TOWN OF BROOKLYN
P.O. Box 356 - Route 6 and 169
BROOKLYN, CONNECTICUT 06234

OFFICE OF SELECTMEN
TELEPHONE: 779-3411
TOWN CLERK
TELEPHONE: 774-9543
ASSESSOR
TELEPHONE: 774-5611
TAX COLLECTOR
TELEPHONE: 774-4072
JUDGE OF PROBATE
TELEPHONE: 774-5973

RECEIVED
JUN 0 3 2020

Received Date _____
Fee $ 250___ State Fee ($60.00) _____

Application #SPG 20-001
Check # 6129

APPLICATION FOR GRAVEL BANK
SPECIAL PERMIT

Name of Applicant Paul R. Lehto Phone 860-208-9789
Mailing Address 40 Almada Drive, Brooklyn, CT 06234
Relation owner

Property Owner Paul R. Lehto Phone 860-208-9789
Mailing Address 40 Almada Drive, Brooklyn, CT 06234

Name of Engineer/Surveyor Provost & Rovero, Inc.
Address P.O. Box 191, Plainfield, CT 06374
Contact Person David J. Held, P.E., L.S. Phone 860-230-0856 Fax 860-230-0860

Name of Attorney N/A
Address
Phone Fax

Property address Allen Hill Road (Riverwalk Drive)
Property Location east of Allen Hill Road
Map # 32 Lot # 148 Zone RA Total Acres 71.34

Maximum Area :
Acres of Gravel Removal 6.7 acres Cubic Yards of Gravel Removal 90,000 CY

Is Application for Renewal? Yes____ No X If Yes, Amount Removed Last Year_____
Original Date of Issuance of Permit_____ Issued To: _____

Compliance with Article 13, Gravel Banks
Compliance with Article 5, Special Permit Requirements

The owner and applicant hereby grant the Brooklyn Planning and Zoning Commission, the Board of Selectman, Authorized Agents of the Planning and Zoning Commission or Board of Selectman, permission to enter the property to which the application is requested for the purpose of inspection and enforcement of the Zoning regulations and the Subdivision regulations of the Town of Brooklyn

Applicant: Paul Lehto Date 5/20/2020

Owner: Paul Lehto Date 5/20/2020

*Note : All consulting fees shall be paid by the applicant

EARTH EXCVATION AND REMOVAL

CHECK LIST

The following items are required as a part of the excavation plan. Note these are minimum requirements. Other information may be required based on your application

__X__ Contours at 2 ' intervals

For renewals:

_____Contours as of original permit approval

-------Contours as of date of survey(updated to present) stamped by a licensed land surveyor

__X__ Amount of material to be removed

For Renewals:

_____ Amount of material originally approved to be removed

-------- Amount of material removed to date, by an annual accounting for each 12 month period of the permit

_____ Amount of material to be removed during the next year

_____ Date the permit will next expire if not renewed.

__X__ Maximum depth of excavation

__X__ Depths to water table

__X__ Note measures to be used to protect the water table

__X__ Location of any stock piles

__X__ Areas to be restored

__X__ Restoration Plan

__X__ Erosion and Sediment Control Plan

__X__ Erosion and Sediment Control Narrative

__X__ Erosion and Sediment Control Bond

For renewals:

_____ Amount of bond that has been filed

_____ Verification of Erosion and Sedimentation control measures

__X__ Traffic pattern within the site

____ Will any trucks be repaired on site if so, where

__X__ Location of fueling pad

____ Will any equipment or trucks be stored on site

____ If so , locate on site

__X__ Average number of trips per day

__X__ Maximum number of trips per day

__X__ Note trucks will be covered when leaving the site

_____ Processing equipment if any and usage
_____ Amount of processing too be done
_____ Per year
_____ Per month

____ How will noise issues be addressed
_X_ How will dust issues be address
_X_ Calcium chloride _X_ water _____ at what frequency
_X_ Description of the project, trucks/day, days and hours of operation, completion date etc
_X_ Phasing plan
_X_ Time frame for project

_____Site inspection by staff
_____ Compliance with Article 5 Special Permit
_____ Compliance with Article13 Gravel Banks
For Renewals:
_____ Inland Wetlands Permit if required
_____ Archeological review
_____ DEP Permit if required

Other items to review

Bond amount may need to be updated regarding the following:

_____ Erosion and Sediment Control
_____ Restoration Plan

Inspections will be done through out the year on a Quarterly basis to insure compliance with the original plan and any conditions of renewal

Provost & Rovero, Inc.

Civil Engineering • Surveying • Site Planning • Structural • Mechanical • Architectural Engineering

P.O. Box 191
57 East Main Street
Plainfield, CT 06374

Telephone (860) 230-0856
Fax (860) 230-0860
www.prorovinc.com

June 2, 2020

Brooklyn Planning & Zoning Commission
69 South Main Street
Brooklyn, CT 06234

RE: Paul R. Lehto – Proposed Gravel Excavation – Easterly of Allen Hill Road – Brooklyn, CT
P&R Job No. 173055

Dear Commissioners:

This narrative is intended to accompany the special permit application for the proposed gravel excavation by Paul R. Lehto. The proposed excavation site is an extension of a previously permitted excavation and will include 6.7 acres and result in the removal of approximately 90,000 cubic yards of material. An application for this project has also been submitted to the Brooklyn Inland Wetlands & Watercourses Commission.

The zoning regulations require an excavation permittee to provide a bond for restoration of the site following excavation activities. As noted above, the subject property was previously permitted for excavation in an area immediately adjacent to the currently proposed excavation site. The Town is currently in possession of the cash bond which was required as part of that previously approved excavation. The current excavation site encompasses 6.7 acres of new site disturbance. We would propose a restoration bond amount of $10,000.00 per acre or $67,000.00 for the current proposal. If the applicant wishes to bond by phase, the first excavation phase includes 4.1 acres of disturbance with a resulting bond amount of $41,000.00 This amount would cover grading the excavation area in accordance with the zoning regulations (2H:1V maximum slopes), spreading on-site stockpiled topsoil and seeding with an appropriate seed mix. For informational purposes, we have included a conceptual subdivision plan as part of this application to demonstrate the feasible reuse of the property following excavation and restoration.

Thank you for your consideration of this application. If you have any questions or need additional information, please do not hesitate to contact us at your convenience.

Sincerely,

David J. Held, P.E., L.S.
Provost & Rovero, Inc.

Provost & Rovero, Inc.

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Plainfield, CT 06374

Telephone (860) 230-0856
Fax (860) 230-0860
www.prorovinc.com

June 2, 2020

Paul R. Lehto

P & R Job #173055

APPLICATION PACKAGE CONTENTS – Excavation Special Permit Application

1. Application fee $3,110.00
2. Special permit application form
3. Application narrative dated 6/2/2020
4. 5 copies of excavation plans dated 6/2/2020

Application Fee Calculation:

Base Fee:	$ 250.00
State Fee:	$ 60.00
Public Hearing Fee:	$ 300.00
50,000 CY-100,000 CY Fee:	$2,500.00
TOTAL FEE:	$3,110.00

Connecticut Department of
ENERGY & ENVIRONMENTAL PROTECTION

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

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

Statewide Inland Wetlands & Watercourses Activity Reporting Form

Please complete - print clearly - and mail this form in accordance with the instructions on pages 2 and 3 to:
Wetlands Management Section, Inland Water Resources Division, CT DEEP, 79 Elm Street – 3rd Floor, Hartford, CT 06106

PART I: To Be Completed By the Municipal Inland Wetlands Agency Only

1. DATE ACTION WAS TAKEN (enter one year and month): Year _____ Month _____
2. ACTION TAKEN (enter one code letter): _____
3. WAS A PUBLIC HEARING HELD (check one)? Yes _____ No _____
4. NAME OF AGENCY OFFICIAL VERIFYING AND COMPLETING THIS FORM:

   (type name) _____ (signature) _____

PART II: To Be Completed By the Municipal Inland Wetlands Agency or the Applicant

5. TOWN IN WHICH THE ACTION IS OCCURRING (type name): Brooklyn

   Does this project cross municipal boundaries (check one)? Yes _____ No X

   If Yes, list the other town(s) in which the action is occurring (type name(s)): _____, _____
6. LOCATION (see directions for website information): USGS Quad Map Name: Danielson or Quad Number: 43

   Subregional Drainage Basin Number: 3700
7. NAME OF APPLICANT, VIOLATOR OR PETITIONER (type name): Paul R. Lehto
8. NAME & ADDRESS/LOCATION OF PROJECT SITE (type information): east of Allen Hill Road

   Briefly describe the action/project/activity (check and type information): Temporary X Permanent ____

   Description: Excavation of sand and gravel
9. ACTIVITY *PURPOSE* CODE (enter one code letter): D
10. ACTIVITY *TYPE* CODE(S) (enter up to four code numbers): 2, 12, 14, ____
11. WETLAND / WATERCOURSE AREA ALTERED (type in acres or linear feet as indicated):

    Wetlands: 0 acres Open Water Body: 0 acres Stream: 0 linear feet
12. UPLAND AREA ALTERED (type in acres as indicated): 6.7 acres
13. AREA OF WETLANDS / WATERCOURSES RESTORED, ENHANCED OR CREATED (type in acres as indicated): 0 acres

DATE RECEIVED:

PART III: To Be Completed By the DEEP

DATE RETURNED TO DEEP:

FORM COMPLETED: YES NO

FORM CORRECTED / COMPLETED: YES NO

Brooklyn Land Use Department

69 South Main Street
Brooklyn CT 06234
(860) 779-3411 x 31

Inland Wetlands ✓ Zoning Enforcement _____ Blight Enforcement _____

SITE INSPECTION NUMBER 1 2 3 4 5

off Allen Hill
Riverwalk Dr — Address

6-17-2020 — Date

I met David Held, inspected and took photographs.

We walked to the closest point in the wetlands to the east. These will be protected by berms and silt fence.

The limits of excavation in Phase 2 does remain the same but some grading will be shallower.

In Phase 1 the deepest cut is about 25'.

David Held suggested that the new permit would supersede the old permit.

Commission Representative Margaret Washburn

Owner or Authorized Signature _____

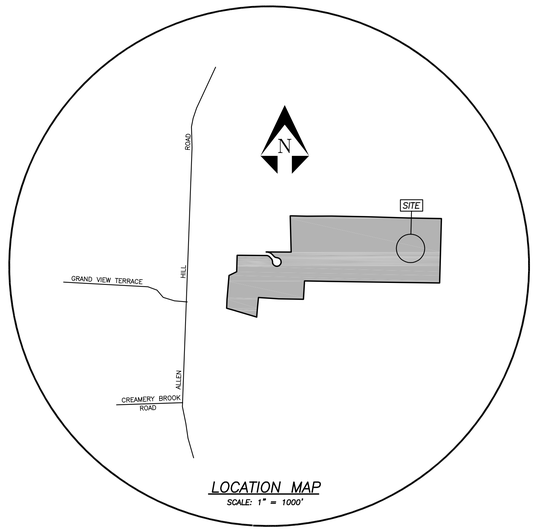
☒ ask Peter Alter for advice

PROPOSED GRAVEL EXCAVATION

EASTERLY OF ALLEN HILL ROAD
BROOKLYN, CONNECTICUT

OWNER/APPLICANT:

PAUL R. LEHTO



LOCATION MAP
SCALE: 1" = 1000'

LEGEND

- TEST PIT
- EXISTING TREE LINE
- 102 EXISTING CONTOUR
- 100 EXISTING INDEX CONTOUR
- 100 PROPOSED CONTOUR
- PROPOSED CLEARING LIMITS
- PROPOSED SILT FENCE
- LIMIT OF WETLANDS

INDEX TO DRAWINGS

PREPARED BY:

Provost & Rovero, Inc.

Civil Engineering • Surveying • Site Planning
Structural • Mechanical • Architectural Engineering

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Plainfield, Connecticut 06374
(860) 230-0856 - FAX: (860) 230-0860
info@prorovinc.com
www.prorovinc.com

REVISIONS	
DATE	DESCRIPTION

JUNE 2, 2020

APPROVED BY THE BROOKLYN INLAND WETLANDS COMMISSION

CHAIRMAN DATE

APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION

CHAIRMAN DATE

I HAVE REVIEWED THE FLAGGED INLAND WETLANDS LOCATION SHOWN ON THIS PLAN AND THEY APPEAR TO BE SUBSTANTIALLY CORRECT.

Certified Soil Scientist Date

ENGINEER DATE

SHEET 1 OF 7
JOB NO: 173055
DWG NO: HF 310

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LEGEND

- PROPERTY LINE
- REFERENCE LINE
- EASEMENT
- BOUNDARY STONEWALL
- EXISTING TREELINE
- 100 EXISTING INDEX CONTOUR
- 100 EXISTING CONTOUR
- 100 PROPOSED CONTOUR
- WETLAND LIMITS
- IRON PIN FOUND
- DRILL HOLE FOUND
- CL&P 1645 UTILITY POLE
- FENCE POST

Notes

1. This survey has been prepared pursuant to the Regulations of Connecticut State Agencies Section 20-300b-20 and the "Standards for Surveys and Maps in State of Connecticut" as adopted by the Connecticut Associations of Land Surveyors, Inc. on September 26, 1996

- This Survey conforms to a Class "A-2" Horizontal Accuracy
- This Survey conforms to a Class "T-3" Vertical Accuracy

- Survey Type: Perimeter Survey
- Boundary Determination: Resurvey
- Intent: Depict Existing Conditions with Respect to Property Lines

2. Parcels shown as 148 on Assessors Tax Map 32 of the Brooklyn Assessors Office

3. Property is owned by: Paul Lehto

4. Wetlands were delineated in the field by Joseph Theroux, Sept. 2016 and field located by Archer Surveying LLC

5. Riverwalk Drive is not a Town Road

6. Topographical information obtained through aerial photography by WSP Group

To My Knowledge and Belief this Map is substantially Correct as noted hereon.

Paul M. Archer LLS #10013 Date

No Certification is expressed or implied unless this map bears the embossed seal of the land surveyor whose signature appears hereon.

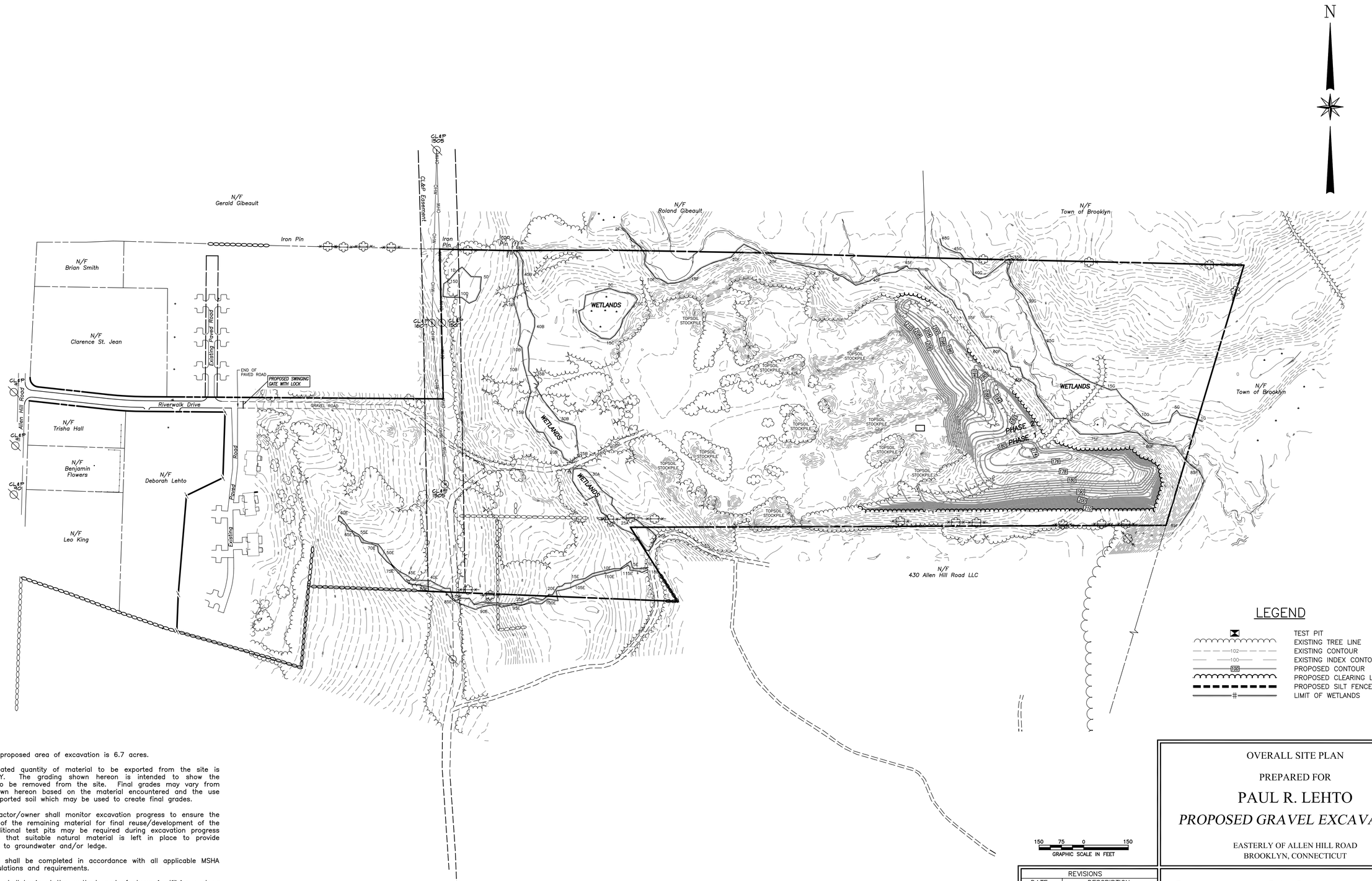
Existing Condition Plan

Prepared For:
Paul Lehto
Allen Hill Road
Brooklyn, Connecticut

DRAWING SCALE: 1"=125' 0 125 250

ARCHER Surveying LLC
18 Providence Road, Brooklyn, CT
(860) 779-2240

Sheet No.	Project No.	Date:
2 OF 7	1366	May 2016 Revised: January 2017 May 8, 2018



LEGEND

- TEST PIT
- EXISTING TREE LINE
- 102 EXISTING CONTOUR
- 100 EXISTING INDEX CONTOUR
- 700 PROPOSED CONTOUR
- PROPOSED CLEARING LIMITS
- PROPOSED SILT FENCE
- LIMIT OF WETLANDS

NOTES:

1. The total proposed area of excavation is 6.7 acres.
2. The estimated quantity of material to be exported from the site is 90,000 CY. The grading shown hereon is intended to show the material to be removed from the site. Final grades may vary from those shown hereon based on the material encountered and the use of any imported soil which may be used to create final grades.
3. The contractor/owner shall monitor excavation progress to ensure the suitability of the remaining material for final reuse/development of the site. Additional test pits may be required during excavation progress to ensure that suitable natural material is left in place to provide separation to groundwater and/or ledge.
4. Excavation shall be completed in accordance with all applicable MSHA rules, regulations and requirements.
5. Excavation shall begin at the northerly end of phase 1 utilizing a down cutting technique to ensure that the disturbed site area retains all runoff from the disturbed area (bowl effect). Perimeter silt fence and/or staked hay bales shall be installed as shown prior to grubbing and stripping topsoil.
6. Stumps shall not be buried. They shall be either chipped or removed from the site.
7. All topsoil and subsoil stripped from the excavation area shall be retained on site in the designated stockpile area for use in final site restoration. Topsoil and subsoil shall be stripped and stockpiled separately.

APPROVED BY THE BROOKLYN INLAND WETLANDS COMMISSION

CHAIRMAN DATE

APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION

CHAIRMAN DATE

ENGINEER DATE

OVERALL SITE PLAN

PREPARED FOR

PAUL R. LEHTO

PROPOSED GRAVEL EXCAVATION

EASTERLY OF ALLEN HILL ROAD
BROOKLYN, CONNECTICUT

REVISIONS	
DATE	DESCRIPTION

DATE: 6/2/2020	DRAWN: DJH
SCALE: 1" = 150'	DESIGN: DJH
SHEET: 3 OF 7	CHK BY: ---
DWG. No: HF 310	JOB No: 173055

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www.prorovinc.com

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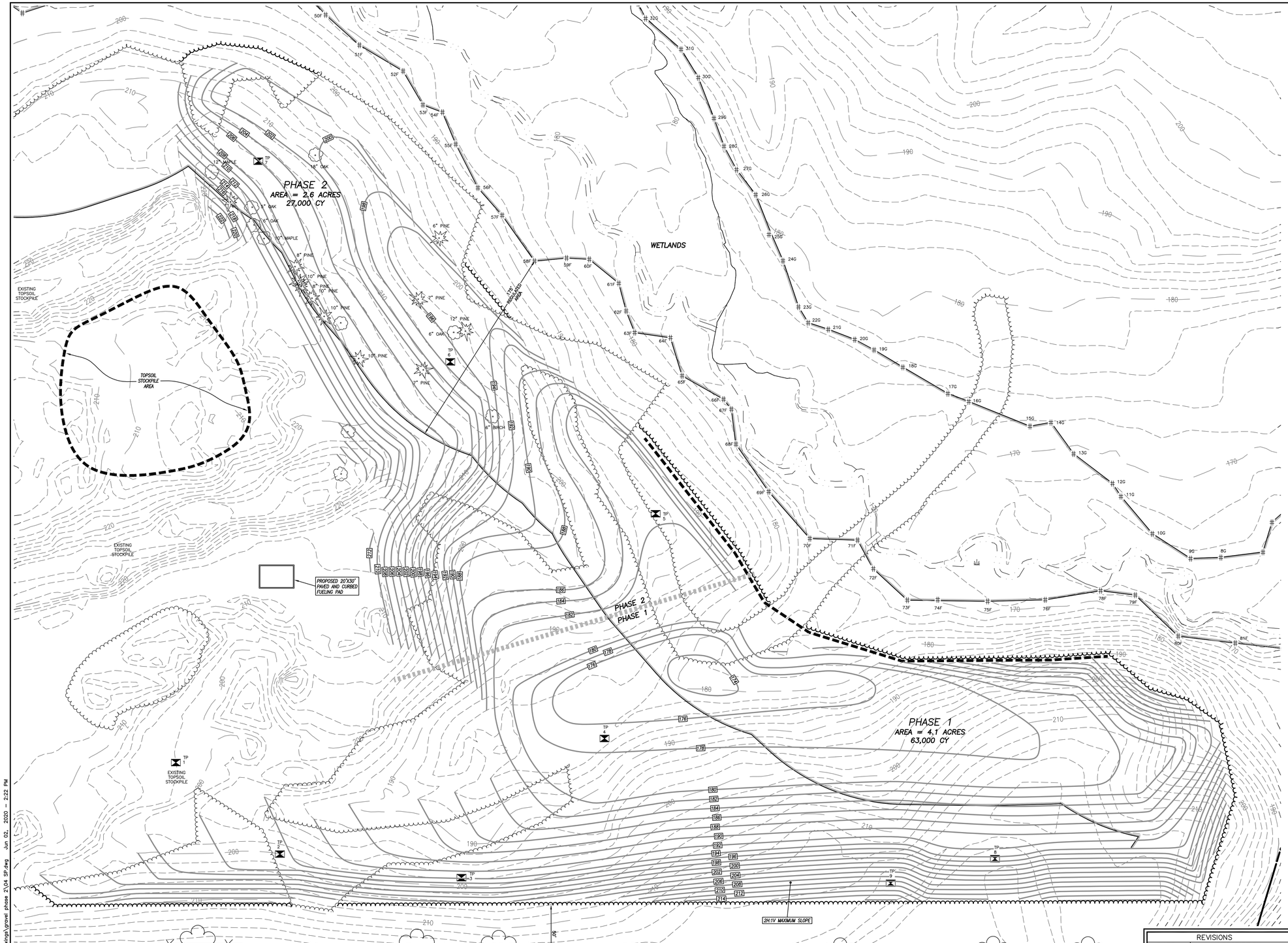

N

40 20 0 40
GRAPHIC SCALE IN FEET

APPROVED BY THE BROOKLYN INLAND WETLANDS COMMISSION

CHAIRMAN DATE

APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION

CHAIRMAN DATE

LEGEND

- TEST PIT
- EXISTING TREE LINE
- EXISTING CONTOUR
- EXISTING INDEX CONTOUR
- PROPOSED CONTOUR
- PROPOSED CLEARING LIMITS
- PROPOSED SILT FENCE
- LIMIT OF WETLANDS

NOTES:

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4. Excavation shall be completed in accordance with all applicable MSHA rules, regulations and requirements.
5. Excavation shall begin at the northerly end of phase 1 utilizing a down cutting technique to ensure that the disturbed site area retains all runoff from the disturbed area (bowl effect). Perimeter silt fence and/or staked hay bales shall be installed as shown prior to grubbing and stripping topsoil.
6. Stumps shall not be buried. They shall be either chipped or removed from the site.
7. All topsoil and subsoil stripped from the excavation area shall be retained on site in the designated stockpile area for use in final site restoration. Topsoil and subsoil shall be stripped and stockpiled separately.

PROPOSED EXCAVATION PLAN

PREPARED FOR

PAUL R. LEHTO

PROPOSED GRAVEL EXCAVATION

EASTERLY OF ALLEN HILL ROAD
BROOKLYN, CONNECTICUT

REVISIONS	
DATE	DESCRIPTION

ENGINEER DATE

DATE: 6/2/2020	DRAWN: DJH
SCALE: 1" = 40'	DESIGN: DJH
SHEET: 4 OF 7	CHK BY: ---
DWG. No: HF 310	JOB No: 173055

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EROSION AND SEDIMENT CONTROL PLAN:

REFERENCE IS MADE TO:

1. Connecticut Guidelines for Soil Erosion and Sediment Control 2002 (2002 Guidelines).
2. Soil Survey of Connecticut, N.R.C.S.

SILT FENCE INSTALLATION AND MAINTENANCE:

1. Dig a 6" deep trench on the uphill side of the barrier location.
2. Position the posts on the downhill side of the barrier and drive the posts 1.5 feet into the ground.
3. Lay the bottom 6" of the fabric in the trench to prevent undermining and backfill.
4. Inspect and repair barrier after heavy rainfall.
5. Inspections will be made at least once per week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater to determine maintenance needs.
6. Sediment deposits are to be removed when they reach a height of 1 foot behind the barrier or half the height of the barrier and are to be deposited in an area which is not regulated by the inland wetlands commission.
7. Replace or repair the fence within 24 hours of observed failure. Failure of the fence has occurred when sediment fails to be retained by the fence because:
   - the fence has been overtopped, undercut or bypassed by runoff water,
   - the fence has been moved out of position (knocked over), or
   - the geotextile has decomposed or been damaged.

HAY BALE INSTALLATION AND MAINTENANCE:

1. Bales shall be placed as shown on the plans with the ends of the bales tightly abutting each other.
2. Each bale shall be securely anchored with at least 2 stakes and gaps between bales shall be wedged with straw to prevent water from passing between the bales.
3. Inspect bales at least once per week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inches or greater to determine maintenance needs.
4. Remove sediment behind the bales when it reaches half the height of the bale and deposit in an area which is not regulated by the Inland Wetlands Commission.
5. Replace or repair the barrier within 24 hours of observed failure. Failure of the barrier has occurred when sediment fails to be retained by the barrier because:
   - the barrier has been overtopped, undercut or bypassed by runoff water,
   - the barrier has been moved out of position, or
   - the hay bales have deteriorated or been damaged.

TEMPORARY VEGETATIVE COVER:

SEED SELECTION

Grass species shall be appropriate for the season and site conditions. Appropriate species are outlined in Figure TS–2 in the 2002 Guidelines.

TIMING CONSIDERATIONS

Seed with a temporary seed mixture within 7 days after the suspension of grading work in disturbed areas where the suspension of work is expected to be more than 30 days but less than 1 year.

