



Date: December 4, 2023

To: Waterford Conservation Commission
From: Maureen FitzGerald, Environmental Planner

Re: **Inland Wetland Application #23-12: 295 & 313 Willets Avenue
and 16 & 18 Boston Post Road - Proposed Hotel Development**

Proposed Regulated Activity:

The application is for construction of a 122 room, 4 story hotel building plus associated parking and access drives on 4.8 acres of land located between Boston Post Road and Willets Avenue. The site contains a 0.6 acre (26,000 sq. ft.) forested wetland area. Regulated activities include clearing, fill, grading, and construction of portions of the building and parking areas on land up-gradient of the inland wetland.

Wetland Impacts:

The wetland is 0.6 acre in size, located in the western portion of the site between a commercial parking area and vacant commercial land along Boston Post Road. It occupies a shallow depression with no apparent inlet or outlet. Vegetation includes a red maple canopy and shrub understory consisting of red maple saplings, sweet pepperbush, spicebush, rosa multi-flora and barberry.

No direct fill, excavation, grading or other alteration of inland wetlands or watercourses are proposed. Clearing and grading limits extend to within 20 feet of the delineated wetland boundary at the eastern and southern perimeter.

East of the wetland, clearing and grading of @10,000 square feet of the 100 ft. upland review area is proposed for the construction of a portion of the parking area and access drive. South of the wetland, 6,400 sq. ft. of upland review area is proposed to be excavated and graded to construct the forebay component of a stormwater detention/ treatment basin.

The wetland delineation and assessment report submitted for the application notes the wetland is not connected to other wetland or upland habitats and its functions include storm water retention and minor wildlife habitat value. The report concludes no adverse wetland impacts will result from the proposed activity if the development is constructed with the best management practices specified on the plans.

Erosion and sediment control practices specified include silt fence at the limit of disturbance, placement of a wood chip berm in front of the silt fence at the lower elevation of the site southeast of the wetland, installation of a temporary stormwater run-off diversion swale upslope of the wetland and implementation of temporary sediment traps to control construction run-off.

Stormwater from the developed site is not directed towards the wetland. After it is collected and treated in the water quality /detention basins, it is discharged to existing stormwater utility structures and then to wetlands south of Willets Avenue, which ultimately drain to Alewife Cove. The site is located in the southeast shoreline drainage sub-basin.

Stormwater Treatment

Stormwater run-off from the proposed development area is treated by two bio-filtration / detention basins. Roof run-off is to be directed to a sub-surface infiltration system beneath the parking area. The roof infiltration chambers are designed to capture the 100-yr storm event.

The stormwater basins are designed to capture and treat in excess of three times the calculated water quality volume. This capacity satisfies the Town's stormwater management regulations. The basins are designed to detain the 5-year storm event in basin #1, adjacent to Willets Avenue entrance, and up to the 25-year storm event in basin #2, at the western end of the site, prior to discharging stormwater. The basins are sized to reduce post-development peak run-off to rates below the existing conditions for the 2, 5, 10, 25, and 100 year storm event.

The combination of infiltration and bio-filtration of stormwater run-off is anticipated to attenuate 99% of suspended sediments and associated pollutants including nitrate, phosphorus and zinc prior to discharge to the existing stormwater utility system.

Rain gardens are proposed at the base of each access drive to provide treatment of run-off from the driveway surfaces. A rain garden is also proposed off the edge of the southern parking area.

Site Plan Modifications

Revisions to the proposed plan have been incorporated to address Commission and staff comments. These include: erosion and sediment controls for the demolition phase of the project, modification of the outlet for basin #1, grading to direct driveway run-off to the rain garden, modifications to the subsurface galleries and inclusion of an isolator row for cleaning, and addition of wetland buffer plantings at the limit of clearing adjacent to the wetland.

A summary of the modifications is presented in the attached letter from CLA Engineers, Inc. received 12/4/2023.

Findings & Considerations:

1. A notice of the application was provided by certified mail to the clerk of City of New London and forwarded by email to the New London Development & Planning Department.
2. No direct impacts to wetlands or watercourses are proposed.
3. The wetland is an isolated system with commercial development to the south, west and north. The activity is not anticipated to affect the capacity of the wetland to support wildlife, prevent flooding, protect surface water or attenuate pollutants.
4. The wetland assessment report submitted with the application finds the proposed activity will not impact wetland functions and the construction will not result in adverse impacts to the wetland.
5. The stormwater treatment system incorporates recharge through infiltration and pollutant attenuation through use of large bio-filtration / detention basins designed to capture and treat over 3 times the calculated water quality volume. Potential impacts to water quality of receiving wetlands have been mitigated.
6. The stormwater treatment system design and erosion and sediment control plans mitigate the potential for indirect construction impacts to wetlands and water quality.

