BEFORE THE CONSERVATION COMMISSION OF THE TOWN OF WESTON

In the Matter of: Modification of Dog Park Permit 18-01
Application 22-05 of the Town of Weston
"Moore Property": Map 17, Block 1, Lot 27
Lords Highway East

April 19, 2022

NOTICE OF INTERVENTION

The undersigned, by and through counsel, hereby intervene in this matter pursuant to Connecticut General Statutes § 22a-19 and state:

I. Introduction

We are individual residents of the Town of Weston. Many of us own and live in homes immediately adjacent or close to an undeveloped forest in which the Town again seeks permission to build a dog park and related facilities.

What you are asked to consider is <u>not</u> the plan that was presented to a different Conservation Commission is 2018. If it was the same there would be no need for you to consider it. This Application contains substantial changes.

Nor is it the same that was subject to a Town vote.

Your friends and neighbors are intervening to protect the environment here in Weston. What you are asked to approve will pollute Weston's waters and those beyond it.

Regrettably, the plans submitted to you with the Town's Application inaccurately and misleadingly portray the topography and wetlands in a way that makes the Application incomplete. The Applicant's plan claims that a dog park would be built on land that is flat. The truth is it would be built on a slope, one that becomes increasingly steep as it reaches the so-far pristine wetlands immediately below it. The proximity of the slope to the wetlands makes it reasonably likely that dog waste (feces and urine residue) will be carried by rainwater down the slope into wetlands that, in turn. discharge water through a pipe to a swimming pond across Davis Hill Road and then into the Saugatuck River.

This likely pollution of the Saugatuck River calls into serious question the jurisdiction and right of this Commission to approve the discharge of untreated dog waste into State waters. Connecticut law prohibits your or any local inland wetlands agency from regulating discharges that travel into waters of the State and requires a permit from the Connecticut Department of Energy and Environmental Protection before doing so.

Applicant's plans inaccurately depict the full location and expanse of the wetlands from which polluted dog park water will flow. These wetlands appear to be at least three of more times larger than what the map you have been given shows.

Soil, in the forest where a completely redesigned 20-space parking lot, turn around and stormwater management system in the middle of a residential neighborhood would be carved, holds a layer of hardpan close to the surface that prevents the land from absorbing much of the rainwater it receives. What the soil can't absorb floods onto Intervenors' property. The stormwater management plan proposed by the Town is based on the highly inaccurate identification of the hardpan layer that prevents the absorption of rainwater. If built, the Applicant's stormwater management system will not work. Construction at the site will instead increase flooding of adjoining property and roads.

In each of the ways we will discuss and show you in detail, an approval of the plans before you is reasonably likely to harm the environment we as Intervenors are working to protect.

When this Commission approved a different plan for a dog park at the Moore Property and issued Permit 18-01 on May 3, 2018, the Minutes of the meeting at which its decision was made reflect an unmistakable expectation that if the Town wanted to change its plans, it should first consult with the Intervening neighbors. Town government has instead refused to meet or confer with us. It has ignored Intervenors' repeated written requests to do so.

II. The Legal Basis for Our Intervention

Connecticut General Statutes § 22a-19 allows us to intervene and provide you with the data, professional opinions and citizen testimony you need to protect our environment. We will show that what is proposed, in the words of the law, "involves conduct which is reasonably likely to have the effect of unreasonably polluting, impairing, or destroying the public trust in the air, water, or other natural resources of the state." The full statute is a reproduced at n.1.

III. The Town of Weston is Prohibited from Authorizing or Taking an Action That Will Pollute State Waters.

Intervenors will provide you with newly discovered evidence which shows it is reasonably likely that construction of the proposed dog park would unreasonably cause the discharge of untreated dog waste that will pollute State waters, in this case the Saugatuck River.

¹ ROR 104 e

Connecticut General Statutes § 22a-427 explicitly forbids it:

No person or municipality shall cause pollution of any of the waters of the state or maintain a discharge of any treated or untreated waters in violation of any provision of this chapter.

