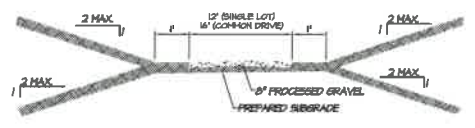
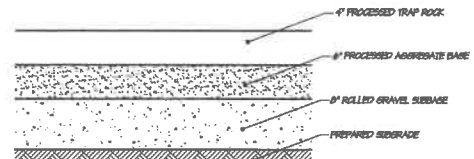


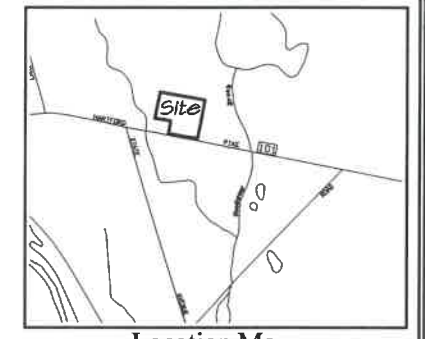
PRECAST CONCRETE SLOTTED WHEEL STOP DETAIL
NOT TO SCALE



GRAVEL DRIVEWAY DETAIL
NOT TO SCALE



PROCESSED TRAPROCK
PARKING AREA DETAIL



Location Map
SCALE
1" = 1000 FT

PROPOSED PARKING REQUIREMENTS
"EXISTING BUILDING"

TOTAL OFFICE AREA: 11,439 SQ. FT.
PARKING REQUIRED: TOTAL SPACES REQUIRED: 1 SPACES PER 2,000 Sq. Ft. Gross Floor Area
TOTAL SPACES REQUIRED: 6 SPACES
TOTAL SPACES PROVIDED: 8 SPACES

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 "A-2" Horizontal Accuracy
 - Survey Type: Site Development Plan
 - Boundary Determination: Resurvey
 - Intent: Re-Use of an Agricultural Building
- Parcels shown as 34 on Assessors Tax Map 10B of the Killingly Assessors Office
- Black Sky Lighting already present on Existing Building

Map References

- Property of Norwich Roman Catholic Diocesan Corp., Hartford Providence Road, Town of Killingly, Connecticut, Scale: 1"=100', Date: Sept. 1963, Prepared by Vincent Yarnone
- Connecticut State Highway Department, Town of Killingly, Hartford-Providence Road from the Quinebaug River easterly to the Rogers Road, Route 101, Project No. 6B-0B, Sheet 2A

PROPOSED HOURS OF OPERATIONS

DAY	RETAIL
MONDAY	9am - Dusk
TUESDAY	9am - Dusk
WEDNESDAY	9am - Dusk
THURSDAY	9am - Dusk
FRIDAY	9am - Dusk
SATURDAY	9am - Dusk
SUNDAY	9am - Dusk

Lot 34
Area: 219,825 +/- Sq.Ft.
5.04 +/- Acres

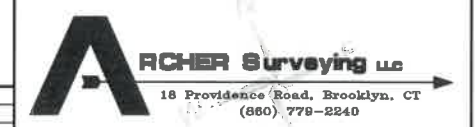
LEGEND

- PROPERTY LINE
- - - EASEMENT
- ⊘ STONEWALL
- ⊘ STONEWALL REMAINS
- ⊘ EXISTING TREELINE
- ⊘ SILT FENCE
- ⊘ EXISTING INDEX CONTOUR
- ⊘ EXISTING CONTOUR
- ⊘ PROPOSED CONTOUR
- ⊘ WETLANDS FLAG
- ⊘ BUILDING SETBACK
- ⊘ IRON PIN FOUND
- ⊘ DRILL HOLE FOUND
- ⊘ MONUMENT FOUND
- ⊘ PROPERTY POINT
- ⊘ UTILITY POLE



Site Development Plan
"Use of an Agricultural Building"
Prepared For:
Pine Hill Farm LLC
204 Hartford Road (Route 101)
Killingly, Connecticut

DRAWING SCALE: 1"=30'



REVISIONS	
5/15/2020	Updates as per Client

Sheet No. 1 OF 1 Project No. 1685 Date: March 2020

APPLICATION - 20-1233 - BERNIER

PROPOSED INDUSTRIAL BUILDING

KILLINGLY INDUSTRIAL PARK

141 LOUISA VIENS DRIVE
KILLINGLY, CONNECTICUT

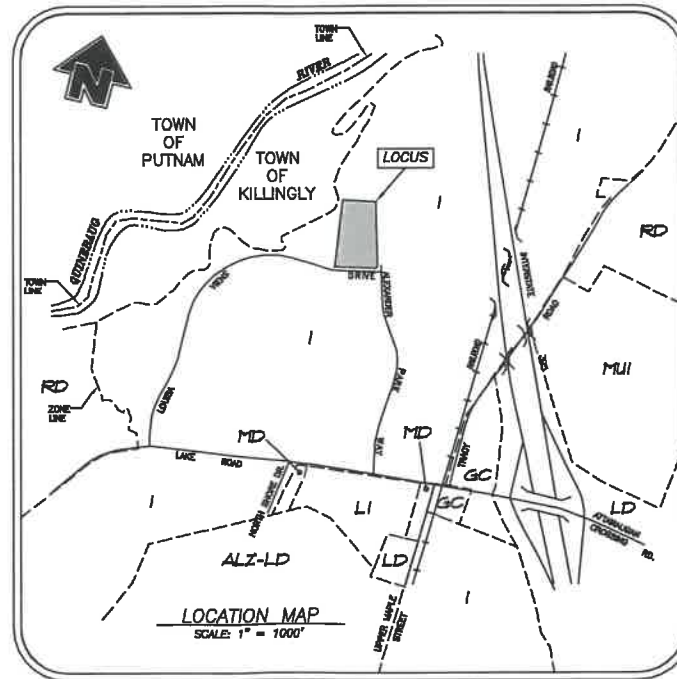
PREPARED FOR:
145 ALEXANDER PARKWAY, LLC

CONSTRUCTION NOTES/GENERAL PROVISIONS

- The locations of existing utilities are based upon visible field observations, record mapping and interviews with the property owner and abutting property owners. They are shown for informational purposes only. Contractor shall coordinate exploratory test hole excavation with the Engineer if necessary to verify and/or determine actual locations of some utilities & structures. It is the responsibility of the contractor to verify the location and elevation of all utilities. Contact "CALL BEFORE YOU DIG" at 1-800-822-4465, and obtain all applicable permits, prior to any excavation around utilities.
- All existing site features not scheduled to remain shall be removed and disposed of in a proper manner, by the contractor.
- All materials and methods of construction shall conform to "State of Connecticut, Department of Transportation, Standard Specifications for Roads, Bridges and Incidental Construction, Form 816", and supplements thereto.
- The Contractor shall obtain copies of all regulatory agency permits from the Owner prior to any site disturbance.
- Unless otherwise noted on the plans, the contractor shall use the geometry provided on the construction plans. Benchmark information shall be provided to the contractor by the Owner or the Owner's surveyor. Any discrepancies between field measurements and construction plan information shall be brought to the attention of the Engineer or Surveyor immediately.
- The Contractor shall not revise elevations or locations of items shown on the plans without written consent of the project Engineer or Surveyor.
- The Contractor shall protect benchmarks, property corners, and other survey monuments from damage or displacement. If a marker needs to be removed, it shall be referenced by a licensed land surveyor and replaced as necessary by the same.
- The Contractor shall be responsible for preparing and compacting base for proposed pavement. Owner shall provide general fill to establish subgrade - contractor shall spread and compact. Contractor shall provide, spread and compact required processed aggregate.
- The entire project site shall be thoroughly cleaned at the completion of the work. Clean all installed paved areas, accumulated silt and sediment, plus all adjacent areas affected by the construction activities as directed by the Owner or the Jurisdictional Agency.

LEGEND

- IRON PIN FOUND
- CONCRETE MONUMENT FOUND
- SIGN
- MB MAILBOX
- CB EXISTING CATCH BASIN
- ELEC EXISTING ELECTRIC HANDHOLE
- TEL EXISTING TELEPHONE HANDHOLE
- ⊙ HH UTILITY POLE
- GC EXISTING GAS GATE
- PROPOSED GAS GATE
- SMH EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- DMH EXISTING STORM DRAIN MANHOLE
- 100 EXISTING CONTOURS
- 100 PROPOSED CONTOURS
- S EXISTING SANITARY SEWER LINE
- S PROPOSED SANITARY SEWER LINE
- G EXISTING GAS SERVICE LINE
- G PROPOSED GAS SERVICE LINE
- T EXISTING UNDERGROUND TELEPHONE SERVICE LINE
- E EXISTING UNDERGROUND ELECTRIC SERVICE LINE
- U PROPOSED UNDERGROUND UTILITIES
- W EXISTING WATER SERVICE LINE
- W PROPOSED WATER SERVICE LINE
- B BUILDING SETBACK LINE
- M METAL BEAM GUIDE RAIL
- S STONE WALL
- S SILT FENCE



INDEX TO DRAWINGS

TITLE	SHEET No.
COVER SHEET	1 OF 4
EXISTING CONDITIONS PLAN	2 OF 4
SITE PLAN	3 OF 4
DETAIL SHEET	4 OF 4

RECEIVED

MAR 11 2020

PLANNING & ZONING DEPT.
TOWN OF KILLINGLY

FOR REVIEW ONLY
NOT FOR CONSTRUCTION

PREPARED BY:

REVISIONS	
DATE	DESCRIPTION

Killingly Engineering Associates
Civil Engineering & Surveying

114 Westcott Road
P.O. Box 421
Killingly, Connecticut 06241
(860) 779-7299
www.killinglyengineering.com

MARCH 2020

NORMAND E. THIBEAULT, JR., P.E. DATE

R:\18131\Drawings\01_18131_001.dwg Mar 11, 2020 - 1:21 PM

SITE PLAN #20-1239 SPECIAL PERM #20-1240

EXISTING SANITARY SEWER SCHEDULE

SM-1	SM-2
TF = 268.55	TF = 270.05
I/L = 258.78	I/L = 260.13

EXISTING STORM DRAINAGE SCHEDULE

CS-1	CS-2	CS-3	CS-4
TF = 267.62	TF = 267.61	TF = 270.52	TF = 277.65
HW IN = 268.72	HW IN (S) = 268.51	HW IN (S) = 270.23	HW IN (S) = 270.22
HW OUT = 258.22	HW OUT = 262.21	HW OUT (S) = 270.22	HW OUT (S) = 270.22
CS-5	CS-6	CS-7	CS-8
TF = 277.13	TF = 263.72	TF = 263.92	TF = 276.72
HW IN = 271.88	HW IN (S) = 278.32	HW IN (S) = 278.88	HW IN (S) = 278.42
HW OUT = 271.53	HW OUT (S) = 278.42	HW OUT (S) = 278.42	HW OUT (S) = 278.42
CS-9	SM-1	SM-2	
TF = 276.55	TF = 273.29	TF = 260.53	
HW IN = 272.88	HW IN = 267.88	HW OUT = 278.13	
HW OUT = 272.88	HW OUT = 267.88	HW IN = 278.13	
HW IN = 272.78			