SITE PREPARATION

Install needed erosion control measures such as diversions, grade stabilization structures, sediment basins and grassed waterways.

Grade according to plans and allow for the use of appropriate equipment for seedbed preparation, seeding, mulch application, and mulch anchoring.

SEEDBED PREPARATION

Loosen the soil to a depth of 3–4 inches with a slightly roughened surface. If the area has been recently loosened or disturbed, no further roughening is required. Soil preparation can be accomplished by tracking with a bulldozer, discing, harrowing, raking or dragging with a section of chain link fence. Avoid excessive compaction of the surface by equipment traveling back and forth over the surface. If the slope is tracked, the cleat marks shall be perpendicular to the anticipated direction of the flow of surface water.

If soil testing is not practical or feasible on small or variable sites, or where timing is critical, fertilizer may be applied at the rate of 300 pounds per acre or 7.5 pounds per 1,000 square feet of 10–10–10 or equivalent. Additionally, lime may be applied using rates given in Figure TS–1 in the 2002 Guidelines.

SEEDING

Apply seed uniformly by hand cyclone seeder, drill, cultipacker type seeder or hydroseeder at a minimum rate for the selected species. Increase seeding rates by 10% when hydroseeding.

MULCHING

Temporary seedings made during optimum seeding dates shall be mulched according to the recommendations in the 2002 Guidelines. When seeding outside of the recommended dates, increase the application of mulch to provide 95%–100% coverage.

MAINTENANCE

Inspect seeded area at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater for seed and mulch movement and rill erosion.

Where seed has moved or where soil erosion has occurred, determine the cause of the failure. Repair eroded areas and install additional controls if required to prevent reoccurrence of erosion.

Continue inspections until the grasses are firmly established. Grasses shall not be considered established until a ground cover is achieved which is mature enough to control soil erosion and to survive severe weather conditions (approximately 80% vegetative cover).

PERMANENT VEGETATIVE COVER:

Refer to Permanent Seeding Measure in the 2002 Guidelines for specific applications and details related to the installation and maintenance of a permanent vegetative cover. In general, the following sequence of operations shall apply:

1. Topsoil will be replaced once the excavation and grading has been completed. Topsoil will be spread at a minimum compacted depth of 4".
2. Once the topsoil has been spread, all stones 2" or larger in any dimension will be removed as well as debris.
3. Apply agricultural ground limestone at a rate of 2 tons per acre or 100 lbs. per 1000 s.f. Apply 10–10–10 fertilizer or equivalent at a rate of 300 lbs. per acre or 7.5 lbs. per 1000 s.f. Work lime and fertilizer into the soil to a depth of 4".
4. Inspect seedbed before seeding. If traffic has compacted the soil, retill compacted areas.
5. Apply the chosen grass seed mix. The recommended seeding dates are: April 1 to June 15 & August 15 – October 1.
6. Following seeding, firm seedbed with a roller. Mulch immediately following seeding. If a permanent vegetative stand cannot be established by September 30, apply a temporary cover on the topsoil such as netting, mat or organic mulch.

EROSION AND SEDIMENT CONTROL NARRATIVE:

PRINCIPLES OF EROSION AND SEDIMENT CONTROL

The primary function of erosion and sediment controls is to absorb erosional energies and reduce runoff velocities that force the detachment and transport of soil and/or encourage the deposition of eroded soil particles before they reach any sensitive area.

KEEP LAND DISTURBANCE TO A MINIMUM

The more land that is in vegetative cover, the more surface water will infiltrate into the soil, thus minimizing stormwater runoff and potential erosion. Keeping land disturbance to a minimum not only involves minimizing the extent of exposure at any one time, but also the duration of exposure. Phasing, sequencing and construction scheduling are interrelated. Phasing divides a large project into distinct sections where construction work over a specific area occurs over distinct periods of time and each phase is not dependent upon a subsequent phase in order to be functional. A sequence is the order in which construction activities are to occur during any particular phase. A sequence should be developed on the premise of "first things first" and "last things last" with proper attention given to the inclusion of adequate erosion and sediment control measures. A construction schedule is a sequence with time lines applied to it and should address the potential overlap of actions in a sequence which may be in conflict with each other.

- Limit areas of clearing and grading. Protect natural vegetation from construction equipment with fencing, tree armoring, and retaining walls or tree wells.
- Route traffic patterns within the site to avoid existing or newly planted vegetation.
- Phase construction so that areas which are actively being developed at any one time are minimized and only that area under construction is exposed. Clear only those areas essential for construction.
- Sequence the construction of storm drainage systems so that they are operational as soon as possible during construction. Ensure all outlets are stable before outletting storm drainage flow into them.
- Schedule construction so that final grading and stabilization is completed as soon as possible.

SLOW THE FLOW

Detachment and transport of eroded soil must be kept to a minimum by absorbing and reducing the erosive energy of water. The erosive energy of water increases as the volume and velocity of runoff increases. The volume and velocity of runoff increases during development as a result of reduced infiltration rates caused by the removal of existing vegetation, removal of topsoil, compaction of soil and the construction of impervious surfaces.

- Use diversions, stone dikes, silt fences and similar measures to break flow lines and dissipate storm water energy.
- Avoid diverting one drainage system into another without calculating the potential for downstream flooding or erosion.

KEEP CLEAN RUNOFF SEPARATED

Clean runoff should be kept separated from sediment laden water and should not be directed over disturbed areas without additional controls. Additionally, prevent the mixing of clean off–site generated runoff with sediment laden runoff generated on–site until after adequate filtration of on–site waters has occurred.

- Segregate construction waters from clean water.
- Divert site runoff to keep it isolated from wetlands, watercourses and drainage ways that flow through or near the development until the sediment in that runoff is trapped or detained.

REDUCE ON SITE POTENTIAL INTERNALLY AND INSTALL PERIMETER CONTROLS

While it may seem less complicated to collect all waters to one point of discharge for treatment and just install a perimeter control, it can be more effective to apply internal controls to many small sub–drainage basins within the site. By reducing sediment loading from within the site, the chance of perimeter control failure and the potential off–site damage that it can cause is reduced. It is generally more expensive to correct off–site damage than it is to install proper internal controls.

- Control erosion and sedimentation in the smallest drainage area possible. It is easier to control erosion than to contend with sediment after it has been carried downstream and deposited in unwanted areas.
- Direct runoff from small disturbed areas to adjoining undisturbed vegetated areas to reduce the potential for concentrated flows and increase settlement and filtering of sediments.
- Concentrated runoff from development should be safely conveyed to stable outlets using rip rapped channels, waterways, diversions, storm drains or similar measures.
- Determine the need for sediment basins. Sediment basins are required on larger developments where major grading is planned and where it is impossible or impractical to control erosion at the source. Sediment basins are needed on large and small sites when sensitive areas such as wetlands, watercourses, and streets would be impacted by off–site sediment deposition. Do not locate sediment basins in wetlands or permanent or intermittent watercourses. Sediment basins should be located to intercept runoff prior to its entry into the wetland or watercourse.
- Grade and landscape around buildings and septic systems to divert water away from them.

EXCAVATION NOTES:

1. No blasting is anticipated for completion of the work shown. If blasting is required, the owner is responsible for obtaining all necessary permits.
2. There are no anticipated sales of excavated materials to the public from the subject site.
3. Bulk storage of fuel and lubricants for excavation equipment is not allowed on site. All fueling and lubrication of equipment shall be completed on the fueling pad. Fuel trucks shall be equipped with a spill kit and any spills shall be cleaned immediately. No equipment service work which is likely to result in the release of fuel or lubricants shall take place on site.
4. The emergency contact for operations at this site is Paul Lehto (860) 208–9789.
5. The allowable hours of operation for excavation shall be 7:00 AM to 6:00 PM, Monday through Friday and 7:00 AM to 12:00 noon on Saturday. No operations shall be allowed on Sundays, Christmas, New Years Day, Memorial Day, Fourth of July, Labor Day and Thanksgiving except by special permission of the Brooklyn Planning & Zoning Commission.
6. The owner and/or site operator shall provide adequate dust control to prevent any off–site nuisance. The preferred dust control measure is the application of water to vehicular travel areas. The application of calcium chloride may also be used.
7. The owner/operator shall install any necessary barricades or barriers to provide protection around the perimeter of open excavation faces and steep slopes.
8. Excavation operations shall be completed in accordance with all appropriate Mine Safety & Health Administration (MSHA) rules and regulations.
9. There is to be no on–site processing of excavated materials.
10. The estimated total number of truck trip ends entering or exiting the site is 11,200 during the excavation duration. The estimated daily average number of truck trip ends entering or exiting the site is 60 during the excavation duration. The estimated maximum number of daily truck trip ends entering or exiting the site is 80.
11. The site operator is responsible for determining the most appropriate means and methods for excavating material. In general, excavation shall begin with stripping and stockpiling of topsoil and subsoil which will be utilized for site restoration. Topsoil (A horizon) and subsoil (B horizon) shall be stockpiled separately. Removal of material should be accomplished with a downcutting technique to ensure complete internal drainage at all times.
12. All trucks leaving the site shall have the loads covered.
13. Prior to the start of excavation work, two elevation bench marks shall be installed on the perimeter of the work area for monitoring purposes. Benchmarks shall be maintained or replaced as necessary as the work progresses.
14. It is anticipated that all excavation work will be completed with the use of one (1) wheel loader (Cat 980 or equivalent), one (1) 50 ton excavator (Cat 349 or equivalent), and triaxle dump trucks (16± CY capacity). Additional equipment may be utilized for final site restoration.

RESTORATION NOTES:

The restoration requirements described below will be applicable to the 6.7 acre permitted area.

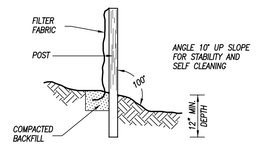
1. Restoration of disturbed areas shall take place following the completion of excavation in the respective phase. The respective phase shall have subsoil and topsoil spread and be seeded and mulched no later than the end of the growing season for the calendar year following completion of excavation operations. Mulching and seeding shall be completed in accordance with the recommendations of the New York State Revegetation Procedures Manual for Surface Mining Reclamation. Sufficient restoration bonding should be maintained as required by the Town to cover the restoration cost for the permitted excavation area. The sediment/infiltration basin in the lowest part of the site shall not be restored with topsoil and vegetation until the completion of excavation in phase 2.
2. Final restoration shall begin with establishing the required subgrade elevations. Proposed grades shown are approximate and may be adjusted to match field conditions at the time of restoration. In general, all disturbed slopes shall be graded to a 30% maximum gradient.
3. Prepare the restoration area by spreading subsoil (B horizon) material to a uniform depth.
4. Complete restoration by spreading on–site stockpiled topsoil (A horizon) to an approximate minimum thickness of 6" and seeding for a permanent vegetative cover. On–site topsoil stockpiles may be supplemented with composted organic matter, wood chips and imported topsoil as necessary to provide a suitable planting medium.
5. Spread seed for a permanent vegetative cover over the prepared restoration area. The permanent vegetative cover may be a suitable wildlife habitat mix or the following mixture which is suitable for use in all locations:

Variety	Lbs/Acre
Switchgrass (Blackwell, Shelter, Cave–in–rock)	4.0
Big Bluestem (Niagra, Kaw)	4.0
Little Bluestem (Blaze, Aldous, Camper)	2.0
Sand Lovegrass (NE–27, Bend)	1.5
Bird's–foot Trefoil (Empire, Viking)	2.0
TOTAL	13.5

6. Hay or straw mulch shall be utilized on slopes to provide temporary stabilization during establishment of permanent vegetative cover. In general, no slopes greater than 2H:1V will be allowable.
7. Fertilizer and lime shall be provided as required to establish a permanent vegetative cover based on laboratory soil testing results.
8. Restoration cover vegetation shall be maintained by the permit holder or applicant for a minimum of 24 months prior to the release of any restoration bonding.
9. In lieu of the manual application of mulch and fertilizer, the restoration area may be planted with hydroseeding methods with a suitable tackifier, mulch and fertilizer mix.

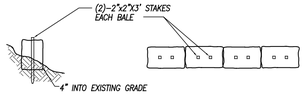
TEST PIT OBSERVATIONS – AUGUST 7, 2017

TEST PIT	DEPTH	PROFILE
1	0–96"	Topsoil and subsoil
	No GWT	
	No ledge	
	No mottling	
2	0–12"	Topsoil
	12–18"	Subsoil
	18–84"	Coarse sand and gravel
	No GWT	
	No ledge	
	No mottling	
3	0–18"	Topsoil
	18–34"	Subsoil
	34–84"	Coarse sand and gravel
	No GWT	
	No ledge	
	No mottling	
4	0–43"	Topsoil and organics
	43–64"	Subsoil
	64–136"	Coarse sand and gravel
	GWT @ 111"	
	No ledge	
	No mottling	
5	0–8"	Topsoil
	8–18"	Subsoil
	18–57"	Fine silty sand
	57–104"	Fine–medium silty sand and gravel
	No GWT	
	No ledge	
	No mottling	
6	0–7"	Topsoil
	7–24"	Subsoil
	24–131"	Coarse sand and gravel
	No GWT	
	No ledge	
	No mottling	
7	0–7"	Topsoil
	7–17"	Subsoil
	17–96"	Coarse sand and gravel
	No GWT	
	No ledge	
	No mottling	
8	0–12"	Topsoil
	12–75"	Subsoil
	75–117"	Medium/coarse sand and gravel
	No GWT	
	No ledge	
	No mottling	
9	0–10"	Topsoil
	10–20"	Subsoil
	20–138"	Coarse sand & gravel



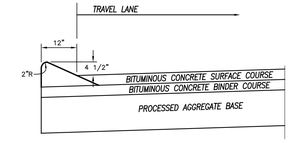
SILT FENCE

NOT TO SCALE

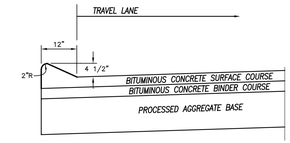


HAYBALE BARRIER

NOT TO SCALE



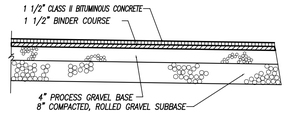
ALTERNATE 1 – CURB ON BINDER



ALTERNATE 2 – MONOLITHIC CONSTRUCTION

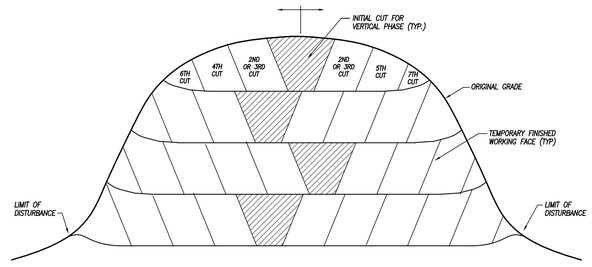
CAPE COD CURBING

NOT TO SCALE



BITUMINOUS CONCRETE PAVEMENT

NOT TO SCALE



EXCAVATION PROGRESSES IN BOTH DIRECTIONS FOR ENTIRE LENGTH OF EACH VERTICAL SUBPHASE, STARTING AT BOTTOM OF INITIAL CUT, THEN AN INITIAL CUT IS MADE FOR THE SUBSEQUENT LOWER VERTICAL SUBPHASE AND THE PROCESS CONTINUES.

DETAIL SHOWING "DOWNCUTTING" EXCAVATION METHOD

NOT TO SCALE

APPROVED BY THE BROOKLYN INLAND WETLANDS COMMISSION

CHAIRMAN DATE

APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION

CHAIRMAN DATE

ENGINEER DATE

DETAIL SHEET

PREPARED FOR

PAUL R. LEHTO

PROPOSED GRAVEL EXCAVATION

EASTERLY OF ALLEN HILL ROAD
BROOKLYN, CONNECTICUT

REVISIONS	
DATE	DESCRIPTION

DATE: 6/2/2020	DRAWN: DJH
SCALE: AS SHOWN	DESIGN: DJH
SHEET: 5 OF 7	CHK BY: ---
DWG. No: HF 310	JOB No: 173055

Provost & Rovero, Inc.

Civil Engineering • Surveying • Site Planning
Structural • Mechanical • Architectural Engineering

57 East Main Street, P.O. Box 191
Plainfield, Connecticut 06374
(860) 230-0856 - FAX: (860) 230-0860
info@prorovinc.com
www.prorovinc.com

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N

N/F
Gerald Gibeault

CL&P Easement

Iron Pin

Iron
Pin

Iron
Pin (f)

N/F
Roland Gibeault

N/F
Brian Smith

N/F
Clarence St. Jean

Existing Paved Road

Riverwalk Drive

Allen Hill Road

N/F
Trisha Hall

N/F
Benjamin
Flowers

N/F
Deborah Lehto

Paved Road

Existing

N/F
Leo King

PHASE 1
11.814 AC.
(514,608 S.F.)

OPEN SPACE
37.967 AC.
(1,653,854 S.F.)

18
1.073 AC.
(46,761 S.F.)

17
1.061 AC.
(46,199 S.F.)

19
0.735 AC.
(32,033 S.F.)

16
0.722 AC.
(31,470 S.F.)

15
0.801 AC.
(34,908 S.F.)

14
0.864 AC.
(37,652 S.F.)

13
0.771 AC.
(33,581 S.F.)

12
0.755 AC.
(32,906 S.F.)

20
0.735 AC.
(32,017 S.F.)

1
1.277 AC.
(55,619 S.F.)

5
0.999 AC.
(43,514 S.F.)

6
1.130 AC.
(49,222 S.F.)

7
0.851 AC.
(37,081 S.F.)

8
0.875 AC.
(38,108 S.F.)

9
0.909 AC.
(39,595 S.F.)

10
0.856 AC.
(37,290 S.F.)

11
0.888 AC.
(38,681 S.F.)

2
1.335 AC.
(57,272 S.F.)

3
0.773 AC.
(33,689 S.F.)

4
1.643 AC.
(71,548 S.F.)

150 75 0 150
GRAPHIC SCALE IN FEET

ENGINEER DATE

REVISIONS	
DATE	DESCRIPTION

DATE: 6/2/2020	DRAWN: DJH
SCALE: 1" = 150'	DESIGN: DJH
SHEET: 6 OF 7	CHK BY: ---
DWG. No: HF 310	JOB No: 173055

SITE REUSE PLAN
CONCEPTUAL CONSERVATION SUBDIVISION
PREPARED FOR
PAUL R. LEHTO
PROPOSED GRAVEL EXCAVATION
EASTERLY OF ALLEN HILL ROAD
BROOKLYN, CONNECTICUT

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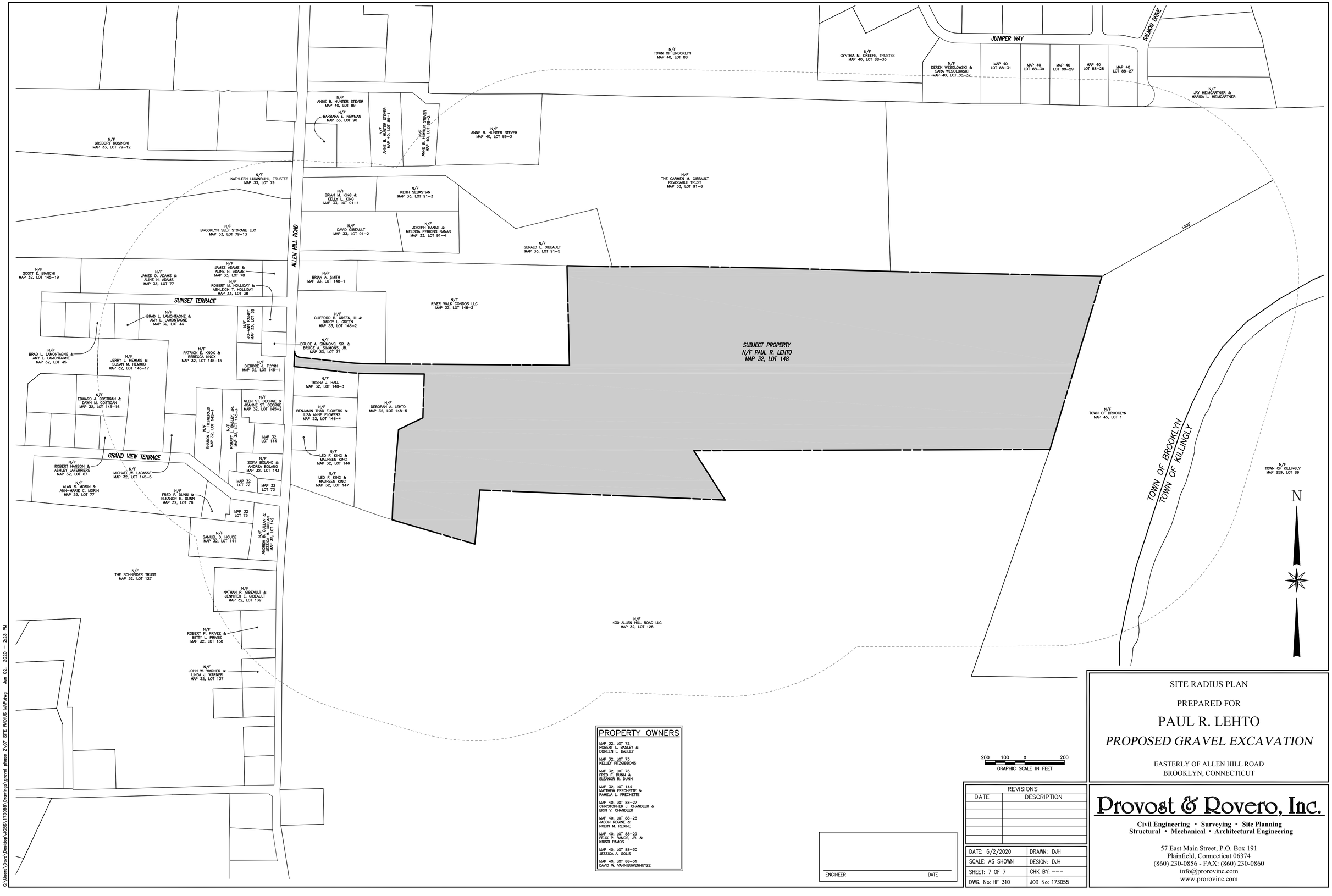

PROPERTY OWNERS

MAP 32, LOT 72
ROBERT L. BASLEY &
DOREEN L. BASLEY

MAP 32, LOT 73
KELLEY FITZGIBBONS

MAP 32, LOT 75
FRED F. DUNN &
ELEANOR R. DUNN

MAP 32, LOT 144
MATTHEW FRECHETTE &
PAMELA L. FRECHETTE

MAP 40, LOT 88-27
CHRISTOPHER J. CHANDLER &
ERIN V. CHANDLER

MAP 40, LOT 88-28
JASON REGINE &
ROBIN M. REGINE

MAP 40, LOT 88-29
FELIX P. RAMOS, JR. &
KRISTI RAMOS

MAP 40, LOT 88-30
JESSICA A. SOLIS

MAP 40, LOT 88-31
DAVID W. VANNIEUWENHUYZE

200 100 0 200
GRAPHIC SCALE IN FEET

ENGINEER DATE

REVISIONS	
DATE	DESCRIPTION

DATE: 6/2/2020	DRAWN: DJH
SCALE: AS SHOWN	DESIGN: DJH
SHEET: 7 OF 7	CHK BY: ---
DWG. No: HF 310	JOB No: 173055

SITE RADIUS PLAN

PREPARED FOR

PAUL R. LEHTO

PROPOSED GRAVEL EXCAVATION

EASTERLY OF ALLEN HILL ROAD
BROOKLYN, CONNECTICUT

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RECEIVED
JUN 0 4 2020

INLAND WETLANDS & WATERCOURSES COMMISSION
TOWN OF BROOKLYN, CONECTICUT

Date 6/4/20

Application # 060920B

APPLICATION -- INLAND WETLANDS & WATERCOURSES

APPLICANT VBL Properties LLC MAILING ADDRESS 8 Finn Lane Plainfield CT 06374
APPLICANT'S INTEREST IN PROPERTY Owner PHONE 860-823-9597 EMAIL _____

PROPERTY OWNER IF DIFFERENT _____ PHONE _____
MAILING ADDRESS _____ EMAIL _____

ENGINEER/SURVEYOR (IF ANY) Paul Archer (Archer Surveying)
ATTORNEY (IF ANY) _____

PROPERTY LOCATION/ADDRESS Beecher Road
MAP # 22 LOT # 38 ZONE RA TOTAL ACRES 14.17 ACRES ACRES OF WETLANDS ON PROPERTY 2.77 ACRES

PURPOSE AND DESCRIPTION OF THE ACTIVITY 5 Lot Subdivision
- Single Family Homes, Driveways, Well, Septic & Minor Grading

WETLANDS EXCAVATION AND FILL:
FILL PROPOSED _____ CUBIC YDS _____ SQ FT _____
EXCAVATION PROPOSED _____ CUBIC YDS _____ SQ FT _____
LOCATION WHERE MATERIAL WILL BE PLACED: ON SITE _____ OFF SITE _____
TOTAL REGULATED AREA ALTERED: SQ FT _____ ACRES _____

EXPLAIN ALTERNATIVES CONSIDERED (REQUIRED): None

MITIGATION MEASURES (IF REQUIRED): WETLANDS/WATERCOURSES CREATED: CY _____ SQFT _____ ACRES _____

IS PARCEL LOCATED WITHIN 500FT OF AN ADJOINING TOWN? NO IF YES, WHICH TOWN(S) _____
IS THE ACTIVITY LOCATED WITHIN THE WATERSHED OF A WATER COMPANY AS DEFINED IN CT GENERAL STATUTES 25-32A? NO

THE OWNER AND APPLICANT HEREBY GRANT THE BROOKLYN IWWC, THE BOARD OF SELECTMAN AND THEIR AUTHORIZED AGENTS PERMISSION TO ENTER THE SUBJECT PROPERTY FOR THE PURPOSE OF INSPECTION AND ENFORCEMENT OF THE IWWC REGULATIONS OF THE TOWN OF BROOKLYN. IF THE COMMISSION DETERMINES THAT OUTSIDE REVIEW IS REQUIRED, APPLICANT WILL PAY CONSULTING FEE.

NOTE: DETERMINATION THAT THE INFORMATION PROVIDED IS INACCURATE MAY INVALIDATE THE IWWC DECISION AND RESULT IN ENFORCEMENT ACTION.

APPLICANT: Betty Lee DATE 6/5/20

OWNER: Betty Lee DATE 6/5/20

Connecticut Department of
ENERGY & ENVIRONMENTAL PROTECTION

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

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

Statewide Inland Wetlands & Watercourses Activity Reporting Form

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

PART I: Must Be Completed By The Inland Wetlands Agency

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

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

5. TOWN IN WHICH THE ACTION IS OCCURRING (print name): Brooklyn
   does this project cross municipal boundaries (check one)? yes ☐ no ☑
   if yes, list the other town(s) in which the action is occurring (print name(s)): _____, _____
6. LOCATION (see instructions for information): USGS quad name: _____ or number: _____
   subregional drainage basin number: _____
7. NAME OF APPLICANT, VIOLATOR OR PETITIONER (print name): VBL LLC
8. NAME & ADDRESS / LOCATION OF PROJECT SITE (print information): Beecher Road
   briefly describe the action/project/activity (check and print information): temporary ☐ permanent ☐ description:
   5 Lot Subdivision, Detention Ponds, Wells, Septic, Minor Grading
9. ACTIVITY *PURPOSE* CODE (see instructions, only use one code): B
10. ACTIVITY *TYPE* CODE(S) (see instructions for codes): 12, _____, _____, _____
11. WETLAND / WATERCOURSE AREA ALTERED (must provide acres or linear feet):
    wetlands: 0 acres open water body: 0 acres stream: 0 linear feet
12. UPLAND AREA ALTERED (must provide acres): .03 acres
13. AREA OF WETLANDS / WATERCOURSES RESTORED, ENHANCED OR CREATED (must provide acres): 0 acres

PART III: To Be Completed By The DEEP

DATE RECEIVED: DATE RETURNED TO DEEP:

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

Brooklyn Land Use Department

69 South Main Street
Brooklyn CT 06234
(860) 779-3411 x 31

Inland Wetlands ✓ Zoning Enforcement _____ Blight Enforcement _____

SITE INSPECTION NUMBER 1 2 3 4 5

Beecher Rd — Address

609 6-18-2020 — Date

I met Paul Archer and Bob Russo John Ianni flagged the site, according to Paul. John Ianni did not write a report for this site, according to Paul. Bob Russo will write a report for the delineation after he field reviews the delineation. The upland review area should be 175' according to Bob Russo. The lot on Rukstella Rd is sloping (Lot 38). Elderberry and Winterberry indicator plants were observed in the uplands. Some of Ianni's orange and blue flags were visible in the woods on Lot 38. Bob Russo said he would check the entire site for wetlands. Spicebush - (Lindera benzoin) was observed in uplands - rated by USFWS as being found in wetlands 66% of the time.

