INLAND WETLANDS COMMISSION
REGULAR MEETING
MINUTES

March 13, 2024 @ 7:00 p.m.
Multi-Purpose Room #3, Newtown Community Center
8 Simpson Street, Newtown CT

These Minutes are subject to approval by the Inland Wetland Commission

Present: Sharon Salling, Mike McCabe, Scott Jackson, Mark D'Amico, Craig Ferris

Staff Present: Steve Maguire, Deputy Director of Land Use, Sebastian Velez, Land Use Enforcement Officer, Dawn Fried, Clerk

Ms. Salling opened the meeting at 7:00 p.m.

Ms. Salling welcomed the public and gave an overview of the public hearing guidelines.

PUBLIC HEARING

IW Application #24-03 by The Residence at Berkshire, LLC, property located at 296 Berkshire Road, to construct a new roadway with a stream crossing for an 11 single-family cluster-home development.

Ian Eller, P.E., of J. Edwards and Associates spoke on behalf of the applicant. Mr. Eller gave an overview of the concerns mentioned at the last IWC meeting.

- Confirmed there are 10 lots, not 11 lots.
- The wells located on lots #3 & #5 have been shifted to inside the limits of disturbance.
- The Landscape plans have been updated to reflect the new locations of the basins. (Site Plans dated 3-11-24.)

Mr. Ferris wanted clarification that the area being left undisturbed is along the river. Mr. Eller stated the limit of disturbance is illustrated on the plans, and yes the undisturbed area is along the river.

Mr. Ferris asked whether a certain amount of open space has been dedicated to the Town.
Mr. Eller stated yes, along the river.

Mr. D'Amico asked if Lot #7 will have lawn outside the limit of disturbance. Mr. Eller stated the limit of disturbance is at the end of the clearing, as proposed.

Public

Neil Baldino, Gelding Hill Road, VP Candlewood Valley Trout Unlimited – Mr. Baldino thanked the applicant for addressing the open space. Mr. Baldino asked if any of the issues he presented at the last meeting have been addressed. Please see attached letter.

Mr. Eller stated they will have safety procedures in place during construction and for the protection of the river. In addition, there will be on-site inspections and wetlands' monitoring.

Ms. Salling stated since additional questions have been asked she recommended the public hearing remain open.

Mr. Ferris moved to continue the Public Hearing for IW Application #24-03 by The Residence at Berkshire, LLC. Mr. McCabe seconded. All in favor. The Public Hearing for IW Application #24-03 by The Residence at Berkshire, LLC will be CONTINUED to March 27, 2024 at 7:00 pm, Multi-Purpose Room #3, Newtown Community Center, 8 Simpson Street, Newtown, CT.

IW Application #23-31 by Castle Hill Real Estate Holdings, LLC, property located at 20 & 60 Castle Hill Road, to construct a cluster-home community consisting of 117 single family units, community center and associated site improvements.

Attorney Thomas Beecher, Danbury CT, spoke on behalf of George Trudell, who could not be in attendance. Atty. Beecher gave a summary of the application.

- The site is located on 136 acres.
- Mr. Trudell and Joe Draper were determined to develop the site responsibly.
- The preserved portion includes all of the land surrounding Taunton Lake.
- The plan includes a permanent deed restriction of 84.7 acres which is 62% of the site.
- 41 acres of the remaining 51 acres will be disturbed over 6 phases of construction.
- 95 acres, which is 70% of entire site, will be untouched and undisturbed
- There will be a permanent public easement over Old Reservoir Road.

Atty. Beecher thanked the Commissioners for their time, questions and thoughtful input. He gave an overview of the correspondence between SLR and Tighe & Bond, the third party reviewer. Atty. Beecher quoted Tighe & Bond's response, "58 out of 60 comments were satisfactorily addressed". The remaining 2 comments can be conditions of approval which are (1) perform test pits on the foundations prior to the building permits and (2) provide a detailed sequencing schedule of the phases of construction to the Land Use office.

Atty. Beecher quoted Tighe & Bond's ending statement, "We commend the applicant for their thorough response."

Atty. Beecher gave a summary of the wetlands.

- 73% of the wetland review area will not be disturbed.
- Out of 3.72 acres of wetlands 1+% will be disturbed.

- Total of 3 Wetland disturbances. Two are wetland crossings and one is 435 sq. ft. of disturbance of the hillside seep.

Atty. Beecher stated that besides the mentioned wetlands, Ms. Raymond's opinion is there will not be any permanent impact to the wetlands or watercourses on or offsite, including the vernal pool. In addition, the hydrology of the watercourse will not be impacted.

Todd Ritchie, PE, SLR Consulting, Cheshire, CT, listed the submitted documents to date including the correspondence to and from Tighe & Bond and to and from Trinkaus Engineering. Mr. Ritchie stated no additional correspondence has been submitted since the public hearing on February 28, 2024.

Megan Raymond, Principal Soil Scientist, SLR Consulting, Cheshire, CT stated this concludes our summary. Ms. Raymond thanked the Commission and public for their time.

Mr. D'Amico asked whether a review had been done on the previously mentioned wetland pocket by the stonewall. Ms. Raymond stated she did not visit the site, but she did a thorough review of the photographs and topography data and her conclusions remain consistent, it is not a wetland. Atty. Beecher stated for the record there will be no construction anywhere near the stonewall.

Mr. D'Amico recently revisited the site. He noticed there was a significant saturated area with skunk cabbage and mossy rocks located at a tree clearing to the left of the existing driveway. Mr. D'Amico is concerned this wetland was missed in the initial review. Mr. D'Amico stated this soggy area is approximately 60-ft. in diameter. Ms. Raymond stated the entire area was traversed during the delineation process. Ms. Raymond described the differences between saturation and inundation. Ms. Raymond stated they used augers to test the soils, which is required by CT. Ms. Raymond stated she can say with confidence this area did not reveal poorly drained soils and these areas were reviewed and evaluated. She stated the State has very specific criteria for delineating a wetland, which is strictly based on soil indicators.

Mr. D'Amico pointed out that watercourses are determined differently and asked Ms. Raymond if the watercourses were treated as such. Ms. Raymond stated yes.

Mr. Ferris asked for clarification that at this time of year, especially with the precipitation we have had, it is not unusual that the ground is saturated and has standing water but the underlying soils do not demonstrate hydric-soil properties. Ms. Raymond stated that is one-hundred percent correct.

Mr. McCabe asked for clarification as to whom will oversee the landscape maintenance and snow removal after the project is completed. Atty. Beecher stated there will be a declaration of restrictions which the home-owners association will be responsible for and it will include pest and fertilizer restrictions.

Public

Bob Eckenrode, 7 Wildcat Road, Board Member of Newtown Forest Association - Thanked the Commission for to listening to their concerns regarding Castle Hill. Please see attached letter.

Steve Trinkaus, P.E., Southbury, CT, stated he is representing the Newtown Conservation Coalition. Mr. Trinkaus also reviewed the application for the Newtown Forest Association. Please see attached letter.

Dave Ackert, 6 Cider Mill Road – Mr. Ackert thanked the Commission for their hard work. He also thanked the Commission for continuing the public hearing which gave Mr. Trinkaus a chance to speak. Mr. Ackert stated the salamanders depend on the waterways and wetlands to live. Mr. Ackert presented a picture of a girl holding an Eastern box turtle, which was found at the end of the driveway. Mr. Ackert stated the turtles depend on clean and accessible wetlands and waterways. Mr. Ackert stated a National Diversity Data Base* (NDDB) review is required for this project. This review would assess how the creatures are being impacted and the NDDB would recommend a management plan. Mr. Ackert respectfully requested a complete environmental study. Mr. Ackert respectfully asked the Commission to deny this project until the study has been submitted.

*Please note the NDDB review is attached.

In response to Mr. Trinkaus's statements, Atty. Beecher noted:

- Tighe & Bond reviewed and submitted three separate reports. If there was any significant defects with the stormwater management plan or runoff, as claimed tonight, Tighe & Bond would have alerted them.
- There was reference to a borough zoning requirement, which Atty. Beecher did not agree with and pointed out is not the IWC purview. The wetlands have been delineated within a hundred feet of the lake on Reservoir Road and on the eastern side of the property.
- Atty. Beecher didn't think Mr. Trinkaus's negative comments were "called for" regarding Ms. Raymond's discussion of LID (low impact development). Please see attached.
- The exportation of materials will be done in phases over several years.
- The 2004 CT State Stormwater Quality manual is a guideline which is subject to the professional opinion of the project engineer.

Mr. Ritchie stated they have previously responded to Mr. Trinkaus's comments in the response letters. Tighe & Bond has also thoroughly reviewed and has responded in detail to Mr. Trinkaus's comments. Mr. Ritchie stated the flow rates are being reduced on the Newtown Forest Association's property.

Ms. Raymond stated with reference to the NDDB, this property has not been mapped as a critical habitat area or has any known sitings of state listed species. The spotted salamander is not a state listed species. There are added protections around the hydrology of the vernal pool. The protected forest on the lake will maintain the natural habitat for the eagles. Ms. Raymond stated

there are a lot of precautions in the site plan that will maintain habitat continuity and avoid critical and sensitive areas.
In conclusion, Atty. Beecher stated the following:

- Mr. Trudell will be managing this project from start to finish.
- Mr. Trudell is looking to protect and preserve a large portion of this property.
- They are not seeking to maximize the number of units they are allowed to build.
- They have shown alternatives to minimizing the wetland impacts.
- 73% of the upland review area will not be disturbed.
- Buffers will remain and be maintained.
- The alternative was 112 units rather than 136 units.
- Ms. Raymond has stated, in her professional opinion, that when this project is completed, it will not have any permanent impacts to the wetlands on or offsite with exception to the three small wetland areas that have been referenced.
- No groundwater or hydrologic resources will be diverted from the wetlands.
- Tighe & Bond is satisfied with SLR's responses and modifications. SLR is satisfied with Tighe & Bond's two conditions of approval.
- The project meets the standards and criteria of the Newtown Inland Wetland regulations.
- This is a reasonable and well-designed project and is the most feasible and prudent alternative.

Atty. Beecher thanked the Commission and asked for their approval, including Tighe and Bond's two conditions and the Town's standard conditions.

Public

Mary Wilson, 12 Whippoorwill Hill Road – Ms. Wilson noted there is a 100-ft buffer around the vernal pool and beyond the buffer is a pickleball court and a swimming pool. Ms. Wilson stated that DEEP recommends a 400-ft buffer around a vernal pool. Ms. Wilson noted the applicant stated improvements were made to the vernal pool. Ms. Wilson asked what has been done.

Ms. Raymond stated there is no standardized buffer to a vernal pool at the state level. Ms. Raymond stated they looked at the metrics of the hydrology and the species in the area. The vernal pool exists within the upland review area. Ms. Raymond stated they have upsized the pipe at the crossing, which will include natural bottom materials for the amphibians and small mammals to move through.

Ms. Salling stated this application has reached its time limit for a public hearing and no additional extensions will be granted. The Commission will have time to deliberate, but the public hearing is required to close.

Mr. McCabe moved to close the Public Hearing for IW Application #23-31 by Castle Hill Real Estate Holdings, LLC. Mr. Jackson seconded. All in favor. The Public Hearing is CLOSED for IW Application #23-31 by Castle Hill Real Estate Holdings, LLC.

Pending IW Application #23-31 by Castle Hill Real Estate Holdings, LLC will be CONTINUED to March 27, 2024 at 7:00 pm, Multi- Purpose Room #3, Newtown Community Center, 8 Simpson Street, Newtown, CT.

PENDING APPLICATIONS

IW Application #23-33 by Azeez Bhavnagarwala, Muslim Society Greater Danbury, property located at 115 Mt. Pleasant Road for the extension of the east building, the extension of the foundation of the west building, milling the surface of the parking lot and to regrade 113 Mt. Pleasant for soccer field.

Alan Shepard, PE, Nowakowski, O'Bymachow, Kane & Associates, Howe Ave, Shelton, CT spoke on behalf of the applicant. Mr. Shepard stated there have been major changes to the project since the last meeting. Mr. Shepard described the proposed addition to the school building. He stated they have shifted the addition to the front and side and is no longer in the back. The Mosque building will have the same footprint. There was a patio in the back but that is being removed.

Mr. Shepard explained the need for parking varies throughout the course of the year. They need more parking spaces in the summer. They will use the soccer field for the overflow parking.

Mr. Shepard stated since they are removing the back parking lot they can concentrate on the water quality and maintaining the flow patterns. They will dig out the fill on top of the wetlands that has been there for years, install 2" pea stones, add filter fabric and finish with ¾" stone and a sand bed that will enable the water to drain. Mr. Shepard stated they will add a planting buffer around the stormwater treatment area and additional plantings along the soccer field.

Mr. McCabe asked how will they cross onto the soccer field. Mr. Shepard stated they are installing a larger 36" pipe to keep the same swale and to allow "critters" to go back and forth.

Mr. Maguire reiterated from the last meeting that he would like to see an increased buffer. Mr. Shepard stated that Mr. McManas (soil scientist) completed a revised planting plan but it was not submitted. Mr. Shepard asked the Commission if they would like to add the planting plan as a condition of approval. The Commission agreed they would like to review the planting plan before taking a vote.

Mr. Maguire was happy with the revisions. Mr. Maguire asked what material will be used for the accessway. Mr. Shepard stated thin millings or gravel.

Mr. Ferris asked how often the overflow parking will be used. Mr. Bhavnagarwala responded there are three big events a year and random weddings. The main parking is enough for normal use which is 30 to 40 cars. They plan to use the soccer fields for recreation.

Mr. D'Amico asked whether the crossing can handle more traffic and whether the soccer field can handle storm events. Mr. Shepard stated yes but if the parking increases in the future they will consider other options.

Mr. D'Amico would like to see a cross section of the crossing. Mr. Shepard will submit a separate 8 ½" x 11" sheet.

Ms. Salling reiterated she would like the planting plan be submitted before taking a vote. The Commission concurred.

IW Application #23-33 by Azeez Bhavnagarwala, Muslim Society Greater Danbury will be CONTINUED to March 27, 2024 at 7:00 pm, Multi- Purpose Room #3, Newtown Community Center, 8 Simpson Street, Newtown, CT.

APPROVAL OF MINUTES

The Commission found no substantive errors. Mr. Ferris moved to accept the minutes from February 28, 2024. Mr. Jackson seconded. All in favor. The minutes from February 28, 2024 were approved.

ADJOURNMENT

With no additional business, Mr. Ferris moved to adjourn. Mr. Jackson seconded. All in favor. The Regular IWC Meeting of March 13, 2024 was adjourned at 8:57 pm.

Respectfully Submitted, Dawn Fried

Natural Diversity Data Base Areas

NEWTOWN, CT

December 2023

State and Federal Listed Species

Critical Habitat

Town Boundary

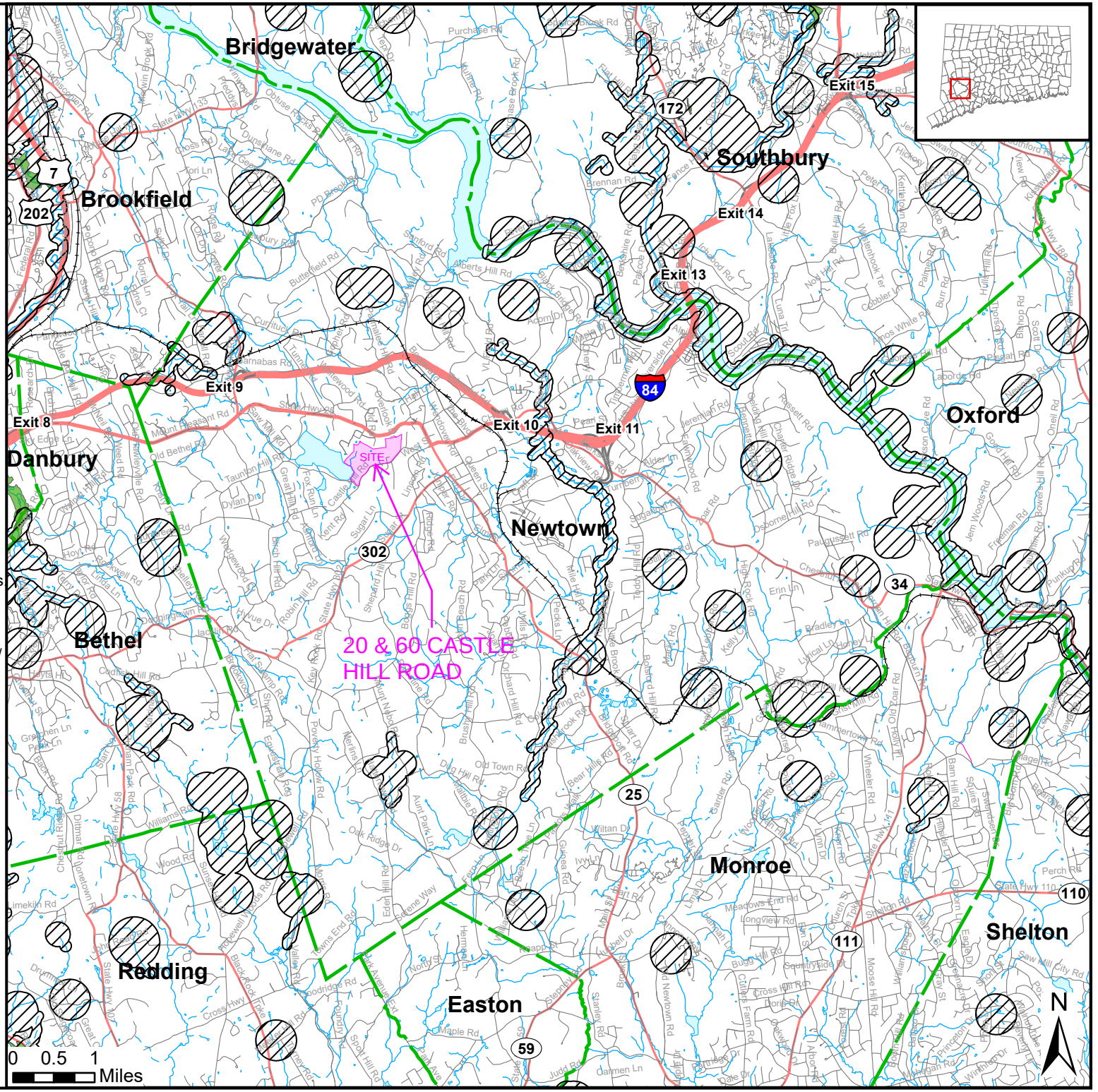
NOTE: This map shows known locations of State and Federal Listed Species and Critical Habitats. Information on listed species is collected and compiled by the Natural Diversity Data Base (NDDB) from a variety of data sources . Exact locations of species have been buffered to produce the generalized locations.

This map is intended for use as a preliminary screening tool for conducting a Natural Diversity Data Base Review Request. To use the map, locate the project boundaries and any additional affected areas If the project is within a hatched area there may be a potential conflict with a listed species. For more information, use DEEP ezFile https://filings.deep.ct.gov/DEEPPortal/ to submit a Request for Natural Diversity Data Base State Listed Species Review or Site Assessment. More detailed instructions are provided along with the request form on our website. https://portal.ct.gov/deep-nddbrequest

Use the CTECO Interactive Map Viewers at http://cteco.uconn.edu to more precisely search for and locate a site and to view aerial imagery with NDDB Areas.

QUESTIONS: Department of Energy and Environmental Protection (DEEP)
79 Elm St, Hartford, CT 06106
email: deep.nddbrequest@ct.gov
Phone: (860) 424-3011

Connecticut Department of Energy & Environmental Protection



Low Impact Development (LID) Approaches to the Castle Hill Village Development Site Design

1. Minimize Site Disturbance

- By designing a more compact cluster-type development on the combined 138.5 acre project site, 97.7 acres (70%) of the property will remain entirely undisturbed and of those 97.7 acres, 80.7 acres (58% of the overall site) will become part of the town open space conservation area.

