PROPOSED GRAVEL EXCAVATION

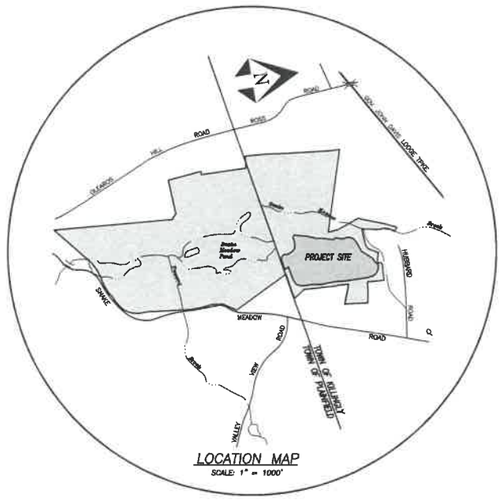
SNAKE MEADOW ROAD & HUBBARD ROAD
KILLINGLY, CONNECTICUT

PROPERTY OWNER:

SNAKE MEADOW CLUB, INCORPORATED

APPLICANT:

SNAKE MEADOW CLUB, INCORPORATED



LOCATION MAP
SCALE: 1" = 1000'

LEGEND

- IRON PIN OR PIPE FOUND
- DRILL HOLE FOUND
- DRILL HOLE SET
- STONE PILE
- WIRE FENCE REMAINS
- WETLAND FLAG
- TEST PIT
- EXISTING TREELINE
- STONE WALL
- STONE WALL REMAINS
- 100 EXISTING INDEX CONTOUR
- 102 EXISTING CONTOUR
- 100 PROPOSED CONTOUR
- PHASE LINE
- PROPOSED CLEARING LIMITS
- PROPOSED SILT FENCE
- PROPOSED STAKED HAYBALES
- LIMIT OF FLOOD ZONE "A"

INDEX TO DRAWINGS

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

REVISIONS	
DATE	DESCRIPTION
6/12/2020	P&Z COMMENTS
7/15/2020	P&Z COMMENTS

MARCH 20, 2020

APPROVED BY THE TOWN OF KILLINGLY PLANNING AND ZONING COMMISSION
Special Permit No: _____
Applicant: _____
Date Approved: _____
Chairman: _____
Date: _____

APPROVED BY THE TOWN OF KILLINGLY INLAND WETLANDS COMMISSION

CHAIRMAN DATE

ANY CHANGES TO THESE PLANS WITHIN 200' OF WETLANDS OR WATERCOURSES MUST BE RESUBMITTED TO THE KILLINGLY INLAND WETLANDS AND WATERCOURSES COMMISSION FOR ITS APPROVAL.

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ENGINEER DATE

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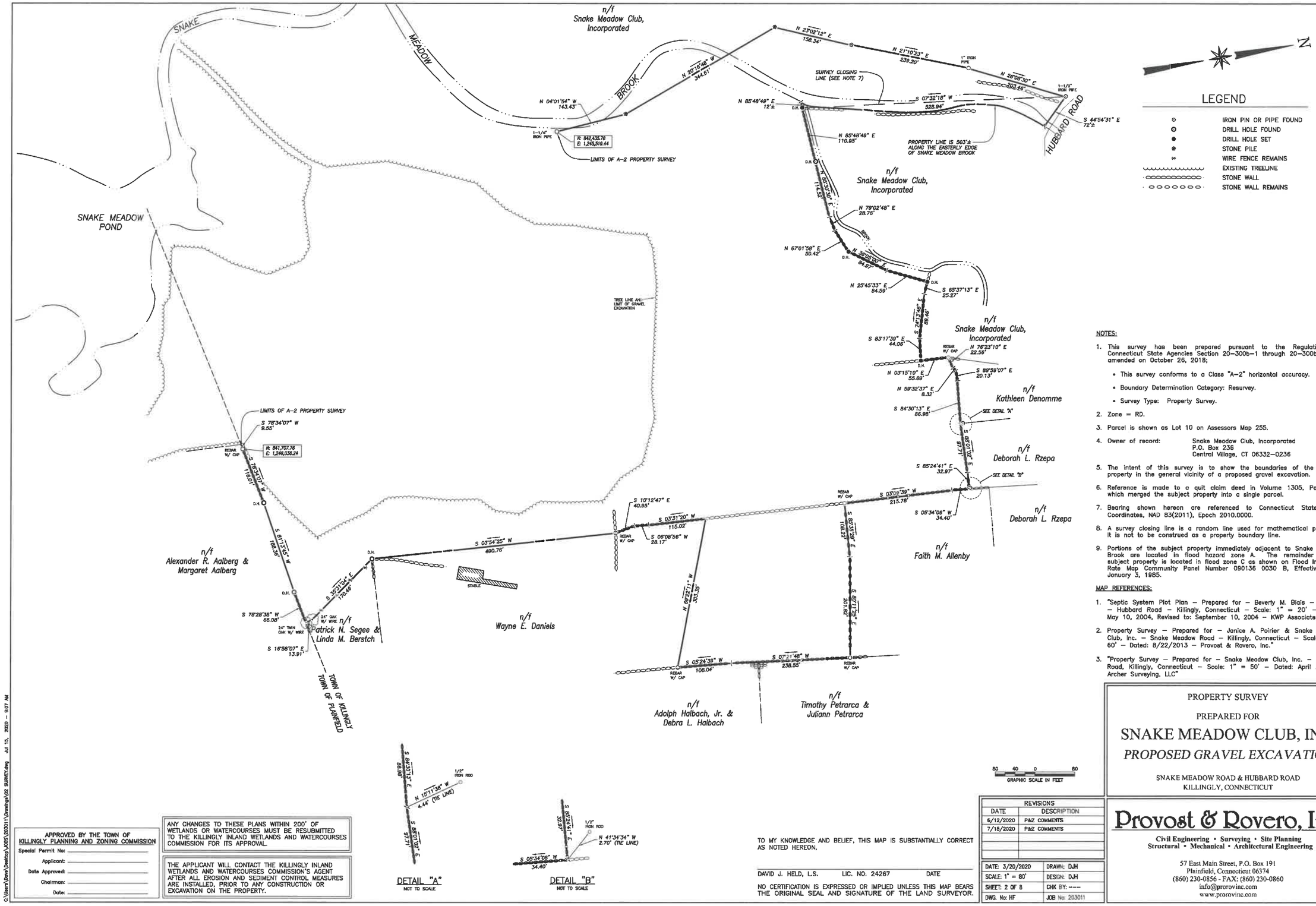

