

# Storm Water Management Practice Maintenance Agreement

Document Number

Beaudry Services, Inc. as “Owner” of the property described below, in accordance with Chapter 32 City of Waukesha Storm Water Management and Erosion Control, agrees to install and maintain storm water management practice(s) on the subject property in accordance with approved plans and Storm Water Management Plan conditions. The owner further agrees to the terms stated in this document to ensure that the storm water management practice(s) continues serving the intended functions in perpetuity. This Agreement includes the following exhibits:

**Exhibit A:** Legal Description of the real estate for which this Agreement applies (“Property”).

**Exhibit B:** Location Map(s) – shows an accurate location of each storm water management practice affected by this Agreement.

**Exhibit C:** Maintenance Plan – prescribes those activities that must be carried out to maintain compliance with this Agreement.

Note: After construction verification has been accepted by the City of Waukesha, for all planned storm water management practices, an addendum(s) to this agreement shall be recorded by the Owner showing design and construction details. The addendum(s) may contain several additional exhibits, including certification by City of Waukesha of Storm Water and Erosion Control Permit termination, as described below.

Name and Return Address

City of Waukesha  
130 Delafield Street  
Waukesha, WI 53188

Parcel Identification Number(s) – (PIN)

Through this Agreement, the Owner hereby subjects the Property to the following covenants, conditions and restrictions:

1. The Owner shall be responsible for the routine and extraordinary maintenance and repair of the storm water management practice(s) and drainage easements identified in Exhibit B until Storm Water and Erosion Control Permit termination by the City of Waukesha in accordance with Chapter 32 of the City Code of Ordinances.
2. After Storm Water and Erosion Control Permit termination under 1., the current Owner(s) shall be solely responsible for maintenance and repair of the storm water management practices and drainage easements in accordance with the maintenance plan contained in Exhibit C.
3. The Owner(s) shall, at their own cost, complete inspections of the storm water management practices at the time intervals listed in Exhibit C, and conduct the inspections by a qualified professional, file the reports with the City of Waukesha after each inspection and complete any maintenance or repair work recommended in the report. The Owner(s) shall be liable for the failure to undertake any maintenance or repairs. After the work is completed by the Contractor, the qualified professional shall verify that the work was properly completed and submit the follow-up report to the City within 30 days.
4. In addition, and independent of the requirements under paragraph 3 above, the City of Waukesha, or its designee, is authorized to access the property as necessary to conduct inspections of the storm water management practices or drainage easements to ascertain compliance with the intent of this Agreement and the activities prescribed in Exhibit C. The City of Waukesha may require work to be done which differs from the report described in paragraph 3 above, if the City of Waukesha reasonably concludes that such work is necessary and consistent with the intent of this agreement. Upon notification by the City of Waukesha of required maintenance or repairs, the Owner(s) shall complete the specified maintenance or repairs within a reasonable time frame determined by the City of Waukesha.
5. If the Owner(s) do not complete an inspection under 3. above or required maintenance or repairs under 4. above within the specified time period, the City of Waukesha is authorized, but not required, to perform the specified inspections, maintenance or repairs. In the case of an emergency situation, as determined by the City of Waukesha, no notice shall be required prior to the City of Waukesha performing emergency maintenance or repairs. The City of Waukesha may levy the costs and expenses of such inspections, maintenance or repair related actions as a special charge against the Property and collected as such in accordance with the procedures under s. 66.0627 Wis. Stats. or subch. VII of ch. 66 Wis. Stats.

6. This Agreement shall run with the Property and be binding upon all heirs, successors and assigns. After the Owner records the addendum noted above, the City of Waukesha shall have the sole authority to modify this agreement upon a 30-day notice to the current Owner(s).

Dated this \_\_\_ day of \_\_\_\_\_, 201\_.

**Owner:**

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
Tom Beaudry

## Acknowledgements

State of Wisconsin:  
County of Waukesha

Personally came before me this \_\_\_ day of \_\_\_\_\_, 2018, the above named Tom Beaudry to me known to be the person who executed the foregoing instrument and acknowledged the same.

\_\_\_\_\_.

Notary Public, Waukesha County, WI  
My commission expires:\_\_\_\_\_.

**This document was drafted by:**

**Terry Meyer, P.E.  
The Sigma Group, Inc.  
1300 W. Canal Street,  
Milwaukee, WI 53233**

*For Certification Stamp*

City of Waukesha Common Council Approval

Dated this \_\_\_ day of \_\_\_\_\_, 201\_.

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Shawn N. Reilly, Mayor

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Gina Kozlik, City Clerk

**Acknowledgements**

State of Wisconsin:  
County of Waukesha

Personally came before me this \_\_\_ day of \_\_\_\_\_, 2018, the above named Shawn N. Reilly, Gina Kozlik to me known to be the person who executed the foregoing instrument and acknowledged the same.

