TRITON ENGINEERING SERVICES LIMITED
Consulting Engineers

Memorandum

DATE:	May 19, 2021
TO:	Clint Stredwick
FROM:	Dustin Lyttle / Ray Kirtz
RE:	100 Eco Parkway Petawawa Biofuel Site Plan Application Submission No. 2
FILE:	A4175A

Submitted Items List

- Servicing and Stormwater Management Report, Petawawa Biofuel LP, Southgate Biofuel Facility Eco-Park Lot, Dundalk, dated October 2, 2020 prepared by WalterFedy ***(Digital Copy in PDF Format) Revised and Resubmitted April 9, 2021***
- Electrical Drawing Set, dated October 2, 2020, prepared by WalterFedy, including ***(Digital Copy in PDF Format) Revised and Resubmitted April 9, 2021***
    - Drawing No. ES01 – Electrical Site Plan (dated April 9, 2021)
    - Drawing No. ES02 – Lighting Fixture Cutsheets (dated April 9, 2021)
- Architectural Drawing Set, dated October 5, 2020, prepared by WalterFedy, including **Not Resubmitted**:
    - Drawing No. A2-1 – Main Floor Plan
    - Drawing No. A3-1 – Exterior Elevations
    - Drawing No. A3-2 – Exterior Elevations
- Response to 1st Submission Comments, dated April 9, 2021, prepared by WalterFedy ***(Digital Copy in PDF Format)***
- Application for Site Plan Approval, dated October 14, 2020, prepared by WalterFedy **Not Resubmitted**
- Drawing Number SP1 – Site Plan, dated July 10, 2019, prepared by CH Four Biogas **Not Resubmitted**
- Drawing Number SP1 – Site Plan, dated July 10, 2019, prepared by CH Four Biogas **Not Resubmitted**
- GRCA Application for Permission No. 602/19, dated September 10, 2019, prepared by GRCA **Not Resubmitted**
- Environmental Compliance Approval Number 1984-BD9NBD, dated November 28, 2019, prepared by MECP. **Not Resubmitted**

Pre-Submission No. 1 Comments

1. – 3. ***Addressed.***
4. Storm Water Management ECA Permit is required for industrial developments. From the Township's perspective, SWM is expected to meet post-to-pre quantity control and provide Enhanced (80% TSS removal) level quality treatment. ***Pending; ECA permit for SWMF is to be provided.***
5. Complete functional servicing brief, including description of proposed water and sanitary usage/flow rates is to be provided. There may be a need to monitor usage and allocate reserve capacity, depending on actual demand/loading. This development will be allocated reserve capacity based on the Equivalent Residential Unit average daily flow rates. Confirm the expected sanitary loading (90.9m^3/day) and water demand (90.9m^3/day) are indicative of actual expected usage***. Addressed; based on the revised expected average day flow (0.75m^3/day) and maximum day demand (1.5m^3/day), this site servicing usage is estimated to be 1.7ERUs for both sanitary and water. Given the small amount, official allocation of reserve capacity is not required.***

6. – 7. ***Addressed.***

Submission No. 1 Comments

General Design Comments

1.1 – 1.4 ***Addressed.***

1.5 A buffer strip of lower sloped grass should be provided between the vehicular travelled areas and areas of steep slope (3:1) and riprap, such as at the site entrance and beside the accessible parking spot. ***Pending; this is also to be provided at the site entrance within the Municipal ROW.***

1.6 – 1.11 ***Addressed.***

SWM Comments

1.12 Regarding the rear Containment Area (Catchment 203):

a. Provide additional details regarding the SWM strategy for this area. Confirm how the area will attenuate the storm water run-off to meet pre-development run-off rates. Also, if quality treatment is intended. ***Pending; confirm how water will be treated/removed from the area if water sampling concludes that the water quality requirements are not met. Is the typical runoff from this catchment considered clean (i.e., roof and landscaped are), and as such does not require SWM quality treatment?***

b. Provide additional details regarding the operation of the valved outlet. The report indicates that the water/runoff in the containment area will be sampled prior to being released to the creek. Does this mean that there isn't continual positive drainage to an outlet? ***Pending; confirm maximum ponding depth and how the valve would be accessed/operated in this scenario. Consider shifting valve to higher ground for ease of access.***

c. The spill containment function and related spill to the creek are to be subject to approval by the GRCA and MECP as applicable. Copies of these approvals are to be provide to the Township when available. ***Pending; to be provided when available.***

1.13 – 1.24 ***Addressed***.

Water Servicing Comments

1.25 – 1.26 ***Addressed***.

1.27 Available fire flow subsequent tower commissioning is not anticipated to meet the 150L/s requirement. Therefore, site is to be designed such that permanent fire storage is available. Alternatively, methods/provisions to reduce fire flow requirement are to be considered. ***Pending; see additional comments below. Note that this may be subject to review by the Building Department.***

1.28 – 1.31 ***Addressed***.

Utility and Lighting Comments

1.32 Utility drawing is to be provided, indicating all utility providers (Hydro, Gas, Bell, etc.) and their services. ***Pending; Communication utility is to be shown.***

1.33 – 1.37 ***Addressed***.

Submission No. 2 Comments

General Design Comments

2.1 250mm outflow pipe from containment area is to be modelled as a culvert or outflow pipe as opposed to an orifice.

2.2 Confirm permeability rate is appropriate (Note #2 in SWM Report Infiltration Sheet). VA Wood Report specifies a range of $1x10^{-5}$ to $1x10^{-6}$ cm/s, whereas Note #2 specifies $5x10^{-5}$ cm/s.

2.3 Once the Site Plan is approved, the shop drawing for sewage pump is to be provided prior to ordering/installation to confirm compatibility with the LPS.

2.4 Extraneous flows indicated in the Servicing Report can be removed, considering that none would be expected to occur in the LPS.

2.5 Section 5.3 of the Servicing Report references a check valve being placed between the cistern and municipal water supply; however, it appears that these are not proposed to be connected in the drawing set and a check valve is not proposed. Confirm that drawing set is accurate and that no connection is proposed.

2.6 The proposed fire line c/w hydrant is to be split from the proposed 25mm water service at the property line such that the valves on each of the lines can be operated independently.

2.7 Filling the fire tanks from the hydrant will not be permitted as they are not metered. For the initial filling of the tanks the hydrant may be used but the Twsp is to be informed when it is to occur and the owner will be changed for this volume of water.

If you have any questions, please contact us.