

**MINUTES
WESTPORT CONSERVATION COMMISSION
JUNE 12, 2017**

The June 12, 2017 Special Meeting of the Westport Conservation Commission was called to order at 7:00 p.m. in Room 201/201A of the Westport Town Hall.

ATTENDANCE

Commission Members:

Anna Rycenga, Vice-Chair
Don Bancroft
Ralph Field, Alternate
Paul Lobdell, Alternate
Mark Perlman, Alternate
W. Fergus Porter

Staff Members:

Alicia Mozian, Conservation Department Director
Lynne Krynicky, Conservation Analyst

This is to certify that these minutes and resolutions were filed with the Westport Town Clerk within 7 business days of the June 12, 2017 Special Meeting of the Westport Conservation Commission pursuant to Section 1-225 of the Freedom of Information Act.

Alicia Mozian
Conservation Department Director

Work Session I: 6:30 p.m., Room 201/201A

1. Approval of April 17, 2017 meeting minutes.

The April 17, 2017 meeting minutes were approved as submitted.

Motion: Rycenga **Second:** Perlman
Ayes: Rycenga, Perlman, Bancroft, Field, Lobdell
Nayes: None **Abstentions:** None **Vote:** 5:0:0

2. Approval of May 8, 2017 Special Meeting minutes.

The May 8, 2017 Special Meeting minutes were approved as submitted.

Motion: Rycenga **Second:** Bancroft
Ayes: Rycenga, Bancroft, Field, Lobdell, Perlman
Nayes: None **Abstentions:** None **Vote:** 5:0:0

The following Commissioners visited the all the sites, Ms. Rycenga, Mr. Bancroft, Mr. Lobdell and Mr. Perlman. Mr. Field visited 107 Old Road only.

Public Hearing: 6:35 p.m., Room 201/201A.

1. **282 Compo Road South:** Application #WPL-10418-17 by William Achilles, AIA on behalf of SIR-282 Compo South LLC to construct a new 2 ½ story single family residence to replace the existing residence with a FEMA compliant structure including a crawlspace, pervious driveway and patios, a/c units, generator, pool, pool fence, public water and sewer with site drainage. Portions of the work are within the WPLO area of Gray's Creek.

Bill Achilles, AIA, presented the application on behalf of the property owner. The proposal is to demolish the existing residence and construct a new FEMA compliant structure. There are no inland wetlands on the property; however, the lot to the east may have wetlands so they have designed the house location accordingly. The new house location would be approximately in the same location as the existing house on a crawl space. It is 600 s.f. less coverage than the existing house. A six feet deep pool is proposed so as not to interfere with the water table. A drainage easement exists on the lot. The driveway will cross that. The Flood and Erosion Control Board approved the application. The Westport Weston Health District approved the pool. Cypress trees will surround three sides of the property. The house will be served by buried propane tanks. The driveway is proposed to be a permeable asphalt.

Mr. Perlman asked how tall the Cypress trees will get.

Mr. Achilles stated they will plant at 12 to 14 feet but they can grow to 20 feet.

Ms. Krynicki asked for a description of the permeable patio detail.

Mr. Achilles noted the plan detail.

Mr. Bancroft noted the test pits indicated the presence of water is evident in some of the pits.

Ms. Krynicki added the pool should be installed during low tide.

Mr. Achilles agreed and added that the pool would be built first along with the drainage system.

Mr. Field noted a pumping system should be on-site as a precaution.

Ms. Krynicki stated a Stormwater Maintenance Plan should be prepared for the pervious asphalt and patio should be prepared for future property owners. She added the design engineer said the soil is much better in the rear, which is why the drainage in the rear.

Mr. Field asked how the propane tanks will be served.

Mr. Achilles stated they will be served by hose.

Mr. Lobdell asked about the FEMA-compliant pool fence.

Mr. Achilles explained it needs to allow water to flow through it but it cannot have a 4-inch gap at the bottom for safety.

With no comment to the public, the hearing was closed.

Motion:	Rycenga	Second:	Bancroft
Ayes:	Rycenga, Bancroft, Field, Lobdell, Perlman		
Nayes:	None	Abstentions:	None
		Vote:	5:0:0

Findings
Application # WPL 10418-17
282 Compo Road South

- 1. Application Request:** Applicant is requesting to raze the existing structures and to construct a new single family dwelling on a crawl space with pervious driveway and patios, A/C units, generator and a pool. A 3' high stone wall is proposed along the front property line. 12" high by 20" long openings are proposed at the base of the wall to allow water flow. The site is serviced by municipal water and sewer. The proposed lot coverage is 24.6%. A 15' wide drainage easement crosses the lot in the northerly third portion of the parcel.

The property lies within the boundaries of the Waterway Protection Line Ordinance.