Commission Representative M Washburn

Owner or Authorized Signature _____

☐ Paul will send pdf of version 2 to me and Syl Pauley.

> Skunk cabbage was observed in the uplands but the soil is 10YR 5/6 at 18"

Brooklyn Land Use Department

69 South Main Street
Brooklyn CT 06234
(860) 779-3411 x 31

Inland Wetlands ✓ Zoning Enforcement _____ Blight Enforcement _____

SITE INSPECTION NUMBER 1 2 3 4 5 ~~6~~ 7

Beecher Rd
Address

6-18-2020
Date

We checked lots on 2 sides of Blackwell's Brook and lot 38-2 which is the western-most lot.
All lots with URAs were inspected.

Commission Representative M Washburn

Owner or Authorized Signature _____

SUBDIVISION APPLICATION

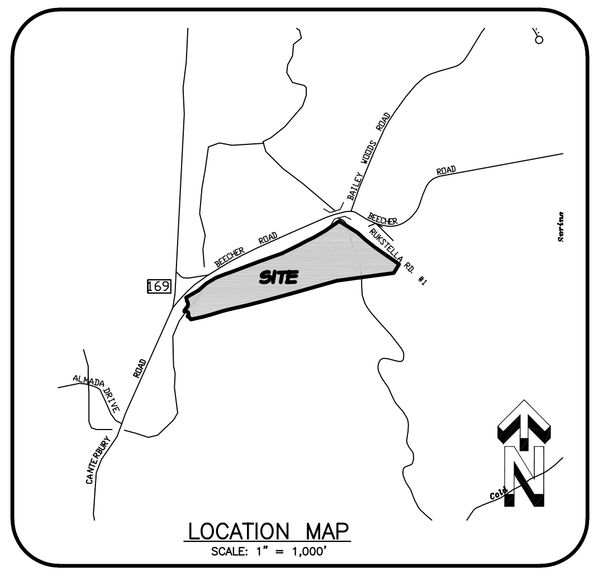
PROPOSED 5 LOT SUBDIVISION

PREPARED FOR

VBL Properties LLC

Beecher Road
Brooklyn, Connecticut

June 4, 2020



LOCATION MAP
SCALE: 1" = 1,000'

PREPARED BY

ARCHER Surveying LLC
18 Providence Road, Brooklyn, CT
(860) 779-2240

INDEX OF DRAWINGS

APPROVED BY THE BROOKLYN
INLAND WETLANDS COMMISSION

CHAIRMAN DATE

Expiration date per section 22A-42A of the Connecticut General Statutes. Date: _____

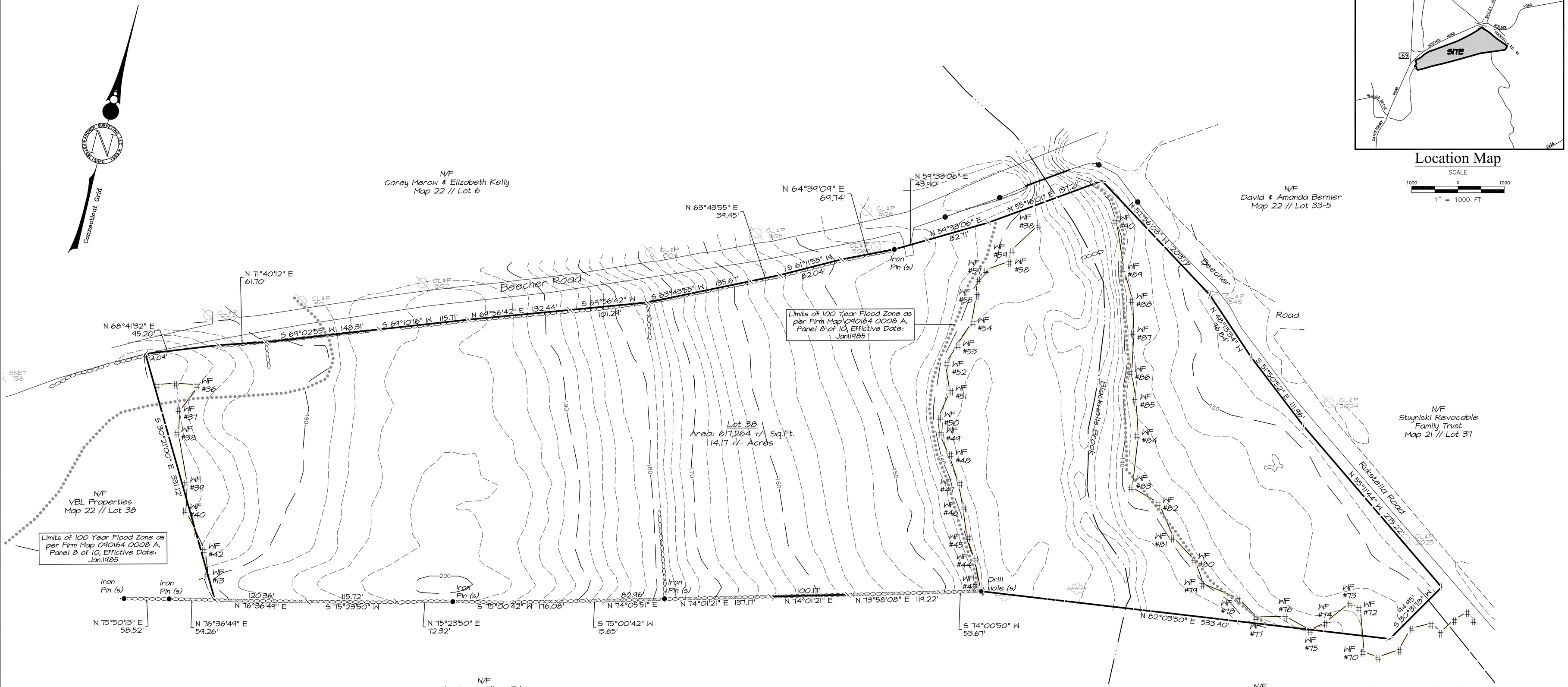
APPROVED BY THE BROOKLYN
PLANNING AND ZONING COMMISSION

CHAIRMAN DATE

Expiration date per section 8.26C of the Connecticut General Statutes. Date: _____

I have reviewed the inland-wetlands shown on this plan and they appear to be substantially the same as those which I delineated in the field.

Certified Soil Scientist



LEGEND

- PROPERTY LINE
- EASEMENT
- STONEWALL
- STONEWALL REMAINS
- EXISTING TREELINE
- PROPOSED CLEARING LIMITS
- SILT FENCE
- EXISTING INDEX CONTOUR
- EXISTING CONTOUR
- PROPOSED CONTOUR
- WETLANDS FLAG
- BUILDING SETBACK
- IRON PIN FOUND
- DRILL HOLE FOUND
- IRON PIN SET
- DRILL HOLE SET
- FENCE POST
- PERCOLATION TEST
- TEST PIT
- PROPERTY POINT
- UTILITY POLE
- TREE WITH FENCE

Map References

1. Prepared for the Town of Stratford, Rukstella Road, Brooklyn, Conn., Scale: 1"=100', Date May 29, 1986, Prepared by: David Marnicki

2. Lot Division Plan, Prepared for River Junction Estates, LLC, Showing Parcel "D-1", Rukstella Road, Brooklyn, Connecticut, Date: Jan. 2011, Prepared by: Messler & Associates

3. Town of Brooklyn, Map showing land to be aquired for the State Highway Purposes from Homer Beecher on the Brooklyn Canterbury Road, Scale: 1"=20', Date Oct. 1929

4. Division of Property, "First Time Split", Prepared for: VBL Properties LLC, Beecher Road, Brooklyn, Connecticut, Prepared by: Archer Surveying LLC

Notes

1. This survey has been prepared pursuant to the Regulations of Connecticut State Agencies Section 20-300b-20 and the "Standards for Surveys and Maps in State of Connecticut" as adopted by the Connecticut Associations of Land Surveyors, Inc. on September 26, 1996

- This Survey conforms to a Class "A2" Horizontal Accuracy
  Class "T2" Vertical Accuracy
- Survey Type: Subdivision Plan
- Boundary Determination: Resurvey on Existing Boundary
  Original on Proposed Boundary
- Intent: 5 Lot Subdivision

2. Total Area of Subdivision = 14.17 Acres

3. Zone = RA

4. Owner / Applicant = VBL Properties LLC
   8 Finn Lane, Plainfield, CT 06374

5. Parcel is shown as Lot #38 on Assessor's Map #22

6. This Subdivision does include land areas within the Federal Emergency Management Agency's 100 year flood hazard area, as shown on Firm Map 090164 0008 A, Panel 8 of 10, Effective Date: Jan. 3, 1985

7. Wetlands shown were flagged in the field by John Ianni, Certified Soil Scientist in April 2018

8. There are not Known endangered species or species of special concern on the subject property per the December 2006 Natural Diversity Data Base Mapping

9. Parcel does not lie within an aquifer protection area

10. The Subdivision Regulations of the Town of Brooklyn are a part of this plan. Approval of this plan is contingent on completion of the requirements of said regulations, excepting any variances or modifications are on file in the office of the commission.

11. North orientation, bearings and coordinate values shown are based on North American Datum of 1983 (NAD83)

12. Passive Solar Energy techniques were considered in the design of the subdivision

REVISIONS	
7/10	Added 100yr Flood

To My Knowledge and Belief this Map is substantially Correct as noted hereon.

Paul M. Archer LLS #10013 Date

No Certification is expressed or implied unless this map bears the embossed seal of the land surveyor whose signature appears hereon.

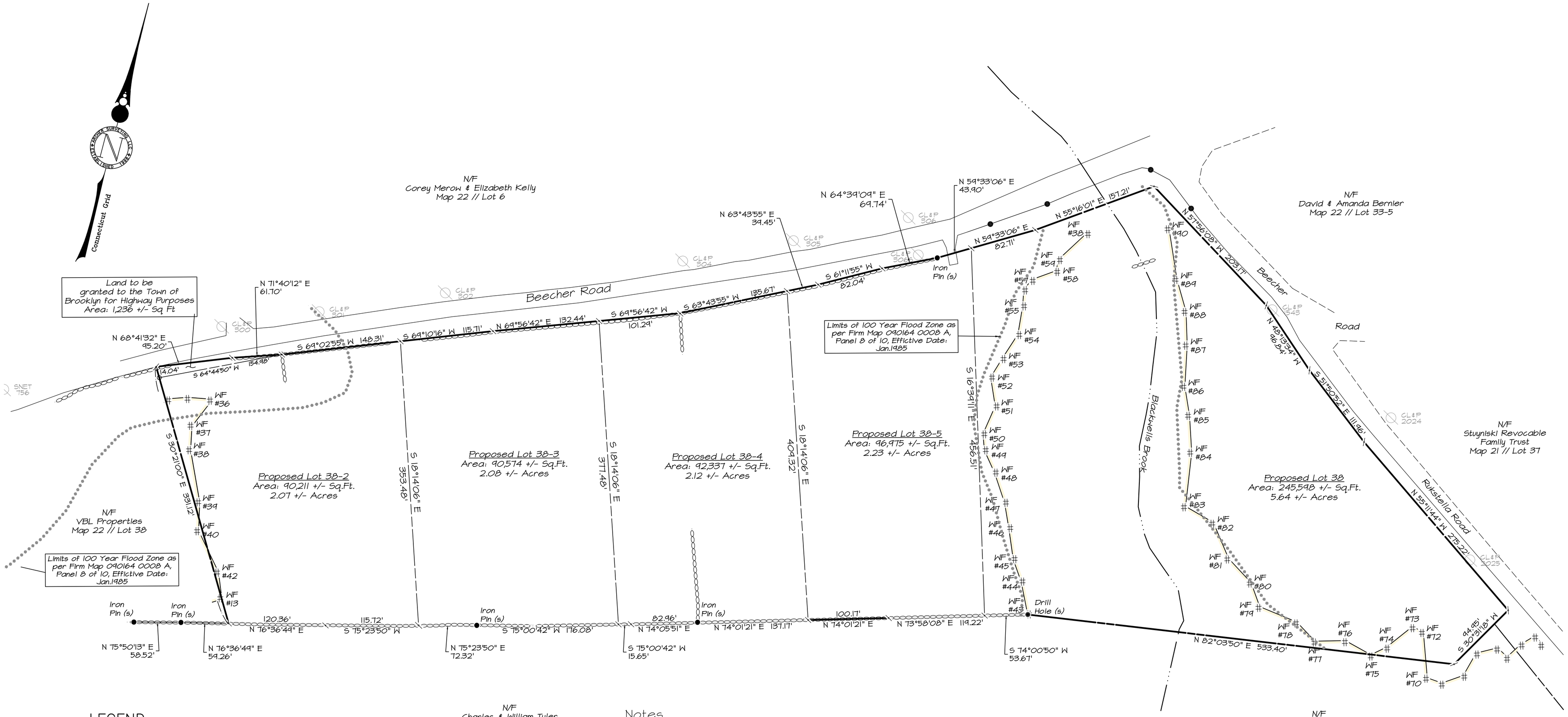
Existing Condition Plan

Prepared For:
VBL Properties LLC
Beecher Road
Brooklyn, Connecticut

DRAWING SCALE: 1"=60'
0 30 60 120

ARCHER Surveying LLC
18 Providence Road, Brooklyn, CT
(860) 779-2240

Sheet No.	Project No.	Date:
2 OF 9	1500	June 4, 2020



LEGEND

- PROPERTY LINE
- EASEMENT
- STONEWALL
- STONEWALL REMAINS
- EXISTING TREELINE
- PROPOSED CLEARING LIMITS
- SILT FENCE
- EXISTING INDEX CONTOUR
- EXISTING CONTOUR
- PROPOSED CONTOUR
- WETLANDS FLAG
- BUILDING SETBACK
- IRON PIN FOUND
- DRILL HOLE FOUND
- IRON PIN SET
- DRILL HOLE SET
- FENCE POST
- PERCOLATION TEST
- TEST PIT
- PROPERTY POINT
- UTILITY POLE
- TREE WITH FENCE

Notes

1. This survey has been prepared pursuant to the Regulations of Connecticut State Agencies Section 20-300b-20 and the "Standards for Surveys and Maps in State of Connecticut" as adopted by the Connecticut Associations of Land Surveyors, Inc. on September 26, 1996

- This Survey conforms to a Class "A2" Horizontal Accuracy
  Class "T2" Vertical Accuracy
- Survey Type: Subdivision Plan
- Boundary Determination: Resurvey on Existing Boundary
  Original on Proposed Boundary
- Intent: 5 Lot Subdivision

2. Total Area of Subdivision = 14.17 Acres

3. Zone = RA

4. Owner / Applicant = VBL Properties LLC
   8 Finn Lane, Plainfield, CT 06374

5. Parcel is shown as Lot #38 on Assessor's Map #22

6. This Subdivision does include land areas within the Federal Emergency Management Agency's 100 year flood hazard area, as shown on Firm Map 090164 0008 A, Panel 8 of 10, Effective Date: Jan. 3, 1985

7. Wetlands shown were flagged in the field by John Ianni, Certified Soil Scientist in April 2018

8. There are not known endangered species or species of special concern on the subject property per the December 2006 Natural Diversity Data Base Mapping

9. Parcel does not lie within an aquifer protection area

10. The Subdivision Regulations of the Town of Brooklyn are a part of this plan. Approval of this plan is contingent on completion of the requirements of said regulations, excepting any variances or modifications are on file in the office of the commission.

11. North orientation, bearings and coordinate values shown are based on North American Datum of 1983 (NAD83)

12. Passive Solar Energy techniques were considered in the design of the subdivision

To My Knowledge and Belief this Map is substantially Correct as noted hereon.

Paul M. Archer LLS #70013 Date

No Certification is expressed or implied unless this map bears the embossed seal of the land surveyor whose signature appears hereon.

REVISIONS	

Subdivision Plan

"Proposed 5 Lots"

Prepared For:

VBL Properties LLC
Beecher Road
Brooklyn, Connecticut

DRAWING SCALE: 1"=70' (0 35 70 140)

ARCHER Surveying LLC
18 Providence Road, Brooklyn, CT
(860) 779-2240

Sheet No.	Project No.	Date:
3 OF 8	1500	June 2020

CONCEPT SEPTIC SYSTEM DESIGN

LOT 38-2
PRIMARY LEACHING AREA
3 BEDROOM RESIDENCE
PERCOLATION RATE: 13 MIN./INCH (NDDH FILE #18000188)
LEACHING AREA REQUIRED: 675 SF

USE TRADITIONAL TRENCH
EFFECTIVE LEACHING AREA OF LEACHING TRENCH 3.0 SF/LF
REQUIRED LENGTH = 675 SF / 3 SF/LF = 225 LF

MLSS CALCULATION
HYDRAULIC FACTORS
DEPTH TO RESTRICTIVE LAYER = 27"
SLOPE = 5.1%
HYDRAULIC FACTOR (HF) = 30
FLOW FACTOR (FF) = 1.5
PERCOLATION FACTOR (PF) = 1.25 (10.1 TO 20.0 MIN./INCH)
MLSS REQUIRED: 30 x 1.5 x 1.25 = 56.25 LF

PROPOSED SYSTEM
USE 3 ROWS OF 75 LF
LEACHING AREA PROVIDED = 675 SF

RESERVE LEACHING AREA
USE SAME AS PRIMARY SYSTEM

LOT 38-3
PRIMARY LEACHING AREA
3 BEDROOM RESIDENCE
PERCOLATION RATE: 14 MIN./INCH (NDDH FILE #18000188)
LEACHING AREA REQUIRED: 675 SF

USE TRADITIONAL TRENCH
EFFECTIVE LEACHING AREA OF LEACHING TRENCH 3.0 SF/LF
REQUIRED LENGTH = 675 SF / 3 SF/LF = 225 LF

MLSS CALCULATION
HYDRAULIC FACTORS
DEPTH TO RESTRICTIVE LAYER = 21"
SLOPE = 3.3%
HYDRAULIC FACTOR (HF) = 48
FLOW FACTOR (FF) = 1.5
PERCOLATION FACTOR (PF) = 1.25 (10.1 TO 20.0 MIN./INCH)
MLSS REQUIRED: 48 x 1.5 x 1.25 = 90 LF

PROPOSED SYSTEM
USE 3 ROWS OF 90 LF
LEACHING AREA PROVIDED = 810 SF

RESERVE LEACHING AREA
USE SAME AS PRIMARY SYSTEM

LOT 38-4
PRIMARY LEACHING AREA
3 BEDROOM RESIDENCE
PERCOLATION RATE: 10 MIN./INCH (NDDH FILE #18000188)
LEACHING AREA REQUIRED: 495 SF

USE TRADITIONAL TRENCH
EFFECTIVE LEACHING AREA OF LEACHING TRENCH 3.0 SF/LF
REQUIRED LENGTH = 495 SF / 3 SF/LF = 165 LF

MLSS CALCULATION
HYDRAULIC FACTORS
DEPTH TO RESTRICTIVE LAYER = 23"
SLOPE = 10.2%
HYDRAULIC FACTOR (HF) = 26
FLOW FACTOR (FF) = 1.5
PERCOLATION FACTOR (PF) = 1.00 (UP TO 10.0 MIN./INCH)
MLSS REQUIRED: 26 x 1.5 x 1.00 = 39 LF

PROPOSED SYSTEM
USE 3 ROWS OF 60 LF
LEACHING AREA PROVIDED = 540 SF

RESERVE LEACHING AREA
USE SAME AS PRIMARY SYSTEM

SELECT FILL SPECIFICATION

SELECT FILL PLACED WITHIN AND ADJACENT TO LEACHING SYSTEM AREAS SHALL BE COMPRISED OF CLEAN SAND, OR SAND AND GRAVEL, FREE FROM ORGANIC MATTER AND FOREIGN SUBSTANCES. THE SELECT FILL SHALL MEET THE FOLLOWING REQUIREMENTS PER THE CONNECTICUT PUBLIC HEALTH CODE FOR USE WITHIN THE LEACHING AREA:

1. THE SELECT FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN THE THREE (3) INCH SLEEVE.
2. UP TO 45% OF THE DRY WEIGHT OF THE REPRESENTATIVE SAMPLE MAY BE RETAINED ON THE #4 SLEEVE (THIS IS THE GRAVEL PORTION OF THE SAMPLE).
3. THE MATERIAL THAT PASSES THE #4 SIEVE IS THEN REWEIGHED AND THE SIEVE ANALYSIS STARTED.
4. THE REMAINING SAMPLE SHALL MEET THE FOLLOWIG CRITERIA:

SIEVE SIZE	PERCENT PASSING WET SIEVE	DRY SIEVE
#4	100	100
#10	70-100	70-100
#40	10-50*	10-75
#100	0-20	0-5
#200	0-5	0-2.5

* PERCENT PASSING THE #40 SIEVE CAN BE INCREASED TO NO GREATER THAN 75 IF THE PERCENT PASSING THE #100 SIEVE DOES NOT EXCEED 10 AND THE #200 SIEVE DOES NOT EXCEED 5.

SEPTIC NOTES

1. PROPOSED SEPTIC SYSTEM TO BE STAKED IN THE FIELD BY A LAND SURVEYOR LICENSED IN THE STATE OF CONNECTICUT.
2. A BENCHMARK SHALL BE SET WITHIN 10'-15' OF THE PROPOSED SEPTIC SYSTEM PRIOR TO CONSTRUCTION.
3. ALL WORK AND MATERIAL (SEPTIC TANK, DISTRIBUTION BOX, PIPE) SHALL CONFORM TO THE CONNECTICUT PUBLIC HEALTH CODE REGULATIONS AND STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEM.
4. SEWER LINE FROM FOUNDATION WALL TO SEPTIC TANK SHALL BE 4" SCHEDULE 40 PVC – ASTM D 1785 AND JOINTS PER HEALTH DEPT. CODE. PIPE FROM SEPTIC TANK TO DISTRIBUTION LINES SHALL BE 4" SOLID PVC CONFORMING TO STMD-3034 AND SDR-35.
5. SYSTEMS SHALL BE SET LEVEL FOR ENTIRE LENGTH AND HAVE A CENTER TO CENTER SPACING AS CALLED FOR IN THE CONNECTICUT PUBLIC HEALTH CODE. THERE ARE PRESENTLY NO KNOWN WATER WELLS WITHIN 75' OF THE PROPOSED SEPTIC SYSTEMS.
6. CLEAR AND GRUB THE AREA WHERE THE SEPTIC SYSTEMS AND HOUSES ARE TO BE CONSTRUCTED. ALL TOPSOIL IS TO BE STRIPPED AND STOCKPILED FOR FUTURE USE.
7. ALL FILL MATERIAL SHALL BE CLEAN EARTH FREE OF STUMPS, ORGANICS, CONSTRUCTION DEBRIS AND TOPSOIL.
8. TOPSOIL SHALL BE RE-APPLIED OVER ALL FILL AREAS AND ALL DISTURBED AREAS TO PROVIDE A MINIMUM DEPTH OF FOUR INCHES IN ACCORDANCE WITH THE SLOPE STABILIZATION DETAILS..

