

TABLE OF CONTENTS

TOWN OF MENASHA MUNICIPAL CODE

Chapter 31 – Town of Menasha Construction Site Erosion Control and Stormwater Management

- 31.ii General Section Provisions
- 31.01 Authority
- 31.02 Findings, Purpose and Intent
- 31.03 Applicability and Exemptions
- 31.04 Fee Schedule / Financial Guarantee
- 31.05 Enforcement and Penalties
- 31.06 Appeals
- 31.07 Definitions

SECTION A – CONSTRUCTION SITE EROSION CONTROL

- 31.08 Design Criteria, Standards and Specifications for Best Management Practices (BMPs)
- 31.09 Maintenance of BMPs
- 31.10 Control of Erosion and Pollutants During Land Disturbing Construction Activity
- 31.11 Erosion and Sediment Control Plans
- 31.12 Permitting Requirements, Procedures and Fees
- 31.13 Inspection
- 31.14 Financial Guarantee

SECTION B – STORMWATER MANAGEMENT

- 31.15 Technical Standards
- 31.16 Stormwater Performance Standards
- 31.17 Permitting Requirements, Procedures and Fees
- 31.18 Stormwater Management Plan
- 31.19 Maintenance Agreement
- 31.20 Financial Guarantee

CHAPTER 31

**TOWN OF MENASHA CONSTRUCTION SITE
EROSION CONTROL
AND STORMWATER MANAGEMENT
ORDINANCE**

**CHAPTER 31 OF THE TOWN OF MENASHA CODE
OF ORDINANCES RELATING TO THE CONTROL
OF CONSTRUCTION SITE EROSION AND
CONTROL OF STORMWATER RUNOFF FROM
LAND DEVELOPMENT AND LAND
REDEVELOPMENT**

limited to, those authorized under S. 283.33 WI Statutes.

- (b) Targeted non-agricultural performance standards promulgated in rules by the Department of Natural Resources under Chapter NR 151.003, Wisconsin Admin. Code.
- (c) Technical standards for implementing non-agricultural performance standards developed by the Department of Natural Resources under Subchapter IV of Chapter NR 151, Wisconsin Administrative Code.

31. ii GENERAL SECTION PROVISIONS

- (1) Although Chapter 31 may be printed, and/or used as a separate Chapter, it is part of the Town of Menasha Municipal Code and provisions of other sections not in conflict with this section remain applicable.
- (2) This Chapter shall be in force and effect upon the date following its date of publication.
- (3) Where a permit may be required under either Section A, Section B, or both, the administering authority shall determine whether a separate or combined permit shall be required.
- (4) Any permit required by this section shall be issued prior to the issuance of any other zoning permit, building permit, or sanitary permit.

31.01 AUTHORITY

This chapter is adopted by the Town of Menasha Board of Supervisors under the authority granted by S. 60.627, S. 101.65(1)(a) and S. 101.651(3m), and S. 101.653, WI Statutes. This chapter supersedes all conflicting and contradictory stormwater management regulations previously enacted under S. 60.627 and S. 236 WI Statutes. Except as specifically provided for in S. 60.627, WI Statutes, S. 60.627 WI Statutes applies to this chapter and to any amendments to this chapter.

- (1) The provisions of this chapter are deemed not to limit any other lawful regulatory powers of the Town of Menasha Board of Supervisors.
- (2) The Town of Menasha Board of Supervisors hereby designates the Community Development Director, to administer and enforce the provisions of this chapter.
- (3) The requirements of this chapter do not preempt more stringent stormwater management requirements that may be imposed by any of the following:
 - (a) Department of Natural Resources administrative rules, permits or approvals including, but not

31.02 FINDINGS, PURPOSE AND INTENT

Findings.

The Town of Menasha Board of Supervisors finds that uncontrolled runoff from land-disturbing construction activity carries a significant amount of sediment and other pollutants to the waters of the State and the Town of Menasha; and,

Further finds that uncontrolled stormwater runoff from land development and land redevelopment activity has a significant impact upon water resources and the health, safety and general welfare of the community, and diminishes the public enjoyment and use of natural resources. Specifically, uncontrolled stormwater runoff can:

- (1) Degrade physical stream habitat by increasing stream bank erosion, increasing streambed scour, diminishing groundwater recharge, diminishing stream base flows and increasing stream temperature;
- (2) Diminish the capacity of lakes and streams to support fish, aquatic life, recreational and water supply uses by increasing loadings of sediment, suspended solids, nutrients, heavy metals, bacteria, pathogens and other urban pollutants;
- (3) Alter wetland communities by changing wetland hydrology and by increasing pollutant loads;
- (4) Reduce the quality of groundwater by increasing pollutant loading;
- (5) Threaten public health, safety, property, and general welfare by overtaxing storm sewers, watercourses, and other minor drainage facilities;
- (6) Threaten public health, safety, property, and general welfare by increasing major flood peaks and volumes; and
- (7) Undermine floodplain management efforts by increasing the incidence and levels of flooding.