- 2. Plans reviewed:**
 - a.** "Proposed Site Improvements Plan for a Single Family Dwelling, Site Plan Details & Notes, SIR- 282 Compo South LLC, 282 Compo Road South, Westport, CT", Sheet 1 of 1, Scale: 1" = 20', dated May 16, 2017, prepared by Chappa Site Consulting, LLC
 - b.** Architectural Plans entitled: "New Residence for SIR Development LLC, 282 Compo Road South, Westport, CT", (8 sheets), dated April 28, 2017 Scale: As Noted, prepared by Anthony J. Tartaglia Associates LLC
- 3. Property Description:**
 - **Location of 25 year flood boundary:** 9 ft. contour interval.
 - **Property lies within Flood Zone AE (El. 11)** as shown on FIRM Map #09001C0551G, map revised to July 8, 2013
 - **Proposed First Floor Elevation:** 13.10' NGVD
 - **Crawl space floor elevation:** 8.50' NGVD

- **Inland Wetlands and Watercourses:** There are no inland wetlands or watercourses on this property.
- **Aquifer:** The property is not located within the Aquifer Protection Overlay Zone, but is located within an aquifer recharge area defined as fine-grained stratified drift.
- **Coastal Area Management:** Property is located outside the CAM zone.
- **Proposed Vegetation:** Evergreen screening trees are proposed along the west, south and easterly property lines.
- **Previous Permits issued:**
- The property is connected to sanitary sewer and water.

The Flood and Erosion Control Board approved the application with conditions on June 7, 2017.

4. The WPL Ordinance requires that the Conservation Commission consider the following when reviewing an application:

“ An applicant shall submit information to the Conservation Commission showing that such activity will not cause water pollution, erosion and/or environmentally related hazards to life and property and will not have an adverse impact on the preservation of the natural resources and ecosystems of the waterway, including but not limited to: impact on ground and surface water, aquifers, plant and aquatic life, nutrient exchange and supply, thermal energy flow, natural pollution filtration and decomposition, habitat diversity, viability and productivity and the natural rates and processes of erosion and sedimentation.”

The existing residence currently on the site is not FEMA compliant. The existing site development includes a gravel driveway.

The Commission finds that at the time of the soil investigation for drainage, it was discovered that the soils are sand and gravel in the rear, however, fill was encountered in the front. Therefore, the majority of the drainage will be installed in the rear. The drainage for the driveway in the front will have the unsuitable soils removed and be replaced with a more permeable sandy material.

The Commission finds a silt fence will be installed at the perimeter of the parcel. A temporary stockpile area is identified in the front yard which will be surrounded by silt fence.

The Commission finds the proposed structure will be built to all applicable requirements of the FEMA regulations. The proposed first floor will be set 2.1 feet above the 100 year flood elevation. Flood openings are proposed in the crawl space exterior walls to allow floodwaters to flow through the crawl space.

The Commission finds in order to remove stormwater pollutants and provide water quality treatment, the drainage system has been sized to handle the first 1.0" of rainfall from all impervious areas as recommended in the Connecticut Stormwater Quality Manual.

The Commission finds all proposed drive and patio areas will be constructed utilizing pervious materials.

Heating fuel source will be a 1000 gallon buried propane tank with a concrete pad and cable straps.

The Commission finds in order to control any potential ground water issues during pool excavation, a temporary dewatering pump is to be installed with discharge directed through a dirt bag to remove any sediment.

A 4' high FEMA compliant pool safety fence will be installed around the pool area.

Westport Weston Health District approval was secured for the pool.

The Commission finds the excavation activity for the construction be timed so that the majority of the activity takes place during low tide especially for the pool construction.

The Commission finds that the potential for the proposed project to have an adverse impact on the preservation of natural resources and the ecosystem of the adjacent waterways primarily is limited to nutrient loading and storm water quality impacts and stormwater runoff.

The ecosystems associated with the Gray's Creek estuaries are located approximately 250' ± from this parcel. The Commission finds the parcel and surrounding areas have relatively level topography and thus impacts to the creek due to runoff rates and storm water infiltration should not be problematic during the smaller more frequent storm events.

The 2004 Connecticut Stormwater Quality Manual prepared by the DEP discusses impervious cover relating to the health of a watershed as follows:

"Impervious cover has emerged as a measurable, integrating concept used to describe the overall health of a watershed. Numerous studies have documented the cumulative effects of urbanization on stream and watershed ecology. Research has shown that when impervious cover in a watershed reaches between 10 and 25 percent, ecological stress becomes clearly apparent. Beyond 25 percent stream stability is reduced, habitat is lost, water quality becomes degraded, and biological diversity decreases (NRDC, May 1999)."

The percentages documented above (impervious cover in a watershed 10-25%) concerning ecological stress relate to imperviousness in a watershed overall. The report continues that "developed watersheds with significant residential, commercial and industrial development, overall watershed imperviousness often exceeds the ecological stress thresholds."

The Commission finds this site development plan proposes an impervious coverage percentage at 24.6% and falls within the range of potential watershed impairment. Although the proposed driveway is pervious, the site development plan proposes the stormwater runoff be directed to subsurface infiltrators as required by the Town of Westport drainage policy. The on-site material is unsuitable so the design plan calls for the unsuitable material to be removed and for clean sandy fill to be brought in.

The Commission finds the maximum use of pervious surfaces is proposed for this property.

There are no trees identified on the site plan, however, the ornamental trees and shrubs in the front of the existing house will be removed for the construction of the new residence.

Perimeter trees for screening are proposed along the west, south and easterly property lines.

The Commission finds that any existing trees to remain or those near or on any property line will have tree protection fencing installed and any or all of the perimeter trees will respect any existing tree root systems.

The design engineer, in his Stormwater Management Analysis states: the site contractor will be responsible for keeping all public roadways clean and clear of all mud during construction.

The homeowner is assigned the responsibility for implementing the Erosion and Sediment Control Plan. The Commission finds the preparation of a document for the implementation of an annual maintenance program which should include insuring the driveway surface remains permeable, and that gutter, trench, yard drain cleaning and subsurface infiltration inspection occur on an annual basis.

