STEPHEN W. COLEMAN
ENVIRONMENTAL CONSULTING, LLC

Environmental Planning & Site Analysis
Wetland Mitigation & Restoration Plans
Wetland Delineation & Assessment
Natural Resource Management
Pond & Lake Management
Wildlife & Plant Surveys
Breeding Bird Surveys
Landscape Design

MEMORANDUM

To: Ms. Ingrid Richards, Chairperson
Town of Ossining Planning Board
From: Stephen W. Coleman
Re: Artis Senior Living, LLC, 553 North State Road, Briarcliff Manor, Town of Ossining - review of wetland delineation, application materials and plans, potential wetland impacts and recommended mitigation measures
Date: July 7, 2015
cc: S. Donnelly, Supervisor, D.Stolman, FPCA

As per the request of the Planning Board, I met with Dave Sessions, R.L.A., Kellard Sessions Consulting on 05-27-2015. The purpose of the field site visit was to review the wetlands delineation that was previously performed by Kellard Sessions. The adjoining neighbor, Ms. Donna Sharrett, was present for a portion of the site visit and allowed access to wetland area located on her property.

Wetland Determination

Based upon field review of existing soils, vegetation and primary and secondary hydrological characteristics, the wetland boundary as established by Kellard Sessions accurately represents the extent of wetland area that is present on the subject parcel.

The presence of the intermittent watercourse that discharges from the adjoining wetland meets the criteria outlined in Chapter 105 of the Town Code of the Town of Ossining to be classified as a wetland. The intermittent watercourse channel continues along the property line and discharges into the existing culvert in the northeastern corner of the parcel. The watercourse where it discharges from the forested wetland would be subject to a 50 foot buffer (see attached field sketch that shows the approximate location of the intermittent watercourse).

The forested wetland that is located primarily off-site on the adjoining properties, has been determined to be less than the required size threshold of ½ acre, as per Chapter 105 of the Code of the Town of Ossining. On 05-27-2015, I determined in the field the approximate outer boundary of the off-site wetland. I requested that Dave Sessions, Kellard Sessions, provide a follow up field map that verifies the field determination of the approximate wetland boundary. I have received a follow up "Wetland Location Sketch", dated 06-30-15, as prepared by Kellard Sessions that shows the extent of the wetland

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acreage. The size of the wetland is approximately 7,500 square feet, which is under the size threshold, and therefore not considered regulated by the criteria outlined in Chapter 105.

Existing Wetland Conditions

The entire subject parcel shows extensive signs of prior land disturbance. Existing topography and contours have been altered as a result of land use practices. The rear portion of the property along the property line shows extensive soil disturbance with extensive grading and berming of soils along the rear property line. The berm appears to have been created to re-direct surface flows from entering the main portion of the parcel. A linear channel has formed from discharge from the wetland and is located at the bottom of the berm and runs parallel to the rear property line. Surface water within the channel travels in an easterly direction and eventually discharges into the existing 15 inch concrete culvert in the northeastern corner.

The off-site forested wetland is primarily intact and consists of typical wetland plant species. Around the edge of the wetland, several invasive plant species have become well established and show signs of encroachment within interior sections of the actual wetland. The most common invasive shrub at the edges of the wetland are multi-flora rose, Japanese stilt grass and Japanese barberry.

The watercourse channel is located at the base of the existing berm. The entire berm surface is dominated by invasive plant species consisting of Japanese Knotweed and Multi-flora rose. The intermittent watercourse channel exhibits sufficient flow characteristics as evidenced by clear scouring of the bottom of the channel, the lack of vegetative growth within the bottom, and defined banks on both sides of the channel. The flatness of the bottom of the channel allows water to accumulate and remain saturated long after storm events.

The primary function of the adjacent wetland and watercourse appear to be flood storage and stormwater conveyance. The adjacent forested wetland provides some habitat value for more common wildlife species, but due to the proximity of adjacent residential properties, the wetland is highly fragmented. Existing plant communities present on the subject parcel consist of remnants of second growth forest with the majority of trees removed and kept to perimeter areas of the property. The majority of the site has previously been converted to lawn and open areas. Extensive signs of prior commercial activities are evident throughout the parcel. Overall, the habitat quality of the existing open spaces has been compromised long ago from a history of commercial and residential uses on the property.

