

**TOWN OF BROOKLYN
Inland Wetlands and Watercourses Commission
Special Meeting Minutes
Virtual Webex Meeting
July 28, 2020**

Call to Order: The meeting was called to order at 6:03 p.m.

Members Present: Jeffrey Arends, Richard Oliverson, George Sipila, James Paquin.

Absent: None.

Staff Present: Margaret Washburn, Wetlands Agent, Rick Ives, First Selectman, Audrey Cross-Lussier, Recording Secretary.

Also Present: David Held, Paul Archer, Paul Terwilliger, Bill Perron, Bob Russo, Bob Deluca.

Roll Call: All members present stated their name for the record.

Seating of Alternates: None.

Election of Vice Chairman: A motion was made by Jim Paquin to nominate Richard Oliverson for Vice Chairman. Chairman Arends seconds this motion. Mr. Oliverson accepts the Vice Chairman nomination. No discussion held. The motion passes unanimously.

Public Commentary: None.

Additions to the Agenda: None.

Approval of Minutes:

1. Regular Meeting Minutes June 9, 2020. Minutes approved as written with no changes made.

Public Hearings: None.

Old Business:

1. 060920A Paul R. Lehto, Allen Hill Road, Map 32, Lot 148, RA Zone; Excavation of sand and gravel.

David Held, Provost and Rovero represents the applicant Paul R. Lehto. This is an expansion of a project the Commission approved in October of 2018. The project never went forward. This application includes an expansion to the south and to the east towards the Regis property and Town of Brooklyn property bordering the Quinebaug River. The proposal is an expansion of 6.7 acres in total, extracting approximately 90,000 cubic yards of sand and gravel. This will be done in 2 Phases. The majority of Phase 1 is the expansion. Phase 2 is essentially the same horizontal limits of what was previously approved, with lessening of depth into the grade. They will maintain a 50 ft buffer in the expansion area and similar buffer in Phase 2. Mr. Held discusses stormwater containment, grading, restoration phase. Mr. Held addresses the 7/14/20 Syl Pauley, Jr., P.E. #3 comments. (see attached). Mr. Held stated the wetland crossing is in good condition, there is a 24-inch concrete pipe with flared end sections, the side slopes are stable with vegetation. No evidence of excessive erosion or repair or remediation needed. There are no issues with continuing its use.

Chairman Arends discusses the wetlands crossing with Ms. Washburn and Mr. Held. He has no issues with the crossing. Discussion ensued.

Chairman Arends asked Mr. Held what length of time the project will take? Mr. Held commented approximately one year.

Mr. Sipila asked what will be used to mitigate the dust? Mr. Held commented that they will use calcium chloride or bring in a water truck for the dust mitigation.

Chairman Arends questioned the wetlands elevation of 180 ft. proposed and the bottom at 174 ft., will this get into the water table. Mr. Held addresses the data for the test pits on the site plan. There is 5 feet of separation groundwater from test pits.

A motion was made by Jim Paquin to approve application 060920A Paul R. Lehto, Allen Hill Road, Map 32, Lot 148, RA Zone, Excavation of sand and gravel with standard conditions. George Sipila seconds this motion. No discussion held. All in favor. The motion passes unanimously.

2. 060920B VBL Properties, LLC, Beecher Road, Map 22, Lot 38, RA Zone; 5-Lot Subdivision.

Paul Archer, Archer Surveying represents applicant VBL Properties, LLC. Robert Deluca Professional Engineer and Robert Russo, Soil Scientist, also join the meeting. This is a 14-acre parcel on the south side of Beecher Road. There is one proposed lot on the westerly side of the upland review area, and two proposed lots in the middle that are not in an upland review area. One lot on the west side of Blackwell's Brook has little in upland review area and one lot on Rukstela Road will have considerable work in the upland review area.

Wetlands were flagged years ago. Bob Russo verified the wetlands flagging. Ms. Washburn met with Mr. Archer, Mr. Russo and Mr. Deluca and did a site walk. NDDH approval is granted. Mr. Archer commented the review from Syl Pauley, NECCOG, P.E. are 95% PZC's concerns. Ms. Washburn's concern was with the septic system on the Rukstela Road Lot 38. Mr. Archer commented this system has been moved 80 feet away from wetlands.

Bob Russo, Soil Scientist, CLA Engineers, has verified the delineation done on site and managed to find old flags. GPS was done out in field and the locations that were compared and verified on the plan reflect the wetland boundary in the field.

Mr. Russo, Soil Scientist, CLA Engineers, discusses the contents of his letter dated 7/28/20; site setting; surficial geology and soils; soil types and properties at the VBL site; wetland descriptions and functions; potential for impacts; summary (see attached).

Chairman Arends comments on the 175- ft. upland review line. Mr. Russo comments there is a 125 ft. line. Mr. Archer commented the 175-ft. line is from the stream not wetlands, what is shown is the 125-ft. line. If it is necessary to place the 175-ft. line from the center of the brook on the plans Mr. Archer will comply. Chairman Arends is amenable to this.

Mr. Paquin commented it should be measured from the edge of the brook not the center.

Chairman Arends addresses his concerns with regards to a possible failure of the septic system on Lot 38 and what might be the impact on the resource area.

Mr. Russo commented the septic system is designed to meet CT health code. Any failed system that has water/sewage coming up to top will cause pollution in the stream. The soils mapped out are sandy and porous, it is likely if the system failed on this site it would likely be due to lack of maintenance.

Mr. Paquin questioned if there are any historical artifacts on Lot 35 and Lot 38. Mr. Archer commented they are in the process of working with UConn due to the historic nature of the area and Blackwell's Brook, however, there are no definitive answers today. Mr. Paquin asked when will the results be available? Mr. Paquin feels a proper decision cannot be made without this information. Mr. Archer is unsure when the results will be available.

Mr. Archer feels this is a PZC issue rather than IWWC. If there were artifacts found the septic systems would be moved. The area of the artifacts would be preserved. Mr. Archer commented there was a similar case with a site developed by Mr. Jeffrey Weaver.

Chairman Arends addresses Syl Pauley, P.E., NECCOG's comments. Mr. Archer commented that 95% of Mr. Pauley's review pertains to PZC issues. Mr. Pauley stated the scale has been changed, subdivision plan 2 frontage corrected, 100-year flood has been added on the plan, all comments will be addressed.

Mr. Arends questioned if a conservation subdivision was looked at? Mr. Archer feels it does not set up for a conservation subdivision due to the narrowness of the lots.

The land is 300-feet deep. Conservation subdivisions set up for road lots with open space. Mr. Archer commented they are in the process of looking for open space subdivision with PZC. The south part of the project abuts Town land. This gives the possibility to deed over part of Blackwell's Brook to the Town of Brooklyn for this project.

Chairman Arends addressed his reservations with a duplex on Lot 38 with the grading to the brook once the project is finished, i.e., fertilizer going into brook, swimming pools, chlorine. Mr. Archer stated the duplex will contain 2 units with 2 bedrooms on each side. The lot is very flat. Mr. Archer addressed Chairman Arends concerns.

Mr. Archer commented they are in talks with the Town of Brooklyn to purchase this lot with open space funds that are available. It attaches to the Town's piece and walking trail to Blackwell's Brook.

Mr. Paquin asked if the offer is in writing? Selectman Ives stated no. Mr. Paquin would like to see it in writing and as evidence. Selectman Ives stated the Town has been asked if they have any interest.

Ms. Washburn reviews and discusses Syl Pauley, P.E. NECCOG letter from July 16, 2020 with Commission Members (see attached). Discussion held. Mr. Archer addresses all of Ms. Washburn's concerns.

Mr. Archer stated that all plans will be signed and stamped when ready to be filed.

Mr. Archer commented that the 100-year flood line it is just a layer turned off on the plans. When the plans are finalized it will be placed on the plan.

Mr. Paquin comments on his level of frustrations with the Webex meetings and inability to read the site plans off of the website. Chairman Arends echoes Mr. Paquin's comment.

Mr. Deluca, CLA Engineers, commented that he has seen other Towns use a full screen with a plan on it that is shared with the presenter. This may be something to look into for future Webex meetings.

Ms. Washburn further reviews Syl Pauley, P.E. NECCOG review of July 16, 2020. Mr. Archer addressed Ms. Washburn's concerns. Plans will be revised accordingly. Mr. Deluca answered questions with regards to slopes and septic concerns. Discussion ensued.

Mr. Paquin agrees with the Town purchasing the lot; Selectman Ives agrees it is worth discussing.

Chairman Arends requests revised plans for the next meeting. Mr. Paquin asked if large plan sets could be printed out and given to members for the next meeting. Mr. Archer will comply with this request for Commission Members.

A motion was made by Jim Paquin to continue application 060920B to the next regularly scheduled meeting August 11, 2020. Richard Oliverson seconds this motion. No discussion held. All in favor. The motion passes unanimously.

3. 060920C A. Kausch & Sons, Tripp Hollow Road, Map 15, Lot 4, RA Zone; 2-Lot Subdivision; Single family homes, driveways, septic, well and minor grading.

Paul Archer, Archer Surveying represents the applicant A. Kausch and Sons, along with Bob Deluca and Bob Russo from CLA Engineers. The wetlands were flagged by Joe Theroux. Mr. Russo verified the flags.

Mr. Archer stated Mr. Paquin previously asked if the septic systems could be moved up to contour line 386. Per revised plans all septic systems have been moved per last month's meeting request. Department of Health approval has been granted.

Syl Pauley P.E., NECCOG, commented on the close proximity of the septic systems to wetlands. Since last month's meeting the septic systems have been moved away from the wetlands as requested.

Ms. Washburn has no further comments.

A motion was made by Jim Paquin to approve application 060920C A. Kausch & Sons, Tripp Hollow Road, Map 15, Lot 4, RA Zone; 2-Lot Subdivision; Single family homes, driveways, septic, well and minor grading with standard conditions. Richard Oliverson seconds this motion. No discussion held. All in favor. The motion passes unanimously.

4. 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.

Ms. Washburn has visited the site. Most of grading has been done except at the northern property line which will eventually be regraded. The vast majority has been graded per restoration plan and is naturally revegetating. It is not clear at this time if it will remain as open space or be part of a solar farm. In the interest of trying to close this out in a timely manner, Ms. Washburn feels that it would be okay to say this enforcement issue is closed and rescind the enforcement order issued in 2014.

Chairman Arends is happy with the photographs of the restoration, as are Jim Paquin and Richard Oliverson.

A motion as made by Jim Paquin to approve the restoration as completed and rescind the 2014 enforcement order. Rich Oliverson seconds this motion. No discussion held. Motion passes with one abstention George Sipila.

New Business:

1. Hearing for violation at Map 18/Lot 28 Woodward Road, Owners William and Kathie Perron. Cease and Desist order on 7/2/20 for site work consisting of mining and spreading gravel in the upland review area to Blackwell's Brook.

Chairman Arends and Ms. Washburn visited the site. Chairman Arends stated that Mr. Perron excavated some gravel close to the brook without a permit. Mr. Perron claims he had a permit. Chairman Arends stated that Mr. Perron provided no approved gravel removal permit nor was there one found in the office that was issued.

Chairman Arends asked Mr. Perron to stop digging next to the brook as he was doing this without any engineering skill and fear of what damage could be caused to the wetlands.

Mr. Perron claims he did not damage the wetlands. He is not digging in the brook; it is all vegetated. Chairman Arends asked Mr. Perron if he hit groundwater, Mr. Perron stated no.

Chairman Arends stated the recent application 071420C submitted by Mr. Perron is incomplete. There was no site plan submitted, no purpose or activity description given as to what was to be done. Mr. Perron agrees to submit a site plan for the next meeting. A cease and desist order will be given to Mr. Perron so that no more digging will be done.

Mr. Perron would like to take the top of the bank off and put it back in the hole. Chairman Arends asked him to stop digging and leave it alone.

Commission Members reviewed Ms. Washburn's report. Mr. Oliverson suggests continuing to next month's meeting August 11, 2020.

A motion was made by Jim Paquin to move item # 4 071420C up to item #2 under New Business. Richard Oliverson seconds this motion. No discussion held. Motion passes with one abstention George Sipila.

2. 071420C William and Kathie Perron, Map 18, Lot 28, Woodward Road; Break down bank to provide access to brook and use gravel on property. (Note: the receipt of this application was the date of the next regularly scheduled meeting, which was 7/14/20).

Chairman Arends requests Ms. Washburn issue a cease and desist order.

Ms. Washburn asked if the Commission requests the additional information for the next regularly scheduled meeting August 11, 2020. Commission members agreed.

Chairman Arends asked Mr. Perron to provide with the application a map showing what he would like to do; wetlands delineation; how much gravel is going to be removed; engineering input may be required.

Chairman Arends pleads with Mr. Perron to stop all work.

Commission Members agreed to do a site walk. Friday August 7th at 1 p.m. Members are to meet at the site.

071420B David and Nancy Bell, 131 Prince Hill Road, Map 34, Lot 52, RA Zone; 3-Lot Subdivision. (Note: the date of receipt of this application was the date of the next regularly scheduled meeting, which was 7/14/20).