The Commission finds the homeowner should be apprised of the proper fertilizer and pesticide management and household pet waste management to be observed in this area of the watershed.

**TOWN OF WESTPORT
CONSERVATION COMMISSION
RESOLUTION #WPL-10418-17
282 Compo Road South
Assessor's Map: D 04, Lot 113
Date of Resolution: June 12, 2017**

Project Description: To construct a new 2 1/2 story single family residence to replace the existing residence with a FEMA compliant structure including a crawlspace, pervious driveway and patios, a/c units, generator, pool, pool fence, public water and sewer with site drainage. Portions of the work are within the 25 year floodplain and the WPLO area of Gray's Creek.

Owner of Record: SIR 282 Compo South LLC

Applicant: William Achilles AIA

In accordance with Section 30-93 of the *Waterway Protection Line Ordinance* and on the basis of the evidence of record, the Conservation Commission resolves to **APPROVE** Application #**WPL 10418-17** with the following conditions:

Standard Conditions:

1. Completion of the regulated activity shall be within FIVE (5) years following the date of approval. Any application to renew a permit shall be granted upon request of the permit holder unless the Commission finds there has been a substantial change in circumstances which requires a new permit application or an enforcement action has been undertaken with regard to the regulated activity for which the permit was issued provided no permit may be valid for more than TEN (10) years.
2. Permits are not transferable without the prior written consent of the Conservation Commission.
3. It is the responsibility of the applicant to obtain any other assent, permit or license required by law or regulation of the Government of the United States, State of Connecticut, or of any political subdivision thereof.
4. If an activity also requires zoning or subdivision approval, special permit or special exception under section 8.3(g), 8-3c, or 8-26 of the Connecticut General Statutes, no work pursuant to the wetland permit shall commence until such approval is obtained.
5. If an approval or permit is granted by another Agency and contains conditions affecting wetlands and/or watercourses, the applicant must resubmit the application for further consideration by the Commission for a decision before work on the activity is to take place.

6. The Conservation Department shall be notified at least forty-eight (48) hours in advance of the initiation of the regulated activity for inspection of the erosion and sediment controls.
7. All activities for the prevention of erosion, such as silt fences and hay bales shall be under the direct supervision of the site contractor who shall employ the best management practices to control storm water discharges and to prevent erosion and sedimentation to otherwise prevent pollution, impairment, or destruction of wetlands or watercourses. Erosion controls are to be inspected by the applicant or agent weekly and after rains and all deficiencies must be remediated with twenty-four hours of finding them.
8. The applicant shall take all necessary steps to control storm water discharges to prevent erosion and sedimentation, and to otherwise prevent pollution of wetlands and watercourse.
9. Organic Landscaping practices are recommended as described by the Northeast Organic Farming Association.
10. All plants proposed in regulated areas must be non-invasive and native to North America.
11. Trees to remain are to be protected with tree protection fencing prior to construction commencement.
12. The bottom of all storm water retention structures shall be placed no less than 1 foot above seasonal high groundwater elevation.
13. The applicant shall immediately inform the Conservation Department of problems involving sedimentation, erosion, downstream siltation or any unexpected adverse impacts, which development in the course or are caused by the work.
14. Any material, man-made or natural which is in any way disturbed and/or utilized during the work shall not be deposited in any wetlands or watercourse unless authorized by this permit.
15. A final inspection and submittal of an "as built" survey is required prior to the issuance of a Certificate of Compliance.
16. Any dumpster used during demolition or construction must be covered at the end of each work day.
17. Conformance to the previously adopted "Standard Pool Conditions" for pools located near wetlands or watercourses as applicable and as enumerated below:
 - a. The pool is to be serviced by a diatomaceous earth, sand/cartridge or some other kind of re-circulating, closed filter system.
 - b. Pool chemicals should be stored in an enclosed container in an enclosed area preferably above the 100 year flood elevation. Pool equipment should be located at or above the 100 year flood elevation.
 - c. When pools are proposed in an area that abuts a waterway or wetland, a vegetated buffer should be maintained between the pool and the waterway or wetland.
 - d. Alternative use of chlorine for sanitation should be sought from the pool company. These include: salt chlorine generators, ozonators, ionizers, or mineral purifiers.
 - e. Pools should be covered over the winter or when they will not be in use for long periods of time, i.e three (3) or more months.
 - f. When discharging pool water at the end of the season for winterization, no direct discharge to a watercourse or wetland is allowed; a 50ft separating distance with some kind of energy dissipation at end of hose is required.
 - g. The pool water to be discharged shall have a pH between 6.5 and 8.5. The chlorine level shall be less than 0.1 mg/l and not cause foaming or discoloration of the receiving waters.

SPECIAL CONDITIONS OF APPROVAL

18. Conformance to the plans entitled:
 - a. "Proposed Site Improvements Plan for a Single Family Dwelling, Site Plan Details & Notes, SIR- 282 Compo South LLC, 282 Compo Road South, Westport, CT", Sheet 1 of 1, Scale: 1" = 20', dated May 16, 2017, prepared by Chappa Site Consulting, LLC

- b. Architectural Plans entitled: "New Residence for SIR Development LLC, 282 Compo Road South, Westport, CT", (8 sheets), dated April 28, 2017 Scale: As Noted, prepared by Anthony J. Tartaglia Associates LLC
- 19. Conformance to the Flood and Erosion Control Board resolution of approval dated June 7, 2017.
- 20. Any excess fill material shall be hauled off-site.
- 21. Care shall be taken to prevent heavy trucks and machinery from driving over or stockpiling material on top of the drainage system for the house and the dewatering area for the construction.
- 22. All existing perimeter trees to remain or those in or on the property line shall be protected from damage during construction and/ or screening planting.
- 23. Driveway, pool patio and walkway shall be pervious in perpetuity with said restriction placed on the Land Records prior to the issuance of a Conservation Certificate of Compliance.
- 24. The design engineer shall prepare a document specifying homeowner instructions for annual maintenance of all stormwater appurtenances prior to the issuance of a Conservation Certificate of Compliance.