A Department of Energy and Environmental Protection (DEEP) Regulation further prohibits this or any municipality from attempting to regulate such a discharge.²

The activity proposed by the Town as Applicant may therefore not take place without the issuance of a permit by DEEP. See, Connecticut General Statutes § 22a-430.

Therefore, the Commission lacks the jurisdiction to approve this Application and, if it nonetheless does, your approval will be tantamount to giving the Town permission to violate State law.

IV. The Application is Inaccurate, Misleading and Incomplete

The Application before you presents inaccurate and misleading information. As we just previewed, it conceals and deprives you of particularly relevant information about the sloping grade of the land on which a dog park would be built and fails to show the full, unmapped, expanse of wetlands immediately below it that will be polluted by dog waste to be carried by storm water down the slope into the wetlands. This is particularly relevant information you need in order to make an informed decision.

That alone makes the Application incomplete.³

Your own Regulation, Town Code §215-7 (C) (4), requires the Applicant to provide the following information and makes no exceptions:

The geographical location of the land which is to be affected by the proposed activity, including but not limited to a description of the land in sufficient detail to allow identification of the inland wetlands and watercourses, a computation of the areas(s) (in acres or square feet of wetland or watercourse disturbance, soil type(s) and wetland vegetation.

² Conn. Agencies Regs. § 22a-39-4.3.a. The Commissioner [of the State Department of Environmental Protection] shall regulate the following activities to the exclusion of local inland wetlands agencies: (5) Discharges into waters of the state, pursuant to Section 25-54i of the General Statutes, as amended. [See Connecticut General Statutes §§22a-422 through 443]

³ When you met on March 24, 2022, to receive it, a member of the Planning staff incorrectly stated that the Application to Modify Permit 18-01 (Application 22-05) is complete.

Town Code § 215-7 (C) (7) also requires:

A site plan showing the proposed activity and existing and proposed conditions in relation to wetlands and watercourses and identifying any further activities associated with, or reasonably related to, the proposed regulated activity which are made inevitable by the proposed regulated activity and which may have an impact on wetlands and watercourses.

We will explain in detail:

First, Plan SE 1 that accompanies the Application, misrepresents and will mislead the Commission and public about the topography of the land where a dog park would be built. The Plan shows it would be placed on flat land. That is false. The 2.8-acre space selected and shown by this Plan is on a slope that becomes increasingly steep and ends at the edge of wetlands below it. "An application for a permit must include information regarding the topographical elevations of the proposed development . . ." *Spanky's Cromwell, LLC v. Planning & Zoning Commission of the Town of Cromwell, 2015* WL 3522503, CV136010774S (2015).

The Application asserts the dog park would be "outside upland review area" but the Commission has previously determined the dog park would be within it. It also meets the description of what your Regulation defines as a "Regulated Activity."

Second, although the Town was warned years ago by a qualified soil scientist that it had failed to identify and map the full expanse of the wetlands at the foot of the slope, it still fails to do so and by its failure, misleads the Commission. The unmapped wetlands are three or more times larger than the Applicant's Plan SE 1 acknowledges. This is relevant and material because the full expanse of wetlands discharges far more water to off site, adjoining, watercourses than the relatively small, mapped area.

This leads to the third reason why the Application is misleading and incomplete. Storm water overflow from the mapped and much larger unmapped wetlands is discharged to a culvert that directs this water under Davis Hill Road to a swimming pond that, in turn, empties into the Saugatuck River.

The harm to the environment of what is proposed would be immense if not catastrophic and is, by the terms of Connecticut General Statutes §22a-19, reasonably likely to pollute not only the Town's wetlands but the swimming pond which is a watercourse protected by your Regulations, and another watercourse, the Saugatuck, which is under State jurisdiction.

V. The Application Also Fails to Meet the Requirements for Permission to Conduct a "Significant Activity"

Weston Town Code §215-2 (F) defines a Significant Activity as:

Any activity which causes or has the potential to cause pollution of of a wetland or watercourse.