Paul Terwilliger, from PC Survey represents the applicant. The Bells own an 8-acre piece of land on Prince Hill Road with an existing house which will become a free split with 2 acres. The rest of the 6 acres remaining will be subdivided into 3 building lots. There is a small pocket of wetlands that abuts the Ennis Farm property. There is approximately 2,000 sq. ft. of wetlands on the property. There will be some activity on one lot within the 125-ft. regulated area.

There is clearing up to 80-ft from the wetlands and there is a septic system on that lot which is 92 feet away from the wetlands.

They are also proposing a conservation easement that surrounds the wetlands area as a buffer between the farmland where the 3 lots will be. Erosion and sedimentation barriers will be placed between activity and the wetland area. There is 80-ft of undisturbed land between the wetland and the activity.

Ms. Washburn stated the work is pretty far from the wetlands.

Chairman Arends asked what are the slopes?

Steep slope, steepest 15%, greater in 10% area where the proposed house and septic area is. Perpendicular to slope flows away from where the wetland is due to the nature of the contours.

Ms. Washburn commented there is a natural detention basin between the property and Prince Hill Road elevation 316, driveway entrance. There is skunk cabbage there.

The wetlands were flagged by Joe Theroux November 2019.

There was a proposed retention area to alleviate any run-off from the side slope where the road is with a 4-inch PVC pipe under the driveway. There is no Dept. of Health approval.

A motion was made by Jim Paquin to continue application 0714120A to the next regularly scheduled meeting August 11, 2020. Richard Oliverson seconds. No discussion held. Motion passes unanimously.

Site walk was scheduled for Friday, August 7, 2020 at 2:00 p.m. Members are to meet at the site.

071420B David and Nancy Bell, Church Street, Map 35, Lot 4, RA Zone; 3-Lot Subdivision (Note: The date of receipt of this application was the date of the next regularly scheduled meeting, which was 7/14/2020).

Paul Terwilliger, PC Survey represents the applicant. The property is the remaining 25.5-acre portion of Kingswood Estate located off of Malbone Lane that was slated to be developed back in the 1980's which did not happen. They are proposing a 3-lot subdivision of the remaining land with a 50 ft. access strip to the lot connecting Church Street. There will be a common driveway to access the lots. One lot is 2.6-acres, second lot is 3.35-acres and the remaining lot is 16-acres.

There are five wetland areas on property. One at Church Street, there is a ponding area where road drainage collects. There is a slope to the south that slopes northerly, a depression which runs through a culvert across the road. There is a wetland area on Lot 17 at the toe of a slope, a flat area where the run-off and ground water bleed out to collect. There is not a lot of wetland vegetation. There is a wetland associated with seasonal run off on the north side of proposed Lot 18 with a clear ravine that the brook runs seasonally through. There are two isolated wetland pockets out in the middle of the back lot. The wetlands were all delineated in 2007 by Mike Shaefer. The flags were located and are mapped. The two pocketed wetlands in back may have some vernal pool significance. They are creating a conservation easement corridor to connect the two so there is no activity to disrupt any traveling from one to the other, extending to the north side of the property, and connecting to the intermittent brook area. The other isolated wetland in the middle will also be protected with a conservation easement. Soil testing shows the two rear lots require non-engineered septic system; the front lot requires an engineered septic system due to the seasonal high ground water. The back lots have gravelly soil. This has been submitted and reviewed by the Dept of Health. As far as drainage, the property slopes down away from road down to the back. Drainage is proposed along the side of the driveway where there is a cut into the slope. Curtain drains are placed on the edge to collect ground water bleed out across driveway. A larger rip-rap lined ditch along the south side of the driveway with a splash pad for outlet is proposed which is northwest to isolated wetland pocket.

Chairman Arends asked Mr. Terwilliger to put the 175-ft. boundary mark from edge of the pond as well as the 125-ft. from the wetlands on the site plan. Mr. Terwilliger stated they are not full-fledged ponds, more like vernal pools. They are not proposing any activity in that area. Mr. Terwilliger can add the setbacks on the site plans as requested.

A site walk was scheduled for Friday, August 7, 2020 at 2:30 p.m. Members are to meet at the site.

A motion as made by Jim Paquin to continue application 071420B to next month's regularly scheduled meeting August 11, 2020. Richard Oliverson seconds this motion. No discussion held. All in favor. The motion passes unanimously.

Communications:

1. Budget update – reviewed.
2. Wetlands Agent Monthly Report:

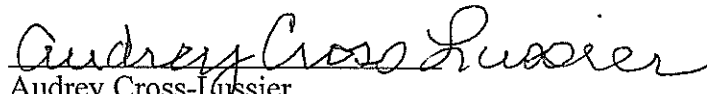
Ms. Washburn discussed the submission of documents and policy statement for virtual meeting deadlines. Members agreed to place this as an agenda item for discussion at next month's meeting.

Public Commentary: None.

Selectman Ives asked if the Commission would like to have an in-person meeting for next month. Chairman Arends agrees. Selectman Ives will look into the possibility of a Commission Member in person meeting with the applicants connecting via Webex.

Chairman Arends commented to Selectman Ives that the Wetlands Commission needs more members. Selectman Ives stated he is working on this and asked if they would be interested in a five-member commission. Chairman Arends stated yes. This will be placed as an item on next month's agenda for discussion.

Adjourn: A motion was made by Richard Oliverson to adjourn the meeting at 7:37 p.m. Jim Paquin seconds this motion. No discussion held. All in favor. The motion passes unanimously.

A handwritten signature in cursive script, reading "Audrey Cross-Lussier".

Audrey Cross-Lussier
Recording Secretary

NORTHEASTERN CONNECTICUT COUNCIL OF GOVERNMENTS

Engineering Plan Review Pertaining to Proposed Gravel Excavation

PAUL R. LEHTO
(RIVER WALK DRIVE)

BROOKLYN, CT

(July 14, 2020)

The comments contained herein pertain to my review of plans for a gravel removal operation. The plans under review (7 sheets) are entitled "Proposed Gravel Excavation, Easterly of Allen Hill Road, Brooklyn, Connecticut, Owner/Applicant: Paul R. Lehto," prepared by Provost & Rovero, Inc. and Archer Surveying, LLC, dated June 2, 2020. This review was made in accordance with most recent Town of Brooklyn Zoning and Wetlands Regulations and Public Improvement Specifications.

1. On Sheet 2 of 7, "Existing Conditions," Note 6 states that the existing topographical information was created using aerial photography (and photogrammetric mapping?) from WSP Group. The dates for the photography and mapping should be included in the note.
2. If not already done, the CT State Historic Preservation Office should be contacted regarding any possible archaeological/historical significance to this portion of the site, since it sits high above and only about a quarter mile from the Quinebaug River. The CT Department of Energy and Environmental Protection (DEEP) "Natural Diversity Database" should also be consulted.
3. The haul road running through the previously excavated area to River Walk Drive (see Sheet 2 of 7) crosses a wetland. It is recommended that the Applicant's engineer evaluate and describe the crossing, which has been in place for many years, to determine if it is in good condition for future heavy loads and if any erosion has occurred around it that would require some reconstruction. Additionally, it is important to establish erosion and sediment control systems on both sides of the crossing and other methods to help protect the wetlands from the heavy truck traffic, dust, and material that may fly off haul trucks. Erosion and sediment control system(s), if required, should be shown for the affected area on a plan at a scale of no less than 1" = 40'.
4. There is no estimated time of completion of the proposed gravel removal operation in the "Excavation Notes" on Sheet 5 of 7.
5. Noise and dust from heavy truck traffic may cause an issue with residents living along River Walk Drive and its connected side roads.

By:


Syl Pauley, Jr., P.E., NECCOG Regional Engineer

7/14/2020

CLA Engineers, Inc.

Civil • Structural • Survey

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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

<u>Soil Series</u>	<u>Parent Material</u>	<u>Drainage Class</u>	<u>Texture/Characteristics</u>
*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 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.

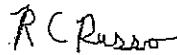
CLA notes that in order to minimize the potential for impacts to wetlands, the E&S has been designed in compliance with the CTDEEP 2002 E&S Manual.

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,

A handwritten signature in dark ink, appearing to read "RC Russo". The signature is written in a cursive, slightly stylized font.

Robert C. Russo
Soil Scientist

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 04 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 OF WETLANDS ON PROPERTY 2.72 ACRES
ACRES

PURPOSE AND DESCRIPTION OF THE ACTIVITY 5 Lot Subdivision
- Since 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: Beth Le... DATE 6/5/20

OWNER: Beth Le... DATE 6/5/20



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): Berlin Road

briefly describe the action/project/activity (check and print information): temporary ☐ permanent ☐ description: _____

5 lot subdivision, residential lots, water, septic M. & M. GARDIN

9. ACTIVITY PURPOSE CODE (see instructions, only use one code): B 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): 0.3 acres

13. AREA OF WETLANDS / WATERCOURSES RESTORED, ENHANCED OR CREATED (must provide acres): 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

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

<u>Soil Series</u>	<u>Parent Material</u>	<u>Drainage Class</u>	<u>Texture/Characteristics</u>
*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 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.

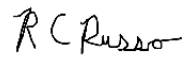
CLA notes that in order to minimize the potential for impacts to wetlands, the E&S has been designed in compliance with the CTDEEP 2002 E&S Manual.

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,

A handwritten signature in black ink, appearing to read "R C Russo". The signature is written in a cursive, slightly stylized font.

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.

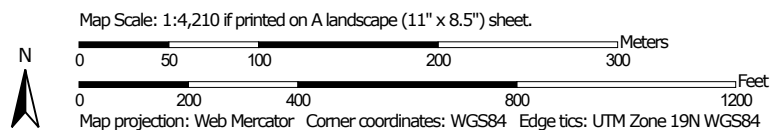
(38) The Hinckley series consists of very deep, excessively drained soils formed in glaciofluvial materials. They are nearly level through very steep soils on outwash terraces, outwash plains, outwash deltas, kames, kame terraces, and eskers. Saturated hydraulic conductivity is high or very high. Slope 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)



Soil Map may not be valid at this scale.



**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

6/12/2020
Page 1 of 3

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

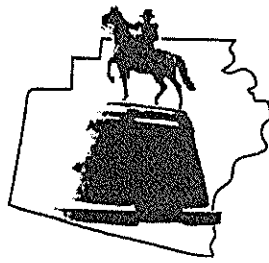
Photographs



Photograph 1 Typical floodplain wetland along Blackwell's Brook



Photograph 2 Blackwell's Brook at northern end of site



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

600 6-18-2020

Date

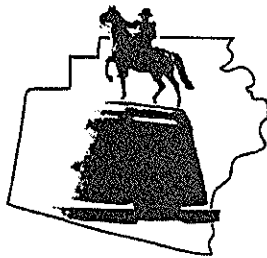
I met Paul Archer and Bob Russo
John Ianni flagged the site, according
to Paul. John Ianni did not write
a report for this site, according to
Paul. Bob Russo will write a report
for the delineation after he field reviews
the delineation. The upland review area
should be 175' according to Bob Russo.
The lot on Rukstello 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. Spice bush -
(Lindera benzoin) was observed in uplands - rated by USFWS
as being found in wetlands 66% of the time -
in Washington

Commission Representative

Owner or Authorized Signature

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

> Kunk coverage was observed in the uplands
but the soil is 104R5/6 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 7