This is a conditional approval. Each and every condition is an integral part of the Commission decision. Should any of the conditions, on appeal from this decision, be found to be void or of no legal effect, then this conditional approval is likewise void. The applicant may refile another application for review.

This approval may be revoked or suspended if the applicant exceeds the conditions or limitations of this approval, or has secured this application through inaccurate information.

Motion: Bancroft

Second: Field

Ayes: Perlman, Bancroft, Rycenga, Lobdell, Field

Nays: 0

Abstentions: 0

Vote: 5:0:0

- 2. **205 Bayberry Lane:** Application #IWW-10411-17 by James W Tate RLA on behalf of James & Dawn Henry to realign the front drive to allow better sightlines with stone columns marking entrance; to provide underground electric/CATV; new fieldstone retaining walls; replace damaged 12" CMP culvert with arched culvert; 2 ft. of fill cover and repave. Portions of the work are within the wetland and the upland review area setback.

Jim Tate, RLA, presented the application on behalf of the property owners. The driveway is being widened at the road to allow access by larger trucks, especially fire trucks. There are wetlands on either side of the driveway. The 12-inch metal corrugated pipe is rusted and crimped. They want to replace it with a 36-inch wide culvert. The reason for the project is the owners need to repave the driveway and want underground utilities. They need to raise the driveway 2 feet with a retaining wall on either side. The owners have experienced visitors sliding off the driveway into the wetland. A new circular driveway is proposed outside the 30-foot upland review area. He discussed wetland protection and restoration. He noted the owner will not be home. The work will be done in July and August. Eversource and the electric subs will need to coordinate. There is a utility easement already on the property. Trillium has been identified. It is on the Threaten list in some states but not in Connecticut as it is spread by deer. They will be protecting the wetland with a double row of silt fence. Additional planting will be added. The reason for raising the driveway 2 feet is that it is an Eversource requirement. There will be approximately 800 s.f. of fill required. Stockpiling will take place but what is ripped up will be put in a truck and hauled off.

Mr. Perlman asked about the animal life.

Mr. Tate stated the culvert design was chosen in order to allow better amphibian and small mammal crossing.

Mr. Bancroft noted that in raising the driveway in the vicinity of the culvert, the existing asphalt will be removed and hauled off.

Ms. Mozian asked Mr. Tate to explain the reason for burying the electrical lines.

Mr. Tate explained trucks have hit the lines and storms have knocked down trees onto the lines. The owners have asked Eversource to raise the lines but have been told no. Eversource wants them to bury the lines.

Ms. Krynicki explained the house was built in 2004 to replace a fire damaged home and using the existing driveway, which crosses the wetland. The driveway predates the wetland regulations. Seeding will take place in mid-September.

Mr. Tate will be engaged with the project after it is complete.

Ms. Rycenga stated she wants silt fence along the stockpiles.

Mr. Tate suggested using wood chips at the base of the silt fence as extra support.

Mr. Lobdell asked about the design of the culvert.

Mr. Tate stated it is not a hydraulic issue so it did not need to be sized. However, the bottom half will be buried/set at the same elevation so equilibrium will still be maintained.

Ms. Mozian stated the Engineering Department approved the design.

Ms. Rycenga suggested that construction fence be installed as soon as possible.

With no comment from the public, the hearing was closed.

Motion:	Rycenga	Second:	Perlman
Ayes:	Rycenga, Perlman, Bancroft, Feld, Lobdell		
Nays:	None	Abstentions:	None
		Vote:	5:0:0

Findings
Application # IWW 10411-17
205 Bayberry Lane

- 1. Receipt Date:** June 12, 2017
- 2. Application Classification:** Summary
- 3. Application Request:** Applicant is proposing to realign the front drive entry with piers to allow better sightlines, provide underground electric/CATV, new fieldstone retaining walls, replace damaged 12" CMP culvert with an arched culvert, fill with 2' of cover to satisfy electric company, repave drive.

Work is proposed within the wetlands, the 20' non -disturbance area, and the 30' IWW upland review area for driveways. The proposed impacts include filling and grading in

conjunction with the replacement/upgrade of the existing 12" CMP culvert to a 12.5 x 36" HDPE arched culvert.

4. Plans Reviewed:

- a. "Wetland Application Underground Electric, Driveway Culvert Replacement, Henry Residence, 205 bayberry Lane, Westport, Connecticut", Scale 1"=10'-0", date March 1, 2017 and last revised to June 1, 2017, prepared by Tate & Associates, LLC
- b. "Details/ Erosion Control Wetland Submittal, Henry Residence, 205 Bayberry Lane, Westport, Connecticut", Scale 1"=10'-0", date March 1, 2017 and last revised to June 1, 2017, prepared by Tate & Associates, LLC
- c. "Zoning/Location Survey, Map of Property Prepared for James Henry and Dawn Henry, 205 Bayberry Lane, Westport, Connecticut", (Sheet 3), Scale: 1"= 30', dated March 28, 2008 and last revised to December 6, 2016

5. Permits/Applications filed:

- a. AA, WPL/E 7341-04: to rebuild a single family residence destroyed by fire
- b. AA, WPL/E 8266-08: for an in ground pool, terrace, wall, mechanicals and fence

6. WPLO - As the wetland system is isolated, there is no WPLO associated with the wetland system.

7. IWW Defined Resource (wetland or watercourse)

Wetlands and Watercourses occur on the subject property.