LEGEND

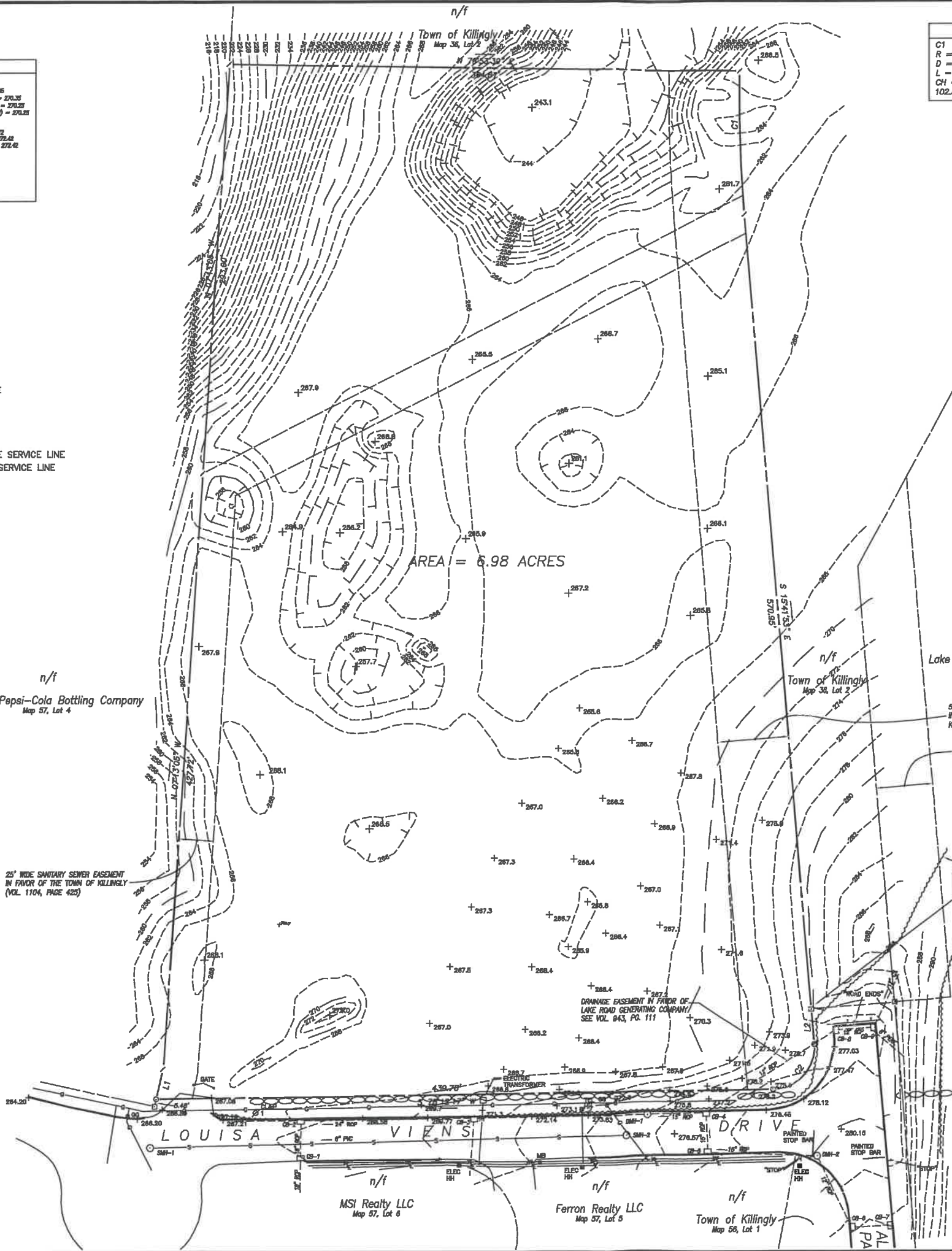
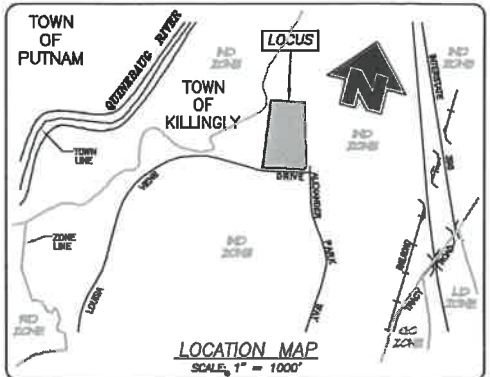
- IRON PIN FOUND
- CONCRETE MONUMENT FOUND
- SIGN
- MB MAILBOX
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- ELEC EXISTING ELECTRIC HANDHOLE
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- TEL EXISTING TELEPHONE HANDHOLE
- UTILITY POLE
- GC EXISTING GAS GATE
- SMH EXISTING SANITARY SEWER MANHOLE
- DMH EXISTING STORM DRAIN MANHOLE
- 100- EXISTING CONTOURS
- S EXISTING SANITARY SEWER LINE
- G EXISTING GAS SERVICE LINE
- T EXISTING UNDERGROUND TELEPHONE SERVICE LINE
- E EXISTING UNDERGROUND ELECTRIC SERVICE LINE
- W EXISTING WATER SERVICE LINE
- M METAL BEAM GUIDE RAIL
- ○ ○ ○ ○ STONE WALL

CURVE DATA

C1	C2
R = 1050.00'	R = 30.00'
D = 5°35'45"	D = 63°54'28"
L = 102.55'	L = 49.17'
CH = S 12°51'13" E 102.51'	CH = S 31°15'21" W 43.85'

LINE DATA

L1	N 01°39'24" E 22.37'
L2	S 15°41'53" E 25.34'



- NOTES:**
- This survey has been prepared pursuant to the Regulations of Connecticut State Agencies Sections 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, 1998;
 - This survey conforms to a Class "C" horizontal accuracy.
 - Topographic features conform to a Class "T-2", "V-2" vertical accuracy.
 - Survey Type: General Location Survey.
 - Zone = Industrial.
 - Parcel is shown as Lot #2.1 on Assessors Map #36.
 - Owner of record: Alexander Parkway, LLC
145 Country Club Road
Killingly, CT 06241
Applicant: 145 Alexander Parkway, LLC
145 Country Club Road
Killingly, CT 06241
 - Elevations shown are based on an North American Vertical Datum of 1988. Contours shown are taken from the Town of Killingly GIS and supplemented with actual field survey. Contour Interval = 2'.
 - Before any construction is to commence contact "CALL BEFORE YOU DIG" at 1-800-922-4455 or 811.

MAP REFERENCE:
 *Property Survey - Prepared for - Town of Killingly - Louisa Viens Drive & Alexander Parkway - Killingly, Connecticut - Scale: 1" = 40' - Date: 03/23/2008 - Sheet 1 of 1 - Prepared by: KWP Associates. On file as Map #6041 in the Town of Killingly Land Records.

DATE	DESCRIPTION

**FOR REVIEW ONLY
NOT FOR CONSTRUCTION**

GENERAL LOCATION SURVEY
SHOWING EXISTING CONDITIONS
PREPARED FOR
145 ALEXANDER PARKWAY, LLC
141 LOUISA VIENS DRIVE
KILLINGLY, CONNECTICUT

Killingly Engineering Associates
Civil Engineering & Surveying
114 Westcott Road
P.O. Box 421
Killingly, Connecticut 06241
(860) 779-7299
www.killinglyengineering.com

DATE: 3/10/2020	DRAWN: AMR
SCALE: 1" = 40'	DESIGN: NET
SHEET: 2 OF 4	CHK BY: ---
DWG. No: CLIENT FILE	JOB No: 15131

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

GREG A. GLAUDE, L.S. LIC. NO. 70191 DATE
 NO CERTIFICATION IS EXPRESSED OR IMPLIED UNLESS THIS MAP BEARS THE ORIGINAL SEAL AND SIGNATURE OF THE LAND SURVEYOR.

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

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

EXISTING SANITARY SEWER SCHEDULE	
SMH-1	SMH-2
TF = 268.50	TF = 270.00
F/L IN = 268.78	F/L = 269.15

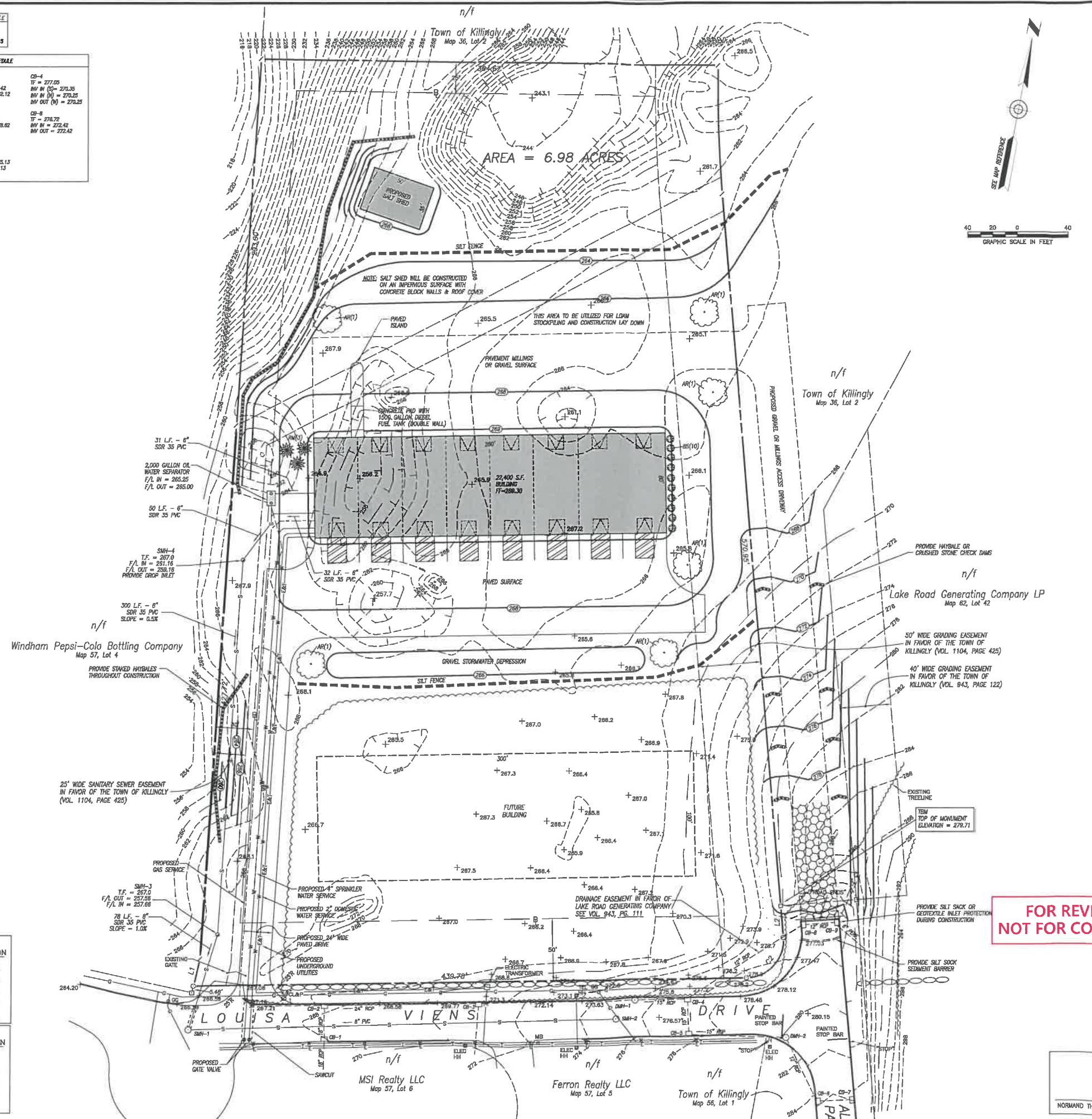
EXISTING STORM DRAINAGE SCHEDULE			
CS-1	CS-2	CS-3	CS-4
TF = 267.92	TF = 267.61	TF = 270.02	TF = 277.00
NV IN (S) = 268.72	NV IN = 268.41	NV IN (S) = 270.35	NV IN (S) = 270.25
NV OUT = 259.52	NV OUT = 260.21	NV OUT = 262.12	NV OUT (N) = 270.25
			NV OUT (N) = 270.25
CS-5	CS-6	CS-7	CS-8
TF = 277.13	TF = 283.72	TF = 283.62	TF = 276.72
NV IN = 271.06	NV OUT = 278.32	NV IN = 278.62	NV IN = 272.42
NV OUT = 271.58	NV IN (S) = 278.32	NV OUT = 278.42	NV OUT = 272.42
CS-9	DMH-1	DMH-2	
TF = 276.50	TF = 270.50	TF = 280.25	
NV IN = 272.86	NV IN = 267.50	NV OUT = 275.13	
NV OUT = 272.86	NV OUT = 267.89	NV IN = 276.13	
5" NV IN = 272.78			

