

Richard Zulick
Certified Forester / Soil Scientist
400 Nott Highway
Ashford, CT
06278

Burn Weeding Plan

February 6, 2025

Town of Coventry
Inland Wetlands and Watercourses Commission
Coventry, CT

Re: **Burn Weeding Plan** for Roland Johnson - Brewster Street – Coventry, CT
For approved plan – “ Proposed Wetlands crossing for Driveway – Roland Johnson – Coventry CT “
By Civil Engineering Services LLC Project # 2401- Johnson Crossing Dated July 1, 2024. Revised 8/24/24

Dear Commission

I have prepared a wetland mitigation plan for burn weeding in the vicinity of the proposed driveway shown on the above referenced plan. This plan will be adopted as an attempt to mitigate any overall negative impact caused by the proposed access driveway disturbance within the wetland area on the parcel located on the east side of Brewster Street in Coventry, CT. The wetlands were delineated in May of 2023.

Burn weeding , in my opinion, resolves the “ herbicide vs organic “ question. This practice is a natural organic non chemical control for selective management that pin points individual target species with proven effectiveness in sensitive watersheds. The burn weeding requires the girdling and defoliation of target species by holding the flame approximately 20 inches from the plant for 10 to 15 seconds. This practice requires no specific license and poses no threat to water resources by the direct application and/or drift of herbicides. . Burn weeding is by no means the “ end all “ to invasive colonization but has been proven by both the University of Connecticut and Cornell University to be an effective treatment for the control of Multiflora Rose and Barberry.

Burn weeding is conducted with a small propane source connected to a burn weeding torch which is available at most forestry suppliers. The flame is generally about 1500 degrees and requires the use of safety equipment such as appropriate long pants, eye protection, water sprayers / tank and fire extinguishers. (additional safety equipment may be appropriate).

Burn weeding should be conducted when the fire hazard is very low and preferably after a rain event.

Mitigation

The applicant will work to remove the invasive Multiflora Rose (*Rosa multiflora*) and the Barberry (*Berberis* spp) by burn weeding.

Barberry

Non-native barberry (*Berberis* spp.) are invasive, shade-tolerant, deciduous woody shrubs found in Connecticut and surrounding states, natural landscapes and forests. Recent research has indicated a relationship between high tick populations and the presence of the invasive shrub, making it crucial for forest and landscape managers to be able to identify it, manage it, and prevent its spread into natural and managed areas.

Multiflora Rose

Rosa Multiflora spp. Was introduced to the United States in the 1800's and commonly used by farmers as " living Fence " by 1930. This invasive can invade fields, forests, stream banks, some wetlands and many other habitats. Dense thickets of multiflora rose exclude other vegetation from establishing and may be detrimental to nesting of some native birds. In wetland , multiflora rose can form thickets that limit the natural growth of vegetation and limit access to native animals.

The burn weeding will be conducted manually by the property owner or his representative with a burn weeding propane torch first during the dormant season at ground level to girdle the plant and a second treatment to be applied later while the invasive target species are in early full foliage to the stems and leafy matter. Both control events are to be applied after a rain and when the fire danger is low. This weeding will occur within, at least, the 200 foot area surrounding the driveway on the above referenced driveway plan. (see highlighted plan)

During the leaf out treatment, apply only enough heat to burst the leaf cells. Burning of the leaves to ash is not required or recommended. During the stem treatment, apply sufficient heat to kill cells at the cambium layer.

Treatment shall begin by the spring of 2025. The treatment must cover a minimum of 25 % of the area each year and the total area of coverage must be complete within 4 years. The double application must be adhered to each year until the completion of 100% of the area.

Conclusion

The two applications of burn weeding are to be conducted within the entire area within the time span of 4 years. Both treatments are to be applied at least within 6 months of each other. Treating smaller areas twice within 6 months will be more effective than treating larger areas with a longer time span between treatments.

The prescribed treatment defined above is an appropriate mitigation for this sensitive area.