When the Commission received this Application, it immediately scheduled a public hearing, which is what it does when permission to conduct a Significant Activity is requested. It appears from the record that is what the Commission decided.

If you have not made that formal determination, we ask you to do so.

If the proposed activity involves a Significant Activity, Town Code §215-7 D provides that additional information may [and should] be required, namely:

- (4) Description of the ecological communities and functions of the wetlands or watercourses involved with the application and the effects of the proposed regulated activities on these communities and wetland functions.
- (5) Description of how the applicant will change, diminish, or enhance the ecological communities and functions of the wetlands or watercourses involved in the application, and with each alternative, a description of why each alternative considered was deemed neither feasible nor prudent.
- (7) Measures such as sedimentation and erosion control plans which mitigate the impact of the proposed activity. Such measures include, but are not limited to, plans or actions which avoid destruction or diminution of wetland or watercourse functions, recreational uses and natural habitats; which prevent flooding, degradation of water quality, erosion and sedimentation and obstruction of drainage; or which otherwise safeguard water resources.
- (8) Analysis of the downgradient and downstream impact of the proposed activity.

None of this information has been supplied to you.

Intervenors ask you to find that the proposed activity, an off-leash dog park, meets the definition of Sections 215-2 for a Significant Activity and that the requirements of Section 215-7, when a such an activity is proposed, have not and must be met by an Application accompanied by information that complies with the Code.

Authoritative sources and the Town's own documents illustrate the likely consequences of what is proposed.

a. The U.S. Environmental Protection Agency classifies pet waste as a significant source of non-point pollution;

- b. Links contained by the Town's web site on the subject of stormwater management refer to pet waste as a known pollutant and disease vector:
 https://www.westonct.gov/government/municipal-departments/public-works/stormwater-management-program;
- c. The Town of Weston MS4 Annual Report acknowledges at 6.3 Pollution Prevention/Good Housekeeping metrics, "Lands with high potential to contribute bacteria (dog parks, parks with open water & sites with failing septic systems)": https://www.westonct.gov/home/showpublisheddocument/4566/63749152977177 0000;
- d. The express purpose of a dog park is to cause dog owners to congregate with their dogs in a confined area that will, by design, concentrate the deposit of dog feces and urine;
- e. The large (2.8 acre) and sloping characteristics of the proposed, off-leash area will make it difficult to control pollution of the wetlands;
- f. The ground cover of the proposed dog park, which Applicant admits that by design is intended to be left in its natural state with leaf cover and trees, will make it difficult, if not impossible, to control the deposit and retrieval of all pet waste.
- VI. The Proposed Dog Park is Reasonably Likely to Unreasonably Pollute Town Wetlands and the Saugatuck River Because the Feces of a Single Dog Will be Carried into Both Water Resources and Will Cause Unreasonable Pollution.

Robert Casson, an experienced biologist, has assessed the effect the feces of a single dog, not the many dogs who would visit the proposed dog park, and provided estimates of potential for wetlands contamination that can result from non-compliance with feces pick-up rules.

He concludes:

The average dog excretes 0.75 lbs (340 g) of waste per day (source FDA) depending on breed/size.

One gram of dog waste (the weight of a business card) contains 23 million fecal Coliform bacteria (van der Wel, 1995).

That equates to 7.82 billion fecal coliform bacteria per day from a SINGLE DOG. (Exbibit A).

VII. Implementation of the Modified Application is Thereby Reasonably Likely to Unreasonably Pollute Town Wetlands.

Construction of a dog park as described by the Application to Modify Dog Park Permit 18-01 by Application 22-05 will, for the reasons shown here and by the testimony Intervenors will present to the Commission at a public hearing, have the effect of unreasonably polluting, impairing or destroying wetlands shown by Plan SE 1 submitted with the Application and the much larger expanse of wetlands the Applicant has neglected to map.

