



CONSERVATION COMMISSION

AGENDA

Tuesday, January 21, 2024

5:00 PM

Room 22, Recreation Center

Commission Members

Councilor Andrew Madison, Vice Chair
Deborah LeBlanc, Alternate
Art Walker
Councilor Robert Williams
Barbara Richter
Steven Bill
Gary Flaherty
Bob Milliken, Alternate

Thomas P. Haynes, Alternate
John Therriault, Alternate
Alexander Von Plinsky, Alternate
Kenneth Bergman, Alternate

Site Visit, 4:30 PM – Commission members will conduct a site visit of the property located at 19 Ferry Brook Road prior to the meeting.

- 1. Call to Order**
- 2. Elections and Introductions**
- 3. Approval of Meeting Minutes** – December 16, 2024
- 4. Planning Board Referral:** Major Site Plan & Surface Water Conditional Use Permit Application, 19 Ferry Brook Rd – Applicant SVE Associates, on behalf of owner Cheshire County Shooting Sports Education Foundation, proposes a gravel shooting berm located within the 75' surface water buffer. The parcel is 55-ac in size and is in the Rural District.
- 5. Report-outs:**
 - a) Greater Goose Pond Forest Stewardship Subcommittee
 - b) Invasive Species
 - c) Land Conservation
 - d) Pollinator Updates
- 6. Discussion Items:**
 - a) Citywide approach/strategy for invasive species management
 - b) Airport wildlife control fence
 - c) Land Stewardship Updates (easement monitoring)
 - d) NHDOT Route 101 Project
 - e) Master Plan Update
 - f) Outreach
- 7. New or Other Business**
- 8. Adjourn** – Next meeting date: **Tuesday**, February 18, 2025

1 City of Keene
2 New Hampshire

3
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5 CONSERVATION COMMISSION
6 MEETING MINUTES
7

Monday, December 16, 2024

4:30 PM

Room 22,
Recreation Center

Members Present:

Alexander Von Plinsky, IV, Chair
Councilor Andrew Madison, Vice Chair (arrived at 4:47 PM)
Councilor Robert Williams
Art Walker
Ken Bergman
Steven Bill
Thomas Haynes, Alternate (Voting)
John Therriault, Alternate (Voting)

Staff Present:

Mari Brunner, Senior Planner

Members Not Present:

Barbara Richter
Deborah LeBlanc, Alternate

8 **1) Call to Order**
9

10 Chair Von Plinsky called the meeting to order at 4:32 PM.

11
12 Guests were present whom the Mayor had nominated to join as members of the Conservation
13 Commission in 2025: Bob Milliken & Gary Flaherty. Former Commissioner, Eloise Clark, was also
14 present.

15
16 **2) Approval of Meeting Minutes – November 18, 2024**
17

18 Revisions: Line 374, replace “prioritized wetland” with “prioritized wildlife habitat.” Line 381, replace
19 “wildlife corridors” with “wildlife habitat.” Line 442: replace “upper edge” with “western edge.” Line
20 458: replace “wetland” with “habitat.” Line 124: strike the word “tree.”
21

22 A motion by Mr. Bergman to adopt the November 18, 2024 minutes as amended was duly seconded by
23 Mr. Walker. The motion carried unanimously.
24
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26

27 **3) Report-Outs:**

28 **A) Greater Goose Pond Forest Stewardship Subcommittee**

29

30 Mr. Haynes reported that the Subcommittee met on December 13. The group went to Goose Pond and
31 visited the South Trailhead and the site of its proposed bridge by the spillway. The group also looked at
32 sites for two possible All Persons accessibility trails—one on the west side of the lower Pond closest to
33 the new parking area (recommended in the Stewardship Plan) and one on the east side of the Pond. The
34 accessibility trail would likely be a future grant project. The group also met that day at the Recreation
35 Center to talk about many things: signage, paper maps, leaf blowing, new bike trails, larger maps at the
36 kiosks at each trailhead, and a list of trail projects for 2025.

37

38 Mr. Haynes said that the Subcommittee agreed to pursue the bridge at the spillway in 2025, so they will
39 work with the city engineers to get them on the same page and talk about financing. The Subcommittee
40 wants it to be a community project and to raise money for the bridge. Mr. Bill added that the City
41 Engineer was unable to meet with the group on site at Goose Pond, so the Subcommittee was anxious
42 for staff input because they did not know all the design constraints; for example, would a 300-year flood
43 be an issue? Mr. Haynes said he had one meeting with the city engineers and Parks & Recreation
44 Director, Carrah Fisk-Hennessey, to share the initial idea and invite them to that Subcommittee meeting
45 at Goose Pond, but they did not attend.

46

47 Mr. Haynes said the group took measurements for the bridge and they were considering a span of 30–35
48 feet with ribbing on both sides. The height from where the bridge would sit to where the water comes
49 down off the spillway would be the primary concern, and Mr. Haynes said that was 7–8 feet. Mr. Walker
50 thought that would be critical to the engineers. Mr. Bill said they had guidelines for pricing, but that
51 could change with time and tariffs on materials.

52

53 Chair Von Plinsky asked if the Subcommittee needed anything from the rest of the Commission. Mr.
54 Haynes said that the Subcommittee still had questions and would have more information to report in
55 January.

56

57 Mr. Bill asked how individuals or companies could donate. Ms. Brunner said that the Conservation
58 Commission can accept gifts through the City Council’s approval. Mr. Bill added that Ms. Fisk-
59 Hennessey had been a great influence and help on these things, even showing up to do trail maintenance;
60 he called her very supportive.

61

62 Mr. Bergman followed-up on his question about “No Swimming” signage at Goose Pond. Mr. Haynes
63 said he had not visited the North Trailhead to check.

64

65 **B) Invasive Species**

66

67 Councilor Williams recalled that in November 2024, the Commission submitted a letter to the City
68 Council regarding a Citywide plan for invasive species, which would be before the Council’s Municipal

69 Services, Facilities, & Infrastructure (MSFI) Committee on December 18. He encouraged his fellow
70 Commissioners to attend and advocate.

71

72 **C) Land Conservation**

73

74 No updates.

75

76 **D) Pollinator Updates**

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78 Mr. Therriault reported that Bee City USA introduced an Integrated Pest Management (IPM) Plan
79 Toolkit. Since Keene is a Bee City, anyone from City staff could access the files to implement an IPM
80 Plan.

81

82 Chair Von Plinsky followed-up on the beehive at the Keene Public Library. Mr. Therriault said the hive
83 did not survive the winter, so in the spring City staff caulked the gap between the bricks and the
84 overhang with expanding foam, so he anticipated that there would be another colony there within a few
85 years because it would smell like a beehive for a long time. He had warned staff that expanding foam
86 does not keep them out.

87

88 **4) Discussion Items:**

89 **A) Citywide Approach/Strategy for Invasive Species Management**

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91 Chair Von Plinsky reiterated the call for Commissioners to attend the December 18 MSFI Committee
92 meeting to advocate for a Citywide approach to invasive species management. Vice Chair Madison
93 arrived.

94

95 **B) Airport Wildlife Control Fence Update**

96

97 Mr. Bergman shared updates after meeting with the Airport Director, David Hickling, earlier this same
98 day. Mr. Hickling was preparing to submit the final application for final approval to begin planning the
99 design of the fence. Mr. Hickling told Mr. Bergman that the environmental consultant from McFarland
100 Johnson was newer to the job and might have been overly intimidated by the people from DES. So, Mr.
101 Hickling consulted the senior environmental consultants at McFarland Johnson, and they reassured him
102 to submit the application and not anticipate any strong objections based upon their knowledge of these
103 proposals and the logical data amassed for this one. Mr. Bergman said that Mr. Hickling emphasized
104 again that if not approved, he would be inclined to pull the project because the alternative for the fence
105 along Airport Road would not be worth the cost to effectively manage the wildlife concern, and it would
106 also destroy the recreational asset there. Chair Von Plinsky thanked Mr. Bergman for liaising with Mr.
107 Hickling on this project.