2. Protecting Sensitive Natural Areas

- No disturbance is proposed within 100' of the onsite vernal pool.
- No stormwater discharges will drain towards the vernal pool.
- Total temporary and permanent wetland impacts are limited to approximately 0.05 acres. These impacts are associated with the proposed replacements for the existing antiquated pipe culvert and farm drain wetlands crossings and construction in area of a wetland seep.
- Stormwater Best Management Practices (BMPs) have been designed for stormwater discharge rate control and water quality treatment in accordance with applicable guidelines of the 2004 Stormwater Quality Manual.
- Holistic Landscape Management Practices – serves to minimize cumulative indirect wetland impacts over time.

3. Preserving Vegetative Buffers

- 99% of buildings are outside of the 100' upland review area from wetlands.

4. Avoiding Disturbance of Steep Slopes

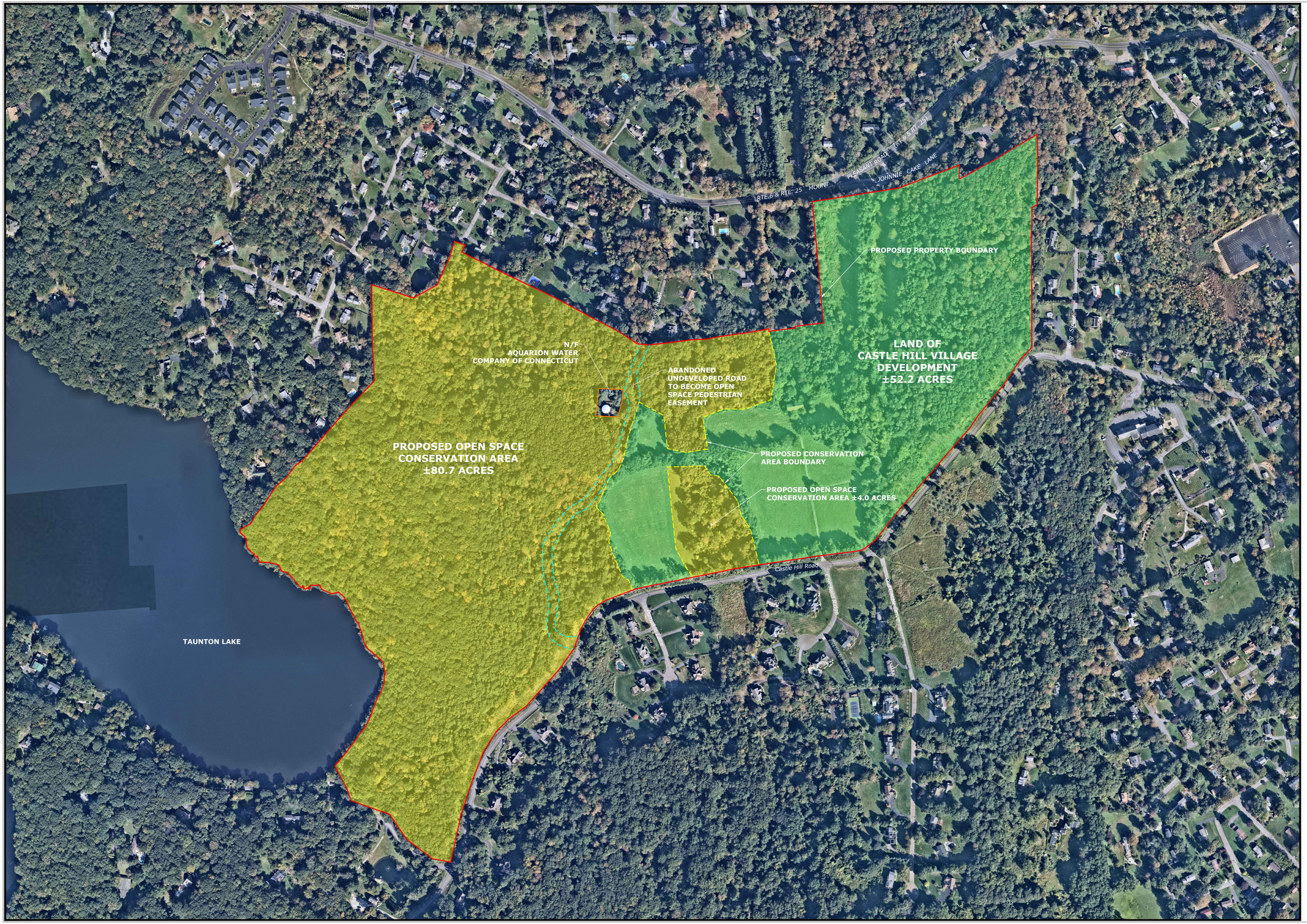
- The limit of disturbance for the proposed development includes approximately 0.6 acres of steep slopes, out of the approximately 25 acres of steep slopes located on the combined 138.5 acres site.

5. Protecting Natural Flow Pathways

- The proposed culvert across Meadow View Lane includes an oversized pipe partially filled with a wetland substrate material to provide a natural travel corridor for wetland dependent species.
- Stormwater Best Management Practices (BMPs) have been designed for stormwater discharge rate control and water quality treatment in accordance with applicable guidelines of the 2004 Stormwater Quality Manual.

6. Minimize Total Impervious Coverage

- Proposed onsite impervious coverage does not exceed 10-20%, which is considered a threshold to maintain healthy streams. The total proposed onsite impervious coverage is approximately 13.2 acres, which is **9.5%** of the overall 138.5-acre site and is **19.8%** of the 66.4-acre parcel comprising 20 Castle Hill Road. All new site development is proposed within the existing property boundary of 20 Castle Hill Road.



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W E
S

0' 100' 200'
0 1/2" 1"

SLR

99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773
SLRCONSULTING.COM

DESCRIPTION	DATE	BY

PROPOSED OPEN SPACE CONSERVATION AREA PLAN

CASTLE HILL VILLAGE
RESIDENTIAL OPEN SPACE DEVELOPMENT

20 & 60 CASTLE HILL ROAD
NEWTOWN, CONNECTICUT

SMM	SMM	TDR
DESIGNED	DRAWN	CHECKED

SCALE: 1"=200'

DATE: NOVEMBER 8, 2023

PROJECT NO.: 20080.00003

SHEET NO.: 2 OF 51

SHEET NAME: CP

SITE PLAN - TREE CLEARING PLAN

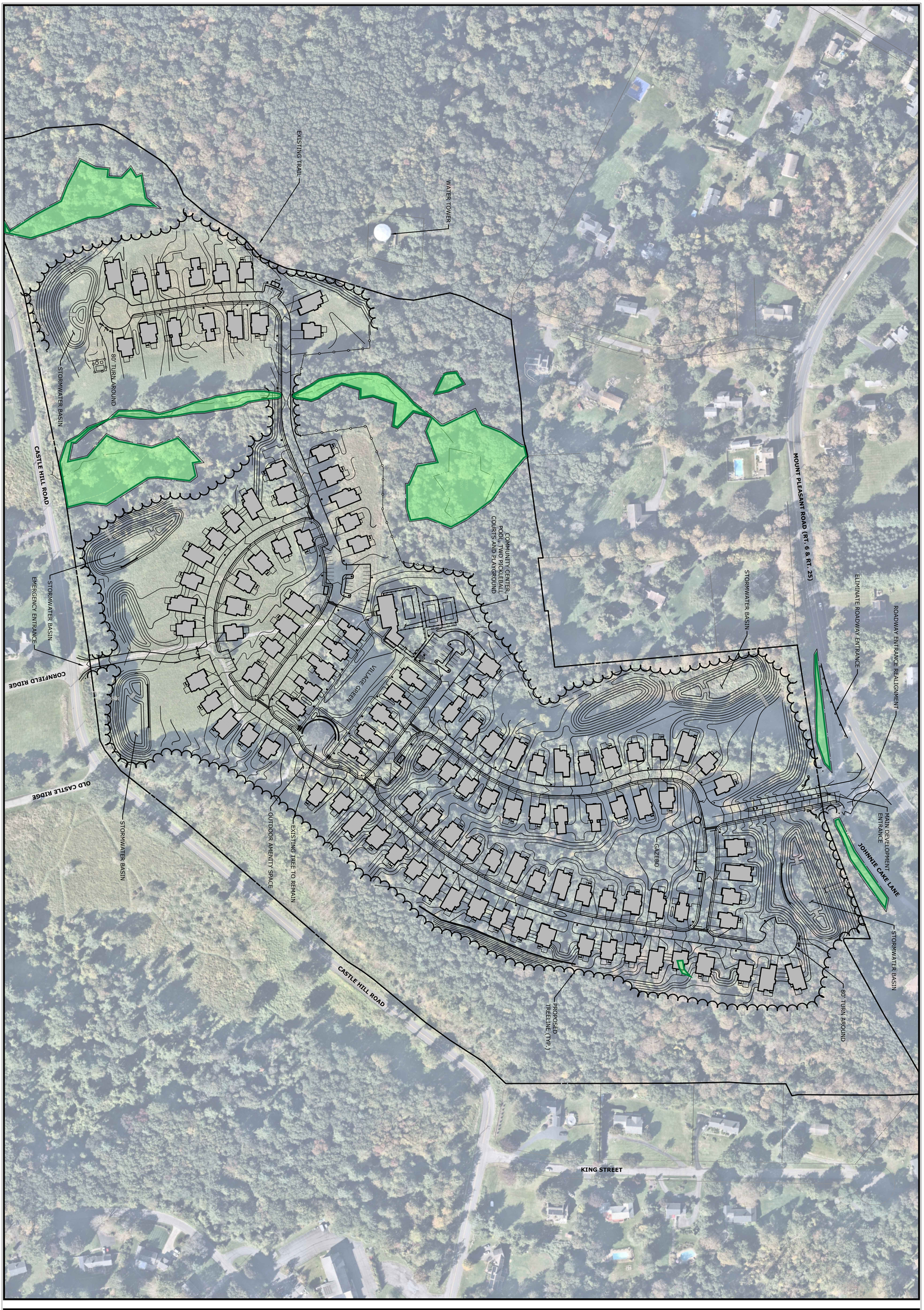
CASTLE HILL VILLAGE
RESIDENTIAL OPEN SPACE DEVELOPMENT

20 & 60 CASTLE HILL ROAD
NEWTOWN, CONNECTICUT

DESCRIPTION	DATE	BY

SLR
99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773
SLRCONSULTING.COM

SHEET NAME	TC
SHEET NO.	51 OF 51
PROJECT NO.	20080.00003
DATE	JANUARY 5, 2024
SCALE	1"=200'
DESIGNED	SMM
DRAWN	SMM
CHECKED	TDR



SHEET NAME: SP

SHEET NO: 5 OF 51

PROJECT NO: 20080.00003

DATE: NOVEMBER 8, 2023

SCALE: 1"=100'

DESIGNED: SMM
DRAWN: SMM
CHECKED: TDR

SITE PLAN - OVERALL

CASTLE HILL VILLAGE
RESIDENTIAL OPEN SPACE DEVELOPMENT

20 & 60 CASTLE HILL ROAD
NEWTOWN, CONNECTICUT

DESCRIPTION	DATE	BY

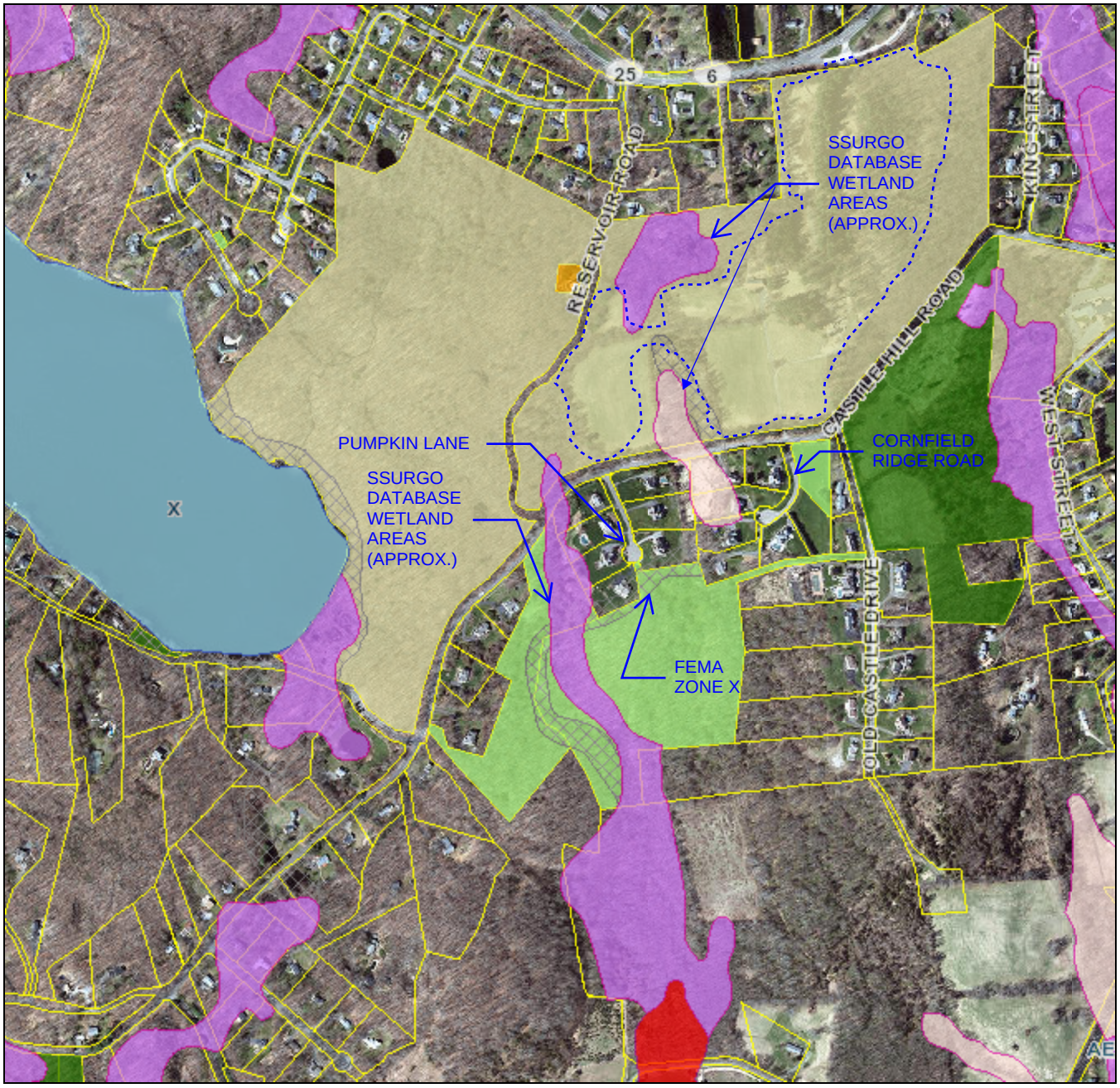
SLR
99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773
SLRCONSULTING.COM

0 50 100 200
1" = 100'

Town of Newtown

Geographic Information System (GIS)

Date Printed: 1/9/2024



MAP DISCLAIMER - NOTICE OF LIABILITY

This map is for assessment purposes only. It is not for legal description or conveyances. All information is subject to verification by any user. The Town of Newtown and its mapping contractors assume no legal responsibility for the information contained herein.

Approximate Scale: 1 inch = 800 feet

0 800 Feet

N W E S

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Connecticut State Plane (FIPSZONE 0600). The **horizontal datum** was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, NNGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3182
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was provided in digital format by the Connecticut Department of Environmental Protection. This information was derived from digital orthophotos produced at a scale of 1:12,000 from aerial photography flown in 2004 supplemented with aerial photography from 2005.

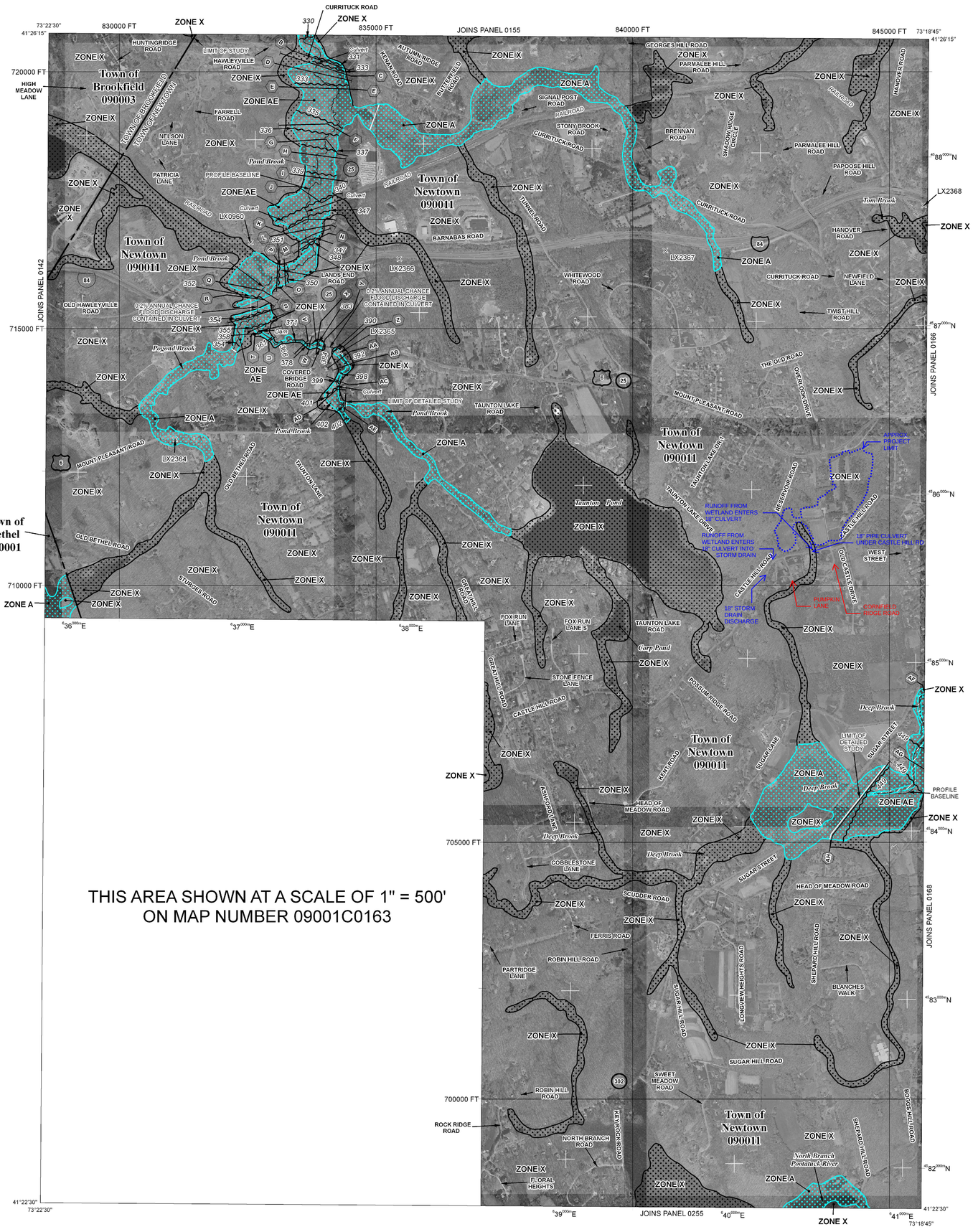
Based on updated topographic information, this map reflects more detailed and up-to-date **stream channel configurations and floodplain delineations** than those shown on the previous FIRM for this jurisdiction. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map. Also, the road to floodplain relationships for unrevised streams may differ from what is shown on previous maps.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://www.msc.fema.gov/.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov.



LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

- A — A — Cross section line
- 23 — 23 — Transect line
- 87°07'45", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 4376000mN — 1000-meter Universal Transverse Mercator grid values, zone 18
- 600000 FT — 5000-foot grid values: Connecticut State Plane coordinate system (FIPSZONE 0600), Lambert Conformal Conic projection
- DX5510 × — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- ●M1.5 — River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
June 18, 2010

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 1000'
500 0 1000 2000 FEET
300 0 300 600 METERS

NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0165F

FIRM
FLOOD INSURANCE RATE MAP

FAIRFIELD COUNTY, CONNECTICUT
(ALL JURISDICTIONS)

PANEL 165 OF 626
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
BETHEL, TOWN OF	090001	0165	F
BROOKFIELD, TOWN OF	090003	0165	F
NEWTOWN, TOWN OF	090011	0165	F

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

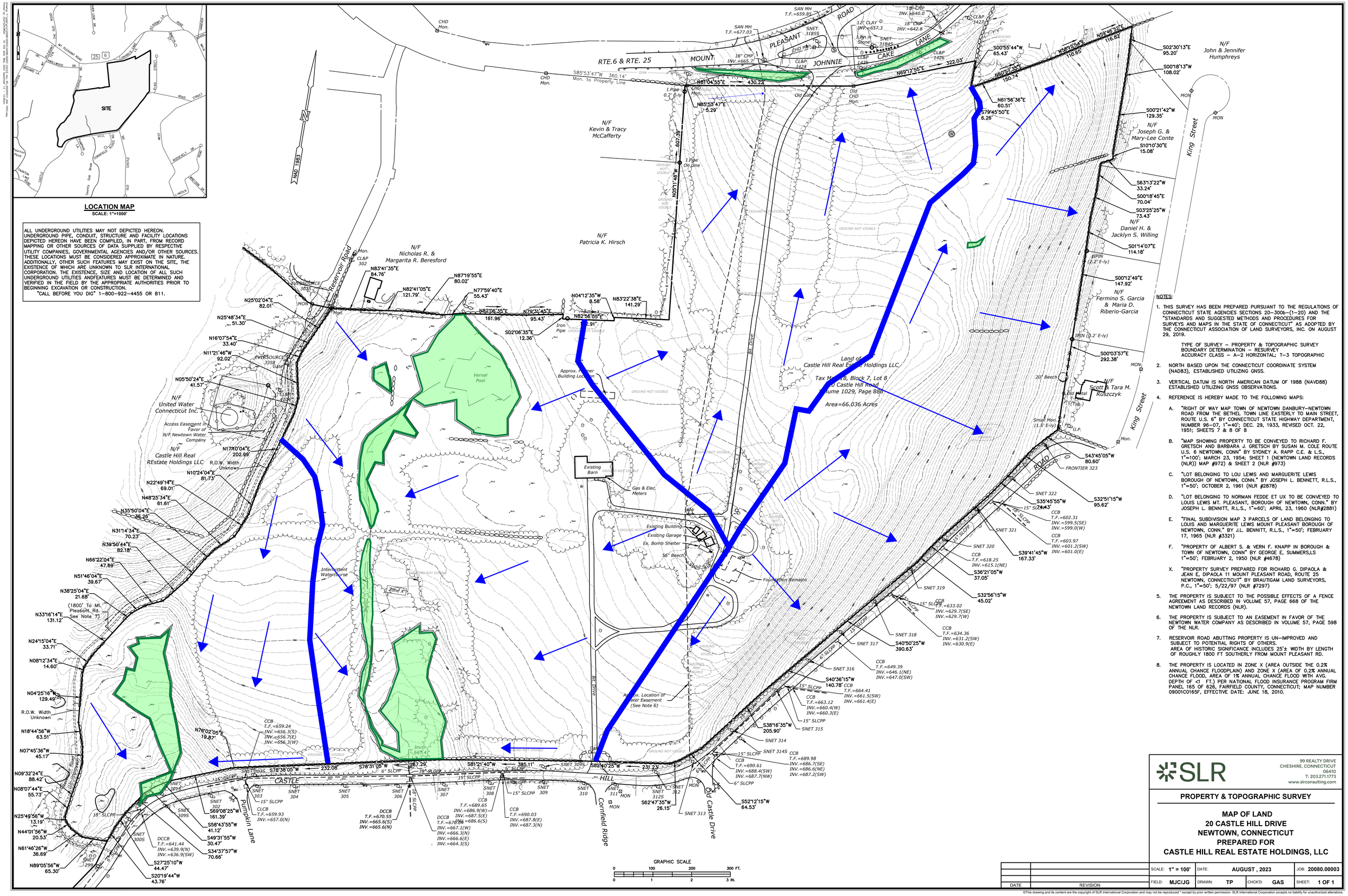
MAP NUMBER
09001C0165F

EFFECTIVE DATE
JUNE 18, 2010

Federal Emergency Management Agency

LOCATION MAP
SCALE: 1"=1000'

ALL UNDERGROUND UTILITIES MAY NOT NOT DEPICTED HEREON. UNDERGROUND PIPE, CONDUIT, STRUCTURE AND FACILITY LOCATIONS DEPICTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING OR OTHER SOURCES OF DATA SUPPLIED BY RESPECTIVE UTILITY COMPANIES, GOVERNMENTAL AGENCIES AND/OR OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE, THE EXISTENCE OF WHICH ARE UNKNOWN TO SLR INTERNATIONAL CORPORATION. THE EXISTENCE, SIZE AND LOCATION OF ALL SUCH UNDERGROUND UTILITIES ANDFEATURES MUST BE DETERMINED AND VERIFIED IN THE FIELD BY THE APPROPRIATE AUTHORITIES PRIOR TO BEGINNING EXCAVATION OR CONSTRUCTION.
"CALL BEFORE YOU DIG" 1-800-922-4455 OR 811.



NOTES:

1. THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-(1-20) AND THE "STANDARDS AND SUGGESTED METHODS AND PROCEDURES FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON AUGUST 29, 2019.
   TYPE OF SURVEY – PROPERTY & TOPOGRAPHIC SURVEY
   BOUNDARY DETERMINATION – RESURVEY
   ACCURACY CLASS – A-2 HORIZONTAL; T-3 TOPOGRAPHIC
2. NORTH BASED UPON THE CONNECTICUT COORDINATE SYSTEM (NAD83), ESTABLISHED UTILIZING GNSS.
3. VERTICAL DATUM IS NORTH AMERICAN DATUM OF 1988 (NAVD88) ESTABLISHED UTILIZING GNSS OBSERVATIONS.
4. REFERENCE IS HEREBY MADE TO THE FOLLOWING MAPS:
   A. "RIGHT OF WAY MAP TOWN OF NEWTOWN DANBURY-NEWTOWN ROAD FROM THE BETHEL TOWN LINE EASTERLY TO MAIN STREET, ROUTE U.S. 6" BY CONNECTICUT STATE HIGHWAY DEPARTMENT, NUMBER 96-07, 1"=40'; DEC. 29, 1933, REVISED OCT. 22, 1951; SHEETS 7 & 8 OF 8
   B. "MAP SHOWING PROPERTY TO BE CONVEYED TO RICHARD F. GRETSCH AND BARBARA J. GRETSCH BY SUSAN M. COLE ROUTE U.S. 6 NEWTOWN, CONN" BY SYDNEY A. RAPP C.E. & L.S., 1"=100'; MARCH 23, 1954; SHEET 1 (NEWTOWN LAND RECORDS (NLR)) MAP #972) & SHEET 2 (NLR #973)
   C. "LOT BELONGING TO LOU LEWIS AND MARGUERITE LEWIS BOROUGH OF NEWTOWN, CONN." BY JOSEPH L. BENNETT, R.L.S., 1"=50'; OCTOBER 2, 1961 (NLR #2878)
   D. "LOT BELONGING TO NORMAN FEDDE ET UX TO BE CONVEYED TO LOUIS LEWIS MT. PLEASANT, BOROUGH OF NEWTOWN, CONN." BY JOSEPH L. BENNITT, R.L.S., 1"=60'; APRIL 23, 1960 (NLR#2881)
   E. "FINAL SUBDIVISION MAP 3 PARCELS OF LAND BELONGING TO LOUIS AND MARGUERITE LEWIS MOUNT PLEASANT BOROUGH OF NEWTOWN, CONN." BY J.L. BENNITT, R.L.S., 1"=50'; FEBRUARY 17, 1965 (NLR #3321)
   F. "PROPERTY OF ALBERT S. & VERN F. KNAPP IN BOROUGH & TOWN OF NEWTOWN, CONN" BY GEORGE E, SUMMERS,LS 1"=50'; FEBRUARY 2, 1950 (NLR #4678)
   X. "PROPERTY SURVEY PREPARED FOR RICHARD G. DIPAOLA & JEAN E, DIPAOLA 11 MOUNT PLEASANT ROAD, ROUTE 25 NEWTOWN, CONNECTICUT" BY BRAUTIGAM LAND SURVEYORS, P.C., 1"=50'; 5/22/97 (NLR #7297)
5. THE PROPERTY IS SUBJECT TO THE POSSIBLE EFFECTS OF A FENCE AGREEMENT AS DESCRIBED IN VOLUME 57, PAGE 668 OF THE NEWTOWN LAND RECORDS (NLR).
6. THE PROPERTY IS SUBJECT TO AN EASEMENT IN FAVOR OF THE NEWTOWN WATER COMPANY AS DESCRIBED IN VOLUME 57, PAGE 598 OF THE NLR.
7. RESERVOIR ROAD ABUTTING PROPERTY IS UN-IMPROVED AND SUBJECT TO POTENTIAL RIGHTS OF OTHERS.
   AREA OF HISTORIC SIGNIFICANCE INCLUDES 25'± WIDTH BY LENGTH OF ROUGHLY 1800 FT SOUTHERLY FROM MOUNT PLEASANT RD.
8. THE PROPERTY IS LOCATED IN ZONE X (AREA OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AND ZONE X (AREA OF 0.2% ANNUAL CHANCE FLOOD, AREA OF 1% ANNUAL CHANCE FLOOD WITH AVG. DEPTH OF <1 FT.) PER NATIONAL FLOOD INSURANCE PROGRAM FIRM PANEL 165 OF 626, FAIRFIELD COUNTY, CONNECTICUT; MAP NUMBER 09001C0165F, EFFECTIVE DATE: JUNE 18, 2010.

SLR
99 REALTY DRIVE
CHESHIRE, CONNECTICUT
06410
T: 203.271.1773
www.slrconsulting.com

PROPERTY & TOPOGRAPHIC SURVEY

MAP OF LAND
20 CASTLE HILL DRIVE
NEWTOWN, CONNECTICUT
PREPARED FOR
CASTLE HILL REAL ESTATE HOLDINGS, LLC

DATE	REVISION	SCALE: 1" = 100'	DATE: AUGUST , 2023	JOB: 20080.00003
		FIELD: MJC/JG	DRAWN: TP / CHK'D: GAS	SHEET: 1 OF 1

IWC Mtg.
3/13/24
#7

TROUT UNLIMITED
CANDLEWOOD VALLEY

To: Newtown Inland Wetlands Commission

March 13, 2024

From: Candlewood Valley Trout Unlimited

Re: IW Application #24-03 The Residence at Berkshire

At the February 28, 2024, IWC meeting, I provided an information handout regarding the 296 Berkshire Road project. I explained that the Halfway River is a special resource which deserves appropriate protection. The information handout listed concerns with the project and their possible impacts on the Halfway River including those listed below.

The most recent drawings were reviewed, adding some new concerns. We would be most interested in hearing what steps the applicant and the Commission have taken since the last hearing to address our concerns. These are:

- Minimize the amount of forest and canopy being cut to maintain shade cover in the valley.
- Ledge blasting and ground disruption –This site has very steep grades - Concerns with runoff, during and after construction which can lead to unwanted silt, sediment and heated stormwater thermal shocks entering the watercourse.
- Maintenance of the stormwater catch basins and rain gardens (both during and after construction). Bioretention basin #2 now appears to be located partially on lot #8 and partially on the Open Space. There does not appear to be access for maintenance of the basin. Who will maintain it? How will they gain access?
- Is the device located between the driveways at the end of the entrance road a rain garden or a bioretention basin. Who will maintain it?
- Several of the lots will require fill with very steep slopes, building lots #4- #7. What will be done to minimize erosion and runoff during construction for those sites?
- What are the plans for containment of biohazards during construction; Diesel fuels, grease, oils, building materials...

We thank the Commission for your close attention to our concerns.

Sincerely,

Neil F. Baldino

VP Candlewood Valley Trout Unlimited

CANDLEWOOD VALLEY CHAPTER
TROUT UNLIMITED
P.O Box 3795, Danbury, CT 06810

IWC
mtg 3-13-24
#07

Newtown Forest Association, Inc.

P.O Box 213
Newtown, CT 06470
www.newtownforestassociation.org

A Century of Conservation
Founded 1924

Trent McCann
Executive Director

The Newtown Forest Association, Inc is a 501(c)3 nonprofit organization.

EIN = 06-6079549

March 13, 2024

To: Newtown Inland Wetlands Commission
Ms. Sharon Salling (Chair), Mr. Craig Ferris, Ms. Suzanne Guidera, Ms, Kendall Horch, Mr. Michael McCabe, Mr. Scott Jackson, & Mr. Mark D'Amico

Re: IW Application #23-31 by Castle Hill Real Estate Holdings, LLC

The Newtown Forest Association (NFA), an abutting landowner to this application, has reviewed the latest responses provided by the applicant. The application as it currently stands does not provide an adequate storm water management system to sufficiently protect inland wetlands on our downgradient property, the treasured Nettleton Preservation on 13 Castle Hill Road.

Nettleton is a fragile nature preserve of 26 acres with a 50+ year old orchard including memorial trees, meadows, wetlands, public trails & iconic views of the town center flag pole & church steeples. This property provides valuable habitat to a variety of woodland and wetland species such as the New England cottontail (threatened species currently monitored by DEEP on this property), wild turkey, a wide range of songbirds, and many other local species. To reiterate from our previous statement, the NFA has been managing drainage issues on this property for years and has already spent substantial stewardship funds to manage the current situation. **Any additional runoff volume & pollutant load will be to the detriment of this conserved space and the biodiversity found here.**

Trinkaus Engineering, who designed the existing plunge pools and forebays on the Nettleton preserve and is very familiar with drainage issues on this property, asserts this current application as proposed will cause the following impacts:

- Approximately 4 acres of the currently forested area on the west side of the road will no longer exist; **the overland flow will no longer occur in this area and infiltrate within the forested area.**
- **There will be a concentrated runoff flow toward The Nettleton Preserve via basin 310.** While the applicant claims that peak rates are being reduced in the direction of the preserve, there will still be a substantial increase in the runoff volume as noted below. The increase of runoff volume is due to the lack of infiltration of post-development runoff on the subject property.
- Pre- development runoff volume = 24,729 cubic feet (2-year event)
- Post-development runoff volume = 36,705 cubic feet (2-year event)
- **NET INCREASE OF RUNOFF VOLUME = 11,976 cubic feet (2-year event), 89,580.48 gallons; This is almost a 50% increase in runoff for each 2-year event onto Nettleton**
- **Increased pollutant load will be discharged onto Nettleton annually.** The applicant previously stated that metals would not be found in the post-development runoff and according to Trinkaus Engineering that is not correct. The primary source of metals are from vehicle brakes and wearing of

Newtown Forest Association, Inc.

P.O Box 213
Newtown, CT 06470
www.newtownforestassociation.org

A Century of Conservation
Founded 1924

Trent McCann
Executive Director

tires, and as there are driveways and road surfaces in the watershed area draining to the Nettletown Preserve, there will be metal loads as stated below:

- ~ TSS (Suspended Solids), 674.12 pounds
- ~ TN (Nitrogen), 27.4 pounds
- ~ TP(Phosphorous), 3.0 pounds
- ~ Zn (Zinc) & Cu (Copper), 2.29 pounds *calculated by Trinkaus Engineering, LLC
- ~ TPH (Petroleum Hydrocarbons), 22.74 pounds

It is well documented that increased runoff volumes do cause erosion of natural stream channels and these increased volumes will fundamentally alter the habitat on our property. This increased runoff will carry harmful pollutants and deposit them into the Nettleton ecosystem, **inflicting irreversible and irretrievable loss on the existing wetlands** (*see reg 10.2.d*). According to US Climate Data, 2023 was one of the wettest years on record for the state of Connecticut and we have every reason to believe that is a trend likely to continue.

While the NFA supports the right for a landowner to develop their property, it MUST be done in a responsible manner and can NOT be at the expense, encroachment, and damage to a neighboring property (*see State Statute Sec. 52-560a*). Runoff and pollutants must be contained within the property being developed, it is unacceptable to dump / pass runoff of this scope and scale to a neighboring property, especially when it is a conserved nature preserve (*see reg 10.2.f*). There are storm water management system alternatives that would cause less or no environmental impact (*see reg 10.2.b*) and we respectfully request that those alternatives are sought so that impact is prevented and eliminated.

It is the NFA's responsibility, as a land trust, to protect our properties from destruction. **It is not the responsibility of the NFA to manage and remediate runoff being created and passed down by a new development.** For these reasons, we respectfully request that you reject this proposal as it is currently presented and help the NFA protect this precious preservation.

Sincerely,

Bart Smith

NFA President

IWC mtg
3-13-24 #7

LOW IMPACT SUSTAINABLE LISD DEVELOPMENT TRINKAUS ENGINEERING

Trinkaus Engineering, LLC
114 Hunters Ridge Road
Southbury, Connecticut 06488
203-264-4558 (office)
+1-203-525-5153 (mobile)
E-mail: strinkaus@earthlink.net
http://www.trinkausengineering.com

March 13, 2024

Talking points:

1. Borough Zoning Regulations: Density Calculation: The maximum number of dwelling units permitted shall not exceed 1.5 times the number of units which can be placed in the Developable Acreage, which is the total (gross) acreage of the parcel(s) minus any land having wetlands, watercourses, ponds, or steep slopes over 25%. In addition, the total number of units cannot exceed one per acre of the total (gross) acreage of the parcel(s).
2. Article 10 of the Borough of Newtown Zoning Regulations – Site Development plans number 12 states the following: "All existing topographical features on and within 50 feet of the property, structures, paved areas, foliage limits, wetlands, watercourses, underground utilities, septic systems, wells, isolated trees, stone walls, driveways, paths, ledge outcroppings or boulders, easements and building setback lines". Zoning regulations are the basis of all regulations, both subdivision and inland wetlands. Applicants must comply with all applicable zoning regulations even when applying to Inland Wetlands for regulated activities – NOT IN COMPLIANCE
3. The applicant stated at the 2/28/23 public hearing that "LID is just a buzzword". LID is not a fad at all, it is a sustainable approach to all types of development. Greenwashing is a term for projects which try to look green, but do not function and in my professional opinion applies to this project. The applicant makes the argument that they are preserving 85 acres out of 136, thus it meets the criteria to be considered LID. The reality is far from this statement:
    a. The overall goal of LID is to create sustainable development patterns which minimize the impacts on the environment and maintain the existing hydrologic conditions to the maximum extent possible. This is not the case here.
    b. The key LID strategy is to place the development on the land most suitable for development and work with the natural landform. This strategy is not being met here as over 100K yards of material will be cut on the site with 63K yards being filled for the development. This is significantly changing the landform to fit the development project.
    c. LID stormwater management is a decentralized approach and not at the end of the pipe which is proposed here.
    d. A decentralized approach also allows for improvement treatment of runoff to reduce pollutant loads, which is not the case here.
    e. A decentralized approach also provides for opportunities to infiltrate runoff for small frequent storm events to reduce surface runoff volumes. This is not the case here.