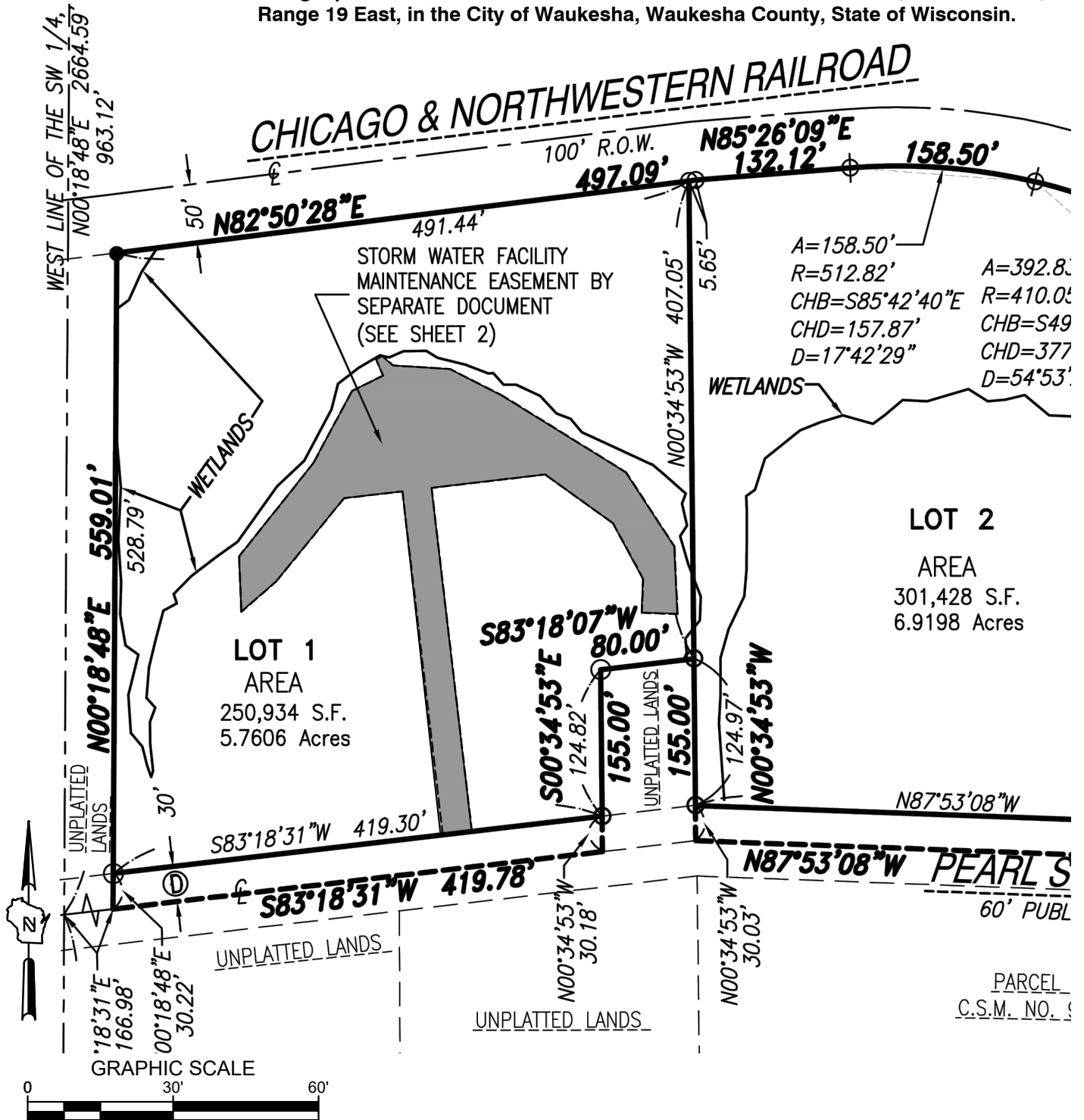
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Notary Public, Waukesha County, WI  
My commission expires: \_\_\_\_\_.

Exhibit A - Legal Description

The following description and reduced copy map identifies the land affected by this Agreement. For a larger scale view of the referenced document contact the Waukesha County Register of Deeds office.

**Project Identifier:** Beaudry Services, Inc.      **Acres:** 5.76  
**Date of Recording:** July 20, 2017  
**Map Produced By:** Chaput Land Surveys LLC  
**Legal Description:** Lot 2 of Certified Survey Map No. \_\_\_\_\_, recorded as Document No. \_\_\_\_\_, being a part of the Northwest 1/4 of the Southwest 1/4 of Section 1, Town 6 North, Range 19 East, in the City of Waukesha, Waukesha County, State of Wisconsin.



$A=158.50'$   
 $R=512.82'$   
 $CHB=S85^{\circ}42'40"E$   
 $CHD=157.87'$   
 $D=17^{\circ}42'29"$