Beecher Rd

Address

6-18-2020

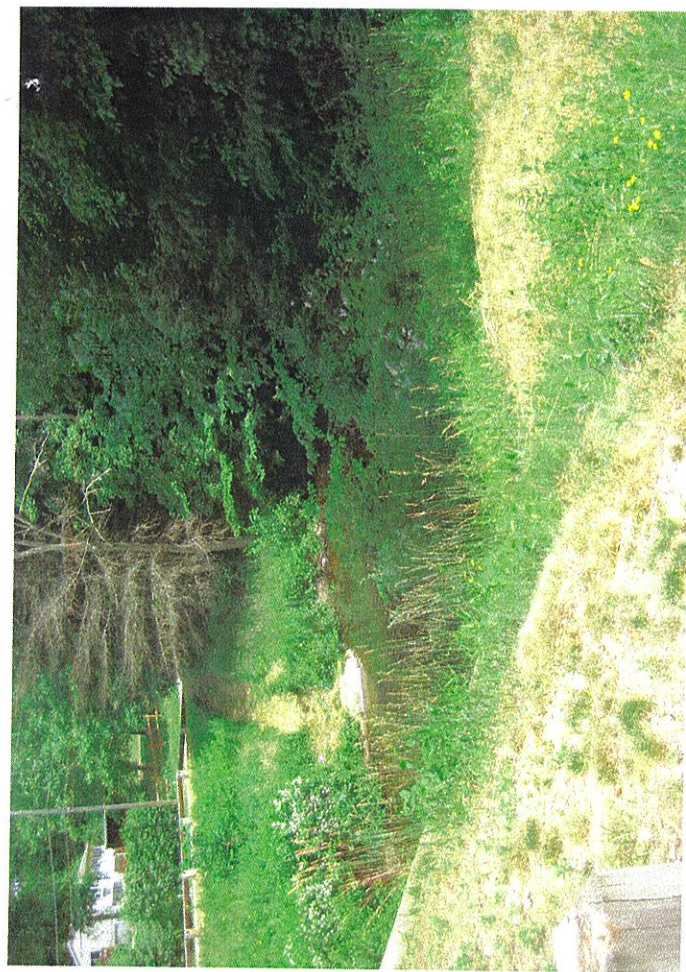
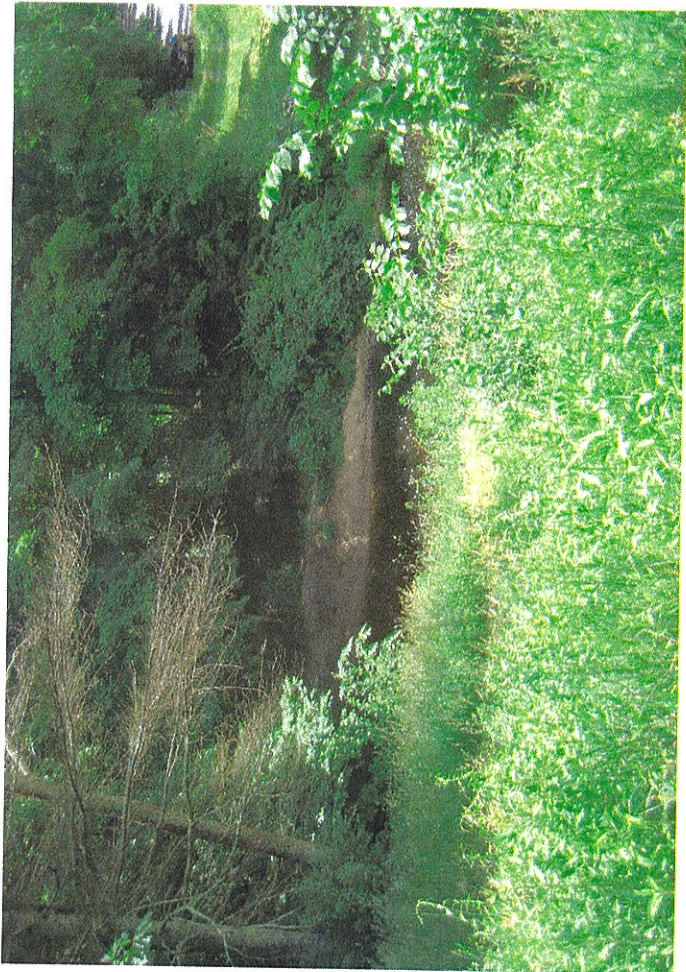
Date

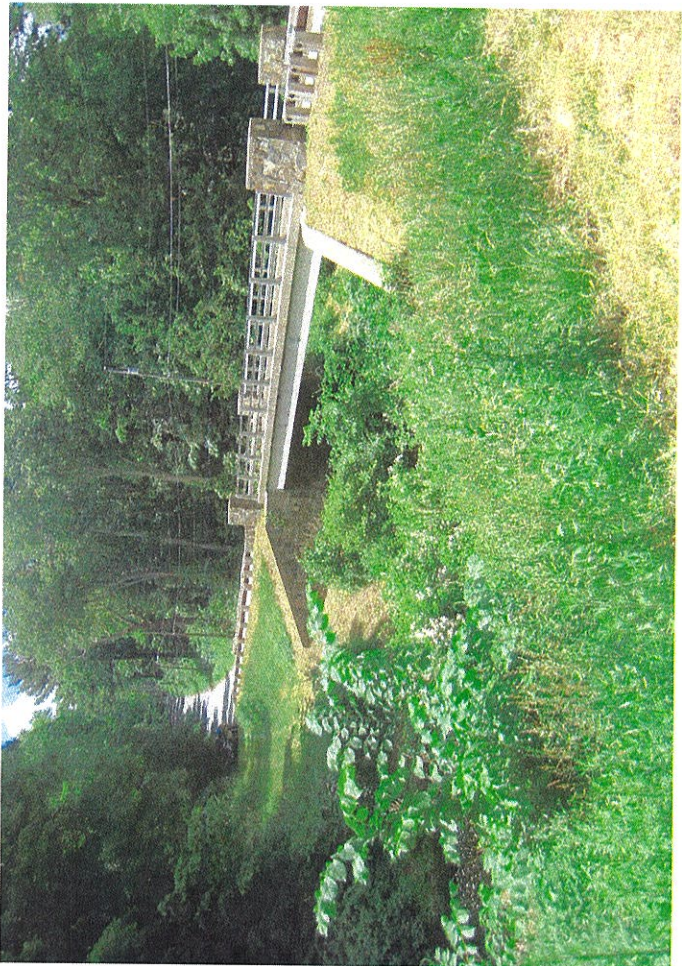
We checked lots on 2 sides of Blackwell's
Brook and lot 38-2 which is the western-
most lot.
All lots with URAs were inspected.

Commission Representative

M Washburn

Owner or Authorized Signature





SUBDIVISION APPLICATION

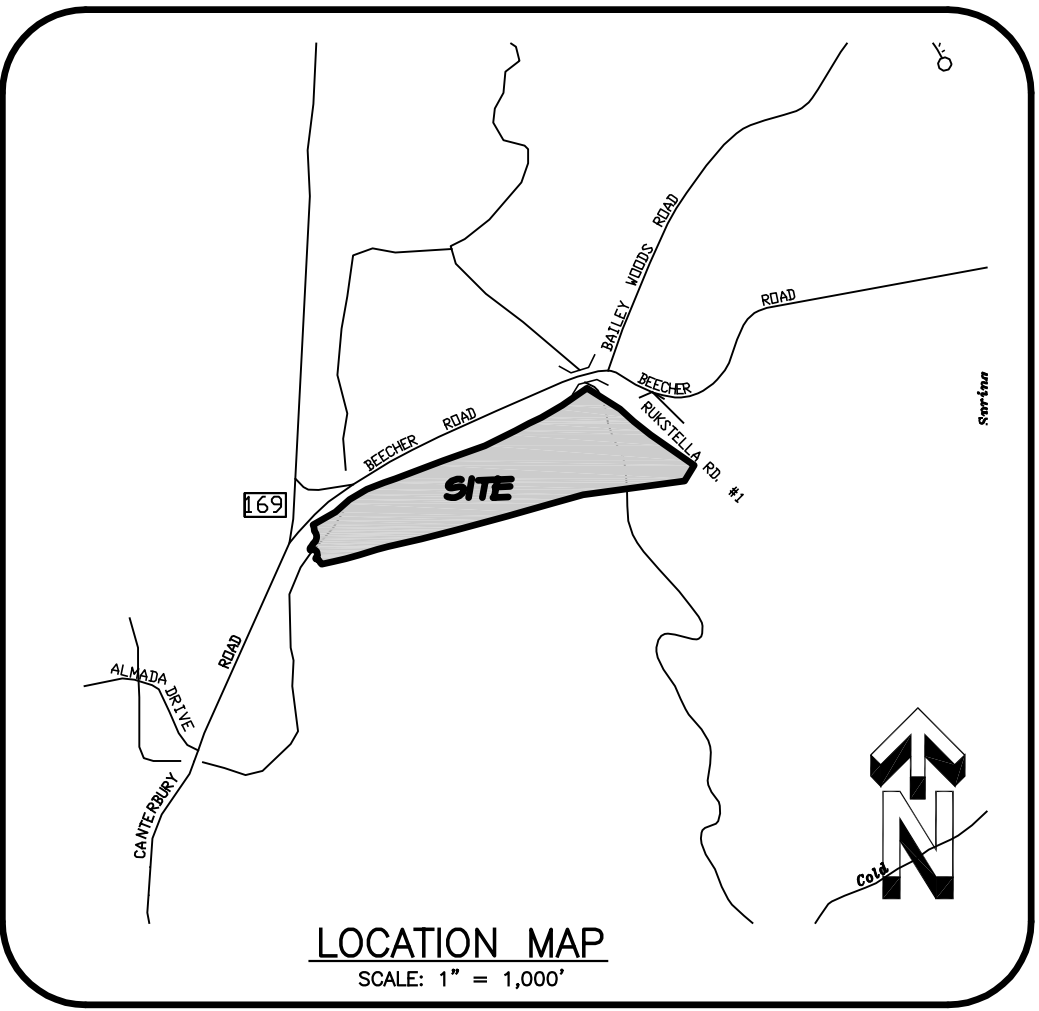
PROPOSED 5 LOT SUBDIVISION

PREPARED FOR

VBL Properties LLC

Beecher Road
Brooklyn, Connecticut

June 4, 2020



PREPARED BY



INDEX OF DRAWINGS

COVER SHEET	SHEET 1 OF 8
PERIMETER SURVEY	SHEET 2 OF 8
SUBDIVISION PLAN	SHEET 3 OF 8
SITE DEVELOPMENT PLAN #1	SHEET 4 OF 8
SITE DEVELOPMENT PLAN #2	SHEET 5 OF 8
SITE LINE	SHEET 6 OF 8
DETAIL SHEET	SHEET 7 OF 8
PARCEL HISTORY PLAN	SHEET 8 OF 8

APPROVED BY THE BROOKLYN
INLAND WETLANDS COMMISSION

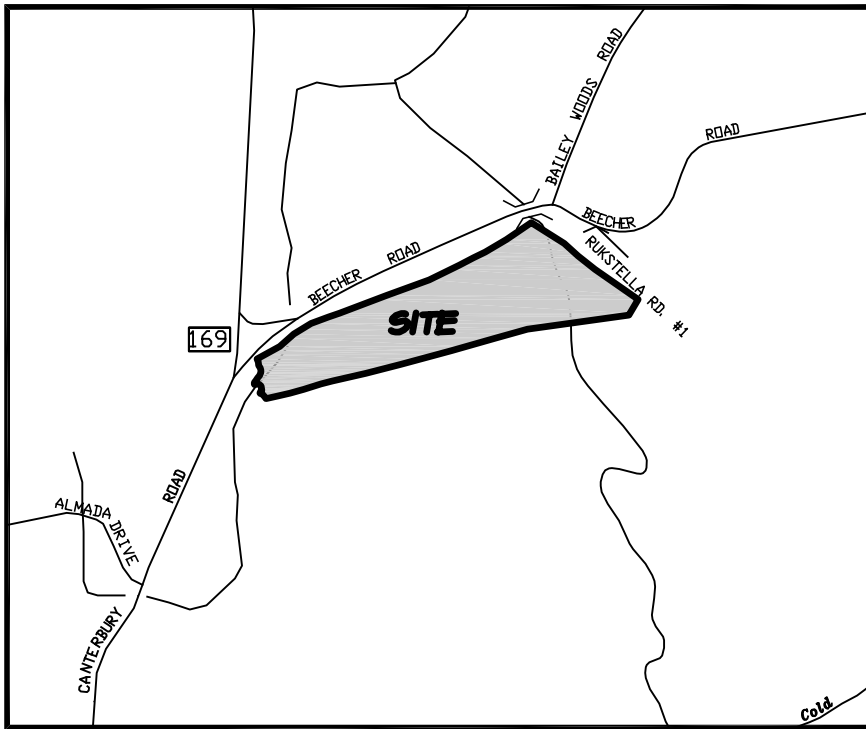
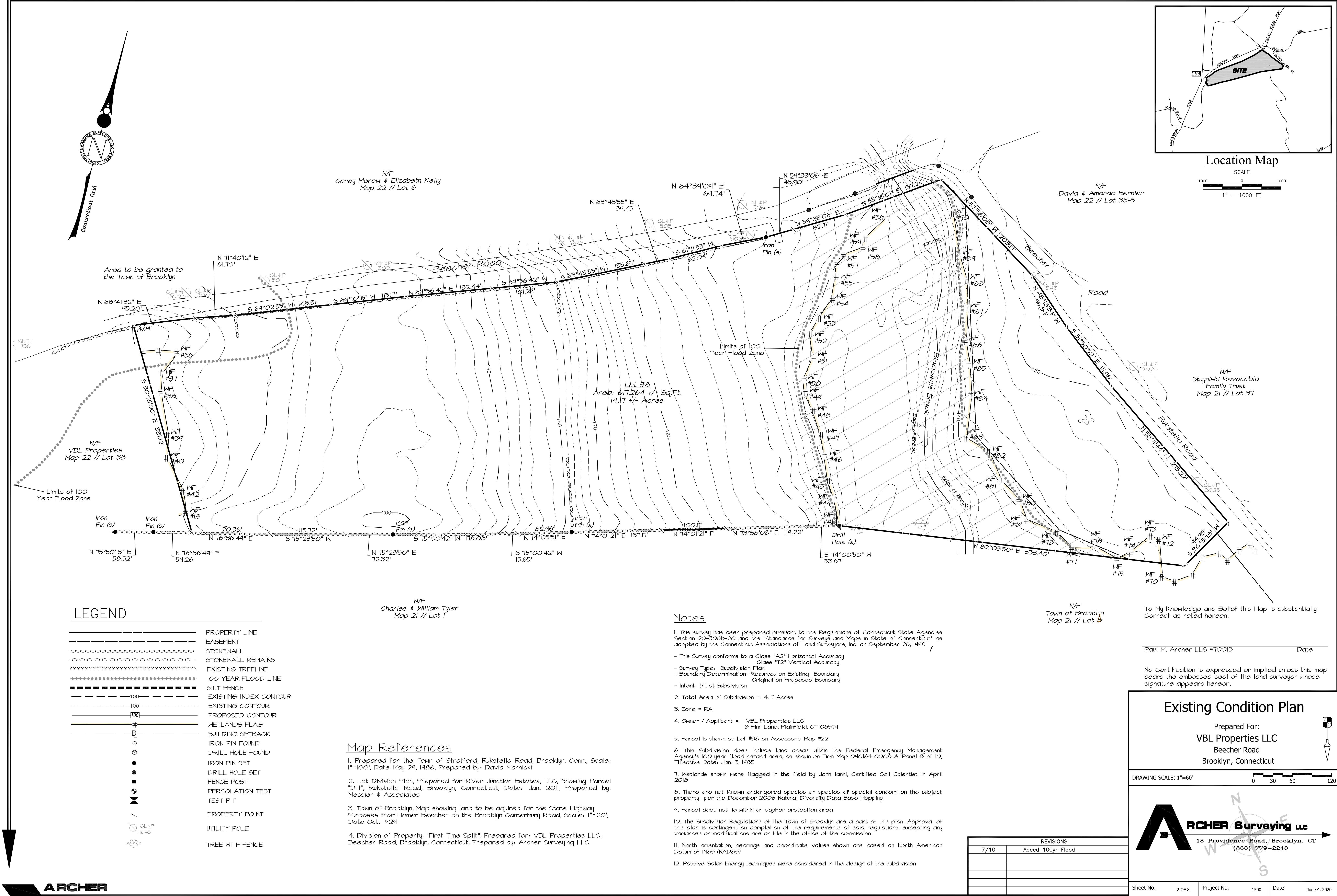
CHAIRMAN _____ DATE _____
Expiration date per section 22A-42A of the Connecticut
General Statutes. Date: _____

