



**STEPHEN W. COLEMAN**  
ENVIRONMENTAL CONSULTING, LLC

November 10, 2019

Chris Kehoe, Deputy Director, Planning  
Department of Technical Services  
Town of Cortlandt, Town Hall  
1 Heady Street  
Cortlandt Manor, New York 10567

Copies ... 1 ... Planning Board

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..... Zoning Environmental Planning & Site Analysis

..... Wetland Mitigation & Restoration Plans

..... Legal Dept. Wetland Delineation & Assessment

..... DOTS Director Natural Resource Management

..... C.A.C. Pond & Lake Management

..... A.R.C. Wildlife & Plant Surveys

..... Applicant Breeding Bird Surveys

..... Landscape Design

..... Applicant

..... Joel Greenberg R.A.

..... 11/13/19

**Re: PB 2019 -7 Khoury used Car Facility - Environmental Review**

Materials Reviewed:

- Wetlands and Soil Survey, dated 06-22-18, as prepared by P. Jaehnig.
- Tree Survey for Westchester Auto Exchange, dated 10-12-19, as prepared by Bartlett Tree Experts.
- Architectural Site Plan for Westchester Auto Exchange, dated last revised 09-25-19, as prepared by Architectural Visions, PLLC.

Dear Chris:

As per your request, I have completed a review of the above revised plans and completed a site visit on 11-08-19 to review the subject parcel and the proposed improvements, including review of the wetland delineation, potential wetland and wetland buffer impacts, and proposed mitigation measures.

Existing Conditions:

The wetlands located on the subject property are part of a larger wetland system that includes wetlands to the north on the other side of Crompond Road and to the east on the other side of Buttonwood Road. All of the wetland areas are considered hydrologically connected via existing culverts. A stream channel emanates from the north and travels along the westerly property line and meanders to the south within the subject parcel and eventually discharges to the east via a culvert and continues on the easterly side of Buttonwood Road, into a larger former forested wetland complex currently dominated by phragmites grass. The wetland system provides important functions including the potential for groundwater recharge, conveyance of stormwater flows and flood management, water quality maintenance, and important habitat for resident and transitory wildlife species. A lot of the existing structures are located within regulated wetland buffer area. It is likely, that historically, the extent of wetlands were filled in to create the existing frame building and parking areas.

Proposed Project Impacts:

The proposed improvements are located entirely within the regulated wetland buffer, and also in close proximity to the actual wetland boundary, especially within the northwesterly corner and the southeasterly section in the location of an existing road access from Buttonwood Road. Due to existing conditions, the functions provided by the remaining buffer area has been compromised. The existing septic system, and drainage appears to enter directly into the adjacent stream system located along the westerly boundary and, also along the easterly boundary adjacent to Buttonwood Road. The remaining buffer area shows evidence of fill deposits and the vegetative cover is dominated by invasive plant species.



## Recommendations:

1. The wetland delineation completed by P.Jaehnig, Wetlands and Soil Consulting, dated 06-22-18, accurately represents existing field conditions. The wetland boundary is consistent with the criteria outlined in Chapter 179 "Freshwater Wetlands, Water Bodies and Watercourses".
2. The proposed improvements include a 25 ft. easement to be granted to the Town for a phosphorous abatement project to be implemented by the East of Hudson Program. This planned improvement once implemented will assist with important phosphorous reductions and will likely also result in an overall improvement to water quality benefits for this wetland system.
3. The proposed expansion will result in further encroachment within the wetland buffer and result in a loss of functional value provided by the remaining buffer area. In addition, water quality will likely be compromised due to the amount of proposed impervious cover, lack of planned stormwater mitigation measures and the proximity to the existing watercourse channel.
4. The intent of Chapter 179 is to avoid potential impacts to regulated wetland and wetland buffer areas. It appears feasible that some design changes could be implemented to further avoid the amount of encroachment within regulated areas. The following considerations are recommended:
  - The overall footprint of total disturbance should be addressed to determine whether reductions in square footage could be accomplished that still meets the applicant's operational needs but assists with reductions in overall wetland buffer disturbance.
  - The proposed access from Buttonwood Road is an old road bed that is located right at the edge of the wetland. This road is proposed to be paved to provide access to a new 4 bay garage. A new paved driveway is proposed around the rear of the garage building and includes an overall width of 18 feet. The applicant should consider whether access from Buttonwood Road could be eliminated and access provided only from the western side from Crompond Road. This would eliminate the amount of impervious cover in close proximity to the watercourse channel. This would allow more of a natural buffer to be established and also mitigated that is located immediately adjacent to existing watercourse channel.
  - The above proposed modification would allow the overall footprint to be reduced in length which would preserve more of the existing wetland buffer to the rear. The driveway access could be eliminated. This scenario would also require that the number of parking spaces for employees and customers be re-designed.
  - The applicant should clarify whether the existing septic system and leaching fields will need to be modified due to the amount of proposed paving within this area.
  - A permanent fence should be installed along the entire perimeter of planned improvements to prevent future disturbance within the wetland buffer. The fence should extend along the edge of new concrete curbing, behind the outer garage wall and also along the easterly boundary adjacent to Buttonwood Road.

- The applicant has proposed mitigation in the form of new trees and a non-native fountain grass. The site plan also states that a perennial wildflower mix and no mow mix will be installed within the buffer area. No specific details have been provided on what type of mix, or how it will be installed. The planting plan as shown is considered inadequate and requires specific modifications and more details in order to determine the effectiveness of the mitigation strategy.
- The applicant should prepare a separate wetland buffer mitigation planting plan that is prepared by a landscape architect familiar with wetland mitigation and is at a mitigation replacement ratio of 1:1. The mitigation plan should include a combination of native trees, shrubs and ground covers. The plan should also provide details on how the existing wetland buffer area to be planted will be prepared. This includes review and suitability of existing soils, removal of construction related debris, removal of invasive plants, soil amendments as needed, and specific planting details. If seed mixes are proposed, the type and locations should be clearly shown on the site plan including planting details and specifications. The mitigation plan should also show temporary deer fencing around the mitigation plantings.
- A stormwater mitigation plan should be prepared with specific emphasis on discharge locations of proposed stormwater runoff. The plans show the use of porous pavement in some areas. Details on soil samples should be provided that indicate that the soils are suitable for the use of porous pavement. The site contains a lot of impervious cover, which requires treatment prior to discharge into adjacent wetland areas.
- Details on the proposed wash bay should be provided to determine whether it is a closed loop system that does not result in any excess discharge without some form of capture and treatment.
- Due to the proposed impervious cover and the type of use, the potential for petrochemical runoff from impervious surfaces is a significant concern to the adjacent wetlands. Consideration should be given to the use of a hydrodynamic separator as part of the stormwater management system.
- A five (5) year monitoring and maintenance plan is required and should be developed and submitted for further review. Plan should include all of the proposed plantings and maintenance of the recommended stormwater devices. The plan should follow accepted Town guidelines and protocols.

This completes my review of the proposed plans and submissions. Please let me know if you have questions or require additional information.

Sincerely,

*Stephen W. Coleman*

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