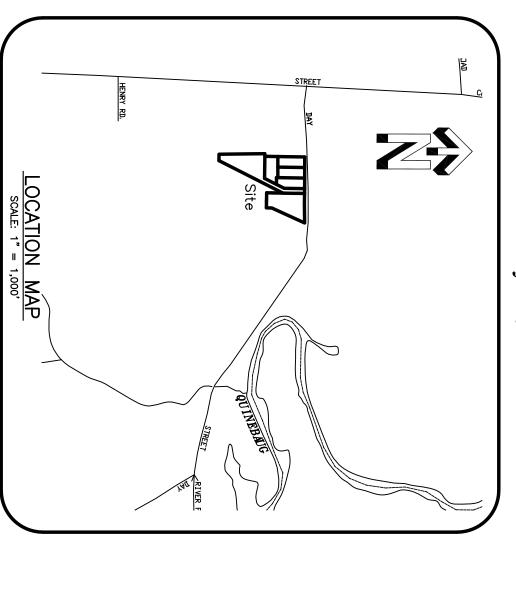
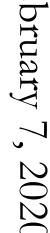
PREPARED FOR

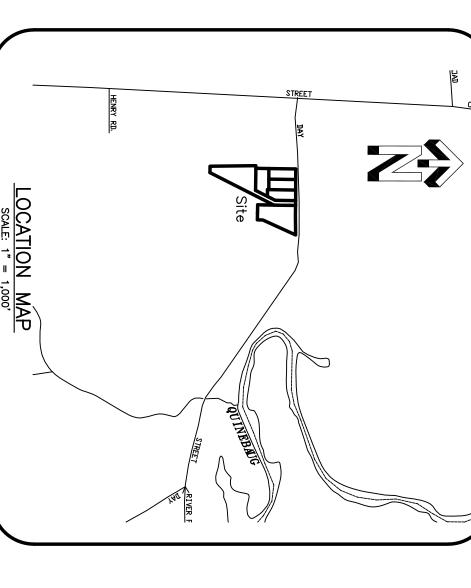
effrey Weaver

Brooklyn, Connecticut Day Street

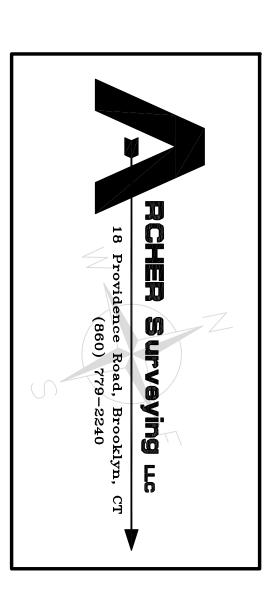
February 7, 2020







PREPARED BY



Provost & Rovero, Inc. Civil Engineering • Surveying • Site Planning Structural • Mechanical • Architectural Engineering

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

CHAIRMAN

Expiration date per s
General Statutes.

DATE

Pr section 8.26C of the Connecticut

Date:

Certified Soil Scientist

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.