APPROVED BY THE BROOKLYN
PLANNING AND ZONING COMMISSION

CHAIRMAN _____ DATE _____
Expiration date per section B.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



Location Map

SCALE
1000 0 1000
1" = 1000 FT

LEGEND

- PROPERTY LINE
- EASEMENT
- STONEWALL
- STONEWALL REMAINS
- EXISTING TREELINE
- 100 YEAR FLOOD LINE
- 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 Manickl
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 06314
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 040164 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.

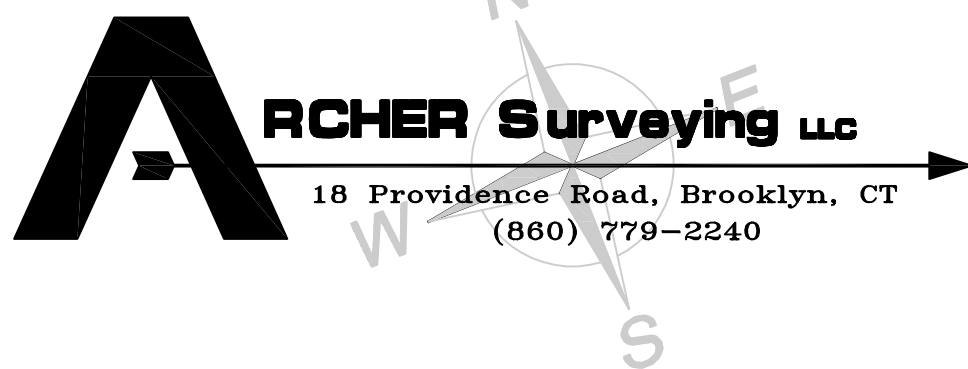
Paul M. Archer LLS #10013 Date

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

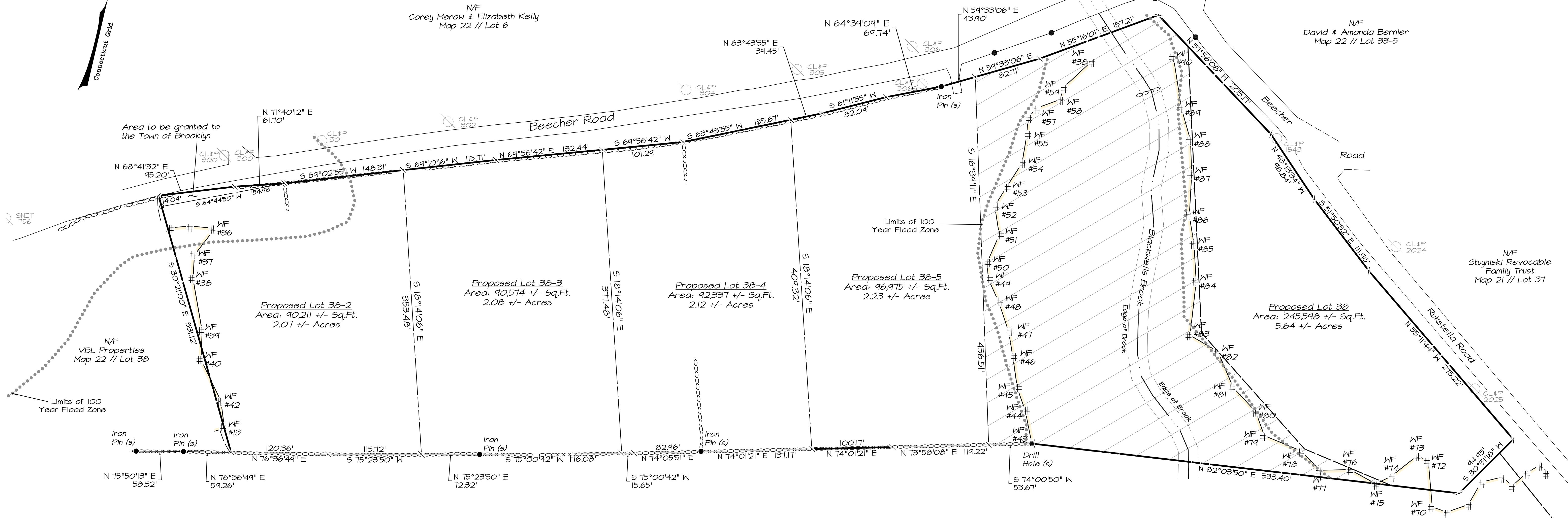
DRAWING SCALE: 1"=60'



Sheet No. 2 of 8 Project No. 1500 Date: June 4, 2020



Connecticut Grid



LEGEND

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

Notes

- 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
- Total Area of Subdivision = 14.17 Acres
- Zone = RA
- Owner / Applicant = VBL Properties LLC
8 Finn Lane, Plainfield, CT 06374
- Parcel is shown as Lot #38 on Assessor's Map #22
- This Subdivision does include land areas within the Federal Emergency Management Agency's 100 year Flood hazard area, as shown on Firm Map 090164 000B A, Panel 8 of 10, Effective Date: Jan. 3, 1985
- Wetlands shown were flagged in the field by John Ianni, Certified Soil Scientist in April 2018
- There are not Known endangered species or species of special concern on the subject property per the December 2006 Natural Diversity Data Base Mapping
- Parcel does not lie within an aquifer protection area
- 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.
- North orientation, bearings and coordinate values shown are based on North American Datum of 1983 (NAD83)
- 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 #10013 Date

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

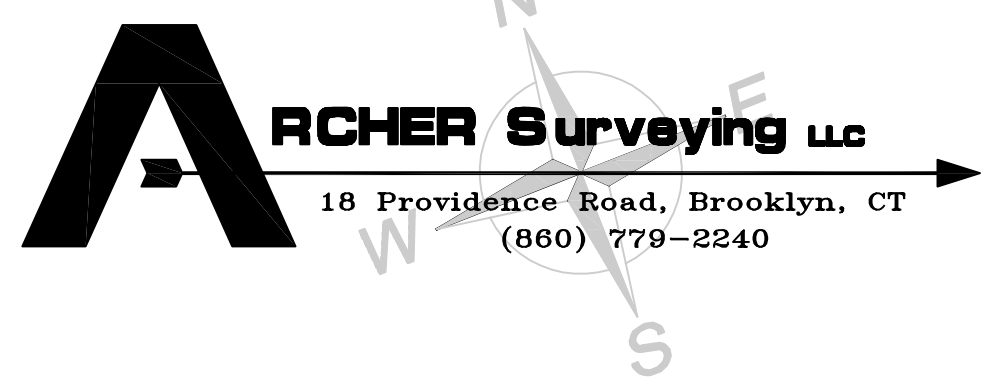
REVISIONS	
08-04-20	Located Centerline of Brook

Subdivision Plan "Proposed 5 Lots"

Prepared For:
VBL Properties LLC
Beecher Road
Brooklyn, Connecticut

DRAWING SCALE: 1"=60'

0 30 60 120



Sheet No. 3 of 8 Project No. 1500 Date: 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 = 5.3%
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 80 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:

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

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

- PROPOSED SEPTIC SYSTEM TO BE STAKED IN THE FIELD BY A LAND SURVEYOR LICENSED IN THE STATE OF CONNECTICUT.
- A BENCHMARK SHALL BE SET WITHIN 10'-15' OF THE PROPOSED SEPTIC SYSTEM PRIOR TO CONSTRUCTION.
- 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.
- 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 STD-3034 AND SDR-35.
- 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.
- 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.
- ALL FILL MATERIAL SHALL BE CLEAN EARTH FREE OF STUMPS, ORGANICS, CONSTRUCTION DEBRIS AND TOPSOIL.
- 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: 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: 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: 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: 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: 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

LEGEND

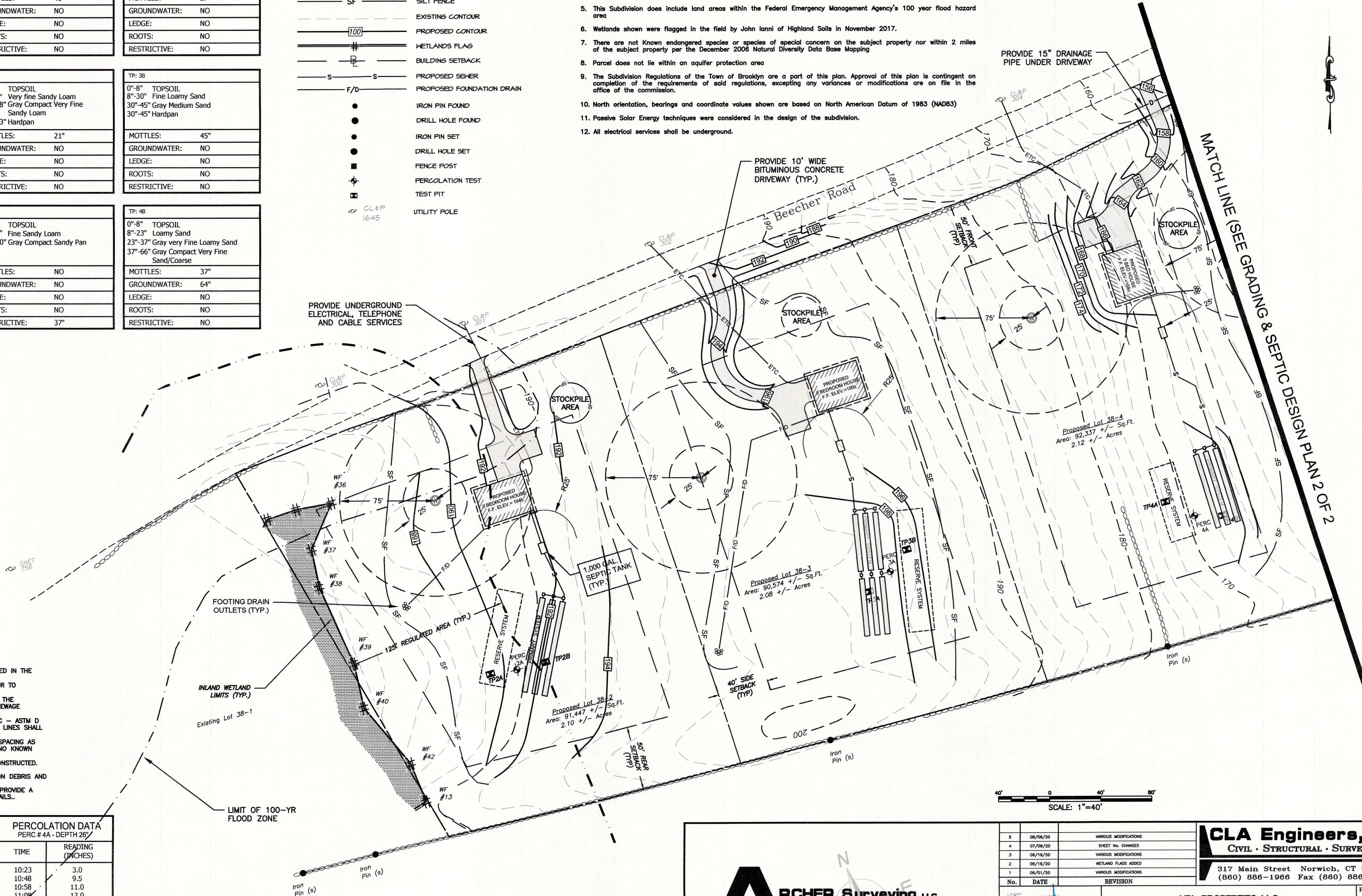
- PROPERTY LINE
- EASEMENT
- STONEWALL
- STONEWALL REMAINS
- EXISTING TREELINE
- PROPOSED CLEARING LIMITS
- SF SILT FENCE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- WETLANDS FLAG
- BUILDING SETBACK
- PROPOSED SEWER
- F/D PROPOSED FOUNDATION DRAIN
- IRON PIN FOUND
- DRILL HOLE FOUND
- IRON PIN SET
- DRILL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

Notes

- 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
- Parcels shown as 38 on Assessors Tax Map 22 of the Brooklyn Assessors Office
- Property is owned by: VBL Properties, LLC
- Zone: RA
- This Subdivision does include land areas within the Federal Emergency Management Agency's 100 year flood hazard area
- Wetlands shown were flagged in the field by John Ianni of Highland Soils in November 2017.
- 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
- Parcel does not lie within an aquifer protection area
- 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.
- North orientation, bearings and coordinate values shown are based on North American Datum of 1983 (NAD83)
- Passive Solar Energy techniques were considered in the design of the subdivision.
- All electrical services shall be underground.