Purpose.

(1) It is the purpose of Section A of the chapter to preserve natural resources; to protect the quality of the waters of the State and the Town of Menasha; and to protect and promote the health, safety and welfare of the people, to the extent practical, by minimizing the amount of sediment and other pollutants carried by runoff or discharge from land disturbing construction activity to lakes, streams and wetlands; and,

(2) It is the purpose of Section B of the chapter to set forth long-term, post-construction stormwater requirements and criteria which will diminish the threats to public health, safety, welfare, and the aquatic environment due to runoff of stormwater from land development and land redevelopment activity. The specific purposes of this section of the chapter are to:

- (a) Further the maintenance of safe and healthful conditions of the land and water resources of the Town of Menasha;
- (b) Prevent and control the adverse effects of stormwater, prevent and control soil erosion, prevent and control water pollution, and protect spawning grounds, fish, and aquatic life;
- (c) Control exceedance of the safe capacity of existing drainage facilities and receiving water bodies; prevent undue channel erosion; control increases in the scouring and transportation of particulate matter; prevent conditions that endanger downstream property;
- (d) Control building sites, placement of structures, and land uses, and promote sound economic growth.

Intent. It is the intent of the Town of Menasha Board of Supervisors that this chapter manages the long-term, post-construction stormwater discharges from land development and land redevelopment activities.

31.03 APPLICABILITY AND EXEMPTIONS
[Amended 8/9/04]

- (1) This chapter applies to land-disturbing construction activity, new land development, and all land redevelopment activity located within the boundaries and jurisdiction of the Town of Menasha.
- (2) **Construction Site Erosion Control.** These general applicability provisions apply to Chapter 31.03(1) and the following land-disturbing construction activities, excluding that otherwise regulated under Wisconsin Administrative Code COMM 21.125, COMM 61.115 Wisconsin Administrative Code, and S. 227.01(1) of WI State Statutes.

- (a) Those requiring a subdivision plat or the construction of houses or commercial, industrial, or institutional buildings on lots of approved subdivision plats;
- (b) Those requiring a certified survey approval or the construction of houses or commercial, industrial, or institutional buildings on lots approved by certified surveys;
- (c) Those involving grading, removal of protective ground cover or vegetation, excavation, land filling or other activity affecting a surface area of 4,000 square feet or more;
- (d) Those involving excavation or filling or a combination of excavation and filling affecting 400 cubic yards or more of soil, sand, or other excavation or fill material;
- (e) Those involving public or private access drives, street, highway, road, or bridge construction, enlargement, relocation or reconstruction longer than 125 feet;
- (f) Those involving the laying, repairing, replacing or enlarging of an underground pipe or facility for a continuous distance of 1000 feet or more. The term pipe or facility includes, but is not limited to, utilities such as telephone, electric, gas, sanitary, stormwater, etc.;
- (g) Those involving the construction or reconstruction of a continuous distance of 1000 lineal feet of road ditch, non-agricultural grass waterway, or other non-agricultural land area where drainage occurs in an open channel; and
- (h) Other land development activities, including access drives, which the administering authority determines have a significant impact.

(3) **Stormwater Management.** These general applicability provisions apply to Chapter 31.03(1) and the following land-disturbing construction activities, excluding all activities directly related to the planting, growing, and harvesting of agricultural crops is exempt.

- (a) Single lot development involving commercial, industrial, platted subdivisions, or single lot activities.
- (b) Land development activities that are a part of a larger common plan of development or sale, even though multiple and separate distinct land development activities may take place at different times on different schedules.

- (c) Pre-existing development activities and conditions shall adhere to existing approved drainage plans. Where no drainage plan exists for pre-existing development, it shall be subject to Chapter 31.16(2).

31.04 FEE SCHEDULE / FINANCIAL GUARANTEE

- (a) The fees referred to in other sections of this ordinance chapter shall be established by Town of Menasha Board of Supervisors and may from time to time be modified on the Appendix B Fee Schedule, reference this code section. *[Amended 11/28/05]*
- (b) Where more than one permit is required, the permittee shall be required to pay the amount required for each permit.
- (c) The financial guarantees referred to in other sections of the chapter are in addition to permit fees and required escrow amounts and shall be as determined within the applicable section. If a financial guarantee is required in more than one section, the administering authority shall determine the total amount of the required guarantee, whether as a single or combined amount.