4. Forebays have been added to all stormwater basins, they are only 1.5' in depth for the storage of sediment. 2004 Manual requires a 4' to 6' depth to trap and prevent resuspension of sediment. They are not in compliance with the 2004 Manual and will not function as intended.
5. A couple of the forebays do not meet the minimum 2:1 length to width ratio per the 2004 Manual. The purpose of this requirement is to allow more sediments to settle out over the length of the forebay.
6. The report claims that all basins are now extended detention ponds with no change in the design of the basins. This is wrong. Per the 2004 Manual, a **Wet Extended Detention Pond** must contain the following:
    a. A forebay complying with the Manual containing 10% WQV (NOT IN COMPLIANCE)
    b. A permanent pool which is 6' to 8' in depth (NOT IN COMPLIANCE)
    c. Permanent pool must contain minimum 50% of WQV (NOT IN COMPLIANCE)
    d. Extended detention must contain 50% maximum of WQV (NOT IN COMPLIANCE)
    e. An aquatic shelf around perimeter of pool (NOT IN COMPLIANCE)
7. A **Micro-pool extended detention pond** must contain the following:
    a. A forebay complying with the manual containing 10% WQV (NOT IN COMPLIANCE)
    b. Micro-pool which is 4' to 6' in depth (NOT IN COMPLIANCE)
    c. A riprap pilot channel (NOT IN COMPLIANCE)
    d. A micro-pool with aquatic bench at outlet control structure (NOT IN COMPLIANCE)
    e. Permanent pool must contain minimum 20% of WQV (NOT IN COMPLIANCE)
    f. Extended detention must contain 80% maximum of WQV (NOT IN COMPLIANCE)
    g. Retain existing vegetation on either side of pilot channel (NOT IN COMPLIANCE)
8. The applicant is claiming that since the online separators have been sized using the Water Quality Flow, they do not need to provide the WQV in the basin. This is not a correct interpretation as the separators are NOT providing the necessary treatment to reduce pollutant loads to meet the DEEP goal of 80% reduction of TSS, therefore, the basins must provide the required WQV and be designed as noted above.
9. Basin 130 will not have permanent pool at all, thus WQV requirement is not met.
10. Basins 120, 310, 410, and 510 will all have a permanent pool of 6" and do not likely contain the WQV as required.
11. If you have a permanent pool, you will not have any infiltration as you cannot infiltrate into a saturated zone. With no infiltration, the GRV is NOT MET. The GRV must be infiltrated to maintain pre-development infiltration rates by soil group for post-development conditions. Therefore, the design is NOT IN COMPLIANCE WITH THE 2004 MANUAL.
12. The applicant uses a 9% TSS removal and 14% hydrocarbon removal rate in their analysis for a catch basin with a 48" sump, but without a hooded outlet, the actual reduction of floatable hydrocarbons may be less than 14%.

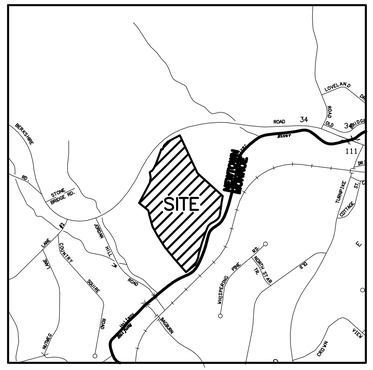
13. The applicant uses a TSS removal rate of 75% for the hydrodynamic separator claiming that the internal bypass makes it an offline system. This is wrong. Even with the internal bypass, flows from all storm events go through the separator which means it is online only. The TSS removal rate for an online separator is only 29%.
14. The proposed stormwater management systems will only remove 38% of TSS, thus the CT DEP goal of 80% reduction is not met and the increased pollutant loads will adversely affect the water quality in the receiving wetlands and watercourses.
15. The entrance road from Johnny Cake has a pair of catch basins with a singular online hydrodynamic separator which will discharge into the wetlands near Johnny Cake. There will be minimal reduction of pollutant loads as noted above, thus increased pollutant loads will be discharged to the wetland.
16. The applicant stated at the public hearing on 2/28/23 that metals will not be found in the post-development runoff. This is incorrect, any land use with driveways or roads will have metals in the runoff as the primary source of metals are wear from vehicular brake systems and tire wear and tear.
17. As the basins are not designed as either Wet Extended Detention Pond or a Micro-pool Extended Detention Pond, no removal efficiency for any pollutant can be applied to the basins. Thus, the TSS removal rate falls very short of the CT DEEP goal of 80% and will result in increased pollutant loads being discharged to wetland/watercourse systems which will cause water quality degradation of these systems.
18. There will be increased pollutant loads directed to the NFA property which will wind up in the wetlands on the NFA property, thus causing adverse impacts to the water quality of the wetlands.

"THE RESIDENCE AT BERKSHIRE"

AN OPEN SPACE CONSERVATION SUBDIVISION

296 BERKSHIRE ROAD

NEWTOWN, CONNECTICUT



LOCATION MAP 1"=1200'

SHEET INDEX

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

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

STATE OF CONNECTICUT · JOSEPH R. EDWARDS · No. 17027 · LICENSED PROFESSIONAL ENGINEER

STATE OF CONNECTICUT · JASON EDWARDS · LICENSED LAND SURVEYOR

296 BERKSHIRE ROAD
NEWTOWN, CONNECTICUT

PREPARED FOR

THE RESIDENCE AT BERKSHIRE, LLC

REVISIONS

#	DATE	DESCRIPTION
	2.10.24	RED. IMPACT
	3.11.24	IWC COM.

DATE: AUGUST 1, 2023
PROJECT #: 2960
DRAWING FILE:
DRAWN BY: NDC
SCALE: AS NOTED

TITLE

TITLE SHEET

SHEET NUMBER

0.1

K:\PROJECTS\2960-SHAPIRO-296 BERKSHIRE ROAD, NEWTOWN, CT\DRAWINGS\2960-SI

NOTES:

1. THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH THE SECTIONS 20-300B-1 THROUGH 20-300B-20 OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES – "MINIMUM STANDARDS FOR SURVEY AND MAPS IN THE STATE OF CONNECTICUT" AS ENDORSED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. IT IS AN IMPROVEMENT LOCATION SURVEY BASED UPON A DEPENDENT RESURVEY AND CONFORMS TO HORIZONTAL ACCURACY CLASS A-2.
2. REFERENCE IS MADE TO THE FOLLOWING MAPS ON FILE IN THE NEWTOWN TOWN CLERK'S OFFICE:
   A. "MAP SHOWING PORTION OF PROPERTY OWNED BY ETHEL R. LOVELAND ROUTE 34 NEWTOWN, CONNECTICUT SCALE 1"=100' MAY 15, 1972" PREPARED BY C. JAMES OSBORNE ON FILE AS MAP #4040.
   B. "CONNECTICUT STATE HIGHWAY DEPARTMENT RIGHT OF WAY MAP TOWN OF NEWTOWN STEVENSON-SANDY HOOK ROAD FROM THE MONROE TOWN LINE WESTERLY ABOUT 20,400 FEET ROUTE No. 34 SCALE 1"=40' OCT. 31, 1933 NUMBER 96-02 SHT 2 OF 8"
   C. "PROPERTY SURVEY LOCATED ON BERKSHIRE ROAD (C.D.O.T. ROUTE 34) NEWTOWN CONNECTICUT PREPARED FOR RALPH H. LOVELAND 12-15-1987" PREPARED BY TRACY H. LEWIS ON FILE AS MAP #7116.
3. THE LOCATION OF UNDERGROUND UTILITIES, IF ANY, IS UNKNOWN
4. PLAN PREPARED FOR THE RESIDENCE AT BERKSHIRE LLC.
5. LOT CORNER MARKERS DEPICTED HEREON WERE FOUND AND/OR SET DURING COMPLETION OF THIS SURVEY.
6. BEARING BASED ON CONNECTICUT STATE PLANE.
7. CERTIFICATION OF THIS MAP APPLIES TO CONDITIONS AS OF THE ORIGINAL DATE OR REVISED DATE DEPICTED HEREON. EXISTING CONDITIONS ON THIS PROPERTY MAY HAVE CHANGED SINCE THAT DATE AND AN UPDATED SURVEY IS RECOMMENDED TO ACCURATELY DEPICT THE CURRENT CONDITIONS.

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

THIS MAP IS NOT VALID UNLESS EMBOSSED WITH THE SEAL OR AFFIXED WITH THE LIVE STAMP OF THE SIGNATORY.

J. EDWARDS & ASSOCIATES, LLC
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JASON EDWARDS
LICENSED
LAND SURVEYOR

296 BERKSHIRE ROAD
NEWTOWN, CONNECTICUT

PREPARED FOR

THE RESIDENCE AT BERKSHIRE, LLC

REVISIONS

#	DATE	DESCRIPTION
	2.10.24	RED. IMPACT
	3.11.24	IWC COM.

DATE: AUGUST 1, 2023
PROJECT #: 2960
DRAWING FILE:
DRAWN BY: NDC
SCALE: 1"=100'

TITLE

EXISTING CONDITIONS PLAN

SHEET NUMBER

1.0

K:\PROJECTS\2960-SHAPIRO-296 BERKSHIRE ROAD, NEWTOWN, CT\DRAWINGS\2960-SI

LOT #	GROSS AREA	WETLAND AREA	SLOPES>25% AREA	ACCESSWAY AREA	NET AREA
#1	80,559 SQ. FT. 1.849 ACRES	8,435 SQ. FT. 0.194 ACRE	10,839 SQ. FT. 0.249 ACRE	———	61,285 SQ. FT. 1.407 ACRES
#2	52,775 SQ. FT. 1.212 ACRES	———	3,052 SQ. FT. 0.070 ACRE	———	49,723 SQ. FT. 1.141 ACRES
#3	64,587 SQ. FT. 1.483 ACRES	7,639 SQ. FT. 0.175 ACRE	———	———	56,948 SQ. FT. 1.307 ACRES
#4	59,224 SQ. FT. 1.360 ACRES	224 SQ. FT. 0.005 ACRE	22,570 SQ. FT. 0.518 ACRE	———	36,430 SQ. FT. 0.836 ACRES
#5	87,372 SQ. FT. 2.006 ACRES	———	29,231 SQ. FT. 0.671 ACRE	———	58,141 SQ. FT. 1.335 ACRES
#6	54,309 SQ. FT. 1.247 ACRES	821 SQ. FT. 0.019 ACRE	10,945 SQ. FT. 0.251 ACRE	7,542 SQ. FT. 0.173 ACRE	35,001 SQ. FT. 0.804 ACRE
#7	55,666 SQ. FT. 1.278 ACRES	3709 SQ. FT. 0.085 ACRE	6,880 SQ. FT. 0.158 ACRE	1,187 SQ. FT. 0.027 ACRE	45,075 SQ. FT. 1.035 ACRES
#8	70,885 SQ. FT. 1.627 ACRES	———	22,504 SQ. FT. 0.517 ACRE	———	48,381 SQ. FT. 1.111 ACRES
#9	45,454 SQ. FT. 1.043 ACRES	———	9,956 SQ. FT. 0.229 ACRE	———	35,498 SQ. FT. 0.815 ACRE
#10	46,475 SQ. FT. 1.067 ACRES	———	8,473 SQ. FT. 0.195 ACRE	———	38,002 SQ. FT. 0.872 ACRE
OS	1,055,287 SQ. FT. 24.226 ACRES	213,322 SQ. FT. 4.900 ACRES	308,617 SQ. FT. 7.085 ACRES		533,348 SQ. FT. 12.244 ACRES

STREETLINE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	125.00'	83.88'	82.32'	S 05°49'07" E	38°26'53"
C2	200.00'	52.56'	52.41'	S 05°52'39" W	15°03'24"
C3	25.00'	21.09'	20.47'	S 22°30'50" W	48°19'46"
C4	50.00'	241.19'	66.67'	N 88°29'21" E	276°27'45"
C5	25.00'	20.97'	20.36'	N 25°40'32" W	48°02'59"
C6	150.00'	39.42'	39.30'	N 05°52'39" E	15°03'24"
C7	175.00'	117.44'	115.25'	S 05°49'07" E	38°26'57"
C8	50.00'	55.17'	52.42'	N 15°04'00" E	63°13'26"
C9	50.00'	57.45'	54.34'	N 49°27'48" W	65°50'11"
C10	50.00'	25.99'	25.70'	S 82°43'34" W	29°47'05"
C11	50.00'	42.44'	41.17'	N 43°31'11" E	48°37'41"
C12	50.00'	60.13'	56.57'	S 15°14'51" E	68°54'22"

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE	TANGENT
C13	25.00'	40.67'	36.33'	S 71°35'13" E	93°12'18"	26.44'

CONSERVATION EASEMENTS

LINE	BEARING	DISTANCE
L1	N 24°36'57" W	45.25'
L2	N 08°04'12" W	93.33'
L3	N 54°24'52" E	54.59'
L4	S 63°28'12" E	85.38'
L5	S 34°56'05" W	155.13'
L6	N 34°24'01" W	238.76'
L7	N 70°31'12" E	51.74'
L8	S 34°24'01" E	209.88'
L9	S 21°36'55" W	131.25'
L10	N 61°32'56" W	15.11'
L11	N 21°34'47" E	79.30'
L12	N 69°05'23" W	223.48'
L13	N 32°53'56" E	26.73'
L14	N 25°17'21" E	89.26'
L15	N 19°49'50" E	35.53'
L16	S 74°30'46" E	211.48'
L17	S 00°24'42" E	183.19'
L18	S 52°36'40" W	125.33'
L19	N 21°10'36" E	106.63'

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STATE OF CONNECTICUT — DANIEL S. EDWARDS — No. 10937 — LICENSED PROFESSIONAL ENGINEER

STATE OF CONNECTICUT — JASON EDWARDS — LICENSED LAND SURVEYOR

296 BERKSHIRE ROAD
NEWTOWN, CONNECTICUT

PREPARED FOR

THE RESIDENCE AT BERKSHIRE, LLC

REVISIONS

#	DATE	DESCRIPTION
	2.10.24	RED. IMPACT
	3.11.24	IWC COM.

DATE: AUGUST 1, 2023
PROJECT #: 2960
DRAWING FILE:
DRAWN BY: NDC
SCALE: 1"=100'

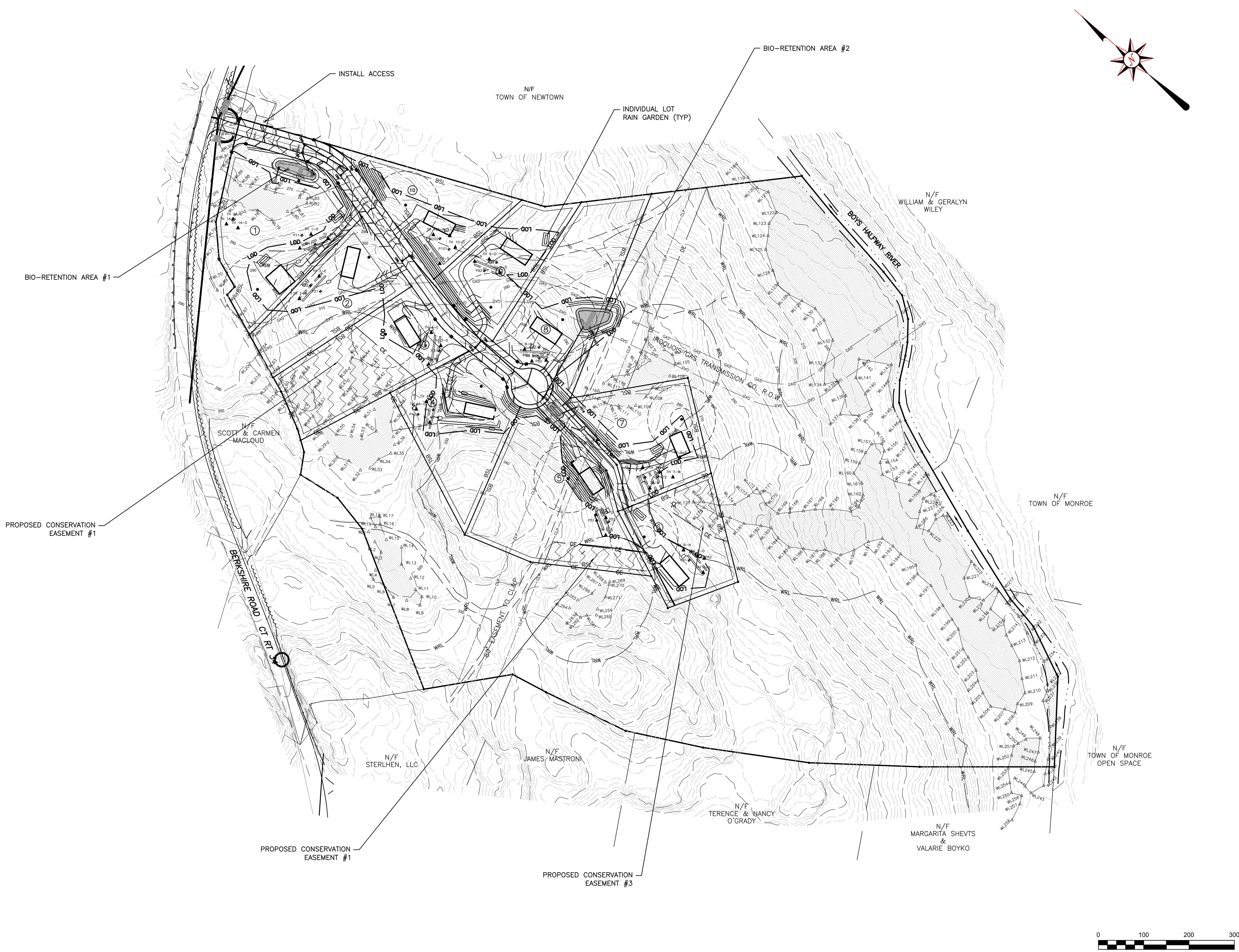
TITLE

RECORD SUBDIVISION PLAN

SHEET NUMBER

1.1

K:\PROJECTS\2960-SHAPIRO-296 BERKSHIRE ROAD, NEWTOWN, CT\DRAWINGS\2960-SI



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SCALE: 1"=100'

TITLE

OVERALL
SITE PLAN

SHEET NUMBER

2.1

K:\PROJECTS\2960-SHAPIRO-296 BERKSHIRE ROAD, NEWTOWN, CT\DRAWINGS\2960-S

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DATE: AUGUST 1, 2023
PROJECT #: 2960
DRAWING FILE:
DRAWN BY: NDC
SCALE: 1"=40'

TITLE

SITE PLAN ENLARGEMENT

SHEET NUMBER

2.1

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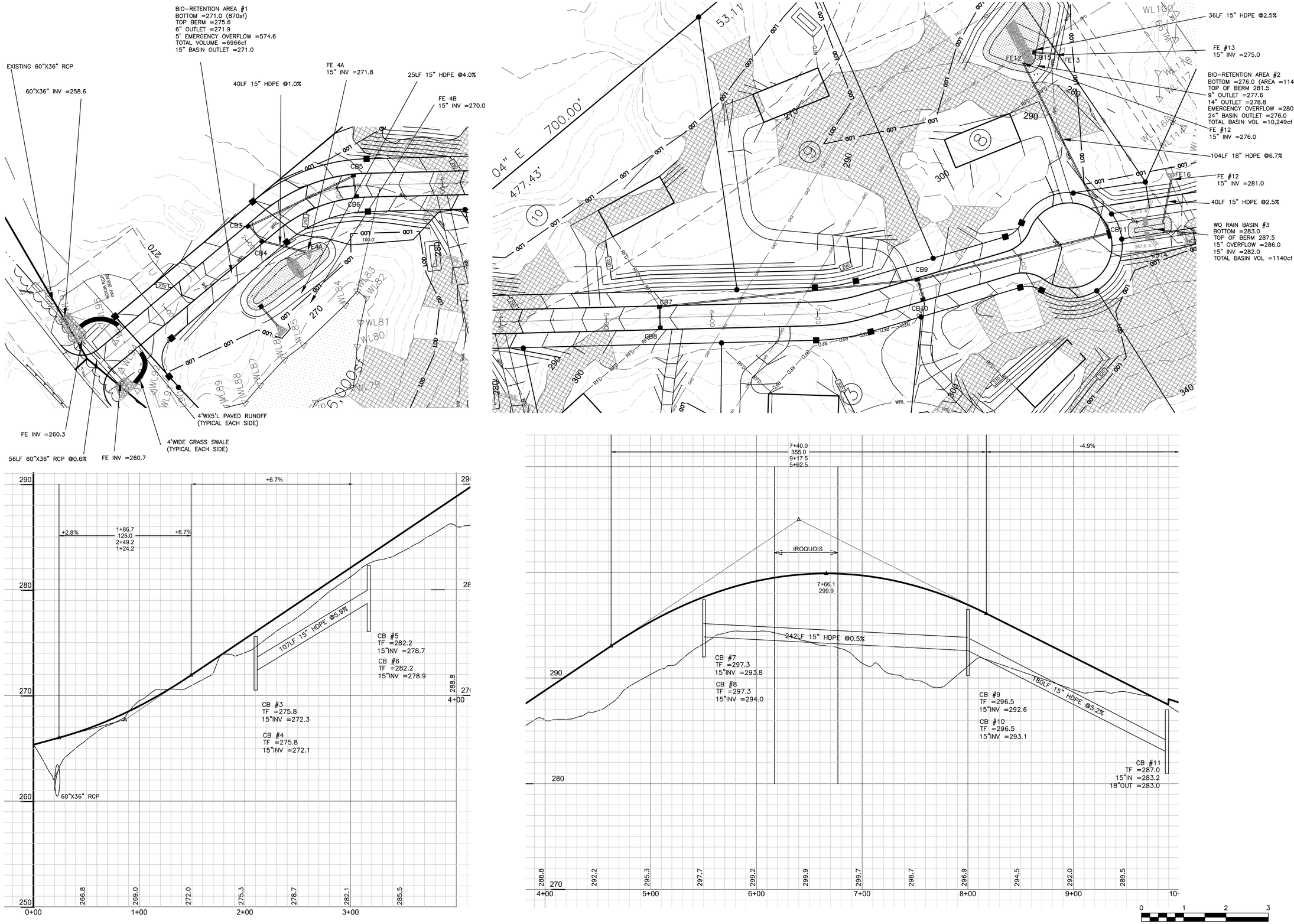