NOTES:

1. This survey has been prepared pursuant to the Regulations of Connecticut State Agencies Section 20-300b-1 through 20-300b-20 as amended on October 26, 2018;
   - This survey conforms to a Class "A-2" horizontal accuracy.
   - Boundary Determination Category: Resurvey.
   - Survey Type: Property Survey.
2. Zone = RD.
3. Parcel is shown as Lot 10 on Assessors Map 255.
4. Owner of record: Snake Meadow Club, Incorporated
   P.O. Box 236
   Central Village, CT 06332-0236
5. The intent of this survey is to show the boundaries of the subject property in the general vicinity of a proposed gravel excavation.
6. Reference is made to a quit claim deed in Volume 1305, Page 647 which merged the subject property into a single parcel.
7. Bearing shown hereon are referenced to Connecticut State Plane Coordinates, NAD 83(2011), Epoch 2010.0000.
8. A survey closing line is a random line used for mathematical purposes. It is not to be construed as a property boundary line.
9. Portions of the subject property immediately adjacent to Snake Meadow Brook are located in flood hazard zone A. The remainder of the subject property is located in flood zone C as shown on Flood Insurance Rate Map Community Panel Number 090136 0030 B, Effective Date: January 3, 1985.

MAP REFERENCES:

1. "Septic System Plot Plan – Prepared for – Beverly M. Blais – Lot #7 – Hubbard Road – Killingly, Connecticut – Scale: 1" = 20' – Dated: May 10, 2004, Revised to: September 10, 2004 – KWP Associates"
2. Property Survey – Prepared for – Janice A. Poirier & Snake Meadow Club, Inc. – Snake Meadow Road – Killingly, Connecticut – Scale: 1" = 60' – Dated: 8/22/2013 – Provost & Rovero, Inc."
3. "Property Survey – Prepared for – Snake Meadow Club, Inc. – Hubbard Road, Killingly, Connecticut – Scale: 1" = 50' – Dated: April 2015 – Archer Surveying, LLC"

APPROVED BY THE TOWN OF KILLINGLY PLANNING AND ZONING COMMISSION

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

DAVID J. HELD, L.S. LIC. NO. 24267 DATE

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

REVISIONS	
DATE	DESCRIPTION
6/12/2020	P&Z COMMENTS
7/15/2020	P&Z COMMENTS

DATE: 3/20/2020	DRAWN: DJH
SCALE: 1" = 80'	DESIGN: DJH
SHEET: 2 OF 8	CHK BY: ----
DWG. No: HF	JOB No: 203011

PROPERTY SURVEY

PREPARED FOR

SNAKE MEADOW CLUB, INC.

PROPOSED GRAVEL EXCAVATION

SNAKE MEADOW ROAD & HUBBARD ROAD
KILLINGLY, CONNECTICUT

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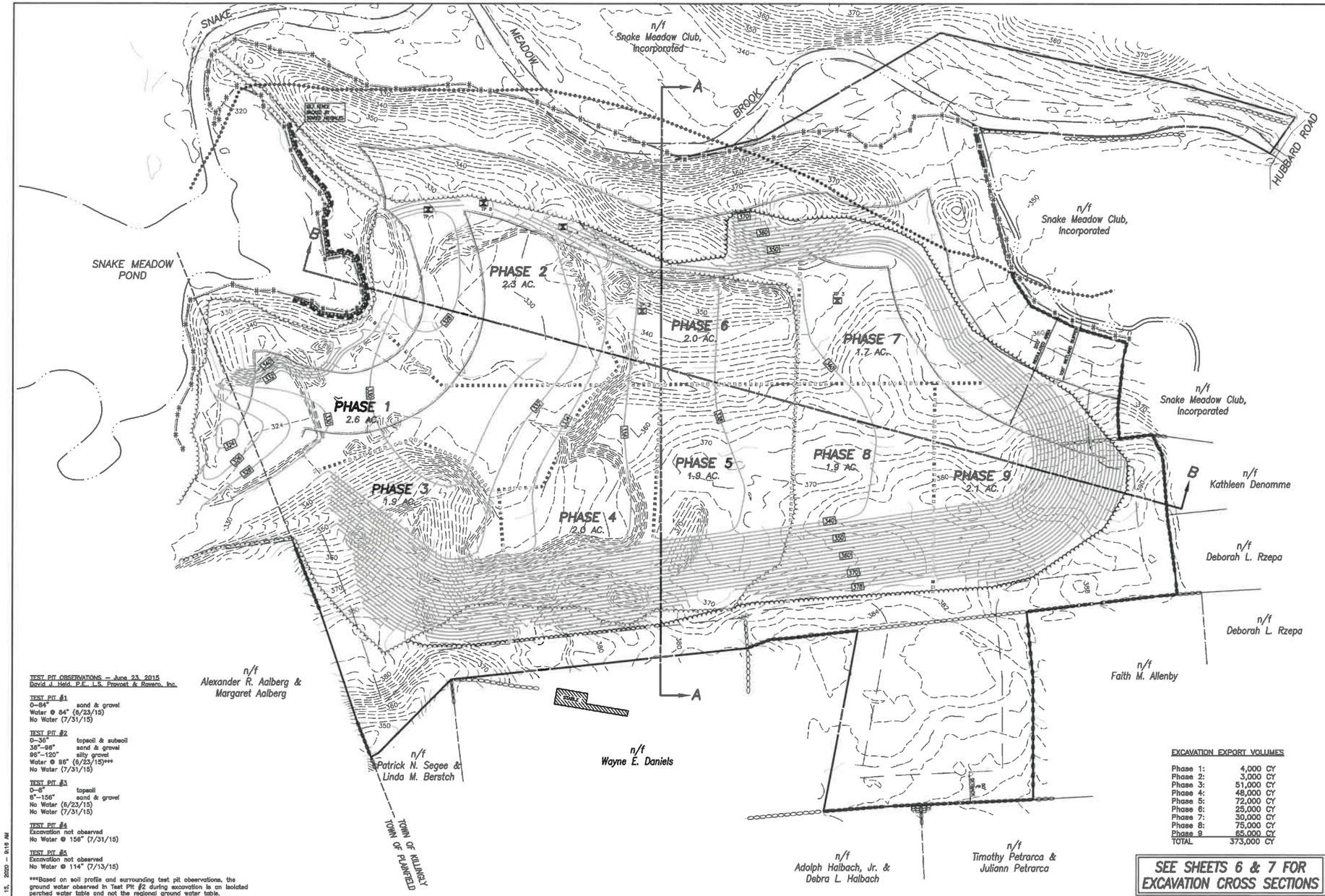