Wetland Impacts

The proposed development will require encroachment within the regulated wetland buffer to the intermittent watercourse. The existing buffer to the watercourse and adjacent wetland is separated by the existing berm and the majority of the buffer on-site

has been permanently altered. The proposed development will result in an increase in impervious surfaces and require that drainage be properly planned and managed to minimize off-site impacts. The majority of the regulated buffer areas will be permanently lost and converted to building uses and functions.

Recommended Wetland Mitigation Measures

The proposed development will result in the permanent loss of wetland buffer area. However, as noted, the condition of the existing buffer area has been severely altered and provides minimal functional value. It is my recommendation that the loss of the existing buffer is an unavoidable and necessary impact.

There are several mitigation measures that would improve the current functional value of the adjacent wetland and the watercourse channel, and there associated buffer areas. The following measures are recommended:

- The entire berm along the rear property line should be cleared of all invasive plant materials, and the slope re-stabilized. The soils on the berm should be treated to assist with elimination of invasive plant seed stock and roots that are within the berm. After treatment, new soil should be brought in to cap the berm and the entire surface area re-planted with a combination of native shrubs and ground covers. The re-creation of a naturally vegetated berm along the edge of the wetland would create more functional habitat and serve to minimize the spread of invasive plant species.

- Although, the forested wetland is not regulated by Chapter 105, it is recommended that the wetland be considered as part of the project's buffer mitigation measures.

- The applicant should seek permission from the adjoining landowners along the rear property line to remove invasive plant species that are located along the edge of the wetland. Once removed, the area could be re-planted with native shrubs and ground covers to help protect and improve the edge habitat along the forested wetland. This unregulated wetland area does provide hydrological support for the intermittent watercourse, and removal of invasives and re-planting with native species would help off-set the permanent loss of the 50 foot buffer area that is located on the subject parcel.

- The entire watercourse channel including the bottom should be stabilized with stone rip-rap along the banks. This would reduce the amount of sediment transport and keep the banks of the watercourse channel from eroding.

- Where the channel meets the location of the existing 15 inch culvert, the watercourse channel widens out. This area should be converted to a forebay area that would store water for longer periods, allow natural infiltration and during larger storm events, help to regulate water flows leaving the site. The bottom of the forebay and side slopes should also be lined with stone to create a permanent catchment area that could be periodically cleaned out of accumulated sediments and debris.

This completes my review and recommendations regarding the proposed application and planned wetland impacts. Please let me know if you have questions or require additional information.

