. PATIO)	2,350 (+775) SF	13 SPACES / 1,000 SF	41	41
TOTAL			409	466

* 50% OF FUEL PUMP SPACES MAY BE COUNTED TOWARD SUCH ADDITIONAL REQUIRED SPACES IN THE TOWN OF MONROE.



Rev. #:	Date	Description

Graphic Scale: 50 0 50 100

SOLLI ENGINEERING
501 Main Street, Monroe, CT 06468 T: (203) 880-5455 F: (203) 880-9695
351 Newbury Street, Boston, MA 02115 T: (617) 203-3160 F: (203) 880-9695

Drawn By:	AWC
Checked By:	LAM
Approved By:	KMS
Project #:	2008001
Plan Date:	07/26/21
Scale:	1" = 50'

Kevin Solli, P.E.
CT 25759

Project:

EXCAVATION/FILLING PERMIT APPLICATION

10 & 36 MAIN STREET
MONROE, CONNECTICUT

Sheet Title: POTENTIAL DEVELOPMENT PLAN

Sheet #: PDP

Town of Monroe

PLANNING AND ZONING COMMISSION

APPLICATION EXHIBITS

Application No: EFP-2021-02

File: 106

Description: EXCAVATION/FILLING PERMIT

Location: 10 & 36 MAIN STREET

** Rec'd Date/Location: H= Hearing/ O= Office

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