DEEP TP DATA / SOIL DESCRIPTIONS

PERFORMED BY: Terre Bombard
WITNESSED BY: Northeast District Department of Health — DATE: March 20, 2018

TP: 2A	
0"-11" TOPSOIL 11"-30" Very Fine Sandy Loam 30"-40" Medium Sand 40"-69" Compact Gray Loamy Sand/Mottled	
MOTTLES:	40"
GROUNDWATER:	NO
LEDGE:	NO
ROOTS:	NO
RESTRICTIVE:	NO

TP: 2B	
0"-14" TOPSOIL 14"-32" Fine Loamy Sand 32"-75" Gray very Fine Loamy Sand /Mottled	
MOTTLES:	27"
GROUNDWATER:	NO
LEDGE:	NO
ROOTS:	NO
RESTRICTIVE:	NO

TP: 3A	
0"-7" TOPSOIL 7"-21" Very fine Sandy Loam 21"-38" Gray Compact Very Fine Sandy Loam 38"-73" Hardpan	
MOTTLES:	21"
GROUNDWATER:	NO
LEDGE:	NO
ROOTS:	NO
RESTRICTIVE:	NO

TP: 3B	
0"-8" TOPSOIL 8"-30" Fine Loamy Sand 30"-45" Gray Medium Sand 30"-45" Hardpan	
MOTTLES:	45"
GROUNDWATER:	NO
LEDGE:	NO
ROOTS:	NO
RESTRICTIVE:	NO

TP: 4A	
0"-8" TOPSOIL 8"-37" Fine Sandy Loam 37"-60" Gray Compact Sandy Pan	
MOTTLES:	NO
GROUNDWATER:	NO
LEDGE:	NO
ROOTS:	NO
RESTRICTIVE:	37"

TP: 4B	
0"-8" TOPSOIL 8"-23" Loamy Sand 23"-37" Gray very Fine Loamy Sand 37"-66" Gray Compact Very Fine Sand/Coarse	
MOTTLES:	37"
GROUNDWATER:	64"
LEDGE:	NO
ROOTS:	NO
RESTRICTIVE:	NO

PERCOLATION DATA
PERC # 2A - DEPTH 31"

TIME	READING (INCHES)
9:33	6.75
9:49	10.0
10:19	13.0
10:39	14.5
PERCOLATION RATE > 13.3 MIN./IN.	
NOTES: PERCOLATION TEST PERFORMED ON 5/17/2018 PERFORMED BY Terre Bombard	

PERCOLATION DATA
PERC # 3A - DEPTH 29"

TIME	READING (INCHES)
9:35	5.75
9:56	10.0
10:11	14.5
10:46	17.0
PERCOLATION RATE > 14 MIN./IN.	
NOTES: PERCOLATION TEST PERFORMED ON 5/17/2018 PERFORMED BY Terre Bombard	

PERCOLATION DATA
PERC # 4A - DEPTH 26"

TIME	READING (INCHES)
10:23	3.0
10:48	9.5
10:58	11.0
11:08	12.0
PERCOLATION RATE > 10 MIN./IN.	
NOTES: PERCOLATION TEST PERFORMED ON 5/17/2018 PERFORMED BY Terre Bombard	

LEGEND

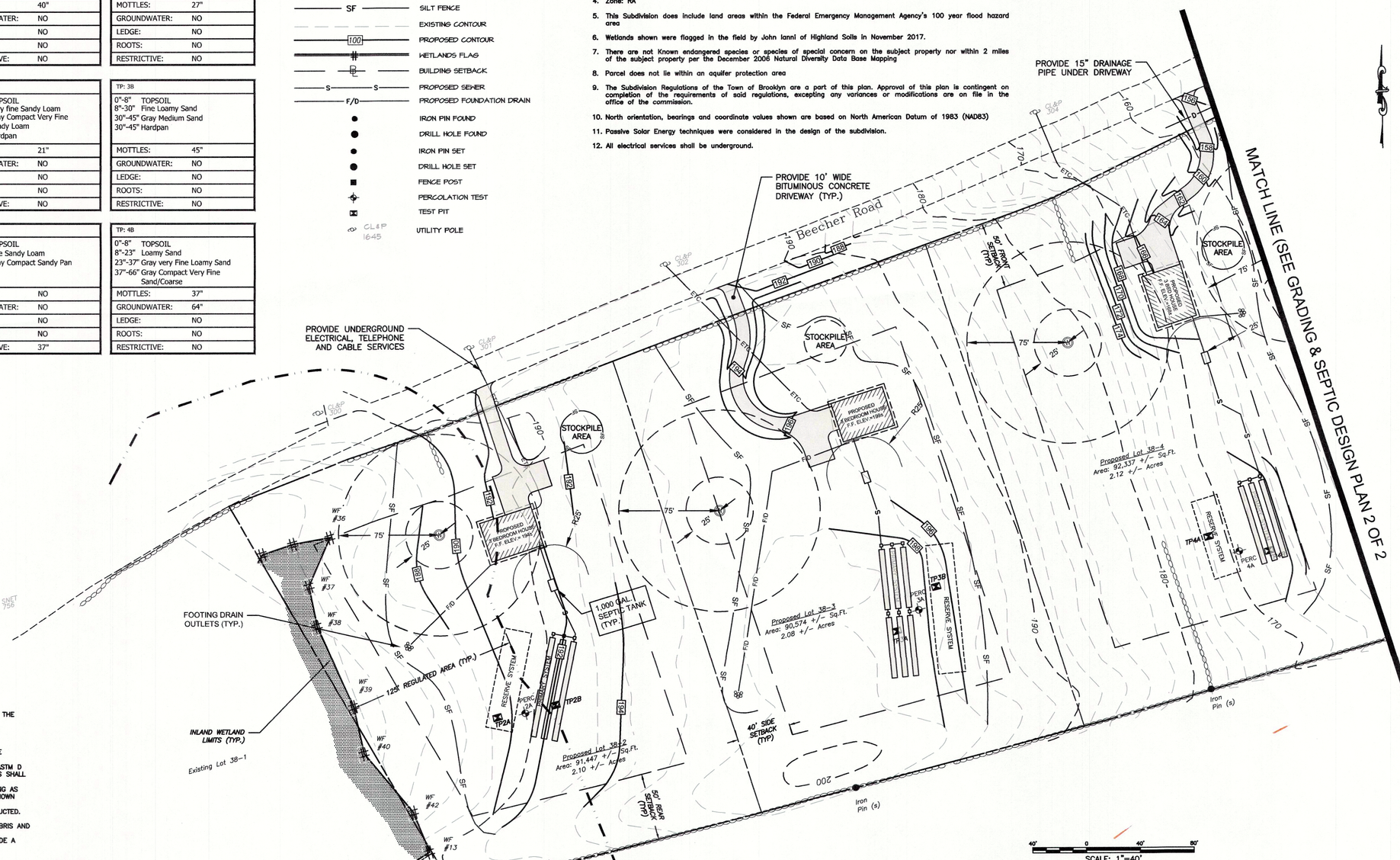
- PROPERTY LINE
- EASEMENT
- STONEWALL
- STONEWALL REMAINS
- EXISTING TREELINE
- PROPOSED CLEARING LIMITS
- SF — SILT FENCE
- EXISTING CONTOUR
- 100 — PROPOSED CONTOUR
- WETLANDS FLAG
- BUILDING SETBACK
- S — S — PROPOSED SEWER
- F/D — PROPOSED FOUNDATION DRAIN
- IRON PIN FOUND
- DRILL HOLE FOUND
- IRON PIN SET
- DRILL HOLE SET
- FENCE POST
- PERCOLATION TEST
- TEST PIT
- CL&P 1645 — UTILITY POLE

Notes

1. This survey has been prepared pursuant to the Regulations of Connecticut State Agencies Section 20-300b-20 and the "Standards for Surveys and Maps in State of Connecticut" as adopted by the Connecticut Associations of Land Surveyors, Inc. on September 26, 1996
   - This Survey conforms to a Class "C" Horizontal Accuracy
   - This Survey conforms to a Class "T-2" Vertical Accuracy
   - Survey Type: Site Development Plan
   - Boundary Determination: Resurvey
   - Intent: 5 Lot Subdivision
2. Parcels shown as 38 on Assessors Tax Map 22 of the Brooklyn Assessors Office
3. Property is owned by: VBL Properties, LLC
4. Zone: RA
5. This Subdivision does include land areas within the Federal Emergency Management Agency's 100 year flood hazard area
6. Wetlands shown were flagged in the field by John Ianni of Highland Soils in November 2017.
7. There are not Known endangered species or species of special concern on the subject property nor within 2 miles of the subject property per the December 2006 Natural Diversity Data Base Mapping
8. Parcel does not lie within an aquifer protection area
9. The Subdivision Regulations of the Town of Brooklyn are a part of this plan. Approval of this plan is contingent on completion of the requirements of said regulations, excepting any variances or modifications are on file in the office of the commission.
10. North orientation, bearings and coordinate values shown are based on North American Datum of 1983 (NAD83)
11. Passive Solar Energy techniques were considered in the design of the subdivision.
12. All electrical services shall be underground.

Map References

1. Prepared for the Town of Stratford, Rukstella Road, Brooklyn, Conn., Scale: 1"=100', Date May 29, 1986, Prepared by: David Marnicki
2. Lot Division Plan, Prepared for River Junction Estates, LLC, Showing Parcel "D-1", Rukstella Road, Brooklyn, Connecticut, Date: Jan. 2011, Prepared by: Messier & Associates
3. Town of Brooklyn, Map showing land to be aquired for the State Highway Purposes from Homer Beecher on the Brooklyn Canterbury Road, Scale: 1"=20', Date Oct. 1929



To My Knowledge and Belief this Map is substantially Correct as noted hereon.

Robert A. DeLuca, P.E. #18756 — Date 7/9/2020

ARCHER Surveying LLC
18 Providence Road, Brooklyn, CT
(860) 779-2240

No.	DATE	REVISION
4	07/08/20	SHEET No. CHANGES
3	06/19/20	VARIOUS MODIFICATIONS
2	06/16/20	WETLAND FLAGS ADDED
1	06/01/20	VARIOUS MODIFICATIONS

STATE OF CONNECTICUT — ROBERT A. DELUCA — 18756 — LICENSED PROFESSIONAL ENGINEER

CLA Engineers, Inc.
CIVIL · STRUCTURAL · SURVEYING
317 Main Street Norwich, CT 06360
(860) 886-1966 Fax (860) 886-9165

VBL PROPERTIES LLC

PROPOSED 5 LOT SUBDIVISION
BEECHER ROAD & RUKSTELLA ROAD
BROOKLYN CT

GRADING & SEPTIC DESIGN PLAN 1 OF 2

Project No.	CLA-6382
Proj. Engineer	D.H.
Date:	03/18/20
Sheet No.	4

CLA

Notes

1. This survey has been prepared pursuant to the Regulations of Connecticut State Agencies Section 20–300b–20 and the "Standards for Surveys and Maps in State of Connecticut" as adopted by the Connecticut Associations of Land Surveyors, Inc. on September 26, 1996
   - This Survey conforms to a Class "C" Horizontal Accuracy
   - This Survey conforms to a Class "T–2" Vertical Accuracy
   - Survey Type: Site Development Plan
   - Boundary Determination: Resurvey
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8. Parcel does not lie within an aquifer protection area
9. The Subdivision Regulations of the Town of Brooklyn are a part of this plan. Approval of this plan is contingent on completion of the requirements of said regulations, excepting any variances or modifications are on file in the office of the commission.
10. North orientation, bearings and coordinate values shown are based on North American Datum of 1983 (NAD83)
11. Passive Solar Energy techniques were considered in the design of the subdivision.
12. All electrical services shall be underground.

Map References

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3. Town of Brooklyn, Map showing land to be aquired for the State Highway Purposes from Homer Beecher on the Brooklyn Canterbury Road, Scale: 1"=20', Date Oct. 1929

PERCOLATION DATA PERC # 5A - DEPTH 27"	
TIME	READING (INCHES)
10:30	5.5
10:51	8.5
11:06	14.0
PERCOLATION RATE > 7 MIN./IN.	
NOTES: PERCOLATION TEST PERFORMED ON 5/17/2018 PERFORMED BY Terre Bombard	

PERCOLATION DATA PERC # A - DEPTH 35"	
TIME	READING (INCHES)
10:57	5.0
11:05	9.5
11:15	12.5
11:27	14.75
11:35	16.0
PERCOLATION RATE > 6.4 MIN./IN.	
NOTES: PERCOLATION TEST PERFORMED ON 3/23/2018 PERFORMED BY Terre Bombard	

DEEP TP DATA / SOIL DESCRIPTIONS	
PERFORMED BY: Terre Bombard	
WITNESSED BY: Northeast District Department of Health	DATE: March 20, 2018

TP: 5A	
0"-7" TOPSOIL 7"-28" Loamy Sand 28"-61" Gray Very Fine Loamy Sand/Mottled	
MOTTLES:	28"
GROUNDWATER:	NO
LEDGE:	NO
ROOTS:	NO
RESTRICTIVE:	NO

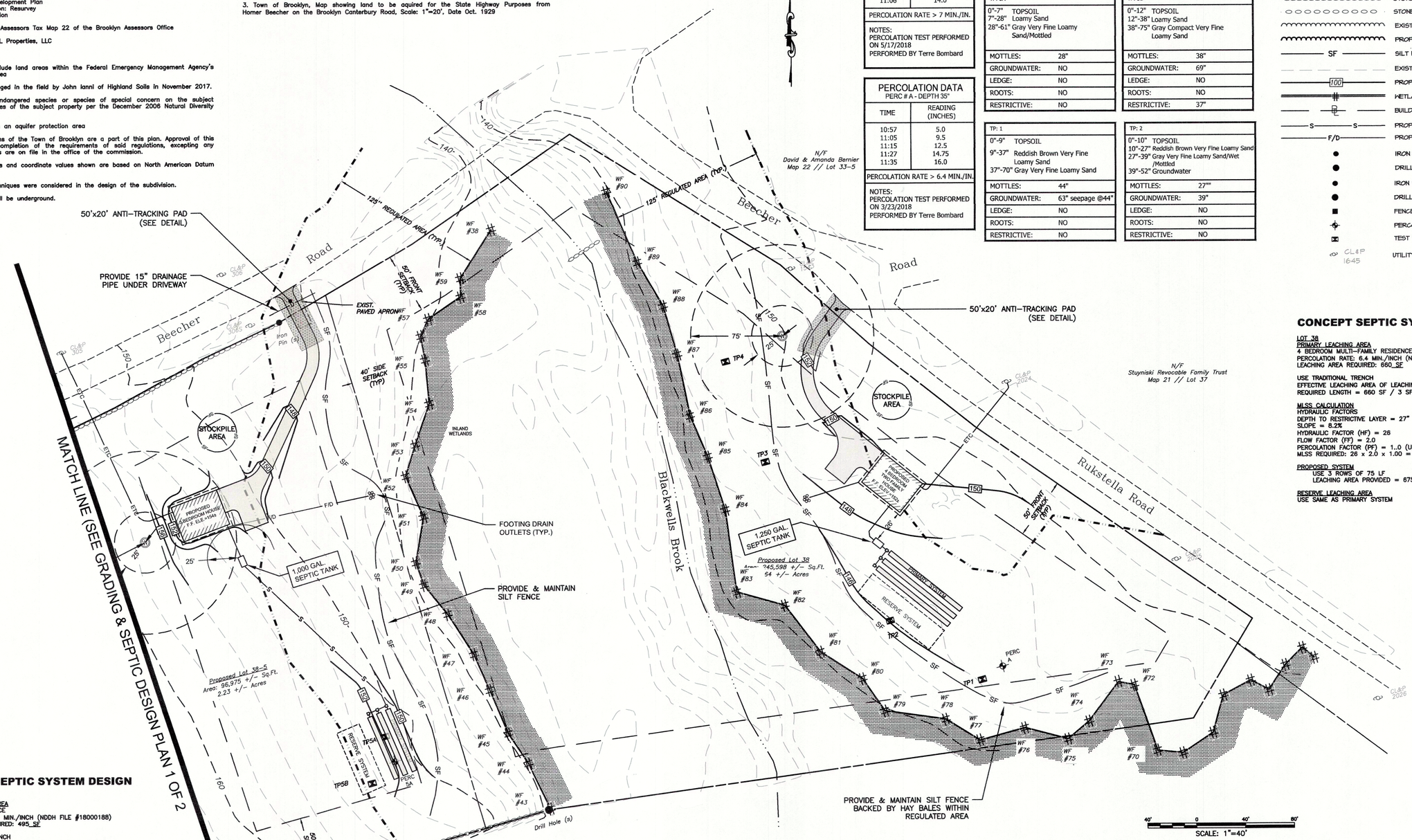
TP: 5B	
0"-12" TOPSOIL 12"-38" Loamy Sand 38"-75" Gray Compact Very Fine Loamy Sand	
MOTTLES:	38"
GROUNDWATER:	69"
LEDGE:	NO
ROOTS:	NO
RESTRICTIVE:	37"

TP: 1	
0"-9" TOPSOIL 9"-37" Reddish Brown Very Fine Loamy Sand 37"-70" Gray Very Fine Loamy Sand	
MOTTLES:	44"
GROUNDWATER:	63" seepage @44"
LEDGE:	NO
ROOTS:	NO
RESTRICTIVE:	NO

TP: 2	
0"-10" TOPSOIL 10"-27" Reddish Brown Very Fine Loamy Sand 27"-39" Gray Very Fine Loamy Sand/Wet /Mottled 39"-52" Groundwater	
MOTTLES:	27""
GROUNDWATER:	39"
LEDGE:	NO
ROOTS:	NO
RESTRICTIVE:	NO

LEGEND

- PROPERTY LINE
- EASEMENT
- STONEWALL
- STONEWALL REMAINS
- EXISTING TREELINE
- PROPOSED CLEARING LIMITS
- SF — SILT FENCE
- EXISTING CONTOUR
- 100 — PROPOSED CONTOUR
- WETLANDS FLAG
- BSL — BUILDING SETBACK
- S — S — PROPOSED SEWER
- F/D — PROPOSED FOUNDATION DRAIN
- IRON PIN FOUND
- DRILL HOLE FOUND
- IRON PIN SET
- DRILL HOLE SET
- FENCE POST
- PERCOLATION TEST
- TEST PIT
- CL&P 1645 — UTILITY POLE



SCALE: 1"=40'

CONCEPT SEPTIC SYSTEM DESIGN

LOT 38–5
PRIMARY LEACHING AREA
3 BEDROOM RESIDENCE
PERCOLATION RATE: 7 MIN./INCH (NDDH FILE #18000188)
LEACHING AREA REQUIRED: 495 SF

USE TRADITIONAL TRENCH
EFFECTIVE LEACHING AREA OF LEACHING TRENCH 3.0 SF/LF
REQUIRED LENGTH = 495 SF / 3 SF/LF = 165 LF

MLSS CALCULATION
HYDRAULIC FACTORS
DEPTH TO RESTRICTIVE LAYER = 28"
SLOPE = 6.1%
HYDRAULIC FACTOR (HF) = 28
FLOW FACTOR (FF) = 1.5
PERCOLATION FACTOR (PF) = 1.00 (UP TO 10.0 MIN./INCH)
MLSS REQUIRED: 28 x 1.5 x 1.00 = 42 LF

PROPOSED SYSTEM
USE 3 ROWS OF 55 LF
LEACHING AREA PROVIDED = 495 SF

RESERVE LEACHING AREA
USE SAME AS PRIMARY SYSTEM

CONCEPT SEPTIC SYSTEM DESIGN

LOT 38
PRIMARY LEACHING AREA
4 BEDROOM MULTI–FAMILY RESIDENCE
PERCOLATION RATE: 6.4 MIN./INCH (NDDH FILE #18000188)
LEACHING AREA REQUIRED: 660 SF

USE TRADITIONAL TRENCH
EFFECTIVE LEACHING AREA OF LEACHING TRENCH 3.0 SF/LF
REQUIRED LENGTH = 660 SF / 3 SF/LF = 220 LF

MLSS CALCULATION
HYDRAULIC FACTORS
DEPTH TO RESTRICTIVE LAYER = 27"
SLOPE = 8.2%
HYDRAULIC FACTOR (HF) = 26
FLOW FACTOR (FF) = 2.0
PERCOLATION FACTOR (PF) = 1..0 (UP TO 10.0 MIN./INCH)
MLSS REQUIRED: 26 x 2.0 x 1.00 = 52 LF

PROPOSED SYSTEM
USE 3 ROWS OF 75 LF
LEACHING AREA PROVIDED = 675 SF

RESERVE LEACHING AREA
USE SAME AS PRIMARY SYSTEM

To My Knowledge and Belief this Map is substantially Correct as noted hereon.

Robert A. DeLuco, P.E. #18756 — 7/9/2020 — Date

ARCHER Surveying LLC
18 Providence Road, Brooklyn, CT
(860) 779–2240

No.	DATE	REVISION
4	07/08/20	SHEET No. CHANGES
3	06/19/20	VARIOUS MODIFICATIONS
2	06/16/20	WETLAND FLAGS ADDED
1	06/01/20	VARIOUS MODIFICATIONS

CLA Engineers, Inc.
CIVIL · STRUCTURAL · SURVEYING
317 Main Street Norwich, CT 06360
(860) 886–1966 Fax (860) 886–9165

STATE OF CONNECTICUT — ROBERT A. DELUCA — 18756 — LICENSED PROFESSIONAL ENGINEER

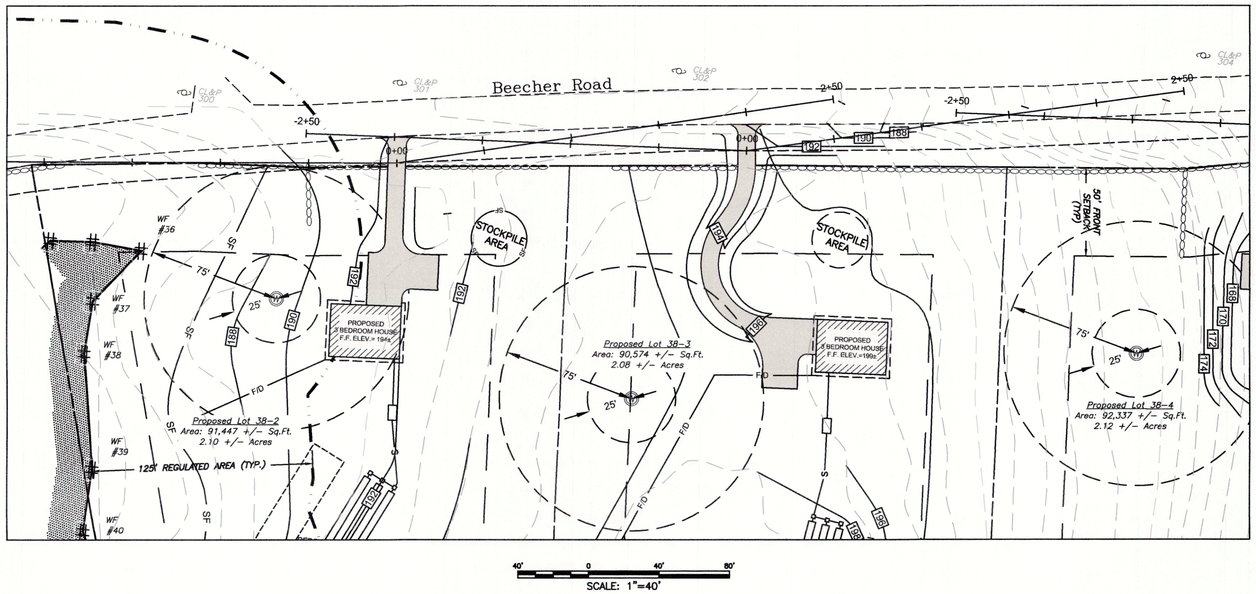
VBL PROPERTIES LLC

PROPOSED 5 LOT SUBDIVISION
BEECHER ROAD & RUKSTELLA ROAD
BROOKLYN CT

GRADING & SEPTIC DESIGN PLAN 2 OF 2

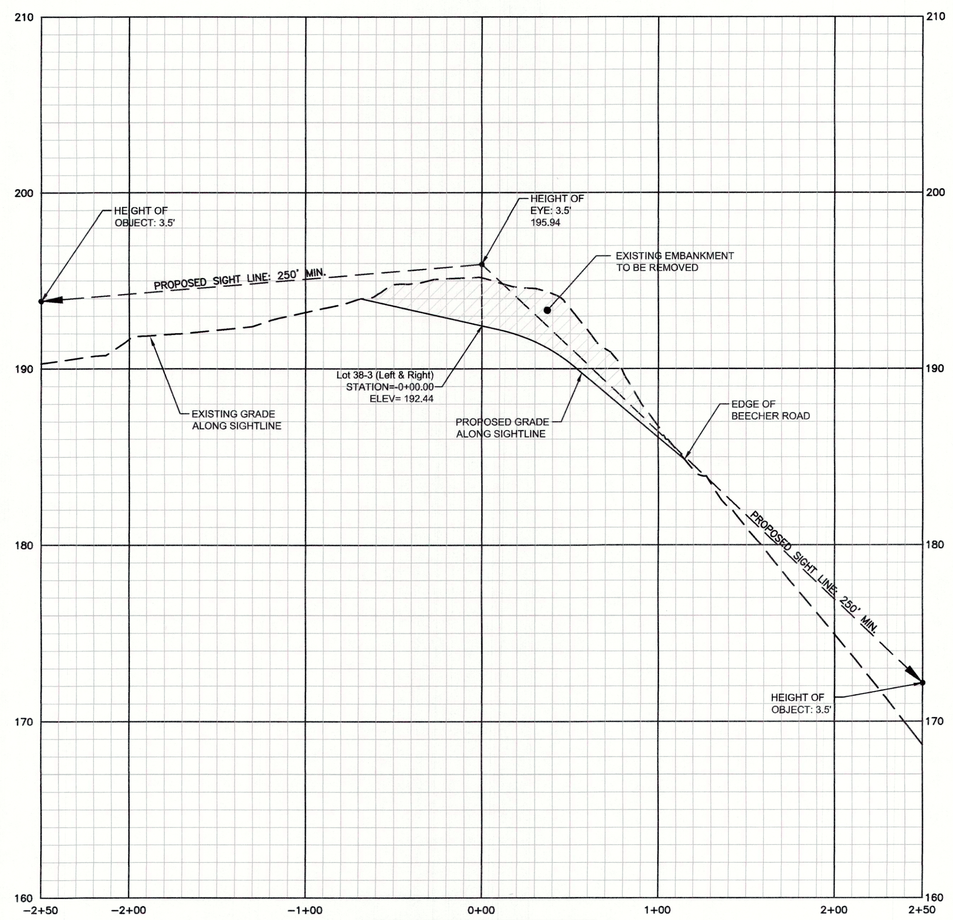
Project No.	CLA–6382
Proj. Engineer	D.H.
Date:	03/18/20
Sheet No.	5

CLA

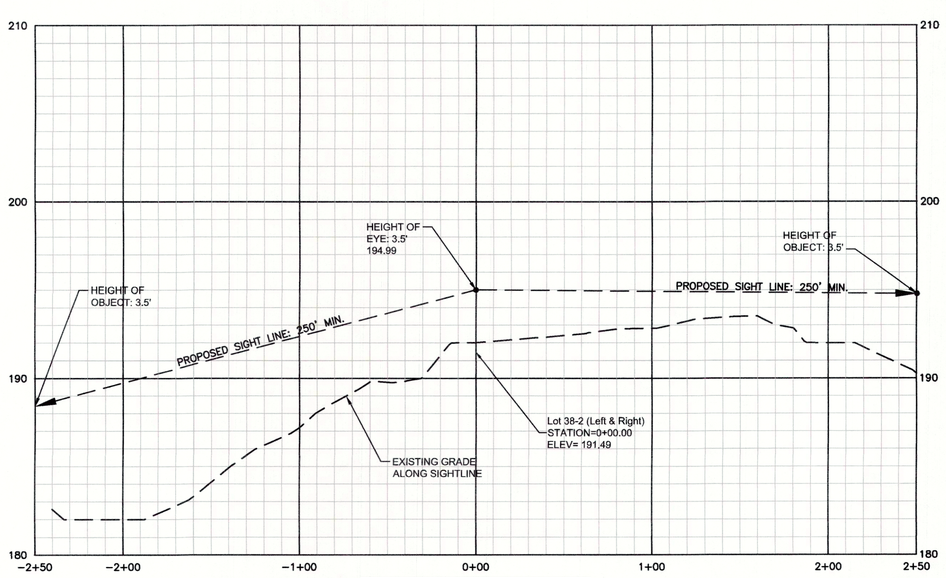


40' 0 40' 80'

SCALE: 1"=40'



Driveway Lot 38-3 (Left & Right)
Horiz. Scale: 1" = 40'
Vert. Scale: 1" = 4'



Driveway Lot 38-2 (Left & Right)
Horiz. Scale: 1" = 40'
Vert. Scale: 1" = 4'

To My Knowledge and Belief this Map is substantially Correct as noted hereon.