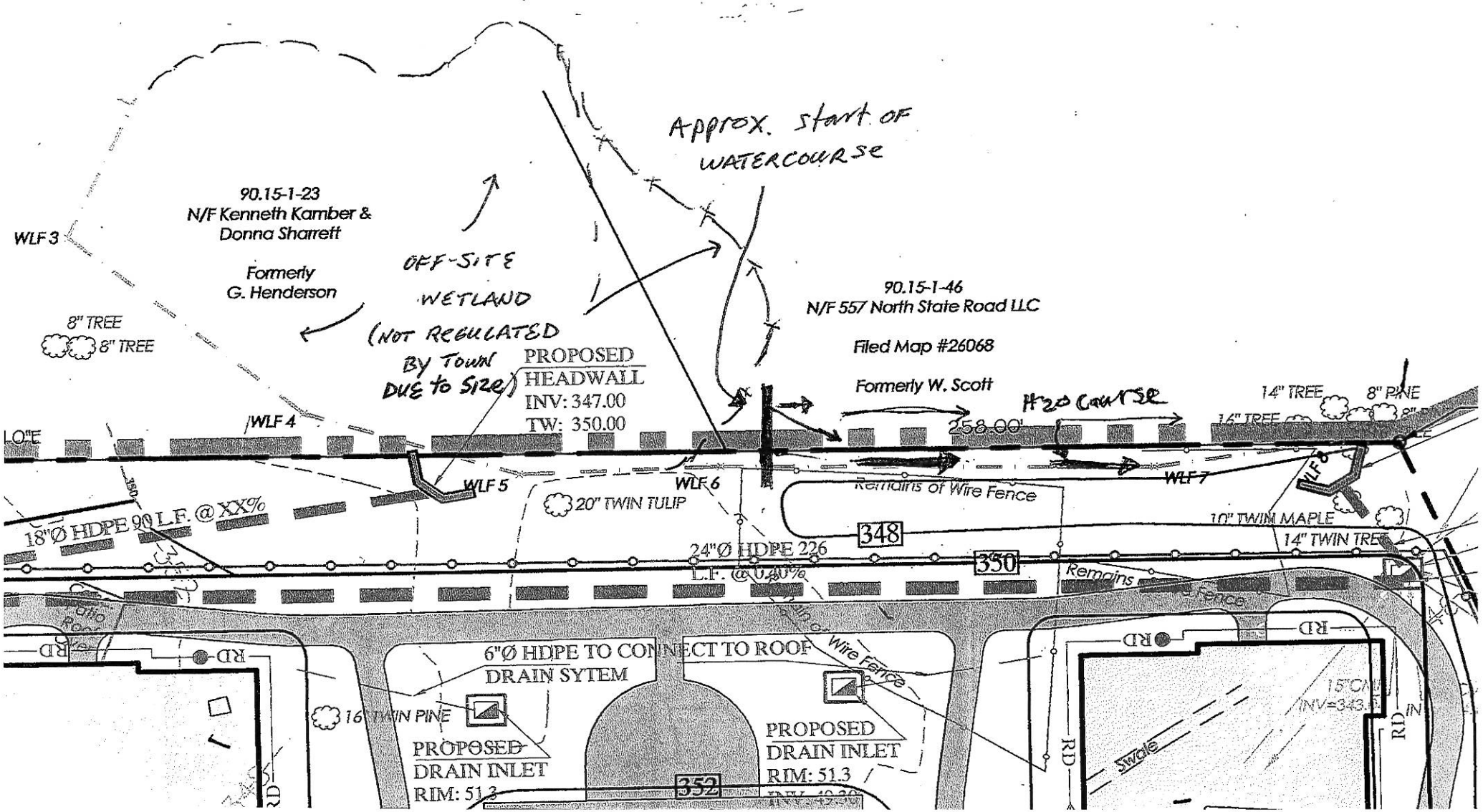
Photos:

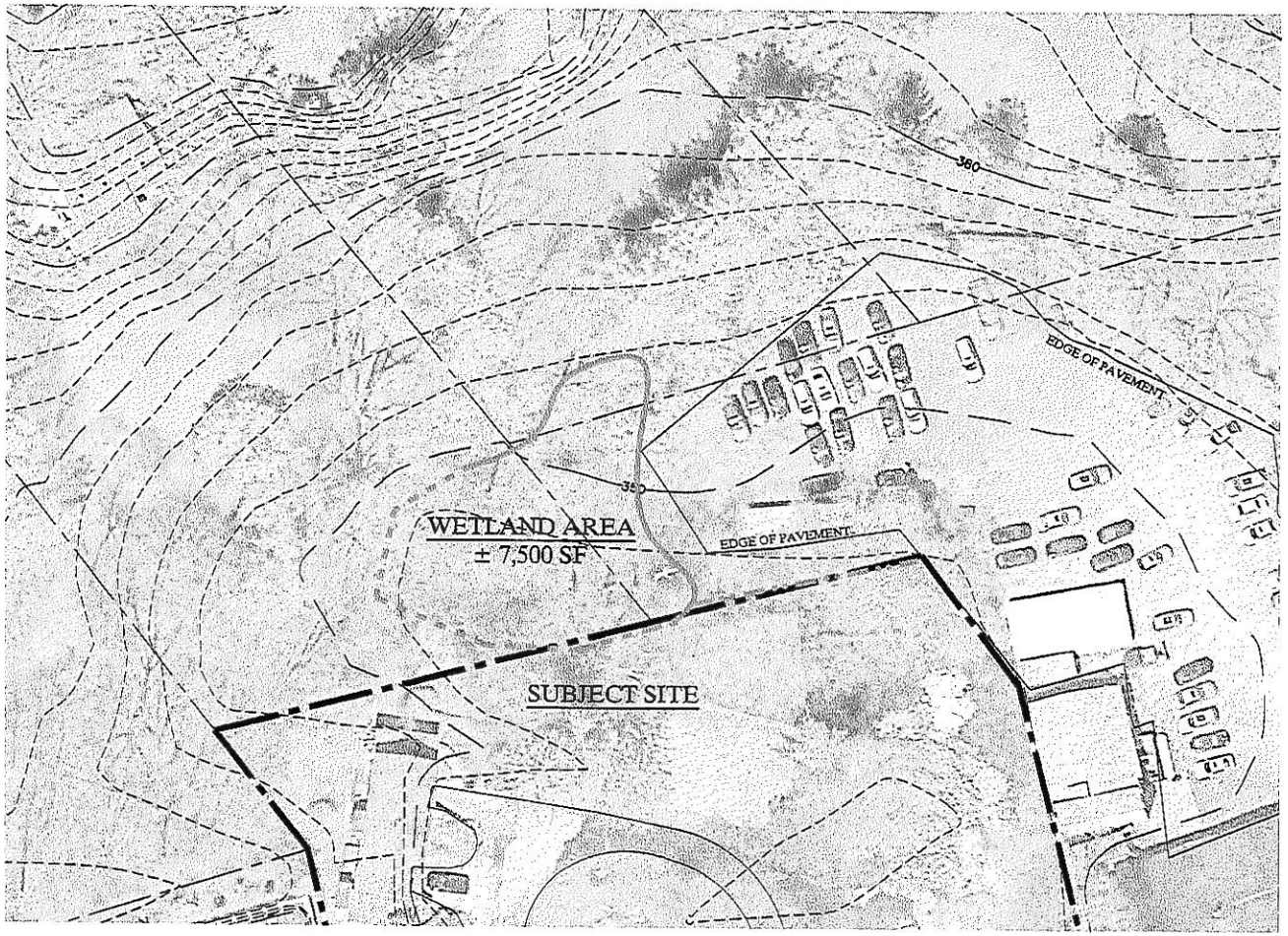
(Forested wetland immediately off-site and discharge into intermittent watercourse channel, watercourse to right side of property, Artis property on right side of photo)

(Photo showing watercourse channel as it runs parallel to the rear property line, located on Artis property, Japanese knotweed along right side of watercourse channel at the base of existing berm)

05/27/2015:

ARTIS - FIELD sketch plan -
approx location OF wetland AND watercourse areas





LEGEND

- EXISTING PROPERTY LINE
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- POSITION OF THE WETLAND BOUNDARY LINE DELINEATED BY KELLARD SESSIONS CONSULTING, P.C. ON NOVEMBER 19, 2015, SURVEY LOCATED BY THOMAS C. MERRITT LAND SURVEYORS ON NOVEMBER 25, 2015 AND CONFIRMED BY THE TOWN'S WETLAND CONSULTANT STEVE COLEMAN ON MAY 27, 2015.
- ADDITIONAL OFF-SITE WETLAND BOUNDARY LINE ESTABLISHED BY THE TOWN'S WETLAND CONSULTANT STEVE COLEMAN ON MAY 27, 2015
- INTERMITTENT WATERCOURSE AS DETERMINED BY THE TOWN'S WETLAND CONSULTANT STEVE COLEMAN ON MAY 27, 2015

GENERAL NOTES:

1. AERIAL TOPOGRAPHY, PROPERTY LINES AND TOPOGRAPHY OBTAINED FROM WESTCHESTER COUNTY G.I.S. DATABASE. PROPERTY LINES AND TOPOGRAPHY SHOULD BE CONSIDERED APPROXIMATE.

GRAPHIC SCALE

(IN FEET)
1 inch = 60 ft.

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WETLAND LOCATION SKETCH

ARTIS SENIOR LIVING

TOWN OF GREENBURGH — WESTCHESTER COUNTY, NEW YORK

REVISIONS	
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PROJECT I.D.: ARTIS

DATE: JUNE 30, 2015