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TITLE

PLAN & PROFILE

SHEET NUMBER

2.3

K:\PROJECTS\2960-SHAPIRO-296 BERKSHIRE ROAD, NEWTOWN, CT\DRAWINGS\2960-SI

PROPOSED
CONSERVATION
EASEMENT

INDIVIDUAL LOT
RAIN GARDEN (TYP)

INSTALL
POST & RAIL FENCE
(OR APPROVED ALTERNATIVE)

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LARRY B. EDWARDS
No. 10937

JASON EDWARDS

296 BERKSHIRE ROAD
NEWTOWN, CONNECTICUT

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REVISIONS

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PROJECT #: 2960
DRAWING FILE:
DRAWN BY: NDC
SCALE: 1"=40'

TITLE

SITE PLAN
ENLARGEMENT

SHEET NUMBER

2.2

SEDIMENT TRAP #1

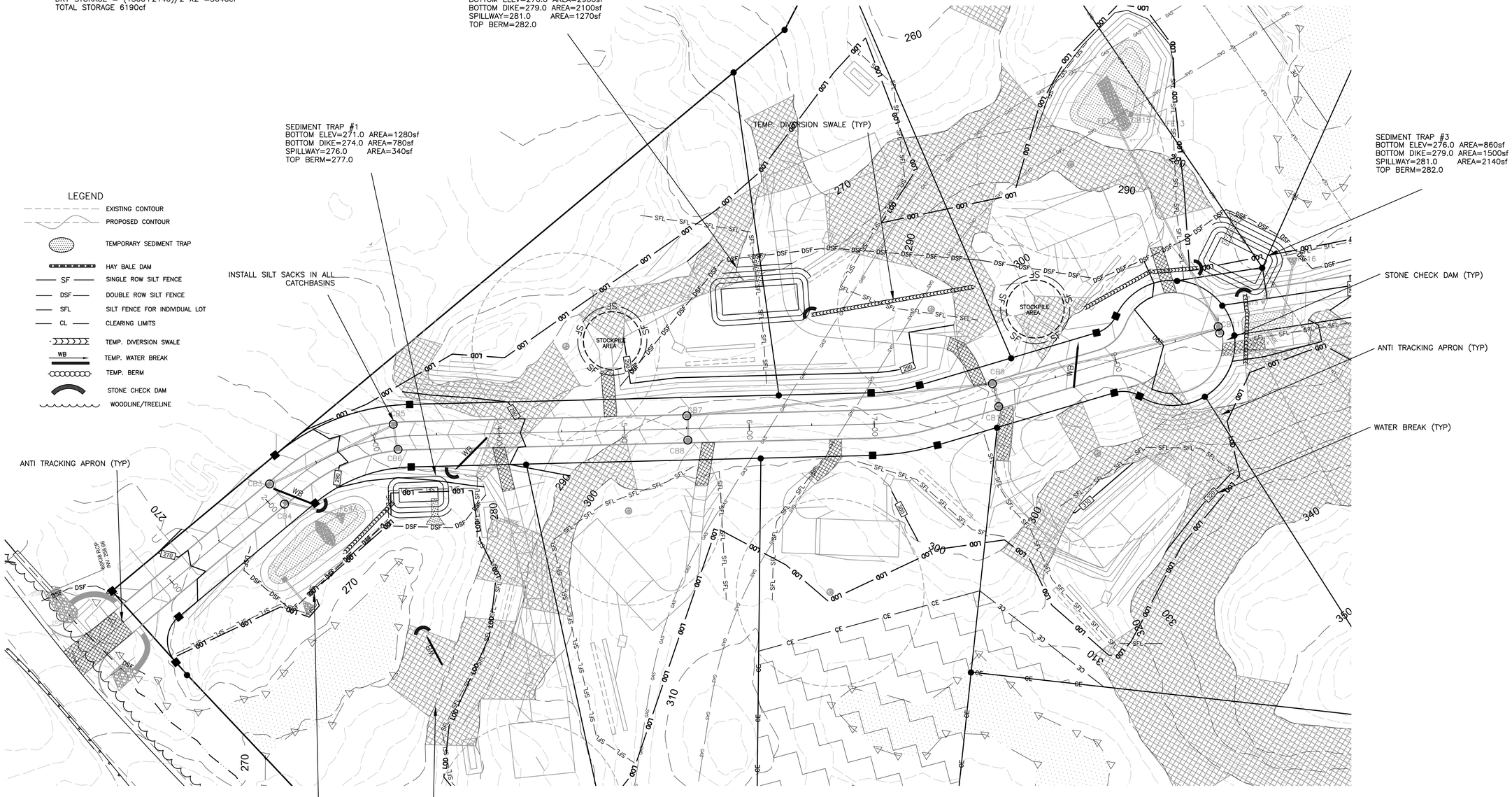
AREA TO TRAP =0.7 ACRES
REQUIRED VOLUME =0.7ac X 134cy/ac = 94cy (2538cf)
WET STORAGE = 0.85 X 780 X 2 =1326cf
DRY STORAGE = (780+1280)/2 X2 =2060
TOTAL STORAGE =2840cf

SEDIMENT TRAP #2

AREA TO TRAP =1.8 ACRES
REQUIRED VOLUME =1.8ac X 134cy/ac = 241cy (6512cf)
WET STORAGE = 0.85 X 2100 X 2 =3570cf
DRY STORAGE = (2100+2900)/2 X2 =5000
TOTAL STORAGE =8570cf

SEDIMENT TRAP #3

AREA TO TRAP =1.4 ACRES
REQUIRED VOLUME =1.4ac X 134cy/ac = 188cy (5065cf)
WET STORAGE = 0.85 X 1500 X 2 =2550cf
DRY STORAGE = (1500+2140)/2 X2 =3640cf
TOTAL STORAGE 6190cf



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STATE OF CONNECTICUT — JASON EDWARDS — LICENSED LAND SURVEYOR

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SCALE: 1"=40'

TITLE

EROSION & SEDIMENT CONTROL PLAN

SHEET NUMBER

3.1

K:\PROJECTS\2960-SHAPIRO-296 BERKSHIRE ROAD, NEWTOWN, CT\DRAWINGS\2960-SI

DOUBLE ROW OF SILT FENCE

SEDIMENT TRAP #4
AREA TO TRAP =1.3 ACRES
REQUIRED VOLUME =1.3ac X 134cy/ac = 174cy (4703cf)
WET STORAGE = 0.85 X 1500 X 2 =2550cf
DRY STORAGE = (1500+2140)/2 X2 =3640cf
TOTAL STORAGE 6190cf

SEDIMENT TRAP #3
BOTTOM ELEV=272.0 AREA=860sf
BOTTOM DIKE=275.0 AREA=1500sf
SPILLWAY=277.0 AREA=2140sf
TOP BERM=278.0

ANTI TRACKING APRON (TYP)

SILT FENCE FOR INDIVIDUAL LOT DEVFELOPMENT (TYP)

LEGEND

— — — —	EXISTING CONTOUR
— — ∿ — —	PROPOSED CONTOUR
⬭	TEMPORARY SEDIMENT TRAP
⊙⊙⊙⊙⊙	HAY BALE DAM
—— SF ——	SINGLE ROW SILT FENCE
—— DSF ——	DOUBLE ROW SILT FENCE
—— CL ——	CLEARING LIMITS
-ﾠ>>>>>>	TEMP. DIVERSION SWALE
WB →	TEMP. WATER BREAK
-OOOOOOOO-	TEMP. BERM
⌒	STONE CHECK DAM
⌣⌣⌣⌣⌣	WOODLINE/TREELINE

0 40 80 120

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PROFESSIONAL ENGINEER

JASON EDWARDS
LAND SURVEYOR

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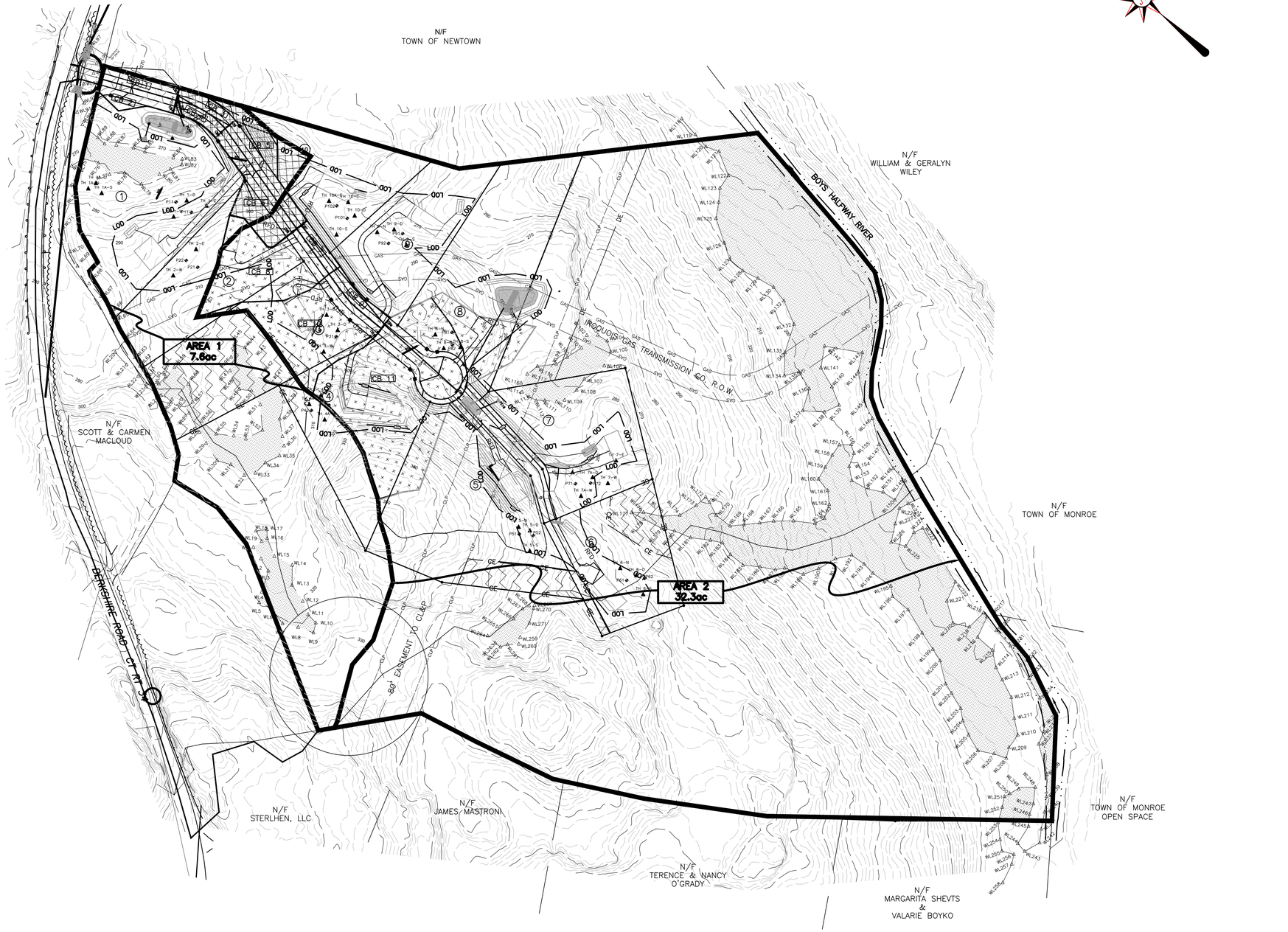
PROJECT #: 2960
DRAWING FILE:
DRAWN BY: NDC
SCALE: 1"=40'

TITLE

EROSION & SEDIMENT CONTROL PLAN

SHEET NUMBER

3.2



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PROJECT #: 2960
DRAWING FILE:
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SCALE: 1"=100'

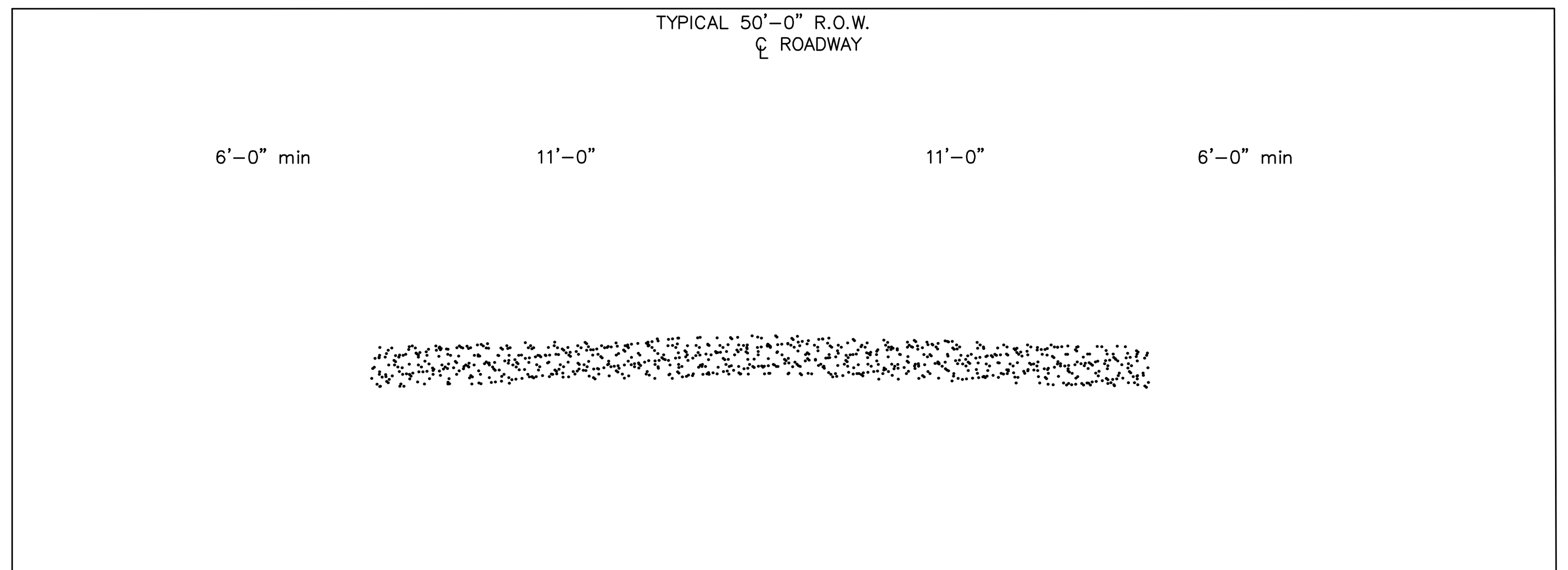
TITLE

DRAINAGE MAP

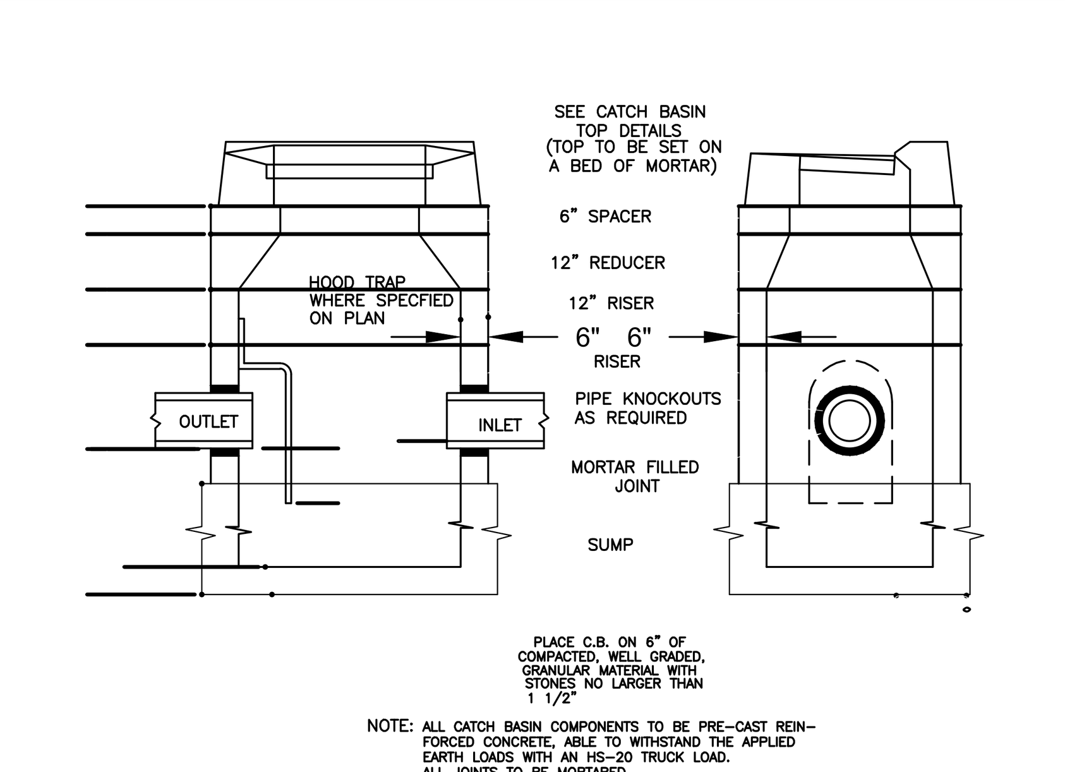
SHEET NUMBER

3.3

K:\PROJECTS\2960-SHAPIRO-296 BERKSHIRE ROAD, NEWTOWN, CT\DRAWINGS\2960-ST



TYPICAL ROAD PAVEMENT CROSS SECTION



CATCH BASIN DETAIL

DEEP TEST HOLES DATE: 2/23/23

TH 1-E
0-8"Topsoil
8-36" Orange Brown Sandy Loam
36-58" Tan Fine Sand
No Water, No Mottling, Ledge @ 58", Roots to 36"

TH 1-W
0-8" Topsoil
8-38" Yellow Brown Sandy Loam
38-76" Tan Fine Sand
No Water, No Mottling, Ledge @ 76", Roots to 38"

TH 1-D
0-8" Topsoil
8-38" Yellow Brown Sandy Loam
38-46" Tan Fine Sand
No Water, No Mottling, Ledge @ 46", Roots to 38"

TH 1A-S
0-3" Topsoil
3-40" Yellow Brown Sandy Loam
40-60" Tan Fine Sand
No Water, No Mottling, Ledge @ 60", Roots to 40"