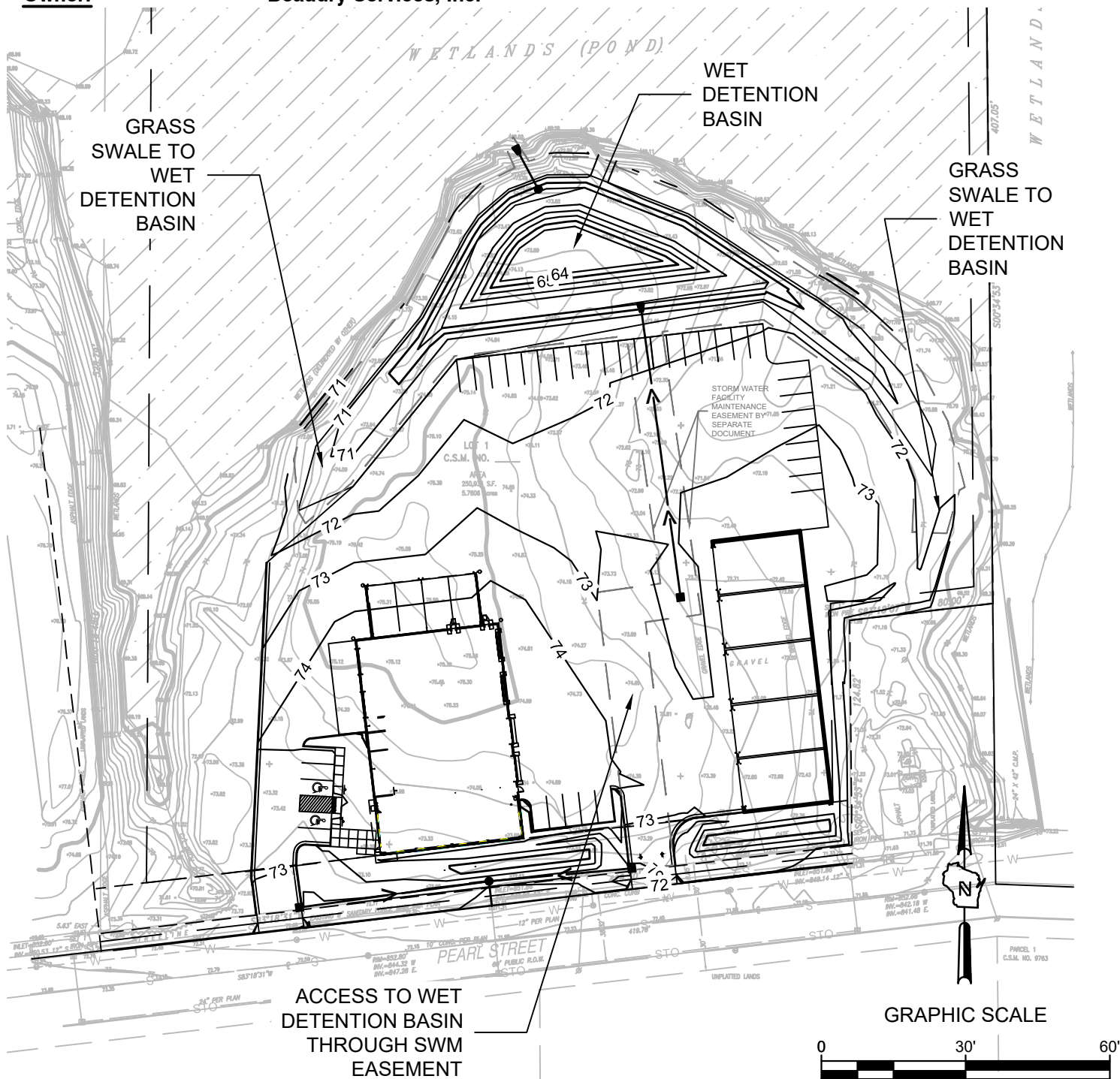
$A=392.83'$   
 $R=410.05'$   
 $CHB=S49^{\circ}42'40"E$   
 $CHD=377'$   
 $D=54^{\circ}53'$

**Drainage Easement Restrictions:** Shaded area on map indicates a drainage easement for storm water collection, conveyance and treatment. No buildings or other structures are allowed in these areas. No grading or filling is allowed that may interrupt storm water flows in any way. See Exhibit C for specific maintenance requirements for storm water management practices within this area.

**Exhibit B - Location Map**  
**Storm Water Management Practices Covered by this Agreement**

The storm water management practices covered by this Agreement are depicted in the reduced copy of a portion of the construction plans, as shown below. The practices include one wet detention basin, grass swales conveying storm water to the wet detention basin, storm sewer and associated catch basins & structures, rip-rap embankment of the wet detention basin and other components of these practices. All of the noted storm water management practices are located within a drainage easement as noted in Exhibit A.

**Project Identifier:** Beaudry Services, Inc.  
**Storm Water Practices:** Wet Detention Basin, Grass swales  
**Location of Practices:** All within the CSM XXXX  
**Owner:** Beaudry Services, Inc.



**Drainage Easement Restrictions:** Shaded area on map indicates a drainage easement for storm water collection, conveyance and treatment. No buildings or other structures are allowed in these areas. No grading or filling is allowed that may interrupt storm water flows in any way. See Exhibit C for specific maintenance requirements for storm water management practices within this area.

## **Exhibit C**

### **Storm Water Practice Maintenance Plan**

This exhibit explains the basic function of each of the storm water practices listed in Exhibit B and prescribes the minimum maintenance requirements to remain compliant with this Agreement. The maintenance activities listed below are aimed to ensure these practices continue serving their intended functions in perpetuity. The list of activities is not all inclusive, but rather indicates the minimum type of maintenance that can be expected for this particular site. Access to the stormwater practices for maintenance vehicles is shown in Exhibit B. Any failure of a storm water practice that is caused by a lack of maintenance will subject the Owner(s) to enforcement of the provisions listed on page 1 of this Agreement by the City of Waukesha.

#### **System Description:**

The wet detention basin is designed to trap 68.4% of sediment in runoff and maintain pre-development downstream peak flows. The basin has two grass swales that drain storm water into the wet detention basin. In addition to runoff conveyance, the grass swales also allow filtering of pollutants, especially from smaller storms. The wet detention will trap sediments from the runoff. To do this, the pond size, water level and outlet structures must be maintained as specified in this Agreement (see Figures 1, 2 and 3).