(CT SPC, NAD-83) N

LEGEND

- IRON PIN OR PIPE FOUND
- DRILL HOLE FOUND
- DRILL HOLE SET
- STONE PILE
- WIRE FENCE REMAINS
- WETLAND FLAG
- TEST PIT
- EXISTING TREELINE
- STONE WALL
- STONE WALL REMAINS
- 100 EXISTING INDEX CONTOUR
- 102 EXISTING CONTOUR
- 120 PROPOSED CONTOUR
- PHASE LINE
- PROPOSED CLEARING LIMITS
- PROPOSED SILT FENCE
- PROPOSED STAKED HAYBALES
- LIMIT OF FLOOD ZONE "A"

STORMWATER INSPECTION & MAINTENANCE NOTES:

1. The contractor shall review the erosion and sedimentation control narrative and details provided on sheet 8 for inspection and maintenance requirements for temporary erosion and sedimentation control measures.
2. The proposed stormwater containment berm to be installed in Phase 1 shall be inspected quarterly at a minimum. In addition, the berm shall be inspected within 48 hours of any rain storm event with precipitation greater than 3" in a 24 hour period. Any areas of observed scouring, seepage or other concerns shall be addressed immediately. Any sediment deposition greater than 6" in depth shall be removed.

SURVEY NOTES:

1. This survey has been prepared pursuant to the Regulations of Connecticut State Agencies Section 20-300b-1 through 20-300b-20 and the "Standards for Surveys and Maps in the State of Connecticut" as adopted by the Connecticut Association of Land Surveyors, Inc. on September 28, 1996.

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

   – This survey conforms to a Class "C" horizontal accuracy. Topographic features conform to a Class "T-2" accuracy.

   – Survey Type: General Location and Topographic Survey.
2. The intent of this plan is to show project phasing and proposed grading in relation to surrounding properties and site features.
3. Zone: RD.
4. Owner of record: Snake Meadow Club, Incorporated.
5. The subject property is shown as Map 255, Lot 10 on Killingly assessor's maps.
6. Elevations are referenced to the North American Vertical Datum of 1988.
7. Wetlands shown were delineated in the field by Joseph Theroux in the spring of 2015 and are taken from Map Reference #1.
8. Limits of flood hazard zone "A" (100 year flood) are taken from Flood Insurance Rate Map – Town of Killingly, Connecticut – Windham County – Community Panel Number 090136 0030 B – Effective Date: January 3, 1985. This is not an elevated flood zone and the limits shown have apparent discrepancies with the detailed topographic mapping shown hereon.

MAP REFERENCES:

1. "Property Survey – Prepared for – Snake Meadow Club, Inc. – Hubbard Road – Killingly, Connecticut – Scale: 1" = 50' – Dated: April 2015 – Archer Surveying, LLC".
2. "Property Survey – Prepared for – Janice A. Poirier & Snake Meadow Club, Inc. – Snake Meadow Road – Killingly, Connecticut – Scale: 1" = 60' – Dated: August 22, 2013 – Provost & Rovero, Inc."

TEST PIT OBSERVATIONS – June 23, 2015
David J. Held, P.E., L.S. Provost & Rovero, Inc.

TEST PIT #1
0–84" sand & gravel
Water @ 84" (6/23/15)
No Water (7/31/15)

TEST PIT #2
0–36" topsoil & subsoil
36"–98" sand & gravel
98"–120" silty gravel
Water @ 86" (6/23/15)***
No Water (7/31/15)

TEST PIT #3
0–8" topsoil
8"–156" sand & gravel
No Water (6/23/15)
No Water (7/31/15)

TEST PIT #4
Excavation not observed
No Water @ 156" (7/31/15)

TEST PIT #5
Excavation not observed
No Water @ 114" (7/13/15)

***Based on soil profile and surrounding test pit observations, the ground water observed in Test Pit #2 during excavation is an isolated perched water table and not the regional ground water table.