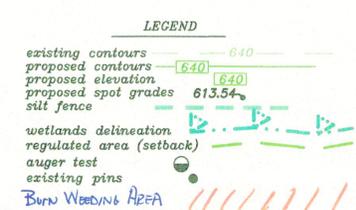
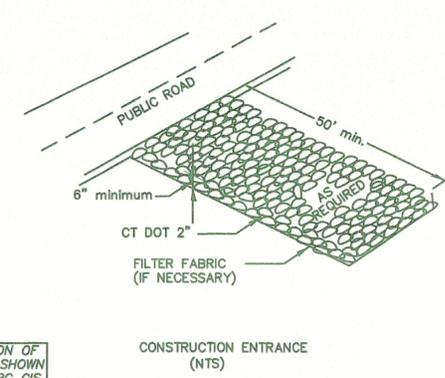
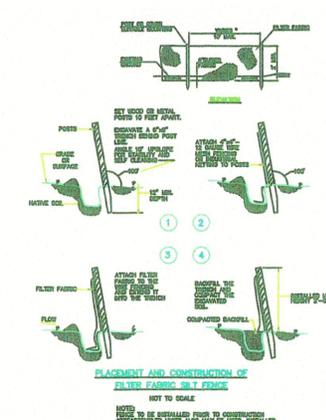
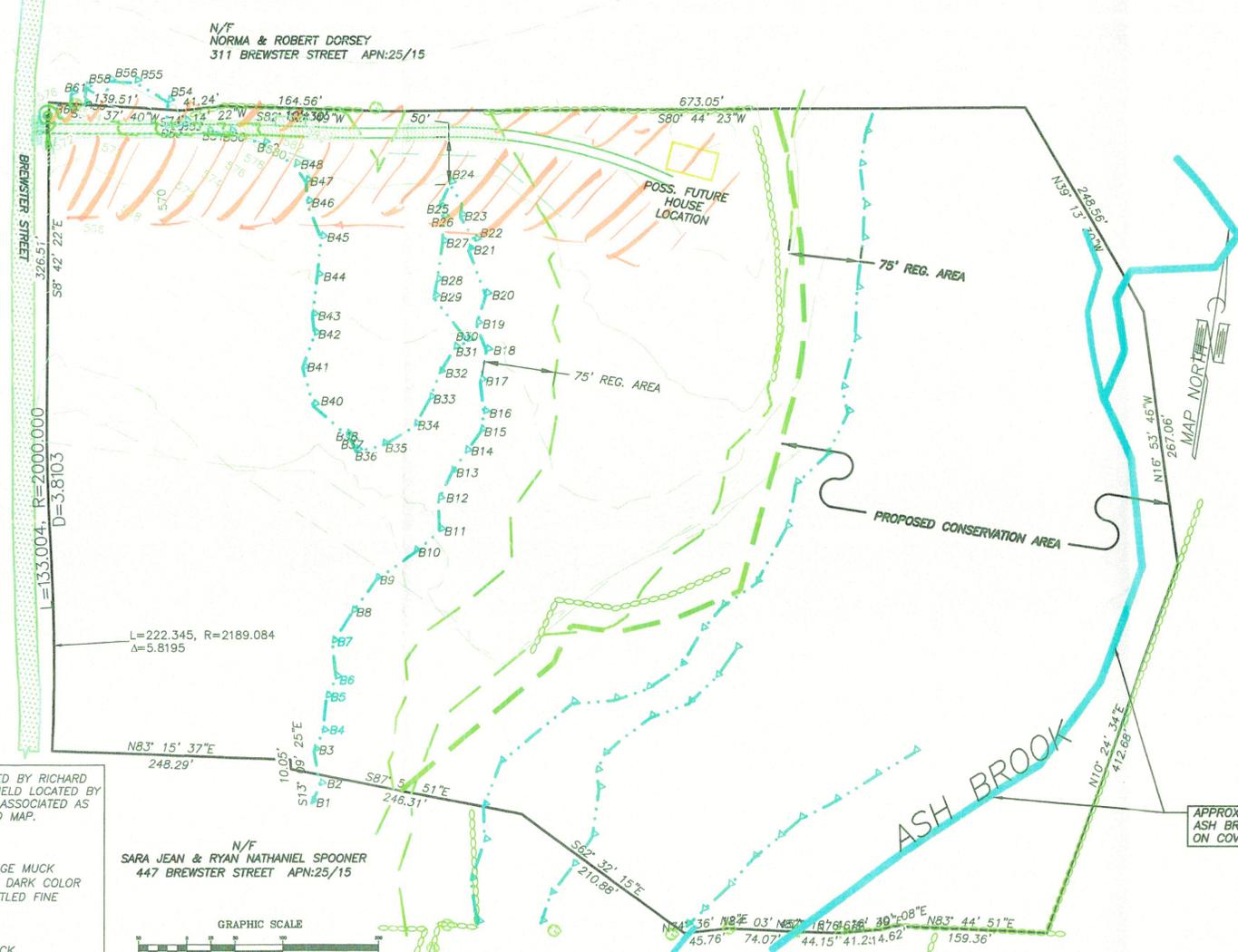
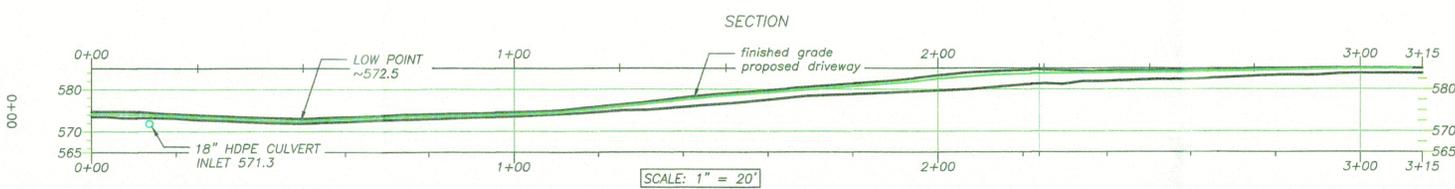