8. Wetland Description

- a. 100 year flood plain as designated by FEMA does not occur in the vicinity of this property.
- b. Wetlands Inventory Study Description by Flaherty, Giavara Associates, Inc. describes the hydraulic location as "an isolated upland wooded swamp".
- c. IWW defined resource is an isolated wetland.
- d. Property does not exist within the Aquifer Protection Overlay Zone or a groundwater recharge area.
- e. Property does not exist within the Coastal Areas Management Zone.

9. Conformance to Section 6 of the Inland Wetlands and Watercourses Regulations

6.1 GENERAL STANDARDS

- a) disturbance and pollution are minimized;
- b) minimize height, width, length of structures are limited to the minimum; dimension to accomplish the intended function;
- c) loss of fish, other beneficial organisms, wildlife and vegetation are prevented;
- d) potable fresh water supplies are protected from dangers of drought, overdraft, pollution, misuse and mismanagement;
- e) maintain conservation, economic, recreational and aesthetic qualities;
- f) consider historical sites

The Commission finds the project is necessitated by the relocation of the driveway to allow safer access and egress to the property and to allow the installation of underground electric power.

The paved driveway is existing and was recognized as such as far back as in 2004 when a new residence was built to replace a fire damaged house on the parcel.

The Commission finds the applicant is proposing to have underground electric service to serve the property as the overhead service has been problematic in the past due to power loss. This has been explained as related to the trees and the location of the existing overhead lines and difficulty of traversing the driveway and electric lines interference with tall trucks. This underground line will be installed within the existing travel way. The electric

company requires a minimum of 3' of cover over the underground lines and thus the additional fill proposed on the driveway.

The applicant has stated that in the winter several cars have driven off the paved driveway surface and into the wetland area as it is difficult to see the edge of the driveway in snow conditions. The Commission finds the proposed field stone retaining wall is to demarcate the driveway, to limit the extent of fill required and to minimize the disturbance area to the greatest extent possible including for safety reasons.

The Commission finds the proposed project will allow for continued hydraulic and faunal connectivity between the two wetland systems divided by the existing driveway. The existing culvert is damaged, but functioning, and the existing driveway location has less site distance and a tighter curvature radius than the proposed design.

6.2 WATER QUALITY

- a) flushing rates, freshwater sources, existing basin characteristics and channel contours will not be adversely altered;
- b) water stagnation will neither be contributed nor caused;
- c) water pollution will not affect fauna, flora, physical or chemical nature of a regulated area, or the propagation and habitats of fish and wildlife, will not result;
- d) pollution of groundwater or a significant aquifer will not result (*groundwater recharge area or Aquifer Protection Overlay Zone*);
- e) all applicable state and local health codes shall be met;
- f) water quality will be maintained or improved in accordance with the standards set by federal, state, and local authority including section 25-54(e) of the Connecticut General Statutes
- g) prevents pollution of surface water

The Commission finds the existing culvert is damaged and the corrugated metal pipe is in a state of deterioration, the existing culvert has insufficient fill over the top of the pipe. It also lacks any natural substrate material within the pipe.

The proposed wetland crossing will provide a larger cross-sectional opening than the existing culvert.

The Commission finds the increased cross-sectional area will provide increased stormwater capacity and will not result in the ponding or impounding of water on the north side of the proposed culvert.

There is little anticipated modification to the quantity or quality of surface water runoff as there is no defined stream channel and surface water is only apparent during precipitation events.

The culvert bottom settling bed will be native wetland soils in order to replicate the surrounding wetland substrate.

The Commission finds the ideal construction timeline for the project is to be during the dry season with little to no precipitation in the forecast.

All disturbed soils will be seeded with a wetland seed mix within 72 hours of crossing completion.

The Commission finds the wetland areas will resemble the vegetation and topographic conditions as they are today.

The commission finds the applicant will conduct periodic annual inspections for the following growing season to ensure vegetation success.

Due to the location of the proposed fill within a wetlands area, the Commission finds that verification of the source of clean uncontaminated fill be provided to the Conservation Department prior to the initiation of any construction .

6.3 EROSION AND SEDIMENT

- a) temporary erosion control measures shall be utilized during construction and for the stabilization period following construction;
- b) permanent erosion control measures shall be utilized using nonstructural alternatives whenever possible and structural alternatives when avoidable;
- c) existing circulation patterns, water velocity, or exposure to storm and flood conditions shall not be adversely altered;
- d) formation of deposits harmful to aquatic life and or wetlands habitat will not occur;
- e) applicable state, federal and local guidelines shall be met.

All wetland areas will be protected by a silt fence, staked every 10 feet into an 8" to 12" mulch berm. The mulch will be generated by onsite trees proposed to be removed.

The areas to be disturbed will be seeded with a wetland "wet meadow" seed mix for the disturbed areas to replicate the surrounding wetland complex.

