TOWN OF WATERFORD
Application for Inland Wetland / Watercourse Permit

Type of Application:

Permitted Use, Section 4.1 _____

Unregulated Activities, Section 4.2 _____

Regulated Activities, Section 6 Permit Modification Fee: $110.00

Agency Use:

Date Received: 4/1/2024

Received By: _____

Application Number: _____

1. Applicant: Brixmor GA Waterford Commons, LLC **Phone:** 781-313-2015

Address: 111 Middlesex Turnpike, Burlington State: MA Zip: 01803

Fax: E-Mail: Kelly.Wood2@brixmor.com

2. Owner: Same as above Phone:

Address: State: Zip:

Fax: E-Mail:

3. Agent: Julia Stearns - AECOM Phone: 508-404-5512

Address: 10 Orms Street Providence State: RI Zip: 02904

Fax: E-Mail: julia.stearns@aecom.com

4. Property Address: 889-921 Hartford Turnpike, Waterford, CT 06385

5. Abutting Property Owners – Complete Attached Form

6. Activity to be Reviewed and / or Licensed (attach sheet if necessary): see attached

7. Description of Proposed Activity (attach sheet if necessary): see attached

8. Purpose of Activity (attach sheet if necessary): see attached

9a. Acreage of Property: 52-acres **9b. Acreage of Wetlands:** Apporx. 6-acres

10. Acreage of Wetlands Altered: N/A, 0.11-acres originally impacted and permitted

11. Wetland Mitigation Proposed:

12. Section 7 and sections 8.1 & 8.2 of the Town of Waterford "Inland Wetlands and Watercourse Regulations" have been complied with: (Review attached check list) **Yes:** X **No:**

The applicant / owner hereby gives the Commission, its agent and consultants the right of free access to any part of the property under consideration. The undersigned warrants the truth of all statements contained herein and in all supporting documents according to the best of his / her knowledge, information and belief.

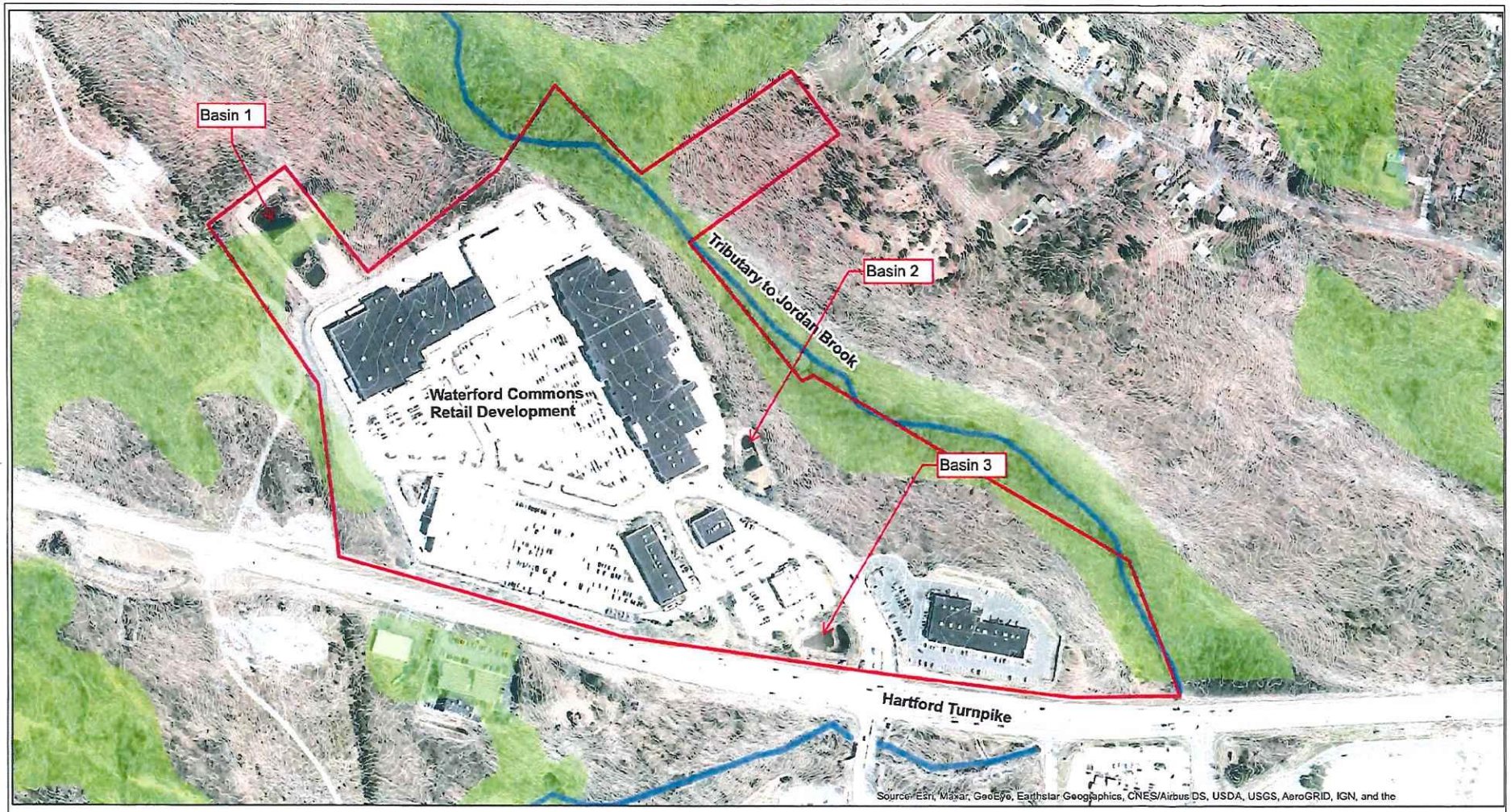
Applicant: **Date:**

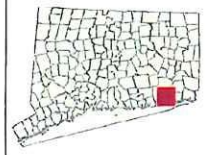
Owner: Kelly Wood as agent for Brixmor Property Group **Date:** 3/19/2024