CHAIRMAN

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

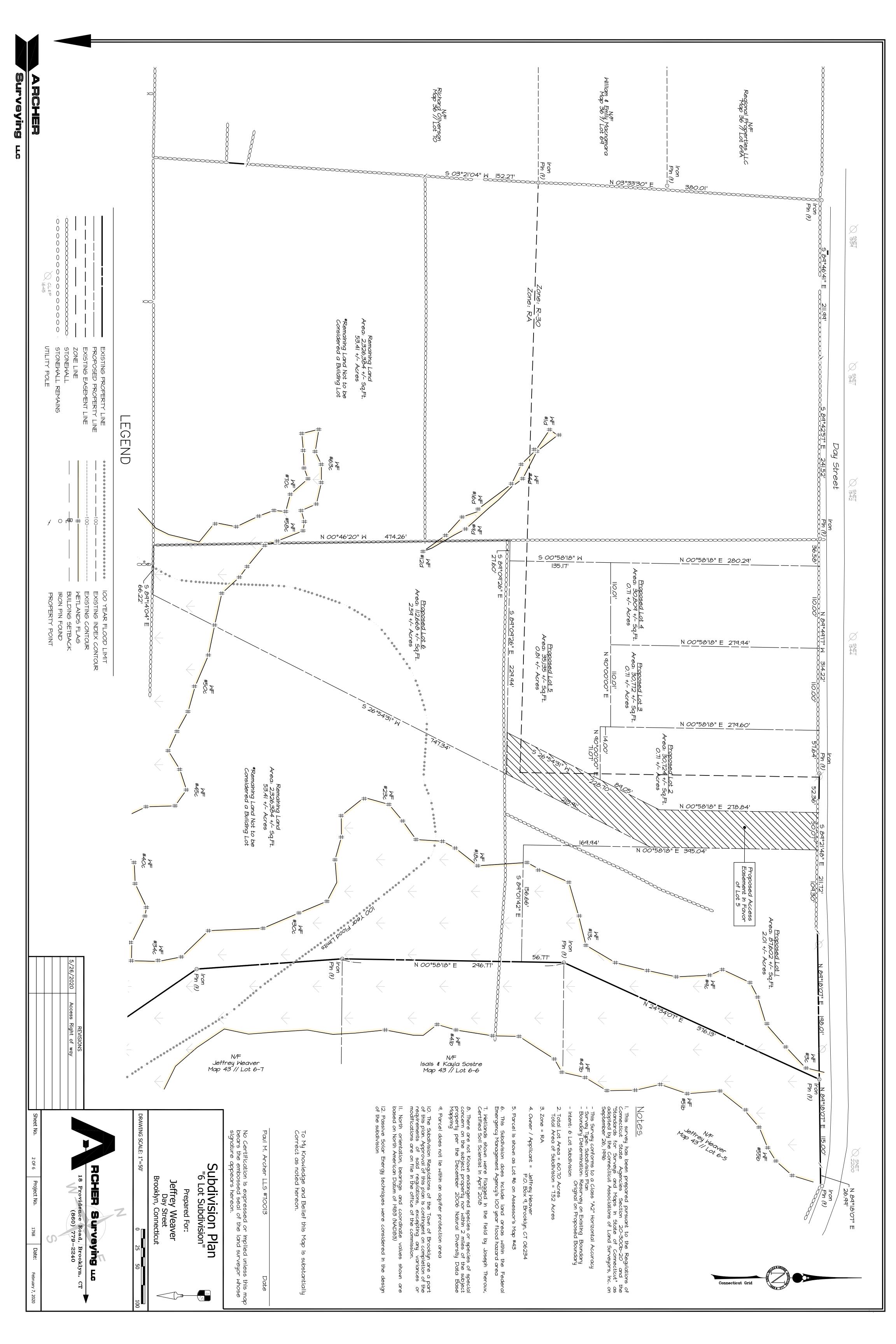
Date:

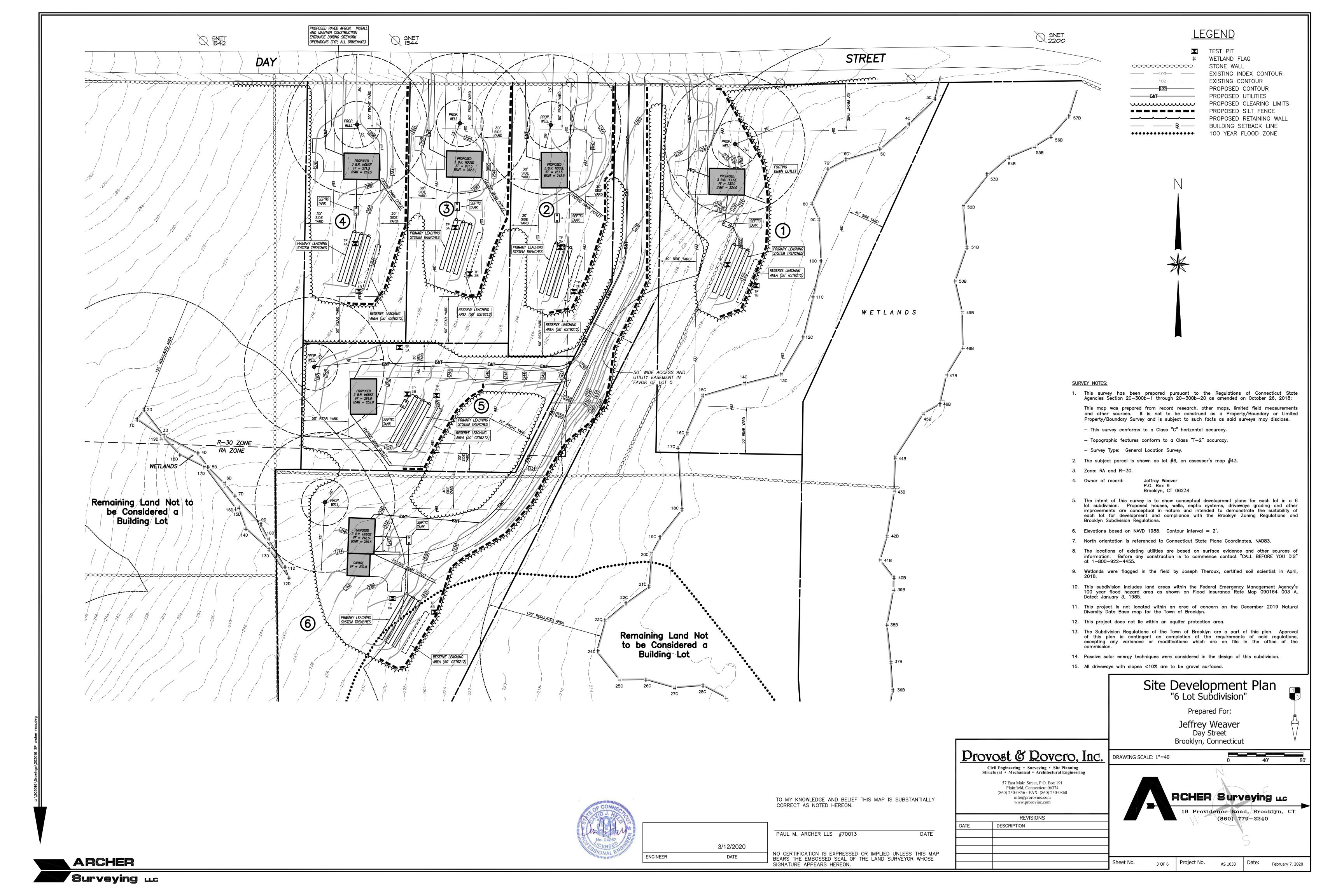
APPROVED BY THE BROOKLYN INLAND WETLANDS COMMISSION

APPROVED BY THE BROOKLYN PLANNING AND ZONING COMMISSION

COVER SHEET SUBDIVISION SITE DEVELOPMENT PLAN DETAIL SHEET #1 DETAIL SHEET #2 HISTORY & PARCEL MAP	INDEX OF DRAWINGS
\$2 \$2 \$2 \$2 \$2 \$2 \$2 \$2 \$2 \$2 \$2 \$2 \$2 \$	

-----유유유유유 $\sigma\sigma\sigma\sigma\sigma\sigma\sigma$





EROSION AND SEDIMENT CONTROL PLAN:

REFERENCE IS MADE TO:

Connecticut Guidelines for Soil Erosion and Sediment Control 2002 (2002 Guidelines).

2. Soil Survey of Connecticut, N.R.C.S.

<u>DEVELOPMENT SCHEDULE: (Individual Lots):</u>

- Prior to any work on site, the limits of disturbance shall be clearly flagged in the field by a Land Surveyor, licensed in the State of Connecticut. Once the limits of clearing are flagged, they shall be reviewed and approved by an agent of the Town.
- Install and maintain erosion and sedimentation control devices as shown on these plans. All erosion control devices shall be inspected by an agent of the Town. Any additional erosion control devices required by the Town's Agent shall be installed and inspected prior to any construction on site. (See silt fence installation notes.)
- Install construction entrance.
- Construction will begin with clearing, grubbing and rough grading of the proposed site. The work will be confined to areas adjacent to the proposed building, septic system and driveway. Topsoil will be stockpiled on site and utilized during final grading.
- Begin construction of the house, septic system and well.
- . Disturbed areas shall be seeded and stabilized as soon as possible to prevent erosion.
- The site will be graded so that all possible trees on site will be saved to provide buffers to