LANDSCAPE SCHEDULE				
SYMBOL	BOTANICAL NAME	COMMON NAME	QUANTITY	SIZE
AR	Acer rubrum	Red Maple	6	2.5" cal.
BS	Boxus sempervirens	Boxwood	10	1 gal.
RM	Rhododendron maximum	Rhododendron 'Great Laurel'	3	2 gal.

TABLE OF ZONING REQUIREMENTS		
ZONE = INDUSTRIAL		
Lot Area	REQUIRED 50,000 S.F.	PROVIDED 304,198 S.F.
Lot Frontage	150'	514.3'
Front Yard Setback	50'	357.4'
Side Yard Setback	25'	61.9'
Rear Yard Setback	30'	293.3'
Building Height	50' Max.	<50'
Lot Coverage	70% Max.	18.1%

LEGEND

- IRON PIN FOUND
- CONCRETE MONUMENT FOUND SIGN
- MB MAILBOX
- CB EXISTING CATCH BASIN
- ELEC EXISTING ELECTRIC HANDHOLE
- HH EXISTING TELEPHONE HANDHOLE
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- W PROPOSED WATER SERVICE LINE
- BUILDING SETBACK LINE
- METAL BEAM GUIDE RAIL
- STONE WALL
- - - SILT FENCE



**FOR REVIEW ONLY
NOT FOR CONSTRUCTION**

APPROVED BY THE TOWN OF KILLINGLY PLANNING AND ZONING COMMISSION

Site Plan No: _____
 Applicant: _____
 Date Approved: _____
 Chairman: _____
 Date: _____

APPROVED BY THE TOWN OF KILLINGLY PLANNING AND ZONING COMMISSION

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

DATE	DESCRIPTION

SITE DEVELOPMENT PLAN
 PREPARED FOR
145 ALEXANDER PARKWAY, LLC
 141 LOUISA VIENS DRIVE
 KILLINGLY, CONNECTICUT

Killingly Engineering Associates
Civil Engineering & Surveying

114 Westcott Road
 P.O. Box 471
 Killingly, Connecticut 06241
 (860) 799-7229
 www.killinglyengineering.com

DATE: 3/10/2020	DRAWN: AMR
SCALE: 1" = 40'	DESIGN: NET
SHEET: 3 OF 4	CHK BY: ---
DWG. No: CLIENT FILE	JOB No: 15131

NORMAND THIBEAULT, JR., P.E. No. 22834 DATE

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EROSION AND SEDIMENT CONTROL PLAN:

REFERENCE IS MADE TO:

1. Connecticut Guidelines for Soil Erosion and Sediment Control 2002 (2002 Guidelines).
2. U.S.D.A. NRCS Web Soil Survey.

DEVELOPMENT CONTROL PLAN:

1. Development of the site will be performed by the Contractor, who will be responsible for the installation and maintenance of erosion and sediment control measures required throughout construction.
2. The sedimentation control mechanisms shall remain in place from start of construction until permanent vegetation has been established. The representative for the Town of Killingly will be notified when sediment and erosion control structures are initially in place. Any additional soil or 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.
3. All striping 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.
4. Dust control will be accomplished by spraying with water. The application of calcium chloride is not permitted adjacent to wetland resources areas or within 100' of these areas.
5. The proposed planting schedule is to be achieved during the planting of disturbed areas throughout the proposed construction site.
6. 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 cover can be applied.

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 falls 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 hole shall be securely anchored with at least 2 stakes and gaps between bales shall be wedged with straw to prevent water from pooling 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 bales 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 falls 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 gressed waterways.
- Grade according to plans and allow for the use of appropriate equipment for seedbed preparation, seeding, mulch application, and match 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 track 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, outdragger 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 85%-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 fill 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 recurrence of erosion.
- Continue inspections until the grasses are firmly established. Grasses shall not be considered established until a ground cover is achieved which is mature enough to control soil erosion and to survive severe weather conditions (approximately 80% vegetative cover).

PERMANENT VEGETATIVE COVER:

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

1. Topsoil will be replaced once the excavation and grading has been completed. Topsoil will be spread to a minimum compacted depth of 4".
2. Once the topsoil has been spread, all stones 2" or larger in any dimension will be removed as well as debris.
3. Apply agricultural ground limestone at a rate of 2 tons per acre or 100 lbs. per 1000 s.f. Apply 10-10-10 fertilizer or equivalent at a rate of 300 lbs. per acre or 7.5 lbs. per 1000 s.f. Work lime and fertilizer into the soil to a depth of 4".
4. Inspect seedbed before seeding. If traffic has compacted the soil, re-fill 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. Mow 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.

DEVELOPMENT SCHEDULE/SEQUENCE OF OPERATIONS:

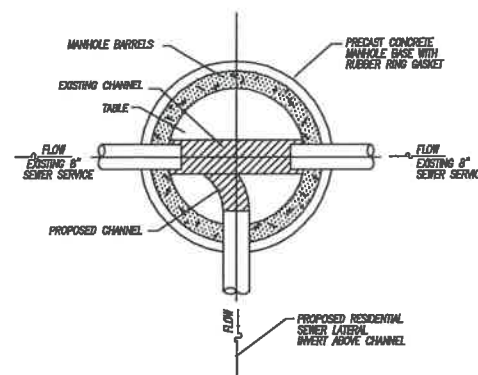
1. Flag the limits of disturbance and schedule preconstruction meeting with Town of Killingly wetlands Agent.
2. Contact utility companies for scheduling installation of utilities and connections
3. Install the anti-tracking construction entrance.
4. Cut trees within the defined clearing limits and remove the cut wood.
5. Install perimeter erosion and sedimentation controls in accordance with the site development plan.
6. Chip brush and slash, stockpile chips for use on site or remove off site.
7. Box out driveway and stockpile topsoil in locations shown on the plans. Install erosion controls around stockpiles and apply temporary seeding.
8. Install and compact processed gravel for driveway base.
9. Remove tree stumps and dispose of at an approved disposal site. Alternatively, stumps may be chipped in place. No stumps shall be buried on site.
10. Strip and stockpile topsoil that is within the footprint of the site. Surround stockpile with silt fence or stacked haybales, and apply temporary seeding in accordance with recommended mixture. Divert runoff around the perimeter of the stockpile.
11. Make all required cuts and fills. Establish the subgrade for the driveway as required and install additional erosion controls as necessary and as shown on the plans.
12. Inspect perimeter erosion and sedimentation controls weekly and after rain events in excess of 0.5". Repair any damaged controls and provide additional erosion control devices as necessary to address areas of concentrated runoff that may develop as a result of the construction activities. The contractor shall review discharge conditions with the design engineer or the Town of Killingly prior to installing additional erosion controls. Apply water as necessary for dust control.
13. Install utilities to edge of right-of-way.
14. Prepare sub-base for driveway and remainder of the site for final grading.
15. Excavate for building footings, stockpile soil and pour footings & slab. Begin building construction.
16. Place topsoil where required and install any proposed landscaping upon completion of each building.
17. Install first course of pavement to each building as they are completed.
18. When the remainder of the site work is near completion, sweep all paved areas for the final course of paving. Inspect erosion controls and remove any accumulated sediment.
19. Install final course of pavement upon the completion of the final structure.
20. Fine grade, rake, seed and mulch to within 2' of the pavement.
21. Remove and dispose of all silt fence and hay bales after the site has been stabilized to the satisfaction of the Town of Killingly.

RESPONSIBLE PARTY FOR E&S MAINTENANCE:

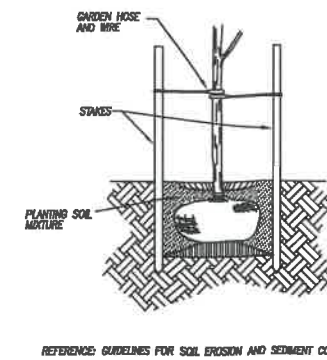
David Desmarais
145 Alexander Parkway, LLC
139 Country Club Road
Killingly, CT 06241
(860) 774-2034

CONSTRUCTION NOTES/GENERAL PROVISIONS

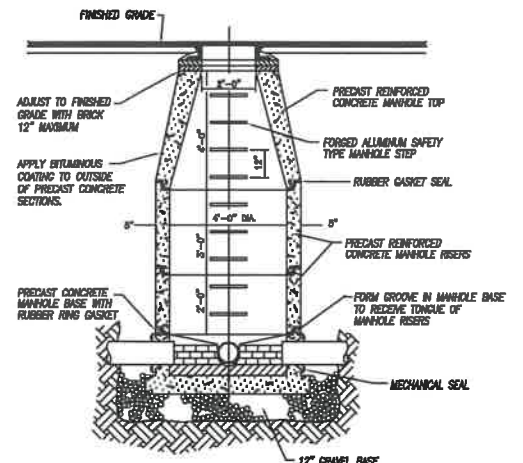
1. The locations of existing utilities are based upon visible field observations, record mapping and interviews with the property owner and abutting property owners. They are shown for informational purposes only. Contractor shall coordinate exploratory test hole excavation with the Engineer if necessary to verify and/or determine actual locations of some utilities & structures. It is the responsibility of the contractor to verify the location and elevation of all utilities. Contact "CALL BEFORE YOU DIG" at 1-800-922-4455, and obtain all applicable permits, prior to any excavation around utilities.
2. All existing site features not scheduled to remain shall be removed and disposed of in a proper manner, by the contractor.
3. All materials and methods of construction shall conform to "State of Connecticut, Department of Transportation, Standard Specifications for Roads, Bridges and Incidental Construction, Form 817", and supplements thereto.
4. The Contractor shall obtain copies of all regulatory agency permits from the Owner prior to any site disturbance.
5. Unless otherwise noted on the plans, the contractor shall use the geometry provided on the construction plans. Benchmark information shall be provided to the contractor by the Owner or the Owner's surveyor. Any discrepancies between field measurements and construction plan information shall be brought to the attention of the Engineer or Surveyor immediately.
6. The Contractor shall not revise elevations or locations of items shown on the plans without written consent of the project Engineer or Surveyor.
7. The Contractor shall protect benchmarks, property corners, and other survey monuments from damage or displacement. If a marker needs to be removed, it shall be re-established by a licensed land surveyor and replaced as necessary by the same.
8. The Contractor shall be responsible for preparing and compacting base for proposed pavement. Owner shall provide general fill to establish subgrade - contractor shall spread and compact. Contractor shall provide, spread and compact required processed aggregate.
9. The entire project site shall be thoroughly cleaned at the completion of the work. Clean all installed erosion areas, accumulated silt and sediment, plus all adjacent areas affected by the construction activities as directed by the Owner or the Jurisdictional Agency.