108

109 **C) Keene Meadow Solar Station Project Update**

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111 No updates.

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D) NHDOT Route 101 Project

Chair Von Plinsky referred to an update email (with a link to the project webpage and associated information) from Ms. Brunner about an upcoming presentation on December 19 (5:30 PM materials available, 6:00 PM start) at Heberton Hall. He encouraged participation and input. A brief discussion ensued about the format of the presentation and a project mailing that some Commissioners received.

E) Master Plan Update

Ms. Brunner reported that the Master Planning task forces would start meeting for the first of three months in January 2025, with one task force for each of the six Strategic Pillars identified: Housing, Economy, Transportation, Neighborhoods, Environment, and Workforce. Anyone interested in joining a task force was encouraged to contact Ms. Brunner. Commissioners were also encouraged to participate in the online [Discussion Boards](#) for each Strategic Pillar. For each, there was background information, history, consultant takeaways, and survey results available. The Discussion Board comments would be used to generate ideas for the Master Plan Implementation section, and more participation was needed, so Chair Von Plinsky encouraged his fellow Commissioners to participate. Mr. Bergman noted that “Flourishing Environment” seemed to be the most relevant Pillar to the Commission. Chair Von Plinsky agreed but said the Master Plan Steering Committee had talked about the fact that the Flourishing Environment needs to inform decision making across all the different Pillars.

F) Outreach

Chair Von Plinsky said this was a useful addition to this section of the agenda, but he thought it might tend to get lost because much good was happening in the various work groups. He thought that going forward the Commission should consider whether there is a better way to address outreach monthly.

Mr. Haynes mentioned the ongoing Goose Pond Through the Seasons walks. He also mentioned seeing a winter tree and shrub identification program with Steve Roberge through the University of New Hampshire Extension and he was communicating with him about duplicating that at Goose Pond. Chair Von Plinsky appreciated the work of the Greater Goose Pond Forest Stewardship Subcommittee. Mr. Bill recalled a past request for the Commission to visit the Water Treatment plant at some point as well and asked about those logistics. Mr. Haynes said it was originally Ms. Clark’s idea for the Tap to Toilet program before Covid and before Jim Rousmaniere’s death. The program was going to be about Keene’s history, with site visits to the Water Plant and the Water Treatment Plant. Mr. Bergman added that there had also been an idea to visit the surface water reservoirs in Roxbury. Mr. Haynes encouraged some of his fellow Commissioner’s to organize these programs.

Vice Chair Madison recalled his past idea for a conservation speaker series but said he had not had the ability to lead the effort like he thought he would. So, if other Commissioners had the ability, he encouraged them to organize too and said he could consider it again when his term as a Councilor ends in 2025. He noted that Commission field trips during meetings have to be open to the public, which could become challenging if the numbers are unmanageable. He added that historically, the Water and

155 Wastewater Departments had been very open and enthusiastically welcomed tours of the Water and
156 Wastewater Treatment Plants; they regularly invited Councilors, schools, and public groups. He
157 anecdotally shared how in New York City, Valentine’s Day tours of the sewage treatment plant were
158 very successful. He said it is an important part of how the City stewards the environment and he thought
159 it would be an easy opportunity for annual outreach. Outreach events like those do not typically count as
160 formal Conservation Commission meetings (i.e., needing agendas and minutes).

161
162 Mr. Bill recalled that with the upcoming red pine removal, there would likely be an opportunity for
163 outreach. He overheard conversation about it in the barber shop and said people did not seem well
164 informed, so it seemed like the Commission could make things clearer to the public. Chair Von Plinsky
165 agreed.

166
167 **5) NH Association of Conservation Commissions Dues Request**

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169 Chair Von Plinsky referred to the request in the meeting packet from the NH Association of
170 Conservation Commissions for \$950.00 in annual dues.

171
172 A motion by Mr. Therriault for the Conservation Commission to approve paying \$950.00 in annual dues
173 to the NH Association of Conservation Commissions was duly seconded by Mr. Bill.

174
175 Mr. Bill asked if that was the amount the Commission typically paid and Chair Von Plinsky thought it
176 was approximately the same as previous years. Mr. Bill thought it would be a large part of the
177 Commission’s budget and Mr. Haynes asked how it would affect the budget. Ms. Brunner said the full
178 \$2,000 budget was unspent for July 31, 2024–June 30, 2025. She recalled that in the prior year, the
179 Commission paid for four Commissioners to go to the NH Association of Conservation Commissions’
180 Annual Conference and no Commissioners had requested that this year, so those funds remained.
181 Additionally, Mr. Haynes said that the Commission had not paid an honorarium for any of the Goose
182 Pond walks this year. Councilor Williams said he would consider how the budget could be used for
183 spring planting replacements for invasive species.

184
185 The motion for the Conservation Commission to approve paying \$950.00 in annual dues to the NH
186 Association of Conservation Commissions carried unanimously.

187
188 **6) Membership Update**

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190 Chair Von Plinsky said he would be meeting with Mayor Kahn to talk about full vs. alternate positions
191 for the new Commissioners. He explained that everyone’s position at the table is equal, and it is a matter
192 of dealing with Rules. Alternate members participate as freely as any regular member but might not be
193 assigned by the Chair as voting members at every meeting. Individuals are only allowed two full terms
194 as regular members. Vice Chair Madison volunteered to be Chair in 2025 until the end of his term and to
195 lead someone who is nominated as Vice Chair while they learn in advance of potentially taking the role
196 of Chair after that. A Commissioner must be a regular member, not an alternate, to be Chair or Vice
197 Chair, which was part of why Chair Von Plinsky wanted to meet with the Mayor to discuss membership.

198 **7) Adoption of 2025 Meeting Schedule**

199

200 Given that Vice Chair Madison would potentially be nominated as Chair in 2025, discussion ensued
201 about his ability to arrive at meetings before 5:00 PM. The Commission reviewed a proposed 2025
202 meeting schedule in the agenda packet that showed the normal third Monday of the month (except in
203 January and February, when they are the third Tuesdays due to holidays) at 5:00 PM instead of the
204 historic Commission meeting time of 4:30 PM.

205

206 A motion by Vice Chair Madison to approve the 2025 meeting schedule was duly seconded by Mr.
207 Walker. The motion carried unanimously.

208

209 **8) New or Other Business**

210

211 Mr. Bill raised questions about the Commission's site visit and Advice & Comment on a potential
212 Cottage Court Development & Surface Water Conditional Use Permit at 0 Court Street (TMP #228-016-
213 000) during the November 2024 Commission meeting. He recalled discussion about the developers
214 planning for the 2-, 10-, and 50-year recurrence intervals, except for the wetland crossing, which was
215 100-year. So, he asked for clarity about what they were planning, what the Commission's role was, and
216 how to reconcile the different numbers. Chair Von Plinsky said that the discussion in November was
217 very informal and not a part of the regulatory process. When the applicant comes back during the
218 regulatory process, the Commission would have the opportunity to ask those questions specifically,
219 which he encouraged. Unfortunately, he said the Commission did not have those answers at this time.