Map References

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



PERCOLATION DATA PERC # 2A - DEPTH 31"		PERCOLATION DATA PERC # 3A - DEPTH 29"		PERCOLATION DATA PERC # 4A - DEPTH 26"	
TIME	READING (INCHES)	TIME	READING (INCHES)	TIME	READING (INCHES)
9:33	6.75	9:35	5.75	10:23	3.0
9:49	10.0	9:56	10.0	10:48	9.5
10:19	13.0	10:11	14.5	10:58	11.0
10:39	14.5	10:46	17.0	11:08	12.0
PERCOLATION RATE > 13.3 MIN./IN.		PERCOLATION RATE > 14 MIN./IN.		PERCOLATION RATE > 10 MIN./IN.	
NOTES: PERCOLATION TEST PERFORMED ON 5/17/2018 PERFORMED BY Terre Bombard		NOTES: PERCOLATION TEST PERFORMED ON 5/17/2018 PERFORMED BY Terre Bombard		NOTES: PERCOLATION TEST PERFORMED ON 5/17/2018 PERFORMED BY Terre Bombard	

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

Robert A. DeLuca, P.E. #18756

Date

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

CLA Engineers, Inc. CIVIL • STRUCTURAL • SURVEYING			Project No. CLA-6382	
317 Main Street Norwich, CT 06360 (860) 886-1966 Fax (860) 886-9165			Proj. Engineer D.H.	
VBL PROPERTIES LLC			Date: 03/18/20	
PROPOSED 5 LOT SUBDIVISION BEECHER ROAD & RUKSTELLA ROAD BROOKLYN CT			Sheet No. 4	
GRADING & SEPTIC DESIGN PLAN 1 OF 2				

Notes

- 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 Association of Land Surveyors, Inc. on September 25, 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
- Parcels shown as 38 on Assessors Tax Map 22 of the Brooklyn Assessors Office
- Property is owned by: VBL Properties, LLC
- Zone: RA
- This Subdivision does include land areas within the Federal Emergency Management Agency's 100 year flood hazard area
- Wetlands shown were flagged in the field by John Ianni of Highland Soils in November 2017.
- 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
- Parcel does not lie within an aquifer protection area
- 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.
- North orientation, bearings and coordinate values shown are based on North American Datum of 1983 (NAD83)
- Passive Solar Energy techniques were considered in the design of the subdivision.
- All electrical services shall be underground.

Map References

- Prepared for the Town of Stratford, Rukstella Road, Brooklyn, Conn., Scale: 1"=100', Date May 29, 1986, Prepared by: David Marnicki
- Lot Division Plan, Prepared for River Junction Estates, LLC, Showing Parcel "D-1", Rukstella Road, Brooklyn, Connecticut, Date: Jan. 2011, Prepared by: Messier & Associates
- Town of Brooklyn, Map showing land to be acquired 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	TP: 5B
0"-7" TOPSOIL	0"-12" TOPSOIL
7"-28" Loamy Sand	12"-38" Loamy Sand
28"-61" Gray Very Fine Loamy Sand/Mottled	38"-75" Gray Compact Very Fine Loamy Sand
MOTTLES: 28"	MOTTLES: 38"
GROUNDWATER: NO	GROUNDWATER: 69"
LEDGE: NO	LEDGE: NO
ROOTS: NO	ROOTS: NO
RESTRICTIVE: NO	RESTRICTIVE: 37"
TP: 1	TP: 2
0"-9" TOPSOIL	0"-10" TOPSOIL
9"-37" Reddish Brown Very Fine Loamy Sand	10"-27" Reddish Brown Very Fine Loamy Sand
37"-70" Gray Very Fine Loamy Sand	27"-39" Gray Very Fine Loamy Sand/Wet /Mottled
MOTTLES: 44"	MOTTLES: 27"
GROUNDWATER: 63" seepage @44"	GROUNDWATER: 39"
LEDGE: NO	LEDGE: NO
ROOTS: NO	ROOTS: NO
RESTRICTIVE: NO	RESTRICTIVE: NO

LEGEND

- PROPERTY LINE
- EASEMENT
- STONEHALL
- STONEHALL REMAINS
- EXISTING TREELINE
- PROPOSED CLEARING LIMITS
- SF
- SILT FENCE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- WETLANDS FLAG
- BUILDING SETBACK
- PROPOSED SEWER
- PROPOSED FOUNDATION DRAIN
- IRON PIN FOUND
- DRILL HOLE FOUND
- IRON PIN SET
- DRILL HOLE SET
- FENCE POST
- PERCOLATION TEST
- TEST PIT
- UTILITY POLE

CONCEPT SEPTIC SYSTEM DESIGN

LOT 38-5
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) = 28
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

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

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

Robert A. DeLuca, P.E. #18756 Date

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

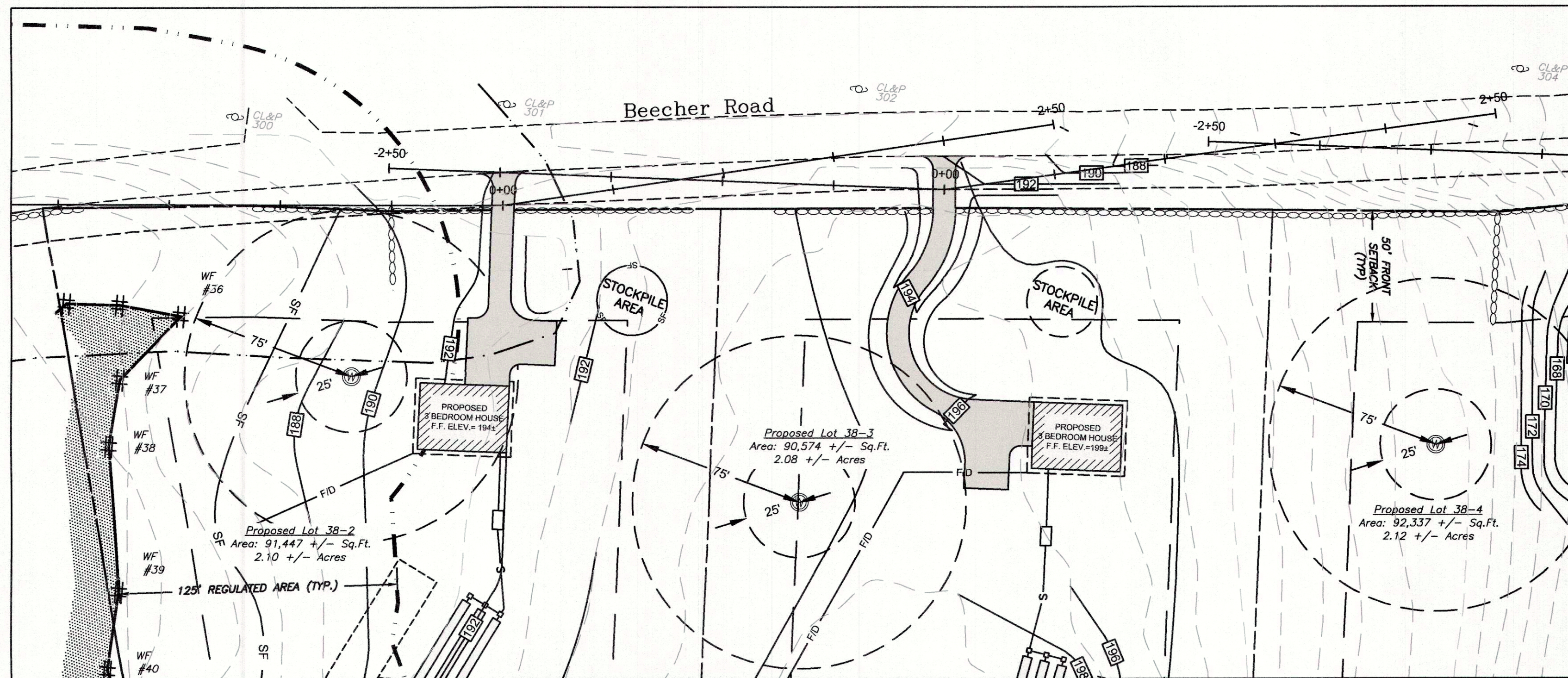
No.	DATE	REVISION
5	06/06/20	VARIOUS MODIFICATIONS
4	07/06/20	SHEET NO. CHANGES
3	06/16/20	VARIOUS MODIFICATIONS
2	06/16/20	WETLAND FLAG ADDED
1	06/01/20	VARIOUS MODIFICATIONS

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

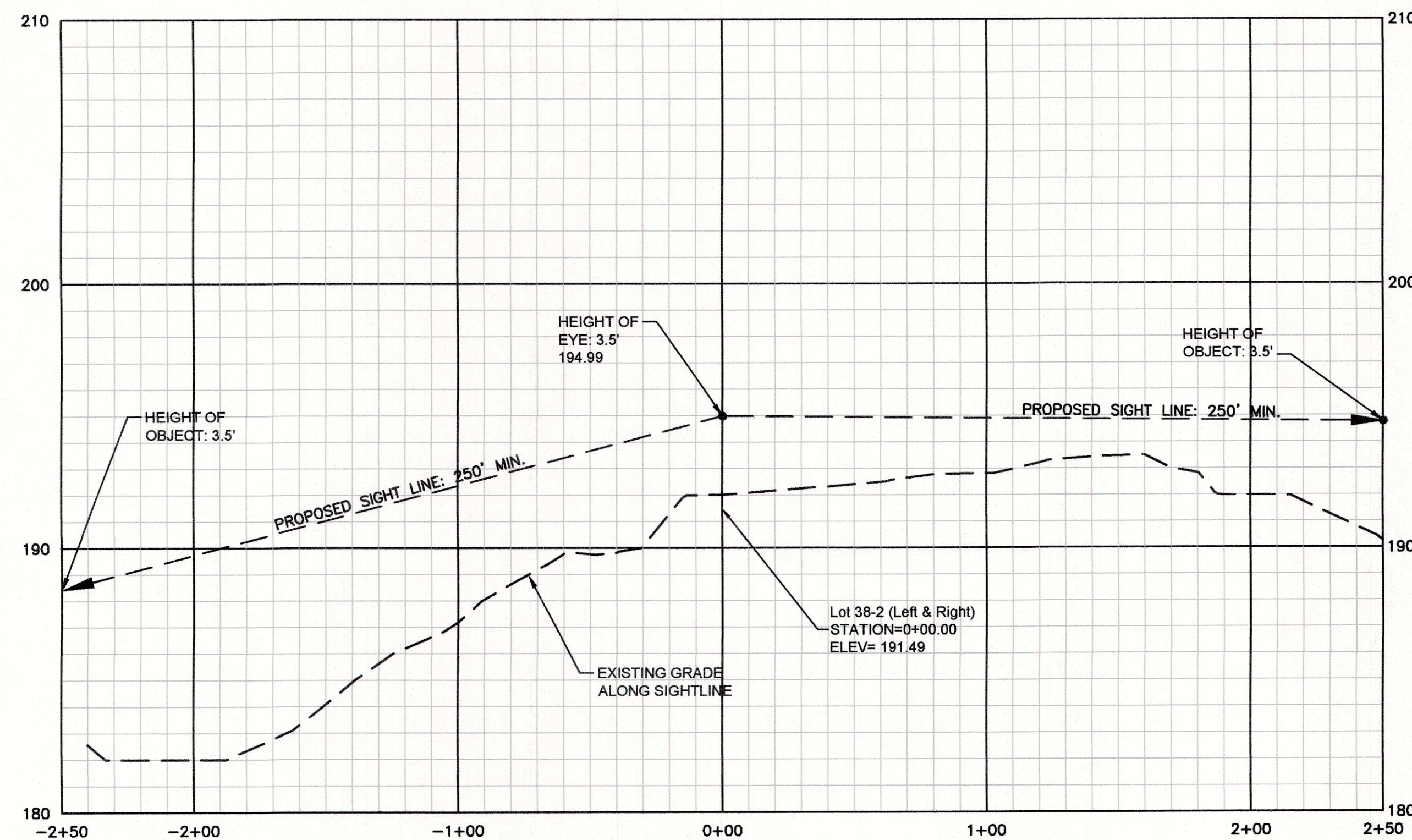
VBL PROPERTIES LLC
PROPOSED 5 LOT SUBDIVISION
BEECHER ROAD & RUKSTELLA ROAD
BROOKLYN CT