31.05 ENFORCEMENT AND PENALTIES

- (1) Any land-disturbing construction activity, land development, or land redevelopment activity, hereinafter activity initiated after the effective date of this chapter by any person, firm, association, or corporation subject to the chapter provisions, shall be deemed a violation unless conducted in accordance with the requirements of this chapter. The term violation includes without limitation due to enumeration such things as failure to:
 - (a) obtain a permit where required,
 - (b) failure to implement approved plans in a good faith manner,
 - (c) failure to comply with conditions of a permit issued,
 - (d) or failure to cease activity as required in a stop-work order posted under this chapter.
- (2) The administering authority shall notify the responsible owner or operator by certified mail of any non-complying activity. The notice shall describe the nature of the violation, remedial actions needed, a schedule for remedial action, and additional enforcement action that may be taken.
- (3) Upon receipt of written notification from the administering authority under subsection (2), the permit holder, or landowner, shall obtain a permit

where required, and/or correct work which does not comply with an approved plan or other provisions of a permit. The permit holder, or landowner, shall make corrections as necessary to meet the specifications and schedules set forth by the administering authority in the notice.

- (a) The administering authority is authorized to post a stop work order on all activity in violation of this chapter. When such a stop work order has been posted, it shall have the effect of causing the original permit to be revoked and in all cases, it shall be unlawful for any further work to proceed until the permit is either issued or reinstated. It shall further be unlawful to remove such stop work order without the direct authorization of the administering authority.
- (b) After posting a stop-work order, the administering authority may issue a notice of intent to the permittee, or landowner, or land user, of its intent to perform work necessary to comply with this chapter. The administering authority may then go on the land and commence the work after 14 days from issuing the notice of intent. The costs of the work performed by the administering authority, plus interest at the rate authorized by administering authority shall be billed to the permittee or the landowner. Where the violation of the chapter is likely to result in damage to properties, public facilities, or waters of the state, and after issuing the notice of intent, the administering authority may enter the land and take emergency actions necessary to prevent such damage, and bill such work in the manner previously described.
- (c) In the event a permittee or landowner fails to pay the amount due, the Clerk shall enter the amount due on the tax rolls and collect the amount plus any interest thereupon as a special charge against the property pursuant to Section 66.60(16), WI Statutes.
- (4) The administering authority may revoke a permit issued under this chapter for noncompliance with chapter provisions.
- (5) Any permit revocation, stop work order, or cease and desist order shall remain in effect unless retracted by the administering authority or by a court with jurisdiction.
- (6) If the landowner or land user, where no permit has been issued, does not cease the activity within 10 days of being notified by the administering authority or if a landowner violates a stop-work order posed under sub. 4(a), the administering authority is authorized to refer any violation of this chapter, or of a stop work order or cease and desist order issued pursuant to this chapter to the Corporation Counsel to obtain a cease

and desist order or to commence further legal proceedings in any court with jurisdiction.

- (7) Any person, firm, association, or corporation who does not comply with the provisions of this chapter, or fails to cease activity as required in a stop-work order posted under this section, or fails to comply with any approved plan or permit, shall be subject to a forfeiture set forth in Appendix C Fines and Penalties, reference this code section per offense, together with the costs of prosecution. Every violation of this chapter is a public nuisance and each day that the violation exists shall constitute a separate offense. [Amended 11/28/05]
- (8) If any land-disturbing construction activity, land development, or land redevelopment activity, hereinafter, activity initiated after the effective date of this chapter by any person, firm, association, or corporation subject to the chapter provisions proceeds without all of the permits or approvals required by this chapter, fees shall be doubled. Such double fee shall not release the applicant from full compliance with this chapter nor from prosecution for violation of this chapter.
- (9) Compliance with this chapter may be enforced by injunction order by Town of Menasha pursuant to S. 60.627, WI Statutes. It shall not be necessary to prosecute for forfeiture or a cease and desist order before resorting to injunction proceedings.

31.06 APPEALS

- (1) **Appeals.** The Town Board of Supervisors shall serve as the appeals board.
 - (a) Shall hear and decide appeals where it is alleged that there is error in any order, decision, or determination by the Community Development Director in administering this chapter;
 - (b) Upon appeal, may authorize variances from the provisions of this chapter which are not contrary to the public interest and where owing to special conditions a literal enforcement of the provisions of this chapter will result in unnecessary hardship; and
 - (c) Shall use the rules, procedures, duties, and powers authorized by statute in hearing and deciding public appeals and authorizing variances.
- (2) **Who May Appeal.** Any applicant, permittee, landowner, or land user may appeal any order, decision, or determination made by the Community Development Department Director in administering this chapter.

31.07 DEFINITIONS [Amended 8/9/04]

Administering authority: means the governmental employees or their designees empowered under S. 60.627, WI Statutes to administer this chapter. For the purpose of this chapter the administering authority is the Community Development Director.

Agricultural activity: means planting, growing, cultivating and harvesting of crops for human or livestock consumption, the pasturing or yarding of livestock, sod farms and tree nurseries. For the purposes of Section A, Erosion Control, the term also includes tilling, and construction or expansion of facilities related to normal activities performed as part of a farming operation.

