

Killingly Engineering Associates

Civil Engineering & Surveying

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August 24, 2020

Ms. Margaret Washburn, ZEO, WEO
Town of Brooklyn
Clifford B. Green Memorial Center
69 South Main Street
Brooklyn, CT 06234

**RE: Proposed Multi-Family Development
Louise Berry Drive**

Dear Ms. Washburn:

In response to review NECCOG comments on the referenced project dated July, 2020 we offer the following; please note that an additional sheet has been added to the plan set:

Sheet 2 of 9

1. The soil Scientists signature block has been added to the plan

Sheet 3 of 9

1. All curbing will be bituminous concrete and radii 5' unless otherwise noted. This notation has been added to the plans.
2. Sidewalks are shown 5' wide with a 2' snow shelf as requested.
3. The project does not propose public improvements along Louise Berry Drive, specifically sidewalks.
4. Dwellings are proposed to be 2-bedrooms.
5. Each dwelling unit will have a garage for one interior parking space.
6. Block retaining wall has been labeled as "Versa-Lok or equal". A guide rail has been added at the top of the wall.
7. Curbing has been shown around the landscaped islands for units 1-3.
8. Guide rail adjacent to unit 3 has been labeled accordingly.
9. Recreation area is for passive recreation such as picnicking, ball playing, frisbee etc. The temporary sedimentation basin is "temporary" and will be eliminated at the end of construction and the areas restored. The use of the access easement will not be impacted by either the temporary basin or passive recreation.
10. Slopes have been labeled 3H:1V and 2H:1V in some areas. These steeper slopes are proposed to reduce the grading footprint and will be treated with turf reinforcement matting.

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1. Light poles have been added to the plans.
2. Restoration of the area where the temporary sedimentation basin has been noted on the plans.
3. Additional landscaping to screen the basin maintenance access has been shown.

Sheets 5 & 6 of 9

Please note that a road profile sheet has been added to the plans which provides most of the information requested in the review.

1. Catch basin information has been added to the roadway profile.
2. Drainage pipe information is shown on the profile and in table form.
3. Roof leaders will be HDPE pipe.
4. Sanitary sewer information is shown on the profile and in table form.
5. Sanitary sewer pipe information is shown on the profile and in table form.
6. Cleanouts for sanitary sewer connections will be provided.
7. Additional sanitary sewer manholes have been added to the plans and each unit will be individually routed to the sanitary sewer system.
8. The existing sanitary sewer system is within an existing easement; the project is not proposing this easement. Connection to this sanitary sewer and to the existing waterline will be under the jurisdiction of the sewer authority and CT Water.
9. The existing sanitary manhole is not accessible but we do not anticipate conflicts with the proposed and existing waterline with the sanitary sewer connection as there is 15'-18' of elevation change from the final proposed manhole in the cul-de-sac. The plans have been forwarded to CT water for review and the connection will be reviewed with the Killingly WPCA prior to P&Z submission. We have not excavated test holes and would not do so without permission from CT Water.
10. Information regarding the existing waterline within the easement has been requested from CT Water.
11. As with the previous responses, we will call out the required connections, fittings, clamps when we receive the redlined plans from CT Water as we have done on numerous projects.
12. Waiting for redlines from CT Water.
13. Hydrants will be installed in locations required by code. We will determine whether buildings will required sprinklers or firewall separation.
14. The waterline will be looped from the service in the easement to an existing line in Louise Berry Drive in order to maintain water quality, pressure and volume requirements.
15. Distribution and water bill handling will be determined by the developer and CT Water. We don't believe this is a Wetlands or P&Z issue.
16. Final design of the water system will be per CT Water which we have done in previous projects. It is currently being reviewed.
17. The water main will be designed and installed with the required bends, fittings and thrust blocks.
18. The water main will be looped to a water main in Louise Berry Drive thereby alleviating the concern of water quality & pressure.
19. The drainage outlet from the detention basin will discharge to the existing wetlands where drainage from the property currently flows; the drainage pattern is not altered.
20. The riprap outlet is designed as a level spreader. Velocities from the discharge pipe are minimal.
21. Level spreader has been labeled and dimensioned.
22. Additional E&S has been shown as recommended.
23. The temporary sedimentation basin has been removed from the location previously show on the plan because the drainage area to that point is minimal. The area will be utilized for soil stockpiling.
24. The rain garden was for roof drainage for the building it was adjacent to. That feature has been eliminated and roof drainage will be directed to the stormwater collection system.