GRADING & SEPTIC DESIGN PLAN 2 OF 2

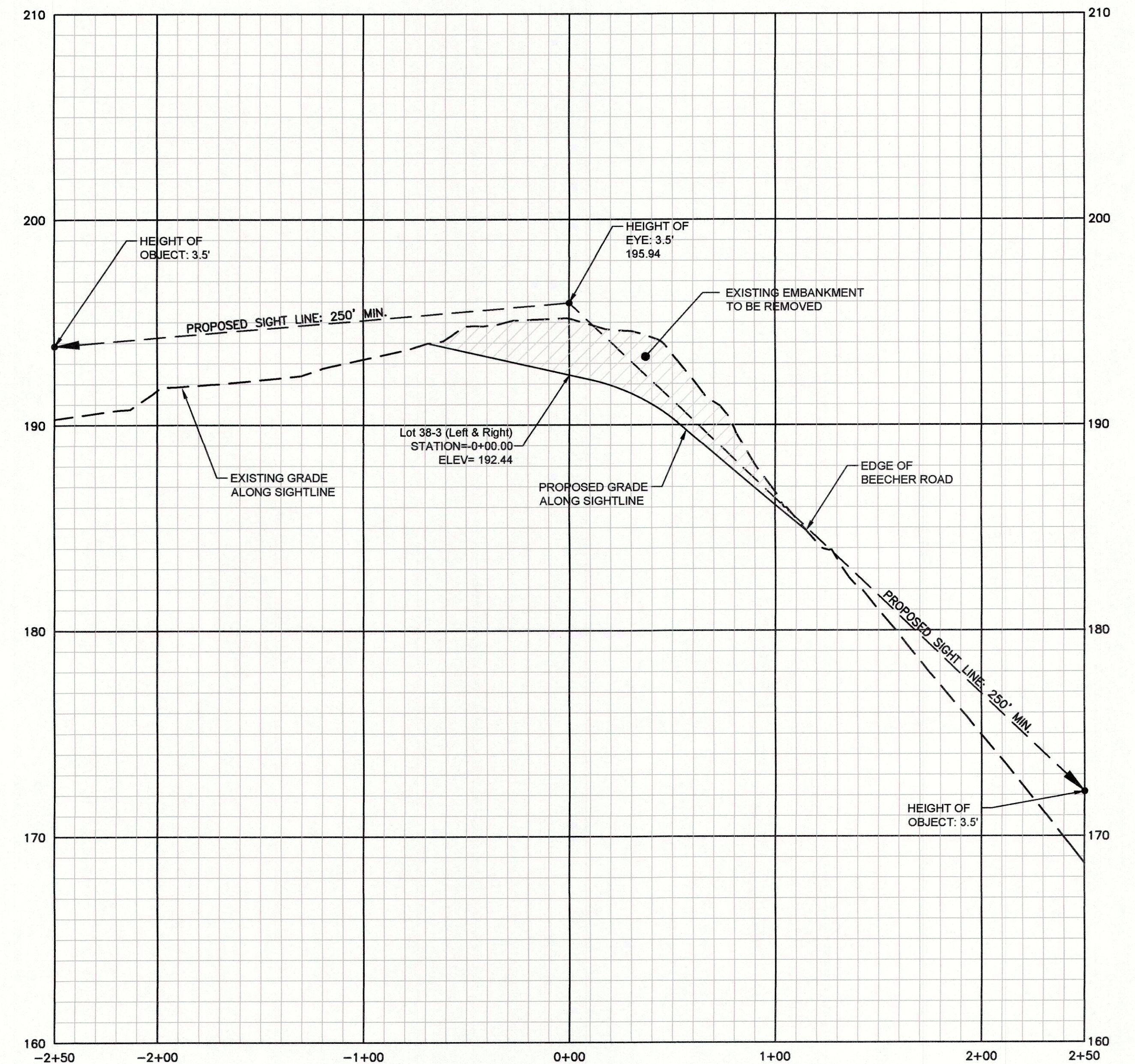
Project No.
CLA-6382
Proj. Engineer
D.H.
Date:
03/18/20
Sheet No.
5



SCALE: 1"=40'



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



Driveway Lot 38-3 (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

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

5	06/06/20	VARIOUS MODIFICATIONS
4	07/08/20	SHEET NO. CHANGES
3	06/16/20	VARIOUS MODIFICATIONS
2	06/16/20	WETLAND FLAGS ADDED
1	06/01/20	VARIOUS MODIFICATIONS
No.	DATE	REVISION



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.

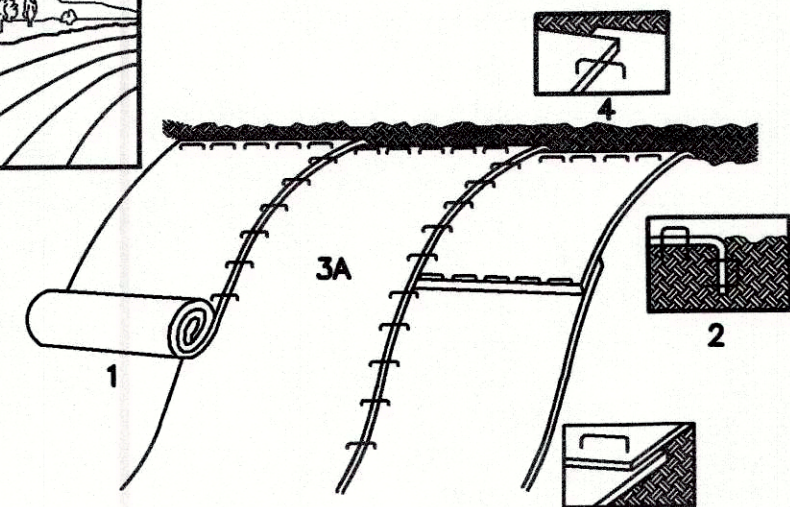
6

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

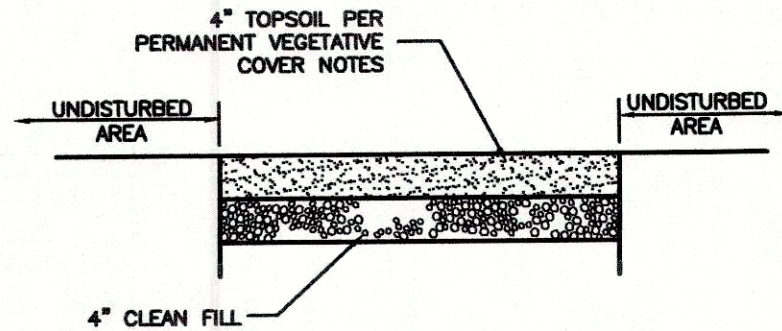
- * 100 LF OF SILT FENCE
- * 10 HAY BALES
- * 10 CY OF WOOD CHIPS OR CRUSHED STONE



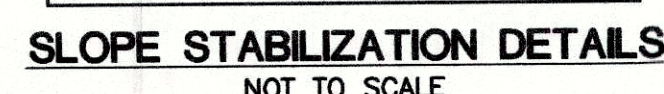
1. PROVIDE 4" THICKNESS OF TOPSOIL OVER CLEAN FILL. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED MIX PER PERMANENT VEGETATIVE COVER NOTES. (SHALL BE PAID FOR AT THE UNIT PRICE FOR LOAM, SEED, FERTILIZER & MULCH)
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING 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 BROWNE 012525M 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

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 CLEAR 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:

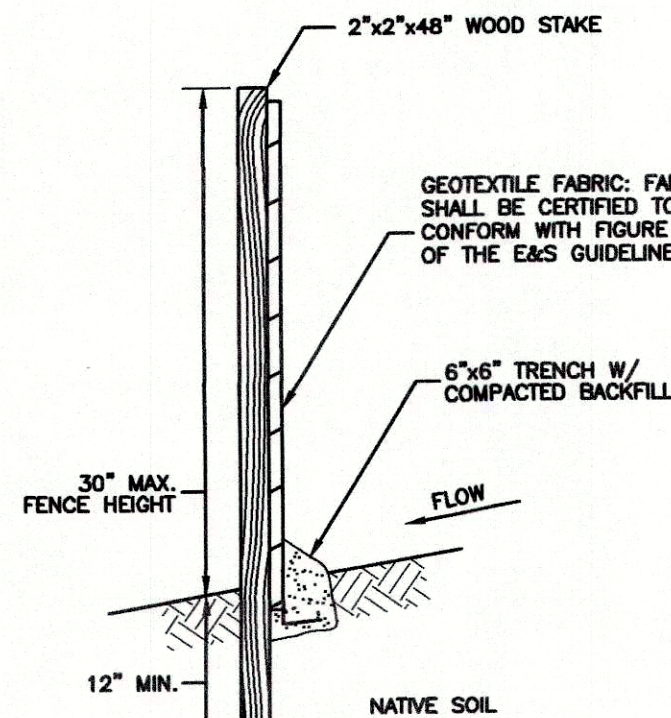
TYPICAL SEED MIXTURE

ALL DISTURBED AREAS

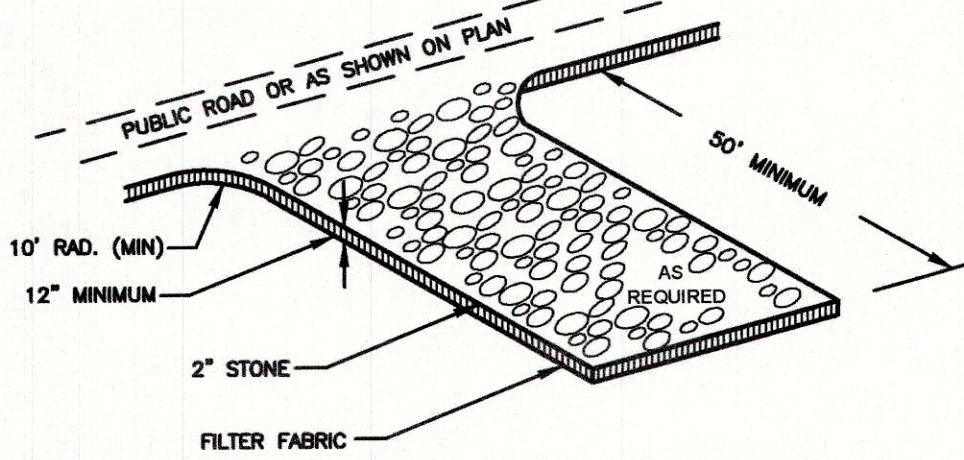
KENTUCKY BLUEGRASS
CREEPING RED FESCUE
PERENNIAL RYEGRASS

LBS./ACRE
20
20
5
45

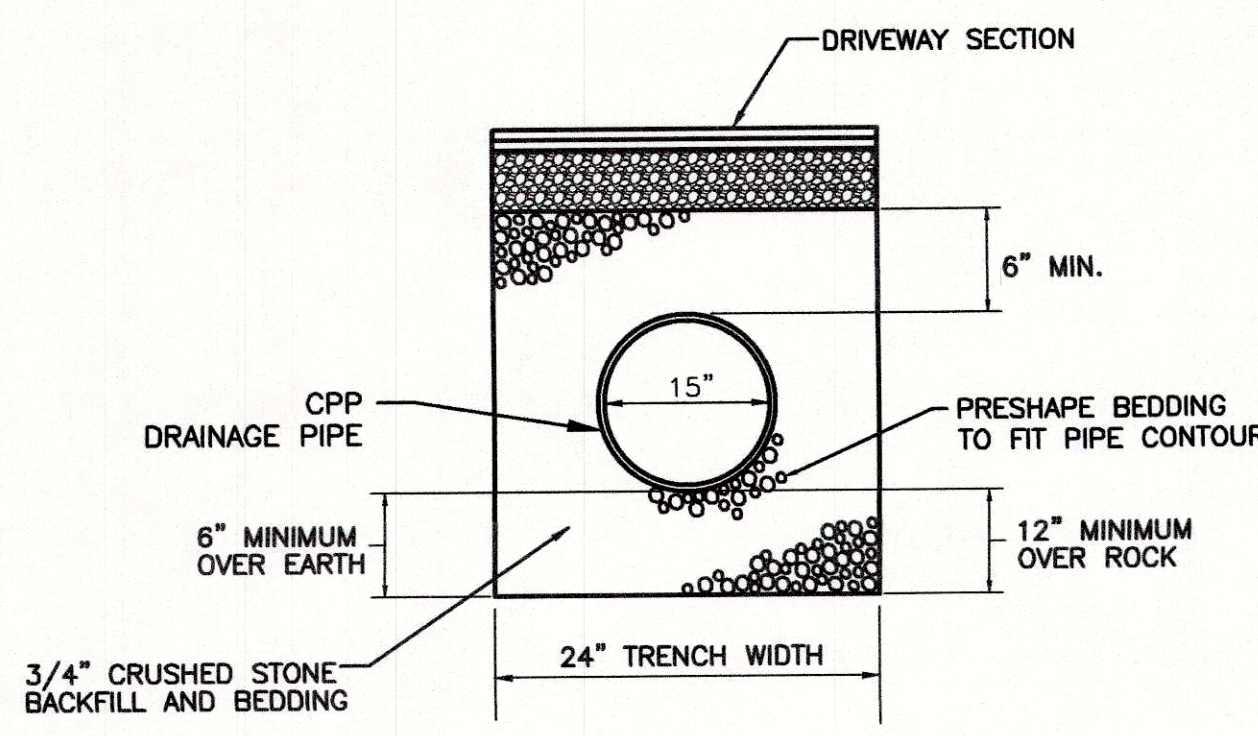
LBS./1000 S.F.
0.45
0.45
0.10
1.00



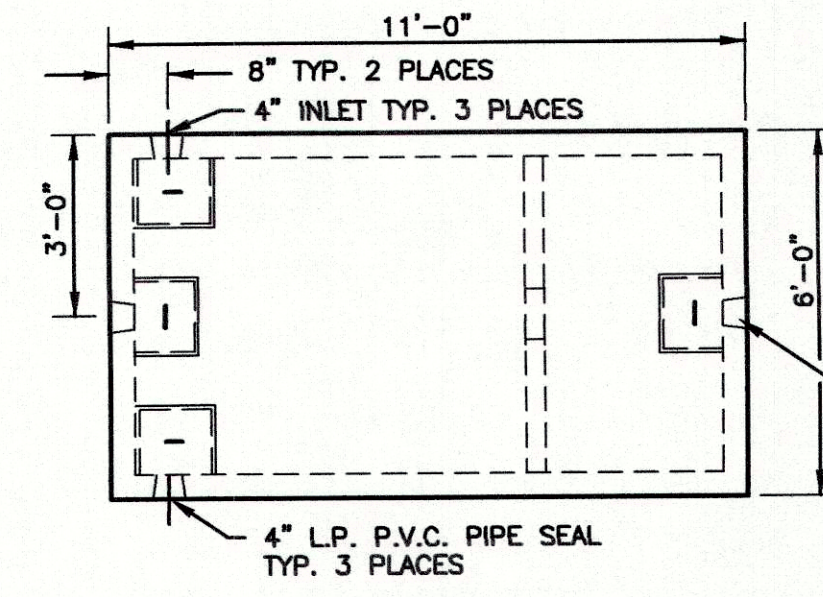
SILT FENCE SECTION
NOT TO SCALE



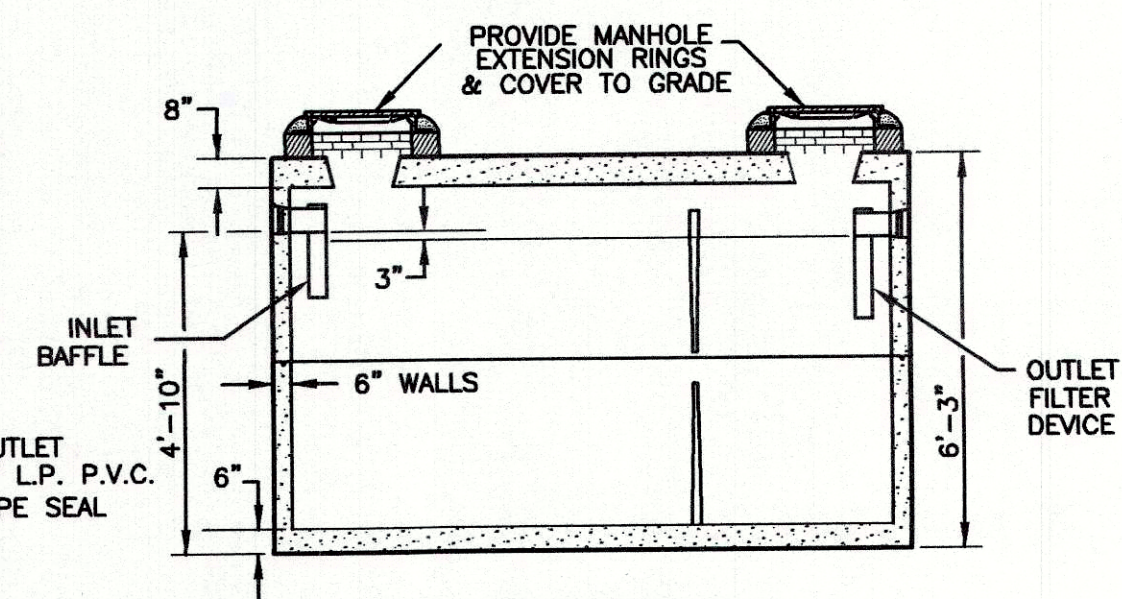
ANTI-TRACKING PAD DETAIL
NOT TO SCALE



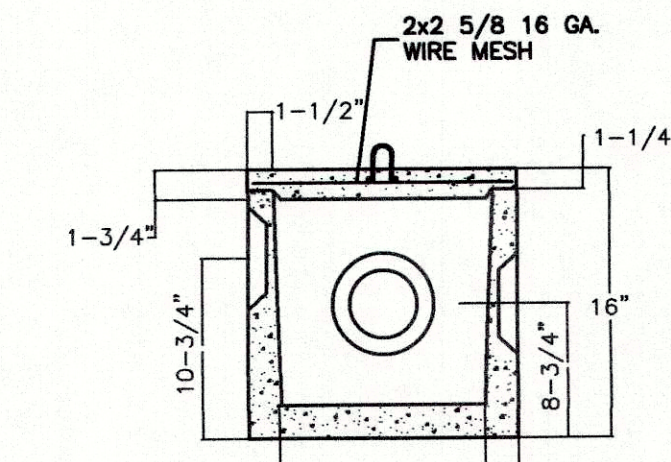
DRAINAGE PIPE BEDDING DETAIL
NOT TO SCALE