Robert A. DeLuca, P.E. #18756 — Date 7/9/2020

ARCHER Surveying LLC
18 Providence Road, Brooklyn, CT
(860) 779-2240

No.	DATE	REVISION
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1	06/01/20	VARIOUS MODIFICATIONS

STATE OF CONNECTICUT ROBERT A. DELUCA 18756 LICENSED PROFESSIONAL ENGINEER

CLA Engineers, Inc.
CIVIL · STRUCTURAL · SURVEYING
317 Main Street Norwich, CT 06360
(860) 886-1966 Fax (860) 886-9165

VBL PROPERTIES LLC

PROPOSED 5 LOT SUBDIVISION
BEECHER ROAD & RUKSTELLA ROAD
BROOKLYN CT

DRIVEWAY SIGHTLINE PLAN & PROFILE

Project No. CLA-6382
Proj. Engineer D.H.
Date: 03/18/20
Sheet No. 6

CLA

EROSION & SEDIMENTATION CONTROL NARRATIVE

1. THE EROSION & SEDIMENTATION CONTROL PLAN AND DETAILS HAVE BEEN DEVELOPED AS A STRATEGY TO CONTROL SOIL EROSION AND SEDIMENTATION DURING AND AFTER CONSTRUCTION. THIS PLAN IS BASED ON THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION IN COOPERATION WITH THE CONNECTICUT DEP.
2. THE PROPOSED LOCATIONS OF SILTATION AND EROSION CONTROL MEASURES ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL PROVIDED SILT FENCE, STONE CHECK DAMS AND/OR OTHER EROSION CONTROL MEASURES AS NEEDED OR DIRECTED BY THE ENGINEER OR TOWN STAFF TO ADEQUATELY PREVENT SEDIMENT TRANSPORT.
3. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO SITE DISTURBANCE.
4. THE CONTRACTOR SHALL INSPECT, REPAIR AND/OR REPLACE EROSION CONTROL MEASURES EVERY 7 DAYS AND IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL OR SNOW MELT. SEDIMENT DEPOSITS MUST BE REMOVED WHEN WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE PERMANENTLY STABILIZED.
5. STAKED HAY BALE SILT BARRIERS OR SILT FENCE SHALL BE INSTALLED AROUND ANY TEMPORARY STOCKPILE AREAS. TEMPORARY VEGETATIVE COVER MAY BE REQUIRED (SEE NOTE).
6. INLET SEDIMENTATION CONTROL DEVICES SHALL BE INSTALLED UNDER THE GRATES OF ALL NEW CATCH BASINS AT THE TIME OF INSTALLATION, AND UNDER THE GRATES OF EXISTING CATCH BASINS IN THE CONSTRUCTION AREA.
7. CONTINUOUS DUST CONTROL USING WATER, CALCIUM CHLORIDE OR APPROVED EQUAL SHALL BE PROVIDED FOR ALL EARTH STOCKPILES, EARTH PILED ALONG EXCAVATIONS, SURFACES OF BACKFILLED TRENCHES AND GRAVELED ROADWAY SURFACES.
8. IF DEWATERING IS NECESSARY DURING ANY TIME OF CONSTRUCTION A CLEAR WATER DISCHARGE SHALL BE PROVIDED AS SHOWN IN THE HAY-BALE BARRIER DEWATERING DETAIL OR ALTERNATE METHOD PROPOSED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.
9. ALL DISTURBED AREAS SHALL BE RESTORED PER THE SLOPE STABILIZATION AND PERMANENT VEGETATION DETAILS. ALL DISTURBED AREAS THAT ARE SLOPED LESS THAN THREE HORIZONTAL TO ONE VERTICAL (3:1) SLOPE SHALL BE LOAMED, SEEDED, FERTILIZED AND MULCHED PER THE PERMANENT VEGETATIVE COVER SPECIFICATIONS. EROSION CONTROL MATTING SHALL BE PROVIDED ON ALL DISTURBED AREAS THAT ARE SLOPED MORE THAN THREE HORIZONTAL TO ONE VERTICAL (3:1).
10. IF FINAL SEEDING OF DISTURBED AREAS IS NOT TO BE COMPLETED BEFORE OCTOBER 15, THE CONTRACTOR SHALL PROVIDE TEMPORARY MULCHING (DORMANT SEEDING MAY BE ATTEMPTED AS WELL) TO PROTECT THE SITE AND DELAY PERMANENT SEEDING.
11. WHEN FEASIBLE, TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINISHED GRADED SHALL BE COMPLETED PRIOR TO OCTOBER 15.
12. ANY EROSION WHICH OCCURS WITHIN THE DISTURBED AREAS SHALL BE IMMEDIATELY REPAIRED AND STABILIZED. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT SHALL BE RETURNED TO THE SITE. POST SEEDING, INTERCEPTED SEDIMENT, IF ANY, SHALL BE DISPOSED OF IN A MANNER APPROVED BY THE TOWN AND ENGINEER.
13. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL VEGETATION IS RE-ESTABLISHED OR SLOPES ARE STABILIZED AND REMOVAL IS APPROVED BY THE TOWN.
14. UNFORESEEN PROBLEMS WHICH ARE ENCOUNTERED IN THE FIELD SHALL BE SOLVED ACCORDING TO THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION IN COOPERATION WITH THE CONNECTICUT DEP.
15. THE CONTRACTOR SHALL PROVIDE THE NAME AND EMERGENCY CONTACT INFORMATION FOR THE PROJECT PERSONNEL RESPONSIBLE FOR EROSION AND SEDIMENTATION CONTROLS PRIOR TO THE START OF CONSTRUCTION.

NOTE: THE CONTRACTOR SHALL CONTINUALLY STORE THE FOLLOWING MATERIALS ONSITE DURING CONSTRUCTION TO MEET UNEXPECTED EROSION NEEDS

* 100 LF OF SILT FENCE
* 10 HAY BALES
* 10 CY OF WOOD CHIPS OR CRUSHED STONE

TEMPORARY VEGETATIVE COVER

A TEMPORARY SEEDING OF RYE GRASS WILL BE COMPLETED WITHIN 15 DAYS OF THE FORMATION OF STOCKPILES. IF THE SOIL IN THE STOCKPILES HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS IT SHALL BE LOOSENED TO A DEPTH OF 2 INCHES BEFORE THE FERTILIZER, LIME AND SEED IS APPLIED. 10-10-10 FERTILIZER AT A RATE OF 7.5 POUNDS PER 1000 S.F. LIMESTONE AT A RATE OF 90 LBS. PER 1000 S.F. SHALL BE USED. RYE GRASS APPLIED AT A RATE OF 1 LB. PER 1000 S.F. SHALL PROVIDE THE TEMPORARY VEGETATIVE COVER. STRAW FREE FROM WEEDS AND COARSE MATTER SHALL BE USED AT A RATE OF 70-90 LBS. PER 1000 S.F. AS A TEMPORARY MULCH. APPLY MULCH AND DRIVE TRACKED EQUIPMENT UP AND DOWN SLOPE OVER ENTIRE SURFACE SO CLEAT MARKS ARE PARALLEL TO THE CONTOURS.

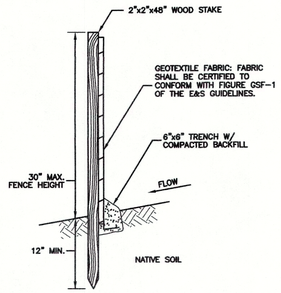
PERMANENT VEGETATIVE COVER

TOPSOIL WILL BE REPLACED ONCE THE EXCAVATIONS HAVE BEEN COMPLETED AND THE SLOPES ARE GRADED AS SHOWN ON THE PLANS. PROVIDE SLOPE PROTECTION AS CALLED FOR ON THE PLANS AND DETAILS. TOPSOIL SHALL BE SPREAD AT A MINIMUM COMPACTED DEPTH OF 4 INCHES. ONCE THE TOPSOIL HAS BEEN SPREAD, ALL STONES TWO INCHES OR LARGER IN ANY DIMENSION WILL BE REMOVED AS WELL AS DEBRIS.

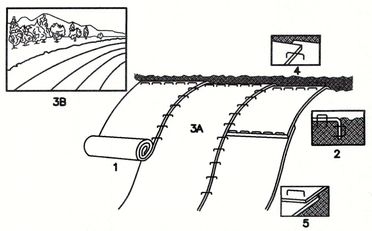
- APPLY AGRICULTURAL GROUND LIMESTONE AT THE RATE OF TWO TONS PER ACRE OR 100 LBS. PER 1000 S.F.
- APPLY 10-10-10 FERTILIZER OR EQUIVALENT AT A RATE OF 300 LBS. PER ACRE OR 7.5 LBS. PER 1000 S.F.
- WORK LIMESTONE AND FERTILIZER INTO THE SOIL TO A DEPTH OF 4 INCHES.
- INSPECT SEEDBED BEFORE SEEDING.
- IF TRAFFIC HAS COMPACTED THE SOIL, RETILL COMPACTED AREAS.
- APPLY THE FOLLOWING GRASS SEED MIX:

TYPICAL SEED MIXTURE

ALL DISTURBED AREAS	LBS./ACRE	LBS./1000 S.F.
KENTUCKY BLUEGRASS	20	0.45
CREEPING RED FESCUE	20	0.45
PERENNIAL RYEGRASS	5	0.10
	45	1.00



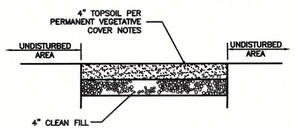
SILT FENCE SECTION
NOT TO SCALE



1. PROVIDE 4" THICKNESS OF TOPSOIL OVER CLEAN FILL. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED MIX PER PERMANENT VEGETATIVE COVER NOTES. (SHALL BE PAID FOR AT THE UNIT PRICE FOR LOAM, SEED, FERTILIZE & MULCH)
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP x 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL THE BLANKET (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 4" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.

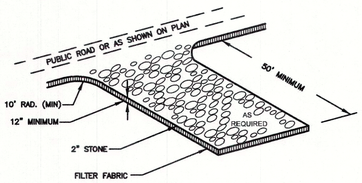
NOTE: ALL PERMANENT EROSION CONTROL BLANKETS ARE TO BE NORTH AMERICAN GREEN S150BN OR APPROVED EQUAL.

EROSION CONTROL MATTING DETAIL
(FOR 3:1 SLOPES OR GREATER)

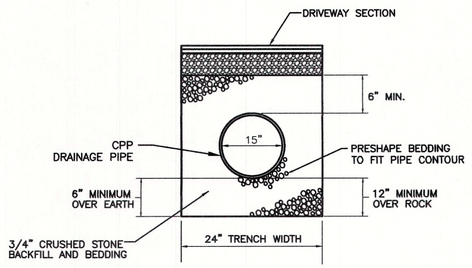


TYPICAL LOAM & SEED SECTION DETAIL
(FOR ALL DISTURBED AREAS)

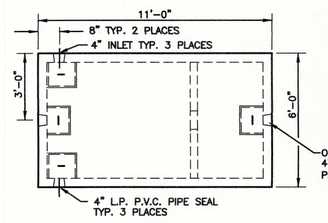
SLOPE STABILIZATION DETAILS
NOT TO SCALE

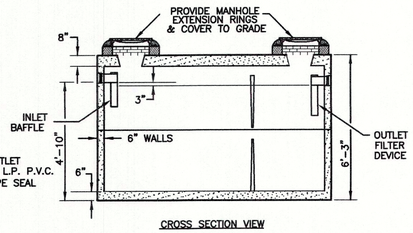


ANTI-TRACKING PAD DETAIL
NOT TO SCALE

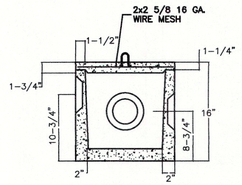


DRAINAGE PIPE BEDDING DETAIL
NOT TO SCALE

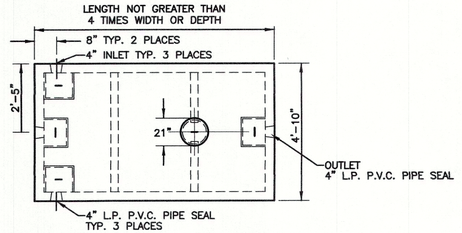




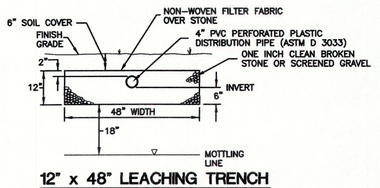
1,500 GALLON SEPTIC TANK
NOT TO SCALE



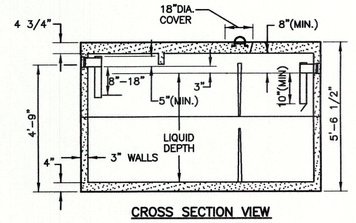
STANDARD D-BOX
NOT TO SCALE



PLAN VIEW

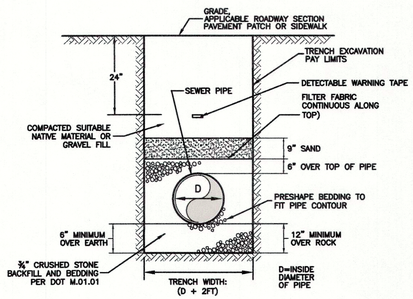


12" x 48" LEACHING TRENCH
NOT TO SCALE



CROSS SECTION VIEW

1,000 GALLON SEPTIC TANK
NOT TO SCALE



NOTES:
1. D=INSIDE DIAMETER OF PIPE.
2. TRENCH WIDTHS NOTED ARE SET TO ESTABLISH PAY LIMITS ONLY.
3. ALL EXCAVATIONS MUST MEET OSHA STANDARDS.
4. CONTRACTOR TO PROVIDE COMPACTION ON ALL TRENCH BACKFILLS, EXCAVATIONS AND PAVEMENT BASES TO NOT LESS THAN 95% OF THE DRY DENSITY FOR THAT MATERIAL.

TRENCH DETAIL: SANITARY SEWER PIPE
NOT TO SCALE

ARCHER Surveying LLC
18 Providence Road, Brooklyn, CT
(860) 779-2240

No.	DATE	REVISION
4	07/08/20	SHEET No. CHANGES
3	06/19/20	VARIOUS MODIFICATIONS
2	06/18/20	WETLAND FLAGS ADDED
1	06/01/20	VARIOUS MODIFICATIONS

CLA Engineers, Inc.
CIVIL · STRUCTURAL · SURVEYING
317 Main Street Norwich, CT 06360
(860) 886-1966 Fax (860) 886-9165

VBL PROPERTIES LLC

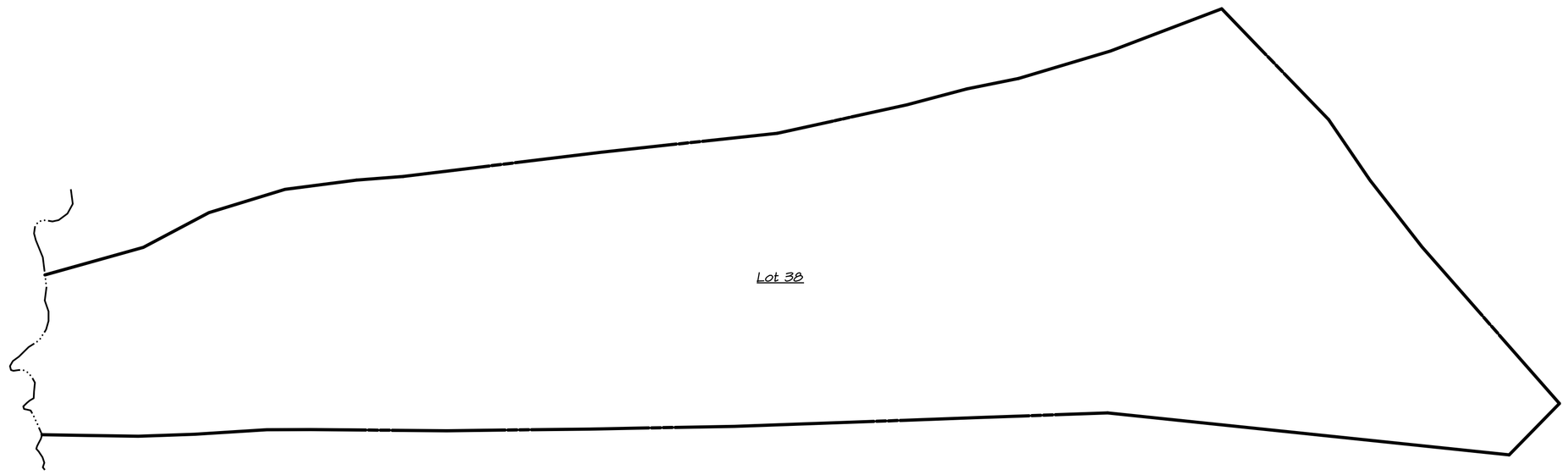
PROPOSED 5 LOT SUBDIVISION
BEECHER ROAD & RUKSTELLA ROAD
BROOKLYN CT

CONSTRUCTION DETAILS

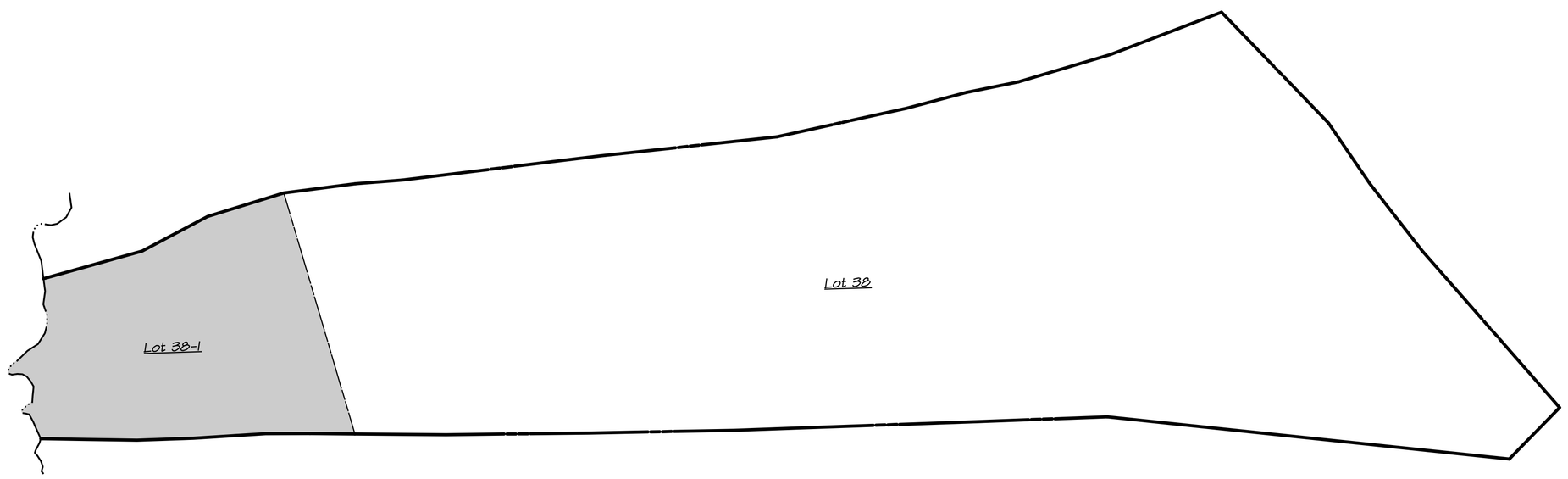
Project No. CLA-6382
Proj. Engineer D.H.
Date: 03/18/20
Sheet No. 7

CLA

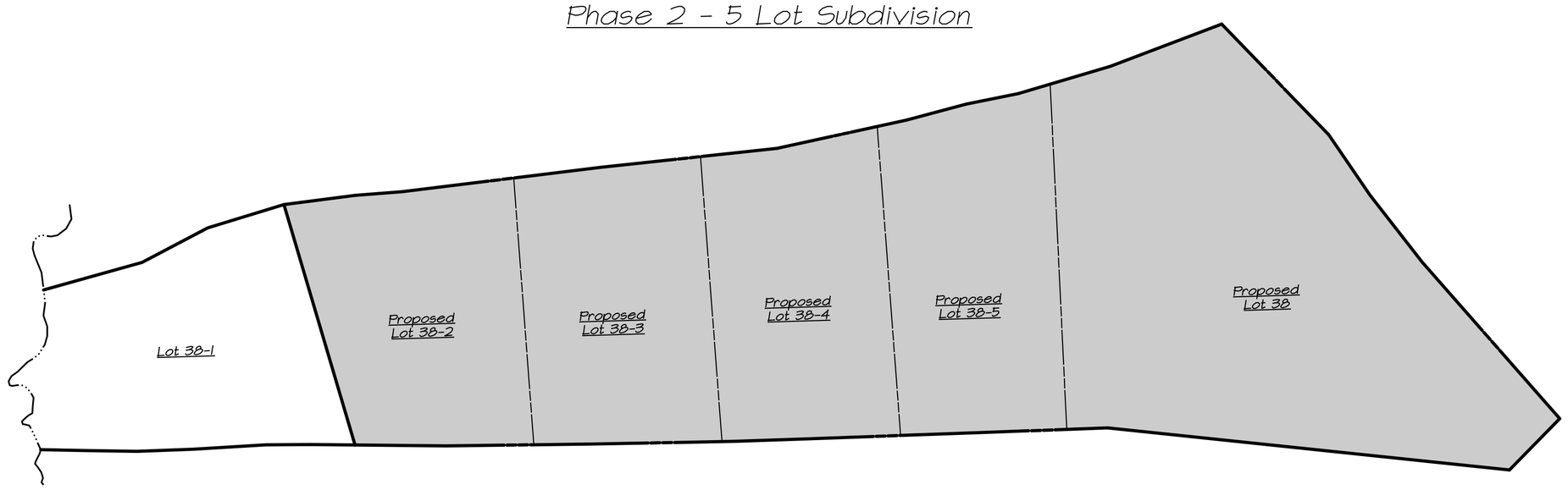
Original Tract



Phase 1 - Free Split



Phase 2 - 5 Lot Subdivision



Grantor	Grantee	Date	Vol. / Pg.
	Paul Ashworth	September 1992	129 / 87
Paul Ashworth	Bruce Ashworth & Judith Mullaney	September 1993	142 / 211
Bruce Ashworth & Judith Mullaney	Judith Mullaney Trust	January 1999	204 / 263
Judith Mullaney Trust	VBL Properties LLC	October 2016	583 / 259

History Plan

"Proposed 5 Lot Subdivision"

Prepared For:

VBL Properties LLC
Beecher Road
Brooklyn, Connecticut

ARCHER Surveying LLC
18 Providence Road, Brooklyn, CT
(860) 779-2240

Sheet No.	Project No.	Date:
9 OF 9	1500	June 2020

CLA Engineers, Inc.
Civil • Structural • Survey

317 MAIN STREET • NORWICH, CT 06360 • (860) 886-1966 • (860) 886-9165 FAX

July 8, 2020

Inland Wetlands Commission
Town of Brooklyn
69 South Main Street
Suite 22
Brooklyn, CT 06234

RE: CLA 6382
VBL Properties LLC Subdivision
Beecher Rd

To the Commission:

CLA Engineers was retained by VBL Properties LLC to conduct a wetlands investigation and functional assessment on the parcel of land, located at Beecher and Rukstella Roads that is proposed to be developed for a residential subdivision. The 14.68 acre site is located within the Town of Brooklyn and is currently a combination of farm field and wooded undeveloped land. The approximate site location is shown on the cover sheet of the site plans. The purposes of the investigation were to: confirm the wetland delineation, provide background data in the form of determining wetland functions, and assess the potential for wetland impacts due to the proposed development.

Wetlands were previously delineated by John Ianni of Highland Soils according to the State of Connecticut statutory definition as described in Section 22a of the State Statutes. CLA conducted field work in June and July of 2020 and confirmed that the previous wetland delineation is substantially correct. Several old wetland flags were found and re-flagged and new flags were hung along virtually the same line that was previously determined.

After wetland delineation confirmation was complete, the wetland resources of the site were surveyed by conducting a deliberate walk through of the site, traversing each wetland in order to collect data characteristic of that wetland. During the walk through, vegetation identifiable was noted, described and divided into communities.

Site Setting

The VBL site has several vegetative cover types that were established by past land use. Portions of the site have been used for agriculture and a farm fields is still present. Other areas were used for agriculture and then allowed to revert to woodland at various times in

the past. The abundant stonewalls indicate that nearly all of the land was previously cleared and used (as was most of Connecticut) for farm fields until the early 20th century.

The upland forest type is mixed hardwood uplands and the wetland is a combination of floodplain forest and red maple swamp. The areas of upland have mixed hardwoods such as red maple, red oak, locust and black birch. The wetlands are dominated by red maple trees with other species such as yellow birch and pin oak in lesser numbers.

The land uses surrounding the site include residential, agricultural and woodland. The residential development is primarily located to the east. Undeveloped farmland and woodland surrounds the site to the north, west and south.

Throughout the site slopes vary from moderate to nearly flat. The surface water drains to Blackwell's Brook on the eastern side of the site and to an on-site wetland on the western side of the site. The slopes on the east and west side of Blackwell's Brook are abrupt at the edge of the wetland and indicate the transition from upland soils to the edge of the alluvial soils that flank the brook.

Surficial Geology and Soils

Southern New England was overlain by glacial ice as recently as 12,000-15,000 years ago. The materials that the glaciers deposited over top the local bedrock determine the surficial geology of the region and of the VBL site. Glacial deposits are generally divided into three categories: glacial till (un-stratified sand, silt and rock), glaciofluvial (water sorted, stratified sand and gravel), and glaciolacustrine (stratified sand, silt and clay that settled out in lakebeds). The type of glacial deposits present on the site includes both glacial till and glacial outwash. In addition, the soils along Blackwell's Brook were deposited by that stream after the glacier retreated and are regulated by the State of Connecticut as wetland soils.

The soils formed in till deposits typically have sandy loam to silt loam textures and in this case they are coarser, sandy loams. The slopes are moderate to flat throughout the site and this leads to differences in soil mapping classification as listed by the NRCS.

The soils formed in glacial outwash are stratified and contain layers of sand and gravel.

The alluvial soils on this site are also all either poorly or very poorly drained and have variable textures that include layers of sand, gravel, silt and organic matter. All of these soils have been delineated as wetland.

Table 1 is a summary table of the soils found on the site.

Table 1 - Soil Types and Properties at the VBL Site

Soil Series	Parent Material	Drainage Class	Texture/Characteristics
*108 Saco	Alluvium	Very Poorly Drained	Fine Sandy Loam Extremely Stony
*17 Scarboro muck	Decayed organic matter	Very poorly drained	Mucky
*3 Ridgebury, Leicester and Whitman	Glacial Till	Somewhat poorly to very poorly drained	Stony sandy loam
60 Canton and Charlton	Glacial Till	Well Drained	Fine sandy loam
701 Ninigret	Glacial Outwash	Moderately Well Drained	Sandy loam
38 Hinckley	Glacial Outwash	Excessively drained	Loamy sand
*13 Walpole	Glacial Outwash	Poorly	Sandy loam

* Wetland soil types

Wetland Descriptions and Functions

This VBL site site has one wetland system that surrounds Blackwell's Brook and a second system that occupies a depression on the site's west side. Under the USFWS system, the Blackwell's Brook system is classified as Riverine, upper perennial (RU) with a rock bottom while the western wetland is a palustrine deciduous swamp (PF01) that is seasonally flooded/saturated. It has gentle slopes and is sparsely vegetated.

The typical vegetation of both wetlands includes: trees such as red maple trees and saplings, yellow birch trees and saplings; shrubs such as spice bush, highbush blueberry, winterberry holly, sweet pepperbush, clammy azalea, and alder and plants such as skunk cabbage, cinnamon fern, sphagnum, royal fern, and sensitive fern.

The principle functions of these wetlands are numerous, especially those associated with Blackwell's Brook .The CTDEEP NDDB (December 2019) shows no known habitat of threatened, endangered or special concern species. The functions were found to include:

- Wildlife habitat
- Fish/shellfish habitat
- Floodwater retention/detention
- Groundwater recharge/discharge
- Biomass production export
- Sediment/toxicant reduction
- Nutrient processing
- Shoreline stabilization
- Recreation
- Aesthetics
- Educational opportunities

These values are mainly associated with the Blackwell's Brook wetland and are supported by several important features of that wetland:

- Presence of a perennial stream
- Areas of undeveloped buffer
- Limited development within the watershed
- Evidence of use by a diversity of wildlife species.

Potential for Impacts

As shown on the project plans there are no proposed activities in the inland wetlands. However, work in the upland review zone will include:

- Clearing and grading
- Construction of driveways, houses and septic systems
- Installation of erosion and sedimentation controls
- Construction of utilities

These activities in the upland review zone present limited potential for wetland impacts. The site has only moderate slopes and short length of slope. CLA believes that the Best Management Practices (BMPs) measures shown on the plans for erosion and sediment control and stormwater management will be adequate in preventing wetland impacts if properly installed and maintained.

CLA notes that in order to minimize the potential for impacts to wetlands, the E&S has been designed in compliance with the CTDEEP 2002 E&S Manual.

Summary

The proposed development activities will not directly impact wetlands. The work in the upland review zone can be managed with BMPS so as to not impact wetlands during construction. The post construction stormwater treatment is protective of the wetlands In summary, if the proposed erosion and sedimentation control measures are adhered to, CLA believes that there will be no adverse wetland impacts.

Please contact me if you have any questions.

Very truly yours,

R C Russo

Robert C. Russo
Soil Scientist

Appendix A
Soils Data

(108) The Saco series consists of very deep, very poorly drained soils formed in silty alluvial deposits. They are nearly level soils on flood plains, subject to frequent flooding. Slope ranges from 0 to 2 percent. Permeability is moderate in the silty layers and rapid or very rapid in the underlying sandy materials. Mean annual temperature is about 50 degrees F. and mean annual precipitation is about 47 inches.

(17) The Scarboro series consists of very deep, very poorly drained soils in sandy glaciofluvial deposits on outwash plains, deltas, and terraces. They are nearly level soils in depressions. Slope ranges from 0 through 3 percent. Saturated hydraulic conductivity is high or very high. Mean annual temperature is about 49 degrees F. (9 degrees C.) and the mean annual precipitation is about 44 inches (1118 millimeters).