Best management practice or "BMP": means a practice, technique or measure which is determined to be an effective means by the Community Development Department of preventing or reducing runoff pollutants to waters of the state, to a level compatible with the performance standards in Chapter 31.15 and the pollution control requirements in Chapter 31.10 (2) of this chapter.

Business day: means a day the office of the Community Development Department is routinely and customarily open for business.

Cease and desist order: means a court-issued order to halt land development and land redevelopment activity that is being conducted without the required permit.

Chapter: means Chapter 31 which is this ordinance

COMM: means the Wisconsin Department of Commerce.

Common plan of development or sale: means an area where multiple separate and distinct land developing activities may be taking place at different times on different schedules but under one plan.

Construction site: means an area upon which one or more land-disturbing construction activities are occurring, including areas that are part of a larger common plan of development or sale where multiple separate and distinct land-disturbing construction activities may be taking place at different times on different schedules but under one plan.

Design storm: means a hypothetical discrete rainstorm characterized by a specific duration, temporal distribution, rainfall intensity, return frequency and total rainfall depth.

Detention pond: means a depression in the land surface designed to temporarily detain or hold back stormwater and release the water at a specified flow rate or rates. A detention pond may also be designed to reduce non-point source pollution.

De-watering: means any process, including pumping or ditching, by which excess water is removed from a site as part of the construction process.

Discharge volume: means the quantity of runoff discharged from the land surface as the result of a rainfall event.

Erosion: means the detachment and movement of soil, sediment or rock fragments by water, wind, ice, or gravity.

Erosion and sediment control plan: means a comprehensive plan developed to address pollution caused by soil erosion and sedimentation during construction.

Extent practical: means a level of implementing best management practices in order to achieve a performance standard, which takes into account the best available technology, cost effectiveness and the degree, or extent to which best management practices can be implemented. Extent practical allows flexibility in the means to meet the performance standards and will vary based upon the performance standard and site conditions.

Extra-territorial: means the unincorporated area within 3 miles of the corporate limits of a first, second, or third class city, or within 1½ miles of a fourth class city or village.

Final grading: means grading of the land with building construction such as structures, driveways, etc. in accordance with approved drainage plan lot corner elevations and building elevations.

Final stabilization: means the completion of all land disturbing construction activities at a construction site and that a perennial vegetative cover has been established with a density of 70% of the cover for the unpaved areas and areas not covered by permanent structures. If a perennial vegetative cover has not been used, an equivalent permanent stabilization measure must have been approved for use by the administering authority and installed as required.

Financial guarantee: means a performance bond, maintenance bond, surety bond, irrevocable letter of credit, or similar guarantees submitted by the permit holder to the administering authority, in an amount and format approved by the administering authority, to assure that requirements of the chapter are carried out in compliance with the stormwater management plan.

Impervious surface: means a land cover that releases as runoff all or a large portion of the precipitation that falls on it. Rooftops, sidewalks, driveways, parking lots and streets are examples of surfaces that typically are impervious.

Infiltration: means the process by which rainfall or surface runoff passes into or through the underlying soil.

Land development activity: means the act or process of changing land through the construction of buildings, parking lots, roads, landscaping, etc. which causes a change in the amount, rate, or quality of stormwater runoff from the land.

Land disturbing construction activity: means any man-made disturbance of the land surface resulting in a change in the topography, existing vegetative and non-vegetative soil cover or the existing soil topography which may result in stormwater runoff and lead to increased soil erosion and movement of sediment into waters of the state. Land-disturbing construction activity includes, but is not limited to clearing and grubbing, demolition, excavating, pit trench dewatering, filling and grading activities, but does not include agricultural or silviculture activities. Specific applicability is noted at 31.10(1).

Landowner: means any person holding title to land.

Land user: means any person operating, leasing, renting, or having made other arrangements with the landowner by which the landowner authorizes use of his or her land.

Maintenance agreement: means a legal document that is filed with the Winnebago County Register of Deeds as a property deed restriction, and which provides for long-term maintenance of stormwater management practices.

Municipal storm sewerage facility: means catch basins, storm sewer pipes, inlets, cleanouts, pumps, and lift stations.

Municipality: means a town, county, village, or city.

Non-domestic agricultural structure: means a building or impervious surface designed to store machinery and/or harvested crops in any form, including machine sheds, grain bins, and silage pads. This definition does not include vertical silos, dairy barns, or any other building categorized as an “animal lot” as defined in the Livestock Waste Management Ordinance, Chapter 13, Winnebago County General Code.

Non-storm discharge: means a discharge to the storm sewer system created by some process other than stormwater runoff.

Non-structural measure: means a practice, technique, or measure to reduce the volume, peak flow rate, or pollutants in stormwater that does not require the design or installation of fixed stormwater management facilities.

Off-site: means located outside the property boundary described in the permit application for land development or land redevelopment activity.