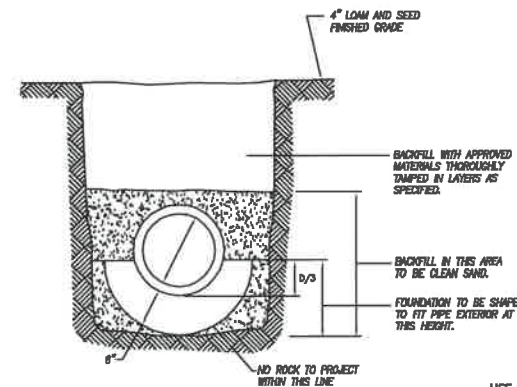
SEWER CONNECTION AT MANHOLE
NOT TO SCALE



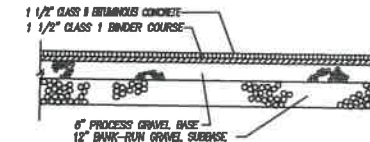
PLANTING CROSS SECTION FOR TREES UNDER 20'
NOT TO SCALE



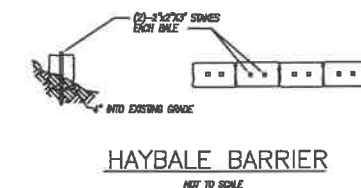
TYPICAL SANITARY MANHOLE CROSS SECTION
NOT TO SCALE



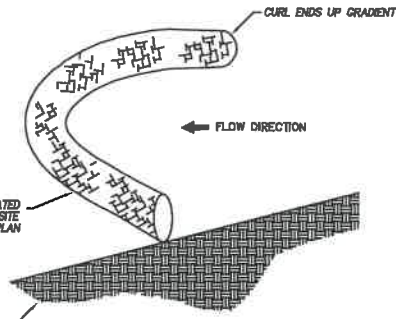
SANITARY SEWER PIPE IN TRENCH DETAIL
NOT TO SCALE



BITUMINOUS CONCRETE PAVEMENT
NOT TO SCALE

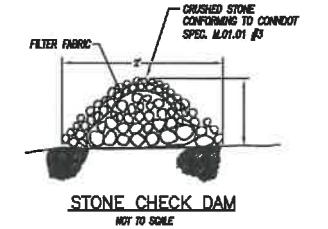


HAYBALE BARRIER
NOT TO SCALE



SILT SOCK APPLICATION
NOT TO SCALE

NOTE: REMOVE SEDIMENT FROM UPDRILL SIDE OF SOCK WHEN SEDIMENT HAS REACHED HALF THE EFFECTIVE HEIGHT OF THE SOCK.



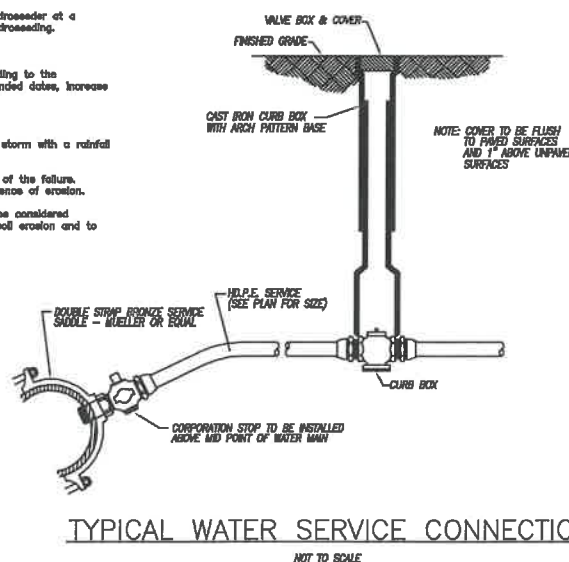
STONE CHECK DAM
NOT TO SCALE

APPROVED BY THE TOWN OF KILLINGLY PLANNING AND ZONING COMMISSION

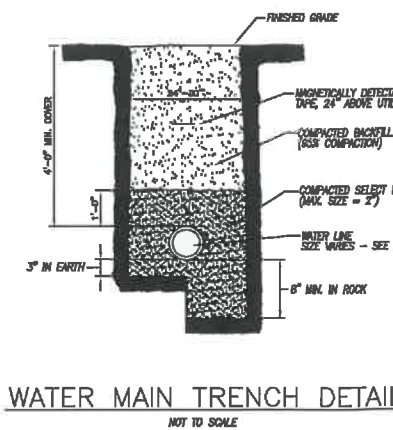
Site Plan No: _____
Applicant: _____
Date Approved: _____
Chairman: _____
Date: _____

APPROVED BY THE TOWN OF KILLINGLY PLANNING AND ZONING COMMISSION

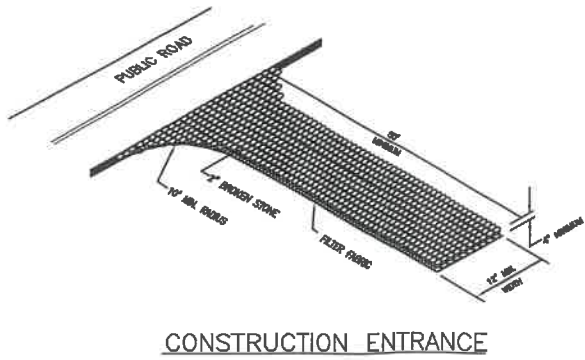
Special Permit No: _____
Applicant: _____
Date Approved: _____
Chairman: _____
Date: _____



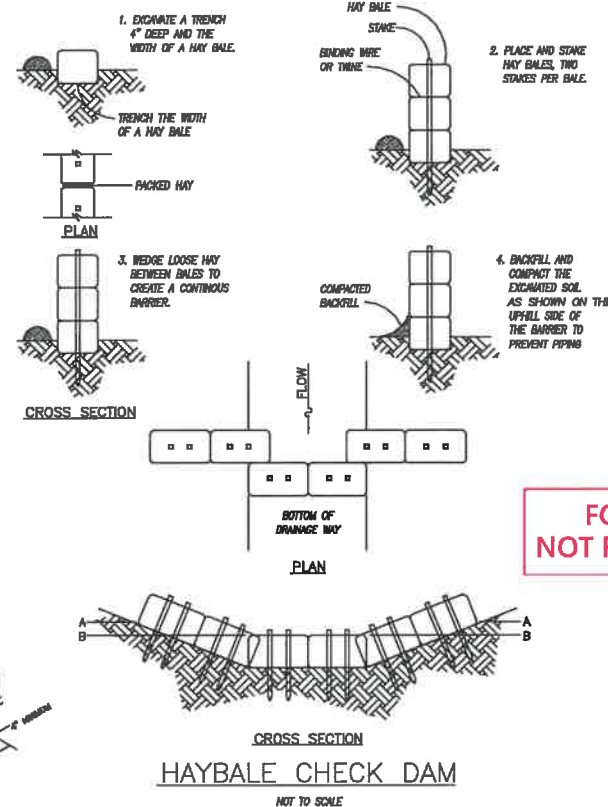
TYPICAL WATER SERVICE CONNECTION
NOT TO SCALE



WATER MAIN TRENCH DETAIL
NOT TO SCALE



CONSTRUCTION ENTRANCE
NOT TO SCALE



HAYBALE CHECK DAM
NOT TO SCALE

FOR REVIEW ONLY NOT FOR CONSTRUCTION

DATE	DESCRIPTION

DETAIL SHEET
PREPARED FOR
145 ALEXANDER PARKWAY, LLC
141 LOUISA VIENS DRIVE
KILLINGLY, CONNECTICUT

Killingly Engineering Associates
Civil Engineering & Surveying
114 Westcott Road
P.O. Box 421
Killingly, Connecticut 06241
(860) 779-7299
www.killinglyengineering.com

DATE: 3/10/2020	DRAWN: AMR
SCALE: NOT TO SCALE	DESIGN: NET
SHEET: 4 OF 4	CHK BY: ---
DWG. No: CLIENT FILE	JOB No: 15131



SITE PLAN #20-1239
SPEC. PERM #20-1240
145 ALEXANDER PARKWAY



PROPOSED GRAVEL EXCAVATION

SNAKE MEADOW ROAD & HUBBARD ROAD
KILLINGLY, CONNECTICUT

PROPERTY OWNER:

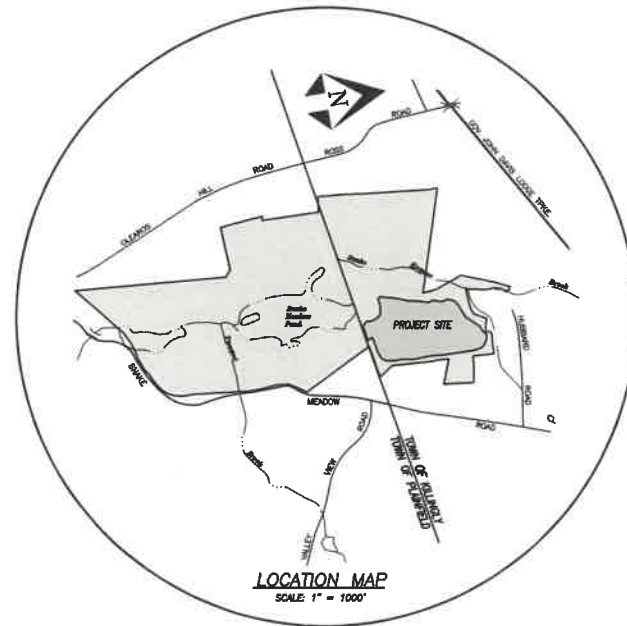
SNAKE MEADOW CLUB, INCORPORATED

APPLICANT:

SNAKE MEADOW CLUB, INCORPORATED

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
-----	EXISTING INDEX CONTOUR
-----	EXISTING CONTOUR
-----	PROPOSED CONTOUR
.....	PHASE LINE
~~~~~	PROPOSED CLEARING LIMITS
-----	PROPOSED SILT FENCE
-----	PROPOSED STAKED HAYBALES



INDEX TO DRAWINGS

TITLE	SHEET No.
COVER SHEET	1 OF 8
PROPERTY SURVEY	2 OF 8
OVERALL EXCAVATION & PHASING PLAN	3 OF 8
SITE PLAN No. 1	4 OF 4
SITE PLAN No. 2	5 OF 8
EXCAVATION CROSS SECTION A-A	6 OF 8
EXCAVATION CROSS SECTION B-B	7 OF 8
DETAIL SHEET	8 OF 8

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@provoinc.com
www.provoinc.com

REVISIONS	
DATE	DESCRIPTION

MARCH 20, 2020



ENGINEER _____ DATE 3/23/2020

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

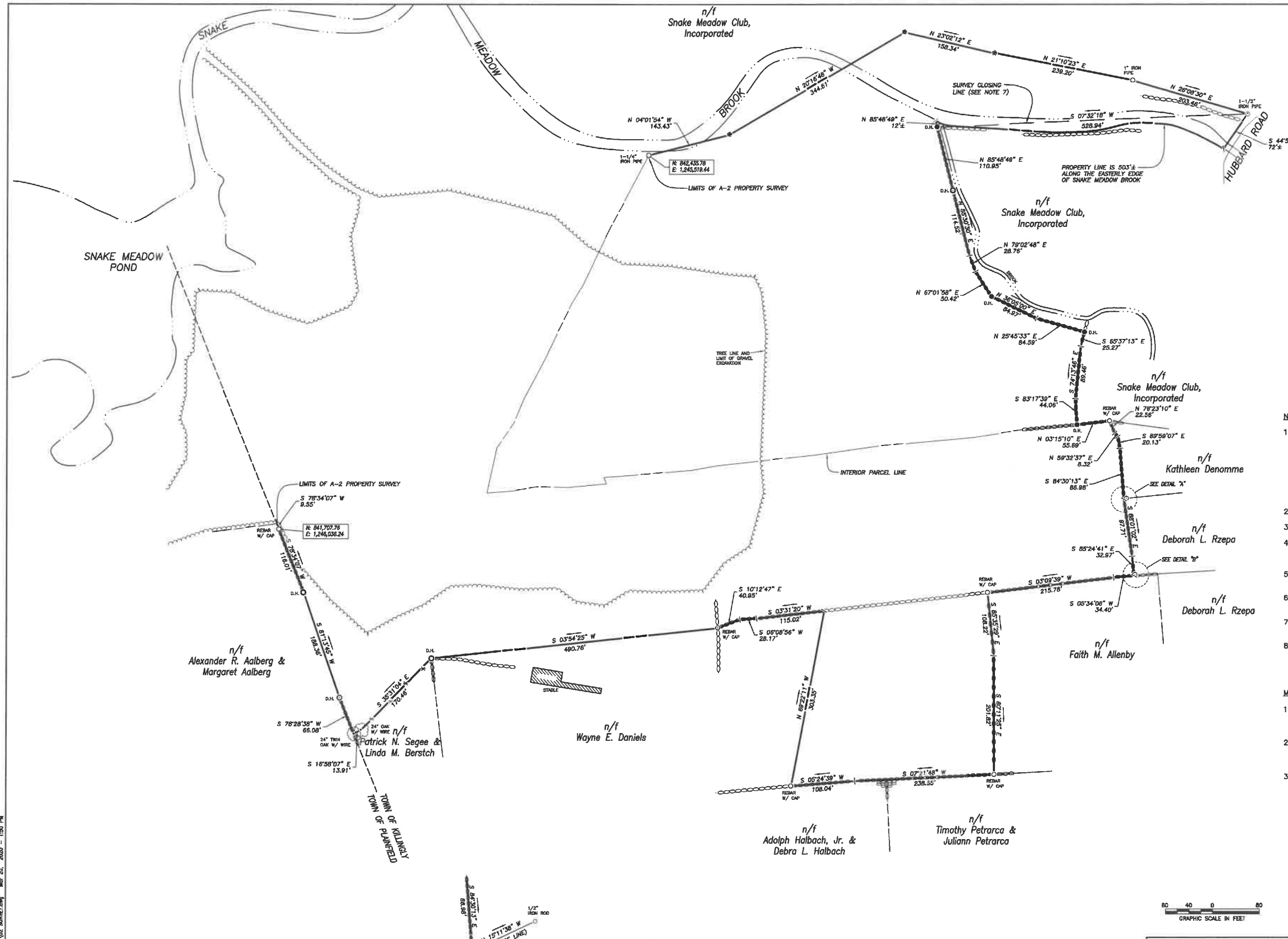
APPROVED BY THE TOWN OF
KILLINGLY INLAND WETLANDS COMMISSION
CHAIRMAN _____ DATE _____

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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SPECIAL PERMIT #20-1242

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LEGEND

○	IRON PIN OR PIPE FOUND
○	DRILL HOLE FOUND
●	DRILL HOLE SET
*	STONE PILE
✱	WIRE FENCE REMAINS
~~~~~	EXISTING TREELINE
-----	STONE WALL
-----	STONE WALL REMAINS

- NOTES:**
- 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.
  - Zone = RD.
  - Parcel is shown as Lot 10 on Assessors Map 255.
  - Owner of record: Snake Meadow Club, Incorporated  
P.O. Box 236  
Central Village, CT 06332-0236
  - The intent of this survey is to show the boundaries of the subject property in the general vicinity of a proposed gravel excavation.
  - Bearing shown herein are referenced to Connecticut State Plane Coordinates, NAD 83(2011); Epoch 2010.0000.
  - A survey closing line is a random line used for mathematical purposes. It is not to be construed as a property boundary line.
  - 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:**
- "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"
  - 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."
  - "Property Survey - Prepared for - Snake Meadow Club, Inc. - Hubbard Road, Killingly, Connecticut - Scale: 1" = 50' - Dated: April 2015 - Archer Surveying, LLC"

PROPERTY SURVEY  
PREPARED FOR  
**SNAKE MEADOW CLUB, INC.**  
**PROPOSED GRAVEL EXCAVATION**  
SNAKE MEADOW ROAD & HUBBARD ROAD  
KILLINGLY, CONNECTICUT

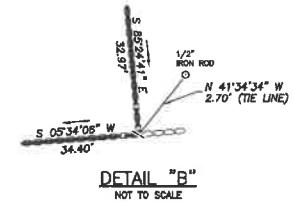
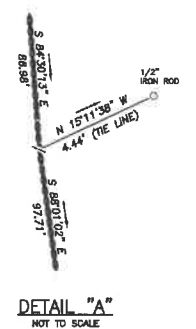
**Provost & Rovero, Inc.**  
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Plainfield, Connecticut 06374  
(860) 230-0856 - FAX: (860) 230-0860  
info@prorovinc.com  
www.prorovinc.com



REVISIONS	
DATE	DESCRIPTION

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

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.

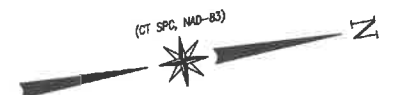
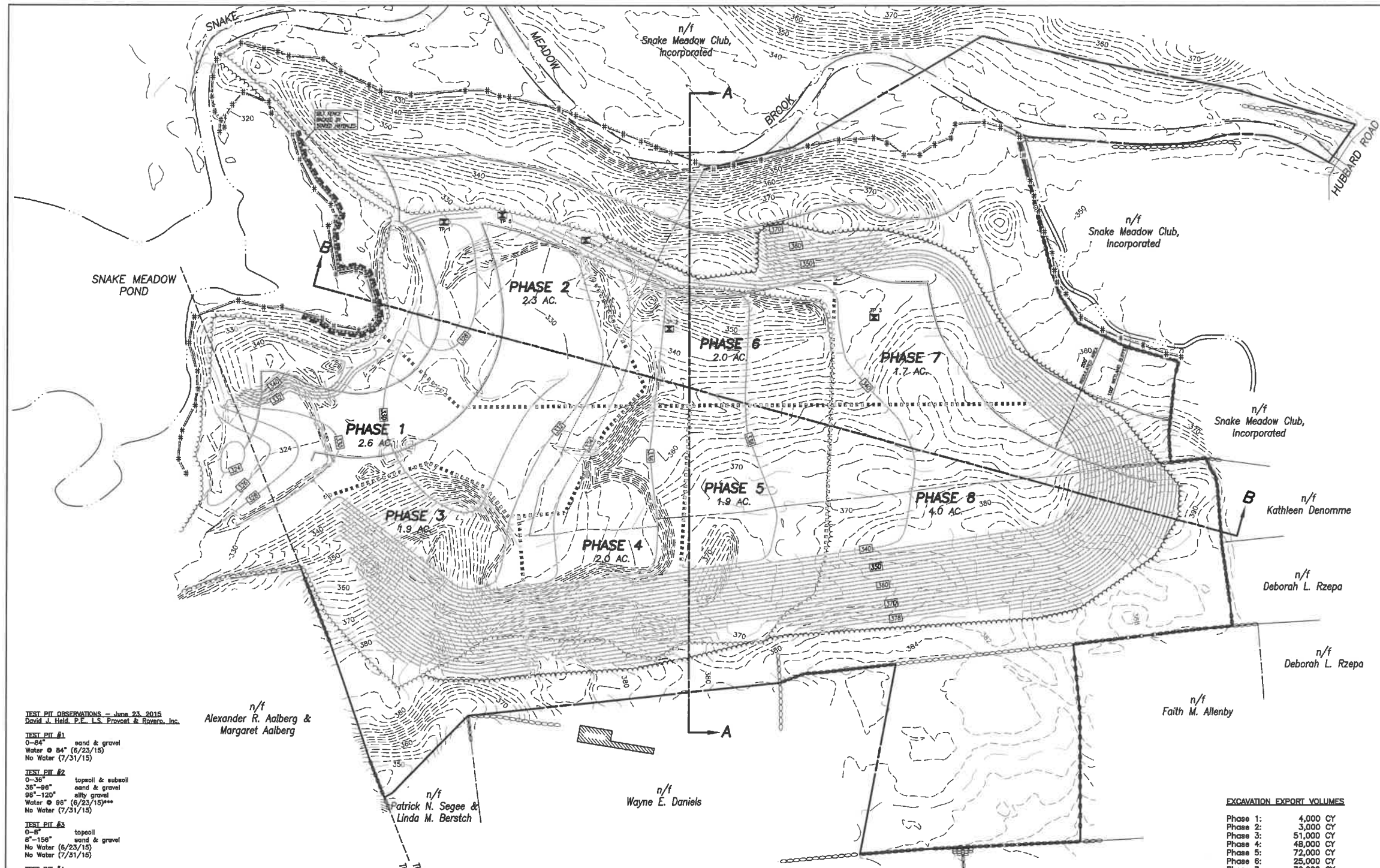


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APPROVED BY THE TOWN OF KILLINGLY PLANNING AND ZONING COMMISSION  
Special Permit No: _____  
Applicant: _____  
Date Approved: _____  
Chairman: _____  
Date: _____

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.

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**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
- - - - - EXISTING INDEX CONTOUR
- - - - - EXISTING CONTOUR
- - - - - PROPOSED CONTOUR
- - - - - PHASE LINE
- PROPOSED CLEARING LIMITS
- PROPOSED SILT FENCE
- PROPOSED STAKED HAYBALES

**STORMWATER INSPECTION & MAINTENANCE NOTES:**

- The contractor shall review the erosion and sedimentation control narrative and details provided on sheet B for inspection and maintenance requirements for temporary erosion and sedimentation control measures.
- 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.