(3) The Ridgebury series consists of very deep, somewhat poorly and poorly drained soils formed in lodgment till derived mainly from granite, gneiss and/or schist. They are commonly shallow to a densic contact. They are nearly level to gently sloping soils in depressions in uplands. They also occur in drainageways in uplands, in toeslope positions of hills, drumlins, and ground moraines, and in till plains. Slope ranges from 0 to 15 percent. Saturated hydraulic conductivity is moderately high or high in the solum and very low to moderately low in the substratum. Mean annual temperature is about 9 degrees C. and the mean annual precipitation is about 1143 mm.

(60) The Canton series consists of very deep, well drained soils formed in a loamy mantle underlain by sandy till. They are on nearly level to very steep moraines, hills, and ridges. Slope ranges from 0 to 45 percent. Saturated hydraulic conductivity is moderately high or high in the solum and high or very high in the substratum. The mean annual temperature is about 9 degrees C and the annual precipitation is about 1205 mm.

(701) The Ninigret series consists of very deep, moderately well drained soils formed in loamy over sandy and gravelly glacial outwash. They are nearly level to strongly sloping soils on glaciofluvial landforms, typically in slight depressions and broad drainage ways. Slope ranges from 0 through 15 percent. Saturated hydraulic conductivity is moderately high or high in the solum and high or very high in the substratum. Mean annual temperature is about 49 degrees F. and mean annual precipitation is about 48 inches.

(38) The Hinckley series consists of very deep, excessively drained soils formed in glaciofluvial materials. They are nearly level through very steep soils on outwash terraces, outwash plains, outwash deltas, kames, kame terraces, and eskers. Saturated hydraulic conductivity is high or very high. Slope ranges from 0 to 60 percent. Mean annual temperature is about 7 degrees C, and mean annual precipitation is about 1143 mm.

(13) The Walpole Series consists of very deep, poorly drained sandy soils formed in outwash and stratified drift. They are nearly level to gently sloping soils in low-lying positions on terraces and plains. Slope ranges from 0 to 8 percent. Saturated hydraulic conductivity is moderately high or high in the surface layer and subsoil, and high or very high in the substratum. Mean annual temperature is about 48 degrees F., and mean annual precipitation is about 43 inches.

Soil Map—State of Connecticut
(Beecher Rd)

Map Scale: 1:4,210 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

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

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

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

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: State of Connecticut
Survey Area Data: Version 19, Sep 13, 2019

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

Date(s) aerial images were photographed: Apr 14, 2011—Aug 27, 2016

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
3	Ridgebury, Leicester, and Whitman soils, 0 to 8 percent slopes, extremely stony	3.3	6.3%
13	Walpole sandy loam, 0 to 3 percent slopes	3.2	6.1%
15	Scarboro muck, 0 to 3 percent slopes	2.8	5.3%
17	Timakwa and Natchaug soils, 0 to 2 percent slopes	1.4	2.7%
34B	Merrimac fine sandy loam, 3 to 8 percent slopes	0.2	0.3%
38C	Hinckley loamy sand, 3 to 15 percent slopes	10.5	20.0%
38E	Hinckley loamy sand, 15 to 45 percent slopes	1.9	3.6%
60B	Canton and Charlton fine sandy loams, 3 to 8 percent slopes	10.2	19.5%
73C	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	0.7	1.4%
75E	Hollis-Chatfield-Rock outcrop complex, 15 to 45 percent slopes	5.3	10.2%
108	Saco silt loam	6.2	11.8%
701B	Ninigret fine sandy loam, 3 to 8 percent slopes	6.7	12.8%
Totals for Area of Interest		**52.3**	**100.0%**

Appendix B
Photographs

Photograph 1 Typical floodplain wetland along Blackwell's Brook

Photograph 2 Blackwell's Brook at northern end of site

NORTHEASTERN CONNECTICUT COUNCIL OF GOVERNMENTS

ENGINEERING PLAN REVIEW
PERTAINING TO
5-LOT SUBDIVISION
(ASSESSOR'S MAP 38, LOT 22)
TRIPP HOLLOW ROAD
BROOKLYN, CT

(July 8, 2020)

The comments contained herein pertain to my review of plans, consisting of six sheets, entitled "Subdivision Application, 5 Lot Subdivision, Prepared for VBL Properties,LLC, Beecher Road, Brooklyn, Connecticut," prepared by Archer Surveying, LLC and CLA Engineers, Inc., dated June 4, 2020. Most recent Town of Brooklyn Zoning, Subdivision and Wetlands Regulations and Public Improvement Specifications were researched for this review.

Sheet 1 of 8 – Cover Sheet (Archer Sheet 1 of 8)

1. The "Index of Drawings" prepared by professionals needs to be revised to read as noted on the respective plans in the plan set, as follows:

Cover Sheet	Sheet 1 of 8
Existing Condition Plan	Sheet 2 of 8
Grading & Septic Design Plan 1 of 2	Sheet 3 of 8
Grading & Septic Design Plan 2 of 2	Sheet 4 of 8
Driveway Sightline Plan & Profile	Sheet 5 of 8
Construction Details	Sheet 6 of 8
Subdivision Plan	Sheet 7 of 8
History Plan	Sheet 8 of 8

This suggestion is to avoid confusion and accurately describe what is in the plan set. Also, the plan sheet numbering system is a hodgepodge as presented and should be ordered uniformly and not remain incoherent as submitted.

Sheet 5 of 8 – Site Development Plan No. 2 (CLA Plan 2 of 2)

1. Lot No. 38 on Sheet 5 of 8 is almost entirely contained within a regulated wetland upland area. No one can argue that Blackwells Brook is an important watercourse in the town of Brooklyn and as such any development or land disturbance close to it, especially within the wetland upland review area as shown, should be done with extreme care, if at all. The proposed lot, if approved as shown, is to be developed with a two-family house, paved driveway and significant clearing/regrading of the lot as close as 100' from the stream. Introducing habitation in this area provides no guarantees that

the future residents will recognize the importance of protecting the water quality of this stream and not create further modification (e.g. cutting trees) of the upland area to, for example, increase more usable yard space, provide more natural light in the yard or install a swimming pool, all of which can be detrimental to the wetland. Considering this, I believe very careful thought must be given as to whether or not this lot should be created at all—especially with a duplex dwelling—due to the potential negative impact to the Blackwells Brook wetland system.

Sheet 6 of 8 – Detail Sheet (CLA Sheet No. 4)

1. A staked hay bale sediment control detail and stone check dam detail should be included on this plan as the use of the same is noted under "Erosion & Sediment Control Narrative" on this plan.

2. In Note No. 9 under the "Erosion & Sediment Control Narrative," it states that slopes steeper than 3H:1V should be constructed with erosion control matting. Slopes steeper than 3H:1V should not be constructed in accordance with .

Sheet 7 of 8 – Subdivision Plan (Archer Sheet 3 of 8)

1. The title block in the lower right corner should, in part, read "Proposed 5 Lots," not as submitted with "Proposed 6 Lots."

2. The scale of this plan is noted as 1" = 70'. However, when an engineer's scale ruler is used, the scale is actually 1" = 60', the same as that for Sheet 2 of 8, "Existing Condition Plan." The scale annotation should be changed to 1" = 60' along with the numbers on the graphic scale bar.

3. The front property line of proposed Lot 38-2, from its northwest corner to approximately 40'-50' easterly along said property line, does not appear to be in conformity with Subdivision Regulation 10.6. The first paragraph of this regulation states *"Existing Streets: Proposed subdivisions abutting an existing Town street shall provide for proper widening of the right-of-way of such street to the width appropriate for the classification give such street in accordance with the Town Plan of Development."* To conform to this regulation, the distance from the centerline of the actual road to the property line should be no more than 25' (see Public Improvement Specifications Figure No. 7, "Improvements to Existing Town Roads," on Page 29). The property line orientation in question should be checked by the Applicant's land surveyor and, if necessary, be brought into compliance with the regulation and the lot area recalculated to ensure compliance with minimum lot size.

General Comments

1. Under "Notes" on a few of the plan sheets there is a statement that there are no known endangered species or species of special concern, which is fine. However, seeing that a major stream — Blackwells Brook — is within the proposed subdivision, has the Applicant's consultant(s) contacted the State Historical Preservation Office (SHPO), in writing, as to whether or not there is suspicion or archaeological evidence found of any prehistoric people that lived on this land and was this confirmed in writing?

2. Also under "Notes," electrical services are stated to be installed underground. What about telephone, cable TV, etc.?

3. Once again, under "Notes," it is stated that there is a 100-year flood plan within the project limits. This area is not noted on any plan nor is there any reference to the FEMA FIRM panel number in the "Notes." This information should be clearly stated on the plan.

4. Plan sheet numbering is confusing and should be corrected.

5. The plans do not indicate any land in the proposed subdivision to be dedicated to "open space." In Section 8, "Open Space," of the subdivision regulations, the proposed subdivision has the vast majority of the elements described in Section 8.0 as warrants for duly requiring the dedication of open space. It is my professional opinion that the area surrounding Blackwells Brook is important and significant enough to be deemed "open space" and not be part of any individual private ownership.

6. The plans I reviewed did not bear the stamps and signatures of the design professionals or the soil scientist. Plans submitted to the Commissions should have these in place.

By: _____, P.E.,
Syl Pauley, Jr., P.E., NECCOG Regional Engineer

NORTHEASTERN CONNECTICUT COUNCIL OF GOVERNMENTS

VERSION 3 ENGINEERING PLAN REVIEW
PERTAINING TO
5-LOT SUBDIVISION
(ASSESSOR'S MAP 38, LOT 22)
BEECHER ROAD
BROOKLYN, CT

(July 16, 2020)

The comments contained herein pertain to my review of the third version of plans, consisting of eight (8) sheets, entitled "Subdivision Application, 5 Lot Subdivision, Prepared for VBL Properties,LLC, Beecher Road, Brooklyn, Connecticut," prepared by Archer Surveying, LLC and CLA Engineers, Inc., dated June 4, 2020 with revisions as recent as July 8, 2020. Most recent Town of Brooklyn Zoning, Subdivision and Wetlands Regulations and Public Improvement Specifications were researched for this review.

Sheet 1 of 8 – Cover Sheet (Archer Sheet 1 of 8)

1. The "Index of Drawings" prepared by professionals should be revised to reflect titles on the respective plans in the plan set, as follows:

Cover Sheet	Sheet 1 of 8
Existing Condition Plan	Sheet 2 of 8
Subdivision Plan	Sheet 3 of 8
Grading & Septic Design Plan 1 of 2	Sheet 4 of 8
Grading & Septic Design Plan 2 of 2	Sheet 5 of 8
Driveway Sightline Plan & Profile	Sheet 6 of 8
Construction Details	Sheet 7 of 8
History Plan	Sheet 8 of 8

This suggestion is to avoid confusion and accurately describe what is in the plan set.

Sheet 2 of 8 – Existing Condition Plan

1. The plan's title block designates this plan as Sheet 2 of 9. This should be changed to Sheet 2 of 8.

2. Previous versions of this plan did not include contour lines, wetlands flagging, 100-year flood hazard boundaries, and expanded map references. Also, "Notes" was expanded from 3 to 12 notes, which are repetitious of those found on Sheet 3 of 8, "Subdivision Plan."

3. A 100-year flood hazard boundary is located at the northwest corner of the property opposite CL&P Utility Poles #300 & #301, however, the flood hazard zone is not shown on Sheet 4 of 8, "Grading & Septic Design Plan 1 of 1."

4. The 100-year flood hazard boundary symbol needs to be included in the plan "Legend."

5. The professional land surveyor's seal and signature is missing on this plan.

6. The soil scientists name and signature is missing on this plan.

Sheet 3 of 8 – Subdivision Plan

1. The scale of this plan is noted as 1" = 70'. However, when an engineer's scale ruler is used, the scale is actually 1" = 60', the same as that for Sheet 2 of 8, "Existing Condition Plan." The scale annotation should be changed to 1" = 60' along with the numbers on the graphic scale bar.

2. The front property line of proposed Lot 38-2, from its northwest corner to approximately 40'-50' easterly along said property line, does not appear to be in conformity with Subdivision Regulation 10.6. The first paragraph of this regulation states *"Existing Streets: Proposed subdivisions abutting an existing Town street shall provide for proper widening of the right-of-way of such street to the width appropriate for the classification give such street in accordance with the Town Plan of Development."* To conform to this regulation, the distance from the centerline of the actual road to the property line should be no more than 25' (see Public Improvement Specifications Figure No. 7, "Improvements to Existing Town Roads," on Page 29). The property line orientation in question should be checked by the Applicant's land surveyor and, if necessary, be brought into compliance with the regulation and the lot area recalculated to ensure compliance with minimum lot size.

3. The 100-year flood hazard boundaries associated with Blackwells Brook and across the majority of the frontage of Lot #38-2 is noted on this plan, however, the boundaries do not appear on Sheet 4 of 8, "Grading & Septic Design Plan 1 of 2" and Sheet 5 of 8, "Grading & Septic Design Plan 2 of 2." Neither plan has the 100-year flood hazard boundary symbol in the "Legend."

4. The professional land surveyor's seal and signature is missing on this plan.

Sheet 4 of 8 – Grading & Septic Design Plan 1 of 2

1. The 100-year flood hazard boundary is not shown along the frontage of Lot #38-2. Based upon the location of the boundary shown on Sheet 2 of 8, the depicted location of the well for this lot may be in or on the edge of the flood hazard zone. It is recommended that another location be considered for the well if the designer feels this has the potential for well contamination with an opinion stated in writing to the Commission.

2. The 100-year flood hazard boundary symbol is not included in the "Legend."

Sheet 5 of 8 – Grading & Septic Design Plan 2 of 2

1. Lot No. 38 on Sheet 5 of 8 is almost entirely contained within a regulated wetland upland area. No one can argue that Blackwells Brook is an important watercourse in the town of Brooklyn and as such any development or land disturbance close to it, especially within the wetland upland review area as shown, should be done with extreme care, if at all. The proposed lot, if approved as shown, is to be developed with a two-family house, paved driveway and significant clearing/regrading of the lot as close as 100' from the stream. Introducing habitation in this area provides no guarantees that the future residents will recognize the importance of protecting the water quality of this stream and not create further modification (e.g. cutting trees) of the upland area to, for example, increase more usable yard space,

provide more natural light in the yard or install a swimming pool, all of which can be detrimental to the wetland. Considering this, I believe very careful thought must be given as to whether or not this lot should be created at all—especially with a duplex dwelling—due to the potential negative impact to the Blackwells Brook wetland system.

2. The 100-year flood hazard boundary is not shown along Blackwells Brook on Lot #38.

3. The 100-year flood hazard boundary symbol is not included in the "Legend."

Sheet 7 of 8 – Construction Details

1. A staked hay bale sediment control detail and stone check dam detail should be included on this plan as the use of the same is noted under "Erosion & Sediment Control Narrative" on this plan.

2. In Note No. 9 under the "Erosion & Sediment Control Narrative," it states that slopes steeper than 3H:1V should be constructed with erosion control matting. Slopes steeper than 3H:1V should be avoided to minimize soil erosion and sediment transport due to difficulty in reestablishing and maintaining vegetation on steeper slopes, especially in shady areas. Therefore, it is recommended that no regarded slope exceeds 3H:1V.

3. The professional engineer's seal and signature is missing on this plan.

General Comments

1. Under "Notes" on a few of the plan sheets there is a statement that there are no known endangered species or species of special concern, which is fine. However, seeing that a major stream —Blackwells Brook — is within the proposed subdivision, has the Applicant's consultant(s) contacted the State Historical Preservation Office (SHPO), in writing, as to whether or not there is suspicion or archaeological evidence found of any prehistoric people that lived on this land and was this confirmed in writing?

2. Also under "Notes," electrical services are stated to be installed underground. What about telephone, cable TV, etc.?

3. The plans do not indicate any land in the proposed subdivision to be dedicated to "open space." In Section 8, "Open Space," of the subdivision regulations, the proposed subdivision has the vast majority of the elements described in Section 8.0 as warrants for duly requiring the dedication of open space. It is my professional opinion that the area surrounding Blackwells Brook should be preserved and is important and significant enough to be deemed "open space" and not be part of any individual private lot ownership.

By: _____ P.E. 7/14/2020
Syl Pauley, Jr., P.E., NECCOG Regional Engineer

RECEIVED

JUN 0 8 2020

INLAND WETLANDS & WATERCOURSES COMMISSION
TOWN OF BROOKLYN, CONECTICUT

Date 6/4/20

Application # 060920C

APPLICATION -- INLAND WETLANDS & WATERCOURSES

APPLICANT A. Kausch & Sons MAILING ADDRESS 35 Suzanne Lane. Brooklyn CT
APPLICANT'S INTEREST IN PROPERTY Owner PHONE 860-230-7928 EMAIL

PROPERTY OWNER IF DIFFERENT PHONE
MAILING ADDRESS EMAIL

ENGINEER/SURVEYOR (IF ANY) Paul Archer (Archer Surveying)
ATTORNEY (IF ANY)

PROPERTY LOCATION/ADDRESS Tripp Hollow Rd
MAP # 15 LOT # 4 ZONE RA TOTAL ACRES 4.08 ACRES OF WETLANDS ON PROPERTY 92,106 / 2.11 ACRES

PURPOSE AND DESCRIPTION OF THE ACTIVITY 2 Lot Subdivision - Single Family Homes, Driveways, Septic, Well & Minor Grading

WETLANDS EXCAVATION AND FILL:
FILL PROPOSED Ø CUBIC YDS SQ FT
EXCAVATION PROPOSED CUBIC YDS SQ FT
LOCATION WHERE MATERIAL WILL BE PLACED: ON SITE OFF SITE
TOTAL REGULATED AREA ALTERED: SQ FT ACRES

EXPLAIN ALTERNATIVES CONSIDERED (REQUIRED): None.

MITIGATION MEASURES (IF REQUIRED): WETLANDS/WATERCOURSES CREATED: CY SQFT ACRES

IS PARCEL LOCATED WITHIN 500FT OF AN ADJOINING TOWN? NO IF YES, WHICH TOWN(S)
IS THE ACTIVITY LOCATED WITHIN THE WATERSHED OF A WATER COMPANY AS DEFINED IN CT GENERAL STATUTES 25-32A? NO

THE OWNER AND APPLICANT HEREBY GRANT THE BROOKLYN IWWC, THE BOARD OF SELECTMAN AND THEIR AUTHORIZED AGENTS PERMISSION TO ENTER THE SUBJECT PROPERTY FOR THE PURPOSE OF INSPECTION AND ENFORCEMENT OF THE IWWC REGULATIONS OF THE TOWN OF BROOKLYN. IF THE COMMISSION DETERMINES THAT OUTSIDE REVIEW IS REQUIRED, APPLICANT WILL PAY CONSULTING FEE.

NOTE: DETERMINATION THAT THE INFORMATION PROVIDED IS INACCURATE MAY INVALIDATE THE IWWC DECISION AND RESULT IN ENFORCEMENT ACTION.

APPLICANT: DATE 6/3/20

OWNER: DATE 6/3/20

Revised 10/26/16

Connecticut Department of
ENERGY & ENVIRONMENTAL PROTECTION

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

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

Statewide Inland Wetlands & Watercourses Activity Reporting Form

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

PART I: Must Be Completed By The Inland Wetlands Agency

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

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

5. TOWN IN WHICH THE ACTION IS OCCURRING (print name): Brooklyn
   does this project cross municipal boundaries (check one)? yes ☐ no ☑
   if yes, list the other town(s) in which the action is occurring (print name(s)): _____, _____
6. LOCATION (see instructions for information): USGS quad name: _____ or number: _____
   subregional drainage basin number: _____
7. NAME OF APPLICANT, VIOLATOR OR PETITIONER (print name): A. Kansch & Sons
8. NAME & ADDRESS / LOCATION OF PROJECT SITE (print information): Tuttle Hollow Rd
   briefly describe the action/project/activity (check and print information): temporary ☐ permanent ☐ description: 2 Lot Subdivision, Residential Home, Wells Septic Minor Grading
9. ACTIVITY *PURPOSE* CODE (see instructions, only use one code): B
10. ACTIVITY *TYPE* CODE(S) (see instructions for codes): 12 _____, _____, _____, _____
11. WETLAND / WATERCOURSE AREA ALTERED (must provide acres or linear feet):
    wetlands: 0 acres open water body: 0 acres stream: 0 linear feet
12. UPLAND AREA ALTERED (must provide acres): 0.03 acres
13. AREA OF WETLANDS / WATERCOURSES RESTORED, ENHANCED OR CREATED (must provide acres): 0 acres

PART III: To Be Completed By The DEEP

DATE RECEIVED: DATE RETURNED TO DEEP:

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

Brooklyn Land Use Department

69 South Main Street
Brooklyn CT 06234
(860) 779-3411 x 31

Inland Wetlands ✓ Zoning Enforcement _____ Blight Enforcement _____

SITE INSPECTION NUMBER 1 2 3 4 5

Tripp Hollow Rd. — Address

6-18-2020 — Date

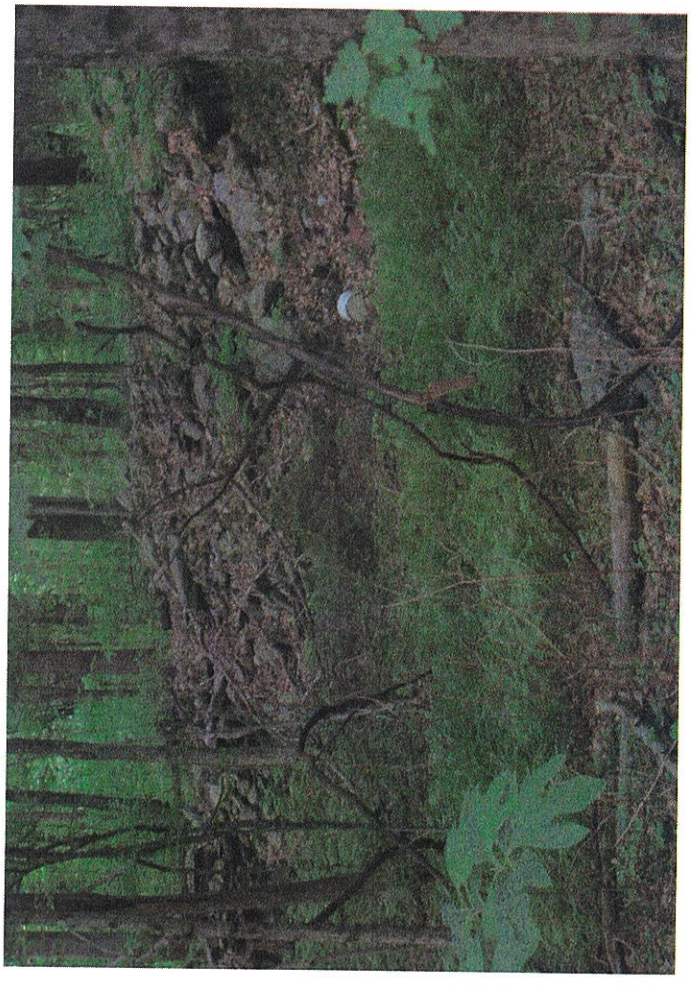
Bob DeLuca and Bob Russo of CLA, Paul Archer + I inspected both lots. Photos were taken. Moving the septic systems further from wetlands was discussed.

Bob Russo looked at the soil surface in the wetlands and said that during the wet season there would be about 3" of standing water 13 to 15 ft in from the edge of the wetlands.

Commission Representative M Washburn

Owner or Authorized Signature _____

1



NORTHEAST DISTRICT DEPARTMENT OF HEALTH
69 SOUTH MAIN STREET, UNIT 4, BROOKLYN, CT 06234
860-774-7350/FAX 860-774-1308 WWW.NDDH.ORG

July 06, 2020

A. Kausch & Sons, LLC
35 Suzanne Lane
Brooklyn, CT 06234

SUBJECT: FILE #20000128 -- TRIPP HOLLOW ROAD #, MAP #15, LOT #04, BROOKLYN, CT

Dear A. Kausch & Sons, LLC:

Upon review of the subdivision plan (CLA ENGINEERS INC, KAUSCH, PROJ#CLA-6497, DRAWN 03/18/2020, REVISED 06/19/2020) submitted to this office on 6/29/2020 for the above referenced subdivision, The Northeast District Department of Health concurs with the feasibility of this parcel of land for future development. Additionally, approval to construct individual subsurface sewage disposal systems may be granted based on compliance with appropriate regulations and the Technical Standards as they apply to individual building lots with the following notations:

1. Lot 4 & Lot 4-1 will require an Engineer's plan for proposed lot development. To be submitted to NDDH for review.
2. Proposed lots design flow are based upon 3 or 4 bedroom homes. Any change in proposed number of bedrooms will require revision to septic system design per the Technical Standards for Subsurface Sewage Disposal regulations.
3. Additional soil testing may be required prior to lot development to verify soil conditions in primary leaching system area.

Be advised you must receive approval from the appropriate commissions in the Town of Brooklyn prior to construction of these lots.

This letter is NOT to be construed as an APPROVAL TO CONSTRUCT the septic system and DOES NOT indicate that the Northeast District Department of Health endorses approval for issuance of any building permit.

Should you have any questions, please feel free to contact the sanitarian that reviewed your plan.

Sincerely,

Sherry McGann, RS
Registered Sanitarian ~ NDDH

cc: Town of Brooklyn; CLA Engineers; Archer Surveying

RECEIVED
JUL 13 2020

7/12/20

Hi Margaret,

My comments on the 2-lot subdivision proposed on Tripp Hollow Road are the following:

1. Realizing that the house footprint and well location are “placeholders,” when the house is actually constructed, it will be important to witness the installation of the foundation drain to ensure it is 25’ or more distant from the well in order to be in compliance with Connecticut Department of Public Health onsite sewage disposal regulations.
2. The plans submitted for my review did not have signatures/seals of the professional engineer and surveyor. The soil scientist’s signature was missing too.

I have no other comments on the plans for this development.

Syl

Joseph R. Theroux
~ Certified Forester/ Soil Scientist ~
Phone 860-428-7992~ Fax 860-376-6842
P.O. Box 32, Voluntown, CT. 06384
Forestry Services ~ Environmental Impact Assessments
Wetland Delineations and Permitting ~ E&S/Site Monitoring
Wetland function/value assessments

7

6/12/2020

Archer Surveying
P.O. Box 22
Brooklyn, CT. 06234

Re: Wetland delineation, Kausch Property, Tripp Hollow Rd. Brooklyn, CT.

Dear Mr. Kausch,

At your request I have delineated the inland wetlands on the 4.44 acre property located on Tripp Hollow Road. (Assessors map 019-15-4) This delineation was performed on 12/10/2019.

These wetlands have been delineated in accordance with the standards of the National Cooperative Soil Survey and the definitions of wetlands and watercourses as found in the Connecticut Statutes, Chapter 440, Section 22A-38.

Fluorescent pink flags with a corresponding location number delineate the boundaries of these inland wetlands and the adjacent upland soils.

Wetland flags WF- 1 through WF- 31 delineate the eastern boundary of a palustrine forested wetland that lies in the western portion of the property. On the date of the delineation, the lower elevations of the interior portions of this wetland, (central portion of the property), were inundated. Adjacent to the delineation boundary, small pockets/depressed areas were also found to be inundated.

These wetland soils are characterized by organic topsoil horizons, shallow pore linings within 6 inches of the soil surface, redoximorphic features and low chroma colors within 20 inches of the soil surface.

In conclusion, if you have any questions concerning the delineation or this report, please feel free to contact me.

Thank you,

Joseph R. Theroux
Certified Soil Scientist
Member SSSSNE, NSCSS, SSSA.