DEVELOPMENT CONTROL PLAN:

- Development of the site will be performed by the individual lot owner, who will be responsible for the installation and maintenance of erosion and sediment control measures required throughout construction.
- The sedimentation control mechanisms shall remain in place from start of construction until permanent vegetation has been established. The representative for the Town of Brooklyn will be notified when sediment and erosion control structures are initially in place. Any additional soil & erosion control measures requested by the Town or its agent, shall be installed immediately. Once the proposed development, seeding and planting have been completed, the representative shall again be notified to inspect the site. The control measures will not be removed until this inspection is complete.
- All stripping is to be confined to the immediate construction area. Topsoil shall be stockpiled so that slopes do not exceed 2 to 1. A hay bale sediment barrier is to surround each stockpile and a temporary vegetative cover shall be provided.
- Dust control will be accomplished by spraying with water and if necessary, the application
- The proposed planting schedule is to be adhered to during the planting of disturbed areas throughout the proposed construction site.
- Final stabilization of the site is to follow the procedures outlined in "Permanent Vegetative Cover". If necessary a temporary vegetative cover is to be provided until a permanent

SILT FENCE INSTALLATION AND MAINTENANCE:

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

- the geotextile has decomposed or been damaged.

HAY BALE INSTALLATION AND MAINTENANCE:

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

the hay bales have deteriorated or been damaged. **TEMPORARY VEGETATIVE COVER:**

SEED SELECTION

Grass species shall be appropriate for the season and site conditions. Appropriate species are

outlined in Figure TS-2 in the 2002 Guidelines.

TIMING CONSIDERATIONS

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

SITE PREPARATION

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

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

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

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

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

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

MAINTENANCE

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

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

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

PERMANENT VEGETATIVE COVER:

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

- Topsoil will be replaced once the excavation and grading has been completed. Topsoil will be spread at a minimum compacted depth of 4".
- 2. Once the topsoil has been spread, all stones 24" or larger in any dimension will be
- Apply agricultural ground limestone at a rate of 2 tons per acre or 100 lbs. per 1000 s.f. Apply 10-10-10 fertilizer or equivalent at a rate of 300 lbs. per acre or 7.5 lbs. per 1000 s.f. Work lime and fertilizer into the soil to a depth of 4".
- 4. Inspect seedbed before seeding. If traffic has compacted the soil, retill compacted areas. Apply the chosen grass seed mix. The recommended seeding dates are: April 1 to June 15
- 6. Following seeding, firm seedbed with a roller. Mulch immediately following seeding. If a permanent vegetative stand cannot be established by September 30, apply a temporary cover on the topsoil such as netting, mat or organic mulch.

EROSION AND SEDIMENT CONTROL NARRATIVE:

& August 15 — October 1.

PRINCIPLES OF EROSION AND SEDIMENT CONTROL

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

KEEP LAND DISTURBANCE TO A MINIMUM

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

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

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

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

KEEP CLEAN RUNOFF SEPARATED

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

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

REDUCE ON SITE POTENTIAL INTERNALLY AND INSTALL PERIMETER CONTROLS

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

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

DEEP TEST PIT DATA / SOIL DESCRIPTIONS

PERFORMED BY: Sherry McGann

WITNESSED BY: Northeast District Department of Health DATE: 1/27/202

TEST PIT: 1A TEST PIT: 1B					
32" - 69" GR C Med	oil Fine Sandy Loam ompact Gravelly Loamy Sand Ind Water	0" - 11" 11" - 20" 20" - 36" 36" - 82"		andy Loam Coarse Sand Vater	
MOTTLES:	32"	MOTTLES	S:	34"	
GROUNDWATER	: 69"	GROUND	WATER:	36"	
LEDGE:	NO	LEDGE:		NO	
ROOTS:	26"	ROOTS:		20"	
RESTRICTIVE:	NO	RESTRIC	TIVE:	NO	

- 6" Topsoil

GROUNDWATER:

LEDGE:

ROOTS:

3/12/2020

RESTRICTIVE:

6" - 24" OB Fine Sandy Loam

24" - 40" TN Med Loamy Sand

40" - 98" GR/TN Mod. Compact Gravelly

Stones, Boulders

Loamy Fine Sand w/ Cobbles,

NO

36"

NO

TEST PIT: 2A	TEST PIT: 2B
0" - 6" Topsoil 6" - 21" RB/OB Fine Sandy Loam 21" - 42" TN Med Loamy Sand 42" - 88" GR Mod. Compact Gravelly Loamy Med Sand	0" - 6" Topsoil 6" - 22" RB/OB Fine Sandy Loam 22" - 40" TN Med Loamy Sand 40" - 96" GR Mod Compact Gravelly Loamy Med Sand
MOTTLES: 42"	MOTTLES: 40"
GROUNDWATER: NO	GROUNDWATER: NO
LEDGE: NO	LEDGE: NO
ROOTS: 33"	ROOTS: 36"
RESTRICTIVE: NO	RESTRICTIVE: NO

TEST PIT: 3A	TEST PIT: 3B
0" - 4" Topsoil 4" - 23" OB Fine Sandy Loam 23" - 36" TN Fine Loamy Sand 36" - 96" TN/GR Mod Compact Gravelly Loamy Med Sand	0" - 5" Topsoil 5" - 11" OB Fine Sandy Loam 11" - 40" TN Fine-Med Loamy Sand 40" - 96" GR Mod Compact Gravelly Loamy Med Sand
MOTTLES: 36"	MOTTLES: 40"
GROUNDWATER: NO	GROUNDWATER: NO
LEDGE: NO	LEDGE: NO
ROOTS: 26"	ROOTS: 25"
RESTRICTIVE: NO	RESTRICTIVE: NO

TEST PIT: 4A	TEST PIT: 4B
0" - 10" Topsoil 10" - 21" RB Fine Sandy Loam 21" - 31" TN Fine Loamy Sand 31" - 90" GR Compact Gravelly Loamy Fine Sand	0" - 7" Topsoil 7" - 17" RB Fine Sandy Loam 17" - 32" TN Fine Loamy Sand 32" - 96" GR/TN Compact Gravelly Loamy Med Sand
MOTTLES: 31"	MOTTLES: 32"
GROUNDWATER: NO	GROUNDWATER: NO
LEDGE: NO	LEDGE: NO
ROOTS: 31"	ROOTS: 28"
RESTRICTIVE: NO	RESTRICTIVE: NO
·	

TEST PIT: 5A	TEST PIT: 5B	
0" - 7" Topsoil 7" - 36" OB Fine Sandy Loam 36" - 52" TN Fine Loamy Sand	0" - 8" Topsoil 8" - 36" OB/TN Fine Sandy Loam 36" - 96" GR/TN Mod.Compact Gravell Loamy Sand	
MOTTLES: 32"	MOTTLES: 36"	
GROUNDWATER: NO	GROUNDWATER: NO	
LEDGE: 52"	LEDGE: NO	
ROOTS: 29"	ROOTS: 30"	
RESTRICTIVE: NO	RESTRICTIVE: NO	
<u> </u>	-	

EST PIT: 6A	TEST PIT: 6B
' - 7" Topsoil ' - 32" RB Fine Sandy Loam 2" - 80" GR Compact Gravelly Loamy ed Sand w/ Cobbles, Stones	0" - 6" Topsoil 6" - 34" RB/OB Fine Sandy Loam 34" - 51" GR Compact Gravelly Loamy Fine Sand
MOTTLES: 32"	MOTTLES: 34"
GROUNDWATER: NO	GROUNDWATER: NO
EDGE: 52"	LEDGE: 51"
ROOTS: 30"	ROOTS: 34"
RESTRICTIVE: NO	RESTRICTIVE: NO
	<u> </u>