**SURVEY NOTES:**

- 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 26, 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 "1-2" accuracy.  
- Survey Type: General Location and Topographic Survey.
- The intent of this plan is to show project phasing and proposed grading in relation to surrounding properties and site features.
- Zone: RD.
- Owner of record: Snake Meadow Club, Incorporated.
- The subject property is shown as Map 255, Lot 10 on Killingly assessor's maps.
- Elevations are referenced to the North American Vertical Datum of 1988.
- Wetlands shown were delineated in the field by Joseph Theroux in the spring of 2015 and are taken from Map Reference #1.

**MAP REFERENCES:**

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

**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:	140,000 CY
<b>TOTAL:</b>	<b>373,000 CY</b>

**SEE SHEETS 6 & 7 FOR EXCAVATION CROSS SECTIONS**



REVISIONS	
DATE	DESCRIPTION

DATE: 3/20/2020	DRAWN: DJH
SCALE: 1" = 80'	DESIGN: DJH
SHEET: 3 OF 8	CHK BY: ---
DWG. No: HF	JOB No: 293011

**TEST PIT OBSERVATIONS - June 23, 2015**  
David J. Held, P.E., L.S. Provoet & 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"-96" sand & gravel  
96"-120" silty gravel  
Water @ 96" (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 @ 15B" (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.

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

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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.

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**EROSION AND SEDIMENT CONTROL PLAN:**

**REFERENCE IS MADE TO:**

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

**SILT FENCE INSTALLATION AND MAINTENANCE:**

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

**HAY BALE INSTALLATION AND MAINTENANCE:**

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

**TEMPORARY VEGETATIVE COVER:**

**SEED SELECTION**

Grass species shall be appropriate for the season and site conditions. Appropriate species are outlined in Figure 15-2 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 treading with a bulldozer, disking, 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 trucked, the disk 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 15-1 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 recurrence 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 50% vegetative cover).

**PERMANENT VEGETATIVE COVER:**

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

1. Topsoil will be replaced once the excavation and grading has been completed. Topsoil will be spread at a minimum compacted depth of 4".
2. Once the topsoil has been spread, all stones 2" or larger in any dimension will be removed as well as debris.
3. Apply agricultural ground limestone at a rate of 2 tons per acre or 100 lbs. per 1000 s.f. Apply 10-10-10 fertilizer or equivalent at a rate of 300 lbs. per acre or 7.5 lbs. per 1000 s.f. Work lime and fertilizer into the soil to a depth of 4".
4. Inspect seedbed before seeding. If traffic has compacted the soil, retil 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 control 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 streams 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. 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 6" 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.
3. No topsoil or subsoil stripped from the excavation area shall be sold or removed from the property.
4. 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.
5. 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.
6. No blasting is anticipated for completion of the work shown. If blasting is required, the owner is responsible for obtaining all necessary permits.
7. 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.
8. 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.
9. The hours of operation shall be:
  - 7:00 am - 5:00 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.

10. The owner/operator shall install any necessary barricades or barriers to provide protection around the perimeter of open excavation faces and steep slopes.
11. Excavation operations shall be completed in accordance with all appropriate Mine Safety & Health Administration (MSHA) rules and regulations.
12. 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 unavailable 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 topsoil 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./Acres
Switchgrass (Blackwell, Shelter, Dove-In-rock)	4.0
Big Bluestem (Niagra, Kaw)	4.0
Little Bluestem (Slate, Aldous, Camper)	2.0
Sand Lovegrass (NE-27, Blend)	1.5
Bird's-foot Trefoil (Empire, Viking)	2.0
<b>TOTAL</b>	<b>13.5</b>

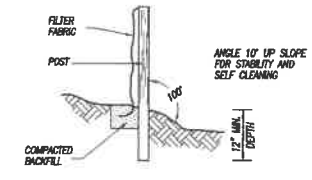
Variety	Lbs./Acres
Switchgrass (Blackwell, Shelter, Dove-In-rock)	4.0
Big Bluestem (Niagra, Kaw)	4.0
Little Bluestem (Slate, Aldous, Camper)	2.0
Sand Lovegrass (NE-27, Blend)	1.5
Bird's-foot Trefoil (Empire, Viking)	2.0
<b>TOTAL</b>	<b>13.5</b>

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, shrubs and other wildlife food plants may be planted at the owner's discretion to support the desired habitat creation.

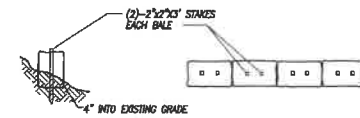
**EXCAVATION EQUIPMENT**

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

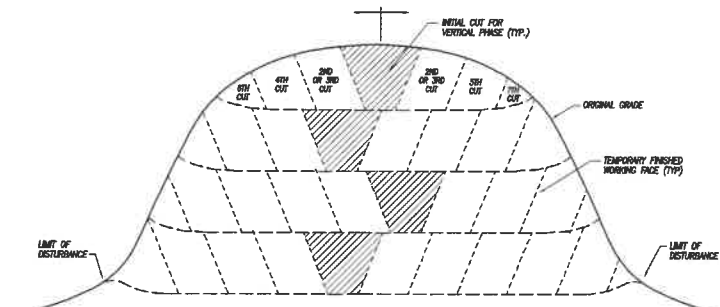
- 2 wheel loaders (Cat 98D or similar)
- 1 large excavator (Cat 345 or similar)
- 1 large dozer (Cat D8 or similar)
- 1 medium dozer (Cat D6 or similar)
- Misc. equipment for restoration of excavated areas



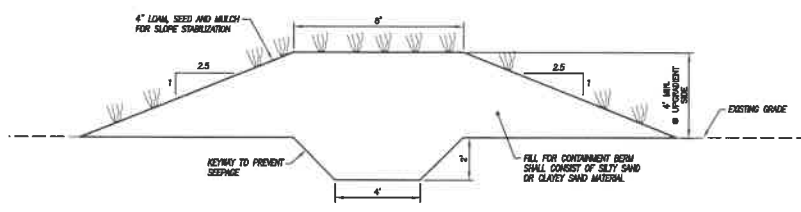
**SILT FENCE**  
NOT TO SCALE



**HAYBALE BARRIER**  
NOT TO SCALE



**DETAIL SHOWING "DOWNCUTTING" EXCAVATION METHOD**  
NOT TO SCALE



**CONTAINMENT BERM CROSS SECTION**  
NOT TO SCALE

C:\Users\Dave\Desktop\2020\202011\UrewhighVA_BLD.dwg Mar 20, 2020 1:24:11 PM

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 _____

REVISIONS	
DATE	DESCRIPTION

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

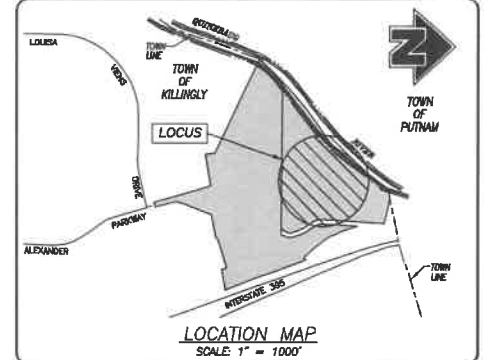
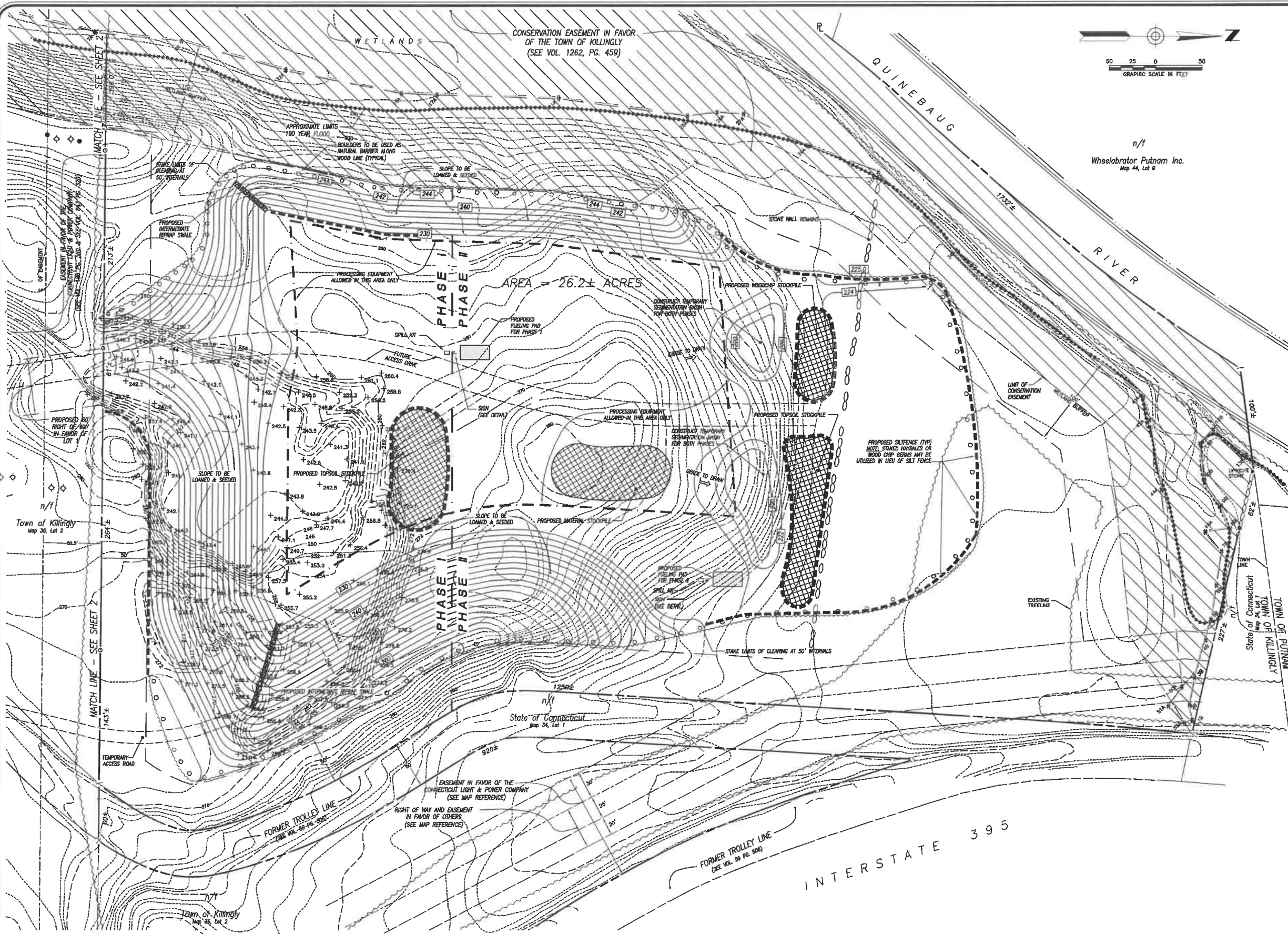
DETAIL SHEET  
PREPARED FOR  
**SNAKE MEADOW CLUB, INC.**  
**PROPOSED GRAVEL EXCAVATION**

SNAKE MEADOW ROAD & HUBBARD ROAD  
KILLINGLY, CONNECTICUT

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

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

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**ATTENTION!**  
IN THE EVENT OF A  
SPILL, SHUT THE VALVE  
IMMEDIATELY.  
CALL 811  
I SPILL, KIT BARRIS!