220

221 Ms. Brunner explained that at this time, the City of Keene's local regulations require that any
222 stormwater system be designed for a 25-year storm, or a 50-year storm on a steep slope. The State of
223 NH permits have different requirements. For example, an Alteration of Terrain Permit for over 100,000
224 square feet of impact would be for a 100-year storm. She thought the stream crossing the developer
225 referred to with the box culvert was what would have to be constructed for a 100-year storm and the
226 stormwater management systems for the actual development (outside of the wetland area) would be
227 designed for a 25-year storm.

228

229 Mr. Bergman asked if the parameters for the categories of 25-, 50-, and 100-year storms were changing.
230 Ms. Brunner said yes, Cornell University updates the storm categories based on climate modeling data
231 and Keene uses their definition for a 25-year storm, and 50-year for impacts to steep slopes. Mr.
232 Bergman asked if that category refers to culverts or other kinds of infrastructure like bridges. Ms.
233 Brunner said that the local regulation focuses more on the amount of runoff expected. Keene requires
234 that the developer use HydroCAD Stormwater Modeling, which uses inputs to determine the amount of
235 runoff pre- and post-development to ensure that the "post" figure is not higher. Mr. Bergman said the
236 City engineers and the contractors would have to reach an agreement about those inputs and Ms.
237 Brunner said yes, one of the inputs is based on a 25-year rainfall event. She added that if Commissioners
238 were concerned about this and thought the standard should be increased to a 50-year storm, for example,
239 that would be something good to contribute through the Master Planning process.

240

241 As someone who used to create stormwater reports, Mr. Flaherty explained that the HydroCAD model
242 Ms. Brunner referenced inputs basic numbers from the Cornell University study into formulas for
243 various things like catch basins or culverts. Mr. Flaherty said you could always over design for a 100-
244 year storm with a sufficient budget; it is safe.

245
246 Mr. Bill referenced the discussion of red pine scale during the November 2024 Commission meeting and
247 the mention by staff of a machine that would eradicate the tree roots after three rows of red pines are
248 proposed to be removed in Wheelock Park. He thought it would really disrupt the soils. Ms. Clark
249 thought they had talked about stump grinders. Mr. Bill thought that for an area of hundreds of trees, it
250 would be a significant impact to the soil. So, he thought the Commission should have better
251 understanding and input. He cited an example of less root disturbance, by cutting the trunk at the ground
252 level and letting it decay naturally into the soil. Mr. Bergman recalled the Director of Parks &
253 Recreation, Ms. Fisk-Hennessey, also mentioning replacing the red pines with broad leaf trees as soon
254 after as possible. Mr. Bill understood but explained that soils are arranged in horizons and take a lot of
255 time to develop, so treating it like a farm would be disruptive. Ms. Clark said the machine acts like
256 extracting a tooth, for example, just below the ground level—Mr. Bill thought six inches had been
257 mentioned—and then it is covered with topsoil. Ms. Clark said the roots are usually actually still there
258 anchoring the soil and feeding microbes. Mr. Milliken said they usually only go to stump size. He added
259 that he went to look at a few of the red pine locations, like the one near the schools on Maple Avenue,
260 and he thought there were plenty of oak trees growing there to hopefully take over afterward. Ms. Clark
261 agreed.

262
263 This was Chair Von Plinsky's last meeting on the Commission and he thanked his colleagues for
264 electing him as Chair and he thanked former chairs, Ms. Clark and Mr. Haynes, for guiding him. If
265 needed, he would be willing to serve as an alternate in the future. Mr. Haynes led the Commission in
266 thanking Chair Von Plinsky and Ms. Clark for their service. Mr. Bergman would be transitioning from a
267 regular to an alternate member in 2025.

268
269 **9) Adjourn – Next Meeting Date: Tuesday, January 16, 2025 at 5:00 PM**

270
271 There being no further business, Chair Von Plinsky adjourned the meeting at 5:21 PM.

272
273 Respectfully submitted by,
274 Katryna Kibler, Minute Taker

275
276 Reviewed and edited by,
277 Mari Brunner, Senior Planner



City of Keene, NH Site Plan Application

If you have questions about how to complete this form, please call: (603) 352-5440 or email: communitydevelopment@keenenh.gov

SECTION 1: PROJECT INFORMATION

PROJECT NAME: Cheshire County Shooting Sports Education Foundation		TYPE OF APPLICATION BEING SUBMITTED:
PROJECT ADDRESS(ES): 19 Ferry Brook Road		<input checked="" type="checkbox"/> MAJOR PROJECT APPLICATION <input type="checkbox"/> MINOR PROJECT APPLICATION
EXISTING OR PREVIOUS USE: Shooting Range	PROPOSED USE: Shooting Range	
GROSS FLOOR AREA OF NEW CONSTRUCTION (in square feet) 0	GROSS FLOOR AREA OF EXISTING BUILDINGS/STRUCTURES (in square feet) 465 sf, and 4618 sf	
AREA OF PROPOSED NEW IMPERVIOUS SURFACES (in square feet) 0	TOTAL AREA OF LAND DISTURBANCE (in square feet) 7500	

SECTION 2: CONTACT INFORMATION

PROPERTY OWNER	APPLICANT
NAME/COMPANY: CCSSEF, Inc	NAME/COMPANY: Same
MAILING ADDRESS: P.O. Box 233, Keene, NH 03431	MAILING ADDRESS:
PHONE: (603) 352-8563	PHONE:
EMAIL: otto.busher@ccssed.org	EMAIL:
SIGNATURE:	SIGNATURE:
PRINTED NAME: Otto Busher III	PRINTED NAME:

AUTHORIZED AGENT (if different than Owner/Applicant)	FOR OFFICE USE ONLY:	
NAME/COMPANY: Liza Sargent/SVE Associates	TAX MAP PARCEL #(s): 214-021-000-_____	
MAILING ADDRESS: P.O. Box 1818, Brattleboro, VT 05302	_____	
PHONE: (802) 257-0561	PARCEL SIZE: 55 ac	DATE STAMP:
EMAIL: lsargent@sveassoc.com	ZONING DISTRICT: Rural	
SIGNATURE:	PROJECT #: PB-2024-23	
PRINTED NAME: Liza Sargent		



City of Keene, NH Site Plan Application

If you have questions about how to complete this form, please call: (603) 352-5440 or email: communitydevelopment@keenenh.gov

SECTION 1: PROJECT INFORMATION

PROJECT NAME: Cheshire County Shooting Sports Education Foundation		TYPE OF APPLICATION BEING SUBMITTED: <input checked="" type="checkbox"/> MAJOR PROJECT APPLICATION <input type="checkbox"/> MINOR PROJECT APPLICATION
PROJECT ADDRESS(ES): 19 Ferry Brook Road		
EXISTING OR PREVIOUS USE: Shooting Range	PROPOSED USE: Shooting Range	
GROSS FLOOR AREA OF NEW CONSTRUCTION (in square feet) 0	GROSS FLOOR AREA OF EXISTING BUILDINGS/STRUCTURES (in square feet) 465 sf, and 4618 sf	
AREA OF PROPOSED NEW IMPERVIOUS SURFACES (in square feet) 0	TOTAL AREA OF LAND DISTURBANCE (in square feet) 7500	

SECTION 2: CONTACT INFORMATION

PROPERTY OWNER	APPLICANT
NAME/COMPANY: CCSSEF, Inc	NAME/COMPANY: Same
MAILING ADDRESS: P.O. Box 233, Keene, NH 03431	MAILING ADDRESS:
PHONE: (603) 352-8563	PHONE:
EMAIL: otto.busher@ccssed.org	EMAIL:
SIGNATURE: 	SIGNATURE:
PRINTED NAME: Otto Busher III	PRINTED NAME:

AUTHORIZED AGENT (if different than Owner/Applicant)	FOR OFFICE USE ONLY:	
NAME/COMPANY: Liza Sargent/SVE Associates	TAX MAP PARCEL #(s): 214-021-000-_____	
MAILING ADDRESS: P.O. Box 1818, Brattleboro, VT 05302	_____	
PHONE: (802) 257-0561	PARCEL SIZE: 55 acr	DATE STAMP:
EMAIL: lsargent@sveassoc.com	ZONING DISTRICT: Rural	
SIGNATURE:	PROJECT #: PB-2024-23	
PRINTED NAME: Liza Sargent		



City of Keene, NH

Surface Water Protection Conditional Use Permit (CUP) Application

If you have questions about how to complete this form, please call: (603) 352-5440 or email: communitydevelopment@keeneh.gov

SECTION 1: PROJECT INFORMATION

PROJECT NAME: Cheshire County Shooting Sports Education Foundation

PROJECT ADDRESS(ES): 19 Ferry Brook Road

SECTION 2: CONTACT INFORMATION

PROPERTY OWNER	APPLICANT
NAME/COMPANY: CCSSEF, Inc.	NAME/COMPANY: same
MAILING ADDRESS: P.O. Box 233, Keene, NH 03431	MAILING ADDRESS:
PHONE: 603-352-8563	PHONE:
EMAIL: otto.busher@ccssef.org	EMAIL:
SIGNATURE:	SIGNATURE:
PRINTED NAME: Otto A. Busher, III	PRINTED NAME:

AUTHORIZED AGENT (if different than Owner/Applicant)	FOR OFFICE USE ONLY:	
NAME/COMPANY: PO Box 1818, Brattleboro, VT 05302	TAX MAP PARCEL #(s): 214-021-000- - - - -	
MAILING ADDRESS: PO Box 1818, Brattleboro, VT 05302	- - - - -	
PHONE: 802-257-0561	PARCEL SIZE: 55 acr	DATE STAMP:
EMAIL: lsargent@sveassoc.com	ZONING DISTRICT: Rural	
SIGNATURE:	PROJECT #: PB-2024-23	
PRINTED NAME: Liza Sargent		

Site Plan & Surface Water Protection Conditional Use Permit Project Narrative

Cheshire County Shooting Sports Education Foundation SVE Project K2695A

December 16, 2024
Revised January 7, 2025

Cheshire County Shooting Sports Education Foundation is proposing several changes to their approved site plan SPR-01-13, Modification #3, at 19 Ferry Brook Road. *The site today is a shooting sports education facility.* Changes include relocating the emergency overflow on the stormwater level spreader, relocating the pile of topsoil and boulder pile outside of the wetland buffer, along with the construction of wetlands to offset any wetland *buffer* impacts.

Regarding the Article 21 Site Development Standards:

1. *Drainage & Stormwater Management: Stormwater from the previously approved building addition, plus the classroom trailer and a portion of the berm will sheet flow to the proposed level spreader. There is no discharge to City drainage systems and no direct discharge to the river. There is no measurable increase in stormwater runoff from the proposed site improvements.*
2. *Sediment/Erosion Control: Silt fence is proposed to minimize the potential for erosion problems. Sheet C-1 contains silt fence detail.*
3. *Snow Storage and Removal: The site is over 100 acres with ample space for snow storage.*
4. *Landscaping: No proposed landscaping, except for the proposed constructed wetland and the proposed seeding and mulching of the berm.*
5. *Screening: No proposed changes.*
6. *Lighting: No proposed changes.*
7. *Sewer & Water: No proposed changes.*
8. *Traffic and access management: No proposed changes.*
9. *Filling & Excavation: The topsoil pile will be placed on the berm to help facilitate vegetation growth. Excavation will occur to construct the proposed wetland.*
10. *Surface Waters & Wetlands: The CUP application has been submitted to allow the existing berm, existing unpaved path/woods road and existing culvert to remain within the wetland buffer, as well as to construct the emergency spillway within the buffer. No changes are proposed to affect surface waters.*
11. *Hazardous & Toxic Materials: Not applicable.*
12. *Noise: No proposed changes.*
13. *Architecture and Visual Appearance: No proposed changes.*

SVE Associates

Engineering * Surveying * Landscape Architecture * Planning
439 West River Road, P.O. Box 1818, Brattleboro, VT 05302 Phone: (802) 257-0561

PREVIOUS APPROVAL:
 SPR-01-13, MOD. 3



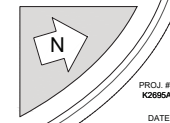
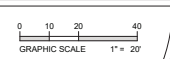
Lisa Sargent 1/7/25
 LISA P. SARGENT DATE
 R.C.E. NUMBER: 13365

NO.	REVISION	DATE	BY	CHK

SVE
 Engineering
 Planning
 Landscape Architecture
 Surveying

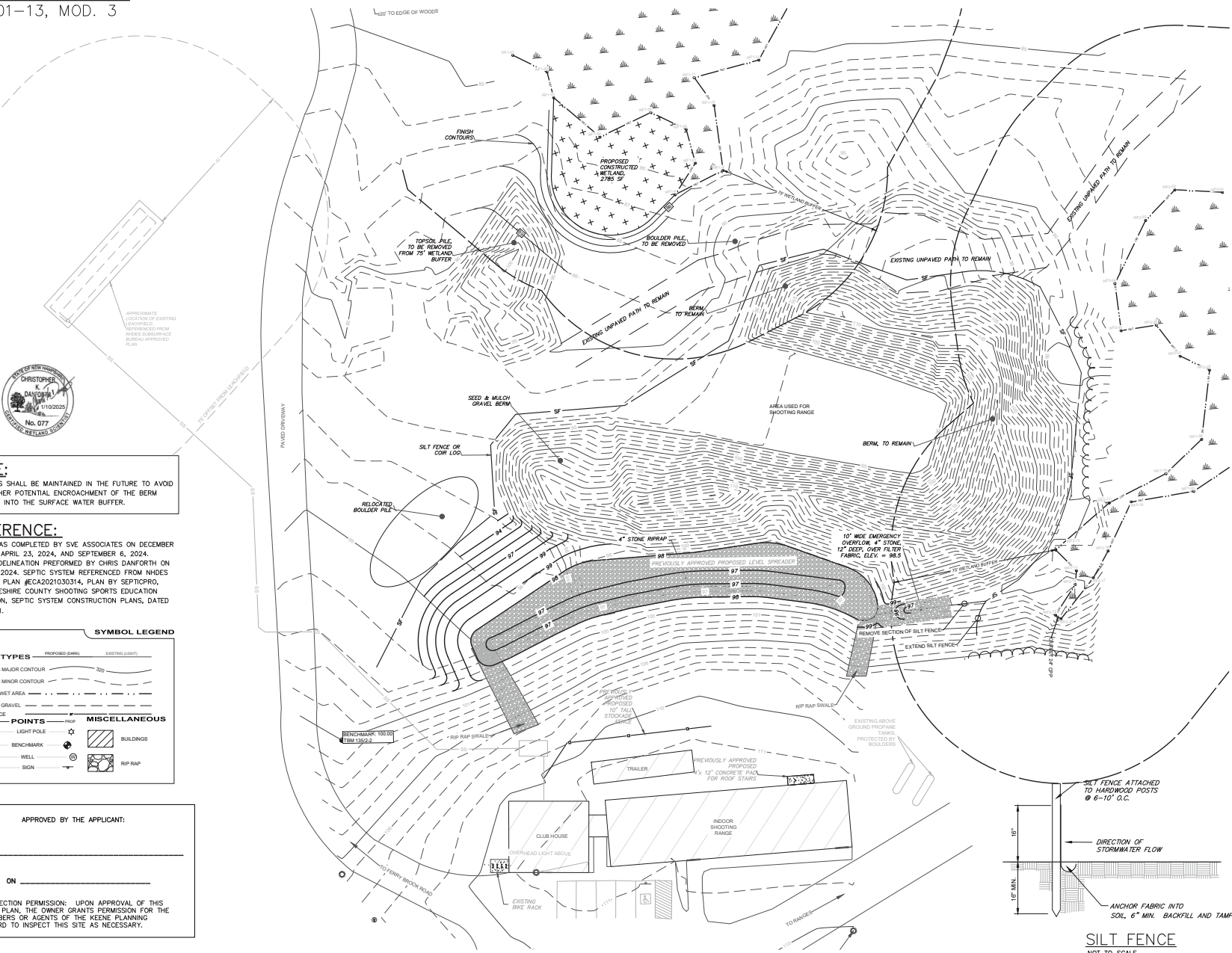
SVE Associates
 P.O. Box 1818
 439 West River Road
 Brattleboro, VT 05302
 T 802.257.0561
 F 802.257.0721
 www.sveassoc.com