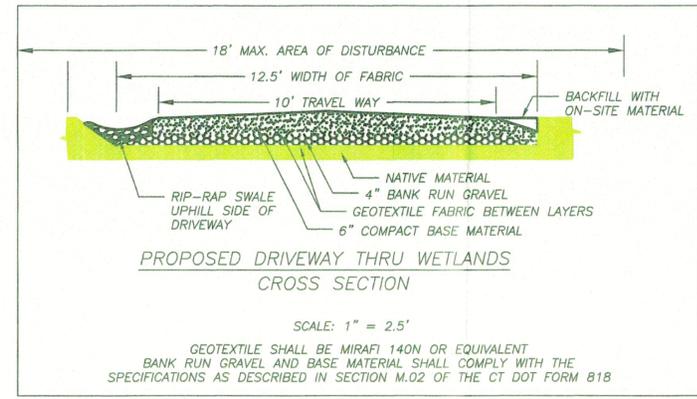
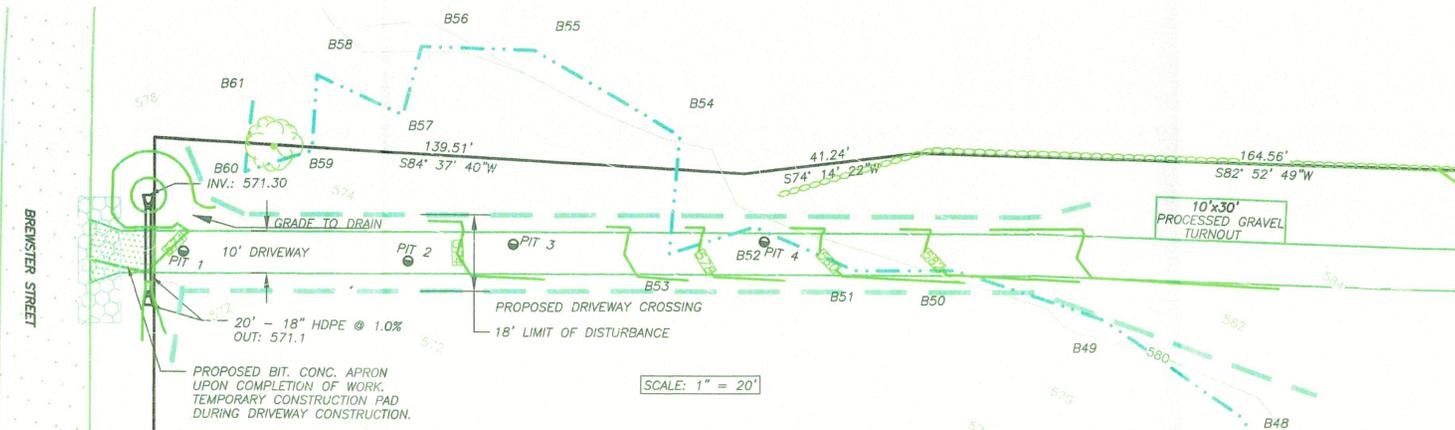
If you have any questions concerning this burn weeding plan, please feel free to contact me.