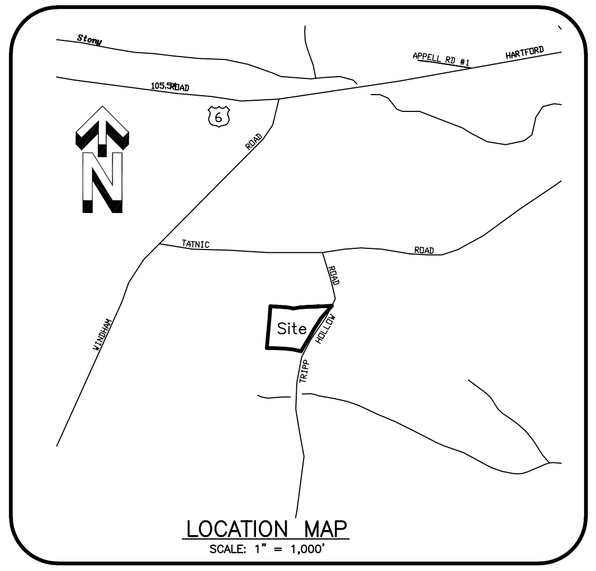
2 LOT SUBDIVISION

PREPARED FOR

A.Kausch and Sons LLC

Tripp Hollow Road
Brooklyn, Connecticut

May 28, 2020



PREPARED BY

ARCHER Surveying LLC
18 Providence Road, Brooklyn, CT
(860) 779-2240

APPROVED BY THE BROOKLYN
INLAND WETLANDS COMMISSION

CHAIRMAN DATE

Expiration date per section 22A-42A of the Connecticut General Statutes. Date: _____

APPROVED BY THE BROOKLYN
PLANNING AND ZONING COMMISSION

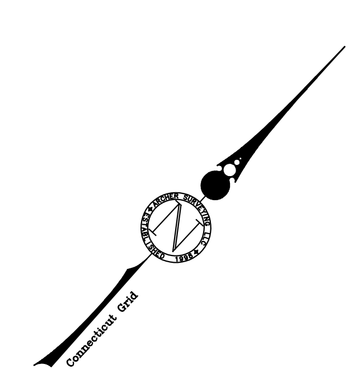
CHAIRMAN DATE

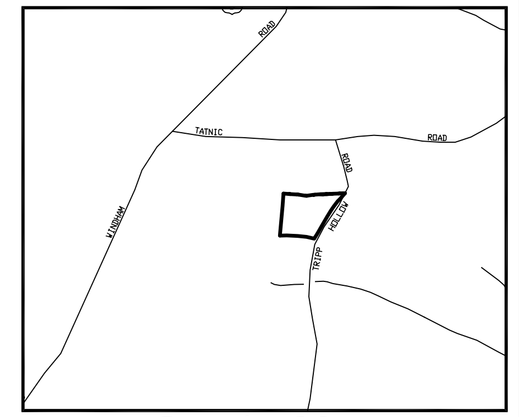
Expiration date per section 8.26C of the Connecticut General Statutes. Date: _____

I have reviewed the inland-wetlands shown on this plan and they appear to be substantially the same as those which I delineated in the field.

Certified Soil Scientist

INDEX OF DRAWINGS





Location Map

SCALE

1000 0 1000

1" = 1000 FT

N/F
A.Kausch & Sons LLC
Map 15 // Lot 93-1

Iron Pin (f)

S 03°53'08" W 95.14'
Reference Line Only

Iron Pin (f)

S 86°20'18" E 134.22'

T-Bar In Stone Pile (f)

S 04°09'53" W 115.65'

N 15°12'13" E 286.32'

N 81°04'17" W 54.78'

Iron Pin (f)

S 81°04'17" E 21.24'

N 81°24'30" E 64.86'

N 85°54'15" E 61.11'

N 57°40'10" E 122.10'

N 67°17'21" E 112.39'

S 43°38'13" W 33.46'

S 41°49'12" W 68.31'

S 38°08'01" W 60.75'

S 33°00'51" W 44.70'

N 10°17'21" W 311.12'

S 50.78'

S 84°08'39" W 101.56'

S 50.78'

T-Bar (f)

S 88°55'29" W 62.31'

N 81°11'42" W 104.00'

N 83°31'42" W 81.00'

N 72°42'10" W 102.24'

S 11°30'42" E 4.07'

S 30°00'12" W 156.71'

S 32°04'26" W 53.81'

S 24°34'03" W 81.24'

S 30°16'45" W 50.81'

S 33°48'56" W 39.55'

N 33°48'56" E 45.36'

S 32°11'51" W 66.56' 45.24'

N 29°24'58" E 8.91'

Area to be granted to the Town of Brooklyn for Highway purposes

WF #1
WF #2
WF #3
WF #4
WF #5
WF #6
WF #7
WF #8
WF #9
WF #10
WF #11
WF #12
WF #13
WF #14
WF #15
WF #16
WF #17
WF #18
WF #19
WF #20
WF #21
WF #22
WF #23
WF #24
WF #25
WF #26
WF #27

Existing Garage

Existing Well (W)

Existing House

N/F
Elizabeth Smith
Map 15 // Lot 3A

N/F
Elizabeth Smith
Map 15 // Lot 3

N/F
Gary Fils
Map 16 // Lot 4A-1

Proposed Lot 4-1
Area: 87,708 +/- Sq.Ft.
2.01 +/- Acres

Proposed Lot 4
Area: 89,766 +/- Sq.Ft.
2.06 +/- Acres

Tripp Hollow Road

CL&P 2031

CL&P 600

CL&P 6005

CL&P 1645

LEGEND

- PROPERTY LINE
- EASEMENT
- STONEWALL
- STONEWALL REMAINS
- EXISTING TREELINE
- PROPOSED CLEARING LIMITS
- SILT FENCE
- EXISTING INDEX CONTOUR
- EXISTING CONTOUR
- PROPOSED CONTOUR
- WETLANDS FLAG
- BUILDING SETBACK
- IRON PIN FOUND
- DRILL HOLE FOUND
- PERCOLATION TEST
- TEST PIT
- PROPERTY POINT
- UTILITY POLE

Notes

1. This survey has been prepared pursuant to the Regulations of Connecticut State Agencies Section 20-300b-20 and the "Standards for Surveys and Maps in State of Connecticut" as adopted by the Connecticut Associations of Land Surveyors, Inc. on September 26, 1996

- This Survey conforms to a Class "A2" Horizontal Accuracy
- Survey Type: Subdivision Plan
- Boundary Determination: Resurvey on Existing Boundary
  Original on Proposed Boundary
- Intent: 2 Lot Subdivision

2. Total Area of Subdivision = 4.08 Acres

3. Zone = RA

4. Owner / Applicant = A.Kausch and Sons LLC
   35 Suzanne Lane, Brooklyn, CT 06234

5. Parcel is shown as Lot #4 on Assessor's Map #15

6. This Subdivision does not include land areas within the Federal Emergency Management Agency's 100 year flood hazard area

7. Wetlands shown were flagged in the field by Joseph Theroux, Certified Soil Scientist in X

8. There are not known endangered species or species of special concern on the subject property nor within 2 miles of the subject property per the December 2006 Natural Diversity Data Base Mapping

9. Parcel does not lie within an aquifer protection area

10. The Subdivision Regulations of the Town of Brooklyn are a part of this plan. Approval of this plan is contingent on completion of the requirements of said regulations, excepting any variances or modifications are on file in the office of the commission.

11. North orientation, bearings and coordinate values shown are based on North American Datum of 1983 (NAD83)

12. Passive Solar Energy techniques were considered in the design of the subdivision

Map References

1. Boundary Line Modification Prepared for A.Kausch and Sons LLC, Tripp Hollow Road & Tatnic Road, Brooklyn, Connecticut. Dated: March 2020, Scaled: 1"=50', Prepared by Archer Surveying LLC

2. Subdivision Plan Prepared for Richard & Estelle Perrone, Tatnic & Tripp Hollow Road, Brooklyn, Connecticut, Dated: September 2004, Scaled: 1"=40', Prepared by PC Survey Associates LLC

3. Subdivision Plan Prepared for Stanley & Jean Karro and Vincent & Helvi Larson, Windham Road and Tatnic Road, Brooklyn, Connecticut, Dated: May 2004, Scaled: 1"=80', Prepared by KNP

To My Knowledge and Belief this Map is substantially Correct as noted hereon.

Paul M. Archer LLS #10013 Date

REVISIONS	
07-08-20	Land granted to Town

Division of Property

2 Lot Subdivision

Prepared For:

A.Kausch & Sons

Tripp Hollow Road
Brooklyn, Connecticut

DRAWING SCALE: 1"=50' 0 50 100

ARCHER Surveying LLC
18 Providence Road, Brooklyn, CT
(860) 779-2240

Sheet No.	Project No.	Date:
2 OF 5	1755	May 28, 2020

ARCHER Surveying LLC

SELECT FILL SPECIFICATION

SELECT FILL PLACED WITHIN AND ADJACENT TO LEACHING SYSTEM AREAS SHALL BE COMPRISED OF CLEAN SAND, OR SAND AND GRAVEL, FREE FROM ORGANIC MATTER AND FOREIGN SUBSTANCES. THE SELECT FILL SHALL MEET THE FOLLOWING REQUIREMENTS PER THE CONNECTICUT PUBLIC HEALTH CODE FOR USE WITHIN THE LEACHING AREA:

1. THE SELECT FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN THE THREE (3) INCH SLEEVE.
2. UP TO 45% OF THE DRY WEIGHT OF THE REPRESENTATIVE SAMPLE MAY BE RETAINED ON THE #4 SLEEVE (THIS IS THE GRAVEL PORTION OF THE SAMPLE).
3. THE MATERIAL THAT PASSES THE #4 SIEVE IS THEN REWEIGHED AND THE SIEVE ANALYSIS STARTED.
4. THE REMAINING SAMPLE SHALL MEET THE FOLLOWIG CRITERIA:

	PERCENT PASSING	
SIEVE SIZE	WET SIEVE	DRY SIEVE
#4	100	100
#10	70–100	70–100
#40	10–50*	10–75
#100	0–20	0–5
#200	0–5	0–2.5

* PERCENT PASSING THE #40 SIEVE CAN BE INCREASED TO NO GREATER THAN 75 IF THE PERCENT PASSING THE #100 SIEVE DOES NOT EXCEED 10 AND THE #200 SIEVE DOES NOT EXCEED 5.

SEPTIC NOTES

1. PROPOSED SEPTIC SYSTEM TO BE STAKED IN THE FIELD BY A LAND SURVEYOR LICENSED IN THE STATE OF CONNECTICUT.
2. A BENCHMARK SHALL BE SET WITHIN 10'–15' OF THE PROPOSED SEPTIC SYSTEM PRIOR TO CONSTRUCTION.
3. ALL WORK AND MATERIAL (SEPTIC TANK, DISTRIBUTION BOX, PIPE) SHALL CONFORM TO THE CONNECTICUT PUBLIC HEALTH CODE REGULATIONS AND STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEM.
4. SEWER LINE FROM FOUNDATION WALL TO SEPTIC TANK SHALL BE 4" SCHEDULE 40 PVC – ASTM D 1785 AND JOINTS PER HEALTH DEPT. CODE. PIPE FROM SEPTIC TANK TO DISTRIBUTION LINES SHALL BE 4" SOLID PVC CONFORMING TO STMD–3034 AND SDR–35.
5. SYSTEMS SHALL BE SET LEVEL FOR ENTIRE LENGTH AND HAVE A CENTER TO CENTER SPACING AS CALLED FOR IN THE CONNECTICUT PUBLIC HEALTH CODE. THERE ARE PRESENTLY NO KNOWN WATER WELLS WITHIN 75' OF THE PROPOSED SEPTIC SYSTEMS.
6. CLEAR AND GRUB THE AREA WHERE THE SEPTIC SYSTEMS AND HOUSES ARE TO BE CONSTRUCTED. ALL TOPSOIL IS TO BE STRIPPED AND STOCKPILED FOR FUTURE USE.
7. ALL FILL MATERIAL SHALL BE CLEAN EARTH FREE OF STUMPS, ORGANICS, CONSTRUCTION DEBRIS AND TOPSOIL.
8. TOPSOIL SHALL BE RE–APPLIED OVER ALL FILL AREAS AND ALL DISTURBED AREAS TO PROVIDE A MINIMUM DEPTH OF FOUR INCHES IN ACCORDANCE WITH THE SLOPE STABILIZATION DETAILS..

DEEP TEST PIT DATA / SOIL DESCRIPTIONS

PERFORMED BY:Sherry McGann

WITNESSED BY:NORTHEAST DISTRICT DEPARTMENT OF HEALTH DATE: 11/19/2019

TEST PIT: 1	
0" - 6"	Topsoil
6" - 30"	OB Fine Sandy Loam
30" - 39"	Mottled GR Very Fine Loamy Sand
39" - 63"	TW Gravelly Med - Coarse Sand
MOTTLES:	30"
GROUNDWATER:	NO
LEDGE:	63"
ROOTS:	NO
RESTRICTIVE:	NO

TEST PIT: 2	
0" - 15"	Topsoil
15" - 33"	OB Fine Sandy Loam
33" - 59"	Mottled TW/GR Gravelly Med-Coarse Sand
MOTTLES:	33"
GROUNDWATER:	NO
LEDGE:	59"
ROOTS:	NO
RESTRICTIVE:	NO

TEST PIT: 3	
0" - 7"	Topsoil
7" - 29"	OB Fine Sandy Loam
29" - 80"	Mottled, TW/GR Loamy Fine Sand with Gravel
MOTTLES:	29"
GROUNDWATER:	Seep at 59"
LEDGE:	NO
ROOTS:	29"
RESTRICTIVE:	NO

TEST PIT: 4	
0" - 8"	Topsoil
8" - 28"	OB Fine Sandy Loam
28" - 79"	Mottled, GR Loamy Fine Sand with Gravel
MOTTLES:	28"
GROUNDWATER:	Seeps at 70"
LEDGE:	NO
ROOTS:	28"
RESTRICTIVE:	NO

PERCOLATION DATA PERC A - DEPTH 24"	
TIME	DROP (INCHES)
1:49	6.0
1:59	12.5
2:11	15.25
2:21	17.0
2:31	18.25
2:41	19.5
PERCOLATION RATE > 8.0 MIN./IN.	
NOTES: PERCOLATION TEST PERFORMED ON 11/19/2019 PERFORMED BY Sherry McGann	

PERCOLATION DATA PERC B - DEPTH 25"	
TIME	DROP (INCHES)
2:01	2.25
2:09	7.5
2:19	12.5
2:29	15.25
2:39	17.0
2:49	18.5
PERCOLATION RATE > 6.67 MIN./IN.	
NOTES: PERCOLATION TEST PERFORMED ON 11/19/2019 PERFORMED BY Sherry McGann	

CONCEPT SEPTIC SYSTEM DESIGN

LOT 4–1
PRIMARY LEACHING AREA
3 BEDROOM RESIDENCE
PERCOLATION RATE: 6.7 MIN./INCH (NDDH FILE #20000128)
LEACHING AREA REQUIRED: 675 SF

USE ELJEN'S MANTIS 536–8
EFFECTIVE LEACHING AREA OF LEACHING TRENCH 11.0 SF/LF
REQUIRED LENGTH = 675 SF / 11 SF/LF = 61.4 LF

MLSS CALCULATION
HYDRAULIC FACTORS
DEPTH TO RESTRICTIVE LAYER = 28"
SLOPE = 3.0%
HYDRAULIC FACTOR (HF) = 42
FLOW FACTOR (FF) = 1.5
PERCOLATION FACTOR (PF) = 1.0 (UP TO 10 MIN./INCH)
MLSS REQUIRED: 42 x 1.5 x 1.0 = 63.0 LF

PROPOSED SYSTEM
USE 1 ROW OF 63 LF
LEACHING AREA PROVIDED = 693 SF

RESERVE LEACHING AREA
USE SAME AS PRIMARY SYSTEM

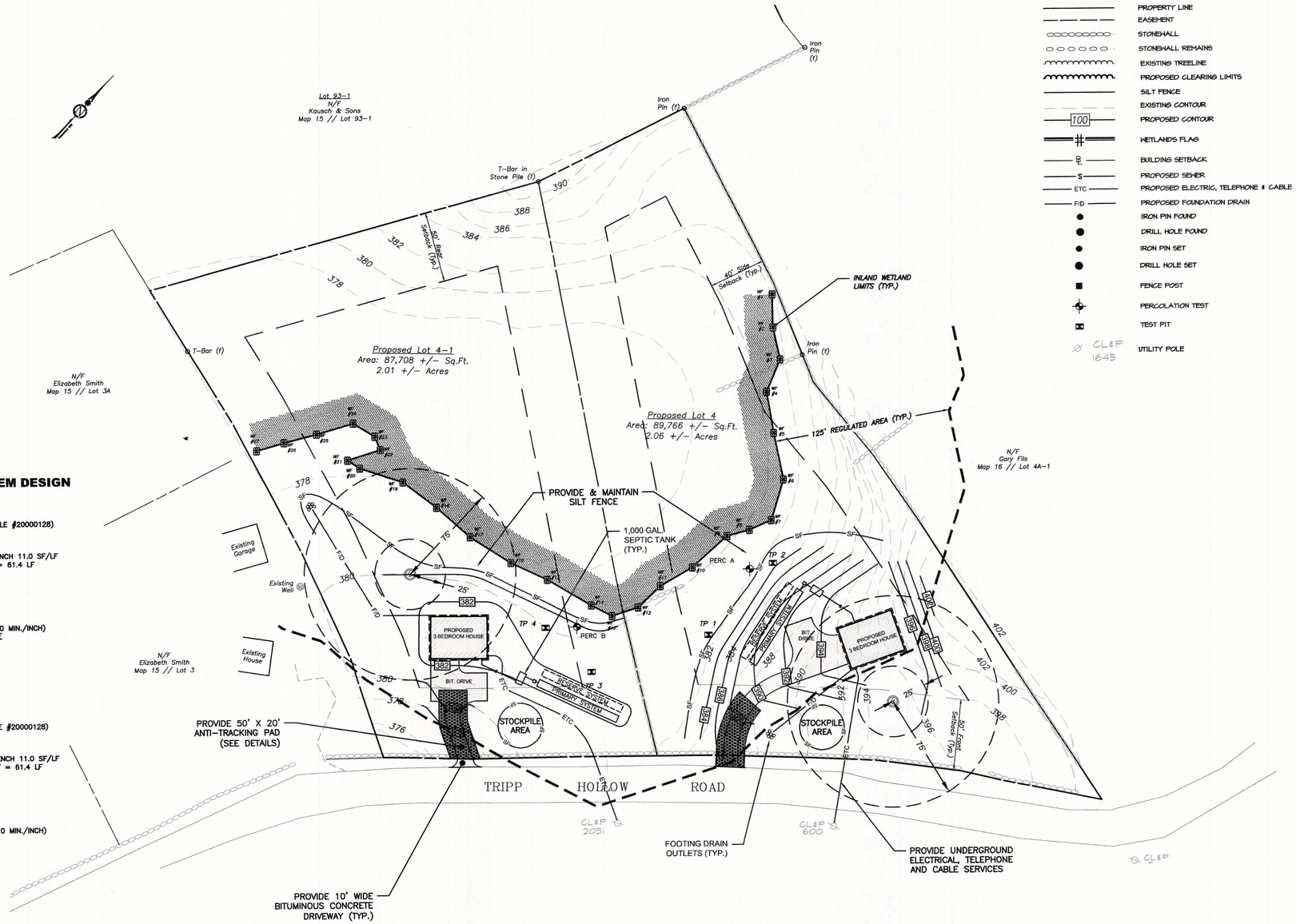
LOT 4
PRIMARY LEACHING AREA
3 BEDROOM RESIDENCE
PERCOLATION RATE: 8 MIN./INCH (NDDH FILE #20000128)
LEACHING AREA REQUIRED: 675 SF

USE ELJEN'S MANTIS 536–8
EFFECTIVE LEACHING AREA OF LEACHING TRENCH 11.0 SF/LF
REQUIRED LENGTH = 675 SF / 11.0 SF/LF = 61.4 LF

MLSS CALCULATION
HYDRAULIC FACTORS
DEPTH TO RESTRICTIVE LAYER = 30"
SLOPE = 10.0%
HYDRAULIC FACTOR (HF) = 26
FLOW FACTOR (FF) = 1.5
PERCOLATION FACTOR (PF) = 1.0 (UP TO 10 MIN./INCH)
MLSS REQUIRED: 26 x 1.5 x 1.0 = 39 LF

PROPOSED SYSTEM
USE 1 ROW OF 62 LF
LEACHING AREA PROVIDED = 682 SF

RESERVE LEACHING AREA
USE SAME AS PRIMARY SYSTEM



Notes

1. This survey has been prepared pursuant to the Regulations of Connecticut State Agencies Section 20–300b–20 and the "Standards for Surveys and Maps in State of Connecticut" as adopted by the Connecticut Associations of Land Surveyors, Inc. on September 26, 1996
   - This Survey conforms to a Class "C" Horizontal Accuracy
   - This Survey conforms to a Class "T–2" Vertical Accuracy
   - Survey Type: Site Development Plan
   - Boundary Determination: Resurvey
   - Intent: 2 Lot Subdivision
2. Parcels shown as Lots 4 on Assessors Tax Map 15 of the Brooklyn Assessors Office
3. Zone: RA
4. This Subdivision does include land areas within the Federal Emergency Management Agency's 100 year flood hazard area
5. Wetlands shown were flagged in the field by Joseph Theroux in December 2019.
6. There are not Known endangered species or species of special concern on the subject property nor within 2 miles of the subject property per the December 2006 Natural Diversity Data Base Mapping
7. Parcel does not lie within an aquifer protection area
8. The Subdivision Regulations of the Town of Brooklyn are a part of this plan. Approval of this plan is contingent on completion of the requirements of said regulations, excepting any variances or modifications are on file in the office of the commission.
9. North orientation, bearings and coordinate values shown are based on North American Datum of 1983 (NAD83)
10. Passive Solar Energy techniques were considered in the design of the subdivision.
11. All electrical services shall be underground.

Map References

1. Boundary Line Modification Prepared for A.Kausch and Sons LLC, Tripp Hollow Road & Tatnic Road, Brooklyn, Connecticut. Dated: March 2020, Scaled: 1"=50', Prepared by Archer Surveying LLC
2. Subdivision Plan Prepared for Richard & Estelle Perrone, Tatnic & Tripp Hollow Road, Brooklyn, Connecticut, Dated: September 2004, Scaled: 1"=40', Prepared by PC Survey Associates LLC
3. Subdivision Plan Prepared for Stanley & Jean Karro and Vincent & Helvi Larson, Windham Road and Tatnic Road, Brooklyn, Connecticut, Dated: May 2004, Scaled: 1"=80', Prepared by KWP

To My Knowledge and Belief this Map is substantially Correct as noted hereon.

Robert A. DeLuca, P.E. #18756 — 7/9/2020 Date

ARCHER Surveying LLC
18 Providence Road, Brooklyn, CT
(860) 779–2240

No.	DATE	REVISION
4	07/08/20	SHEET No. CHANGES
3	06/19/20	VARIOUS MODIFICATIONS
2	06/03/20	VARIOUS MODIFICATIONS
1	06/01/20	VARIOUS MODIFICATIONS

STATE OF CONNECTICUT ROBERT A. DELUCA 18756 LICENSED PROFESSIONAL ENGINEER

CLA Engineers, Inc.
CIVIL • STRUCTURAL • SURVEYING
317 Main Street Norwich, CT 06360
(860) 886–1966 Fax (860) 886–9165

A. KAUSCH & SONS

2 LOT SUBDIVISION
TRIPP HOLLOW ROAD
BROOKLYN, CT

SITE DEVELOPMENT PLAN

Project No. CLA–6497
Proj. Engineer D.H.
Date: 03/18/20
Sheet No. 3

CLA

EROSION & SEDIMENTATION CONTROL NARRATIVE

1. THE EROSION & SEDIMENTATION CONTROL PLAN AND DETAILS HAVE BEEN DEVELOPED AS A STRATEGY TO CONTROL SOIL EROSION AND SEDIMENTATION DURING AND AFTER CONSTRUCTION. THIS PLAN IS BASED ON THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION IN COOPERATION WITH THE CONNECTICUT DEP.
2. THE PROPOSED LOCATIONS OF SILTATION AND EROSION CONTROL MEASURES ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL PROVIDED SILT FENCE, STONE CHECK DAMS AND/OR OTHER EROSION CONTROL MEASURES AS NEEDED OR DIRECTED BY THE ENGINEER OR TOWN STAFF TO ADEQUATELY PREVENT SEDIMENT TRANSPORT.
3. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO SITE DISTURBANCE.
4. THE CONTRACTOR SHALL INSPECT, REPAIR AND/OR REPLACE EROSION CONTROL MEASURES EVERY 7 DAYS AND IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL OR SNOW MELT. SEDIMENT DEPOSITS MUST BE REMOVED WHEN WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE PERMANENTLY STABILIZED.
5. STAKED HAY BALE SILT BARRIERS OR SILT FENCE SHALL BE INSTALLED AROUND ANY TEMPORARY STOCKPILE AREAS. TEMPORARY VEGETATIVE COVER MAY BE REQUIRED (SEE NOTE).
6. INLET SEDIMENTATION CONTROL DEVICES SHALL BE INSTALLED UNDER THE GRATES OF ALL NEW CATCH BASINS AT THE TIME OF INSTALLATION, AND UNDER THE GRATES OF EXISTING CATCH BASINS IN THE CONSTRUCTION AREA.
7. CONTINUOUS DUST CONTROL USING WATER, CALCIUM CHLORIDE OR APPROVED EQUAL SHALL BE PROVIDED FOR ALL EARTH STOCKPILES, EARTH PILED ALONG EXCAVATIONS, SURFACES OF BACKFILLED TRENCHES AND GRAVELED ROADWAY SURFACES.
8. IF DEWATERING IS NECESSARY DURING ANY TIME OF CONSTRUCTION A CLEAR WATER DISCHARGE SHALL BE PROVIDED AS SHOWN IN THE HAY–BALE BARRIER DEWATERING DETAIL OR ALTERNATE METHOD PROPOSED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.
9. ALL DISTURBED AREAS SHALL BE RESTORED PER THE SLOPE STABILIZATION AND PERMANENT VEGETATION DETAILS. ALL DISTURBED AREAS THAT ARE SLOPED LESS THAN THREE HORIZONTAL TO ONE VERTICAL (3:1) SLOPE SHALL BE LOAMED, SEEDED, FERTILIZED AND MULCHED PER THE PERMANENT VEGETATIVE COVER SPECIFICATIONS. EROSION CONTROL MATTING SHALL BE PROVIDED ON ALL DISTURBED AREAS THAT ARE SLOPED MORE THAN THREE HORIZONTAL TO ONE VERTICAL (3:1).
10. IF FINAL SEEDING OF DISTURBED AREAS IS NOT TO BE COMPLETED BEFORE OCTOBER 15, THE CONTRACTOR SHALL PROVIDE TEMPORARY MULCHING (DORMANT SEEDING MAY BE ATTEMPTED AS WELL) TO PROTECT THE SITE AND DELAY PERMANENT SEEDING.
11. WHEN FEASIBLE, TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINISHED GRADED SHALL BE COMPLETED PRIOR TO OCTOBER 15.
12. ANY EROSION WHICH OCCURS WITHIN THE DISTURBED AREAS SHALL BE IMMEDIATELY REPAIRED AND STABILIZED. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT SHALL BE RETURNED TO THE SITE. POST SEEDING, INTERCEPTED SEDIMENT, IF ANY, SHALL BE DISPOSED OF IN A MANNER APPROVED BY THE TOWN AND ENGINEER.
13. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL VEGETATION IS RE–ESTABLISHED OR SLOPES ARE STABILIZED AND REMOVAL IS APPROVED BY THE TOWN.
14. UNFORESEEN PROBLEMS WHICH ARE ENCOUNTERED IN THE FIELD SHALL BE SOLVED ACCORDING TO THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION IN COOPERATION WITH THE CONNECTICUT DEP.
15. THE CONTRACTOR SHALL PROVIDE THE NAME AND EMERGENCY CONTACT INFORMATION FOR THE PROJECT PERSONNEL RESPONSIBLE FOR EROSION AND SEDIMENTATION CONTROLS PRIOR TO THE START OF CONSTRUCTION.