CUP SITE PLAN
 CHESHIRE COUNTY SHOOTING SPORTS EDUCATION FOUNDATION, INC
 19 FERRY BROOK ROAD
 KEENE, NEW HAMPSHIRE



PROJ. #
 K2685A
 DATE:
 5 - JAN - 24

SHEET
 DRAWN: AJG
 CHECKED: LPS
C-1



NOTE:
 THE BERMS SHALL BE MAINTAINED IN THE FUTURE TO AVOID ANY FURTHER POTENTIAL ENCROACHMENT OF THE BERM MATERIALS INTO THE SURFACE WATER BUFFER.

REFERENCE:
 SURVEY WAS COMPLETED BY SVE ASSOCIATES ON DECEMBER 13, 2023, APRIL 23, 2024, AND SEPTEMBER 6, 2024. WETLAND DELINEATION PERFORMED BY CHRIS DANFORTH ON APRIL 10, 2024. SEPTIC SYSTEM REFERENCED FROM NHDES APPROVED PLAN #ECA2021030314, PLAN BY SEPTICPRO, TITLED CHESHIRE COUNTY SHOOTING SPORTS EDUCATION FOUNDATION, SEPTIC SYSTEM CONSTRUCTION PLANS, DATED 3/03/2021.

SYMBOL LEGEND

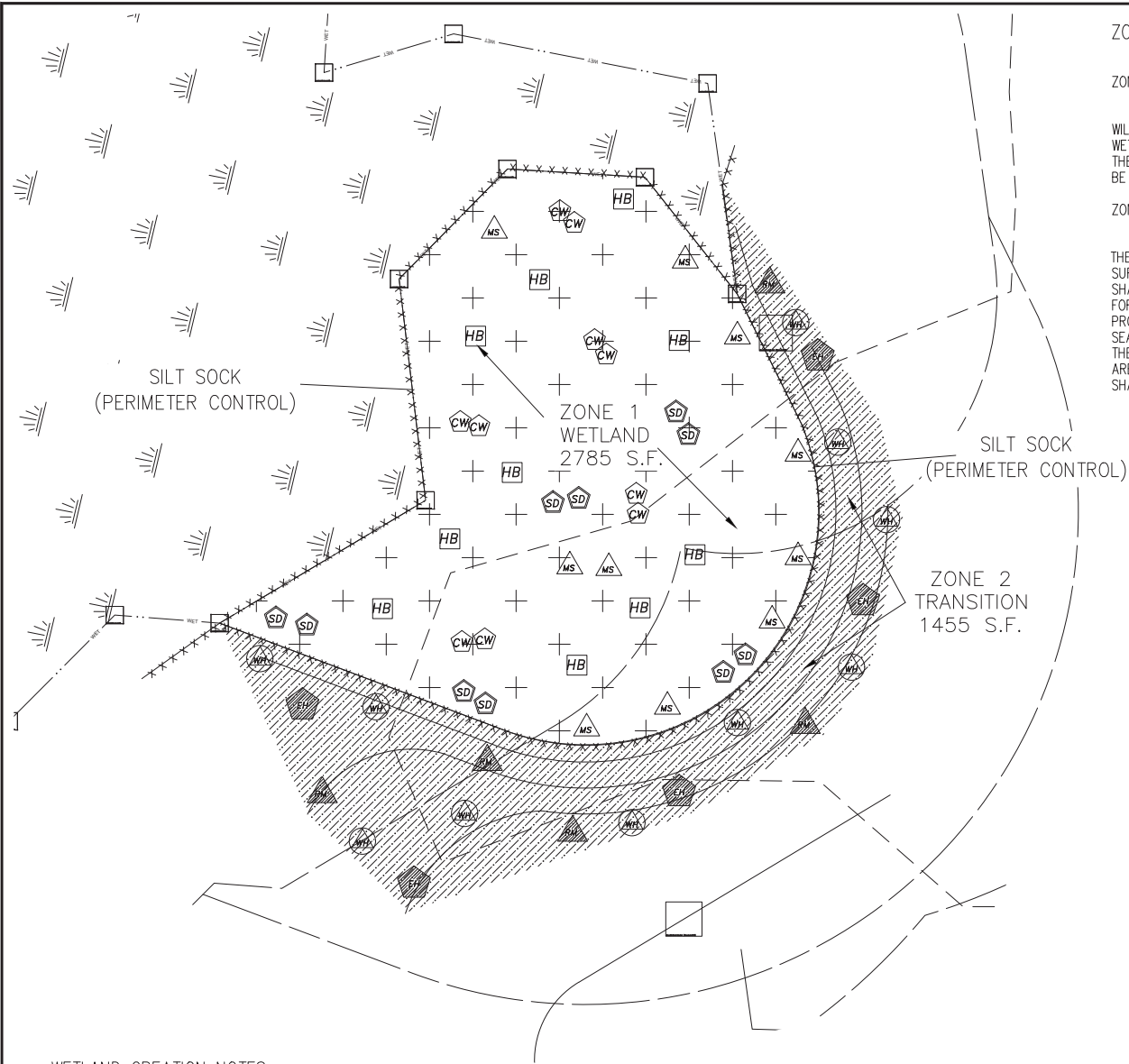
LINE TYPES	PROPOSED (DASHED)	EXISTING (SOLID)
EXISTING MAJOR CONTOUR		
EXISTING MINOR CONTOUR		
LIMIT OF WETLAND		
EDGE OF GRAVEL		
SILT FENCE		
POINTS	TRIP	MISCELLANEOUS
LIGHT POLE		BUILDINGS
BENCHMARK		RIP RAP
WELL		
SIGN		

APPROVED BY THE APPLICANT:

 ON _____

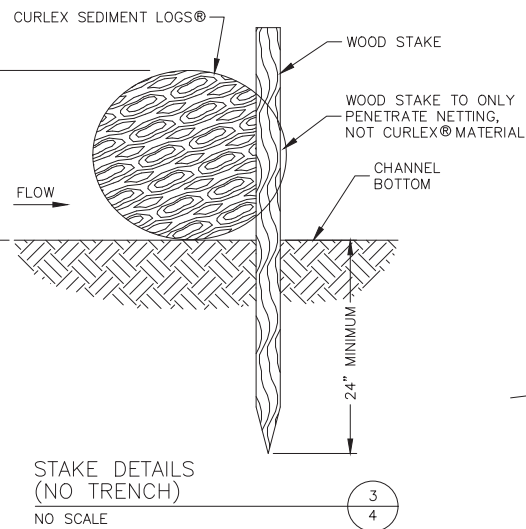
INSPECTION PERMISSION: UPON APPROVAL OF THIS SITE PLAN, THE OWNER GRANTS PERMISSION FOR THE MEMBERS OR AGENTS OF THE KEENE PLANNING BOARD TO INSPECT THIS SITE AS NECESSARY.