Based upon the above considerations, the Commission may approve with conditions, the proposed regulated activities.

Recommended Conditions

- a. The plan revisions submitted on 12/04/2023 are incorporated into the final plan set.
- b. During construction, the stormwater treatment basins shall be inspected by the design engineer to verify the specified type, depths, and permeability of the fill materials applied are consistent with the approved plans. The stormwater basins shall be completed and stabilized prior to receiving site stormwater run-off.
- c. An as-built survey of the stormwater system components shall be submitted to the Commission's agent with written verification from a licensed engineer that the system was constructed in accordance with the approved design plans. This submittal shall be completed prior to the issuance of a Certificate of Compliance for the building.
- d. Monitoring of the stormwater basin plantings, slope stabilization and substrate stabilization shall be conducted by a wetland scientist or other qualified professional for a period of two (2) years following completion of the basin to document vegetation establishment and functioning of the 2 stormwater basins. Total herbaceous cover of the basin bottom shall equal or exceed 80% at the end of the second monitoring year. Eroded side-slopes and basin substrate areas shall be repaired and re-seeded as required. The outlet control structures shall be inspected and cleaned of sediment, trash and debris. Invasive plant species such as *Lythrum* and *Phragmites* shall be removed from the basin.
- e. A monitoring report shall be submitted to the Commission's agent by October 30th of each monitoring year documenting basin soil stabilization, vegetation establishment, filter bed functionality and corrective actions taken or required.
- f. At all times during site construction, sediment control fencing, temporary diversion swales and sediment traps shall be installed and maintained to control construction run-off and prevent sediment discharge to wetlands.
- g. A condensed inspection and maintenance chart shall be prepared by the design engineer identifying the inspection, management and maintenance frequency required for each component of the stormwater treatment system and detention basin components. This chart shall be submitted to the Commission's agent for review and approval prior to the issuance of a Certificate of Compliance.

