Guide for Treatment of Residential Impervious Surfaces

There are two design options for treatment of residential impervious surfaces which exceed the allowable limits.

OPTION #1 – Rain Garden

You may hire a Professional Engineer (PE) or Landscape architect to design a rain garden following the DNR's Guidelines: https://dnr.wi.gov/topic/Stormwater/documents/RainGardenManualPrint.pdf

NOTE: design must be stamped by a PE or Landscape Architect

The design will need to include all necessary assumptions/information related to the design outline and a planting plan. Also needed are:

- a. A maintenance agreement will need to be recorded at the Register of Deeds office prior to issuance of a permit for the rain garden, and
- Upon completion a Landscape Architect or PE stamped letter needs to be submitted to Winnebago County stating that the plan has been installed correctly and to the approved design.



Residential Rain Garden Maintenance Schedule and Guidelines First Year Maintenance Guidelines

Successful establishment of rain garden areas requires that the following tasks be undertaken in the first year following installation:

- Initial inspections. For the first 6 months following construction, the rain garden area should be inspected at least twice after storm events that exceed 1/2 inch of rainfall.
- Spot reseeding. Inspect for bare or eroding areas in the contributing drainage area or around the rain garden area, and make sure they are immediately stabilized with grass cover.
- Watering. Watering is needed once a week during the first 2 months, and then as needed during first growing season (April-October), depending on rainfall.
- Remove and replace dead plants.

Routine Maintenance Guidelines

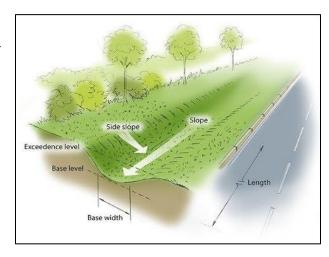
Rain garden areas must be inspected to ensure that they operate in good working condition and in accordance with the approved design and specifications. Items in need of repair must be immediately addressed.

| Routine Maintenance Tasks | Frequency |
|--|---------------------------------|
| Remove trash and debris | As needed |
| Check and repair eroded areas | Annually |
| Inspect for and remove excess sediment | Annually |
| Weed mulch | Twice during the growing season |
| Inspect plant composition for consistency with approved plans & correct any deficiencies | Annually |
| Re-mulch to maintain a 2-3 inch layer | Annually |
| Prune trees and shrubs | Annually |
| Inspect for clogging or ponding water in the filter bed | Annually |
| Remove invasive plants | As needed |
| Replace dead or damaged plant material | As needed |
| Repair broken pipes | As needed |
| Replace the mulch layer | Every 3 years |

OPTION #2 – Alternative to a Rain Garden

You can design an alternative treatment system that captures and treats all of the impervious runoff beyond your allowable limits however it must be PE stamped and would need to go through the stormwater permitting process.

The stormwater permitting process is require to be PE peer reviewed and treated to the standards outlined in the post-construction stormwater portion of the ordinance. This option is good for those looking for a design that doesn't require as much maintenance as a rain garden, something that fits the existing landscaping/vegetation, or to explore alternatives.



The general stormwater permitting process:

- 1. Submit the following to Winnebago County Zoning Department:
 - a. Application (https://www.co.winnebago.wi.us/zoning/stormwater-and-erosion-control)
 - b. 2 copies of supporting plans and documents (must have a PE stamp)
 - c. a check for \$175 written to Winnebago County for the review fee
- 2. RA Smith (a 3rd Party PE Engineer) reviews the project and submits an escrow estimate to the owner/applicant and Winnebago County.
- 3. The owner/applicant pays the escrow fee to Winnebago County.
- 4. RA Smith performs an engineering review of the plans, coordinating with the contracted engineer/owner. Once a design is reached which meets Winnebago County's ordinance, RA Smith issues an approval letter to the owner/applicant and Winnebago County.
- 5. The owner records a maintenance agreement with the Register of Deeds.
 - a. Maintenance Agreement
- 6. A permit fee of \$250.00 is paid to Winnebago County and the permit is approved. Note: Permit fees are doubled for projects which have started prior to permit issuance.
- 7. The plan is installed.
- 8. Two copies of an "as-built" survey (must be PE stamped) are submitted to the County after RA Smith completes the final inspection of the property.
- 9. RA Smith reviews the "as-built" survey and if it meets Winnebago County design requirements an approval letter is issued.
- 10. After Winnebago County has received the RA Smith invoice for the final inspection, the remaining escrow is returned to the original payee and the permit closed out.

Long-Term Stormwater Management Maintenance Agreement

(Rain Garden)

| SITE ADDRESS: | | | | |
|---|--|--|--|--|
| Tax Parcel I.D. Number: | | | | |
| RESPONSIBLE PARTY: | | | | |
| The owner is responsible for satisfying the protect the project site for the duration of the construal construction phases. Unless otherwise exprepresentations in this agreement shall remain effect on the parties and subsequent assigned portion thereof. No modifications, alteration, shall be binding upon any party hereto until samendment is reduced to writing and executed. | uction period and upon cor oressly provided herein, all n operative and in full forces or purchasers of the parce, or amendment to this agr uch modifications, alteration | e and cel or any eement Recording | ng Area nd Return Address | |
| PERMANENT COMPONENTS OF THE STORMV | VATER SYSTEM: The storm | water system consists c | of the following components: | |
| and early autumn, and after major storm ever structure is compromised. Soil erosion, sedim the stormwater system are examples of items The operation and maintenance plan shall rem Department. When requested, the owner shall for the life of the system. | entation of the rain garder requiring repair work. ain onsite and be available | n, rilling of side slopes, a for inspection when req | nd other compromised features of uested by the DNR or the Zoning | |
| DUTY TO PROVIDE MAINTENANCE: In the event county Zoning Department shall have the authorized event, all associated costs will be assessed backshall be a lien on the property and shall be considered. | hority to inspect and maint ck as a special charge again | ain all components of the st the property per Sec. | ne stormwater system. In such an | |
| SIGNATURES: The undersigned agree to the property of the Owner: | rovision set forth in this ag | reement. | | |
| Name | Title | 2 | | |
| Signature | Dat | e | | |
| STATE OF WISCONSIN) | | | | |
|)SS WINNEBAGO COUNTY) | | | | |
| Personally came before me this | day of , to me know | | | |
| instrument and acknowledge the same. | , to me know | ii to be the person who | executed the loregoing | |
| | N | otary Public, State of W | isconsin | |
| | N | My commission expires: | | |

Drafted by: Winnebago County Corporate Counsel