Drawing name: P:\Projects\NH PROJECTS\0185A, Cheshire County Fair & Game Club\Dog\K2685A SITE 1-6-25.dwg, Jan 07, 2025, 1:36pm



WETLAND CREATION NOTES:

- LIMITS OF THE WETLAND CREATION AREA TO BE CLEARLY MARKED IN THE FIELD BY THE CONTRACTOR WITH FENCING AND/OR FLAGGING.
- THE WETLAND CREATION AREA SHALL BE CONSTRUCTED AS SHOWN ON THE APPROVED PLANS.
- EROSION CONTROL MEASURES, AS SHOWN ON PLANS, ARE TO BE STRICTLY IMPLEMENTED. EROSION CONTROLS SHALL BE INSTALLED PRIOR TO ANY EARTH MOVING OPERATION.
- THE WETLAND CREATION AREA SHALL BE SEEDED AND PLANTED ACCORDING TO THE PLANTING PLAN. SITE STABILIZATION SHALL BE ACCOMPLISHED IMMEDIATELY AFTER GRADING AND TOPSOIL APPLICATION IS COMPLETED (SEE SEEDING NOTES).
- DISPOSAL OF EXCESS MATERIAL FROM ANY ACTIVITY UNDERTAKEN FOR THE COMPLETION OF THIS PROJECT SHALL OCCUR WITHIN AN UPLAND SITE IN A MANNER THAT PREVENTS SEDIMENTATION OF DOWN GRADIENT WATERWAYS OR WETLANDS. THE DISPOSAL SITE SHALL BE PERMANENTLY STABILIZED WITH SEED AND MULCH. TEMPORARY EROSION CONTROLS SHALL BE INSTALLED AS NECESSARY.
- THIS WETLAND CREATION PLAN WAS DESIGNED BY DANFORTH ENVIRONMENTAL CONSULTANTS, L.L.C., FRANCETOWN, NH 12/14/2024
- A PRE-CONSTRUCTION MEETING SHOULD BE HELD AT THE SITE PRIOR TO THE START OF WETLAND CREATION TO ENSURE THAT THE CONTRACTOR IS AWARE OF THE DESIRED RESULT AND THE ACTIONS NECESSARY TO ACHIEVE SUCCESSFUL WETLAND CREATION.
- TO ENHANCE THE WETLAND CREATION AREA, MICRO-TOPOGRAPHIC FEATURES SHALL BE CONSTRUCTED TO REPLICATE NATURALLY OCCURRING MOUNDS AND POOLS FOUND IN WETLANDS. THESE FEATURES INCREASE HABITAT DIVERSITY AND SUCCESSFUL VEGETATIVE ESTABLISHMENT.
- WHEN SUBGRADE ELEVATION IS ACHIEVED, A MINIMUM OF 4 INCHES OF TOPSOIL SHALL BE APPLIED TO THE WETLAND CREATION AREA TO ACHIEVE THE FINAL GRADING AS SPECIFIED ON THE PLAN.
- A TESTPIT SHALL BE DUG IN THE AREA OF THE WETLAND CREATION AREA TO CONFIRM THE SEASONAL WATERTABLE ELEVATION. 3/4 OF THE CREATION AREA SHALL BE CONSTRUCTED AT OR BELOW THE SEASONAL WATERTABLE.



STAKE DETAILS (NO TRENCH)
NO SCALE

ZONE PLANTING SPECIFICATIONS

ZONE I - PSS1B (TRANSITIONAL WETLAND ZONE)

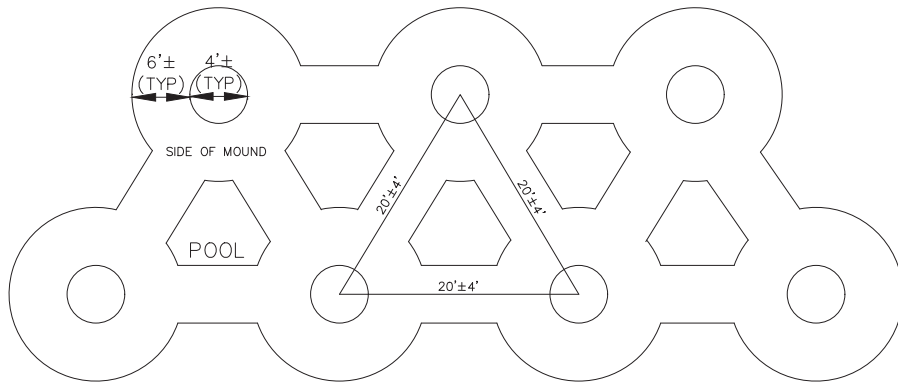
ZONE I CONSISTS OF A TRANSITIONAL SCRUB-SHRUB WETLAND AREA. THIS AREA WILL BE LOAMED WITH 6 INCHES OF TOPSOIL AND SEEDED WITH THE SPECIFIED WETLAND TRANSITION SEED MIX. TREES AND SHRUBS WILL BE PLANTED TO ENHANCE THE WETLAND TRANSITIONAL AREA. THE INTENDED HYDROLOGY OF THIS ZONE WILL BE SEASONALLY SATURATED SOILS.

ZONE II - PSS1E (SCRUB-SHRUB WETLAND)

ZONE II CONSISTS OF A SCRUB-SHRUB AND EMERGENT WETLAND COMPLEX. THE EXISTING UPLAND WILL BE GRADED SUCH THAT GROUNDWATER AND SURFACE HYDROLOGY WILL COLLECT IN THE AREA. MICROTOPOGRAPHICAL FEATURES SHALL BE CONSTRUCTED TO REPLICATE MOUND AND POOL FEATURES TYPICAL OF A FORESTED WETLAND. THE INTENT IS TO CREATE A VARIABLE HYDROLOGIC REGIME TO PROMOTE A DIVERSITY OF VEGETATIVE HABITAT. THE DEPRESSIONS PROVIDE AREAS OF SEASONAL INUNDATION AND THE MOUNDS OFFER VARIOUS ZONES OF SOIL SATURATION. THE MOUNDS SHALL BE PLANTED WITH THE SPECIFIED TREES. THE TRANSITIONAL AREAS AND POOL PERIMETER SHALL BE PLANTED WITH SHRUBS. THE ENTIRE AREA SHALL BE SEEDED WITH THE SPECIFIED WETLAND SEED MIX.

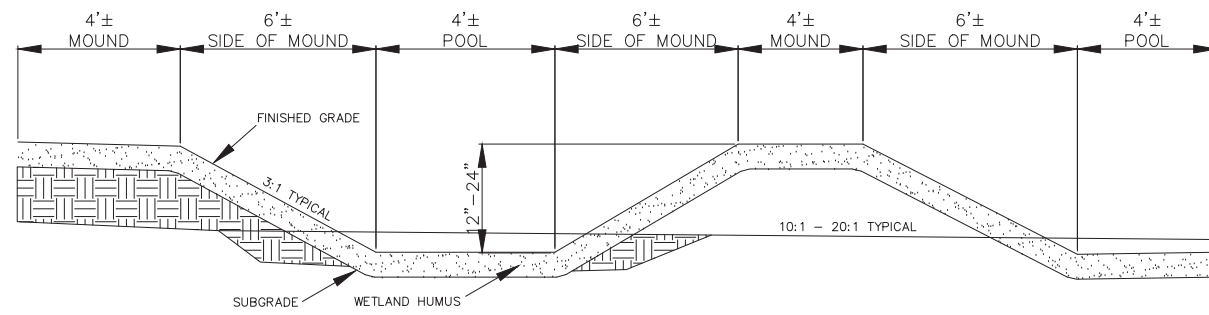
PLANT SYMBOL LEGEND

- EASTERN HEMLOCK
- RED MAPLE
- SILKY DOGWOOD
- HIGHBUSH BLUEBERRY
- COMMON WINTERBERRY
- BROADLEAVED MEADOWSWEET
- WITCH HAZEL



PLAN

NOTE: AN "EGG CARTON" EFFECT IS DESIRED IN THE MOUND AND POOL AREAS



SECTION

TYPICAL MOUND AND POOL DETAIL
N.T.S.

