From:<br>Sent:<br>Katelyn E. Sullivan<br>December 17, 2019 12:02 PM<br>Dianne Boisvert<br>FW: [Ext]10 Mullikan Way<br>19-120 SP-SP 12-16-19.pdf; 10 Milliken Kennel sand trench detail - REV BY ENG<br>12-17-19.pdf

Below comment for our site please.

From: Jon-Eric White
Sent: Tuesday, December 17, 2019 11:57 AM
To: Katelyn E. Sullivan
Cc: Diane Gagnon; Nicholas Federico; Stephen Sawyer (ssawyer@dci-ma.com); Mark W. Griffin (mark@finnic.com); Kayla
A. Provencher; Julia Godtfredsen; Frank Giacalone

Subject: FW: [Ext]10 Mullikan Way
Katelyn,
As part of my review of the subject Minor Site Plan Review Project, we met with our city's Animal Control Officer (ACO), Kayla Provencher, to see if they had any jurisdiction over outdoor yards being used for defecating and to ask related questions. Then I contacted the project's engineer, Steve Sawyer, to ask how they plan to treat the runoff because I couldn't see anything on the Plans. After our discussion, he agreed to send me their revised Plan based on my recommendations for a BMP, which is attached. I told him that I'd forward them to you along with my comments for the record. I' also attached our add'I redmarks to that Plan.

## General:

- The exterior dog run is to be used for defecating, which is why they have the turf. It was unclear to us how many dogs they plan on having to actually use the turf as a dumping ground. Kayla noted that the ACO determines during their inspections how many dogs are allowed in the facility (from a maximum permitting standpoint) and that her experience working in kennels hovered around 30-80 dogs (I recall). Many daycares/kennels have indoor potty locations and others outdoors. She informed me of how they're required to pick it up and dispose of it and that they need to decontaminate it with an appropriate chemical solution so it doesn't spread bacteria, worms, or other intestinal organisms to other dogs or humans.
- I am not entirely clear who has jurisdiction of the quality of stormwater runoff from kennels or doggie daycares like this project. However, Engineering is responsible for determining if the city's stormwater system is in compliance with the EPA NPDES MS4 Permit - i.e. Federal Stormwater Permit. We are required to keep our rivers and streams clean, which requires testing for bacteria in our drainage pipe outfalls, etc. We have yet to do any testing in the city - it's a new req't of the Permit. Therefore, my comments herein are assuming that BOH or others do not have regulations and/or jurisdiction over bacteria-laden stormwater runoff from doggie daycares or kennels.
- I've been searching for BMPs for doggie parks knowing that this new Permit was coming and we have a dog park at Cashman. What I've found is that large agricultural facilities with 1,000's of livestock have some literature but smaller facilities like this project are harder to find. I haven't found anything useful.
- We are currently investigating BMPs for the small farms that surround our pubic water supplies but from what I've seen so far, those are for much heavier loadings than what this project could ever encounter. I say that in case someone makes the connection between kennels and agri-business runoff - they are not the same.
- The most logical BMP that I feel should work is as shown on the attached trench.

My comments:

1. The Applicant must provide us with the number of dogs they plan to handle. These comments herein are for a standard, medium-sized facility, say under 100 dogs per day. I prefer not to use numbers, it's extremely variable - size of dogs, number of actual feces being dropped, etc. But something of that magnitude.
2. This sand trench will behave similar to a typical homeowner's septic system leaching field (similar, not exact) in that it is porous sand that provides some air to allow the natural breakdowns of the bacteria. I am not saying that a bio-mat will form as they do in leaching fields but this trench will provide some level of treatment.
3. The kennel owners MUST remove the feces asap so the trench does not get overloaded. Hosing it down will allow it to drain through the turf, into the sand layer below, and across the asphalt into the sand trench for final treatment. Rainfall will do the same.
4. It is important to minimize the amount of chemicals used. If used properly, the chemicals will breakdown after they "do their job". Too many chemicals will simply end up hurting the environment. My preference is no chemicals unless the $\mathrm{BOH}, \mathrm{ACO}$, or similar departments require it.
5. There are no public water supplies in this watershed. There is about 180 ft of natural vegetation and almost $1 / 2$ mile $\left(2,100^{\prime}\right)$ of grassed swale before being discharged into the Little River. This is reassuring.
6. We are responsible for performing water quality testing of our outfalls and swales, as applicable. If we determine during the course of our testing that a sample has tested too high for bacteria, then we will trace the flow back to the source, and in this case, if we trace it back to this kennel, we will then be forced to give them time to address the situation (60 or 90 days, I believe) before shutting them down. So we have a process in place.

If my assumptions and my understanding of everything is reasonably correct as noted above and my redmarks are incorporated, then I approve the Project as submitted and no other action is required.

If there is anything else you wish to discuss or if you want to discuss the above even further, please do.
Jon-Eric

From: Stephen Sawyer [mailto:SSawyer@dci-ma.com]
Sent: Monday, December 16, 2019 3:25 PM
To: Jon-Eric White
Cc: Katelyn E. Sullivan; mark@finnic.com; mark@finnic.com
Subject: [Ext]10 Mullikan Way

## external e-mail use caution opening

Hi Jon-Eric,
Based upon our discussion last Friday concerning your review we have updated the turf detail to treat the runoff running out from under the turf surface to the edge of the pavement under the turf surface. We have provided a 2' wide treatment trench to treat this runoff. Se the updated plan with this detail.
Let me know if this addresses your concerns. We are hoping to close the minor site plan review this Wednesday night. Thanks,
Steve S.
Stephen Sawyer, P.E.
Senior Project Manager
DESI GN CONSULTANTS, I NC.
120 Middlesex Avenue
Suite 20
Somerville, MA 02145
M: (978)884-6850

T: (617)776-3350×115
F: (617)776-7710
Email: ssawyer@dci-ma.com
Website: www.dci-ma.com
*Transportation

* Civil Engineering
*Land Surveying
*Planning