EXCAVATION EXPORT VOLUMES

Phase 1:	4,000 CY
Phase 2:	3,000 CY
Phase 3:	51,000 CY
Phase 4:	48,000 CY
Phase 5:	72,000 CY
Phase 6:	25,000 CY
Phase 7:	30,000 CY
Phase 8:	75,000 CY
Phase 9	65,000 CY
TOTAL	373,000 CY

SEE SHEETS 6 & 7 FOR EXCAVATION CROSS SECTIONS

80 40 0 80
GRAPHIC SCALE IN FEET

APPROVED BY THE TOWN OF KILLINGLY PLANNING AND ZONING COMMISSION
Special Permit No: _____
Applicant: _____
Date Approved: _____
Chairman: _____
Date: _____

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_____ ENGINEER DATE

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DATE	DESCRIPTION
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7/15/2020	P&Z COMMENTS

DATE: 3/20/2020	DRAWN: DJH
SCALE: 1" = 80'	DESIGN: DJH
SHEET: 3 OF 8	CHK BY: ---
DWG. No: HF	JOB No: 203011

OVERALL SITE & PHASING PLAN

PREPARED FOR

SNAKE MEADOW CLUB, INC.

PROPOSED GRAVEL EXCAVATION

SNAKE MEADOW ROAD & HUBBARD ROAD
KILLINGLY, CONNECTICUT

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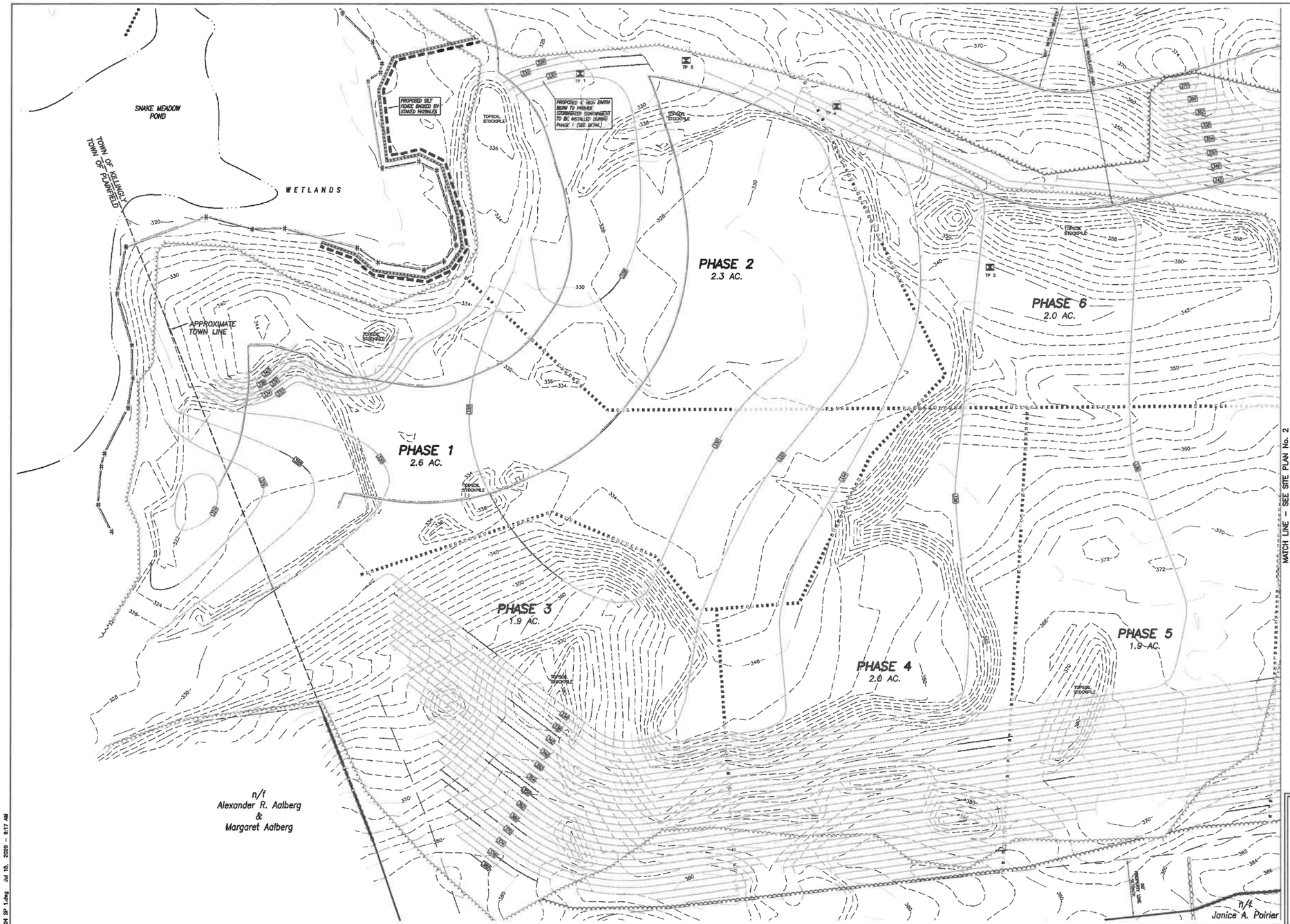

N

40 20 0 40

GRAPHIC SCALE IN FEET

LEGEND

- IRON PIN OR PIPE FOUND
- DRILL HOLE FOUND
- DRILL HOLE SET
- STONE PILE
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- EXISTING CONTOUR
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- PHASE LINE
- PROPOSED CLEARING LIMITS
- PROPOSED SILT FENCE
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- LIMIT OF FLOOD ZONE "A"

EXCAVATION EXPORT VOLUMES

Phase 1:	4,000 CY
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Phase 3:	51,000 CY
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Phase 5:	72,000 CY
Phase 6:	25,000 CY
Phase 7:	30,000 CY
Phase 8:	75,000 CY
Phase 9	65,000 CY
TOTAL	373,000 CY

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SITE PLAN No. 1

PREPARED FOR

SNAKE MEADOW CLUB, INC.

