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October 15, 2021

Jeff Doolittle, P.E.
Town Engineer
1540 Sullivan Avenue
South Windsor, CT

Re: App 21-36P – 25 Talbot Lane SP

Dear Mr. Doolittle,

This letter is written to address your review comments dated August 27, 2021. The accompanying plan set incorporates our responses to these comments. Because of the significant change to the site plans, this response letter supersedes the previous letter dated October 1, 2021. For ease of your review, your initial comment is in *italics*, followed by our response in **bold**.

Engineering has completed its review of the subject project, and has the following comments and recommendations:

1. *Label the missing/broken curb on Talbot Lane along the frontage of this piece. Show the TF and Inv elevations of the two catch basins and manhole at the intersection of Talbot Lane and Governors Highway. Also show the fire hydrant that is on Governors Highway by the northeast corner of this property, and the concrete barrier curb along Governors Highway in front of this property. Show the invert and TF elevations of the existing drainage structures on the east side of the property and the first connecting structure by the back of 20 Baker Lane and 75 Cody Circle.*
The survey has been updated to show the requested information.
2. *Replace the bituminous curb along Talbot Lane in front of this property where it is missing or damaged.*
Callouts to replace the bituminous curb along Talbot Lane in front of the property where missing or damaged have been added to the plans.
3. *The Town Public Works Department wants to keep the concrete barrier curb that is along Governors Highway in front of this parcel. This can be moved to the Town Garage at 157 Burgess Road upon coordination with Public Works staff.*
Callouts for the concrete barrier to be preserved, protected, and removed from the site by coordinating with Public Works staff have been added to the plans.
4. *The plans show 64 reserve parking spaces in the truck trailer parking areas. Will these areas really be available for car parking if needed or is this a conflict?*
The reserve parking spaces have been eliminated in the latest plan set as they are not longer required to meet zoning requirements.
5. *The EV installed and ready spaces need to be for Level 2 charging per the PZC regulations.*
The plans have been revised to indicate Level 2 charging stations.
6. *The S-curve entrance to the car parking spaces on the west side of the building has a short sharp curve off the main driveway. The radius at the beginning of this car drive should be the same as the radius at the other end (35 and 60 feet)*
The S-curve has been eliminated from the revised plans since the car access will be directly from Governor's Highway.

7. *Where is the main entrance into the building?*

The main entrance to the building will be on the east face of the building near the northern end in the revised plans.

8. *There is an existing low spot on Governors Highway near the northeast corner of this property where there is no catch basin or drainage pipe. The water flows off the road onto the grass and woods on and near this property there. The Town requests a formal right to drain onto this property at the northeast corner and an established drainage swale from the road to the low point in that area of this property near where there are wetlands located. The swale can be stabilized with grass or stone and the Town will maintain it once it is established.*

The grading plan was revised to lower the area at the northeast corner of the site along Governors Highway, allowing surface runoff to drain away from the road. A note granting the Town of South Windsor drainage rights to allow surface runoff from this portion of Governors Highway to sheet flow to the wetlands at the northeast corner of the property has been added to the plans.

9. *The plans do not show any water going to or from the existing drainage structures on the east side of the property by the back of 20 Baker Lane and 75 Cody Circle. What will be done with these drainage structures and pipes?*

The drainage structures and pipes in this area are proposed to remain.

10. *I have some concerns with the storm drainage system give the site is so flat.*

- a. *How were the underground stormwater chambers sized? Water will be back up into these during most storm events and they do not provide much storage or stormwater treatment. These should be sized to hold and their outlet raised about at least the 2 year storm elevation 71. 78.*

The underground stormwater chambers system was sized to provide conveyance of stormwater collected in the proposed catchment system in the truck parking area to the water quality basin. Isolation rows within the underground system were sized to treat the water quality flow rate of a 2-yr storm (3.10") instead of 1" as recommended by the 2004 Connecticut Stormwater Quality Manual. This was done instead of elevating the outlet invert from the underground system above the 2-yr storm as recommended due to site grade limitations, although the outlet has been raised 0.5' from the original plans.

- b. *The Stormwater Report indicates the water level in the large detention basin will be elevation 72. 52 during a 10-year storm. This will result in water backing up in many storm drain pipes on site during most storms and possibly lead to siltation, clogging, freezing and other problems with the storm drain system such that it does not function as designed for the 10-year storm. All the storm drain pipe outlets into the detention basin (except for those from the underground infiltration system) should be raised about the projected 10-year storm elevation and other pipes in the storm drain system raised accordingly.*

All outlets to the pond on the east side of the building have been designed to outlet above the projected 10-year storm elevation. The outlets to the pond on the south side of the building have been analyzed with a tailwater condition for the projected 10-year storm elevation. The results show the system in these areas are appropriately sized considering the tailwater condition. Please see the updated Stormwater Management Report.

- c. *The inlet to the detention basin from the western parking areas and side of the building is very close to the outlet which may lead to water short circuiting the basin and not being retained for as long as needed. This inlet needs to be moved further away from the outlet and a stone check dam installed between this inlet and the outlet to the 2-year elevation 71. 78.*

Treatment of stormwater from this area is not dependent on its retention time in the water quality basin. Discharge from the western side of the building will be cleaned in the proposed isolation rows within the underground stormwater

chamber system sized to treat the 2-yr water quality flow rate. This, in addition to the stone check dam, will provided the required water quality treatment before reaching the system outlet.

d. The proposed stone check dam at elevation 70.5 can be eliminated.

The proposed stone check dam was removed from the plan.

11. Provide the average daily and peak sanitary sewer flows expected from this building.

The expected sanitary flow for the proposed total building area based on Section 4.B, Table 4 of the Connecticut Public Health Code is 35,964 GPD based on 359,640 SF of proposed industrial building utilizing a rate of 0.1 GPD/ SF of gross floor area.

12. Provide a monitoring manhole on the sanitary lateral in the lawn area on the south side of Governors Highway with an easement to the Town for access for monitoring and inspection purposes.

An additional manhole was added within the right-of-way allowing the Town access for monitoring and inspections.

13. The HDPE flared end detail (and concrete flared end details) need to include anchoring the flared end to a concrete or compacted stone cutoff wall that goes down about 3.5 feet so the flared end is securely pinned in place and does not get undermined.

The HDPE flared end detail has been modified as requested.

14. WPCA review and approval is needed for this project.

Noted. The applicant will submit to the WPCA upon receiving approval from PZC.

Please contact us with any questions.

Sincerely,



Daniel H. Jameson, PE
Project Manager