VIII. Implementation of the Modified Application is Reasonably Likely to Unreasonably Pollute a Downstream Watercourse and the State Protected Saugatuck River.

Construction of a dog park as described by Application 22-05 to Modify Permit 18-01 will, for the reasons above, elsewhere in this Notice and the evidence Intervenors will present to the Commission at a public hearing, be reasonably likely to unreasonably pollute and impair a swimming pond (watercourse) at 143 Davis Hill Road and, the Saugatuck River which is under the jurisdiction of the State of Connecticut.

IX. Construction of a Parking Lot and Stormwater Management System at Lords Highway East is Reasonably Likely to Unreasonably Destroy the Public Trust in the Water or Other Natural Resources of the State. by Causing Unreasonable Flooding.

The Application to construct a driveway, parking lot, turn around and stormwater management system in this residential neighborhood is substantially changed from that originally proposed to the Commission.

The property on which the activity would take place is, as a result of the characteristics of its soil, unable to absorb and contain a large amount of the rainwater it receives. Construction of a stormwater management system to carry this stormwater from what would be a largely impervious entrance from Lords Highway East way, driveway and parking area to be constructed, as shown by Plans SE1, T1 and PP1 that accompany the Application, will therefore fail to function and instead increase flooding of surrounding residential properties and roadways.⁴

Intervenors' soil scientists, for the reasons discussed in this Notice and the evidence attached in the form of the Report of Low Impact Sustainable Development, Trinkaus Engineering, Steven D. Trinkaus, PE, (Exhibit B) and that of James McManus of JMM Wetland Consulting Services, to be provided to you, both demonstrate emphatically that the stormwater management plan submitted by the Applicant is based and depends on a scientifically unsound, professionally inappropriate and highly inaccurate measurement of the sub-surface ground water level.

⁴ The Commission has jurisdiction over the "water resources" of Weston pursuant to Connecticut General Statutes §7-131a.

Ground water will, as a result, fill and prevent the stormwater management system from functioning before any rain event can even occur and is thereby reasonably likely to have the effect of unreasonably impairing or destroying the public trust in the water and other natural resources of the state.

X. Feasible and Prudent Alternatives Exist

Weston is blessed with a range of feasible and prudent alternatives to the likelihood that the Town's own wetlands, a swimming pond and, the Saugatuck River will be polluted by concentrated residues of untreated dog waste from a dog park next to pristine wetlands or, the likelihood that homes in the residential neighborhood that surrounds this property on all sides will suffer uncontrolled flooding from a stormwater management system, the design of which ignores the condition of the soil it is supposed to protect from flooding.

More centrally located, easily accessible sites abound in Weston. They are places that will comply with Americans for Disability Act and American Kennel Club standards, which Applicant's plan does not. Those sites include but are not limited to Bisceglie Park and the Town's Transfer Station. Both offer broad grassy fields and more than an adequate parking and, at much lower cost.

XI. Conclusion

For each of the foregoing reasons, the undersigned Intervenors respectfully request that the Commission decide that:

- A. It is without jurisdiction to adjudicate the Application;
- B. In the alternative, the Application is inaccurate, misleading, incomplete, and/or
- C. Application 22-05 should be denied since the activity proposed will violate Connecticut General Statutes §22a-19.

THE INTERVENORS
By: s/Stephen E. Nevas
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Westport, Connecticut 06880
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Juris No. 306089