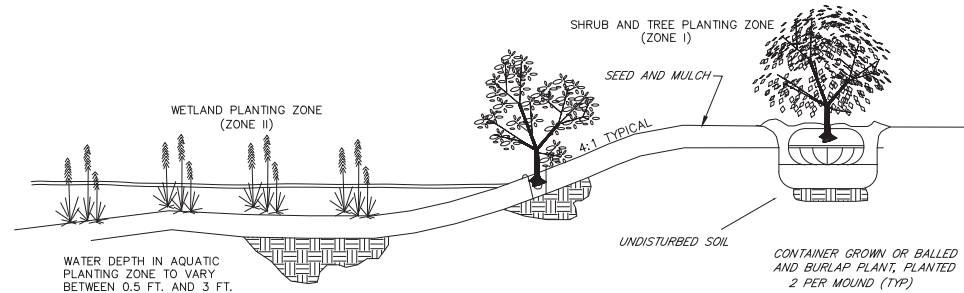
PLANTING TABLE
WETLAND CREATION AREA
CCSSEF-KEENE

SYMBOL	QUANTITY	STATUS	BOTANICAL NAME		SIZE ¹	ZONE		SPACING
			TREES & SHRUBS	COMMON NAME		I	II	
AR	5	FAC	<i>Acer rubrum</i>	Red Maple	4'-6'	5		20' OC ²
TC	5	FACU	<i>Tsuga canadensis</i>	Eastern Hemlock	4'-6'	5		20' OC
HV	10	FACU	<i>Hamamelis virginiana</i>	Witch Hazel	2'-3'	10		8' OC
IV	10	FACW	<i>Ilex verticillata</i>	Common Winterberry	2'-3'		10	8' OC
VC	10	FACW	<i>Vaccinium corymbosum</i>	Highbush Blueberry	2'-3'		10	8' OC
SL	10	FAC	<i>Spiraea latifolia</i>	Broad-leaved Meadowsweet	2'-3'		10	8' OC
SD	10	FACW	<i>Cornus amomum</i>	Silky Dogwood	2'-3'		10	8' OC

SEED		Wetland Seed Mix ³		Transition Seed Mix ³	
WSM	1.5 lbs	---	seed	1.5 lbs	1 lb./2500s.f.
TSM	2 lbs	---	seed	2 lbs	50 lbs/acre

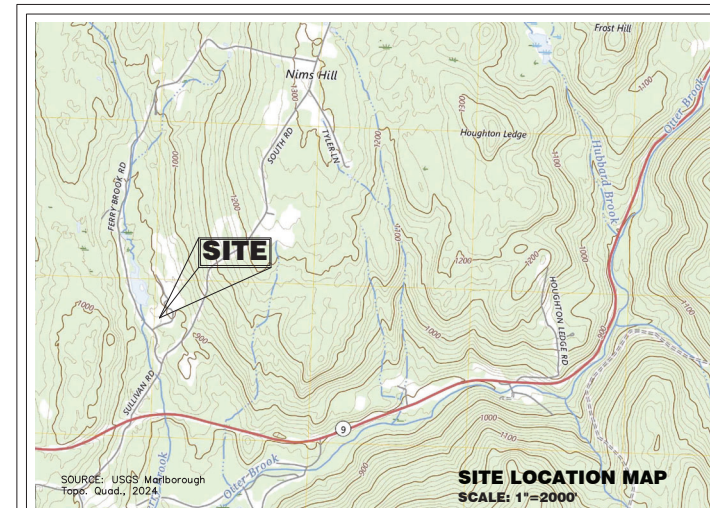
1 - TREES AND SHRUBS ARE SPECIFIED IN POTTED FORM (2-3 GALLON POTS)
2 - OC = PLANT ON CENTER
3 - PLANTING RATE IS BASED UPON PURE LIVE SEED RATIO OBTAINED FROM SUPPLIER.

PLANTING DETAIL CROSS-SECTION (TYPICAL)



CONSTRUCTION SEQUENCE:

- MARK LIMITS OF CONSTRUCTION.
- CONSTRUCT TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROLS AS SHOWN ON THIS PLAN. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY EARTH MOVING OPERATION AND VERIFIED BY THE PROJECT INSPECTOR.
- PERFORM GRADING AND EXCAVATION ACTIVITIES WITHIN THE DESIGNATED WETLAND CREATION AREA. HAVE INSPECTOR VERIFY SUBGRADES PRIOR TO APPLICATION OF WETLAND TOP SOIL. AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DITCHES, SILT FENCES, SEDIMENT TRAPS, ETC. MULCH AND SEED EXPOSED AREAS AS REQUIRED.
- PERFORM SHRUB/TREE PLANTINGS WITHIN THE CREATION AND TRANSITION AREAS ACCORDING TO THE APPROVED PLANTING PLAN.
- APPLY PERMANENT VEGETATIVE COVER SEEDING AND MULCH. ALL EXPOSED SOILS SHALL BE STABILIZED IMMEDIATELY AFTER CONSTRUCTION.
- REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER SEEDED AREAS HAVE BECOME ESTABLISHED AND THE WETLAND CREATION IS COMPLETED.



SITE LOCATION MAP
SCALE: 1"=2000'

DANFORTH ENVIRONMENTAL CONSULTING, LLC

Wetland Delineation, Restoration & Design
Environmental Permitting, Assessments & Septic Design
684 New Boston Road - Francetown, NH 03043
Phone: 603-547-7100 Email: dckantort@gmail.com

