



TOWN OF NEW CASTLE

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Date: May 24, 2019 (For June 4, 2019 PB Meeting)

To: Planning Board

From: Town Engineer

Re: Chappaqua Crossing – East Village (MFPD) Site
Development Plan Approval - Planning Board Application
for Wetlands Permit, Steep Slopes Permit, Tree Permit, and
Stormwater Pollution Prevention Plan Approval – 480
Bedford Road - Section 93.9, Block 1, Lot 1.4

I have performed a review of the submitted plans (last revised on May 13, 2019) and as mentioned in a cover letter dated May 13, 2019 as prepared by DelBello Donnellan Weingarten Wise & Wiederkehr, LLP on behalf of the above referenced application and offer the following comments:

No new information was submitted to address my previous stormwater comments (ST1 through ST15) as mentioned in a memo dated January 13, 2019, and as outlined below, and thus remain outstanding to date:

Stormwater Comments:

- ST1. The Flow Length for the channel flow for Subbasin CC-PKG S under existing conditions as shown on Table No. 6 not correspond with the scaled length of 2,164 ft. to Discharge Point No. 3 as shown on the Existing Drainage Conditions Map (Drawing No. SWM-7). Therefore, please provide clarification and additional tables regarding the determination of the flow length.
- ST2. The total flow length of 1,085 ft. which includes the sheet (100'), shallow concentrated flow (unpaved 231') and channel flow (754') does not connect to a known discharge point (DP #1, DP #2, DP #3, and DP # 4/5). Therefore, please provide clarification and additional tables regarding the determination of the flow length.
- ST3. Provide a narrative and demonstrate quantitatively regarding the emergency overflow and safe passageway to existing downstream structures regarding the Wet Extended Detention Pond (Pond CC-R) (NYSDEC SMP Classification P-3), as shown on Drawing No. SP-7.4.
- ST4. The total retained height of stormwater, during a 100-year storm event, along the westerly side of Wet Extended Detention Pond (Pond CC-R) may exceed 10 feet in height. Therefore, the applicant should submit a letter of "***No Jurisdiction***" from the NYSDEC stating that a NYSDEC Dam Permit is not required, in this particular case.

- ST5. The Wet Extended Detention Pond (Pond CC-R) to the Chappaqua Brook Wetland System as shown on Drawing SP-7.4 should show the existing downstream drainage system (type of pipe, diameter, slope and inverts) which conveys stormwater runoff from the outlet control structure (OCS-A) in heavy line-type as opposed to gray-tone.
- ST6. It is recommended that the existing downstream drainage system, as mentioned in above mentioned comment (ST5), be TV Inspected to ensure that the existing drainage network is operating satisfactorily and does not contain any sediment and/or repairs that may be required.
- ST7. Provide a structural analysis and report, as prepared, signed and sealed by a licensed NYS registered Professional Engineer and/or Architect, which demonstrates that the existing stone masonry retaining wall is capable of withstanding the additional loading created by the proposed stormwater retention basin (Wet Extended Detention Pond CC-R, as shown on Drawing No. SP-7.4, regarding the minimum factors of safety for overturning, sliding and settlement.
- ST8. Provide clarification regarding the Design Flow of 61.3CFS exceeding the Actual Capacity of 59.2 CFS between proposed DMH A-3 and DMH A-2, DMH A-1, as shown on the “*Drainage Pipe Area Map*” (Drawing SWM-11).
- ST9. Provide buoyancy calculations which would demonstrate that the proposed underground cisterns (CCR Cis E & CCR Cis w) have been properly designed in which the underground structures would not “float” during high groundwater conditions in this area. Provide sections and details of said underground cisterns as well.
- ST10. The stormwater management controls for the East Village MFPD District parcel shall either be self-contained on the East Village MFPD District parcel or include any necessary drainage or other easement(s) over the B-RO-20 District parcel to support the residential uses on the East Village MFPD District parcel. If the East Village MFPD District parcel is to utilize the B-RO-20 District parcel for drainage, then a restrictive declaration running in favor of the East Village MFPD District parcel should be secured to preserve this feature on the B-RO-20 District parcel. It should be noted that there are approximately nine (9) drainage structures and approximately 1,200 linear feet of storm sewer located over and across the B-RO-20 District parcel, which collects and conveys stormwater runoff from the East Village MFPD District parcel.
- ST11. Since more than one (1) acre of disturbance is proposed (within the East of Hudson Watershed) the applicant must demonstrate that they have obtained coverage from the NYSDEC under GP-0-15-002, including a Full SWPPP (Erosion & Sedimentation Control Plan including post-construction stormwater practices).
- ST12. Since the subject property is proposed to be developed is located within the New York City Watershed, the applicant must demonstrate that they have obtained approval from the New York City Department of Environmental Protection (NYCDEP) for a Stormwater Pollution Prevention Plan (SWPPP).
- ST13. Indicate the type of pipe, pipe diameter, pipe invert and slope for the new roof areas, pool deck, and club house and associated walkways as shown on Drawings SP-2.1 and SP-2.2.
- ST14. According to Section 108A-9 C and E under Maintenance, inspection and repair of stormwater facilities. Prior to the issuance of any approval that has a stormwater management facility; the applicant must