Agent: Julia Stearns **Date:** 3/19/2024

RECEIVED
MAR 25 2024
Planning & Development
Town of Waterford, CT

Parcel ID	Owner	Mailing Address	Mailing City	Mailing State	Mailing Zip	Address
296805	BEST BUY STORES LP	7601 PENN AVE S	RICHFIELD	MN	55423	913 HARTFORD TURNPIKE
288845	BFLO-WATERFORD ASSOCIATES LLC	7978 COOPER CREEK BLVD #100	UNIVERSITY PARK	FL	34201-2141	845 HARTFORD TURNPIKE
161700	BRIGHAM MONAHAN JENNIFER & MONAHAN SHAWN P	108 DAYTON ROAD	WATERFORD	CT	6385	108 DAYTON ROAD
296804	BRIXMOR GA WATERFORD COMMONS LLC	420 LEXINGTON AVENUE	NEW YORK	NY	10170	915 HARTFORD TURNPIKE
296803	BRIXMOR GA WATERFORD COMMONS LLC	420 LEXINGTON AVENUE	NEW YORK	NY	10170	903 HARTFORD TURNPIKE
296806	BRIXMOR GA WATERFORD COMMONS LLC	420 LEXINGTON AVENUE	NEW YORK	NY	10170	909 HARTFORD TURNPIKE
296808	BRIXMOR GA WATERFORD COMMONS LLC	420 LEXINGTON AVENUE	NEW YORK	NY	10170	907 HARTFORD TURNPIKE
296809	BRIXMOR GA WATERFORD COMMONS LLC	450 LEXINGTON AVENUE	NEW YORK	NY	10017	905 HARTFORD TURNPIKE
289400	CONNECTICUT LIGHT & POWER CO THE	PO BOX 270	HARTFORD	CT	6141	921 HARTFORD TURNPIKE
288100	COOK CONSTANCE A ET AL	748 WILLOWHEAD DR	NAPLES	FL	34103	76 DAYTON ROAD
160200	DEDRICK THOMAS SR L/U & MARJORIE T L/U	88 DAYTON ROAD	WATERFORD	CT	6385	86 DAYTON ROAD
161000	MERCADO EFREN A & JEAN B	98 DAYTON RD	WATERFORD	CT	6385	98 DAYTON ROAD
162316	OPEN SPACE COHANZIE VILLAGE	42 NEW SHORE RD	WATERFORD	CT	6385	12 COTTAGE LANE
296807	R & F WATERFORD LLC	7248 MORGAN RD POBOX 220	LIVERPOOL	NY	13088	917 HARTFORD TURNPIKE
162200	SHERBURNE DEWEY D & TONI M	120 DAYTON RD	WATERFORD	CT	6385	118 DAYTON ROAD
717000	WIECZOREK DOUGLAS Z & DOREEN A	16 SILVA LN	WATERFORD	CT	6385	16 SILVA LANE





200 100 0 200 Feet

Source: Aerial Photograph CT DEEP 2016

Waterford Commons Site

889-921 Hartford Turnpike
Waterford, Connecticut

Legend

- Stream
- CT Inland Wetland Soils
- Approximate Parcel Boundary

AECOM

FIGURE NUMBER
1

AECOM
10 Orms Street
Providence, RI 02904
aecom.com

March 18, 2024

Maureen FitzGerald
Town of Waterford
Permitting Department
15 Rope Ferry Road
Waterford, CT 06385

RE: Permit Modification Request - Permit #01-06: Waterford Commons 889-921 Hartford Turnpike, Waterford, CT

Dear Ms. FitzGerald,

On behalf of Brixmor GA Waterford Commons LL c/o Brixmor Property Group, Inc. (successor to Centro Properties, LLC) (collectively "Brixmor"), AECOM is submitting this permit modification request for the Waterford Commons retail development located at 889-921 Hartford Turnpike in Waterford, Connecticut (Town of Waterford Permit No. 01-06, Section 22a-36 to 22a-45 and amendments). The following narrative provides a description of the stormwater monitoring program and summarizes results of the sampling and best management practices conducted over the past 19 years at the site in support of this request to modify the current monitoring program. Based on the documented water quality analytics over the course of monitoring AECOM is requesting approval to modify the current program by eliminating the water quality sampling portion while maintaining the annual monitoring of best management practices as listed in the Stormwater Quality Maintenance and BMP Chart and in compliance with the permit as amended in 2009.

Project Overview:

The Waterford Commons shopping center is situated on a 52-acre parcel of land on the north side of Route 85 in the central part of Waterford, Connecticut. Due to the location of the site within the watershed of Jordan Brook, a perennial watercourse just west of the site that has been the focus of watershed protection assessments, the stormwater management design for Waterford Commons included segmented wetland detention basins with forebays, wet ponds and wetlands, sand filters, and catch basins with sumps and oil/grease traps. Best Management Practices (BMPs) employed at the site include monthly parking lot sweeping, no sodium-based deicing agents, catch basin sump inspection and cleaning as necessary, maintenance of sand filters (mowing, removing debris, and hand raking or vacuum removal of clippings), level spreader (riprap spillways and apron) cleaning (removing trash and debris). Figure 1, attached, shows an aerial view of the site, indicating the location of each of the three detention basins.