PROPOSED GRAVEL EXCAVATION

SNAKE MEADOW ROAD & HUBBARD ROAD
KILLINGLY, CONNECTICUT

APPROVED BY THE TOWN OF KILLINGLY PLANNING AND ZONING COMMISSION

Special Permit No: _____
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_____
ENGINEER DATE

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

_____
Certified Soil Scientist Date

REVISIONS	
DATE	DESCRIPTION
6/12/2020	P&Z COMMENTS
7/15/2020	P&Z COMMENTS

DATE: 3/20/2020	DRAWN: DJH
SCALE: 1" = 40'	DESIGN: DJH
SHEET: 4 OF 8	CHK BY: ---
DWG. No: HF	JOB No: 203011

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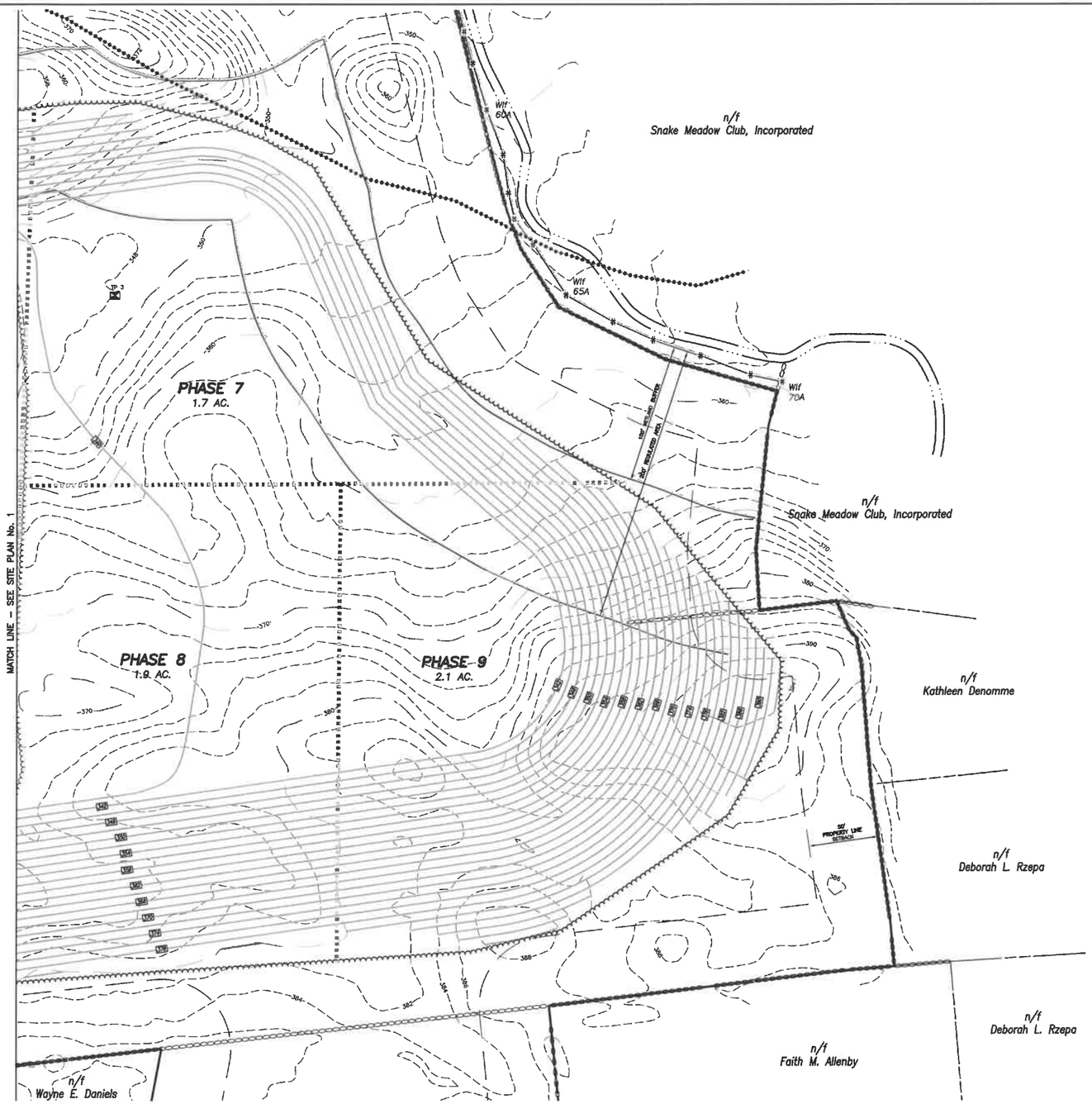

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40 20 0 40

GRAPHIC SCALE IN FEET

LEGEND

- IRON PIN OR PIPE FOUND
- DRILL HOLE FOUND
- DRILL HOLE SET
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- WIRE FENCE REMAINS
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Phase 5:	72,000 CY
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#20-1242

SITE PLAN No. 2

PREPARED FOR

SNAKE MEADOW CLUB, INC.

PROPOSED GRAVEL EXCAVATION

SNAKE MEADOW ROAD & HUBBARD ROAD
KILLINGLY, CONNECTICUT

APPROVED BY THE TOWN OF KILLINGLY PLANNING AND ZONING COMMISSION

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ENGINEER DATE

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_____
Certified Soil Scientist Date

REVISIONS	
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6/12/2020	P&Z COMMENTS
7/15/2020	P&Z COMMENTS