CHESHIRE COUNTY SHOOTING SPORTS
19 FERRY BROOK ROAD, KEENE, NH 03431

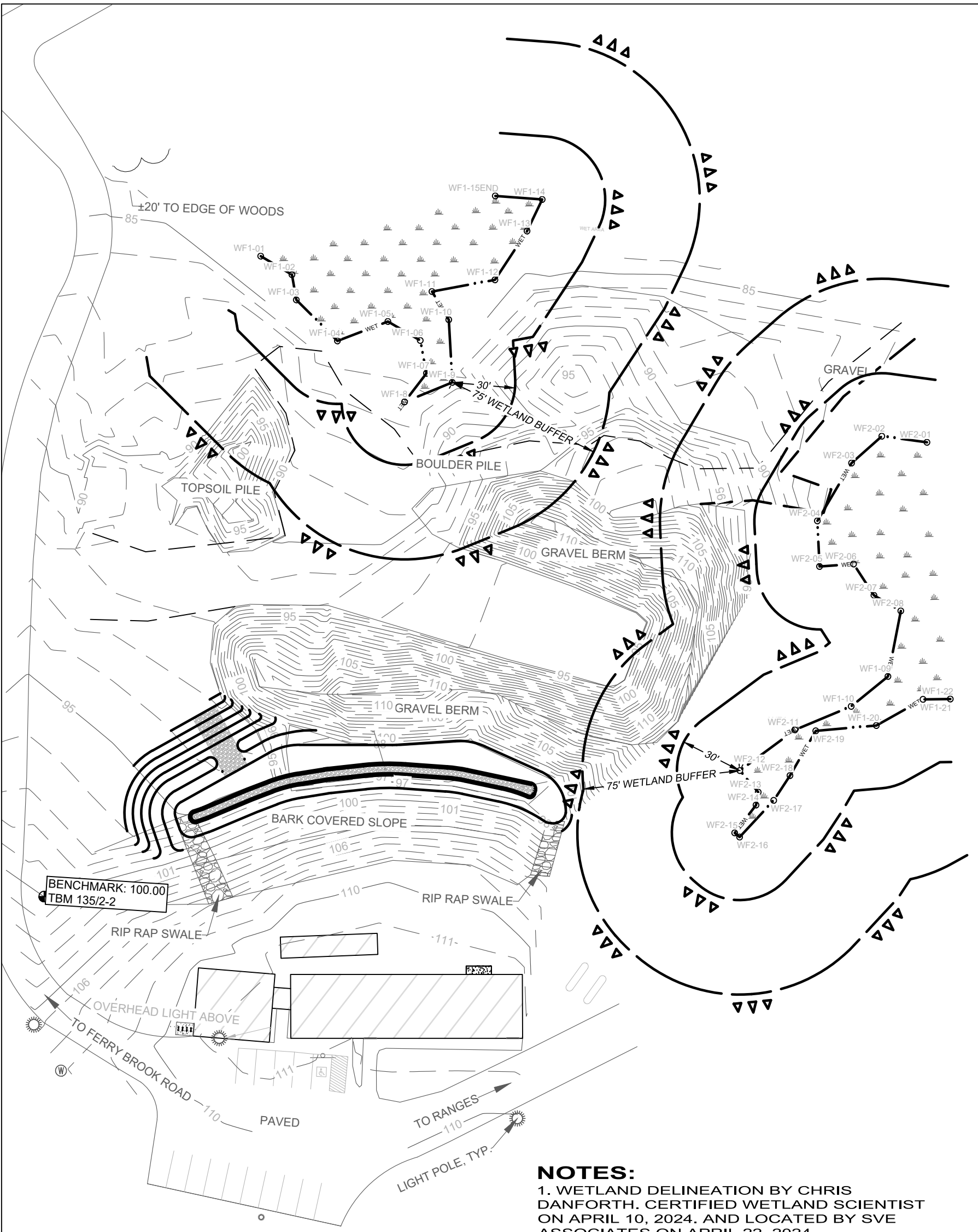
SITE PLAN OF
PROPOSED CONSTRUCTED WETLAND

LOT NO. 21

TAX MAP: 214

PREPARED FOR:
CCSSEF, INC.
P.O. BOX 233
KEENE, NH 03431
603-352-8563

DATE: 12/14/2024
SCALE: 1"=10'
SHEET: 01



NOTES:
 1. WETLAND DELINEATION BY CHRIS DANFORTH, CERTIFIED WETLAND SCIENTIST ON APRIL 10, 2024, AND LOCATED BY SVE ASSOCIATES ON APRIL 22, 2024

SYMBOL LEGEND

LINE TYPES		PROPOSED (DARK)	EXISTING (LIGHT)
EXISTING MAJOR CONTOUR			
EXISTING MINOR CONTOUR			
EDGE OF GRAVEL			
WETLAND BOUNDARY			
WETLAND SETBACK			
EXIST	POINTS	PROP	
	LIGHT POLE		
	BENCHMARK		
	WELL		
	SIGN		
		MISCELLANEOUS	
			BUILDINGS
			RIP RAP



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 Engineering
 Planning
 Landscape Architecture
 Surveying

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 Brattleboro, VT 05302
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 F 413.773.0875
 www.sveassoc.com

NO.	REVISION	DATE	DWN	CHK

WETLAND SETBACK EXHIBIT
 CHESHIRE COUNTY SHOOTING SPORTS EDUCATION FOUNDATION, INC
 19 FERRY BROOK ROAD
 KEENE, NEW HAMPSHIRE

GRAPHIC SCALE 1"=50'

PROJ. #: K2695A
 DATE: 24-ARP-24
 DESIGN: LPS
 DRAWN: AJG
 CHECKED: LPS

SHEET 1/1

Drainage Summary

for

**Cheshire County Shooting Sports Education Foundation, Inc.
19 Ferry Brook Road, Keene, NH**

**Prepared by SVE Associates
January 9, 2024
Revised January 7, 2025**

A comparison of peak stormwater runoff for the 25-year rainfall events in the post-development conditions was completed by SVE Associates using HydroCad 10.0 software. The storm event used in the model was Type III, 24-hour storm with the following rainfall depths for Keene, NH:

25 Year Event: 4.96 inches

OVERVIEW:

This project consists of permitting the existing classroom and constructing the level spreader designed for both the indoor shooting range (already constructed) at the 19 Ferry Brook Road property. No other changes are proposed to the developed property.

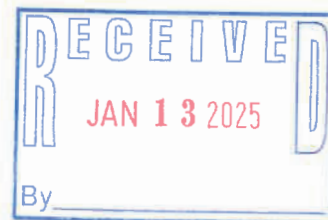
EXISTING CONDITIONS:

For this drainage analysis, the existing conditions consist of lawn and mulched slope. Stormwater runoff sheet flows downhill.

PROPOSED CONDITIONS:

The proposed conditions, modeled in the "Post-Development" drainage model, consist of the existing indoor shooting range addition, and existing classroom trailer that sheet flow to the proposed level spreader with emergency overflow. The entire 25-year storm is detained within the proposed level spreader.

	25 year storm	
	Existing Runoff (cfs)	Proposed Runoff (cfs)
Summary Node 100R	1.37	0.00



PB-2024-23

SVE Associates

CONCLUSION:

There will be no adverse impact to downstream abutters due to stormwater runoff from the indoor shooting range and classroom trailer. Runoff in the 25-year storm is detained in the proposed level spreader. From the Hydrocad model, there is no outflow. There is no significant change in stormwater runoff post development.

SVE Associates

Engineering * Surveying * Landscape Architecture * Planning
P.O. Box 1818, Brattleboro, VT 05302 Phone: (802) 257-0561 Fax (802) 257-0721 E-mail svek@sveassoc.com
P:\Project\NH PROJECTS\K2695A Cheshire County Fish & Game Club\Hydrocad\K2695A Drainage Summary PB.doc

Soils Analysis

for

**Cheshire County Shooting Sports Education Foundation, Inc.
19 Ferry Brook Road, Keene, NH**

**Prepared by SVE Associates
January 7, 2025**

The Natural Resources Conservation Service Web Soil Survey was utilized to design the level spreader for the indoor shooting range at the Cheshire County Shooting Sports Education Foundation, Inc. Soils in the vicinity of the level spreader include:

143D Monadnock Fine Sandy Loam, 15-25% slopes, very stony (HSG B) and
73C Berkshire Fine Sandy Loam, 8-15% slopes, very stony (HSG B).

Published depth to water table for both soil types is more than 80 inches, and depth to restrictive feature is 18-36 inches for Monadnock fine sandy loam, and more than 80 inches for Berkshire Fine Sandy Loam.

The majority of the proposed level spreader bottom is at existing grade, with forty-five linear feet the south end being two feet above existing grade. In the HydroCAD analysis, the most conservative approach was taken with no exfiltration.



SVE Associates

Engineering * Surveying * Landscape Architecture * Planning
P.O. Box 1818, Brattleboro, VT 05302 Phone: (802) 257-0561 Fax (802) 257-0721 E-mail svek@sveassoc.com
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