The post-construction stormwater monitoring program began in 2004 following the initial start-up of the stormwater system. The program included collecting water quality analytics of the site's three stormwater basins four times annually, from early spring to late fall, at basin inlet and outlet locations, to document the effectiveness of the water quality treatment system in removing pollutants and in meeting the design objective of no net increase in pollutant loading. Since the onset of the monitoring program, water quality samples were collected as required by the permit during storm events that generated between 0.5 to 1.0 inch of run-off during a 24-hour period and reporting to the commission. In the early portion of the program, sampling parameters included total suspended soils, total phosphorus, total Kjeldahl nitrogen, nitrate-N, chemical oxygen demand, total oil and grease, total copper, total lead and total zinc.

In 2009, AECOM, on behalf of Centro Properties, LLC (predecessor to Brixmor Property Group Inc.), requested and was granted a modification to the water quality sampling program and reporting requirement, a copy of the 2009 authorization letter is attached. The Commission authorized modifications based on the

site conditions and water quality results from the onset of the program, April 2004, through 2009. The stormwater system was stable, basins were maintained, mowed and cleaned of debris regularly, catch basins were cleaned and stormwater analytical data showed consistently low levels of contaminants. Parameters were either below detection limits or within ranges typically found in urban runoff concentrations in the northeast (CT DEEP Stormwater Manual, 2004). The modified program, implemented in 2010, included a reduction in water quality sampling from quarterly to biannually, reduction in basins to be sampled from three to one, Basin 1, reduction in analytical parameters, reduction of quarterly reporting to annual reporting, and continuation of BMP monitoring as indicated on the Waterford Commons Stormwater Quality Maintenance/BMP Chart, attached.

Stormwater Management Program Monitoring Assessment Since 2010:

The modified program was adhered to since 2010 and included water quality sampling of Basin 1 inlet and outlet during an appropriate rain event in early spring and late fall, and review of all items listed on the BMP Chart including visual inspections of all basins and their inflow and outflow structures, all basin forebays, wet ponds, visual assessment of sediment accumulation within basin forebays and wet ponds, sediment accumulation within catch basins, assessment of landscaping conducted within each basin including mowing, appropriate mowing of sand filters and clipping removal, litter removal, and overall good housekeeping practices. Over the course of the entire monitoring program Brixmor, have conducted maintenance practices that include biannual basin mowing and cleaning, monthly parking lot sweeping, monthly snow removal on an as needed basis, monthly landscaping and catch basin cleaning on an as needed basis.

From 2010 through 2023 the stormwater analytical data collected from Basin 1 inlet and outlet structures, were generally below detection limits and/or below typical mean urban runoff stormwater concentrations expected in the northeast. Sample results are provided in the attached table while Table 1 below compares the averaged sample results of Basin 1 inlet and outlet over the 13-year modified monitoring period to the typical urban runoff stormwater concentrations for the northeast. As shown in Table 1, the averaged sample results, for all parameters, were below urban runoff concentrations. In general, outlet sample parameters were lower compared to the inlet for a given sample event. Over the course of the modified program, occasional uncommonly high parameters were observed in inlet samples. These anomalies were attributed to atypical dry weather conditions occurring prior to the sample event. For example, in 2016 uncommonly elevated TSS and Turbidity were determined to be the result of Moderate to Extreme Drought conditions occurring that year as reported by NOAA, National Integrated Drought Information System (Connecticut | Drought.gov). The May 10, 2021, sample event showed TSS and Turbidity parameters high at the inlet, 90 mg/l - TSS and 16.1 NTUs - Turbidity, while the outlet samples were below detection limits and below urban runoff, respectively, see attached sample results table. In all cases, outlet samples show a reduction of pollutants to levels consistent with urban runoff or below detection limits indicating stormwater treatment basins are effectively removing pollutants as designed.

AECOM

Table 1: Average Waterford Commons Stormwater Quality Results (2010-2023) vs Mean Urban Runoff Stormwater Concentrations

Parameters	Typical Northeast US Mean Urban Runoff Stormwater Concentration[1]	Basin 1 Inlet Structure Water Quality Sample Results	Basin 1 Outlet Structure Water Quality Sample Results
Oil & Grease (mg/l)	3.0	1.24	1.29
Total Copper (mg/l)	0.01	0.008	0.007
Total Lead (mg/l)	0.05	0.009	0.009
Total Zinc (mg/l)	0.129	0.03	0.03
Total Suspended Solids (mg/l)	54.5	10.16	6.40
Turbidity (NTU)	10	2.9	2.6

1. 2004 CT DEEP Stormwater Manual

Summary:

Over the course of the water quality monitoring program, sample results have consistently shown reduction of pollutants at basin outlets compared to the inlets and only on rare occasions of atypical dry weather conditions coincide with high parameters. On these occasions, samples are typically lower and either below detection limits or within normal ranges expected to be found in treated urban runoff at the outlet. Only on one occasion, July 29, 2016, the outlet sample of Turbidity was higher than the inlet sample. This anomaly was observed during a period of moderate to extreme drought conditions documented from 2015 to early 2017 (Connecticut | Drought.gov). Based on the documented sample data, comparing inlet samples to outlet samples, the stormwater treatment basins are effectively removing pollutants as designed. Parameters have consistently been low or below detection limits, basins and basin structures are stable and BMPs have been performed in support of the treatment system, catch basin cleaning and snow removal occur on an as needed basis, street and parking lot sweeping is conducted monthly, and landscaping consists of vegetation mowing within the basins including sand filters and grass clipping removal. Based on the site conditions and the sampling program it is AECOM's opinion the stormwater treatment systems are functioning properly and effectively removing pollutants as designed. As such, AECOM, on behalf of Brixmor, respectfully requests a modification of the permit to eliminate the sampling requirement with continued site visits to conduct monitoring as listed on the BMP Chart and photo documentation of reviewed features as well as recommendations for continued proper functioning of stormwater basins and structures.