DATE: 3/20/2020	DRAWN: DJH
SCALE: 1" = 40'	DESIGN: DJH
SHEET: 5 OF 8	CHK BY: ---
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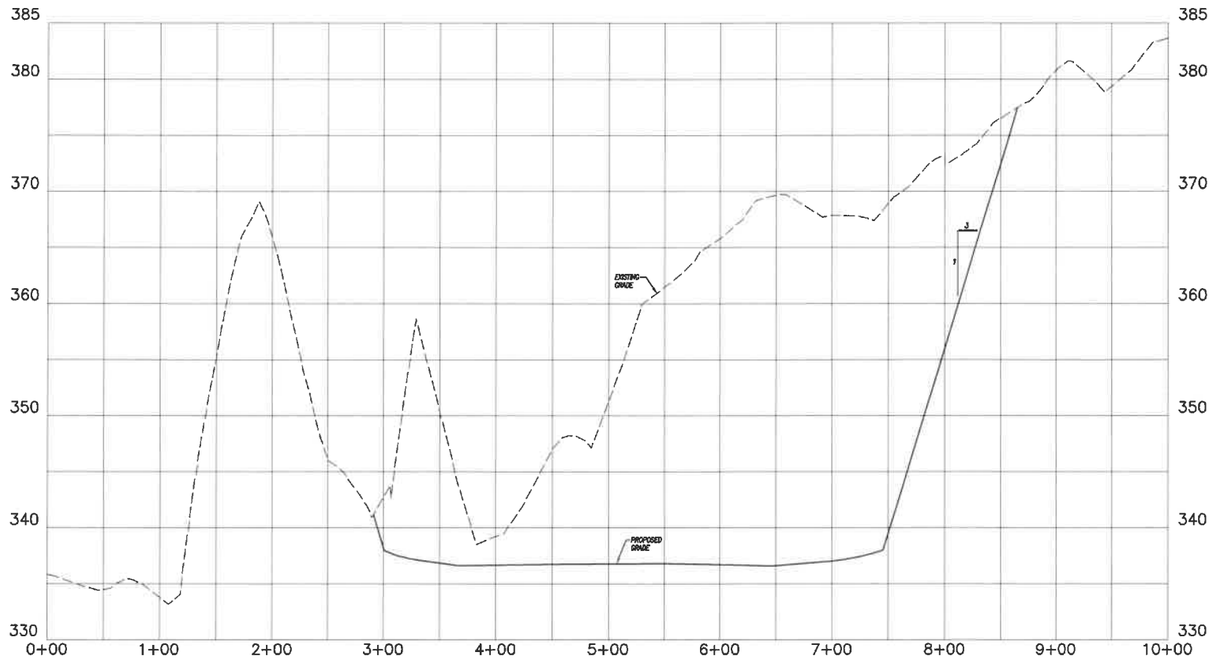

CROSS SECTION A–A

HORIZONTAL SCALE: 1" = 60'
VERTICAL SCALE: 1" = 6'

#20-1242

HORIZONTAL SCALE IN FEET
60 30 0 60
6 3 0 6
VERTICAL SCALE IN FEET

EXCAVATION CROSS SECTION A-A

PREPARED FOR

SNAKE MEADOW CLUB, INC.

PROPOSED GRAVEL EXCAVATION

SNAKE MEADOW ROAD & HUBBARD ROAD
KILLINGLY, CONNECTICUT

REVISIONS	
DATE	DESCRIPTION
6/12/2020	P&Z COMMENTS
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DATE: 3/20/2020	DRAWN: DJH
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ENGINEER DATE

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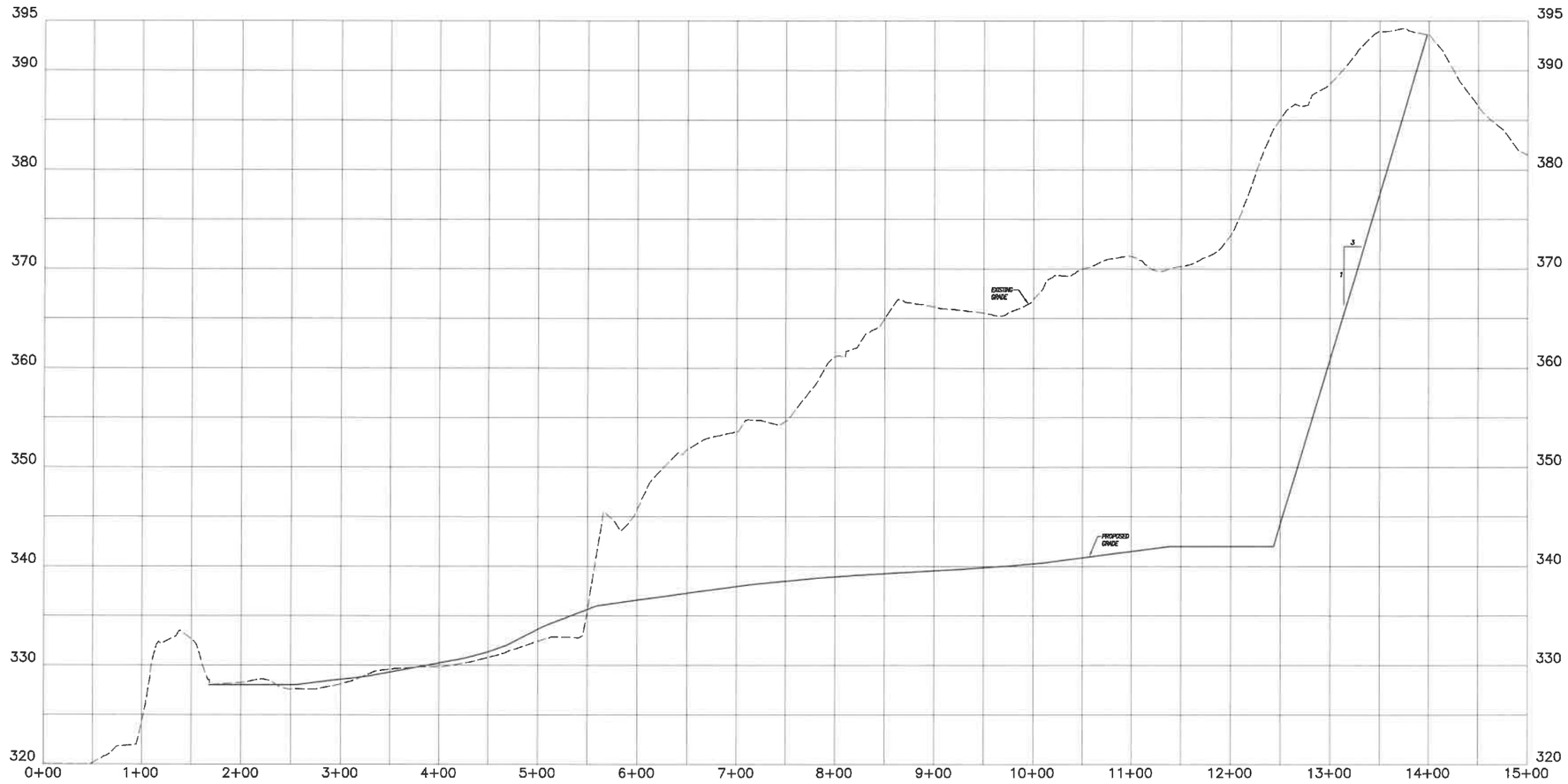