TH 1A-N
0-4" Topsoil
4-40" Yellow Brown Sandy Loam
40-60" Tan Fine Sand
No Water, No Mottling, Ledge @ 60", Roots to 40"

TH 1A-D
0-4" Topsoil
4-46" Yellow Brown Sandy Loam
46-56" Tan Fine Sand
No Water, No Mottling, Ledge @ 56", Roots to 46"

TH 1B-S
0-6" Topsoil
6-25" Orange Brown Sandy Loam
25-83" Tan Fine Silty Sand
No Water, No Mottling, Ledge @ 83", Roots to 25"

TH 1B-N
0-4" Topsoil
4-29" Orange Brown Sandy Loam
29-59" Tan Fine Silty Sand
No Water, No Mottling, Ledge @ 59", Roots to 29"

TH 1B-D
0-4" Topsoil
4-30" Yellow Brown Sandy Loam
30-90" Tan Gravely Sand
Water @ 80", No Mottling, Ledge @ 90", Roots to 30"

TH 2-E
0-8" Topsoil
8-48" Orange Brown Sandy Loam
No Water, No Mottling, Ledge @ 48", Roots to 40"

TH 2-W
0-8" Topsoil
8-30" Orange Brown Sandy Loam
No Water, No Mottling, Ledge @ 30", Roots to 30"

TH 3-E
0-8" Topsoil
8-36" Orange Brown Sandy Loam
36-72" Tan Silty Sand
No Water, No Mottling, Ledge @ 72", Roots to 36"

TH 3-W
0-8" Topsoil
8-32" Orange Brown Sandy Loam
32-56" Tan Silty Sand
No Water, No Mottling, Ledge @ 56", Roots to 32"

TH 3-D
0-8" Topsoil
8-40" Yellow Brown Sandy Loam
40-64" Tan Silty Sand
No Water, No Mottling, Ledge @ 64", Roots to 40"

TH 4A-E
0-8" Topsoil
8-48" Yellow Brown Sandy Loam
No Water, No Mottling, Ledge @ 48", Roots to 40"

TH 4A-W
0-8" Topsoil
8-36" Yellow Brown Sandy Loam
36-60" Tan Silty Sand
No Water, No Mottling, Ledge @ 60", Roots to 36"

TH 4-D
0-8" Topsoil
8-34" Orange Brown Sandy Loam
34-48" Tan Silty Sand
No Water, No Mottling, Ledge @ 48", Roots to 34"

TH 5-N
0-6" Topsoil
6-40" Orange Brown Sandy Loam w/ Rock
40-70" Tan Silty Sand
No Water, No Mottling, Ledge @ 70", Roots to 40"

TH 5-S
0-6" Topsoil
6-38" Orange Brown Sandy Loam w/ Rock
38-84" Tan Silty Sand
No Water, No Mottling, Ledge @ 84", Roots to 38"

TH 5-D
0-8" Topsoil
8-30" Orange Brown Sandy Loam
30-56" Tan Silty Sand
No Water, No Mottling, Ledge @ 56", Roots to 30"

TH 6-S
0-8" Topsoil
8-72" Orange Brown Sandy Loam
No Water, No Mottling, Ledge @ 72", Roots to 58"

TH 6-N
0-8" Topsoil
4-24" Red Brown Sandy Loam
24-62" Tan Sand w/ Fractured Ledge
No Water, No Mottling, Ledge @ 62", Roots to 36"

TH 6-D
0-8" Topsoil
8-22" Orange Brown Sandy Loam
22-56" Light Brown Sandy Loam
No Water, No Mottling, Ledge @ 56", Roots to 40"

TH 7-E
0-6" Topsoil
6-36" Orange Brown Sandy Loam w/ Rock
36-50" Tan Silty Sand
No Water, No Mottling, Ledge @ 50", Roots to 36"

TH 7-W
0-8" Topsoil
8-30" Orange Brown Sandy Loam
30-55" Tan Silty Sand
No Water, No Mottling, Ledge @ 55", Roots to 30"

TH 7A-E
0-8" Topsoil
8-48" Orange Brown Sandy Loam
48-100" Tan Medium Sand
No Water, No Mottling, Ledge @ 100", Roots to 48"

TH 7A-W
0-8" Topsoil
8-22" Orange Brown Sandy Loam
22-36" Light Brown Sandy Loam
36-82" Tan Medium Sand
No Water, No Mottling, Ledge @ 82", Roots to 36"

TH 7A-D
0-8" Topsoil
4-38" Orange Brown Sandy Loam
38-72" Tan Silty Sand
No Water, No Mottling, Ledge @ 72", Roots to 38"

TH 8-N
0-8" Topsoil
8-38" Orange Brown Sandy Loam
38-68" Tan Silty Sand
No Water, No Mottling, Ledge @ 68", Roots to 52"

TH 8-S
0-10" Topsoil
10-30" Orange Brown Sandy Loam
30-72" Tan Sand
No Water, No Mottling, Ledge @ 72", Roots to 30"

TH 8-D
0-6" Topsoil
6-42" Orange Brown Sandy Loam
42-68" Tan Sand
No Water, No Mottling, Ledge @ 68", Roots to 42"

TH 9-N
0-8" Topsoil
8-42" Yellow Brown Sandy Loam
42-68" Tan Sand
No Water, No Mottling, Ledge @ 68", Roots to 42"

TH 9-S
0-8" Topsoil
8-34" Yellow Brown Sandy Loam
34-66" Tan Sand
No Water, No Mottling, Ledge @ 66", Roots to 34"

TH 9-D
0-10" Topsoil
10-33" Orange Brown Sandy Loam
33-60" Tan Sand
No Water, No Mottling, Ledge @ 60", Roots to 33"

TH 10-W
0-8" Topsoil
8-30" Orange Brown Sandy Loam
30-60" Tan Sand
No Water, No Mottling, Ledge @ 60", Roots to 30"

TH 10-E
0-8" Topsoil
8-42" Orange Brown Sandy Loam
42-76" Tan Sand
No Water, No Mottling, Ledge @ 76", Roots to 42"

TH 10A-E
0-8" Topsoil
8-80" Light Brown Sandy Loam
No Water, No Mottling, Ledge @ 80", Roots to 70"

TH 10-D
0-8" Topsoil
8-48" Yellow Brown Sandy Loam
No Water, No Mottling, Ledge @ 48", Roots to 36"

PERCOLATION TESTS conducted 2/23/23

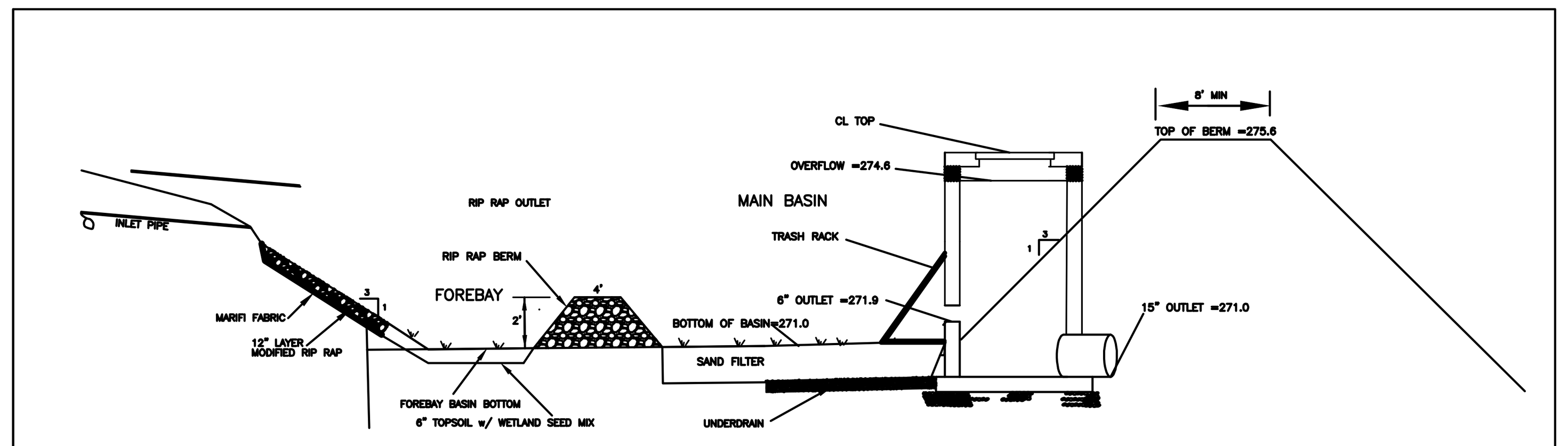
#	11	12	21	22	31	32
Depth	20"	19"	19"	21"	18"	19"
0	2.0"	4.0	6.0"	4.0"	4.0"	6.0"
10	8.0	9.0	8.0	11.0	7.5	9.0
20	11.0	12.0	11.0	14.0	9.0	12.0
30	13.0	12.5	13.0	16.0	11.0	14.0
40	15.0	15.0	15.0	18.0	12.0	15.0
50	18.0	16.0	16.0	20.0	13.0	15.5
60	dry	18.0	18.0	dry	14.5	17.0
Rate	1/3.3	1/10	1/10	1/10	1/6.7	1/6.7

#	41	42	51	52	61	62
Depth	21"	22"	20"	19"	20"	18"
0	4.0	2.0	4.0	2.0	6.0	6.0
10	10.0	8.0	12.0	5.0	7.5	7.0
20	12.0	12.0	16.0	5.5	9.5	8.0
30	15.0	15.0	19.0	6.0	11.0	10.0
40	17.0	16.0	dry	6.5	13.0	10.5
50	19.0	18.0	dry	7.0	14.0	11.0
60	20.0	19.0	dry	7.5	14.75	12.0
Rate	1/10	1/10	1/3	1/20	1/13	1/10

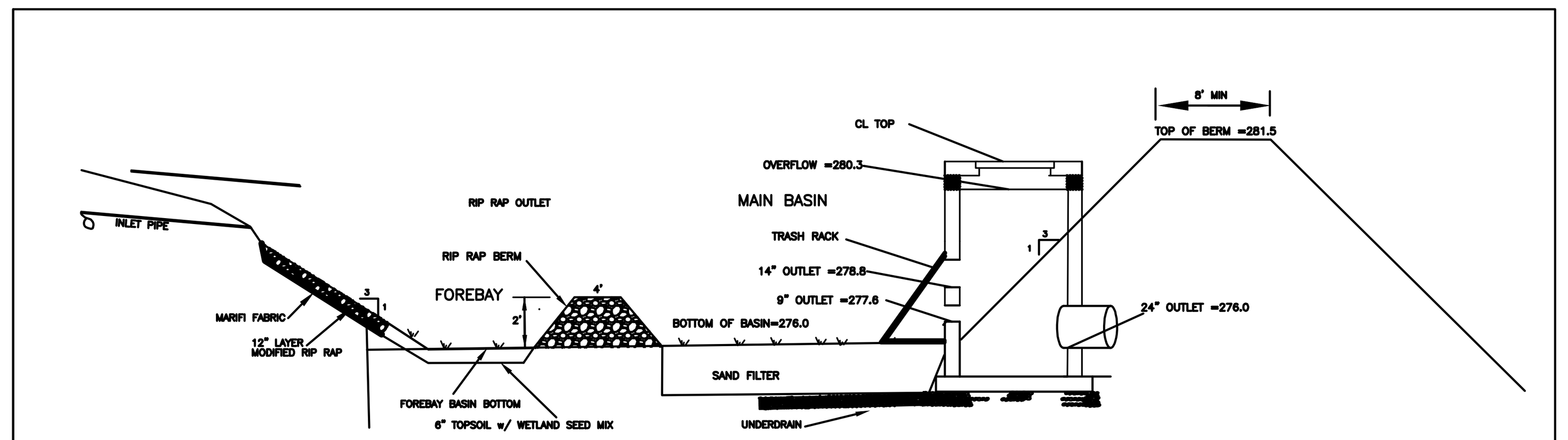
#	71	72	81	82	91	92
Depth	18"	21"	23"	18"	20"	20"
0	7.0	6.0	6.0	5.0	6.0	6.0
10	10.0	11.0	11	8.0	9.0	8.5
20	11.0	14.0	14	9.5	11.0	11.0
30	12.25	16.0	16.5	11.5	12.5	12.5
40	13.0	17.0	18.0	13.0	14.0	14.0
50	13.5	18.0	20.5	14.5	15.0	15.5
60	14.25	19.5	22.0	16.0	16.0	16.5
Rate	1/13	1/6.7	1/6.7	1/6.7	1/10	1/10

#	101	101	111	113
Depth	18"	20"	18"	21"
0	6.0	6.0	6.0	6.0
10	7.5	7.5	8.0	8.0
20	8.5	10.0	8.5	10.0
30	9.5	12.0	9.5	11.5
40	10.5	13.0	10.0	12.5
50	11.0	14.0	10.5	13.5
60	12.0	15.25	11.5	14.5
Rate	1/10	1/8	1/10	1/10

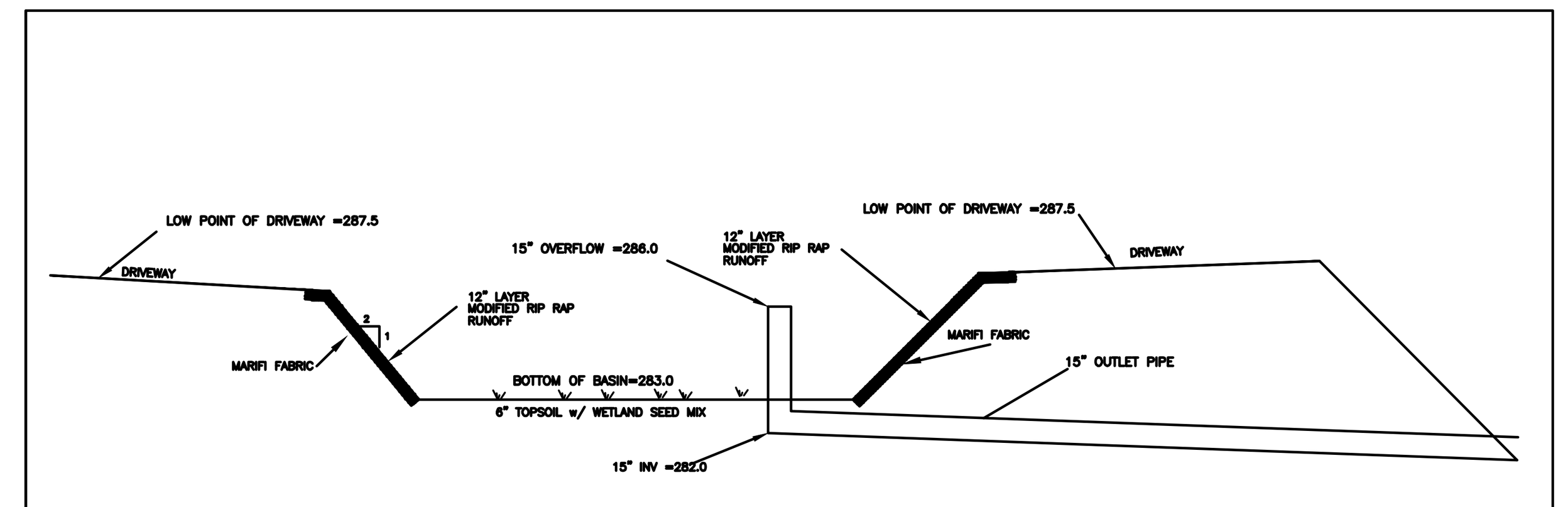
#	125	126
Depth	22"	24"
0	10.0"	11.0"
10	11.5"	14.0
20	12.5"	15.5"
30	13.5"	16.25"
40	14.5"	17.0"
50	15.25"	17.75"
60	16.0"	18.5"
1/13	1/13	



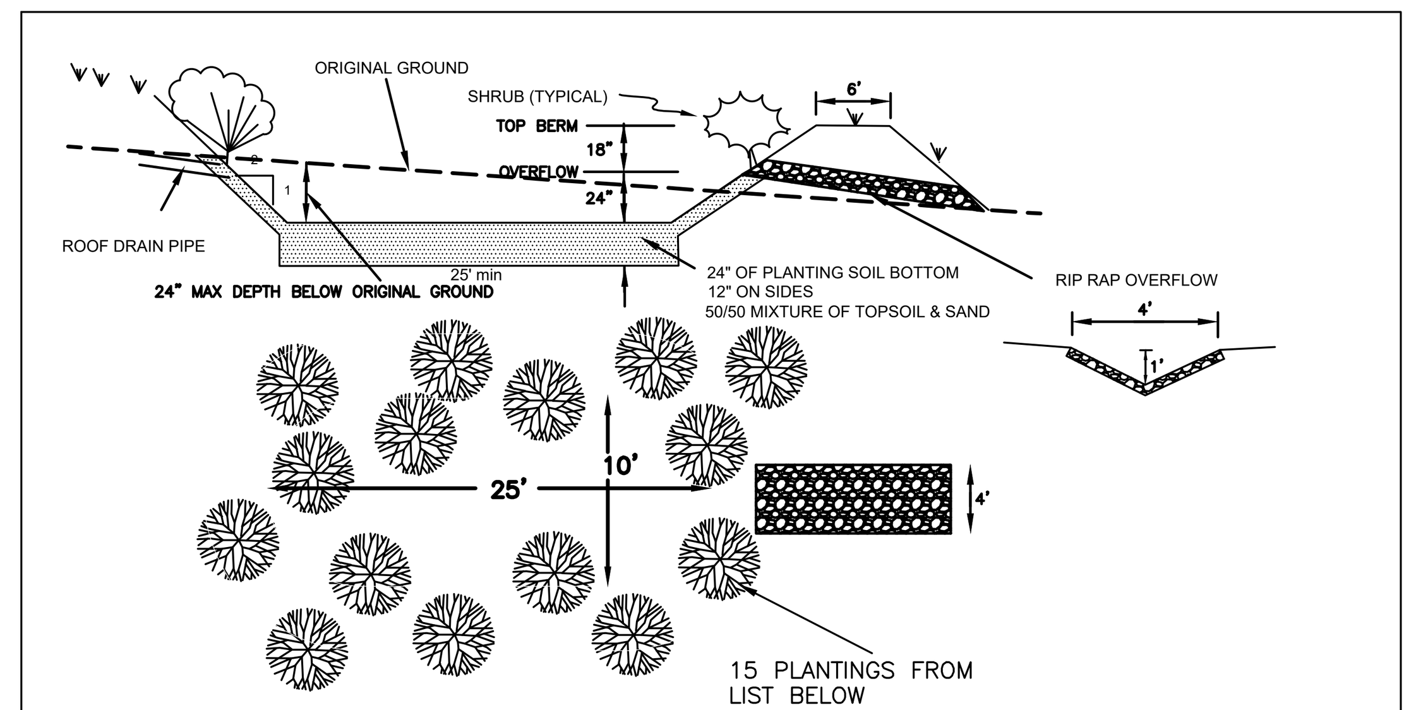
BIO-RETENTION BASIN #1 DETAIL
NOT TO SCALE



BIO-RETENTION BASIN #2
NOT TO SCALE



WQ RAIN GARDEN #3 DETAIL
NOT TO SCALE



RAIN GARDEN DETAIL
(NTS) VOL =850cf MIN FOR 1600sf HOUSE FOOTPRINT

Table 2. PLANTINGS FOR RAIN GARDENS

Table 1a: Herbaceous Seed Mix for Rain Garden
New England Erosion Control/Restoration Mix (NEWP)*

Scientific name	Common Name
Aster novae angliae	New England aster
Bidens cernua	Nodding bur marigold
Eupatoreum maculatum	Joe Pye
Eupatoreum perfoliatum	Boneset
Elymus virginicum	Virginia wild rye
Euthamia graminifolia	Grassleaf goldenrod
Festuca rubra	Creeping red fescue
Juncus effusus	Soft rush
Panicum virgatum	Switchgrass
Scirpus atrovirens	Green bulrush
Verbena hastata	Blue vervain

Seeding

1. Prepare planting bed at a time when no standing water is present
2. Incorporate 6" of topsoil into the top 6 inches of soil and rake smooth
3. Seed after shrubs have been planted on edge of rain garden.
4. Seed at a rate of 1lb/1000 square feet.
5. Seed in fall or spring, not between May 15th and August 30th.
6. To broadcast evenly by hand, mix 1:1 by volume with sand.
7. Rake seeds in lightly (< 1/2 - 1 inch).
8. Cover lightly with mulch.
9. Water using a water truch, if there is no rain for more than one week.