In addition to this letter describing the functioning stormwater system, please find the Town of Waterford Application for Inland Wetland / Watercourse Permit application and relevant documentation listed in the application check list, and filing fee checks, $110.00 filing fee for a permit modification request, and $60.00 as required for the State of Connecticut. Brixmor respectfully requests your approval of the proposed modification of the existing monitoring program, as amended in 2009.

Should you have any questions or require additional information, please do not hesitate to contact me at 508-404-5512. Thank you for your attention to this request.

AECOM

Yours sincerely,

Julie Stearns
Senior Wetland Scientist
AECOM
M: 508.404.5512
E: julia.stearns@aecom.com

enclosures: Town of Waterford Application for Inland Wetland / Watercourse Permit,
Abutter list,
2010-2013 Water Quality Analytic Table,
2024 Waterford Commons Stormwater Quality Maintenance/BMP Chart,
Copy of the 2009 Permit Modification Approval letter, and
Site Map.

cc: Kelly Wood, Brixmor
Patrick Rubenbauer, Brixmor
Dennis Lowry, AECOM

Water Quality Sample Result 2010-2023

2010						
Parameter	**Oil & Grease**	**Total Copper**	**Total Lead**	**Total Zinc**	**Total Suspended Solids**	**Turbidity**
Units	**mg/l**	**mg/l**	**mg/l**	**mg/l**	**mg/l**	**NTU**
16 August 2010						
Detection Limit	**1.00**	**0.0050**	**0.0075**	**0.0050**	**1.00**	**0.0050**
01 Inlet	BRL	0.0057	BRL	0.0592	BRL	1.42
01 Outlet	1.6	BRL	BRL	0.029	7.0	3.9
13 December 2010						
01Inlet	BRL	BRL	BRL	0.0599	9.00	2.54

2011						
Parameter	**Oil & Grease**	**Total Copper**	**Total Lead**	**Total Zinc**	**Total Suspended Solids**	**Turbidity**
Units	**mg/l**	**mg/l**	**mg/l**	**mg/l**	**mg/l**	**NTU**
13 April 2011						
Detection Limit	**1.00**	**0.0050**	**0.0075**	**0.0050**	**5.00**	**0.10**
01Inlet	BRL	BRL	BRL	0.03	12.0	5.13
01Outlet	BRL	BRL	BRL	0.029	BRL	1.17
6 December 2011						
01Inlet	BRL	BRL	BRL	0.03	5	5.65
01Outlet	BRL	BRL	BRL	0.019	5	1.93

2012						
Parameter	**Oil & Grease**	**Total Copper**	**Total Lead**	**Total Zinc**	**Total Suspended Solids**	**Turbidity**
Units	**mg/l**	**mg/l**	**mg/l**	**mg/l**	**mg/l**	**NTU**
13 June 2012						
Detection Limit	**1.00**	**0.0050**	**0.0075**	**0.120**	**5.00**	**0.30**
01 Inlet	BRL	BRL	BRL	BRL	BRL	1.37
01 Outlet	BRL	BRL	BRL	BRL	BRL	1.15
19 September 2012						
01 Inlet	BRL	BRL	BRL	0.0192	BRL	1.34
01 Outlet	BRL	BRL	BRL	0.0224	BRL	1.74

2013- No Sampling						

2014						
Parameter	**Oil & Grease**	**Total Copper**	**Total Lead**	**Total Zinc**	**Total Suspended Solids**	**Turbidity**
Units	**mg/l**	**mg/l**	**mg/l**	**mg/l**	**mg/l**	**NTU**
1 May 2014						
Detection Limit	**1.00**	**0.0050**	**0.0075**	**0.0050**	**5.00**	**0.10**
01Inlet	BRL	BRL	BRL	0.0159	10.0	1.70
01Outlet	BRL	BRL	BRL	0.113	BRL	1.79
26 September 2014						
01Inlet	BRL	BRL	BRL	0.0458	BRL	1.59
01Outlet	BRL	BRL	BRL	0.014	9.0	2.63

2015						
Parameter	**Oil & Grease**	**Total Copper**	**Total Lead**	**Total Zinc**	**Total Suspended Solids**	**Turbidity**
Units	**mg/l**	**mg/l**	**mg/l**	**mg/l**	**mg/l**	**NTU**
1 July 2015						
Detection Limit	**1.02**	**0.0050**	**0.0075**	**0.0050**	**5.0**	**0.10**
01 Inlet	BRL	0.0240	BRL	0.0559	0.0118	BRL

01 Outlet	BRL	BRL	BRL	BRL	0.0128	BRL
30 September 2015						
01 Inlet	BRL	BRL	BRL	0.0118	BRL	1.77
01 Outlet	BRL	BRL	BRL	0.0128	BRL	3.48

2016						
Parameter	**Oil & Grease**	**Total Copper**	**Total Lead**	**Total Zinc**	**Total Suspended Solids**	**Turbidity**
Units	**mg/l**	**mg/l**	**mg/l**	**mg/l**	**mg/l**	**NTU**
29 July 2016						
Detection Limit	**1.05**	**0.0100**	**0.0150**	**0.0100**	**1.00**	**0.30**
01 Inlet	1.52	0.0182	BRL	0.0142	26.8	10.8
01 Outlet	BRL	BRL	BRL	0.0506	16.3	15.7