Sincerely,



Richard Zulick
Certified Forester and Soil Scientist
Member SSSSNE

PROPOSED CULVERT INLET AND OUTLET SHALL BE STABILIZED WITH MODIFIED RIP-RAP AS SPECIFIED IN CT DOT FORM 817 SECTION M.12.03



WETLANDS AS DELINEATED BY RICHARD ZULICK, C.P.S.S. AND FIELD LOCATED BY GARDNER & PETERSON ASSOCIATES AS SHOWN ON REFERENCED MAP.

SOIL PROFILES:
 PIT 1.
 0 - 10" BLACK ORANGE MUCK
 10 - 19" SANDY MUCK DARK COLOR
 19 - 28" GRAYISH MOTTLED FINE SANDY LOAM (FSL)

PIT 2.
 0 - 10" ORGANIC MUCK
 10 - 20" GRAYISH MOTTLED FSL

PIT 3.
 0 - 6" MUCKY TOPSOIL
 6 - 12" REDDISH GRAY FSL

PIT 4.
 0 - 6" MUCKY TOPSOIL
 6 - 12" REDDISH GRAY FSL

N/F SARA JEAN & RYAN NATHANIEL SPOONER
 447 BREWSTER STREET APN:25/15

N/F NORMA & ROBERT DORSEY
 311 BREWSTER STREET APN:25/15

GRAPHIC SCALE
 1 inch = 80 ft.

EROSION CONTROL PLAN NARRATIVE:
 The proposed project entails installing an access driveway across approximately 200' of wetlands to gain access to approximately 7 acres of upland area.

Establishment and maintenance of Erosion Control Measures (ECM) will be the responsibility of Seth Frink (860) 428-4206, and will be monitored on a weekly basis, and after every significant rain event.

- SEQUENCE OF CONSTRUCTION:**
- 1) Pre-construction meeting with Town of Coventry Agent(s). All phases of work to be coordinated with and approved by appropriate Town agency.
 - 2) Field location and stake out.
 - 3) Installation of silt fence and construction entrance.
 - 4) Excavation of unsuitable material and installation of bank run gravel.
 - 5) Installation of Geotextile and base material.
 - 6) Finish grading and soil stabilization.
 - 7) Removal of Construction Entrance.
 - 7) Installation of Bituminous Concrete apron.
 - 7) Removal and disposal of all silt fence/erosion control.

NOTE THAT TRAFFIC CONTROL MAY BE REQUIRED DURING EARLY STAGES OF CONSTRUCTION.

1. This map has been prepared in accordance with sections 20-300b-1 thru 20-300b-20 of the regulations of Connecticut State Agencies "Standards and Suggested Methods and Procedures for Surveys and Maps in the State of Connecticut" Prepared and Adopted by the Connecticut Association of Land Surveyors, Inc. August 29, 2019.

The type of survey performed is a COMPILATION PLAN; This survey conforms to a CLASS "D" horizontal accuracy and is intended to indicate approximate topography as necessary to construct a gravel driveway through wetlands. This plan was compiled from other maps, record research or other sources of information. It is not to be construed as having been obtained as the result of a field survey, and is subject to such change as an accurate field survey may disclose.

See Note #1.

GERALD E. HARDISTY, L.S. #15974

General Notes

ASSESSOR'S GIS ID: 09013032-R01426
 VOL. 1287, PG. 260

MAP REFERENCED:
 "PROPERTY SURVEY LAND OF 447 BREWSTER STREET COVENTRY, CONNECTICUT"
 by GARDNER & PETERSON ASSOCIATES, LLC
 Scale: 1"=50' date: 02-12-2024
 sheet 1 of 1

NOTE #1
 Boundary survey depicted is an accurate retracing of the map referenced above and closes to A-2 accuracy. Wetlands flags are also as shown on the referenced map and verified by Richard Zulick, C.S.S.

Topographic information was compiled from tracing of ARC-GIS topography as provided on Town of Coventry web site. The topography is not certified to T-2 standards but field observation by this office deems it accurate enough to be appropriate for this application.

Ash Brook location as shown on this drawing is also approximate and based on ARC-GIS and Google Earth depictions.

1.	Revised to address staff comments	8/24/24
No.	Revision/Issue	Date

PROPOSED WETLANDS CROSSING FOR DRIVEWAY
 ROLAND JOHNSON
 COVENTRY CT

CIVIL ENGINEERING SERVICES, LLC.
 203 BOSTON HILL ROAD
 ANDOVER CT 06232
 ph. (860) 742-0364

Project: 2401-JOHNSON CROSSING
 Date: JULY 1, 2024
 Scale: AS SHOWN
 Sheet: 1 OF 2