

# Storm Water Operation & Maintenance Agreement

for

New Bakery Improvements

Le Chateau

La Crosse, Wisconsin

## **1.0 Site Name**

New Bakery Improvements

Le Chateau

422 Cass Street

La Crosse, WI 54601

## **2.0 Owner**

Ocean FIN LLC

## **3.0 Responsible Party**

Implementing the erosion control measures and maintaining all permanent storm water BMP's is an indefinite permit requirement. The Owner of this parcel is responsible for satisfying this Agreement throughout construction and for long term maintenance of the site. If Owner sells the property, that responsibility is passed to the new owner.

## **4.0 Compliance**

Compliance requirements of the City of La Crosse are satisfied by execution of this agreement, implementation of erosion control measures, inspection and maintenance of erosion control measures, construction of permanent storm water BMP's, and long term, continued maintenance of those permanent BMP's.

## **5.0 Permanent Components of Storm Water System**

The storm water system consists of the permanent components shown on the approved plans.

These components include:

-General Site Grading

-Rain Gardens

## **6.0 Inspection & Maintenance**

All components of the storm water system shall be inspected at least semi-annually in early Spring and early Autumn. Repairs will be made whenever the performance of a storm water feature is compromised. Inspection and repairs shall be made as follows:

## Rain Gardens

Water plantings at least weekly during first three months of establishment. Inspect planting area at least annually. Maintenance is required when standing water is visible 48 hours after a rainfall event. Maintenance shall consist of removal of all sediment and sub-cutting to a depth of one foot. The subcut material shall be disposed of and replaced with a mix of 70-85% sand and 15-30% compost, and finished with three inches shredded wood mulch. The bed shall be revegetated. In the spring of each year, dead vegetation shall be removed to allow for new growth. Twice per growing season, the planting bed shall be weeded and mulch replenished.

## Lawn & Landscape Areas

All grading shall be maintained according to the plans. All lawn areas shall be kept clear of debris and material that prevents flow of runoff to the designed grading location.

### **7.0 Mowing, Fertilizer & Chemical Application**

Mowing of turn in the rain gardens is allowed. Trees, shrubs, and plants planted in the rain garden are not to be mowed. Fertilizers, herbicides, pesticides or other chemicals should be applied within rain gardens only if tolerated by selected rain garden plants.

### **8.0 Duty to Provide Maintenance**

It is the responsibility of the Owner to maintain inspection and maintenance records, and keep on file an annual report documenting the inspection and maintenance of the storm water system. Proof of maintenance is required upon request with each annual report.

In the event the facility owner fails to perform its obligations under this agreement, the City of La Crosse shall have the authority to inspect and maintain all components of the storm water system. In such an event, all associated costs will be assessed back as a special charge against the property pursuant to Sec. 66.0627 Wis. Statutes. Said charge shall be a lien on the property and shall be collected with the real estate taxes.

### **9.0 Signatures**

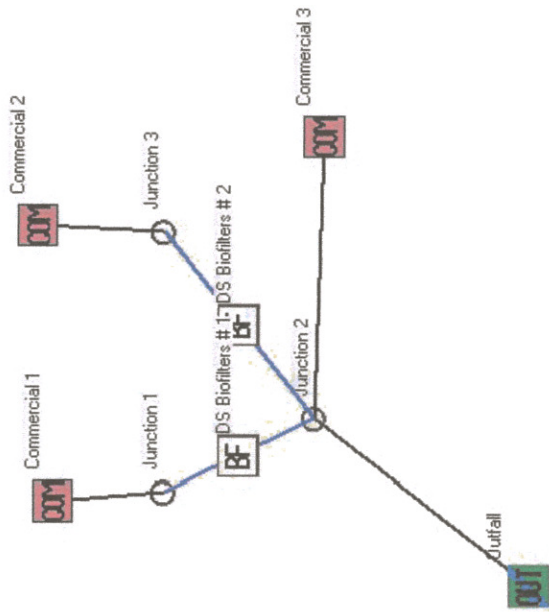
The undersigned agrees to the provisions set forth in this agreement.

\_\_\_\_\_  
Signature-

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

Land Use #	Land Use Type	Land Use Label	Land Use Area (acres)
1	Commercial	Commercial 1	0.019
2	Commercial	Commercial 2	0.013
3	Commercial	Commercial 3	0.001





## Le Chateau – InputData

Data file name: C:\Users\Staff\Documents\Makepeace Engineering\Le Chateau\SLAMM\Le Chateau.mdb

**WinSLAMM Version 10.3.4**

Rain file name: C:\WinSLAMM Files\Rain Files\WisReg – Madison WI 1981.RAN

Particulate Solids Concentration file name: C:\WinSLAMM Files\v10.1 WI\_AVG01.pscx

Runoff Coefficient file name: C:\WinSLAMM Files\WI\_SL06 Dec06.rsvx

Residential Street Delivery file name: C:\WinSLAMM Files\WI\_Res and Other Urban Dec06.std

Institutional Street Delivery file name: C:\WinSLAMM Files\WI\_Com Inst Indust Dec06.std