2017						
Parameter	**Oil & Grease**	**Total Copper**	**Total Lead**	**Total Zinc**	**Total Suspended Solids**	**Turbidity**
Units	**mg/l**	**mg/l**	**mg/l**	**mg/l**	**mg/l**	**NTU**
30 August 2017						
Detection Limit	**1.00**	**0.0050**	**0.0075**	**0.0050**	**0.5**	**0.30**
01Inlet	BRL	BRL	BRL	0.0154	1.7	1.77
01Outlet	BRL	BRL	BRL	BRL	6.2	2.85

2018						
Parameter	**Oil & Grease**	**Total Copper**	**Total Lead**	**Total Zinc**	**Total Suspended Solids**	**Turbidity**
Units	**mg/l**	**mg/l**	**mg/l**	**mg/l**	**mg/l**	**NTU**
11 September 2018						
Detection Limit	**1.05**	**0.0050**	**0.0075**	**0.0250**	**0.5**	**0.30**
01 Inlet	BRL	BRL	BRL	BRL	0.9	0.66
01 Outlet	BRL	BRL	BRL	BRL	6.6	3.96
13 November 2018						
01 Inlet	BRL	BRL	BRL	BRL	1.2	1.19
01 Outlet	BRL	BRL	BRL	BRL	10.2	0.94

2019						
Parameter	**Oil & Grease**	**Total Copper**	**Total Lead**	**Total Zinc**	**Total Suspended Solids**	**Turbidity**
Units	**mg/l**	**mg/l**	**mg/l**	**mg/l**	**mg/l**	**NTU**
11 June 2019						
Detection Limit	**1.00**	**0.003**	**0.0001**	**0.002**	**1.0**	**0.30**
01Inlet	0.004	BRL	BRL	0.004	**6.0**	**0.30**
01Outlet	BRL	BRL	BRL	BRL	<6.00	1.05
10 October 2019						
Detection Limit	**5.00**	**0.0200**	**0.0001**	**0.02**	**2.0**	**0.20**
01Inlet	BRL	BRL	BRL	BRL	BRL	1.44
01Outlet	BRL	BRL	BRL	BRL	4.0	1.70

2020- No Sampling						

2021						
Parameter	**Oil & Grease**	**Total Copper**	**Total Lead**	**Total Zinc**	**Total Suspended Solids**	**Turbidity**
Units	**mg/l**	**mg/l**	**mg/l**	**mg/l**	**mg/l**	**NTU**
10 May 2021						
Detection Limit	**2.00**	**0.005**	**0.0075**	**0.01**	**10.0**	**0.30**
01 Inlet	BRL	BRL	BRL	0.0208	90.0	16.1
01 Outlet	BRL	BRL	BRL	0.0148	BRL	2.16

27 October 2021						
Detection Limit	**2.2**	**0.00500**	**0.0150**	**0.02**	**1.67**	**0.30**
01 Inlet	BRL	BRL	BRL	0.0216	BRL	1.1
01 Outlet	BRL	BRL	BRL	BRL	BRL	1.6

2022						
Parameter	**Oil & Grease**	**Total Copper**	**Total Lead**	**Total Zinc**	**Total Suspended Solids**	**Turbidity**
Units	**mg/l**	**mg/l**	**mg/l**	**mg/l**	**mg/l**	**NTU**
7 September 2022						
Detection Limit	**1.9**	**0.0100**	**0.0150**	**0.0200**	**10.0**	**0.30**
01Inlet	BRL	BRL	BRL	0.0205	12.0	1.0
01Outlet	BRL	BRL	BRL	BRL	BRL	1.1
2023						
Parameter	**Oil & Grease**	**Total Copper**	**Total Lead**	**Total Zinc**	**Total Suspended Solids**	**Turbidity**
Units	**mg/l**	**mg/l**	**mg/l**	**mg/l**	**mg/l**	**NTU**
1 May 2023						
Detection Limit	**2.0**	**0.0100**	**0.0150**	**0.0200**	**5.0**	**0.30**
01 Inlet	BRL	BRL	BRL	BRL	BRL	1.8
01 Outlet	BRL	BRL	BRL	0.0219	BRL	1.7
11 September 2023						
01 Inlet	BRL	BRL	BRL	BRL	BRL	1.8
01 Outlet	BRL	BRL	BRL	BRL	BRL	2.1

Waterford Commons Stormwater Quality Maintenance/BMP Chart				
BMP	**Function**	**Maintenance**	**Maintenance conducted**	**2024 Maintenance Recommendations**
Subsurface Infiltration Areas	• Recharge roof runoff to control peak discharge. • Recharge groundwater through infiltration	No regular maintenance will be required.	N/A	N/A
Parking lots	N/A	Sweep monthly. No sodium-based deicing agents to be applied	• Parking lots were swept on a monthly basis from January to December in 2023.	Continue with same program, conducted winter sand removal in late spring/early summer to reduce sand flowing to catch basins during rain events.
Forebays of Detention Basins	• Reduce inflow velocities • Promote settling of large/coarse suspended sediments	Depth of accumulated sediment will be measured annually. Basin will be dredged when sediment storage capacity is reduced by greater than 25%. Inspect annually for stability.	• Forebays were visually observed for accumulated sediments during the 2023 site visit, minimal accumulated sediment and detritus was observed.	Continue with same program. • Document sediment depth during dry conditions.
Detention Basins (east, south, and northwest parts of the site)	• Detain runoff from parking lot and landscaped areas on site to control peak discharge • Promote settling of suspended solids and adsorbed pollutants • Wetland plantings will provide additional uptake of nutrients.	Depth of accumulated sediment will be measured annually. Basin will be dredged when sediment accumulates to more than one foot in depth. Annual check of embankments for subsidence, erosion, and cracking. Routine check of the condition of the inlet and outlets; and clearing the accumulation of litter and debris at outlet/trash racks on an as needed basis.	• Embankments are stable and well vegetated. • Inlets and outlets were in very good condition in 2023. • Wetland plants are well established in all basins, new species identified. • Inlet and outlet structures were in good condition. • Litter was removed from basins in 2023. •	Continue with same inspection program: • Check depth of sediment in detention ponds during dry conditions and photo document. • Continue checking embankment stability during sampling events. • Continue checking conditions of inlets and outlets. • Mow all 3 basin side slopes, mow and hand rake sand filters of basins 2 and 3.