CROSS SECTION B–B

HORIZONTAL SCALE: 1" = 60'
VERTICAL SCALE: 1" = 6'

HORIZONTAL SCALE IN FEET
60 30 0 60
VERTICAL SCALE IN FEET
6 3 0 6

APPROVED BY THE TOWN OF KILLINGLY PLANNING AND ZONING COMMISSION

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EXCAVATION CROSS SECTION B-B

PREPARED FOR

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#20-1242

EROSION AND SEDIMENT CONTROL PLAN:

REFERENCE IS MADE TO:

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

SILT FENCE INSTALLATION AND MAINTENANCE:

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

HAY BALE INSTALLATION AND MAINTENANCE:

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

TEMPORARY VEGETATIVE COVER:

SEED SELECTION

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

TIMING CONSIDERATIONS

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

SITE PREPARATION

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

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

SEEDBED PREPARATION

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

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

SEEDING

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

MULCHING

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

MAINTENANCE

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

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

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

PERMANENT VEGETATIVE COVER:

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

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

EROSION AND SEDIMENT CONTROL NARRATIVE:

PRINCIPLES OF EROSION AND SEDIMENT CONTROL

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

KEEP LAND DISTURBANCE TO A MINIMUM

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

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

SLOW THE FLOW

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

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

KEEP CLEAN RUNOFF SEPARATED

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

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

REDUCE ON SITE POTENTIAL INTERNALLY AND INSTALL PERIMETER CONTROLS

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

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

EXCAVATION NOTES:

1. Excavation shall be completed in accordance with the phasing plan contained herein. Prior to the start of sand and gravel removal, any topsoil and subsoil shall be stripped and stockpiled within or adjacent to the respective phase for use in restoration. Topsoil and subsoil stockpiles shall be protected with a temporary or permanent vegetative cover. The selection of an appropriate vegetative cover will depend on the anticipated duration of the phase.
2. Work shall begin with the final grading and restoration of phases 1 and 2. Phases 1 and 2 shall be brought to final grade and prepared with 6 inches of growing medium prior to any work in subsequent phases. Seed and mulch shall be applied to phases 1 and 2 during the first available spring or fall planting season to establish a permanent vegetative cover. The intent of this work is to reduce the disturbed, unrestored area on the site to a maximum of 3 acres as quickly as possible. Adjacent disturbed portions of phases 3 and 4 shall be included in the initial stage of final grading and restoration as necessary to meet the 3 acre maximum disturbed area requirement. Any material excavated during this initial stage of final grading and restoration shall be from the existing excavation floor only to achieve the desired final floor elevation and shall not be from an existing bank working face. After this initial site restoration, the disturbed, unrestored site area shall be limited to a maximum of 3 acres which disturbance shall be wholly contained within one contiguous area.
3. Proposed finish grade elevations shown hereon are based on test pits with standpipes installed at the locations shown. It is assumed that the regional groundwater elevation is located at the bottom of each test pit where water was not encountered. The applicant may excavate additional test pits or borings as the proposed finish grades are approached to determine if additional material may be removed while maintaining 5' of separation between finish grades and the regional groundwater table. All such test pits and/or borings shall be witnessed by a professional engineer and/or the Killingly Engineering Department and each test pit or boring shall be equipped with a standpipe or monitoring well to allow long term monitoring of the groundwater levels. The applicant shall notify the Killingly Planning Department if excavation below the proposed grades shown hereon is desired and shall not proceed with such excavation without the approval of the Planning Department.
4. No topsoil or subsoil stripped from the excavation area shall be sold or removed from the property.
5. No stumps shall be buried on the site. All stumps shall be stockpiled on the ground surface, chipped or removed from the site and properly disposed of.
6. Excavation of each phase shall be completed in a manner which ensures containment of sediment laden stormwater within the active excavation area. In general, this can be accomplished by progressing with a "downcutting" excavation method and maintaining an active excavation face at a lower elevation than the surrounding grades. If any perimeter erosion and sedimentation controls are required to prevent transport of sediment laden stormwater from the active area, they shall be installed prior to excavation and maintained until no longer required.
7. No blasting is anticipated for completion of the work shown. If blasting is required, the owner is responsible for obtaining all necessary permits.
8. The owner and/or site operator shall provide adequate dust control to prevent any off–site nuisance. Dust control on haul roads shall be accomplished with the application of water.
9. In general, excavation work will be completed by a site operator/contractor and not the property owner. Excavated material will not be sold to the general public directly at the subject property. Excavated material will be removed from the site for further processing, sale or use.
10. The hours of operation shall be: 7:00 am – 6:00 pm, Monday – Friday
    7:00 am – 12:00 pm, Saturday
    No operations shall take place on Sundays or national holidays. Operations outside of the normal hours will be allowed only with the permission of the Killingly Planning & Zoning Commission.
11. The owner/operator shall install any necessary barricades or barriers to provide protection around the perimeter of open excavation faces and steep slopes.
12. Excavation operations shall be completed in accordance with all appropriate Mine Safety & Health Administration (MSHA) rules and regulations.
13. On–site processing of material shall be limited to dry screening. No processing equipment shall be placed or used within 200' of any property boundary or within 500' of any residence.