Table 1b: Shrubs for Rain Garden

Scientific name	Common Name
SHRUBS (seasonal saturation to temporary flooding)	
Aronia arbutifolia	Red Chokeberry
Clethra ainifolia	Sweet pepperbush
Cornus amornum	Silky dogwood
Flex verticillata	Winterberry
Myrica pennsylvanica	Bayberry
Sambucus canadensis	Elderberry
Salix discolor	Pussy willow
Vaccinium corymbosusm	Highbush blueberry
Vibumum dentatum	Arrowwood

* Available from New England Wetland Plants (NEWP) in Amherst, Massachusetts

1. Store shrubs in shade and plant within 5 days of delivery.
2. Select four shrub species from the adjacent list.
3. Plant two to three of each on the perimeter of raingarden (10 total)
4. Use planting stock that is at least 3 feet tall, balled or in pots.
5. Form a two inch high moat around each shrub to hold water.
6. Mulch with bark mulch (3 foot diameter circle) after planting.

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296 BERKSHIRE ROAD
NEWTOWN, CONNECTICUT
PREPARED FOR
THE RESIDENCE AT BERKSHIRE, LLC

REVISIONS

#	DATE	DESCRIPTION
	2.10.24	RED. IMPACT
	3.11.24	IWC COM.

DATE: AUGUST 1, 2023
PROJECT #: 2960
DRAWING FILE:
DRAWN BY: NDC
SCALE: NTS

TITLE

CONSTRUCTION DETAILS

SHEET NUMBER

4.1

K:\PROJECTS\2960-SHAPIRO-296 BERKSHIRE ROAD, NEWTOWN, CT\DRAWINGS\2960-

A. GENERAL STATEMENT

This project consists of the development of a 40 acre parcel which is to be developed as a 10 lot residential subdivision.

1. Work on this project is expected to commence upon approval by the Town of Newtown. Final stabilization shall be completed as soon as possible after completion of work. In all cases disturbed areas shall be stabilized by the end of the growing season so that grass cover can be established. Construction shall be completed in accordance with the attached schedule.

2. The Storm Pollution control program for this site shall include the following as shown on the approved map:

a. Installation of a filter fence as shown on the plan.
b. Installation of anti-tracking apron on the driveways and at entrance to the roads.
c. Installation of detention/sediment basins and traps

3. Prior to any construction on the site, a pre-construction meeting shall be held with the owner, contractor, design engineer, and the authorized town official to review the site and the required erosion/ sedimentation and storm pollution control program.

4. The approved site plans, erosion control plan, engineering report and land use applications are considered part of this plan.

B. SCHEDULING OF GRADING AND CONSTRUCTION ACTIVITIES
Prior to starting construction on the site, all erosion and sediment control measures shall be installed as directed by the design engineer, permittee and/or authorized town agent. Detailed plans have been provided. Detailed construction sequencing has been included on the sheet for each phase.

Construction sequence:
A detailed construction sequence has been included on the Erosion Control Plan.

C. MEASURES TO BE USED DURING CONSTRUCTION

1. SILT FENCE
Silt fence consists of wooden post and filter fabric. Fences will be secured in place by wood posts set a maximum of five feet on-center. The filter fabric will be three feet in height. Fabric at the base of the fence will be buried at least six inches into the ground. Twine will be used to secure the fence on the uphill side to prevent overturning. The purpose of silt fences is to intercept and detain sediment contained in overland runoff from disturbed areas of limited extent. (Envirofence by Mirafi Inc. is an acceptable alternative to the system described above.)

Installation and Maintenance shall conform to the following:
Sediment will be removed from behind silt fences when sediment has accumulated to 50% of original height of the fence.

2. ANTI-TRACKING APRON
A ramp of crushed stone extending a minimum distance of 50 feet will be installed at the point of ingress and egress to the site. The purpose of the device is to minimize the potential of tracking mud from the site onto public right-of-way.

Installation and Maintenance shall conform to the following:
Minimum length will be 50 feet.
Stone size will meet CT DOT standards for two inch crushed gravel.
Stone will be placed upon the full width of the entrance roads.
Thickness of stone will be four inches or greater.
All sediment spilled, dropped, washed, or tracked onto public right-of-way will be removed immediately.

3. TEMPORARY WATER BREAKS
This temporary device consists of a swale constructed across proposed roadways. The purpose of this device is to direct runoff away from the road surface and minimize sediment from entering the drainage system. This shortens the length of disturbed slope by intercepting runoff and diverting it away from the roadway catch basins.

Installation and Maintenance shall conform to the following:
Swales will be placed across roads, which are to be constructed in fill:
Every 200 feet on slopes of 5-10%
Every 300 feet on slopes less than 5%
Contributory drainage areas, which are less than five acres.
Swales drain to hay bale check dams.

4. HAY BALE CHECK DAMS
Hay bale check dams of tightly bound, steel pin anchored, hay bales embedded four inches below grade in drainage swales adjacent to roadways or at the toe of an exposed slope. The purpose of a hay bale check dam is to reduce runoff velocity, and promote deposition and filtering of sediment from runoff. Hay bale check dams will be used where the runoff velocities will be less than three feet per second.

Installation and Maintenance shall conform to the following:
Compacted backfill will be placed against the up slope side of the Hay bales to a height of 4" above the ground.
Check dams will be placed in drainage swales:
Every 100 feet on slopes greater than 10%
Every 200 feet on slopes 5-10%
Every 300 feet on slopes less than 5%
Sediment shall be removed from hay bale check dams when sediment has accumulated to 50% of the original height.

5. TEMPORARY SEDIMENT TRAPS
Runoff collected in roadway interceptor swales or other swales will be directed to a sediment trap. The trap consists of a small excavation and/or embankment. The purpose of the trap is to collect runoff, promote settling of sediment, and de-concentrate and distribute clean runoff overland through natural vegetation before it enters existing watercourses and wetlands.

Installation and Maintenance shall conform to the following:
Contributory drainage areas that are less than or equal to five acres.
Utilized as part of swales prior to discharge to natural slopes.
Traps will be placed such that runoff discharging from the trap will flow at least 30 feet overland through natural vegetation before entering stream channels or wetlands.
Traps will be designed before construction.
Trap sides shall be compacted during construction.
The trap outlet shall have crushed stone rip-rap hand placed for energy dissipation.
Traps will be cleaned when sediment has accumulated to 50% of design volume.
Remove sediment deposited upland and treat to reduce potential erosion.

6. CATCH BASIN FILTERS
Temporary catch basin filters will be utilized to prevent the deposition of sediment into the storm sewer system prior to the stabilization of exposed areas with vegetation and/or pavement. These filters will consist of tightly bound, pin-anchored hay bales embedded four inches below grade, surrounding each catch basin inlet.

Installation and Maintenance shall conform to the following:
Placed around each catch basin inlet prior to paving or stabilization with vegetation.
Sediment shall be removed from the filters when sediment has accumulated to 50% of the filter's original height.

7. TEMPORARY GRADE TO DRAINS
This is a temporary raised berm of compacted soil, placed across a disturbed slope that intercepts runoff from disturbed areas and directs it to an appropriate outlet. This device will be used mostly on steep slopes above deep excavations.

Installation and Maintenance shall conform to the following:
Temporary grade to drains may be placed on cut and fill slopes exceeding 10 feet in height.
Contributory drainage area should not be greater than one acre.
Runoff will be diverted overland by the berms to sediment traps, sedimentation basins, swales, or check dams.
On slopes over 5%, additional stabilization is required in the form of stone rip-rap eight inches vertically up the upslope side of the berm and seven feet upslope from the upslope toe of the berm.
Top width of berm will be two feet. Side slopes will be 2:1 or flatter.
All berms shall be machine compacted.

8. RIP-RAP OUTFALL PROTECTION
As a permanent erosion control measure to protect the soil surface from the erosive forces and to slow the velocity of concentrated runoff while enhancing the potential for infiltration, velocity reducers in the form of crushed stone rip-rap will be used at the outfalls of all drainage structures that discharge to wetlands or other sensitive areas. The minimum thickness of the rip-rap layer will be 1.5 times the maximum stone diameter but not less than six inches. Sizing the stone and determining the dimensions of the rip-rap pads will be completed upon further design of the project using the methods described in the Connecticut Guidelines for Soil Erosion and Sediment Control.

9. Names, addresses and phone numbers of all persons and organizations that will be responsible for the installation and maintenance of the erosion and sedimentation devices will be provided prior to any earth moving or any other construction activity.

10. Construction area to be kept clean from all litter, debris and other building materials collected and disposed of offsite in approved manner. All fuels, oils and other controlled chemicals to be stored in approved areas. Such areas to be bermed as necessary to prevent spills from entering open watercourses. Fueling of equipment shall not be allowed in other than approved areas. In the event of a fuel or chemical spill, immediate measures to be taken to control damage and local and state officials are to be notified immediately.

11. Where construction activities have permanently ceased or have temporarily been suspended for more than seven days, or when final grades are reached in any portion of the site, stabilization practices shall be implemented within three days. Areas that remain disturbed but inactive for at least thirty days shall receive temporary seeding in accordance with the guidelines

D. MAINTENANCE PROGRAM DURING CONSTRUCTION

1. The designated site monitor will inspect disturbed areas of the construction activity that have not been finally stabilized, structural control measures, and locations where vehicles enter or exit the site at least once every seven calendar days and within 24 hours of the end of a storm that is 1 inches or greater. Where sites have been temporarily or finally stabilized, such inspection shall be conducted at least once every month for three months.

2. Additional control measures will be installed and the plan revised as appropriate as soon as practicable after such inspection. Such modifications shall provide for timely implementation of any changes to the site within 24 hours and implementation of any changes to the plan with 3 calendar days following the inspection. The plan shall be revised and the site controls updated in accordance with sound engineering practices, and applicable state and local regulations.

3. All control measures shall be maintained in effective working condition throughout the construction period.

4. Control measures found to be in disrepair shall be repaired or replaced immediately.

5. Sediment removed from control structures will be disposed of in a neat manner and disposed of in areas designated by the authorized town official or design engineer.

6. A report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of the Stormwater Pollution Control Plan, and actions taken shall be made and retained as part of the Plan for at least three years after the date of inspection. The permittee, or his authorized representative shall sign the report.

7. The Owner, or his designated agent is assigned the responsibility for implementing this erosion and storm pollution control plan. This responsibility includes site inspections, preparation of reports, the installation and maintenance of control measures, informing all parties engaged on the construction site of the requirements and objectives of the plan, notifying the Planning and Zoning Commission of any transfer of this responsibility, and for conveying a copy of the Erosion and Sediment Control Plan and the Implementation Schedule for Erosion and Sedimentation Control if the title to the land is transferred.

E. POST-CONSTRUCTION STORM MANAGEMENT

1. After completion of site disturbance and satisfactory stabilization, all permanent control structures including detention basins, storm water ditches, and catch basins to be cleaned of all sediment and debris. At time of transfer of ownership and/or responsibility for controls, the new owner or designated agent shall be advised of the sedimentation control maintenance requirements for the project.

MAINTENANCE PROGRAM

Seasonal Site Inspection/Maintenance
1. In the spring sweep sand deposits from the driveway areas and deposit at approved site. Inspect the water quality areas for excessive sediment buildup and remove as required.
2. In the fall, remove leaf debris from the site to avoid excessive loading of the water quality areas and rain gardens. Mow area, as required eliminating unwanted plant species.
3. All catchbasins to be inspected and cleaned yearly.
4. The infiltration systems to be inspected yearly. If there is significant sediment accumulation in the systems, the cleaning schedule for the catchbasins shall be increased to 2 times per year.

F. REPORTING AND RECORD KEEPING REQUIREMENTS

1. The permittee shall retain copies of Stormwater Pollution Control Plans and all reports required by this general permit, and records of all data used to complete the registration to be authorized by this general permit, for a period of at least three years from the date that construction at the site is completed unless the commissioner specifies another time period in writing.

2. The permittee shall retain an updated copy of the Stormwater Pollution Control Plan required by this general permit at the construction site from the date construction is initiated at the site until the date construction at the site is completed.

3. Upon completion of construction, for sites authorized by the General Permit for the Discharge of Stormwater Associated with Commercial Activity or the General Permit for the Discharge of Stormwater Associated with Industrial Activity, the Stormwater Pollution Control Plan shall be kept as an appendix to the Stormwater Management Plan or Stormwater Pollution Prevention Plan (as applicable) for a period of at least three years from the date of completion of construction. A notice of termination form shall be completed by the permittee and forwarded to DEP upon completion of all site construction.

ROAD CONSTRUCTION SEQUENCE

1. PRIOR TO STARTING ANY CONSTRUCTION ON THE SITE, ASSURE THAT ALL REQUIRED PERMITS HAVE BEEN OBTAINED AND ARE CURRENT.
2. CONTACT SITE LAND SURVEYOR AND HAVE ALL LIMITS OF CONSTRUCTION CLEARLY MARKED FOR CLEARING. CLEARLY MARK ANY TREES WHICH ARE TO BE PROTECTED.
3. CONTACT CALL BEFORE YOU DIG AT 800-922-4455 TO MARK ALL EXISTING UTILITIES ON THE SITE.
4. PRIOR TO STARTING ANY CONSTRUCTION ON THE SITE HOLD A PRE-CONSTRUCTION MEETING AT THE SITE. MEETING TO INCLUDE ALL CONTRACTORS, SITE ENGINEER, TOWN WETLANDS AND EROSION CONTROL OFFICER AND ANY DESIGNATED SITE MONITOR.
5. INSTALL SILT FENCE FOR FIST 100' OF ROAD.
6. INSTALL ROAD CROSSING AT ENTRANCE TO ROAD AND ROUGH GRADE FIRST 100' ROAD
7. INSTALL ANTI TRACKING APRON
8. CLEAR SITE TO LIMITS MARKED BY THE SURVEYOR. REMOVE ALL CUT MATERIALS FROM SITE BEFORE STARTING ANY OTHER SITE CONSTRUCTION.
8. STUMP SITE AND REMOVE STUMPS TO APPROVED DISPOSAL OR RECYCLING SITE.
9. STRIP USABLE TOPSOIL FROM CONSTRUCTION AREA AND STOCKPILE IN DESIGNATED AREA. STABILIZE PILES AND INSTALL PERIMETER SILT FENCES.
10. CONSTRUCT TEMPORARY SEDIMENT TRAPS AND DIVERSION SWALES AS REQUIRED.
11. ROUGH GRADE ROAD
12. INSTALL ROAD DRAINAGE AND CONSTRUCT WATER QUALITY BASIN.DRAINAGE. INSTALL SILT SACKS IN CATCHBASINS.
13. LOAM, SEED AND MULCH ALL DISTURBED AREAS AS SOON AS POSSIBLE.
14. INSTALL SITE UTILITIES.
15. INSTALL PAVEMENT SUBBASE. PLACE BINDER PAVEMENT AND INSTALL CURBS.
16. REMOVE TEMPORARY SEDIMENT TRAPS.
17. LOAM, SEED AND MULCH ALL REMAINING DISTURBED AREA.
18. WHEN SITE IS TOTALLY STABILIZED, REMOVE REMAINING EROSION CONTROLS.

GENERAL EROSION CONTROL NOTES:

1. A MINIMUM OF 4" OF TOPSOIL MUST BE PLACED ON ALL DISTURBED AREAS.

2. ALL WASTE MATERIAL INCLUDING WASTEWATER, SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL LAW. LITTER SHALL BE PICKED UP AT THE END OF EACH WORKING DAY.

3. E&S CONTROLS SHALL BE INSPECTED AT LEAST ONCE PER WEEK AND WITHIN 24 HOURS AFTER A RAINFALL EVENT OF GREATER THAT 1 INCH.

4. ACCUMULATED SEDIMENT SHALL BE REMOVED AS REQUIRED TO KEEP SILT FENCES FUNCTIONAL. IN ALL CASES, DEPOSITS SHALL BE REMOVED WHEN ACCUMULATED SEDIMENT HAS REACHED ONE-HALF ABOVE THE GROUND HEIGHT OF THE FENCE.

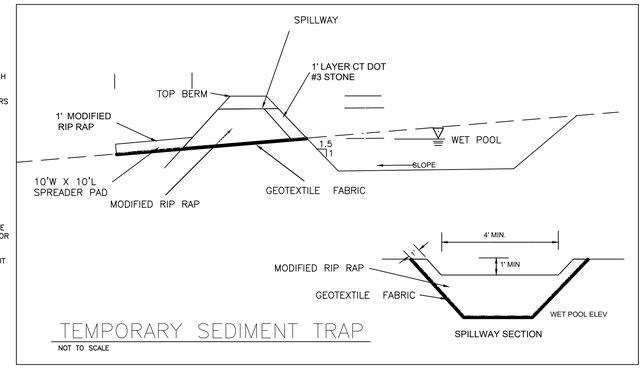
5. ALL SOIL STABILIZATION SHALL BE COMPLETED WITH IN FIVE (5) DAYS OF CLEARING OR INACTIVITY IN CONSTRUCTION.

6. THE DEVELOPER SHALL PRACTICE EFFECTIVE DUST CONTROL PER SOIL CONSERVATION HANDBOOK DURING CONSTRUCTION AND UNTIL ALL AREAS ARE STABILIZED OR SURFACE TREATED. THE DEVELOPER SHALL BE RESPONSIBLE FOR CLEANING OF NEARBY STREETS, AS ORDERED BY THE TOWN, OF ANY DEBRIS FROM THESE CONSTRUCTION ACTIVITIES.

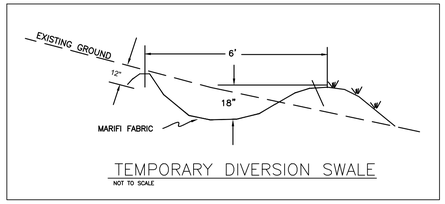
7.IF SEEDING OR OTHER VEGETATIVE EROSION CONTROL METHOD IS USED, IT SHALL BECOME ESTABLISHED WITHIN TWO WEEKS OR THE TOWN MAY REQUIRE THE SITE TO BE RESEEDED OR A NONVEGETATIVE OPTION TO BE EMPLOYED.

8 SOIL STOCKPILES MUST BE STABILIZED AS PER THE LATEST EDITION OF THE CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.

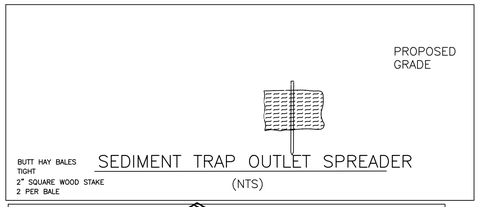
9 ALL DISTURBED AREAS TO BE SEEDED WITH NEW ENGLAND CONSERVATION/WILDLIFE MIX (SEE CONSTRUCTION DETAIL SHEET) UNLESS OTHERWISE SPECIFIED ON PLANS.