Waterford Commons Stormwater Quality Maintenance/BMP Chart				
BMP	**Function**	**Maintenance**	**Maintenance conducted**	**2024 Maintenance Recommendations**
				• Continue to monitor wetland plants growing in basins. • Continue litter removal as required in all basin areas. • Monitor invasive species.
Riprap Spillways/Apron (level spreaders)	• Dissipate energy to reduce storm flow velocities in to and out of Basin 2.	Remove trash and debris at least annually.	• All riprap spillways (level spreaders) are in good condition and clear of trash and debris.	Continue with same program.
Catch Basins with Sumps and Hoods	• Primary treatment – Reduce sediment load in runoff prior to treatment in basins. • Trap and contain oil and grease so that it may be properly cleaned and disposed of.	Sumps will be checked quarterly and cleaned as necessary. Hoods will be cleaned as necessary.	• Catch basins were inspected and 41 cleaned in 2022.	Continue with same program, inspection of catch basin and clean as needed. Document activity on the invoice for verification.
Sand Filters within Detention Basins	• Remove fine suspended sediment material and adsorbed contaminants.	Mow twice per year; hand rake and vacuum to remove cuttings and debris. Review 24 hours after 1-inch summer storm to assess infiltration.	• Wet conditions of Basin 1 sand filter prohibit landscaping, continue evaluation.	Continue with same program: • Mowing and hand raking or vacuum sand filters of basins at least twice in basins 2 and 3 in 2024 as required under "Maintenance". • Conduct evaluation of surface layer of sand filter in Basin 1 when opportunity arises during dry conditions of 2024.

FIFTEEN ROPE FERRY ROAD

Town of Waterford

WATERFORD, CT 06385-2886

Date: December 14, 2009

To: Steven DeClara, Centro Properties, LLC
420 Lexington Avenue
New York, NY 10170

Re: Waterford Commons Shopping Center, Rte 85 Waterford, CT
Approval to Modify Stormwater Monitoring Program
Waterford Conservation Commission – December 10, 2009

Mr. DeClara;

The Waterford Conservation Commission reviewed the request to modify the referenced stormwater program submitted by AECOM dated November 16, 2009 and supplemental correspondence from AECOM Environment dated December 9, 2009. The Conservation Commission authorized the following changes to the monitoring program for Waterford Commons, 889 – 921 Hartford Turnpike, Waterford, CT at their December 10, 2009 meeting:

1. Monitoring shall occur 2 times per year, (semi-annually) in spring and late summer seasons
2. Samples shall be collected from Basin #1 only, and include basin inlet and outlet samples
3. Analytical parameters shall include oil & grease, total metals (Cu, Pb, & Zn), TSS and turbidity.
4. Continue to monitor all 3 basins 2 times per year in accordance with the best management practices developed for the site plan. Monitoring shall include evaluation of erosion, subsidence, sediment accumulation, inlet and outlet condition, debris accumulation and vegetation maintenance. One yearly monitoring report shall be submitted to the Waterford Conservation Commission documenting the results of the stormwater analysis and the condition of the three (3) basins and their respective outlets. The report shall include any maintenance or repair measures required to maintain the functioning of this stormwater management system.

Please forward all documentation to the Town of Waterford, Permitting Department, 15 Rope Ferry Road, Waterford, CT 06385, Attn: Maureen FitzGerald. If you have any questions, please contact me at 860 444-5813.

Sincerely,

Maureen FitzGerald
Environmental Planner

cc: Julia Sterns, AECOM Environment
Mark Wujtewicz, Planner
Waterford Conservation Commission

WATERFORD COMMONS
STORMWATER QUALITY MAINTENANCE/BMP CHART

BMP	Functions	Maintenance
Subsurface Infiltration Areas	• Recharge roof runoff to control peak discharge • Recharge groundwater through infiltration	No regular maintenance will be required.
Parking Lots	N/A	Sweep monthly. No sodium-based deicing agents to be applied.
Forebays of Detention Basins	• Reduce inflow velocities • Promote settling of larger/coarse suspended sediments	Depth of accumulated sediment will be measured annually. Basin will be dredged when sediment storage capacity is reduced by greater than 25%. Inspect annually for stability.
Detention Basins (east, south, and northwest parts of site)	• Detain runoff from parking lot and landscaped areas on site to control peak discharge • Promote settling of suspended solids and adsorbed pollutants • Wetland plantings will provide additional uptake of nutrients	Depth of accumulated sediment will be measured annually. Basin will be dredged when sediment accumulates to more than one foot in depth. Annual check of the embankments for subsidence, erosion, and cracking. Routine check of the condition of the inlets and outlets; and clearing the accumulation of litter and debris at the outlets / trash racks on an as needed basis. Water quality monitoring shall be conducted four times per year as required by the Waterford Conservation Permit #01-06, Conditions 12, 13, & 14
Riprap Spillways/Apron	• Dissipate energy to reduce storm flow velocities in to and out of Basin 2	Remove trash and debris at least annually.
Catch Basins With Sumps and Hoods	• Primary treatment – Reduce sediment load in runoff prior to treatment in basins • Trap and contain oil and grease so that it may be properly cleaned and disposed of.	Sumps will be checked quarterly and cleaned as necessary. Hoods will be cleaned as necessary.
Site-wide unpaved areas	• N/A	Monitor and control invasive species for five years per Waterford Conservation Permit #01-06, Condition 10.
Sand Filters within Detention Basins	• Remove fine suspended sediment material and adsorbed contaminants.	Mow twice per year; hand rake and vacuum to remove cuttings and debris. Review 24 hours after 1-inch summer storm to assess infiltration rate*.