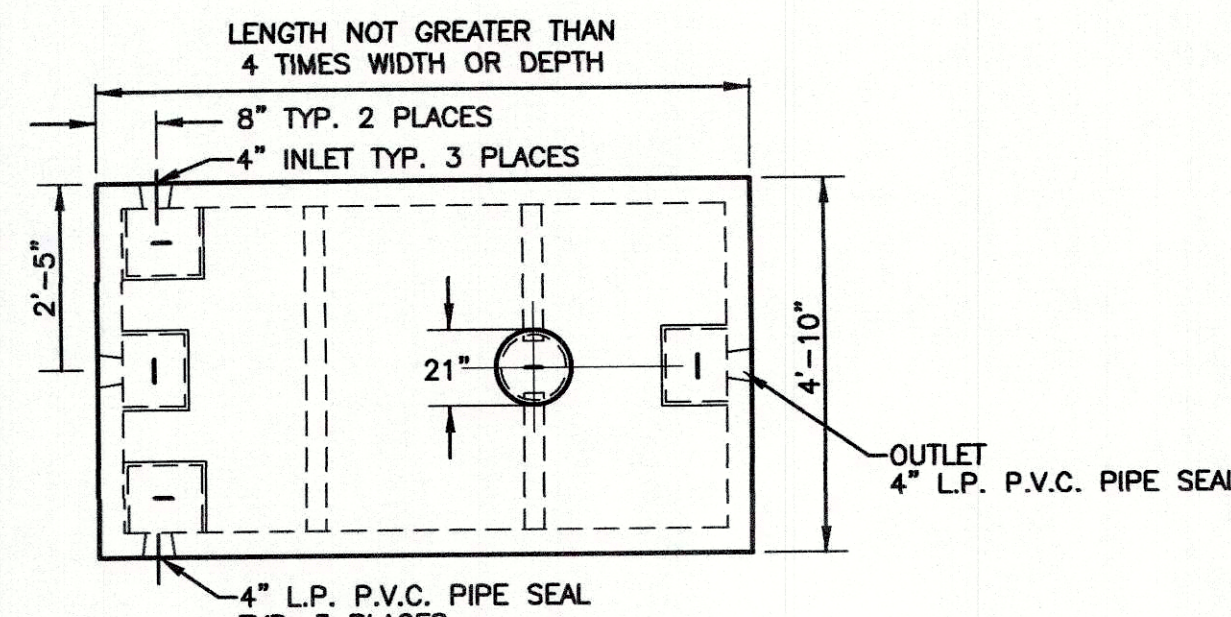
1500 GALLON SEPTIC TANK
NOT TO SCALE



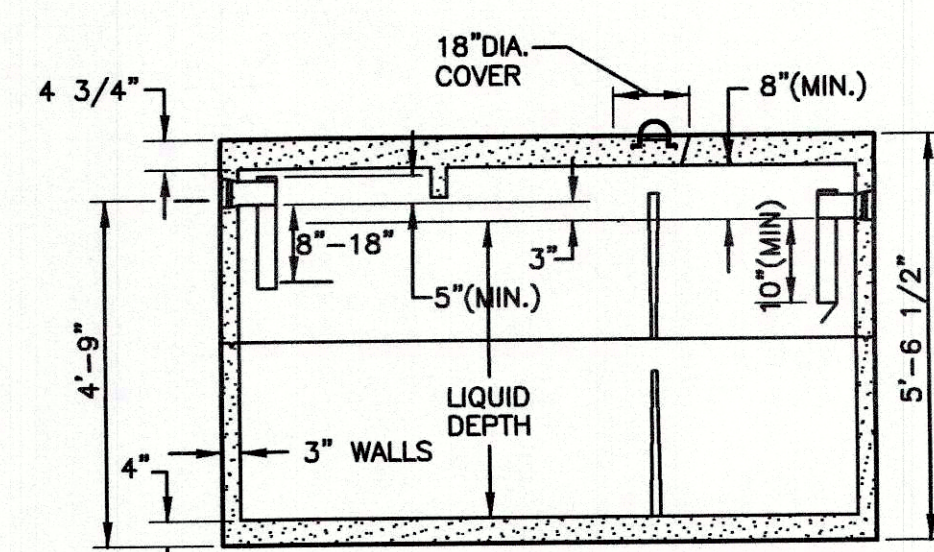
CROSS SECTION VIEW



STANDARD D-BOX
NOT TO SCALE

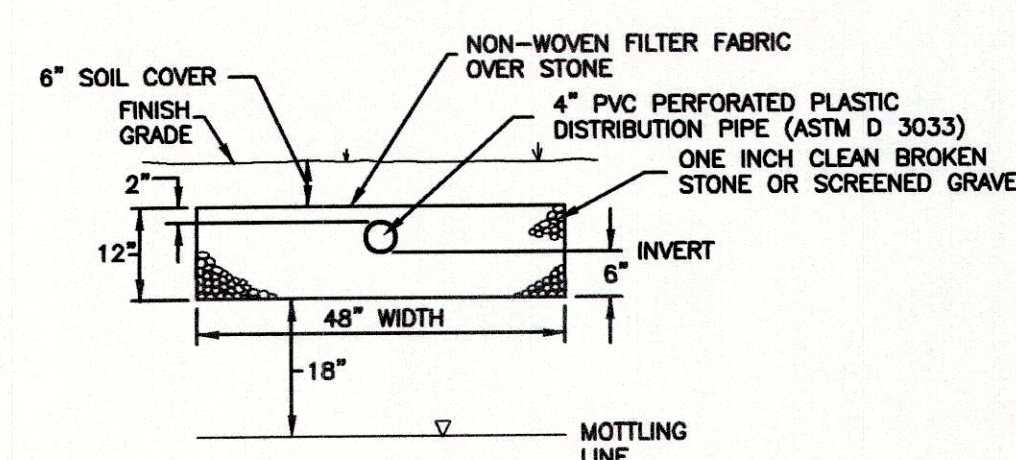


PLAN VIEW

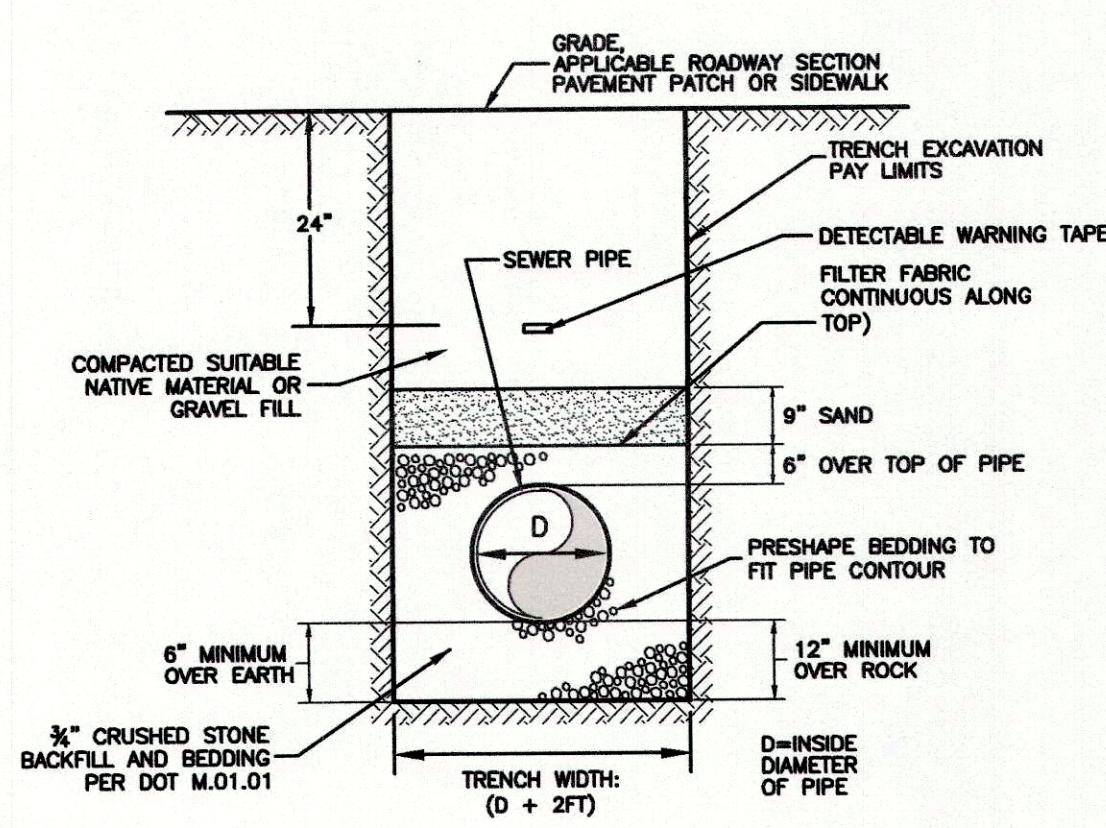


CROSS SECTION VIEW

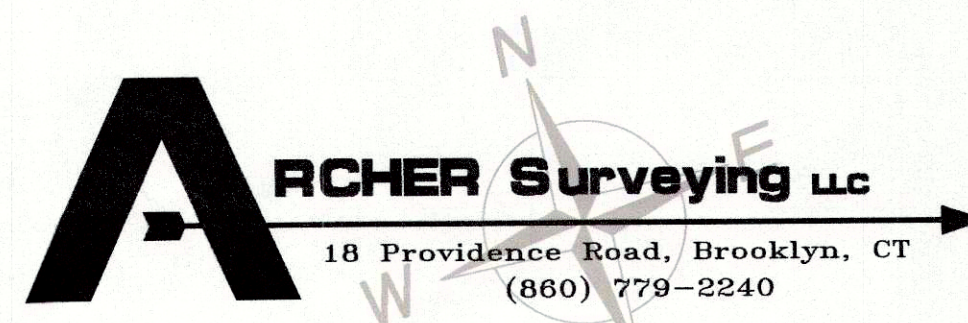
1000 GALLON SEPTIC TANK
NOT TO SCALE



12" x 48" LEACHING TRENCH
NOT TO SCALE

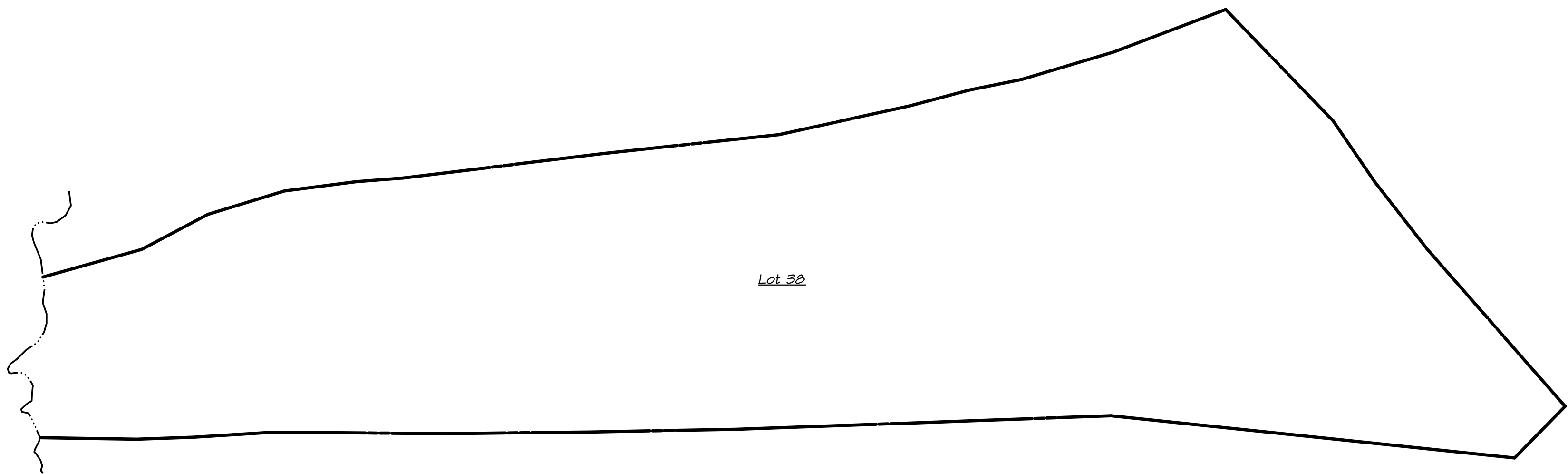


TRENCH DETAIL: SANITARY SEWER PIPE
NOT TO SCALE

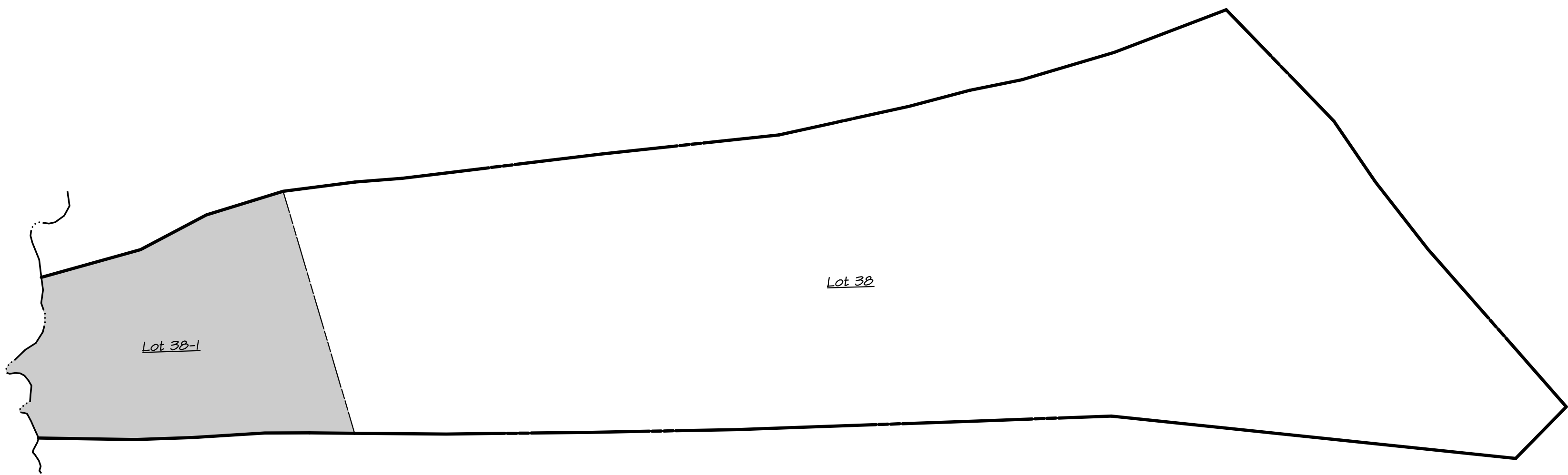


5	06/06/20	VARIOUS MODIFICATIONS	CLA Engineers, Inc. CIVIL • STRUCTURAL • SURVEYING 317 Main Street Norwich, CT 06360 (860) 886-1966 Fax (860) 886-9165	Project No. CLA-6382 Proj. Engineer D.H. Date: 03/18/20 Sheet No. 7
4	07/06/20	SHEET NO. CHANGES		
3	06/16/20	VARIOUS MODIFICATIONS		
2	06/16/20	WETLAND PLUGS ADDED		
1	06/01/20	VARIOUS MODIFICATIONS		
No.	DATE	REVISION	VBL PROPERTIES LLC	
			PROPOSED 5 LOT SUBDIVISION BEECHER ROAD & RUKSTELLA ROAD BROOKLYN CT	
			CONSTRUCTION DETAILS	

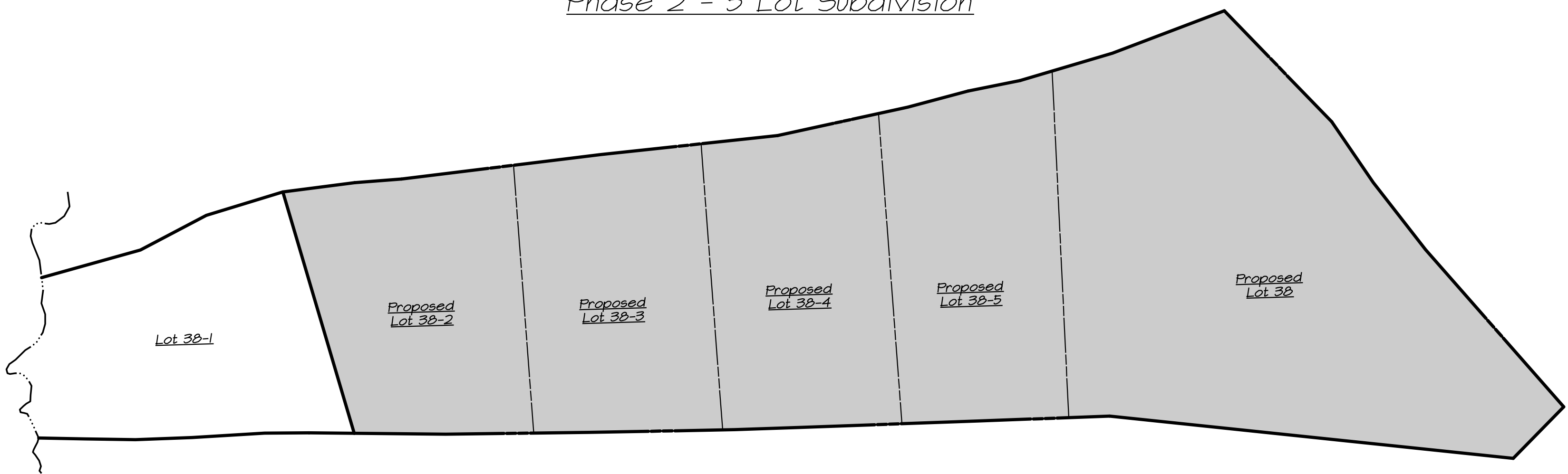
Original Tract



Phase I - Free Split



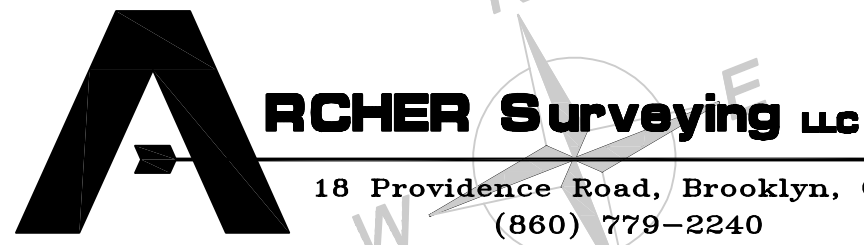
Phase 2 - 5 Lot Subdivision

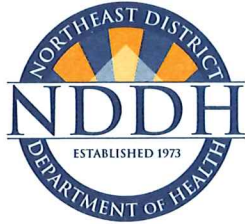


Grantor	Grantee	Date	Vol. / Pg.
	Paul Ashworth	September 1992	129 / 87
Paul Ashworth	Bruce Ashworth & Judith Mullaney	September 1993	142 / 211
Bruce Ashworth & Judith Mullaney	Judith Mullaney Trust	January 1999	204 / 263
Judith Mullaney Trust	VBL Properties LLC	October 2016	583 / 259

History Plan
"Proposed 5 Lot Subdivision"

Prepared For:
VBL Properties LLC
Beecher Road
Brooklyn, Connecticut





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 23, 2020

VBL Properties, LLC
8 Finn Lane
Plainfield, CT 06374

SUBJECT: FILE #18000188 -- BEECHER ROAD #, MAP #22, LOT #38, BROOKLYN, CT

Dear VBL Properties, LLC:

Upon review of the subdivision plan (CLA ENGINEERS INC, VBL PROPERTIES, PROJ#CLA-6382, DRAWN 03/18/2020, REVISED 06/19/2020) submitted to this office on 06/29/2020 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. Lots # 38, 38-2, 38-3 & 38-5 require that a Professional Engineer design and submit individual plot plan(s) for review and approval prior to construction.
2. Lots # 38-4 require surveyor's plot plan(s) to be submitted for review and approval prior to construction.
3. Proposed lots # 38 is based on a 4 bedroom multi-family home at the location tested. If the number of bedrooms are increased, septic system sizes will require an increase per the Technical Standards.
4. Proposed lots # 38-2, 38-3, 38-4, & 38-5 are based on 3 bedroom homes at the locations tested. If the number of bedrooms are increased, septic system sizes will require an increase per the Technical Standards.
5. Additional soil testing will be required in the area of the proposed primary septic system on Lot # 38 for verification of soil conditions at the time of septic system design. 4 bedroom multi-family home will require a 1500 gallon septic tank.

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