TEMPORARY VEGETATIVE COVER

A TEMPORARY SEEDING OF RYE GRASS WILL BE COMPLETED WITHIN 15 DAYS OF THE FORMATION OF STOCKPILES. IF THE SOIL IN THE STOCKPILES HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS IT SHALL BE LOOSENED TO A DEPTH OF 2 INCHES BEFORE THE FERTILIZER, LIME AND SEED IS APPLIED. 10–10–10 FERTILIZER AT A RATE OF 7.5 POUNDS PER 1000 S.F. LIMESTONE AT A RATE OF 90 LBS. PER 1000 S.F. SHALL BE USED. RYE GRASS APPLIED AT A RATE OF 1 LB. PER 1000 S.F. SHALL PROVIDE THE TEMPORARY VEGETATIVE COVER. STRAW FREE FROM WEEDS AND COARSE MATTER SHALL BE USED AT A RATE OF 70–90 LBS. PER 1000 S.F. AS A TEMPORARY MULCH. APPLY MULCH AND DRIVE TRACKED EQUIPMENT UP AND DOWN SLOPE OVER ENTIRE SURFACE SO CLEAT MARKS ARE PARALLEL TO THE CONTOURS.

PERMANENT VEGETATIVE COVER

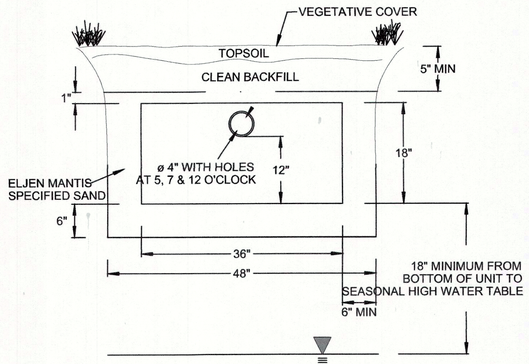
TOPSOIL WILL BE REPLACED ONCE THE EXCAVATIONS HAVE BEEN COMPLETED AND THE SLOPES ARE GRADED AS SHOWN ON THE PLANS. PROVIDE SLOPE PROTECTION AS CALLED FOR ON THE PLANS AND DETAILS. TOPSOIL SHALL BE SPREAD AT A MINIMUM COMPACTED DEPTH OF 4 INCHES. ONCE THE TOPSOIL HAS BEEN SPREAD, ALL STONES TWO INCHES OR LARGER IN ANY DIMENSION WILL BE REMOVED AS WELL AS DEBRIS.

- APPLY AGRICULTURAL GROUND LIMESTONE AT THE RATE OF TWO TONS PER ACRE OR 100 LBS. PER 1000 S.F.
- APPLY 10–10–10 FERTILIZER OR EQUIVALENT AT A RATE OF 300 LBS. PER ACRE OR 7.5 LBS. PER 1000 S.F.
- WORK LIMESTONE AND FERTILIZER INTO THE SOIL TO A DEPTH OF 4 INCHES.
- INSPECT SEEDBED BEFORE SEEDING.
- IF TRAFFIC HAS COMPACTED THE SOIL, RETILL COMPACTED AREAS.
- APPLY THE FOLLOWING GRASS SEED MIX:

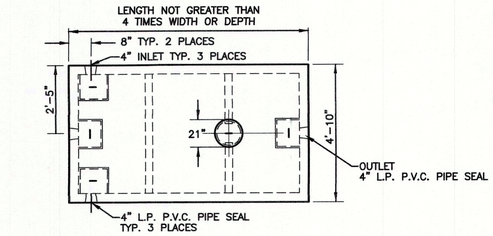
TYPICAL SEED MIXTURE

ALL DISTURBED AREAS	LBS./ACRE	LBS./1000 S.F.
KENTUCKY BLUEGRASS	20	0.45
CREEPING RED FESCUE	20	0.45
PERENNIAL RYEGRASS	5	0.10
	45	1.00
		0.50
		0.05
		0.50
		1.05

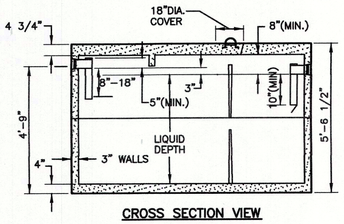
MANTIS 536-8 CROSS SECTION



NOTE: VENTING REQUIRED WHEN MORE THAN 18" OF COVER AS MEASURESED FROM THE TOP OF THE UNIT TO FINISHED GRADE



PLAN VIEW



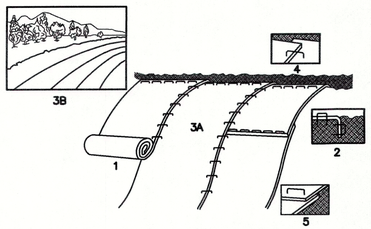
CROSS SECTION VIEW

1,000 GALLON SEPTIC TANK

NOT TO SCALE

NOTE: THE CONTRACTOR SHALL CONTINUALLY STORE THE FOLLOWING MATERIALS ONSITE DURING CONSTRUCTION TO MEET UNEXPECTED EROSION NEEDS

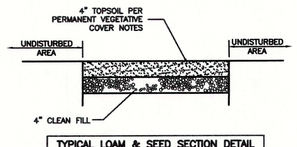
* 100 LF OF SILT FENCE
* 10 HAY BALES
* 10 CY OF WOOD CHIPS OR CRUSHED STONE



1. PROVIDE 4" THICKNESS OF TOPSOIL OVER CLEAN FILL. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED MIX PER PERMANENT VEGETATIVE COVER NOTES. (SHALL BE PAID FOR AT THE UNIT PRICE FOR LOAM, SEED, FERTILIZE & MULCH)
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP x 6" WIDE TRENCH, BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL THE BLANKET (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 4" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.

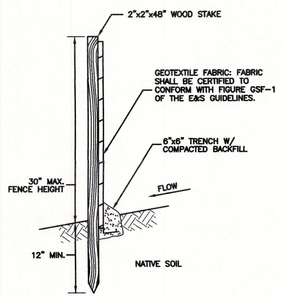
NOTE: ALL PERMANENT EROSION CONTROL BLANKETS ARE TO BE NORTH AMERICAN GREEN S150BN OR APPROVED EQUAL.

EROSION CONTROL MATTING DETAIL
(FOR 3:1 SLOPES OR GREATER)

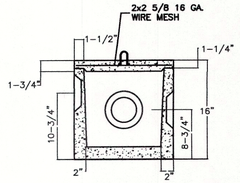


TYPICAL LOAM & SEED SECTION DETAIL
(FOR ALL DISTURBED AREAS)

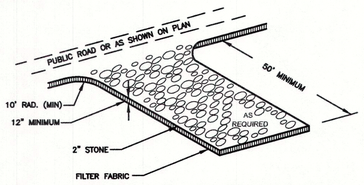
SLOPE STABILIZATION DETAILS
NOT TO SCALE



SILT FENCE SECTION
NOT TO SCALE

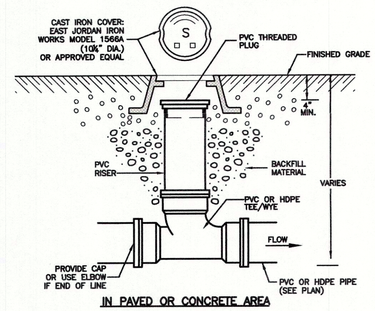


STANDARD D-BOX
NOT TO SCALE



ANTI-TRACKING PAD DETAIL
NOT TO SCALE

IN GRASS AREAS WITH NO TRAFFIC LOADING



IN PAVED OR CONCRETE AREA

TYPICAL CLEAN-OUT DETAIL
NOT TO SCALE

ARCHER Surveying LLC
18 Providence Road, Brooklyn, CT
(860) 779-2240

No.	DATE	REVISION
4	07/09/20	SHEET No. CHANGES
3	06/19/20	VARIOUS MODIFICATIONS
2	06/02/20	VARIOUS MODIFICATIONS
1	05/01/20	VARIOUS MODIFICATIONS

CLA Engineers, Inc.
CIVIL · STRUCTURAL · SURVEYING
317 Main Street Norwich, CT 06360
(860) 886-1966 Fax (860) 886-9165

STATE OF CONNECTICUT
ROBERT A. DELIA
18758
LICENSED
PROFESSIONAL ENGINEER
3/19/2020

A. KAUSCH & SONS

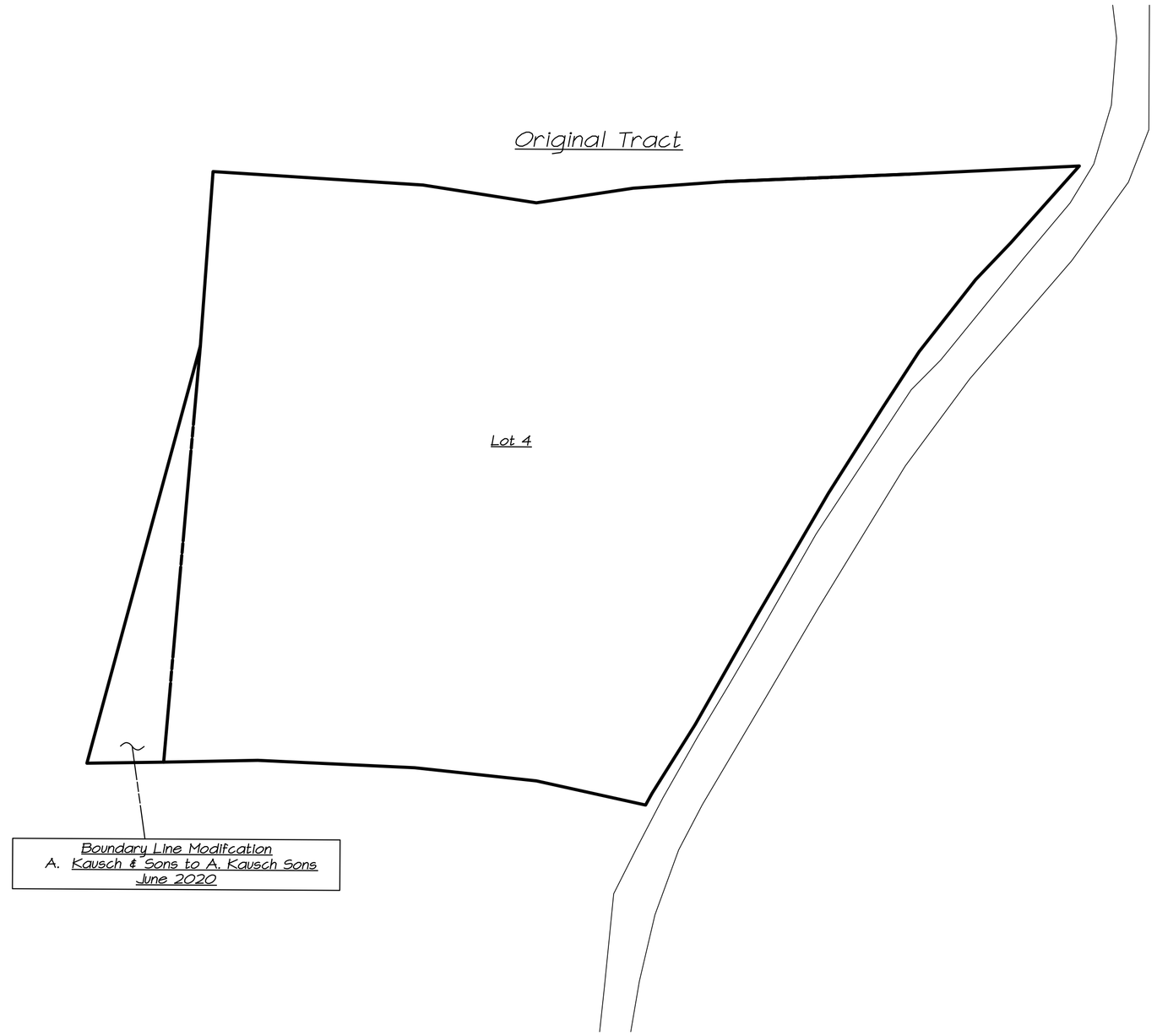
2 LOT SUBDIVISION
TRIPP HOLLOW ROAD
BROOKLYN, CT

CONSTRUCTION DETAILS

Project No. CLA-6497
Proj. Engineer D.H.
Date: 03/18/20
Sheet No. 4

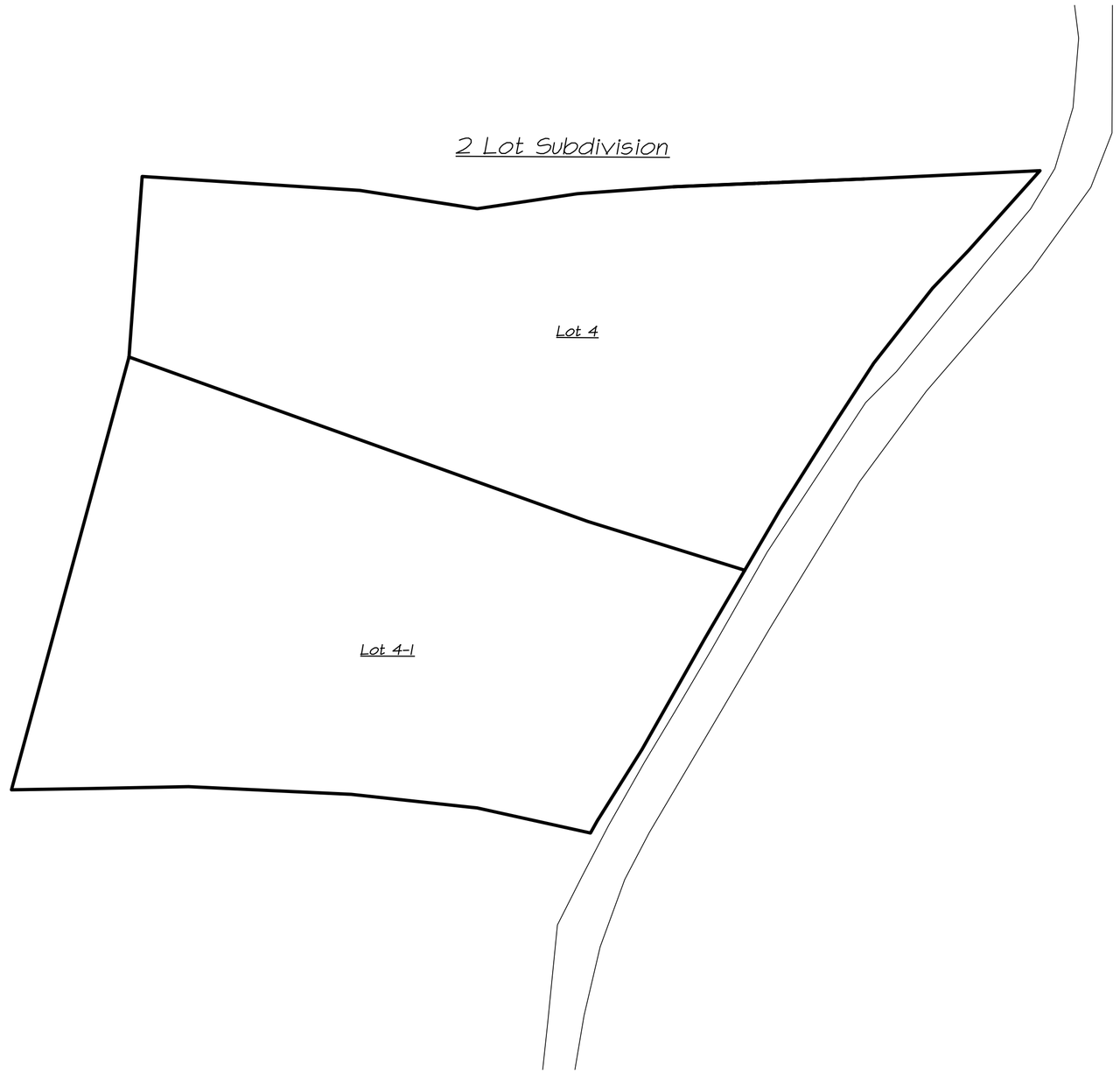
CLA

Original Tract



Boundary Line Modification
A. Kausch & Sons to A. Kausch Sons
June 2020

2 Lot Subdivision



Grantor	Grantee	Date	Vol. / Pg.
	Aarree & Barbara Antilla	May 1950	30 / 273
Aarree & Barbara Antilla	Alden Smith & Linda Brousseau	February 1985	78 / 1074
Alden Smith & Linda Brousseau	A.Kausch and Sons	December 2019	636 / 13

Parcel History Plan

Prepared For:
A.Kausch & Sons
Tripp Hollow Road
Brooklyn, Connecticut

REVISIONS	

ARCHER Surveying LLC
18 Providence Road, Brooklyn, CT
(860) 779-2240

Sheet No.	Project No.	Date:
5 OF 5	1755	May 28, 2020

Site Analysis Plan

2 Lot Subdivision

Prepared For:

A.Kausch & Sons

Tripp Hollow Road
Brooklyn, Connecticut

DRAWING SCALE: 1"=50' (0 50 100)

REVISIONS	

ARCHER Surveying LLC
18 Providence Road, Brooklyn, CT
(860) 779-2240

Sheet No.	Project No.	Date:
6 OF 6	1755	March 17, 2020

Brooklyn Land Use Department

69 South Main Street
Brooklyn CT 06234
(860) 779-3411 x 31

Inland Wetlands ✓ Zoning Enforcement _____ Blight Enforcement _____

SITE INSPECTION NUMBER 1 2 3 4 5

off Maynard Rd
Map 29 Lot 1
Address

7-23-2020
Date

Most of the site has been graded as per the plan.

One small area on the northern property line has not been regraded but is naturally revegetating.

Photos were taken.

I recommend closing the enforcement order.

Commission Representative M. Washburn

Owner or Authorized Signature _____









Only portion of site not graded ↑

Approximate portion of site not graded

n/f
River Junction Estates, LLC
Map 30, Lot 6

n/f
River Junction Estates, LLC
Map 29, Lot 1

n/f
River Junction Estates, LLC
Map 66, Lot 6

CEMETERY

WETLANDS

INSTALL AND MAINTAIN 2' HIGH TOPSOIL BERM AT LIMIT OF WORK

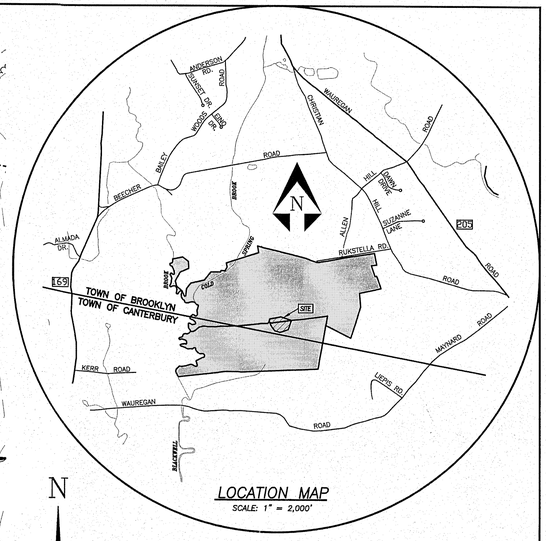
100' REGULATED AREA

175' REGULATED AREA

TOWN OF BROOKLYN
TOWN OF CANTERBURY

"PINEHILL" FARM ROAD

1C 2C 3C 4C 5C 6C 7C 8C 9C 10C 11C 12C 13C 14C 15C 16C 17C 18C 19C 20C 21C 22C 23C 24C 25C 26C 27C 28C 29C 30C



LOCATION MAP
SCALE: 1" = 2,000'

N

NOTES:

1. This survey has been prepared pursuant to the Regulations of Connecticut State Agencies Section 20–300b–1 through 20–300b–20 as amended on October 26, 2018;

   This map was prepared from record research, other maps, limited field measurements and other sources. It is not to be construed as a Property/Boundary or Limited Property/Boundary Survey and is subject to such facts as said surveys may disclose.

   – This survey conforms to a Class "C" horizontal accuracy.

   – Topographic features conform to a Class "T–3" accuracy.

   – Survey Type: General Location Survey.

2. The subject parcels are shown as Map 29, Lot 1 and Map 30, Lot 16 per the town of Brooklyn assessor records and Map 66, Lot 6 per the town of Canterbury assessor records.

3. Zone: RA.

4. Owner of record: River Junction Estates, LLC
   204 Munyan Road
   Putnam, CT 06260

5. The intent of this survey is to show existing conditions to support the restoration of a previously excavated gravel site.

6. Elevations based on NAVD 1988. Contours taken from aerial photogrammetry by WSP USA Inc. Contour interval = 2'.

7. Bearings shown hereon are referenced to CT State Plane Coordinates, NAD–83 (Epoch 2011).

8. Before any construction is to commence contact "CALL BEFORE YOU DIG" at 1–800–922–4455.

9. Wetlands shown hereon were field delineated by Joseph Theroux in October and November, 2019.

10. Proposed excavation grades by Rawson Materials are shown for reference only.

MAP REFERENCES:

1. "Land of – River Junction Estates, LLC, Strategic Commercial Realty Inc. – and Canterbury Sand and Gravel – Waureagn Road and Rukstela Roads – Canterbury and Brooklyn, Connecticut – Scale: 1" = 100' – Dated: March 22, 2019 – Sheets 1–8 of 8 – WSP USA Inc."

I HAVE REVIEWED THE FLAGGED INLAND WETLANDS LOCATION SHOWN ON THIS PLAN AND THEY APPEAR TO BE SUBSTANTIALLY CORRECT.

Certified Soil Scientist Date

APPROVED BY THE BROOKLYN INLAND WETLANDS COMMISSION

CHAIRMAN DATE

LEGEND

- INLAND WETLAND FLAG
- EXISTING TREE LINE
- EXISTING INDEX CONTOUR
- EXISTING CONTOUR
- PROPOSED RESTORATION CONTOUR
- PROPOSED EXCAVATION CONTOUR (BY RAWSON MATERIALS)
- TEMPORARY TOPSOIL BERM

ENGINEER 1/27/20 DATE

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

DAVID J. HELD, L.S. LIC. NO. 24267 1/27/20 DATE

NO CERTIFICATION IS EXPRESSED OR IMPLIED UNLESS THIS MAP BEARS THE ORIGINAL SEAL AND SIGNATURE OF THE LAND SURVEYOR.

RECEIVED JAN 30 2020

40 20 0 40
GRAPHIC SCALE IN FEET

REVISIONS	
DATE	DESCRIPTION
1/23/2020	I.W. COMMENTS

DATE: 1/10/2020	DRAWN: DJH
SCALE: 1" = 40'	DESIGN: DJH
SHEET: 1 OF 2	CHK BY: ---
DWG. No: HF 332	JOB No: 203005

GENERAL LOCATION SURVEY
SITE RESTORATION PLAN
PREPARED FOR

RIVER JUNCTION ESTATES LLC

SOUTHERLY OF RUKSTELLA ROAD
BROOKLYN & CANTERBURY, CONNECTICUT

Provost & Rovero, Inc.

Civil Engineering • Surveying • Site Planning
Structural • Mechanical • Architectural Engineering

57 East Main Street, P.O. Box 191
Plainfield, Connecticut 06374
(860) 230-0856 - FAX: (860) 230-0860
info@prorovinc.com
www.prorovinc.com

RECEIVED JAN 30 2020

Version 2

J:\183028\Drawings\RJE RESTORATION.dwg Jan 27, 2020 - 8:32 AM

Brooklyn Inland Wetlands
Commission
P.O. Box 356
Brooklyn, Connecticut 06234

9489 0090 0027 6215 9004 07

CERTIFIED#

February 20, 2020

River Junction Estates, LLC
Allan R. Rawson, Managing Member
204 Munyan Road
Putnam, CT 06260

RE: Notice of Decision – 011420C River Junction Estates, LLC; South of Rukstela Road, Map 29, Lot 1, Map 30, Lot 16; Grading and restoration of a previously disturbed gravel excavation area. Restoration will establish a vegetation cover on 4+/- acres of disturbed area. The restored area will be used for agricultural crop production.

Dear River Junction Estates, LLC:

At the February 11, 2020 Inland Wetland and Watercourse Commission meeting your application 011420C River Junction Estates, LLC; South of Rukstela Road, Map 29, Lot 1, Map 30, Lot 16; Grading and restoration of a previously disturbed gravel excavation area. Restoration will establish a vegetation cover on 4+/- acres of disturbed area. The restored area will be used for agricultural crop production was approved with the following condition:

1. Upon completion and inspection by the Wetlands Enforcement Officer, the enforcement order issued by Jana Roberson in 2014 can be rescinded.

A legal notice of this approval was published in the Villager Newspaper on Friday February 21, 2020. Please note that this action of the Brooklyn Inland Wetlands and Watercourses Commission may be appealed for fifteen-day period following the publication of the legal notice.

If you have any questions, please call Margaret Washburn, Wetlands Agent at 860-779-3411 Extension 31.

Signed,

Margaret Washburn

Margaret Washburn
Wetlands Agent

MW/acl
CC: File
Enc: Standard Conditions

BROOKLYN INLAND WETLANDS AND WATERCOURSES COMMISSION
STANDARD CONDITIONS FOR IWWC PERMITS 12/13/16

APPLICANT: READ CAREFULLY

IWWC Permit Document. A copy of the IWWC approval motion and the conditions stated herein shall constitute the IWWC permit for the approved activity when the permit document is signed and dated by the IWWC Agent.

Notice of Start and Finish. Permittee shall notify the IWWC agent **at least 48 hours** before the approved activity commences and within 72 hours after completion of the activity.

Permit Duration. This permit is valid for a period in accordance with Section 11.6 of the Brooklyn Inland Wetlands and Watercourses Regulations and the Connecticut General Statutes. Any request to renew or extend the expiration date of a permit can be granted only as authorized by the IWWC Regulations. Expired permits may not be renewed.

Erosion and Sedimentation Controls. Permittee is responsible for implementing the approved erosion and sediment control plan. This responsibility includes the installation and maintenance of control measures, informing all parties engaged on the construction site of the requirements and objectives of the plan. The permittee shall inspect the erosion controls weekly and after rains and repair deficiencies within twenty-four hours. The IWWC and its staff may require additional erosion if needed to prevent erosion and sedimentation. Restabilization of the site shall take place as soon as possible.

Stockpile locations. During construction, piles of fill, erodible material and debris shall not be created within regulated areas. The locations of debris and other stockpiled materials shall be shown on the submitted plans. Any material excavated at the site shall be disposed of at upland or off-site locations reviewed and approved by staff.

Permit Transfer. The permittee shall not transfer this permit without the written permission of the IWWC.

Work in Watercourse to Occur During Low Flow. Work within a watercourse is limited to periods of low flow. Low flow periods normally occur between August and October. Upon request of permittee, wetlands staff can determine if the activity can occur at other times following an on-site field investigation.

Scope of Permit. This permit is for the approved activity ONLY. Additional activity may require an additional permit. Note that if an approval or permit is granted by another agency and

(1) the approved activity will affect wetlands and/or watercourses; and/or

(2) the activity occurs within 125 feet of flagged boundaries and 175 feet from watercourses;

and such activities have not been addressed by this permit, then the applicant shall resubmit the application for further consideration by the Inland Wetlands and Watercourses Commission before any work begins.

Ongoing Compliance with Permit. The permittee shall comply at all times with the permit.

Other Approvals May be Required. Other permits may be required from Town, state or federal agencies. An Army Corps of Engineers permit may be required: U.S. Army Corps of Engineers, 424 Trapelo Rd., Waltham, MA 02254 1-800-362-4367.