The landscape architect is proposing to install the silt fence with a wood chip barrier at the base of the fence in lieu of trenching the fence into the soil. The Commission finds this method of installation within the wetlands is acceptable as long as the wood chip "berm" at the base of the fence is totally removed following construction and site stabilization.

In order to limit the duration of work within the wetland areas, the Commission finds work will not to be initiated until all materials and equipment are on site or within the shortest practical distance.

All machinery will be inspected prior to entrance to the site for potential fluid/contamination leaks.

All refueling or machinery fluid modification will occur greater than 20' from any wetland area and within an area that can be isolated should spills occur.

A 4' by 4' river stone inlet and outlet is proposed to eliminate the possibility of scour and erosion at the culvert inlet/outlet.

6.4 NATURAL HABITAT STANDARDS

- a) critical habitats areas,
- b) the existing biological productivity of any Wetland and Watercourse shall be maintained or improved;
- c) breeding, nesting and or feeding habitats of wildlife will not be significantly altered;
- d) movements and lifestyles of fish and wildlife (plant and aquatic life) will not be significantly affected;
- e) periods of seasonal fish runs and bird migrations shall not be impeded;

- f) conservation or open space easements will be deeded whenever appropriate to protect these natural habitats.
- g) *Planting plan included with application as mitigation for the proposed activities*

The Commission finds the wetland areas will resemble the vegetation and topographic conditions as are existing.

Upon project completion, there will be little material difference from the existing conditions, however, there will be an improvement to the overall ecological integrity of the site as up-gradient/down-gradient connectivity will be restored.

The wetland area to be impacted has no very poorly drained soils and does not display the physical or biological characteristics of a vernal pool.

The Commission finds the wider 36" opening of the arched pipe will allow for a more hospitable herptilian/small mammal crossing.

6.5 DISCHARGE AND RUNOFF

- a) the potential for flood damage on adjacent or adjoining properties will not be increased;
- b) the velocity or volume of flood waters both into and out of Wetlands and Watercourses will not be adversely altered;
- c) the capacity of any wetland or watercourse to transmit or absorb flood waters will not be significantly reduced;
- d) flooding upstream or downstream of the location site will not be significantly increased;
- e) the activity is acceptable to the Flood & Erosion Control Board and or the Town Engineer of the municipality of Westport

The Commission finds the proposed activities will not affect discharge and runoff rates. The Engineering Department has reviewed and approved the proposed culvert design. There is little to no "flow" within the area. The culvert is proposed to be the same height, but wider than the existing pipe. The open bottom will allow the passage of wildlife through the driveway crossing area.

The culvert will be laid at a slope not to exceed 1% preventing water runoff acceleration through the crossing.

6.6 RECREATIONAL AND PUBLIC USES

- a) access to and use of public recreational and open space facilities, both existing and planned, will not be prevented;
- b) navigable channels and or small craft navigation will not be obstructed;
- c) open space, recreational or other easements will be deeded whenever appropriate to protect these existing or potential recreational or public uses;
- d) wetlands and watercourses held in public trust will not be adversely affected.

The Commission finds the current application will not have a significant impact on recreational and public uses.

Street Address: 205 Bayberry Lane
Assessor's: Map F 15 Lot 025
Date of Resolution: June 12, 2017

Project Description: To realign the front drive to allow better sightlines with stone columns marking entrance; to provide underground electric/CATV; new fieldstone retaining walls; replace damaged 12" CMP with arched culvert; fill 2 feet cover and repave. Portions of the work are within the wetland and the upland review area setback.

Owner of Record: James and Dawn Henry

Applicant: James W Tate, RLA

In accordance with Section 6 of the *Regulations for the Protection and Preservation of Wetlands and Watercourses of Westport* and on the basis of the evidence of record, the Conservation Commission resolves to **APPROVE** Application #**IWW 10411-17** with the following conditions:

1. Completion of the regulated activity shall be within FIVE (5) years following the date of approval. Any application to renew a permit shall be granted upon request of the permit holder unless the Commission finds there has been a substantial change in circumstances which requires a new permit application or an enforcement action has been undertaken with regard to the regulated activity for which the permit was issued provided no permit may be valid for more than TEN (10) years.
2. Permits are not transferable without the prior written consent of the Conservation Commission.
3. It is the responsibility of the applicant to obtain any other assent, permit or license required by law or regulation of the Government of the United States, State of Connecticut, or of any political subdivision thereof.
4. If an activity also requires zoning or subdivision approval, special permit or special exception under section 8.3(g), 8-3c, or 8-26 of the Connecticut General Statutes, no work pursuant to the wetland permit shall commence until such approval is obtained.
5. If an approval or permit is granted by another Agency and contains conditions affecting wetlands and/or watercourses, the applicant must resubmit the application for further consideration by the Commission for a decision before work on the activity is to take place.
6. The Conservation Department shall be notified at least forty-eight (48) hours in advance of the initiation of the regulated activity for inspection of the erosion and sediment controls.
7. All activities for the prevention of erosion, such as silt fences and hay bales shall be under the direct supervision of the site contractor who shall employ the best management practices to control storm water discharges and to prevent erosion and sedimentation to otherwise prevent pollution, impairment, or destruction of wetlands or watercourses. Erosion controls are to be inspected by the applicant or agent weekly and after rains and all deficiencies must be remediated with twenty-four hours of finding them.
8. The applicant shall take all necessary steps to control storm water discharges to prevent erosion and sedimentation, and to otherwise prevent pollution of wetlands and watercourse.
9. Organic Landscaping practices are recommended as described by the Northeast Organic Farming Association.
10. All plants proposed in regulated areas must be non-invasive and native to North America.
11. Trees to remain are to be protected with tree protection fencing prior to construction commencement.
12. The bottom of all storm water retention structures shall be placed no less than 1 foot above seasonal high groundwater elevation.