Other than residential development: means development that is not one or two family residential. This includes the following land uses: multi-family residential (more than 2 dwelling units on a single property) commercial, industrial, government and institutional, recreation, transportation, communication, and utilities, and the construction or expansion of facilities related to normal activities

performed as part of a farming operation including but not limited to buildings, paved areas, etc.

On-site: means located within the property boundary described in the permit application for the land development or land redevelopment activity including the entire area of the tax parcel wherein the activity will occur.

P8: means a model for predicting the generation and transport of stormwater runoff pollutants in urban watersheds.

Peak flow discharge rate: means the maximum unit volume of stormwater discharged during a specified unit of time.

Performance standard: means a measurable number or measurable narrative for a pollution source specifying the acceptable outcome for a facility or practice.

Permit: means a written authorization made by the administering authority to the applicant to conduct land development or land redevelopment activities.

Permit administration fee: means a sum of money paid to the administering authority by the permit applicant for the purpose of recouping the expenses incurred by the authority in administering the permit, including but not limited to application review, issuance where appropriate, and inspections.

Pervious surface: means a surface that infiltrates rainfall. Lawns, fields and woodlands are examples of pervious surfaces.

Post-construction stormwater discharge: means any stormwater discharged from a site following the completion of land disturbing construction activity and final site stabilization.

Post-development condition: means the extent and distribution of land cover types anticipated to occur under conditions of full development, which will influence stormwater runoff and infiltration.

Pre-development condition: means the extent and distribution of land cover types present before the initiation of land development or land redevelopment activity.

Pre-existing development: means all developed land in existence prior to this chapter.

Redevelopment: means new development that is replacing older development. Redevelopment in this chapter only applies when the activity will increase the impervious area.

Rough grading: means grading of the land only, without any building construction, such as structures, driveways, etc.

Runoff: means the rainfall, snowmelt, or irrigation water flowing over the ground surface.

Section A: means Erosion Control.

Section B: means Stormwater Control.

Single lot activity: a stormwater plan for a land development activity on a single lot where a lesser degree of detail may be required for review. The plan will normally not require engineering data. Also known commonly as a single lot drainage plan.

Site: means the entire area included in the legal description of the land upon which the land-disturbing construction activity is proposed in the permit application and further includes the entire tax parcel and deed area affected.

Site restriction: means any physical characteristic which limits the use of a stormwater best management practice or management measure.

SLAMM: means Source Loading and Management Model, a stormwater evaluation technique, developed for the Environmental Protection Agency (EPA), and used to evaluate the effectiveness of stormwater control.

Stop work order: means an order issued by the administering authority that requires that all construction activity on the site be stopped.

Stormwater management plan: means a document that identifies what actions must be taken to reduce stormwater quantity and pollutant loads from land development and land redevelopment activity to levels that meet the purpose and intent of this chapter.

Stormwater management system plan: is a comprehensive plan developed to address stormwater drainage and non-point source pollution control problems on a watershed or sub-watershed basis, and which meets the purpose and intent of this chapter.

Stormwater runoff: means that portion of the precipitation falling during a rainfall event, or that portion of snowmelt, that runs off the surface of the land and into the natural or artificial conveyance or drainage network.

Structure: as used in the context of construction or building, means any manmade object with form, shape and utility, either permanently or temporarily attached to, placed upon or set into the ground which includes, but is not limited to, such objects as roofed and/or walled buildings, non-domestic agricultural structures, storage tanks, bridges, culverts, etc. and may include such things as fences or signs. The term also includes fill or filling which is the act by which earth, sand, gravel, rock or any other material is deposited, placed, replaced, pushed, dumped, pulled, transported or moved by man to a new location and shall include the conditions resulting there- from.

Structural measure: means any physical practice or conveyance measures and end-of-pipe treatment that are designed to control stormwater runoff pollutant loads, discharge volumes, and/or peak flow discharge rates.

Storm sewer system: means a conveyance or system of conveyances including roads with drainage systems, streets, catch basins, curbs, gutters, ditches, constructed channels or storm drains which is designed for collecting water or conveying stormwater.

TR-55: means the United States Department of Agriculture Natural Resources Conservation Service (formerly Soil Conservation Service), Urban Hydrology for Small Watersheds, Second Edition, Technical Release 55, June 1986, which is incorporated by reference for this chapter.

Waters of the State: means those portions of Lake Michigan and Lake Superior within the boundaries of Wisconsin, and all lakes, bays, rivers, streams, springs, ponds, wells, impounding reservoirs, marshes, watercourses, drainage systems and other surface water or groundwater, natural or artificial, public or private, within Wisconsin or its jurisdiction.

Watercourse: means a natural or artificial channel through which water flows and is identified on the official Winnebago County watercourse map, dated January 1, 2002, or subsequent revisions thereto, and new channels that are created as part of a development that may not be on the existing map. The term watercourse includes waters of the state as herein defined. Additions or deletions to the map must be field verified by the administering authority. Additionally, when a watercourse is moved, any requirements related to the watercourse move with the water. The watercourse map is on file and maintained by Winnebago County Geographic Information System (WINGS).