RESTORATION NOTES:

The intended use for the permitted area following completion of excavation is managed upland game bird and other wildlife habitat.

1. Restoration of each phase shall take place immediately following the completion of excavation of the phase. It is the intention that Phases 1 and 2 be restored to the extent possible prior to continuing excavation of the active face in Phase 3. The site operator shall maintain haul roads and a sufficient work area to continue excavation into future phases.
2. Areas shown to be filled to provide the required final grade shall be filled with silt, silty sand and/or fine sand. In general, this material may be either on–site overburden or material unsuitable for other uses or washing fines from off–site processing. The purpose of this material is to provide water holding capability for the restored area and allow for establishment of the desired vegetative cover.
3. Final restoration shall be accomplished by spreading stockpiled topsoil, subsoil and/or other growing medium to a minimum thickness of 6" and seeding for a permanent vegetative cover. The permanent vegetative cover may be a suitable wildlife or game bird habitat mix or the following mixture which is suitable for use in all locations:

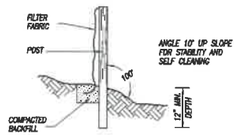
Variety	Lbs/Acre
Switchgrass (Blackwell, Shelter, Cave–in–rock)	4.0
Big Bluestem (Niagra, Kaw)	4.0
Little Bluestem (Blaze, Aldous, Camper)	2.0
Sand Lovegrass (NE–27, Bend)	1.5
Bird's–foot Trefoil (Empire, Viking)	2.0
	TOTAL 13.5

4. Hay or straw mulch shall be utilized on 3:1 excavation side slopes to provide temporary stabilization during establishment of permanent vegetative cover.
5. Fertilizer and lime shall be provided as required to establish a permanent vegetative cover based on laboratory soil testing results.
6. Selective fruit trees, brambles and other wildlife food plants may be planted at the owner's discretion to support the desired habitat creation.

EXCAVATION EQUIPMENT

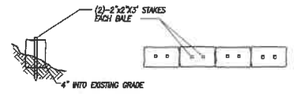
The following equipment is the anticipated maximum for use on site during the duration of excavation and restoration operations:

- 2 wheel loaders (Cat 950 or similar)
- 1 large excavator (Cat 345 or similar)
- 1 large dozer (Cat D8 or similar)
- 1 medium dozer (Cat D6 or similar)
- Misc. equipment for restoration of excavated areas



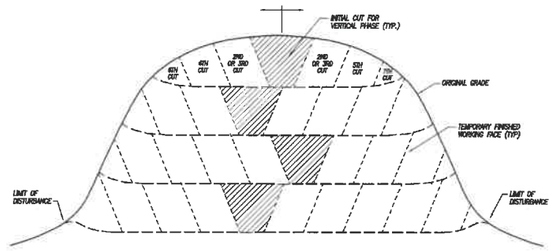
SILT FENCE

NOT TO SCALE



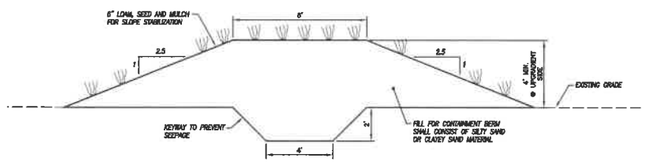
HAYBALE BARRIER

NOT TO SCALE



DETAIL SHOWING "DOWNCUTTING" EXCAVATION METHOD

NOT TO SCALE



CONTAINMENT BERM SHALL BE INSPECTED FOLLOWING ANY RAINFALL EVENT GREATER THAN 3" IN A 24 HOUR PERIOD OR AT A MINIMUM ON A QUARTERLY BASIS. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT EXCEEDS A DEPTH OF 6" AT THE BERM.

CONTAINMENT BERM CROSS SECTION

NOT TO SCALE

APPROVED BY THE TOWN OF KILLINGLY PLANNING AND ZONING COMMISSION

Special Permit No: _____
Applicant: _____
Date Approved: _____
Chairman: _____
Date: _____

ANY CHANGES TO THESE PLANS WITHIN 200' OF WETLANDS OR WATERCOURSES MUST BE RESUBMITTED TO THE KILLINGLY INLAND WETLANDS AND WATERCOURSES COMMISSION FOR ITS APPROVAL.

THE APPLICANT WILL CONTACT THE KILLINGLY INLAND WETLANDS AND WATERCOURSES COMMISSION'S AGENT AFTER ALL EROSION AND SEDIMENT CONTROL MEASURES ARE INSTALLED, PRIOR TO ANY CONSTRUCTION OR EXCAVATION ON THE PROPERTY.

_____
ENGINEER DATE

DETAIL SHEET

PREPARED FOR

SNAKE MEADOW CLUB, INC.

PROPOSED GRAVEL EXCAVATION

SNAKE MEADOW ROAD & HUBBARD ROAD
KILLINGLY, CONNECTICUT

REVISIONS	
DATE	DESCRIPTION
6/12/2020	P&Z COMMENTS
7/15/2020	P&Z COMMENTS

DATE: 3/20/2020	DRAWN: DJH
SCALE: AS SHOWN	DESIGN: DJH
SHEET: 8 OF 8	CHK BY: ----
DWG. No: HF	JOB No: 203011

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