13. The applicant shall immediately inform the Conservation Department of problems involving sedimentation, erosion, downstream siltation or any unexpected adverse impacts, which development in the course or are caused by the work.
14. Any material, man-made or natural which is in any way disturbed and/or utilized during the work shall not be deposited in any wetlands or watercourse unless authorized by this permit.
15. A final inspection and submittal of an "as built" survey is required prior to the issuance of a Certificate of Compliance.

SPECIAL CONDITIONS OF APPROVAL

16. Conformance to the plans entitled:
 - a. "Wetland Application Underground Electric, Driveway Culvert Replacement, Henry Residence, 205 Bayberry Lane, Westport, Connecticut", Scale 1"=10'-0", date March 1, 2017 and last revised to June 1, 2017, prepared by Tate & Associates, LLC
 - b. "Details/ Erosion Control Wetland Submittal, Henry Residence, 205 Bayberry Lane, Westport, Connecticut", Scale 1"=10'-0", date March 1, 2017 and last revised to June 1, 2017, prepared by Tate & Associates, LLC
 - c. "Zoning/Location Survey, Map of Property Prepared for James Henry and Dawn Henry, 205 Bayberry Lane, Westport, Connecticut", (Sheet 3), Scale: 1"= 30', dated March 28, 2008 and last revised to December 6, 2016.
17. A pre and post construction meeting with the landscape architect and Conservation Department staff shall be required and take place prior to and following the construction activities. The landscape architect shall be on site during the construction activity for project supervision.
18. All construction to take place during the dry season from June to September.
19. Work shall not be initiated until all materials and equipment are on site.
20. Verification of the source of clean uncontaminated fill shall be submitted to the Conservation Department prior to the start of construction activities.
21. All machinery is to be inspected by the Contract Supervisor prior to entrance to the site for potential/contamination leaks.
22. All refueling or machinery fluid modification will occur greater than 20' from any wetland area and within an area that can be isolated should spills occur.
23. All mulched wood chips used to stabilize the silt fence shall be removed prior to the issuance of a Conservation Certificate of Compliance.
24. Periodic inspections shall be conducted by the landscape designer throughout the following growing season to ensure vegetation success. A final report shall be submitted to the Conservation Department by October 2018.

This is a conditional approval. Each and every condition is an integral part of the Commission decision. Should any of the conditions, on appeal from this decision, be found to be void or of no legal effect, then this conditional approval is likewise void. The applicant may refile another application for review.

This approval may be revoked or suspended if the applicant exceeds the conditions or limitations of this approval, or has secured this application through inaccurate or fraudulent information.

Motion: Perlman **Second:** Field
Ayes: Perlman, Field, Bancroft, Lobdell, Rycenga
Nays: 0 **Abstentions:** 0 **Votes:** 5:0:0

- 3. 107 Old Rd.: Continuation of** Application #IWW, WPL-10397-17 by LANDTECH on behalf of the Estate of Catherine D. Fleming for a proposed 4-lot open space residential subdivision served by a private road, public sewer and public water. The site contains an unnamed tributary to Sasco Brook and associated wetlands.

Ms. Mozian noted Paul Lobdell, newly appointed alternate, has visited the site, attended the May 8, 2017 meeting and familiarized himself with the record.

Rob Pryor, PE with LandTech, presented the application on behalf of the applicant. He submitted his resume and gave his credentials. He reviewed where the Commission left the hearing at its last meeting. The initial plan included the creation of a wet basin that came with several negative comments and impacts to the wetland. Therefore, they have redesigned the project to include a permeable pavement private roadway with drainage within the roadway footprint itself. The new plans are dated April 22, 2017. The proposal is for the road to be a permeable paver material. There are open gaps between the pavers. Below the paver system is a reservoir, which allows water storage within the stone itself. He stated test holes were dug since the last meeting and stand pipes installed. The trees to be removed were marked in the rear and along the roadway. He noted initial comments from Ed Pawlak were received and they have responded to them in a June 2, 2017 letter. Engineering comments by Brian Curtis were received on Friday, June 9, 2017. He reviewed those comments and is confident that he can meet those recommendations. He is still awaiting Mr. Pawlak's additional comments.

Mr. Perlman asked what the spacing is between the pavers.

Mr. Pryor stated 1/8 to 1/4 inch gap. They will need to be vacuumed twice a year to maintain the gaps.

Ms. Rycenga asked about the depth of the reservoir stone.

Mr. Pryor noted it would be approximately 18 inches in depth.

Mr. Perlman noted the amount of standing water he saw in the wetland when he inspected on Friday, June 9, 2017.

Mr. Pryor agreed. He believes the stonewall aligning the driveway was built during dry conditions, which may have changed.

Mr. Bancroft questioned who ensures the size of stone in the underlayer is used as specked out.

Ms. Mozian asked if the paver system is a proprietary product.

Mr. Pryor stated representatives from the manufacturers will be on-site during installation and will inspect the system for 3 years afterward.

Mr. Field asked if the volume of runoff from the driveway is handled within the reservoir.