13 *The sand filter should infiltrate all flow (i.e., have no standing surface water) over a 24-72 hour period following the storm event. If standing water remains on the surface longer than this duration, measures should be taken to renovate the infiltration capacity of the sand filter. The first step should be an additional mowing, raking and vacuuming of the surface, followed by treatment with a soil aerator such as that used on golf courses. If this is not sufficient, the sand/soil layers may need replacement upon the review and approval of Town planning/environmental staff. The project owner is responsible to submit an annual report to the Town summarizing the management / maintenance measures and results obtained for the previous year; this report should be generated after the summer review of the sand filters to enable remedial measures (if any) to be implemented by the fall of that same year.

FIFTEEN ROPE FERRY ROAD

WATERFORD, CT 06385-2886

WATERFORD CONSERVATION COMMISSION
Permit #01-06: 889-921 Hartford Turnpike, Waterford, CT
Assessor's Map #103, Parcels #006 - #012, Map #111, Parcel #004, & Map #112, Parcels #001, #005, #006, #010: Waterford Commons Shopping Center

The Conservation Commission hereby authorizes the applicant to conduct regulated activities in designated areas that fall under the jurisdiction of the Inland Wetlands and Watercourses Act, as amended, Section 22a-36 to 22a-45, inclusive, of the Connecticut General Statutes.

This permit is a grant of approval from the Waterford Conservation Commission to conduct the following regulated activities:

1. Fill 4,800 square feet of intermittent watercourse wetlands for construction of a stormwater quality detention basin.

2. Discharge of treated stormwater from water quality basins to wetlands and wetland buffer areas associated with the Jordan Brook watershed.

3. Fill and grading adjacent to wetlands

These regulated activities are associated with the proposed construction of a shopping center on property located at 889 – 921 Hartford Turnpike, Waterford, Connecticut. The proposal is shown on site plans entitled "Waterford Commons, Route 85, Waterford, CT, Conservation Commission Application, prepared by Carter - Burgess, revised through May 22, 2001.

The Conservation Commission has reviewed the site plans and application documents and the public hearing record and attaches the following conditions to minimize impacts associated with the proposal and further protect the inland wetlands, surface water and groundwater on this site:

SPECIAL CONDITIONS:

1. The final plans shall reflect the modifications and details submitted as Exhibits N and S in the Public Hearing. Any revisions to the water quality basins, sand filters or infiltration systems shall be approved by the Commission's agent prior to construction. In the event that proposed changes are found to alter the extent of activity authorized within or adjacent to wetlands, or alter the performance or function of the water quality basins, approval of said changes shall be required from the Waterford Conservation Commission.

2. The approved limits of clearing and grading on the northern and eastern ends of the site shall be identified as the wetland non-encroachment area on the final site plan. No activity, including filling, grading, clearing or removal of vegetation shall be conducted within the wetland or non-encroachment area without prior authorization of the Conservation Commission.

3. A Conservation Easement shall be established over the non-encroachment area in favor of the Town of Waterford to provide permanent protection to the wetland resources associated with

the tributaries to Jordan Brook on and adjacent to the site. The easement language shall be submitted to the Commission's agent for review prior to the initiation of site work.

4. The stormwater quality structures, including the stormwater basin sideslopes, grassed swales, level spreaders and rip-rap outlets, are to be constructed and stabilized prior to receiving stormwater run-off from the site, to ensure that site run-off is treated to remove sediments and associated pollutants. Final construction of the sand filter and planting of the wetland basin shall occur after the base-course pavement has been installed to reduce the potential for adverse sediment impacts to these portions of the stormwater treatment system.

5. At all times during site grading and construction, diversion swales shall be installed and maintained to direct run-off to sediment traps and to prevent ponding on fill surfaces. Outlets for each sediment trap and diversion swale shall be identified on the construction plans.

6. Interior slopes of the water quality basins shall be finish graded, seeded, and protected with erosion control matting during the initial phase of site construction to promote vegetation establishment and reduce the potential for sediment impacts.

7. Third party inspections are required for implementation of the erosion and sediment control plan on the construction site. Weekly inspection reports documenting the status of the erosion controls and any maintenance required shall be prepared by a qualified party and submitted to the Commission's agent. Reports shall be filed during periods when soils are exposed on the site and until soil stabilization has occurred. The qualifications of the individual or party responsible for conducting the inspections and completing the inspection reports shall be submitted to the Planning Department for review and approval prior to the initiation of construction.

8. The design consultant shall supervise the construction of the stormwater treatment system. Construction of the basins, infiltrators, sand filters and basin outlet protection devices shall be inspected by the design consultant and an inspection report with as-built verification and infiltration rates shall be prepared and submitted to the Conservation Commission for review.