Sheet 7 of 9

1. Construction notes/General Provisions, note 9 has been modified to state what materials shall be removed from the site.
2. A topsoil stockpile location has been added to the plans.
3. CT Water is the entity with jurisdiction over the water line and ultimately, the sanitary sewer discharge will be conveyed to the Town of Killingly WPCA. We will work with the town and water company as we have in past projects to coordinate connections. Even with private developments, CT will own and maintain the water line.
4. In order to be utilized for a temporary sediment trap during construction, the stormwater basin will be constructed with the sediment forebay as shown with a crushed stone filter. Catch basins will be installed with E&S controls as well. To keep sediment from being transported to the wetlands, the stormwater basin outlet structure will not be installed until the roadway has been stabilized and a low-level outlet encased in crushed stone and filter fabric will be installed for use during construction.
5. The "Utilities to edge of right of way" note has been modified accordingly.
6. The temporary sedimentation basin has been removed from the plans and the need to add it to the sequence of construction is not necessary.

Sheet 8 of 9

1. We have not designed with a plunge pool and therefore a detail for it is not shown.
2. Grass & riprap swale details have been added to the plans.
3. A cross section of the outlet structure is shown on the detail sheet and a summary of water elevations for design storms is provided in the drainage report.
4. We will excavate test pits in the area of the proposed stormwater basin prior to submission to Planning & Zoning.
5. The flared end section detail has been replaced with one for HDPE pipe.
6. The catch basin detail has been modified to show a 4' sump as requested.
7. The turf reinforcement mat selection has been modified to a degradable product.
8. The call out for the hood has been more clearly specified.
9. The hood will be utilized at the last catch basin prior to discharge to the stormwater basin.

Sheet 9 of 9

1. Curbing has been modified to a Cape Cod style curb.
2. The type of brick for the sanitary manhole has been specified on the plan.
3. The sanitary sewer pipe in trench detail has been modified accordingly.
4. Kor-N-Seal connections have been specified for the sanitary sewer connections.
5. Specification for the preservative retention and AWPA classification of the guide rail has been added to the detail.
6. Guide rail is shown adjacent to the accessible units at the site entrance.
7. Speed limit sign has been modified accordingly.
8. The "No Outlet" sign detail has been modified accordingly.
9. The stop sign detail has been modified accordingly.
10. The retaining wall section has been modified accordingly. It should be noted that the detail was taken from the Versa-Lok website.
11. Roadway detail has been modified accordingly.
12. The sidewalk detail has been modified accordingly.

Sheet 9 of 9

1. The 40-scale plans are in accordance with the town's regulations and are standard for a project of this type.
2. Detailed drainage calculations have been completed and will be forwarded for review.
3. A profile of the roadway has been added to the plans.
4. We have provided 2 parking spaces per unit and a 24' wide roadway. We can discuss the need/requirement for additional parking with Town staff.
5. The soil scientist is preparing an impact report that we will forward upon completion.
6. We have not formally discussed sanitary sewer flow with the WPCA but at 150 GPD per bedroom we would anticipate 15,300 GPD and 42.5 GPM peak with a peaking factor of 4. From previous work we have done for discharges to the Killingly WPCA, we know that they are currently running well below plant capacity. Per a telephone conversation with a representative from Suez (Killingly WPCA), they feel that Brooklyn is also currently operating well below their allowable capacity.
7. We trust that the plans as submitted are not "schematic" in nature. We understand that there is work to be completed with the water distribution system design but we are waiting for response from CT Water before making these adjustments to the plans.
8. The paperwork on the condominium documents will be provided in a draft format for the P&Z submission. Typically, these documents are not completed until all approvals have been obtained from local and state agencies and any special requirements can be incorporated into the documents upon approvals.
9. Killingly Engineering will be conducting all survey stakeout and as-builts including the interior layouts for condominiums declarations. We are currently doing this type of work for 2 similar developments, one in Killingly and one in Plainfield.
10. The "common space" will be defined in the condominium documents as required.
11. A typical floor plan and elevation of a building will be provided for the P&Z submission as required.
12. CT Water will assume ownership and maintenance of the water main and the Association will assume ownership and maintenance of the sanitary sewer system.

Please feel free to call if there are any questions or clarifications required.

Sincerely:

A handwritten signature in blue ink, reading "Normand Thibeault, Jr." with a stylized flourish at the end.

Normand Thibeault, Jr., P.E.