The wet detention basin receives runoff from 2.30 acres of drainage area. During high rainfall or snow melt events, the water level will temporarily rise and slowly drain down to the elevation of the control structure. The water level is controlled by an outlet control structure and a 15-inch concrete outlet pipe extending through the berm in the northwest corner of the basin to discharge into an existing wetland (see Figures 1 and 3).

Within the outlet control structure is a weir set at 70.69 elevation with a 6-inch orifice at an elevation of 68.94, a 9-inch orifice at an elevation of 69.44. The orifices control the water level and causes the pond to temporarily rise during runoff events. High flows will overflow the weir and discharge through the outlet pipe. During heavy rainfall events or in case of blockage of the outlet pipe storm water will flow over the rock lined emergency spillway. "As-built" construction drawings of the basin, showing actual dimensions, elevations, outlet structures, etc. will be recorded as an addendum(s) to this agreement within 60 days after **City of Waukesha** accepts verification of construction from the project engineer.

Water fowl mitigation design includes using landscaping strip of stiff grass, (mix of Switch grass, redtop and wildflowers) at least 30" high at the perimeter of the pond. The width will range from 5 feet to 10 feet. The thick grass is a goose deterrent because the animal is concerned about hiding predators. The stormwater pond will be lined with a 6" limestone rip-rap from the high water elevation of 71.07 feet to 6" below the normal water elevation of 68.94 feet. The rip-rap is used to deter animals from exiting the pond.

#### **Minimum Maintenance Requirements:**

To ensure the proper long-term function of the storm water management practices described above, the following activities must be completed:

1. All outlet pipes must be checked monthly to ensure there is no blockage from floating debris or ice, especially the washed stone in front of the 6-inch and 9-inch orifices in the outlet control structure. Any blockage must be removed immediately.
2. Grass swales shall be preserved to allow free flowing of surface runoff in accordance with approved grading plans. No buildings or other structures are allowed in these areas. No grading or filling is allowed that may interrupt flows in any way.
3. Grass swales, inlets and outlets must be checked after heavy rains (minimum of annually) for signs of erosion. Any eroding areas must be repaired immediately to prevent premature sediment build-up in the downstream wet detention basin. Erosion matting is recommended for repairing grassed areas.
4. NO trees are to be planted or allowed to grow on the earthen berms. Tree root systems can reduce soil compaction and cause berm failure. The berms must be inspected annually and any woody vegetation removed.
5. Invasive plant and animal species shall be managed in compliance with Wisconsin Administrative Code Chapter NR 40. This may require eradication of invasive species in some cases.
6. If the permanent pool falls below the safety shelf, a review shall be performed to determine whether the cause is liner leakage or an insufficient water budget. If the cause is leakage, the liner shall be repaired.

Leakage due to muskrat burrows may require removal of the animals. If the permanent pool cannot be sustained at the design elevation, benching of the safety shelf may be necessary.

7. If floating algae or weed growth becomes a nuisance (decay odors, etc.), it must be removed from the basin or the forebay and deposited where it cannot drain back into the basin. Removal of the vegetation from the water reduces regrowth the following season (by harvesting the nutrients). Wetland vegetation must be maintained along the waters edge for safety and pollutant removal purposes.
8. When sediment in the basin has accumulated to an elevation of three feet below the outlet elevation, it must be removed (see Exhibit D). All removed sediment must be placed in an appropriate upland disposal site and stabilized (grass cover) to prevent sediment from washing back into the basin.
9. No grading or filling of the basin or berm other than for sediment removal is allowed, unless otherwise approved by the City of Waukesha.
10. Periodic mowing of the grass swales will encourage vigorous grass cover and allow better inspections for erosion. Waiting until after August 1 will avoid disturbing nesting wildlife. Mowing around the basin or the forebays may attract nuisance populations of geese to the property and is not necessary or recommended.
11. Any other repair or maintenance needed to ensure the continued function of the storm water practices or as ordered by the City of Waukesha under the provisions listed on page 1 of this Agreement.
12. The titleholder(s) or their designee must document all inspections as specified above. Documentation shall include as a minimum: (a) Inspectors Name, Address and Telephone Number, (b) Date of Inspections, (c) Condition Report of the Storm Water Management Practice, (d) Corrective Actions to be Taken and Time Frame for Completion, (e) Follow-up Documentation after Completion of the Maintenance Activities. All documentation is to be delivered to the attention of the City Engineer at the City of Waukesha Engineering Department on January 10<sup>th</sup> and July 10<sup>th</sup> each year.

Document Number

Addendum 1  
Storm Water Management Practice  
Maintenance Agreement

Document number

The purpose of this addendum is to record verified “as-built” construction details, supporting design data and permit termination documentation for the storm water management practice(s) located on Lot 2 of CSM No. XXXX, City of Waukesha, Waukesha County, Wisconsin. This document shall serve as an addendum to document # \_\_\_\_\_, herein referred to as the “Maintenance Agreement”. This addendum includes all of the following exhibits:

**Exhibit D: Design Summary** – contains a summary of key engineering calculations and other data used to design the wet detention basin.

**Exhibit E: As-built Survey** – shows detailed “as-built” cross-section and plan view of the wet detention basin.

**Exhibit F: Engineering/Construction Verification** – provides verification from the project engineer that the design and construction of the wet detention basin complies with all applicable technical standards and Waukesha County ordinance requirements.