9. Water levels within the stormwater quality basins shall be monitored during the construction period to establish seasonal fluctuations. This information shall be used by the design wetland scientist to verify the hydrology and proposed wetland plantings for the basins.

10. The owner shall be responsible for monitoring and removal of invasive plant species within the limits of construction disturbance, with the exclusion of the CL&P right of way on the west side of the project area. Monitoring and control of invasive plant species shall continue for a period of five years following completion of the project.

11. The applicant shall submit a condensed chart outlining the action and frequency of required inspection and maintenance for the stormwater basins, stormwater collection system, roof-water infiltration systems and impervious surface areas as presented in the Section 6.0 of the Wetland and Stormwater Management Report. This item shall be submitted to and approved by the Commission's agent prior to the start of construction activities.

12. Water quality monitoring of the three stormwater basins shall be conducted four times during the year, from early spring (March) to late fall (October) at the basin inflow and outlet locations to document the effectiveness of the water quality treatment system in removing pollutants and in meeting the design objective of no net increase in pollutant loading. Sample collection at inflows to each basin shall be conducted for the first monitoring year in conjunction with basin outflow samples. After the first year, the owner may apply to the

Commission to modify the inflow sampling technique to use composite or representative samples. Water quality samples shall be collected during storm events that generate between 0.5 to 1.0 inch of run-off during a 24-hour period. Results of the water quality monitoring and BMP inspections shall be submitted to the Commission's agent for review.

13. Parameters to be tested include: total suspended solids, total phosphorus, total Kjeldahl nitrogen, nitrate-N, chemical oxygen demand, total oil and grease, total copper, total lead and total zinc. Aquatic toxicity at the basin outlets shall be analyzed for the summer and fall monitoring periods during the first year of operation and the results shall be presented to the Conservation Commission.

14. Stormwater basin water quality monitoring shall continue for three years following the initial start-up of the stormwater system. The owner may apply to the Conservation Commission to modify the frequency, locations or parameters monitored following the initial three year monitoring period. The Commission will consider the monitoring results and the stability and functioning of the stormwater system in making its decision on this request.

15. A bond shall be required for installation of erosion controls, construction and planting of the water quality basins and sand filters. A bond estimate shall be submitted to the Department of Public Works and Planning Department for review. This bond may be part of any other bond required by the Planning & Zoning Commission, but shall be released upon approval of the Conservation Commission's agent. A portion of the bond shall be a cash bond in the amount of $2,500 dollars for emergency stabilization measures.

16. The limits of work and erosion controls are to be reviewed by the Environmental Planner prior to the start of site clearing or grading.

STANDARD CONDITIONS:

17. The Conservation Commission's agent shall be notified at least 48 hours prior to commencement of any regulated activity.

18. Final stabilization of disturbed soil areas shall be conducted with the application of loam, seed and appropriate erosion control measures.

19. At all times during site work and until soil areas are stabilized, the applicant shall install and maintain erosion and sediment control measures such as fabric filter fence, staked hay bales or other measures deemed necessary by the Commission's agent.

20. Erosion control and soil stabilization measures shall comply with the approved plans and should follow guidelines as established in the Connecticut Guidelines For Soil Erosion and Sediment Control.

21. Upon direction of the Commission's agent, erosion and sediment control measures shall be removed by the applicant following stabilization of the site.

22. All work and all regulated activities conducted pursuant to this authorization shall be consistent with the terms and conditions of this permit. Any structures, excavation, fill, obstructions, encroachments or regulated activities not specifically identified and authorized herein shall constitute a violation of this permit and may result in permit modification, suspension or revocation.

23. In the event that any additional wetland or watercourse regulated activities are required as a result of other agency permitting to support the proposed facility, the Waterford Conservation Commission reserves the right to reconsider development of this site and may require design modifications to minimize the impact to regulated resources.

In evaluating this application, the Commission has relied on information provided by the applicant. If such information subsequently proves to be false, incomplete and/or inaccurate, this permit shall be modified, suspended or revoked.

This permit shall be valid for a period of 5 years. Once initiated, the regulated activity shall be completed within one year. If the regulated activity is not completed within this time frame, the permit may be held to be invalid by the Conservation Commission and the applicant may be required to petition the Commission for an extension or re-issuance of the permit. The Commission may require the applicant to furnish additional information at that time.

The Conservation Commission renders this Summary Ruling in accordance with the Waterford Inland Wetlands and Watercourses Regulations based on the following considerations:

A. The Commission has considered alternatives for the location of the stormwater quality basin and the affected wetland resource and finds the approved plan is the more feasible and prudent alternative which reduces direct and indirect wetland impacts.

B. Stormwater quality treatment structure and best management practices have been included in the plans of record to treat the quality of run-off prior to discharge to the adjacent wetlands. Inspection and monitoring of these measures will be conducted.

C. A Conservation Easement will be established over the wetlands and adjacent undisturbed upland areas to provide long-term protection of the wetland resources and water quality on and adjacent to the project site.

D. Strict adherence to the conditions imposed with this permit will protect the quality of wetlands and surface waters on the subject property.

This permit will be strictly enforced. If the Conservation Commission finds that the applicant has not complied with the permit conditions or has exceeded the scope of this permit as set forth herein, or, if the intended use of the general site is not as represented by the application or the plan of record, the Commission may suspend or revoke this permit, direct the Environmental Officer to issue a cease and desist order, require the applicant to modify, extend or revise the site work, or require the applicant to restore the area to its original condition.

Dated at Waterford, Connecticut this 28th day of June, 2001.

By: _____
Chairman