execute a formal stormwater maintenance agreement and access easement that shall be binding on all subsequent landowners served by the stormwater management facility. The stormwater maintenance agreement and access easement shall be in a form satisfactory to Town Counsel and shall be recorded in the Office of the County Clerk as a deed restriction on the property. Therefore, it is recommended that the applicant provide the required stormwater maintenance agreement and access easement in accordance with Section 108A-9 C and E as mentioned above.

ST15. According to Section 108A-11 A and B under Performance guarantee; recordkeeping. The Town in its approval of the stormwater pollution prevention plan (SWPPP) may require the applicant to provide, prior to construction, a performance bond, cash escrow, or irrevocable letter of credit, which guarantees satisfactory completion of the project and names the Town of New Castle as the beneficiary. Also, the Town may require the applicant to provide, prior to construction, with an irrevocable letter of credit from an approved financial institution or surety to ensure the proper operation and maintenance of all stormwater management and erosion control facilities both during and after construction. Therefore, it is recommended that the applicant provide the required performance bond and maintenance bond in accordance with Section 108A-11 A and B as mentioned above.

General Comments:

- GC1. The applicant has submitted documentation regarding the engineering technical merits regarding the reduction of the length of the driveway aprons from an original length, which ranged between 15' – 20' as shown on the original approved Preliminary Development Concept Plan (PDCP) to a current proposed apron length which now would range between 5' – 8'. Therefore, the Planning Board should decide as to whether this reduction is acceptable or require to the applicant to increase the apron width as shown on the approved PDCP.
- GC2. The applicant has submitted documentation (sight line analysis and reduced speed limit) regarding the engineering technical merits regarding turning movements of a passenger vehicle attempting to enter the enclosed garage. However, it should be noted that the vehicle would encroach into the adjacent travel lane. Therefore, the Planning Board should decide as to whether this turning movement encroachment is acceptable or require to the applicant to increase the apron length and/or roadway width.
- GC3. Based upon a review of the Truck Turning Movements Plan for the SU-40 vehicle type, as shown on Drawing SP-11.1 and SP-11.2, the path of the SU-40 truck does not encroach onto the sidewalk. However, in all turning instances the path of the truck does encroach into the adjacent travel lane. Therefore, the Planning Board should decide as to whether this is acceptable or require the applicant to revise the curb line geometry, which would require an increased radii and/or roadway width.
- GC4. Based upon a review of the Truck Turning Movements Plan for the Fire Truck vehicle type, as shown on Drawing SP-11.3 and SP-11.4, the path of the Fire Truck does not encroach onto the sidewalk. However, in all turning instances the path of the Fire Truck does encroach into the adjacent travel lane. Therefore, the Planning Board should decide as to whether this is acceptable or require the applicant to revise the curb line geometry, which would require an increased radii and/or roadway width.
- GC5. The passenger vehicle turnaround areas, located at the terminus of Proposed Road E and Proposed Road H, as shown on Drawing SP-1.2, should indicate the type of surface material that will be used for the construction of the proposed turnaround areas. Provide details and sections of same.
- GC6. In discussion with the Commissioner of Public Works, in order to allow for increased fire flow and water quality and less water service disruption to the residents of the proposed development during the repair and/or replacement of the 8-inch water main, an additional 540 linear feet of proposed water main should

be extended from the proposed hydrant located at the intersection of Proposed Road G approximately 540' +/- in an easterly direction and connect into the existing water main located in and along Cowdin Lane. (See attached sketch).