**Exhibit G: Storm Water Management & Erosion Control Permit Termination** – provides certification by the City of Waukesha that the Storm Water and Erosion Control Permit for the above noted site has been terminated.

Name and Return Address

Dated this \_\_\_ day of \_\_\_\_\_, 201\_.

Owner:

Parcel Identification Number(s) – (PIN)

\_\_\_\_\_  
[Owners Signature – per the Maintenance Agreement]

Tom Beaudry

**Acknowledgements**

State of Wisconsin County of Waukesha

Personally came before me this \_\_\_ day of \_\_\_\_\_, 2018, the above named Tom Beaudry to me known to be the person who executed the foregoing instrument and acknowledged the same.

\_\_\_\_\_.

Notary Public, Waukesha County, WI  
My commission expires: \_\_\_\_\_.

**This document was drafted by:**

**Terry Meyer, P.E.  
The Sigma Group, Inc.  
1300 W. Canal Street,  
Milwaukee, WI 53233**

For Certification Stamp



## Exhibit D Design Summaries for Wet Detention Basin #1

**Project Identifier:** Beaudry Services, Inc.    **Project Size:** 5.76 Acres    **No. of Lots:** 1  
**Number of Runoff Discharge Points:** 1    **Watershed (ultimate discharge):** Wetland  
**Watershed Area** (including off-site runoff traveling through project area): 2.3 acres

**Watershed Data Summary.** The following table summarizes the watershed data used to determine peak flows and runoff volumes required to design wet detention basin.

Summary Data Elements	Watershed A	
	Pre-develop	Post-develop
<b>Watershed Areas (in acres)</b> <i>(see attached map)</i>	2.14 acres	2.31 acres
<b>Average Watershed Slopes (%)</b>	2%	1-5%
<b>Land Uses (% of each)</b> <i>(see attached map)</i>	2.076 ac. greenspace 0.067 ac. gravel	1.181 pavement 0.344 building 0.586 greenspace 0.194 water
<b>Runoff Curve Numbers</b>	Greenspace 80 Gravel 89 Weighted CN 80	Pavement 98 Greenspace 80 Water Surface 98 Roof 98 Weighted CN 93
<b>Conveyance Systems Types</b>	Sheet Flow	Sheet Flow & Storm Sewer
<b>Summary of Average Conveyance System Data</b>	1% Sheet Flow Slope	1% -5% Sheet flow Slope 10" sewer @ 0.71% (see calcs.)
<b>Time of Concentration (T<sub>c</sub>)</b> <i>(see attached map &amp; worksheets)</i>	23.4 min.	6.0 min.
<b>25% of 2-yr 24-hr post-dev runoff volume</b>	N/A	N/A
<b>1-year/24 hour Runoff Volume</b>	N/A	N/A
<b>2-yr./24 hour Peak Flow</b> <i>(see attached hydrographs)</i>	2.99 cfs	2.27 cfs
<b>10-yr./24 hour Peak Flow</b>	5.58 cfs	4.12 cfs
<b>100-yr./24 hour Peak Flow</b>	11.62 cfs	8.87 cfs