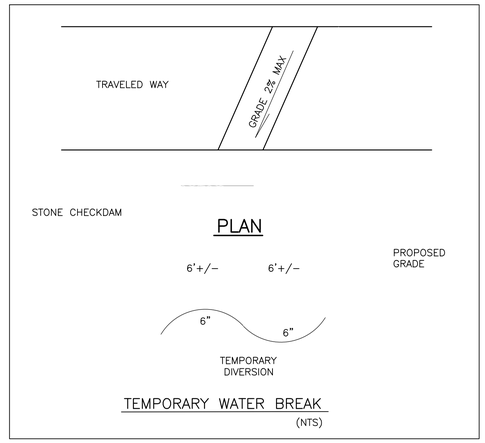
TEMPORARY SEDIMENT TRAP
NOT TO SCALE



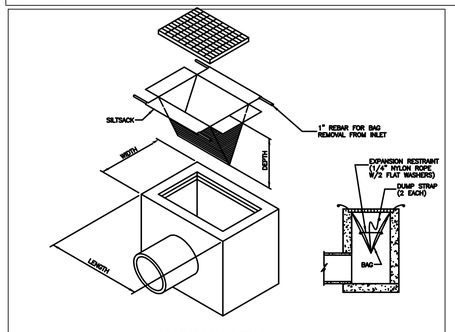
TEMPORARY DIVERSION SWALE
NOT TO SCALE



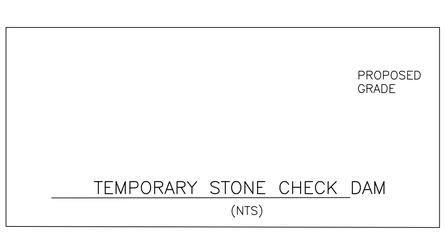
SEDIMENT TRAP OUTLET SPREADER
(NTS)



TEMPORARY WATER BREAK
(NTS)

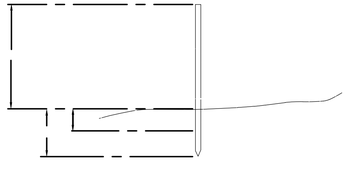


SILT SACK DETAIL

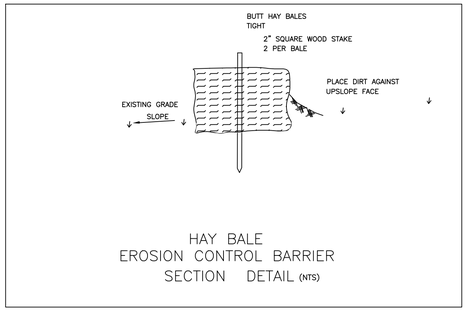


TEMPORARY STONE CHECK DAM
(NTS)

NOTES:
1. SPACING MAY VARY PER MANUFACTURER'S RECOMMENDATIONS. MAXIMUM SPACING IS 8'-0".
2. JOIN SILT FENCE SECTIONS BY OVERLAPPING END STAKES TO PREVENT SILT FROM BYPASSING ADJOINING UNITS.
3. INSPECT PERIODICALLY AND REMOVE SILT WHEN MORE THAN 1/2 THE HEIGHT IS FILLED.

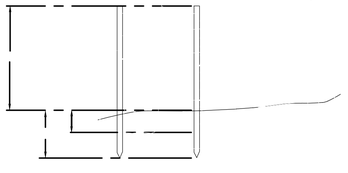


MIRAFI FILTER FABRIC-SILT FENCE DETAIL
(NTS)

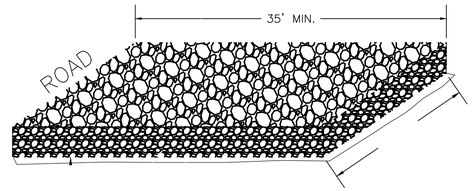


HAY BALE
EROSION CONTROL BARRIER
SECTION DETAIL (NTS)

NOTES:
1. SPACING MAY VARY PER MANUFACTURER'S RECOMMENDATIONS. MAXIMUM SPACING IS 8'-0".
2. JOIN SILT FENCE SECTIONS BY OVERLAPPING END STAKES TO PREVENT SILT FROM BYPASSING ADJOINING UNITS.
3. INSPECT PERIODICALLY AND REMOVE SILT WHEN MORE THAN 1/2 THE HEIGHT IS FILLED.



DOUBLE ROW
MIRAFI FILTER FABRIC-SILT FENCE DETAIL
(NTS)



ANTI-TRACKING APRON

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No. 10937
LICENSED PROFESSIONAL ENGINEER

STATE OF CONNECTICUT
JASON EDWARDS
LICENSED LAND SURVEYOR

296 BERKSHIRE ROAD
NEWTOWN, CONNECTICUT

PREPARED FOR

THE RESIDENCE AT BERKSHIRE, LLC

REVISIONS

#	DATE	DESCRIPTION
	2.10.24	RED. IMPACT
	3.11.24	IWC COM.

DATE: AUGUST 1, 2023
PROJECT #: 2960
DRAWING FILE:
DRAWN BY: NDC
SCALE: NTS

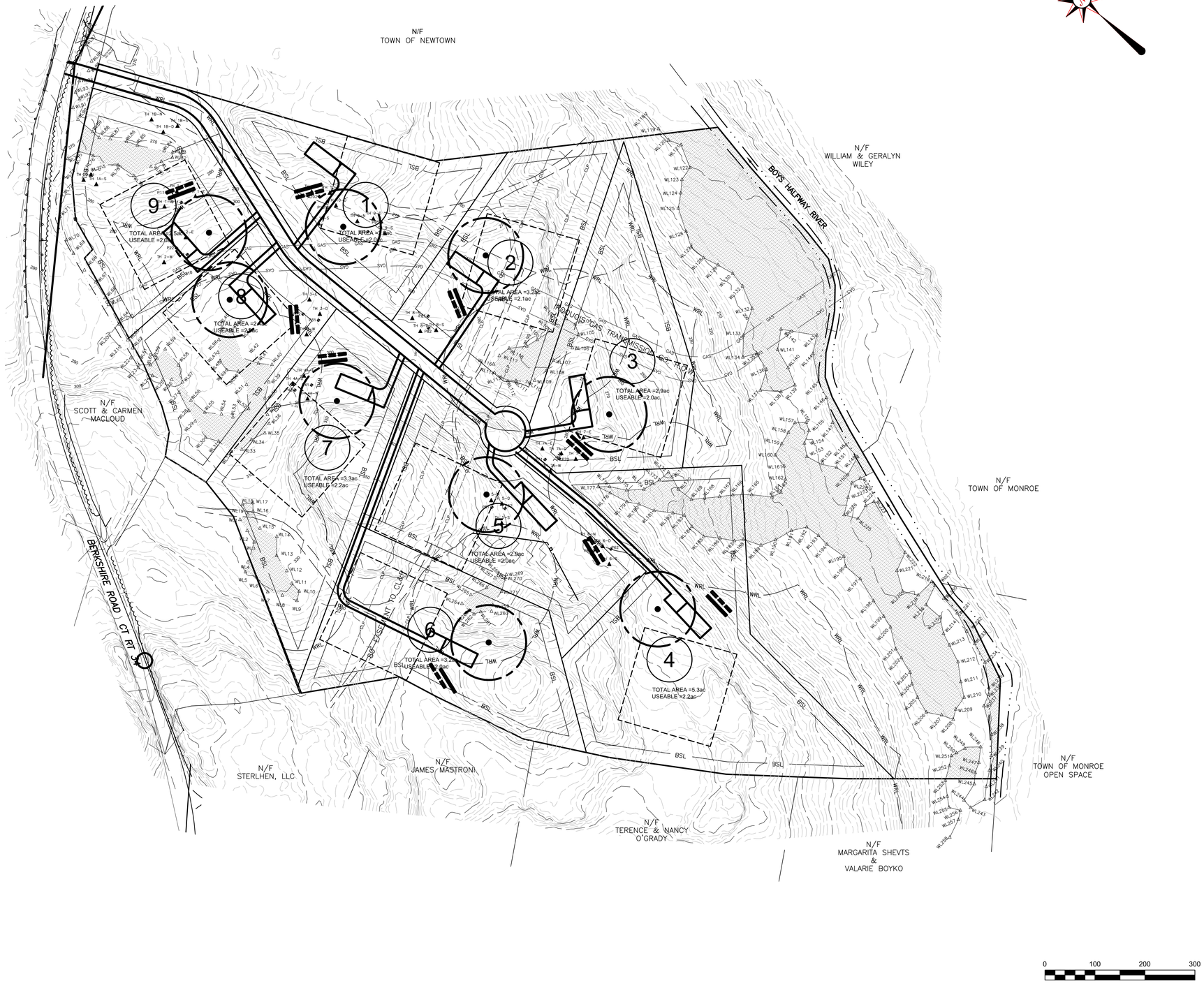
TITLE

EROSION CONTROL DETAIL SHEET

SHEET NUMBER

4.2

K:\PROJECTS\2960-SHAPIRO-296 BERKSHIRE ROAD, NEWTOWN, CT\DRAWINGS\2960-SI



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REVISIONS

#	DATE	DESCRIPTION
	2.10.24	RED. IMPACT
	3.11.24	IWC COM.

DATE: AUGUST 1, 2023
PROJECT #: 2960
DRAWING FILE:
DRAWN BY: NDC
SCALE: 1"=100'

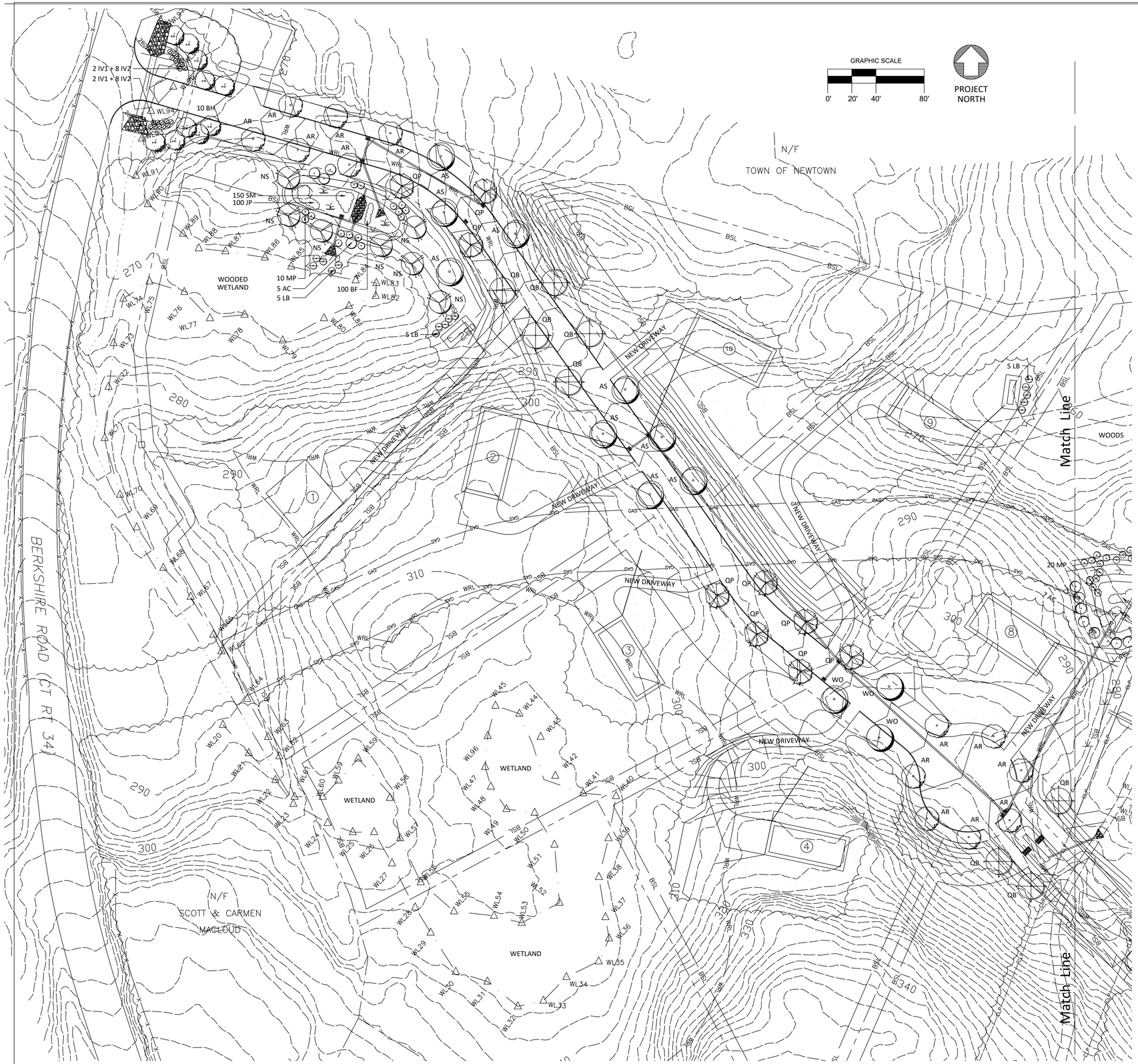
TITLE

ALTERNATE LAYOUT PLAN

SHEET NUMBER

5.0

K:\PROJECTS\2960-SHAPIRO-296 BERKSHIRE ROAD, NEWTOWN, CT\DRAWINGS\2960-SI



LEGEND

- PROPERTY LINE
- WETLAND LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- TREE LINE TO REMAIN (APPROX.)
- NEW / EX. LAWN AREA
- NEW DECIDUOUS SHADE TREE
- NEW DECIDUOUS SMALL TREE
- NEW SHRUB

SEEDING AREA LEGEND

- LAWN
- DETENTION BASIN SIDE SLOPES
- DETENTION BASIN BOTTOM

SEEDING NOTES:

1. FOR ALL SEEDING AREAS, APPLY SEED MIX AT THE METHODS AND 125% THE RATE RECOMMENDED BY THE MANUFACTURER. SEED MIX SUBSTITUTIONS SHALL BE APPROVED BY THE PROJECT LANDSCAPE ARCHITECT PRIOR TO USE. APPLY SOIL AMENDMENTS AS NEEDED TO ESTABLISH PROPER SEED GERMINATION AND GROWTH.
2. BASIN BOTTOM: SEED THIS AREA WITH "NEW ENGLAND EROSION CONTROL / RESTORATION MIX FOR DETENTION BASINS AND MOIST SITES" BY NEW ENGLAND WETLAND PLANTS, INC. (413-548-8000).
3. BASIN SIDE SLOPES: SEED THIS AREA WITH "NEW ENGLAND CONSERVATION / WILDLIFE MIX" BY NEW ENGLAND WETLAND PLANTS, INC. (413-548-8000).
4. LAWN: SEED NEW LAWN AREAS WITH A HIGH QUALITY TURF TYPE SEED MIXTURE CONSISTING OF BLUEGRASS, FESCUE AND PERENNIAL RYEGRASS. APPLY SEED MIX AT THE METHODS AND 125% THE RATE RECOMMENDED BY THE MANUFACTURER. SEED MIX SUBSTITUTIONS SHALL BE APPROVED BY THE PROJECT LANDSCAPE ARCHITECT PRIOR TO USE. APPLY SOIL AMENDMENTS AS NEEDED TO ESTABLISH PROPER SEED GERMINATION AND GROWTH.

GENERAL NOTES:

1. EXISTING AND PROPOSED SITE INFORMATION TAKEN FROM A DIGITAL AUTOCADD SITE PLAN SUPPLIED BY J. EDWARDS ASSOCIATES, LLC.
2. CONTACT "CALL BEFORE YOU DIG" AT 1-800-922-4455 TO HAVE UNDERGROUND UTILITY LINES MARKED BY THEM PRIOR TO START OF ANY EXCAVATION WORK.
3. EXACT LOCATION OF PROPOSED PLANTINGS AND SPECIES TYPES MAY VARY FROM THIS PLAN BASED ON SITE PLAN REVISIONS AND/OR ACTUAL FIELD CONDITIONS.
4. PLANT SPECIES SUBSTITUTIONS MAY BE MADE WITH THE APPROVAL OF THE PROJECT LANDSCAPE ARCHITECT PRIOR TO PLANTING. SUBSTITUTED PLANTS SHALL BE AT AN EQUAL OR GREATER SIZE AS NOTED USING A SIMILAR TYPE PLANT.
5. ALL PLANTING METHODS SHALL BE IN ACCORDANCE WITH THE "AMERICAN STANDARDS FOR NURSERY STOCK", LATEST EDITION, AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION.
6. THE CONTRACTOR SHALL VERIFY WITH THE PROJECT ENGINEER THAT THE NEW PLANTINGS DO NOT INTERFERE WITH EXISTING AND/OR PROPOSED UTILITIES, SIGHT LINES, AND/OR STRUCTURES.
7. THIS PLAN FOR PLANTING PURPOSES ONLY. SEE PLANS BY OTHERS FOR ADDITIONAL INFORMATION.
8. SPRAY NEW PLANTINGS IMMEDIATELY AFTER INSTALLATION WITH A WHITE-TAILED DEER REPELLENT AND CONTINUE AS NEEDED TO MAINTAIN PLANTS FREE OF SIGNIFICANT DEER BROWSING. PROTECT TRUNKS OF NEWLY PLANTED TREES FROM DEER RUBBING AS NEEDED TO MAINTAIN HEALTHY TREES.
9. SEE LP.2 FOR PLANT LIST.

PLANT LIST

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT REMARKS
13	AR	ACER RUBRUM	RED MAPLE	2 1/2-3"	CAL. B&B FULL
16	AS	ACER SACCHARUM	SUGAR MAPLE	2 1/2-3 "	CAL. B&B FULL
10	BH	BETULA NIGRA 'HERITAGE'	HERITAGE BIRCH	8-9'	HT. B&B 3 STEMS
7	NS	NYSSA SYLVATICA	BLACK GUM	8-9'	HT. B&B
9	QB	QUERCUS BICOLOR	SWAMP WHITE OAK	2 1/2-3"	CAL. B&B FULL
12	QP	QUERCUS PALUSTRIS	PIN OAK	2 1/2-3"	CAL. B&B FULL
3	WO	QUERCUS PHELLOS 'HIGHTOWER'	HIGHTOWER WILLOW OAK	2 1/2-3"	CAL. B&B FULL
12	AC	AMELANCHIER CANADENSIS	SHAD	4-5'	HT. B&B MULTI-STEM
4	IV1	ILEX VERTICILLATA 'JIM DANDY'	JIM DANDY WINTERBERRY	2-3'	HT. CONT.
16	IV2	ILEX VERTICILLATA 'RED SPRITE'	RED SPRITE WINTERBERRY	2-3'	HT. CONT.
40	LB	LINDERA BENZOIN	SPICEBUSH	2-3'	HT. CONT.
30	MP	MYRICA PENSYLVANICA	NORTHERN BAYBERRY	2-3'	HT. CONT.
300	SM	ASCLEPIAS INCARNATA	SWAMP MILKWEED	1 QT.	
200	JP	EUTROCHIUM DUBIUM	JOE-PYE-WEED	1 QT.	
200	BF	IRIS VERSICOLOR	BLUE FLAG IRIS	1 QT.	

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

227 Stepney Road Easton, CT 06612
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www.jedwardsassoc.com

296 BERKSHIRE ROAD
NEWTOWN, CONNECTICUT

PREPARED FOR

THE RESIDENCE AT BERKSHIRE, LLC

REVISIONS

#	DATE	DESCRIPTION
	2.10.24	RED. IMPACT
	3.11.24	IWC COM.

DATE: AUGUST 1, 2023
PROJECT #: 2960
DRAWING FILE:
DRAWN BY: NDC
SCALE: 1"=100'

TITLE

LANDSCAPE PLAN

SHEET NUMBER

LP-1

K:\PROJECTS\2960-SHAPIRO-296 BERKSHIRE ROAD, NEWTOWN, CT\N-OUT BOX\VN\ELS\2960-LC-SEA.DWG

LEGEND

- PROPERTY LINE
- WETLAND LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- TREE LINE TO REMAIN (APPROX.)
- NEW / EX. LAWN AREA
- NEW DECIDUOUS SHADE TREE
- NEW DECIDUOUS SMALL TREE
- NEW SHRUB

SEEDING AREA LEGEND

- LAWN
- DETENTION BASIN SIDE SLOPES
- DETENTION BASIN BOTTOM

GENERAL NOTES:

1. SEE LP.1 FOR ADDITIONAL INFORMATION.

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TITLE

LANDSCAPE PLAN

SHEET NUMBER

LP-2

K:\PROJECTS\2960-SHAPIRO-296 BERKSHIRE ROAD, NEWTOWN, CT\IN-OUT BOX\IN\ELS\2960-LC-JEA.DWG