SIGN DETAIL  
NOT TO SCALE

**NOTES:**

- This survey has been prepared pursuant to the Regulations of Connecticut State Agencies Sections 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 26, 1998;
  - This survey conforms to a Class "C" horizontal accuracy.
  - Topographic features conform to a Class "1-2", "V-2" vertical accuracy.
  - Survey Type: Topographic Survey.
- Parcel is shown as Lot #1 on Assessors Map #36.
- Zone = Industrial.
- Owner of record: 145 Alexander Parkway LLC  
145 Country Club Road  
Killingly, CT 06241
- Elevations shown are based on approximate National Geodetic Vertical Datum of 1929 (NGVD 29). Contours shown are taken from map reference and supplemented with actual field survey. Contour interval = 2'.
- Wetlands shown were taken from map reference.
- Before any construction is to commence contact "CALL BEFORE YOU DIG" at 1-800-922-4455 or 811.

**MAP REFERENCE:**

*Subdivision Plan - Prepared for - Town of Killingly Industrial Park Expansion - Louisa Viens Drive & Alexander Parkway - Killingly, Connecticut - Scale: 1" = 100' - Date: 10/9/2012 - Sheet 1 of 1 - Prepared by: KWP Associates. On file as Map #6633 in the Town of Killingly Land Records.

DATE	DESCRIPTION

**TOPOGRAPHIC SURVEY**  
SHOWING PROPOSED PROCESSING AREA  
PREPARED FOR  
**DESMARIS & SONS, INC.**  
LOUISA VIENS DRIVE & ALEXANDER PARKWAY  
KILLINGLY, CONNECTICUT

**Killingly Engineering Associates**  
Civil Engineering & Surveying  
114 Westcott Road  
P.O. Box 421  
Killingly, Connecticut 06241  
(860) 778-7299  
www.killinglyengineering.com

DATE: 4/11/2020	DRAWN: AMR
SCALE: 1" = 50'	DESIGN: NET
SHEET: 1 OF 3	CHK BY: GG
DWG. No: CLIENT FILE	JOB No: 17088

**LEGEND**

○	IRON PIN
---100---	EXISTING CONTOURS
---100---	PROPOSED CONTOURS
■	INLAND WETLANDS FLAG
—○—○—○—	STONE WALL
—○—○—○—	STONE WALL REMAINS
—○—○—○—	SILT FENCE

APPROVED BY THE TOWN OF  
KILLINGLY PLANNING AND ZONING COMMISSION  
Special Permit No: 18-1187  
Applicant: Desmaris & Sons, Inc.  
Date Approved: July 16, 2018  
Chairman: _____  
Date: _____

NORMAND E. THIBEAULT, JR., P.E.  
LIC #PEN 0022834

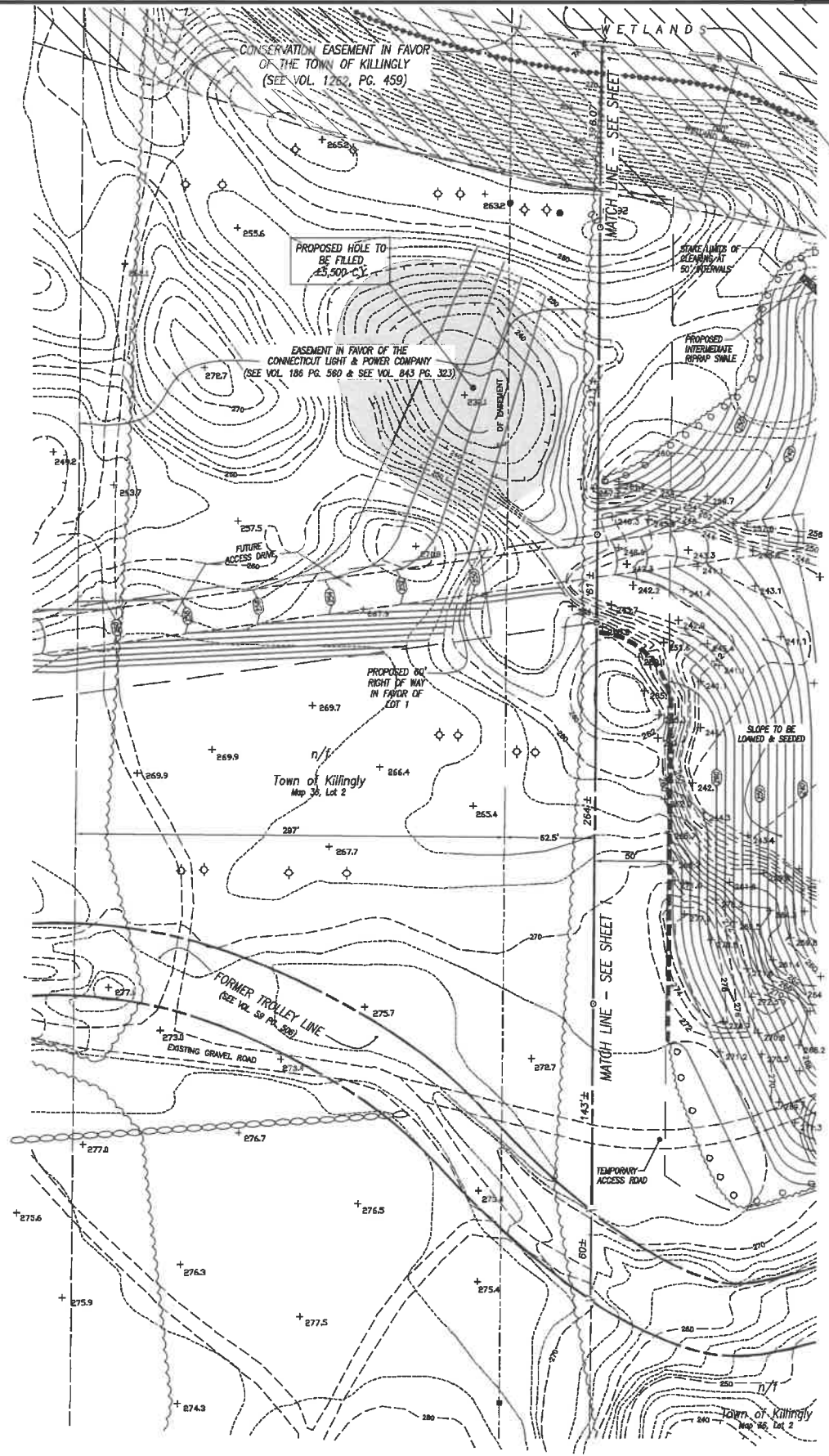
TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON,

GREG A. GLAUDE, L.S. LIC. NO. 70191 DATE

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

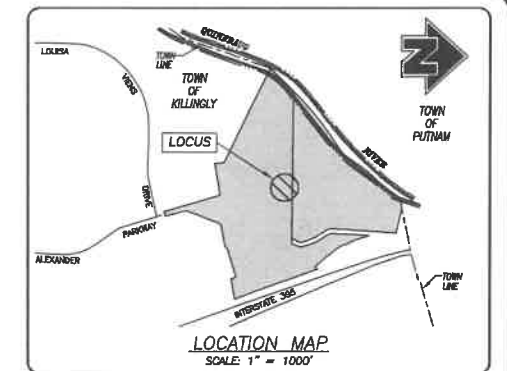
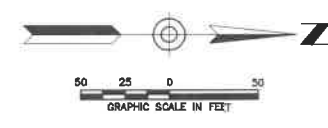
APPROXIMATE 20-12413 (IMPORT MATERIALS)





APPROXIMATE LIMITS  
100 YEAR FLOOD

n/f  
145 Alexander Parkway LLC  
Map 36, Lot 1



**! ATTENTION !**  
**AQUIFER ZONE**  
IN THE EVENT OF A  
SPILL, SHUT THE VALVE  
**IMMEDIATELY**  
**CALL 811**  
**! SPILL KIT INSIDE !**

SIGN DETAIL  
NOT TO SCALE

**NOTES:**

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DATE	DESCRIPTION

**TOPOGRAPHIC SURVEY**  
**SHOWING PROPOSED PROCESSING AREA**  
**PREPARED FOR**  
**DESMARAIS & SONS, INC.**  
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**KILLINGLY, CONNECTICUT**

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114 Westcott Road  
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(860) 719-7299  
www.killinglyengineering.com

DATE: 4/11/2020	DRAWN: AMR
SCALE: 1" = 50'	DESIGN: ---
SHEET: 2 OF 3	CHK BY: GG
DWG. No: CLIENT FILE	JOB No: 17088

- LEGEND**
- IRON PIN
  - 100 --- EXISTING CONTOURS
  - 200 --- PROPOSED CONTOURS
  - INLAND WETLANDS FLAG
  - ○ ○ ○ ○ STONE WALL
  - ○ ○ ○ ○ STONE WALL REMAINS
  - SILT FENCE

APPROVED BY THE TOWN OF  
KILLINGLY PLANNING AND ZONING COMMISSION  
Special Permit No: 18-1187  
Applicant: Desmarais & Sons, Inc.  
Date Approved: July 16, 2018  
Chairman: _____  
Date: _____

NORMAND E. THIBEAULT, JR., P.E.  
LIC #PEN 0022834 DATE _____

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

GREG A. GLAUDE, L.S. LIC. NO. 70191 DATE _____

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

**EROSION AND SEDIMENT CONTROL PLAN**

REFERENCE IS MADE TO:

1. USDA-NRCS Web Soil Survey
2. Soil Survey of New London County Connecticut, U.S.D.A. Soil Conservation Service 1983.

**SOILS:**

The proposed site is comprised mainly of three soil types: Hincley "3BC", Merrimac "34A" and Ninigret Tabary "21A"

**DEVELOPMENT SCHEDULE:**

1. 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 all fence installation notes.)
2. Install anti tracking surface.
3. Install and maintain erosion and sedimentation controls throughout operations.
4. Dust control will be accomplished by spraying with water and if necessary, the application of calcium chloride.

**SPILL PREVENTION:**

The Owner shall prevent oily and other hazardous substances from spilling on the ground, leaching into the soil or migrating into wetlands or water bodies.

1. All fueling shall take place within the designated fueling area as shown on the plans, adjacent to the site entrance and within the construction staging area. All fueling and minor maintenance shall be confined to this area. Major equipment repairs shall be conducted off site.
2. If required, temporary fuel tanks shall be located at the designated fueling area. Manufactured double walled storage tanks shall be installed, operated and maintained per the manufacturer's written recommendations. Single walled temporary tanks shall only be utilized if 100% spillage containment is provided. In the event of fuel spills, the operator shall immediately remove the tank, contain the spillage and contact the CTDEP 24-hour Emergency Spill Response line at 1-866-337-7745.
3. Fuel trucks entering the site shall proceed directly to the designated fueling area prior to dispersing any fuel products.
4. An emergency spill kit shall be located at the designated fueling area and shall consist of absorbents, sealed bags or other material for use in containing spills or leaks. Spilled materials and/or contaminated soils shall be excavated, stored in leak-proof containers and from the site for disposal in accordance with all applicable local, state and federal hazardous waste regulations.