## Exhibit D (continued)

**Practice Design Summary.** The following table summarizes the data used to design wet detention basin #1.

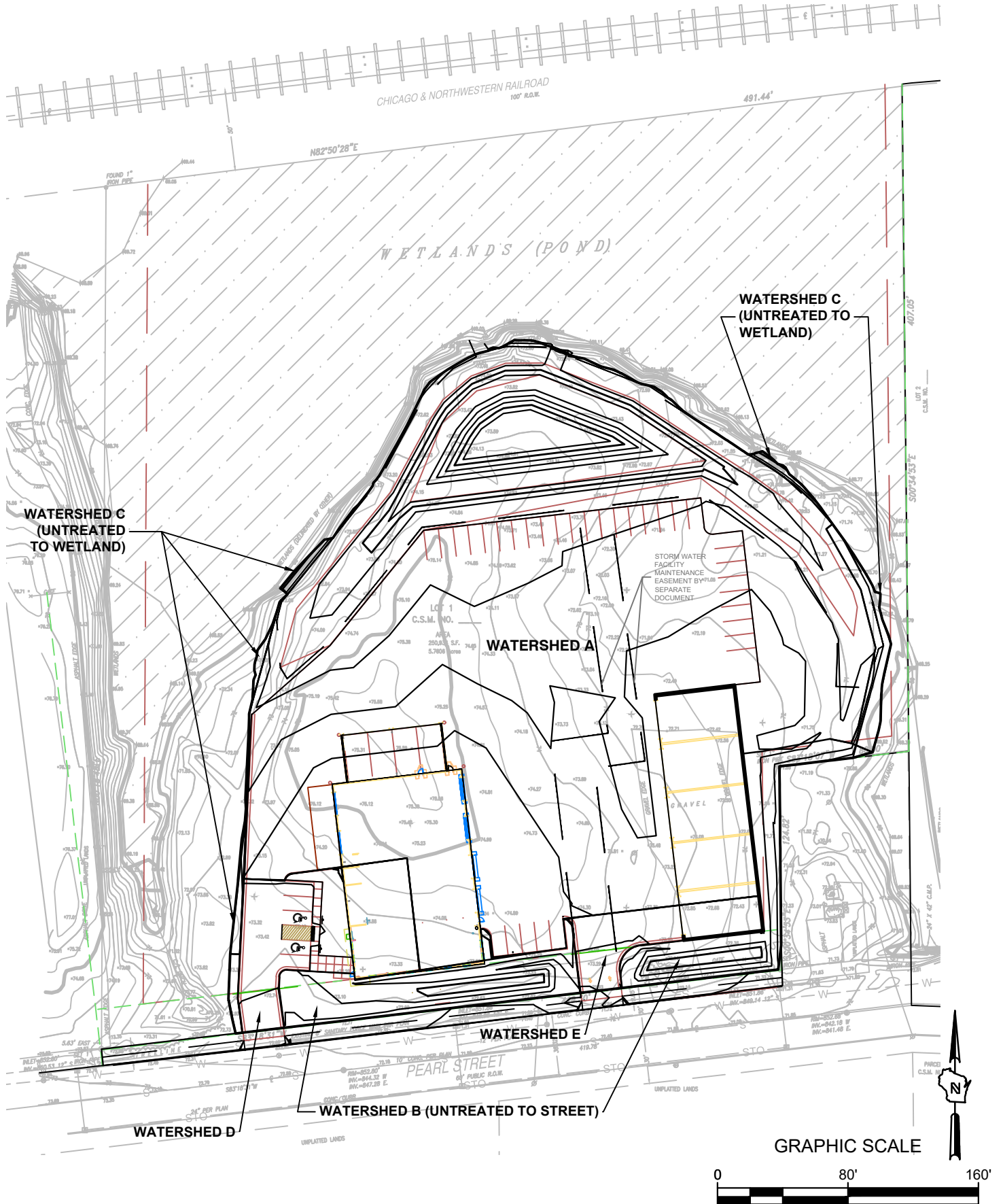
Design Element	Design Data
<b>Site assessment data: (see attached maps)</b>	
Contributing drainage area to basin (watershed A)	2.305 acres
Distance to nearest private well (including off-site wells)	> 100 feet
Distance to municipal well (including off-site wells)	> 1200 feet
Wellhead protection area involved?	No
Ground slope at site of proposed basin	average 2%
Any buried or overhead utilities in the area?	No
Proposed outfall conveyance system/discharge (w/ distances)	27 ft. to wetland
Any downstream roads or other structures? (describe)	No
Floodplain, shoreland or wetlands?	No
<b>Soil investigation data (see attached map &amp; soil logs):</b>	
Number of soil investigations completed	8
Do elevations of test holes extend 3 ft. below proposed bottom?	Yes
Average soil texture at pond bottom elevation (USDA)	
Distance from pond bottom to bedrock	unknown
Distance from pond bottom to seasonal water table	Pond bottom 3 ft to 4ft. above seasonal water table.
<b>General basin design data (see attached detailed drawings):</b>	
Permanent pool surface area	0.194 acres
Design permanent pool water surface elevation	elev. 68.94
Top of berm elevation (after settling) and width	elev. 71.54 / 10 feet wide
Length/width (dimensions/ratio)	150 ft. (L) x 70 ft. (W) = 2:1
Safety shelf design (length, grade, max. depth)	10 ft. @ 10% slope/1.0' deepest
Ave. water depth	5 ft. (in center)

<b>Design Basin Inflow, Outflow &amp; Storage Data</b> (see attached hydrographs and detail drawings)				
Inflow Peak/Volume	Maximum Outflow Rate	Max. Water Elevation	Storage Volume at Max. Elev. (above perm. pool)	Outflow Control Structures*
8.02 cfs (Post 2-yr./24 hr. peak)	1.36 cfs	69.87 ft.	0.20 acre feet	#1 and #2
12 cfs (Post 10-yr./24 hr. peak)	2.41 cfs	70.27 ft.	0.29 acre feet	#1 and #2
20.43 cfs (Post 100-yr./24 hr. peak)	6.23 cfs	71.07 ft.	0.52 acre feet	#3 and #4

- \* #1 = 6 inch orifice in outlet control structure – flow line elev. @ 68.94  
 #2 = 9 inch orifice in outlet control structure – flow line elev. @ 69.44  
 #3 = 15 inch diameter outlet pipe – flow line elev. @ 68.94  
 #4 = Emergency Spillway – flow line elev. @ 70.94

Exhibit D (continued)

**Watershed Map.** The watershed map shown below was used to determine the post-development data contained in this exhibit. The post-developed watershed areas are the same as the pre-development watershed areas for the project.



# Exhibit E

## As-built Survey for Wet Detention Basin

The wet detention basin depicted in Figure 1 is a reduced copy of the as-built plan.

**Project Identifier:** Beaudry Services, Inc.  
**Storm water Practice:** Wet Detention Basin, Grass Swale  
**Location of Practice:** All within the CSM XXXX  
**Owners:** Beaudry Services, Inc.