TIME	Drop (Inches)		TIME	Drop (Inches)
11:13 11:23	3.0 12.0		11:55 12:05	4.5 13.5
11:33 11:43	16.0 19.0		12:15 12:25	16.0 18.0
11:52	20.0 Dry			
PERCOLATION RATE > 9 MIN./IN.			PERCOLATION RATE > 5 MIN./IN. NOTES:	
NOTES: PERCOLATION TEST PERFORMED ON 1/27/2020			PERCOLATION TEST PERFORMED ON 1/27/2020	
PERFORMED BY Terre Hendricks PERFORMED BY Terre Hendricks				
PERCOLATION DATA PERCOLATION DATA				
PERCOLATION DATA PERCOLATION DATA PERCOLATION DATA PERCOLATION DATA PERCOLATION DATA				
i	1			1

PERCOLATION DATA

(Inches)

15.5

19.5

22.5 Dry

PERC 2 - DEPTH 21"

PERCOLATION RATE > 4 MIN./IN

PERCOLATION TEST PERFORMED

PERFORMED BY Terre Hendricks

PERCOLATION DATA

PERC 4 - DEPTH 20'

11:02

11:15

11:25

11:37

ON 1/27/2020

NOTES:

PERCOLATION DATA

4.0

14.0

18.5

21.0 Dry

PERC 1 - DEPTH 20"

PERCOLATION RATE > 4.4 MIN./

PERCOLATION TEST PERFORMED

PERFORMED BY Terre Hendricks

PERCOLATION DATA

PERC 3 - DEPTH 20"

10:23

10:33

10:43

10:54

ON 1/27/2020

PERCOLATION DATA PERC 5 - DEPTH 20"			PERCOLATION DATA PERC 6 - DEPTH 18"	
TIME	Drop (Inches)		TIME	Drop (Inches)
11:59 12:09 12:16	5.0 18.0 20.0 Dry		12:34 12:47 12:58 1:08	5.25 12.5 16.0 18.0
PERCOLATION	PERCOLATION RATE > 3.5 MIN./IN.		PERCOLATION	N RATE > 5 MIN./IN.
NOTES: PERCOLATION TEST PERFORMED ON 1/27/2020 PERFORMED BY Terre Hendricks			ON 1/27/2020	N TEST PERFORMED) BY Terre Hendricks

SEPTIC SYSTEM DESIGN CRITERIA

TP 1A & 1B Depth to restrictive layer = 32 in. Slope % = 9.5 %Number of Bedrooms = Percolation rate = 4.4 min/in Max. depth into exist. grade = 8 in. System Size = 495 s.f.

Hydraulic Factor = 24 Flow Factor = 1.50 Perc Factor = 1.00

 $24 \times 1.50 \times 1.00 = 36.0$ MLSS = 36.0'

TP 2A & 2B Depth to restrictive layer = 40 in. Slope % = 10.8 %Number of Bedrooms = 3Percolation rate = 4.0 min/in Max. depth into exist. grade = 16 in. System Size = 495 s.f.Hydraulic Factor = 18 Flow Factor = 1.50 Perc Factor = 1.00

 $18 \times 1.50 \times 1.00 = 27.0$ MLSS = 27.0

TP 3A & 3B Depth to restrictive layer = 36 in. Slope % = 11.4 %Number of Bedrooms = 3Percolation rate = 9.0 min/in Max. depth into exist. grade = 18 in.

System Size = 495 s.f. Hydraulic Factor = 20 Flow Factor = 1.50 Perc Factor = 1.00

 $20 \times 1.50 \times 1.00 = 30.0$

MLSS = 30.0

TP 4A & 4B Depth to restrictive layer = 31 in. Slope % = 8.3 %Number of Bedrooms = Percolation rate = 5.0 min/in Max. depth into exist. grade = 7 in. System Size = 495 s.f.

Hydraulic Factor = 24 Flow Factor = 1.50 Perc Factor = 1.00

> $24 \times 1.50 \times 1.00 = 36.0$ MLSS = 36.0

TP 5B & 5C Slope % = 12.9 %Number of Bedrooms = 3 Percolation rate = 3.5 min/in Max. depth into exist, arade = 8 in.

Hydraulic Factor = 20 Flow Factor = 1.50 Perc Factor = 1.00 $20 \times 1.50 \times 1.00 = 30.0$

MLSS = 30.0

TP 6A & 6B

Depth to restrictive layer = 32 in.