Mr. Pryor stated it is.

Ms. Rycenga verified that her request to tag the trees for removal was completed.

Mr. Pryor stated they were tagged.

Ms. Rycenga asked about the feasible and prudent alternatives and the stormwater wetland.

Mr. Pryor discussed the alternatives noting the differences and the permeable paver driveway would not be feasible for the alternatives. With the one-lot subdivision, they would be using a pipe rather than a box culvert which is why the coverage calculations are higher. They do not get credit for the fill removal from the wetland in the one-lot subdivision scenario though they do have to do improvements to the crossing for the 25, 50 and 100-year flood events.

Mr. Bancroft asked about cofferdams. He noted the sewer trench requires a 6-foot trench.

Mr. Pryor stated they would be using a sand bag cofferdam.

Mr. Bancroft asked if the pit on Lot 4 will fill up at the end of the workday.

Mr. Pryor stated the new pipe will be lower than the existing pipe. The existing pipe will remain during construction of the box culvert so the stream flow will continue.

Ms. Rycenga asked a maintenance question in reference to the June 2, 2017 memo regarding maintenance of stormwater.

Mr. Pryor stated the systems should be inspected and a report submitted on an annual basis.

Chris Allan, CSS and CWS with LandTech, reviewed changes to the plans since the last meeting. The pachysandra area in the wetland will be left alone and they will plant understory shrubs instead in that area. In addition, in the area where the wet basin was proposed, the area will be restored by hand pulling the invasive species and replanting with native planting at a 1:1 or 2:1 ratio. Herbaceous plugs will be installed where the sandbags will be installed. He stated planting new trees along the road will not be practical. He does not believe there will be a loss of canopy.

Ms. Mozian asked if a Planning & Zoning Commission waiver for street trees would be required.

Mr. Allan indicated he was not sure.

Mr. Perlman asked what the white stake is in the field near the stonewall.

Mr. Allan indicated he was not sure.

Mr. Pryor noted all stonewalls will stay.

Rick Constantini, Atty. for the owner from Halloran & Sage, stated they are withholding comment from the public until the end.

Michael Bologna, Atty. representing the interveners, the Tschirharts, indicated they will be submitting more questions upon review of the Commission's expert's reports. He suggested if the Commission approve the proposal, the conditions must be recorded on the land records, especially with regard to maintenance of the permeable roadway in conformance

to manufacturing specs. He noted one issue he has with the pervious roadway is 14,000 s.f. of pervious roadway is a new proposal. There is no precedent. He is not sure how they work and if they meet the test of time. In addition, the literature says the reservoir depth below the roadway varies. He showed a plan depicting the direction of flow. The driveway now acts as a dam, which is on compacted fill. He questioned whether it can be built in this location in compacted fill. He asked how it will be compacted. He noted 75% of porous pavement applications fail according to a 1999 report from the EPA. This is a valuable wetland. Even if the success rate has improved, he questioned if it has improved enough. He stated how it is installed will be very important because the soil cannot be compacted. It would defeat the purpose of how the sub-base is supposed to work. He does not think pervious pavers belong on top of the dam.

Ms. Rycenga asked whether B&B Engineering commented on the pervious pavers.

Brian Curtis, PE with Nathan Jacobson & Associates and consultants for the Commission, confirmed that the reservoir beneath the roadway has the capacity to hold a 25-year storm event. It is the same with the swale in the rear and the sediment traps. He noted the research at University of New Hampshire stormwater research center. He will provide their latest research as well as from other states. The Federal Highway System, all of them have a stone reservoir, which is why it is very important to have a stone layer the proper distance above groundwater. Several utility lines will be going very deep beneath the roadway. It will cause a lot of disturbance when they backfill. That new soil layer will need to be permeable, granular soil. It should not have fines in it. It has to be specified it was built that way to make sure you get the system to work properly. The cofferdam should not be inundated during storm events. That, plus dewatering in the driveway, will be needed. They have a place on lot 4 for dewatering to take place.

Ms. Rycenga asked if he reviewed the B&B Engineering report.

Mr. Curtis indicated that he did. He noted the construction phasing is very important. When and how will the road be installed so as the pavers are not wrecked during construction.

Ed Pawlak, soil scientist and wetland scientist with CT Ecosystems and consultant for the Commission, noted the application is more complex than meets the eye. So far, he has been asking questions to better understand the issues. The sediment trap instead of basin has been redesigned and moved to lot 4. This is 100 feet away from the wetland. The planting restoration plan now has a ratio of removal of invasives with replanting of natives. The one question he has concerns with is the comparison of alternatives outlined in Question 11 of the June 2, 2017 report. The table is an apple to oranges comparison of the alternatives. The 1 to 3-lot proposal on the table does not contemplate the permeable paver design. In addition, why does the 2-lot alternative have less disturbance than the 1-lot alternative? The open bottom box culvert gets credit. They should all assume an open bottom box culvert and permeable paving. The wetland crossing is 500 feet wide. What is the maximum depth of that crossing? How much time would it take to install that road crossing? He noted the longer that condition remains open the longer the sediment has to escape into the wetland system.

Mr. Bancroft asked if the existing sides of the roadway outside the trench still act as a barrier to infiltration.

Mr. Curtis indicated it needs to drain out into the soil. The water line and the sewer line need 10 feet of horizontal separating distance or they can bench it (aka terrace it). The water line can be shallower with the sewer line placed at least 18 inches below that.