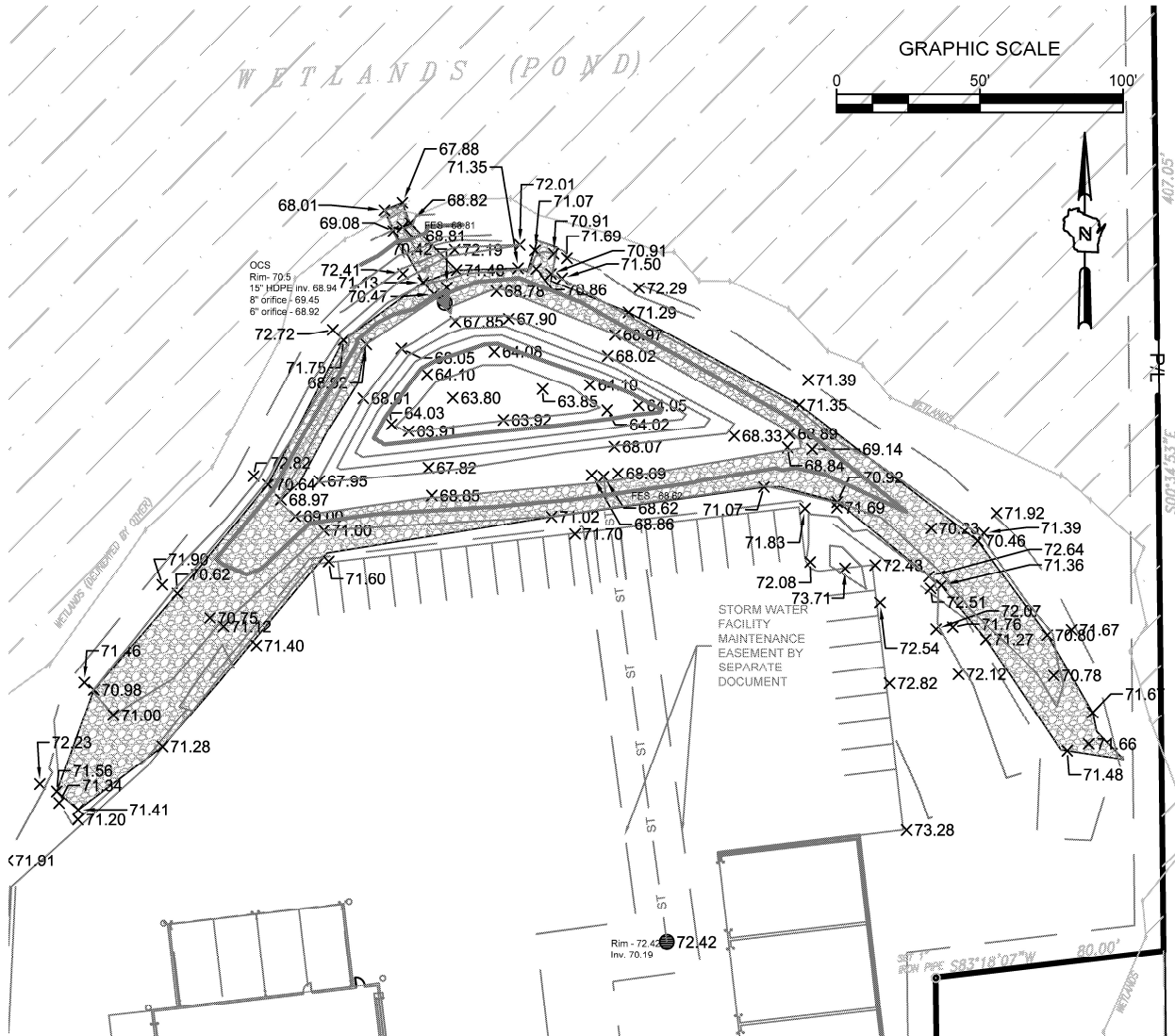


Exhibit E continued

FIGURE 2

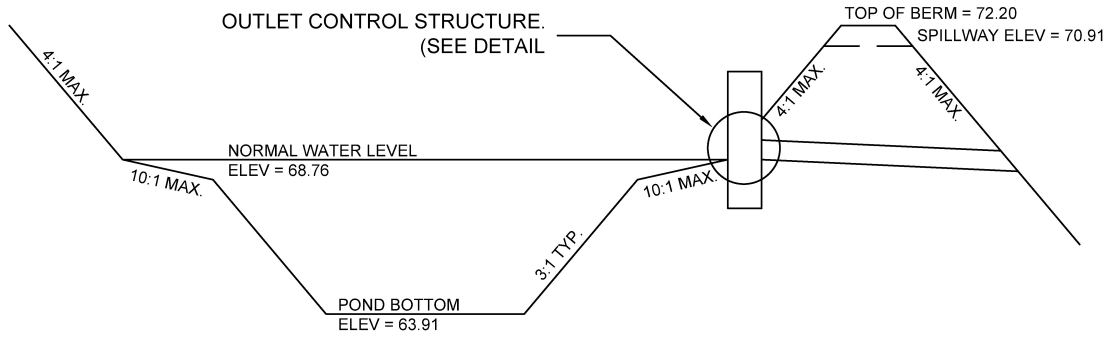
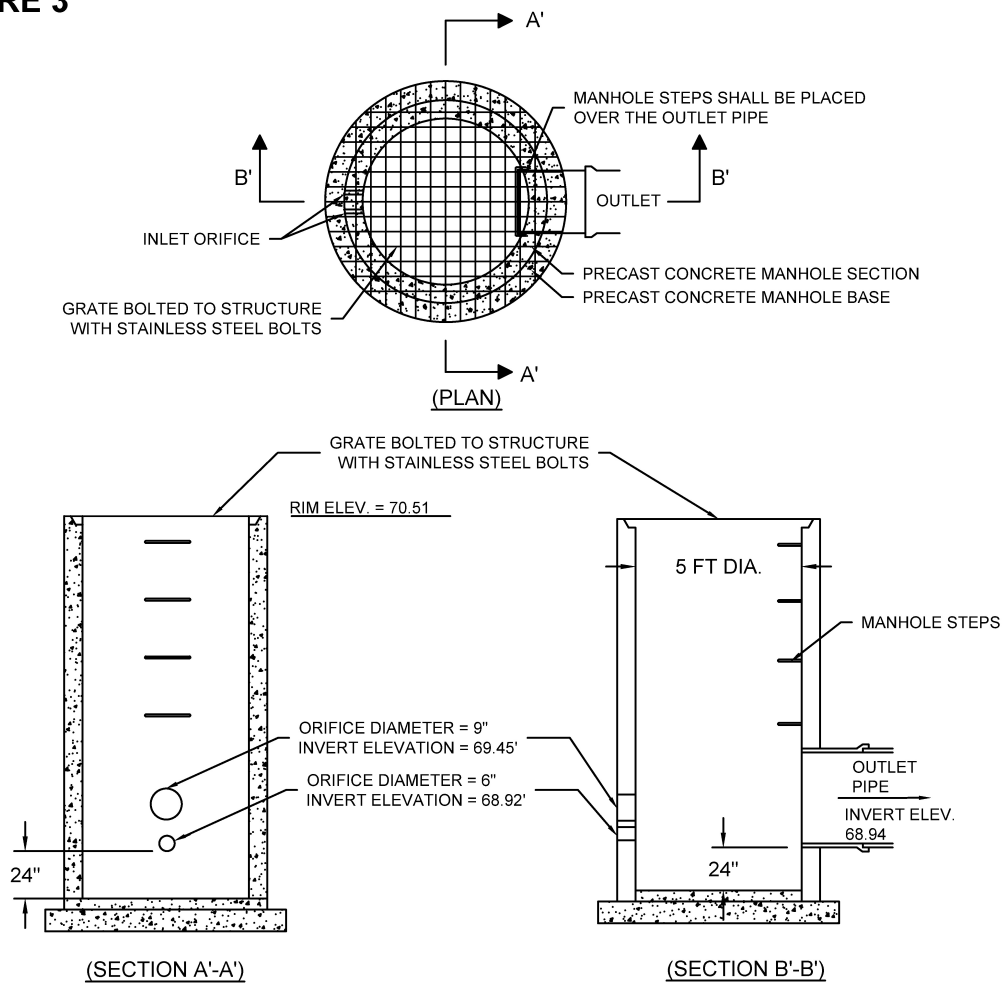


FIGURE 3



**OUTLET CONTROL MANHOLE**

NOT TO SCALE

**Exhibit "F"**  
**Engineering/Construction Verification**

DATE: \_\_\_\_\_

TO: City of Waukesha

FROM: \_\_\_\_\_ [The Sigma Group, Inc.]

RE: Engineering/Construction Verification for the following project:

Project Name: \_\_\_\_\_

Section \_\_\_\_\_, Town of \_\_\_\_\_

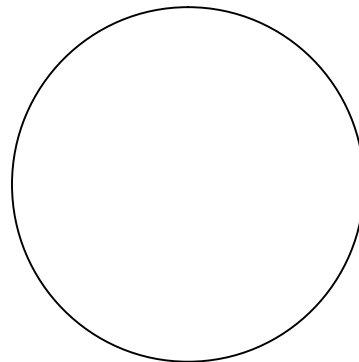
Storm Water Management & Erosion Control Permit # \_\_\_\_\_

Storm Water Management Practices: \_\_\_\_\_

\_\_\_\_\_

For the above-referenced project and storm water management practices, this correspondence shall serve as verification that: 1) all site inspections outlined in approved inspection plans have been successfully completed; and 2) the storm water management practice design data presented in Exhibit D, and the "as-built" construction documentation presented in Exhibit E comply with all applicable state and local technical standards, in accordance with the City of Waukesha Storm Water Management and Erosion Control Ordinance.

1. Any variations from the originally approved construction plans are noted in Exhibit E. These variations are considered to be within the tolerances of standard construction techniques and do not affect the original design as presented in Exhibit D in any way.



(Signed P.E. stamp must be included)