Max. depth into exist. grade = 8 in.

System Size = 495 s.f. Hydraulic Factor = 24 Flow Factor = 1.50

Slope % = 9.5 %

Number of Bedrooms = 3

Percolation rate = 5.0 min/in

Perc Factor = 1.00 $24 \times 1.50 \times 1.00 = 36.0$ MLSS = 36.0

> Detail Sheet No. 1 "6 Lot Subdivision"

Prepared For:

Jeffrey Weaver Day Street Brooklyn, Connecticut



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

REVISIONS DESCRIPTION

57 East Main Street, P.O. Box 191

RCHER Surveying LC 18 Providence Road, Brooklyn, CT (860) 779-2240

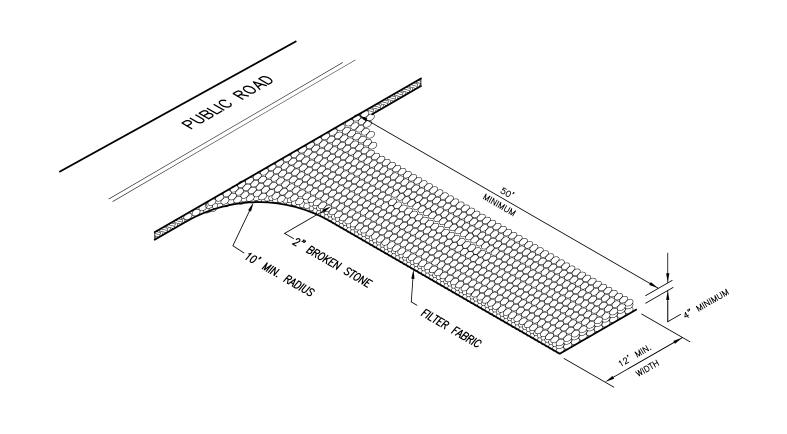
AS 1033 | Date: February 7, 2020

ARCHER

Surveying LLC

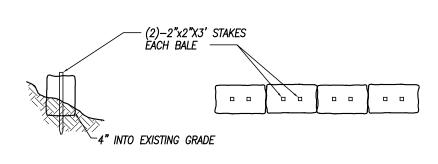
Sheet No.

_{4 OF 6} | Project No.

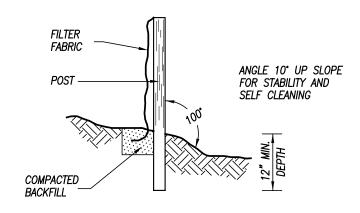


ANTI—TRACKING PAD

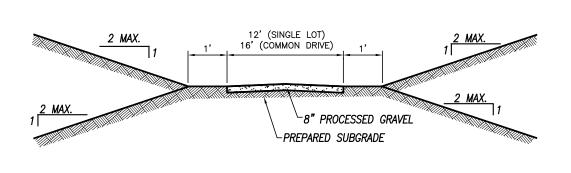
NOT TO SCALE



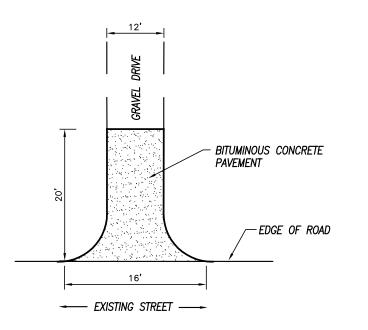
HAYBALE BARRIER NOT TO SCALE



SILT FENCE NOT TO SCALE



GRAVEL DRIVE DETAIL NOT TO SCALE



PAVED APRON SINGLE DRIVE

NOT TO SCALE



3/12/2020 DATE ENGINEER

Detail Sheet No. 2
"6 Lot Subdivision"

Prepared For:

Jeffrey Weaver Day Street Brooklyn, Connecticut

Provost & Rovero, Inc. DRAWING SCALE: AS SHOWN Civil Engineering • Surveying • Site Planning Structural • Mechanical • Architectural Engineering

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

	REVISIONS
DATE	DESCRIPTION

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

Sheet No.

5 OF 6 Project No. AS 1033 Date: February 7, 2020

ARCHER