Watershed: means an area bounded by a divide in which water drains to a specific point on the land.

Wetland functional value: means the type, quality, and significance of the ecological and cultural benefits provided by wetland resources, such as: flood storage, water quality protection, groundwater recharge and discharge, shoreline protection, fish and wildlife habitat, floral diversity, aesthetics, recreation, and education.

Wetlands: means an area where water is at, near, or above the land surface long enough to be capable of supporting aquatic or hydrophytic vegetation and which has soils indicative of wet conditions. These wetlands include, but are not limited to natural, mitigated, and restored wetlands. Some wetlands are graphically shown on the Wisconsin Department of Natural Resources Wetland Inventory Maps dated July 5, 1986 or subsequent revisions.

WPDES Stormwater Permit: means a permit issued by the Wisconsin Department of Natural Resources under S. 283.33 WI Statutes that authorizes the point source discharge of stormwater to waters of the state.

CHAPTER 31, SECTION A

CONSTRUCTION SITE EROSION CONTROL

31.08 DESIGN CRITERIA, STANDARDS AND SPECIFICATIONS FOR BEST MANAGEMENT PRACTICES (BMPs)

All BMPs required to comply with this chapter shall meet the design criteria, standards and specifications for the BMPs based on accepted design criteria, standards and specifications identified in the following documents, or the most recently adopted version thereof, provided that where a provision of this chapter requires a greater standard or degree of compliance, the provisions of this chapter shall control:

- (1) Wisconsin Construction Site Best Management Practice Handbook, Wisconsin Department of Natural Resources Pub. WR-222 November 1993 Revision;
- (2) Section IV of the Field Office Technical Guide, published by the USDA-Natural Resources Conservation Service;
- (3) Technical standards developed and disseminated by the Department of Natural Resources under subchapter V of Chapter NR 151, Wisconsin Administrative Code; and
- (4) Other technical standards published or adopted by the above noted agencies, the Wisconsin Standards Oversight Council or Town of Menasha.

31.09 MAINTENANCE OF BMPs

All BMP measures necessary to meet the requirements of this chapter shall be maintained by the applicant for a permit issued under chapter 31.11 or subsequent landowner throughout the duration of the construction activities until the site has undergone final stabilization.

31.10 CONTROL OF EROSION AND POLLUTANTS DURING LAND DISTURBING CONSTRUCTION ACTIVITY

- (1) **Erosion and Other Pollutant Control Requirements.** An erosion and sediment control plan shall ensure, to the extent practical, that soil erosion, siltation, sedimentation, and other offsite impacts from land-disturbing activities are minimized through installation of BMPs pursuant to 31.08 and 31.09 of this chapter. The BMPs may be located on or off the construction site. In addition, the erosion control plan shall include the following components:

- (a) **Site Erosion Control.** BMPs that, by design, achieve to the maximum extent practicable, a reduction of 80% of the sediment load carried in runoff, on an average annual basis, as compared with no sediment or erosion controls until the construction site has undergone final stabilization. No person shall be required to exceed an 80% sediment reduction to meet the requirements of this paragraph. Erosion and sediment control BMPs may be used alone or in combination to meet the requirements of this paragraph. Credit toward meeting the sediment reduction shall be given for limiting the duration or area, or both, of land disturbing construction activity, or other appropriate mechanism.

Soil loss prediction tools that estimate the sediment load leaving the construction site under varying land and management conditions, or methodology identified in subch. V. of ch. NR 151, Wisconsin Administrative Code, may be used to calculate sediment reduction.

Notwithstanding par. (a), if BMPs cannot be designed and implemented to reduce the sediment load by 80%, on an average annual basis, the plan shall include a written and site-specific explanation as to why the 80% reduction goal is not attainable and the sediment load shall be reduced to the maximum extent practicable.

- (1) Channelized runoff from adjacent areas passing through the site shall be diverted around disturbed areas, if practical. Otherwise, the channel shall be protected as described below in 31.10(1)(a)(3)c. Sheetflow runoff from adjacent areas greater than 10,000 square feet in area shall also be diverted around disturbed areas, unless shown to have resultant runoff velocities of less than 0.5 feet per second across the disturbed area for the set of one-year design storms. Diverted runoff shall be conveyed in a manner that will not erode the conveyance and receiving channels.
- (2) All activities on the site shall be conducted in a logical sequence to minimize the area of bare soil exposed at any one time. Existing vegetation shall be maintained as long as possible.
- (3) Runoff from the entire disturbed area on the site shall be controlled by meeting either 31.10 (1)(a)(3)a., (3)b. or (3)c.