n.1 § 22a-19. Administrative proceedings

- (a) (1) In any administrative, licensing or other proceeding, and in any judicial review thereof made available by law, the Attorney General, any political subdivision of the state, any instrumentality or agency of the state or of a political subdivision thereof, any person, partnership, corporation, association, organization or other legal entity may intervene as a party on the filing of a verified pleading asserting that the proceeding or action for judicial review involves conduct which has, or which is reasonably likely to have, the effect of unreasonably polluting, impairing or destroying the public trust in the air, water or other natural resources of the state.
- (2) The verified pleading shall contain specific factual allegations setting forth the nature of the alleged unreasonable pollution, impairment or destruction of the public trust in air, water or other natural resources of the state and should be sufficient to allow the reviewing authority to determine from the verified pleading whether the intervention implicates an issue within the reviewing authority's jurisdiction. For purposes of this section, "reviewing authority" means the board, commission or other decision-making authority in any administrative, licensing or other proceeding or the court in any judicial review.
- (b) In any administrative, licensing or other proceeding, the agency shall consider the alleged unreasonable pollution, impairment or destruction of the public trust in the air, water or other natural resources of the state and no conduct shall be authorized or approved which does, or is reasonably likely to, have such effect as long as, considering all relevant surrounding circumstances and factors, there is a feasible and prudent alternative consistent with the reasonable requirements of the public health, safety and welfare.

Intervenor's Oath

Each of us, being aware of the penalties for perjury, hereby swear and affirm that the statements contained in the foregoing Amended Complaint are true and correct to the best of our knowledge and belief.

Combine Will

Carolyn Welsh

22 Richmond Hill Road

Sila De la

Sidney Dudash

26 Lords Highway East

Dania Feller Anderson

Anderson

15 Richmond Hill Road

Antoine Mills

143 Davis Hill Road

Frank Costello

5 Lords Highway East

Ellen L. F. Strauss. Esp. (Ret/)

& 8 Ladder Hill Road N

Freda Welsh

22 Richmond Hill Road

eda Welsh

Joan Dudash

26 Lords Highway East

Seth

15 Richmond Hill Road

Joyce Mills

143 Davis Hill Road

Gayle Costello

5 Lords Highway East

Clifford Keller

133 Old Hyde Road

William Kolbert

15 Lords Highway East

Subscribed and sworn before me this day of April 2022 at Weston, Connecticut

Stephen E. Nevas

Commissioner, Superior Court

CERTIFICATE OF SERVICE

I certify that a copy of the foregoing Notice of Intervention was served electronically, by first class mail, or in hand to all members of the Conservation Commission, appropriate officials of the Town of Weston and counsel of record on the date shown above.

Sarah Schlechter, Chair Conservation Commission Town of Weston 52 Norfield Road Weston, CT 06883 sschlechter@westonct.gov

James Smith Conservation Commission Town of Weston 52 Norfield Road Weston, CT 06883 jsmith@westonct.gov

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s/Stephen E. Nevas, Esq.
Counsel to Intervenors
Commissioner, Superior Court

EXHIBIT A

Assessment of Potential Impact of Dog Waste

The average dog excretes 0.75 pounds (340 g) of waste per day (source FDA) depending on breed/size.

One gram of dog waste (the weight of a business card) contains 23 million fecal coliform bacteria (van der Wel, 1995), almost twice as much as human waste.

That equates to 7.82 billion fecal coliform bacteria per day from a SINGLE dog. (multiple sources)

Dog waste piles can take a year or more to fully break down, depending on climate, the animal's diet, and other factors. (multiple sources)

Dog Park Examples

18 dogs visiting in one day would produce 4.5 pounds of feces (Easton dog park survey done by Weston Town Engineer and assuming one dog per car and one third of daily excrement would take place during the dog park visit.)

18 dogs x .25 pounds per dog

Studies show that 20-40% of dog waste is not picked up.

The terrain and slope of the proposed WDP will make it impossible to comply with the 100% pick up requirement. The slope of the land, its natural terrain combined with the large size (2.8 acre) of the offleash area as well as the line of sight obstructed by trees and slope.

Impact of not picking up waste

18 dogs in one day

Rate of Non-compliance (%)	Pounds/Grams left Behind (per day)	Coliform Bacteria load (per day)	
10	.45/204	4.69 e9	4.69 Billion
20	.9/408	9.38 e9	9.38 Billion
30	1.35/612	14.07 e9	14.07 Billion
40	1.8/816	18.76 e9	18.76 Billion

The numbers grow quickly as more dogs visit the park

22 dogs x .25 pounds per dog

Studies show that 20-40% of dog waste is not picked up.