**Exhibit G**  
**Storm Water Management and Erosion Control Permit Termination**

Project Identifier: Beaudry Services, Inc.

Location: All within CSM XXXX

Storm Water Management and Erosion Control Permit Holder's Name:

\_\_\_\_\_

Storm Water Management & Erosion Control Permit #: \_\_\_\_\_

Chapter 32 – City of Waukesha Storm Water Management and Erosion Control requires that all newly constructed storm water management practices be maintained by the Storm Water and Erosion Control Permit Holder until permit termination, after which maintenance responsibilities shall be transferred to the responsible party identified on the CSM and referenced in this Maintenance Agreement.

Upon execution below, this exhibit shall serve to certify that the Storm Water Permit Holder has satisfied all requirements of the Storm Water Management and Erosion Control Ordinance and that the City of Waukesha has terminated the Storm Water Management and Erosion Control Permit for the property covered by this Maintenance Agreement.

Dated this \_\_\_ day of \_\_\_\_\_, 201\_.

City of Waukesha representative:

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Typed Name and Title)

**Acknowledgements**

State of Wisconsin  
County of Waukesha

Personally came before me this \_\_\_ day of \_\_\_\_\_, 201\_, the above named \_\_\_\_\_ to me known to be the person who executed the foregoing instrument and acknowledged the same.

\_\_\_\_\_  
[Name]  
Notary Public, Waukesha County, WI  
My commission expires: \_\_\_\_\_