Commercial Street Delivery file name: C:\WinSLAMM Files\WI\_Com Inst Indust Dec06.std

Industrial Street Delivery file name: C:\WinSLAMM Files\WI\_Com Inst Indust Dec06.std

Other Urban Street Delivery file name: C:\WinSLAMM Files\WI\_Res and Other Urban Dec06.std

Freeway Street Delivery file name: C:\WinSLAMM Files\Freeway Dec06.std

Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False

Pollutant Relative Concentration file name: C:\WinSLAMM Files\WI\_GEO03.ppdx

Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM

Le Chateau – InputData

**Files\NURP Source Area PSD Files.csv**

Cost Data file name:

Seed for random number generator: -42

Study period starting date: 01/01/81      Study period ending date: 12/31/81

Start of Winter Season: 12/02      End of Winter Season: 03/12

Date: 11-03-2019

Time: 20:18:43

Site information:

**LU# 1 - Commercial: Commercial 1    Total area (ac): 0.019**

**31 - Sidewalks 1: 0.018 ac.    Connected    Source Area**

**PSD File: C:\WinSLAMM Files\NURP.cpz**

**51 - Small Landscaped Areas 1: 0.001 ac.    Normal Sandy**

**Source Area PSD File: C:\WinSLAMM Files\NURP.cpz**

**LU# 2 - Commercial: Commercial 2    Total area (ac): 0.013**

**31 - Sidewalks 1: 0.012 ac.    Connected    Source Area**

**PSD File: C:\WinSLAMM Files\NURP.cpz**

**52 - Small Landscaped Areas 2: 0.001 ac.    Normal Sandy**

**Source Area PSD File: C:\WinSLAMM Files\NURP.cpz**

**LU# 3 - Commercial: Commercial 3    Total area (ac): 0.001**

**31 - Sidewalks 1: 0.001 ac.    Connected    Source Area**



PSD File: C:\WinSLAMM Files\NURP.cpz

Control Practice 1: Biofilter CP# 1 (DS) – DS Biofilters # 1

1. Top area (square feet) = 56
2. Bottom area (square feet) = 24
3. Depth (ft): 2
4. Biofilter width (ft) - for Cost Purposes Only: 10
5. Infiltration rate (in/hr) = 0.5
6. Random infiltration rate generation? No
7. Infiltration rate fraction (side): 1
8. Infiltration rate fraction (bottom): 1
9. Depth of biofilter that is rock filled (ft) 0
10. Porosity of rock filled volume = 0
11. Engineered soil infiltration rate: 3.6
12. Engineered soil depth (ft) = 1
13. Engineered soil porosity = 0.27
14. Percent solids reduction due to flow through  
engineered soil = 80
15. Biofilter peak to average flow ratio = 3.8
16. Number of biofiltration control devices = 1
17. Particle size distribution file: Not needed - calculated  
by program
18. Initial water surface elevation (ft): 0

## Le Chateau – InputData

### Soil Data

### Soil Type Fraction in Eng. Soil

**User-Defined Soil Type      1.000**

Biofilter Outlet/Discharge Characteristics:

Outlet type: Broad Crested Weir

- 1. Weir crest length (ft): 5**
- 2. Weir crest width (ft): 2**
- 3. Height of datum to bottom of weir opening: 1.5**

Control Practice 2: Biofilter CP# 2 (DS) – DS Biofilters # 2

- 1. Top area (square feet) = 56**
- 2. Bottom area (square feet) = 21**
- 3. Depth (ft): 2**
- 4. Biofilter width (ft) - for Cost Purposes Only: 10**
- 5. Infiltration rate (in/hr) = 0.5**
- 6. Random infiltration rate generation? No**
- 7. Infiltration rate fraction (side): 1**
- 8. Infiltration rate fraction (bottom): 1**
- 9. Depth of biofilter that is rock filled (ft) 0**
- 10. Porosity of rock filled volume = 0**
- 11. Engineered soil infiltration rate: 3.6**
- 12. Engineered soil depth (ft) = 1**
- 13. Engineered soil porosity = 0.27**
- 14. Percent solids reduction due to flow through**

engineered soil = 80

## Le Chateau – InputData

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## Le Chateau – Output Summary

**Files\WI\_GEO03.ppd**

Start of Winter Season: 12/02  
03/12

End of Winter Season:

Model Run Start Date: 01/01/81      Model Run End Date: 12/31/81

Date of run: 11-03-2019      Time of run: 20:18:24

**Total Area Modeled (acres): 0.033**

**Years in Model Run: 1.00**

			Runoff	Percent
Particulate	Particulate	Percent	Volume	Runoff
Solids	Solids	Particulate	(cu ft)	Volume
Conc.	Yield	Solids	Reduction	
(mg/L)	(lbs)	Reduction		

Total of all Land Uses without Controls:

2355

-      **75.14**      **11.05**      -

**Outfall Total with Controls:**

**577.4      75.48%**

**75.16      2.709      75.48%**

**Annualized Total After Outfall Controls:**

**579.0**

**2.717**