GC7. The Applicant is proposing approximately 930 linear feet retaining walls, which range between 2' and 18' in exposed height. Also, due to the height of the proposed retaining walls (in some instances tiered retaining wall systems), roadway / vehicular / truck surcharge, existing steep slopes, unknown underlying soil conditions in which the proposed retaining walls and associated fill will be located in and upon. Therefore, it is recommended that the applicant's engineer perform a Global Stability Analysis with the use of a commercially available slope stability software such as G-Slope and STABL computer programs which includes soil reinforcing elements and perform Bishop and Janbu methods of analysis. The Global Stability Analysis and report should be prepared, signed and sealed by a NYS licensed Professional Engineer experienced in geotechnical / foundation / structural analysis and design. In addition, the following notes should be added to the structural drawings:

- a) All work regarding the footing/foundation for all site related retaining walls shall remain accessible and exposed until inspected by the Building/Engineering Division. Building/Engineering Division shall be notified at least 48 hours in advance to schedule a footing/foundation inspection. **Contact Terry L. Rowe – Civil Engineering Technician at 914-238-1429.**
- b) The retaining wall, as shown hereon, has been designed to meet and/or exceed the minimum factors of safety for sliding, overturning and settlement.
- c) At completion, the applicant's engineer shall submit a "**Certificate of Construction Compliance**" and "**As-Built Section**" certifying that the retaining wall as constructed meets all factors of safety for sliding, overturning and settlement in accordance to the approved plans on file with the Building and Engineering Department.

GC8. Provide water main profiles and associated stationing, in light of the fact that they are required for the WCDOH Approval as well.

GC9. The applicant should provide an engineer's cost estimate for the construction of all the site related items, including tree replacement, wetlands mitigation and stormwater plantings, in order to determine the performance bonding and associated 3% inspection fee.

GC10. The Applicant would be required to obtain approval from the Westchester County Department of Health for the proposed water main and sanitary sewer improvements.

Master Subdivision Plan Comments:

MS1. Indicate the metes and bounds for each parcel.

MS2. Indicate the tax identification (SBL), owner (NOF), address and filed map number (if applicable) of all surrounding properties.

MS3. Indicate the metes and bounds of the lands (and associated areas) to be dedicated to New York State and the Town of New Castle for roadway improvement purposes.

MS4. Indicate the water main, sanitary sewer, stormwater sewer and associated easements.

MS5. Indicate the following legends and or signature blocks:

- Westchester County Department of Health
- Planning Board Chairman signature block
- Owners signature block
- Date survey was completed
- Licensed land surveyors signature and seal
- Title of subdivision
- Any other items that may be required by the Westchester County Clerk's Office – Division of Land Records.

Preliminary Subdivision Plan Comments:

PS1. Indicate the metes and bounds for each parcel. (Parcel 1 through 93)

PS2. Indicate the tax identification (SBL), owner (NOF), address and filed map number (if applicable) of all surrounding properties.

PS3. Indicate the water main, sanitary sewer, stormwater sewer and associated easements.

PS4. Indicate the following legends and or signature blocks:

- Westchester County Department of Health
- Planning Board Chairman signature block
- Owners signature block
- Date survey was completed
- Licensed land surveyors signature and seal
- Title of subdivision
- Any other items that may be required by the Westchester County Clerk's Office – Division of Land Records.

ecc: Sabrina Charney Hull, AICP, Director of Planning
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Mary Galasso, NYC Environmental Protection
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