22 dogs in one day (Based on number of planned spaces, one dog per car)

Rate of Non-compliance (%)	Pounds/Grams left Behind (per day)	Coliform Bacteria load (per day)
10	.55/250	5.75 e9 5.75 Billion
20	1.1/500	11.5 e9 11.5 Billion
30	1.65/750	17.28 e9 17.28 Billion
40	2.2/ 1000	23.44 e9 23.44 Billion

Potential Annual Load Introduced to Off-leash dog park

Assuming that weather permits dog park to be open 250 days per year

If 18 dogs visit per day:

112.5 pounds to 450 pounds of uncollected dog waste per year (range for 10% to 40% not picked up)

1.17 e12 or 1.17 Trillion to 4.69 e12 or 4.69 Trillion coliform per year (range for 10% to 40% not picked up)

If 22 dog visit per day:

137.5 pounds to 550 pounds of uncollected dog waste per year (range for 10% to 40% not picked up)

1.44 e12 or 1.17 Trillion to 5.86 e12 or 5.86 Trillion coliform per year (range for 10% to 40% not picked up)

Notes:

The proposed dog park slopes toward the wetlands approx. 110 feet away at the closest point.

I have provided video evidence of water flowing from the proposed dog park towards the stone wall at the East end of the proposed dog park, an area above the wetlands.

Videos have been provided to the Commission to show that stone walls are not effective barriers to water flow, as the Town has claimed.

Should a dog park be built on the proposed site, it is certain that dog feces not picked up within the dog park will pass to the wetlands.

The Moore property floods. Runoff from the property runs to storm drains that collect the excess water and direct it to the Saugatuck River, which is only approximately 900 feet or so from the eastern wall of the dog park.

EPA classifies dog feces as toxic waste.

The most cited reference for e.coli is the work of van der Wel, B. 1995. Dog Pollution. "The Magazine of the Hydrological Society of South Australia" Pollution Prevention: Animal Waste Collection.

His estimates are used extensively by states, organizations, towns and municipalities in the US and internationally.

EPA estimates that 2 days worth of dog waste from about 100 dogs would contribute enough pollution to close a beach, and all watershed areas within 20 miles of it.

Rhode Island advises owners to "avoid letting your dog do his business within 200 feet of a water body."

Perhaps most importantly, pet waste can carry diseases which could make water unsafe for contact. Some of these diseases are:

- Campylobacteriosis bacterial infection
- Salmonellosis bacterial infection
- Toxocariasis roundworm infection
- Toxoplasmosis protozoan parasite infection
- Giardiasis protozoan parasite infection

Weston's own Stormwater Management Plan recognizes that runoff from a dog park is of potential concern. In a plan prepared for Weston by Prepared: March 2017 Effective Date: July 1, 2017 Prepared By CDM Smith it is stated in section BMP 6-5:

For discharges to waters with Bacteria as a pollutant of concern, the town will develop, fund, implement, and prioritize a source management program to address bacteria concentrations in stormwater discharges from town controlled lands. These lands include dog parks, parks with open water, and sites with septic systems. The permittee will also implement a program to prohibit the feeding of waterfowl and to manage the populations of waterfowl. The permittee will

document all actions taken to reduce the loadings of bacteria to impaired waters.

Prepared by Robert Casson for the Conservation Commission Matter of proposed Weston Dog Park on the Moore Property Davis Hill Rd and Lords Highway East April 2022

EXHIBIT B



Trinkaus Engineering, LLC

114 Hunters Ridge Road Southbury, Connecticut 06488 203-264-4558 (office & fax) +1-203-525-5153 (mobile)

E-mail: strinkaus@earthlink.net http://www.trinkausengineering.com

April 17, 2022

Mr. Stephen Nevas, Esq. Nevas Law Group, LLC 237 Post Road West Westport, Connecticut 06880

Re:

Proposed Dog Park Town of Weston Lords Highway East Weston, Connecticut

Dear Mr. Nevas.