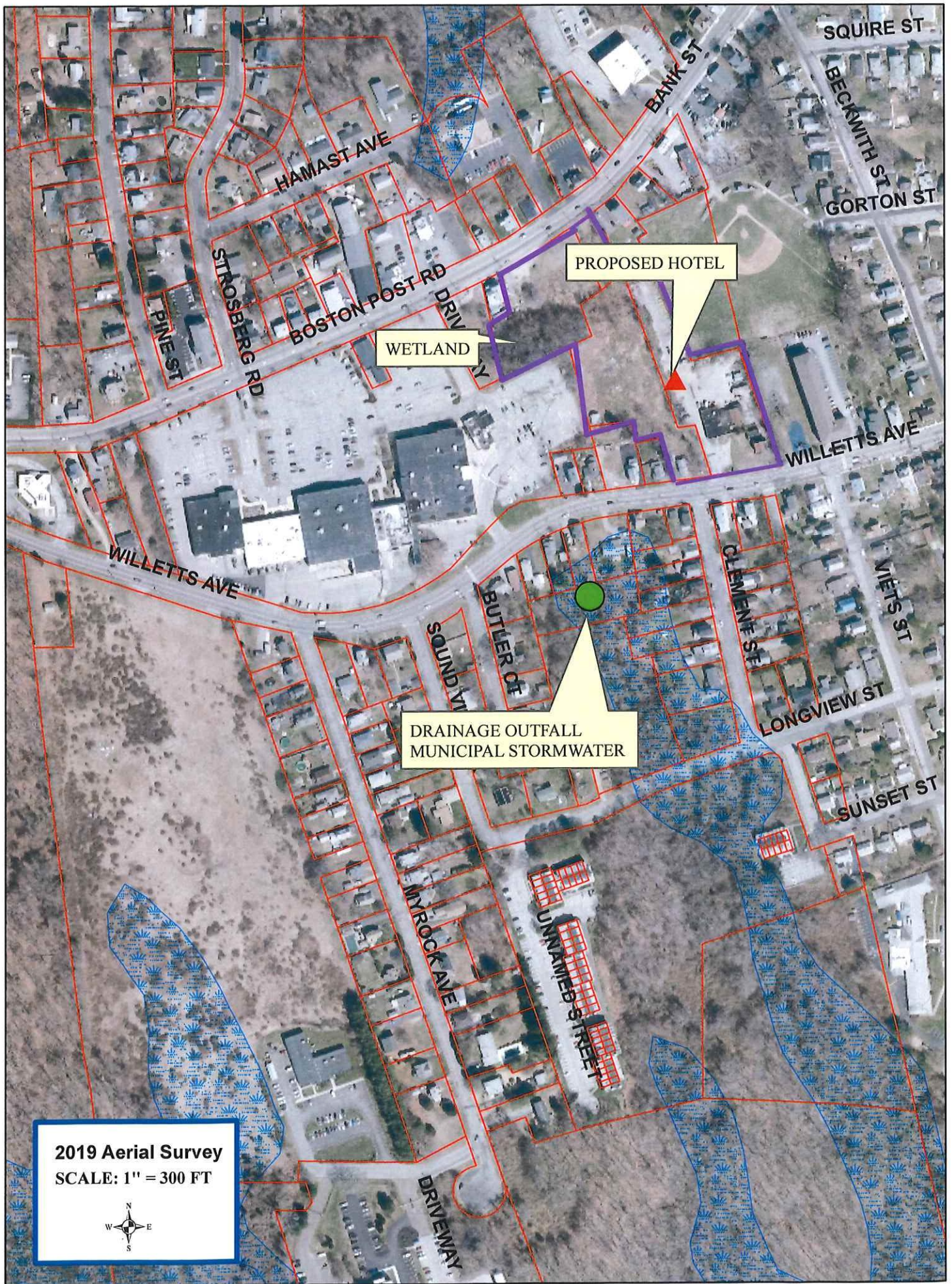


Maureen FitzGerald
Environmental Planner

Attachments:

aerial map of stormwater basin locations and drainage outfall
Plan revisions summary submitted by CLA Engineers, Inc.





2019 Aerial Survey
SCALE: 1" = 300 FT



CLA Engineers, Inc.

Civil • Structural • Survey

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DEC 4 2023

Planning & Development
Town of Waterford, CT

317 MAIN STREET • NORWICH, CT 06360 • (860) 886-1936 • (860) 886-9165 FAX

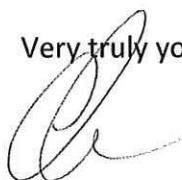
Re: **Inland Wetland Application #23-09:**
295, 313 Willetts Avenue, 16, 18 Boston Post Road
Proposed Woodspring Suites Hotel

- 1) The phasing and grading plan should include temporary ESC measures for the demolition phase of the project prior to construction of temporary sediment trap #1 while the buildings and pavement are being removed.
The Erosion Control plan, sheet 3, and the E & S Narrative on sheet 10 have been revised to show E & S prior to demolition.
- 2) Include the recommended timing / season for completion of final grading, topsoil application and seeding of the stormwater basins in the construction sequence.
Note 20 in the narrative has been added to address this.
- 3) Include organic matter percent in topsoil specification for basins.
Sheet 9 has been revised to show the percent of organic matter, and that it must be well rotted compost.
- 4) Identify on the grading plan how the driveway run-off will reach the rain gardens at Boston Post Road and Willetts Avenue entrances. Are curb-cuts and drainage swales required to convey the run-off?
Sheets 2 and 3 call for no curbing on the west side of the drive and sheet 4 shows the grading to drain to the rain garden.
- 5) Include elevations for the stormwater detention galleries on Sheets 4 and 10 and depth above seasonal water level.
The galleries have been changed to 4 rows of 24 inch galleries to provide an absolute minimum of 2 feet between the bottom of the galleries and the highest point of ground water.
- 6) Incorporate a planted vegetative buffer between edge of pavement and the downgradient wetland area and identify limits of mowing on final plans.
Please see sheet 13

Requests from Wade Thomas:

- **I shifted the outlet for basin 1 further away from the forebay, see sheet 4.**
- **The first row of the galleries has been isolated for cleaning, see sheets 4 and 10**

Very truly yours,



Ellen M. Bartlett, PE, CPSWQ
LEED Accredited Professional