**DEVELOPMENT CONTROL PLAN:**

1. Development of the site will be performed by the applicant, who will be responsible for the installation and maintenance of erosion and sediment control measures required throughout operations.
2. 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 cover can be applied.

**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 (kneaded 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 Figures 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.

**RECOMMENDED SEED MIXTURES:**

No.	Seed Mixture (Variety)	Lbs./acre	Lbs./Sq. Ft.
*28	Switchgrass (Blackwell, Shelter, Cave-in-rock)	4.0	0.10
	Big Bluestem (Niagra, Kay)	4.0	0.10
	Little Bluestem (Sizex, Aldous, Camper)	2.0	0.05
	Sand Lovegrass (NE-27, Bend)	1.5	0.03
	Bird's-foot Trefol (Empire, Viking)	2.0	0.05
**27	Flatpea (Lathos)	1.0	0.20
	Perennial Pea (Lancor)	2.0	0.05
	Crown Vetch (Charming, PennHt)	1.0	0.20
	Tall Fescue (Kentucky 31)	2.0	0.05
***28	Orchardgrass (Pennalta, Kay, Patomac)	3.0	0.10
	Tall Fescue (Kentucky 31)	1.0	0.20
	Redtop (Strecker, Common)	2.0	0.05
	Bird's-foot Trefol (Empire, Viking)	2.0	0.10

* Considered to be a cool season mix  
 ** Considered to be a warm season mix

**SEEDBED PREPARATION**

Loosen the soil to a depth of 3-4 inches with a slightly roughened surface. If the area has been recently worked 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 chain-link fence 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 testing 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 sowing 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 85%-100% coverage.

**MAINTENANCE**

Inspect seeded areas 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 fill 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 recurrence of erosion.

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

**PERMANENT VEGETATIVE COVER:**

Seed mix for slope restoration shall be seed mixtures #28, #27 or #28 as described in the 2002 Guidelines for Soil Erosion and Sediment Control and as described on this sheet, applied at the recommended rates. In general, the following measures of operations shall apply:

**RESTORATION:**

1. No topsoil or subsoil shall be removed from the site. All topsoil and subsoil shall be stockpiled and stored in accordance with measures outlined in "Temporary Vegetative Cover".
2. A minimum of 8" of subsoil and 4" of topsoil shall be spread and compacted on final slopes. Once the topsoil has been spread, all stones 3" or larger in any dimension will be removed or well on debris.
3. Apply agricultural ground limestone at a rate of 2 tons per acre or 100 lbs. per 1000 s.f. Apply 10-10-10 fertilizer or equivalent at a rate of 300 lbs. per acre or 7.5 lbs. per 1000 s.f. Work lime and fertilizer into the soil to a minimum soil depth of 4".
4. Repeat seedbed before seeding. If traffic has compacted the soil, retil compacted areas.
5. Apply the recommended grass seed mix. The recommended seeding dates are: April 1 to June 15 & August 15 to October 1.
6. Following seeding, firm seeded slopes shall be stabilized with turf reinforcement matting based on manufacturer and as shown on the detail, this sheet.
7. If a permanent vegetative stand cannot be established by September 30, apply a temporary cover on the topsoil such as netting or organic mulch.
8. Slopes shall be inspected weekly and after all rain events of 0.5" or greater. Disturbed or damaged slopes shall be repaired immediately.

**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 disturbances 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 outfalling 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 which 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.

**EXCAVATION/PROCESSING NOTES:**

**HOURS OF OPERATION:** 7:00 am - 8:00 pm Monday - Friday  
7:00 am - 12:00 pm Saturday

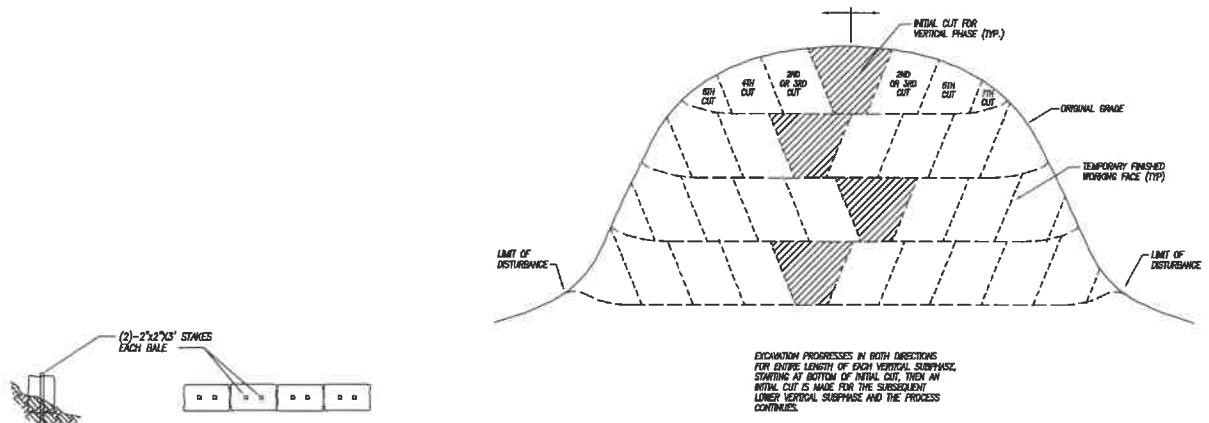
**DUST CONTROL:** Dust control shall be accomplished with periodic watering. Other measures, if deemed should be reviewed and approved by the Town of Killingly.

**GENERAL NOTES:**

1. There shall be no storage of fuel on site nor shall there be vehicle or machinery waiting or major repairs done on site.
2. Excavation shall generally be completed utilizing a downcutting method to maintain a self-contained active excavation area and prevent the migration of stormwater and sediment from the active excavation area.
3. The maximum disturbed area (not yet stabilized with topsoil, seed and mulch) at any time shall be limited to 5 acres.
4. The access drive to the point of excavation shall be maintained in a stable condition. Additional clean gravel, pavement millings or stone aggregate shall be installed as necessary.
5. The maximum permitted final grade slope of excavated areas shall be 2:1H:1V (steep or steeper erosion control netting shall be used to stabilize these slopes - North American Green 30-100 or engineer approved equal).
6. Prior to any excavation, contact CALL BEFORE YOU DIG at 1-800-922-4455 to determine the location of any underground utilities.

**SEQUENCE OF OPERATIONS:**

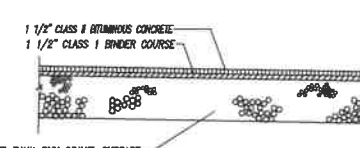
1. Prior to any activity on site, the contractor shall flag the limit of Phase 1 clearing and schedule a pre-construction meeting with the Town of Killingly Zoning Official.
2. Cut trees within phase limit and remove wood from the site. Install perimeter erosion and sedimentation controls; branches/brush may be chipped and utilized as mulch for EAS.
3. Excavate all stumps located in the phase area and remove to a disposal site or stockpile to be shipped for use on site. The state of Connecticut does not allow for burying of stumps on site.
4. Grade access drive as shown on the plans.
5. Excavate/grade areas of proposed sedimentation basins.
6. Strip and stockpile topsoil and subsoil. Excess subsoil may be utilized in edging over-excavated area to assist in achieving compliant side slopes. Note: sufficient subsoil and topsoil shall be reserved to provide a minimum of 6" of subsoil and 4" of topsoil to establish vegetation for finished grades.
7. Begin excavation to remove soil materials; complete regrading of over excavated area.
8. Inspect perimeter erosion and sedimentation controls weekly and after rain events greater than 1/2". Repair erosion controls as required after inspections. Additional erosion and sedimentation controls such as diversions may be installed per direction of the Owner's engineer if site conditions require.
9. When Phase 1 excavation and grading have been completed, apply subsoil, topsoil and seed to re-vegetate slopes. Complete perimeter landscape plantings.
10. When site has been stabilized, remove all perimeter erosion and sedimentation controls. Wood chips berm may be left in place permanently if desired.
11. Repeat sequence for phase 2 operations.
12. Processing shall be for be for materials excavated on site and for materials brought to the site by the Owner from other Owner operated projects. No materials shall be brought to the site for processing from contractors other than the Owner.



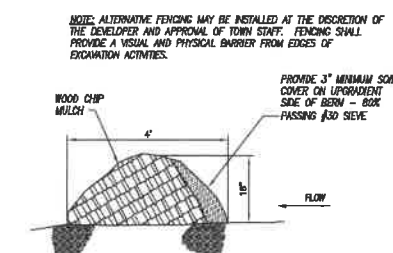
DETAIL SHOWING "DOWNCUTTING" EXCAVATION METHOD  
NOT TO SCALE



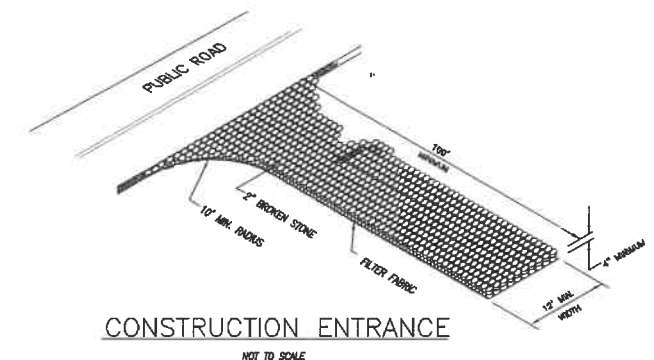
HAYBALE BARRIER  
NOT TO SCALE



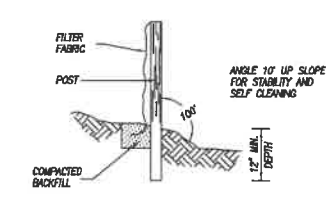
BITUMINOUS CONCRETE PAVEMENT (FUELING PAD)  
NOT TO SCALE



WOOD CHIP FILTER BERM  
NOTE: MAY BE UTILIZED IN LIEU OF SILT FENCE ON LESSER SLOPES



CONSTRUCTION ENTRANCE  
NOT TO SCALE



SILT FENCE  
NOT TO SCALE

DATE	DESCRIPTION

DETAIL SHEET  
 PROPOSED EARTH MATERIALS PROCESSING  
 PREPARED FOR  
**DESMARAIS & SONS, INC.**  
 LOUISA VIENS DRIVE & ALEXANDER PARKWAY  
 KILLINGLY, CONNECTICUT

**Killingly Engineering Associates**  
 Civil Engineering & Surveying  
 99 Westcott Road  
 P.O. Box 421  
 Dayville, Connecticut 06241  
 (860) 775-7269 - FAX: (860) 774-3703

DATE: 04/11/2020	DRAWN: AMR
SCALE: NOT TO SCALE	DESIGN: NET
SHEET: 3 OF 3	CHK BY: ---
DWG. No: CLIENT FILE	JOB No: 17088

APPROVED BY THE TOWN OF  
**KILLINGLY PLANNING AND ZONING COMMISSION**  
 Special Permit No: 18-1787  
 Applicant: **DESMARAIS & SONS, INC.**  
 Date Approved: **JULY 16, 2018**  
 Chairman: _____  
 Date: _____

_____  
 NORMAND E. THIBEAULT, JR., P.E. DATE