TOWN OF MENASHA CODE

- (a) All disturbed ground left inactive for seven or more days shall be stabilized by seeding or sodding (only available prior to September 15) or by mulching, covering or other equivalent control measure. Due to inclement weather or extenuating circumstances, the Town Engineer may vary this requirement up to 21 days.
 - (b) For sites with more than 10 acres disturbed at one time or if a channel originates in the disturbed area, one or more sedimentation basins shall be constructed. Each sedimentation basin shall have a surface area of at least 1% of the area draining to the basin and at least three feet of depth and constructed in accordance with accepted design specifications. Sediment shall be removed to maintain a depth of three feet. The basin shall be designed to trap sediment greater than 15 microns in size, based on the set of one-year design storms having durations of 0.5 to 24 hours. The basin discharge rate shall also be sufficiently low as to not cause erosion along the discharge channel or the receiving water.
 - (c) For sites with less than 10 acres disturbed at one time, filter fences, straw bales or equivalent control measures shall be placed along all sideslope and downslope sides of the site. If a channel or area of concentrated runoff passes through the site, filter fences shall be placed along the channel edges to reduce sediment reaching the channel.
- (4) Any soil or dirt storage piles containing more than 10 cubic yards of material should not be located with a downslope drainage length of less than 25 feet to a roadway or 75 feet from lakes, streams, wetlands, ditches, drainage ways, curbs/gutters, or other stormwater conveyance system, unless otherwise approved by the administrating authority. If remaining more than seven days, they shall be stabilized by mulching, vegetative cover, tarps or other means. Filter fence barriers or straw bales shall be placed immediately on the downslope side of the piles. In-street utility repair or construction soil or dirt storage piles located closer than 25 feet of a roadway 75 feet from lakes, streams, wetlands, ditches, drainage ways, curbs/gutters, or other stormwater conveyance system must be covered with tarps or suitable alternative control if exposed for more than seven days and the storm drain inlets must be protected with straw bale or other appropriate filtering barriers.
- (5) Runoff from sites on slopes of 12% or more slope may require additional or different controls than listed in 31.10 (1)(a) and (3) above. Requirements for such slopes shall be as specified by the Town of Menasha Engineer.
- (b) **Site Dewatering.** Water pumped from the site shall be treated by temporary sedimentation basins, grit chambers, sand filters, upflow chambers, hydro-cyclones, swirl concentrators, or other appropriate controls designed for the highest dewatering pumping rate. Dewatering shall minimize the discharge of sediment. If the water is demonstrated to have no particles greater than 100 microns during dewatering operations, then no control is needed before discharge, except as determined by the Building Official or designee. Discharge of sediment as a result of dewatering shall be treated using BMPs and shall not cause erosion of the site or receiving channels.
 - (c) **Tracking.** Minimize tracking of sediment from the site onto roads and other paved surfaces. Each site shall have graveled roads, access drives, and parking areas of sufficient width and length to prevent sediment from being tracked onto public or private roadways. Any sediment reaching a public or private road shall be removed by cleaning the street, by means other than by flushing, before the end of each workday. Sediment tracked by construction equipment from a site onto a public or private paved road or sidewalk shall be minimized by providing a non-tracking access roadway. The access roadway shall be installed as approved on the plan. Should the non-tracking access roadway be found insufficient by the Community Development Director or designee, applicant or landowner shall be required to extend to a sufficient length. The sediment cleanup provisions of 31.10 (1)(b)(i) below are unaffected by the presence or absence of an access roadway.
 - (d) **Diversion of Upslope Runoff.** Any significant amount of runoff from upslope land area, rooftops, or other surfaces that drains across the proposed land disturbance shall be diverted around the disturbed area, if practical. Any diversion of upslope runoff shall be one in a manner that prevents erosion of the flow path and the outlet.

- (e) **Cut and Fill Slopes.** Any cuts and fills shall be planned and constructed to minimize the length and steepness of slope, and stabilized with the approved erosion control plan timelines and technical standards of this chapter.
- (f) **Inlet Protection.** Provide storm sewer inlet protection from sedimentation. All down slope storm sewer inlets shall be protected from the intake of sedimentation by filter fabric, hay-type bales, or other suitable measures as may be approved.
- (g) **Outlet Protection.** All outlets for site dewatering and conveyance systems, including pipe or open channels entering a stormwater management facility, shall be protected from erosion through channel lining or stabilization.
- (h) **Waste And Material Disposal.** Assure proper use, storage and disposal of chemicals, cement, and other compounds used on construction sites. All building material waste shall be properly managed and disposed of to prevent pollutants and debris from being carried off-site by runoff.
- (i) **Sediment Clean-Up.** Provide for the clean up of sediments deposited on roadways. By the end of the next working day following the occurrence, clean up off-site sediment deposition occurring as a result of a storm event shall be completed. All other off-site sediment deposition occurring as a result of construction activities shall be cleaned up at the end of the workday.
- (j) **Topsoil.** Enough topsoil from the disturbed area to ensure that a minimum of 4 to 6 inches is reapplied to all areas to be seeded or sodded. If adequate topsoil does not exist on the site to meet this requirement, it shall be imported. If the disturbed area is to be used for the growing of agricultural crops in the future the original depth of the topsoil shall be restored.
- (k) **Subsoil.** For disturbed areas that are to be used for the growing of agricultural crops, trees, or other woody vegetation in the future, a minimum of 1 foot of original subsoil shall remain or be reapplied prior to the application of topsoil to provide an adequate root zone.
- (l) **Final Site Stabilization.** All disturbed areas shall be treated with stabilization measures such as seeding, mulching, soil treatment, erosion netting, matting, sodding, etc. within 3 days of final grading. Large sites shall be treated in stages as final grading is completed in each state. Any soil erosion that occurs after final grading and/or the application of stabilization measures must be repaired and work redone.