At your request, I have reviewed the revised plans by McChord Engineering Associates for the proposed dog park. I have the following comments on the McChord Plans.

Site Plan/Stormwater Report Comments:

- 1. The soils on the site of the proposed driveway and dog park itself are Paxton and Woodbridge. Both soils have a restrictive layer located between 18" and 30" below the ground surface which causes a perched groundwater condition to occur during all but the driest times of the year. The perched groundwater table leads to the uppermost soil layers to become very saturated at certain times of the year and when rainfall occurs during these periods, you will experience more surface runoff as the soil is already fully saturated.
- 2. It is proposed to direct runoff from the gravel driveway/parking area to a swale along the east side of the driveway. The swale will then direct runoff to a catch basin before entering an underground detention system consisting of three rows at 7 units each of 24" by 48" x 96" concrete galleries. The bottom of the galleries is to be set at elevation 97.00' according to the plan which is 24" below the average existing grade in the center of the system. This is based upon a test pit from WMC Consulting Engineers (date unknown) which called out mottling at 39".
- 3. I dug a small hand hole in the vicinity of the gallery system on April 3, 2022. The yellow brown silt loam was found to be very moist. The hole was done to a depth of 25". Water was entering into the test hole at a depth of 23" which is indicative of the seasonal high groundwater table in the soil. Photos of the water in the hand hole are shown in Figures 1 and 2 below.



Figure 1 - Groundwater at 23" in hand hole



Figure 2 - Groundwater in hand hole

4. Based upon the hand hole, the bottom of the proposed gallery system will be set at or slightly into the seasonal high groundwater table. Water will not infiltrate into a saturated zone.

- 5. The applicant uses an infiltration rate of 2.5" per hour for the detention system which is based upon a percolation test by WMC (date unknown). A percolation test is not appropriate for determining the vertical infiltration rate to be used in an infiltrative practice as it measures both the vertical and horizontal movement of water into the soil and not just the vertical movement of water into the soil. Only the vertical infiltration rate is used to model and size stormwater infiltration practices. A Double Ring Infiltration Test is the appropriate method to measure the vertical infiltration rate of the soil and must be done at or below the bottom of the infiltration practice as this is the soil layer where infiltration will occur.
- 6. Based upon the above comments, the stormwater management system will not function as intended by the applicant and thus increased runoff volumes (due to no infiltration occurring) will be directed to the Town of Weston drainage system on Lord's Highway East and onto private property.
- 7. There has been evaluation as to how the increased runoff volumes will affect downstream structural and natural drainage systems.
- 8. As the driveway/parking surface will consist of 3/4" Processed Stone, fines from the processed stone will be washed into the riprap swale over time and will eventually clog the void spaces in the modified riprap. How will the fines be prevented from clogging the riprap swale? If the fines do clog the riprap swale, how will they be removed to restore the functionality of the swale?
- 9. Where will runoff from the driveway goes if the catch basin grate becomes clogged with organic debris, such as leaves and twigs?
- 10. The plan calls out for staked hay bales to be placed across the riprap swale. There is no detail showing how hay bales are be properly installed across the swale.
- 11. The siltation fence barrier does not extend around the entire stockpile. The entire stockpile is to be surrounded by an appropriate erosion control measure per the CT DEP 2002 Guidelines for Soil Erosion and Sediment Control.
- 12. As the construction narrative calls out for the perimeter erosion control measures to be installed first, how will the siltation fence be protected from damage during tree clearing operations?

Conclusion:

As proposed the construction of a 20' wide driveway, and two parking areas will result in increased runoff volumes and rates of runoff to Lords Highway East and those private properties below the proposed activities as the stormwater management system will not function has represented by the applicant.

Please feel free to contact my office with any questions concerning this information.

Respectfully Submitted, Trinkaus Engineering, LLC



Steven D. Trinkaus, PE