- (m) **Removal Of Practices.** When the disturbed area has been stabilized by permanent vegetation or other means, temporary BMPs such as silt fences, straw bales, or sediment traps shall be removed and these areas stabilized.

31.11 EROSION AND SEDIMENT CONTROL PLANS

- (1) **Plan Requirements.** The stormwater and erosion control plan required under this chapter shall contain any information the administering authority requires to evaluate the environmental characteristics of the area affected by the land development and land redevelopment activity, the potential impacts of proposed development upon erosion and pollution of disturbed surfaces, and the effectiveness and acceptability of proposed best management practices in meeting the performance standards set forth in this chapter. Unless otherwise specified by this chapter, erosion and sediment control plans shall contain the following information:

- (a) **Content For Activities Covering One or More Acres.**

- (1) The erosion and sediment control plan shall be prepared in accordance with good engineering practices and the design criteria, standards and specifications outlined in the Wisconsin Construction Site Best Management Practice Handbook (Wisconsin Department of Natural Resources Pub. WR-222 November 1993 Revision).
- (2) The erosion and sediment control plan shall address pollution caused by soil erosion and sedimentation during construction and up to final stabilization of the site. The erosion and sediment control plan shall include, at a minimum, the following items. Other information may be required as needed by the permitting authority:
 - (a) Description of the site and the nature of the construction activity, including representation of the limits of land disturbance on a submitted site map.
 - (b) Description of the intended sequence of major activities that disturb soils for major portions of the site, such as grubbing, excavation or grading.
 - (c) Estimates of the total area of the site and the total area of the site that is expected to be disturbed by construction activities.

- (d) Existing data describing the surface soil as well as subsoils.
 - (e) Depth to groundwater, as indicated by natural resources conservation service soil information where available.
- (3) The erosion and sediment control plan shall include a site map. The site map shall include the following items and shall be at a scale not greater than 100 feet per inch and at a contour interval not to exceed two feet.
- (a) Existing topography, vegetative cover, natural and engineered drainage systems, roads and surface waters. Lakes, streams, wetlands, channels, ditches and other watercourses on and immediately adjacent to the site shall be shown. Any identified 100-year flood plains, flood fringes and flood ways shall also be shown.
 - (b) Boundaries of the construction site.
 - (c) Drainage patterns and approximate slopes anticipated after major grading activities.
 - (d) Areas of soil disturbance.
 - (e) Location of structural and non-structural BMPs identified in the plan.
 - (f) Location of areas where stabilization practices will be employed.
 - (g) Areas that will be vegetated following construction.
 - (h) Area extent of wetland acreage on the site and locations where stormwater is discharged to a surface water or wetland.
 - (i) Locations of all surface waters and mapped wetlands within one mile of the construction site.
 - (j) Any other features required by the administering authority for a proper evaluation of the site.
- (4) Each erosion and sediment control plan shall include a plan view sheet and a description of appropriate controls and measures that will be performed at the site to prevent pollutants from reaching waters of the state. The plan shall be at the same scale as the existing site map and shall clearly show the site changes. The plan shall clearly describe the appropriate control measures for each major activity and the timing during the construction process when the measures will be implemented. The description of erosion controls shall include, when appropriate, the following minimum requirements:
- (a) Description of interim and permanent stabilization practices, including a practice implementation schedule. Site plans shall ensure that existing vegetation is preserved where attainable and that disturbed portions of the site are stabilized.
 - (b) Description of structural practices to divert flow away from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from the site.
 - (c) Management of overland flow at all sites, unless otherwise controlled by outfall controls.
 - (d) Trapping of sediment in channelized flow.
 - (e) Staging construction to limit bare areas subject to erosion.
 - (f) Protection of down slope drainage inlets where they occur.
 - (g) Minimization of tracking at all sites.
 - (h) Clean up of off-site sediment deposits.
 - (i) Proper disposal of building and waste materials at all sites.
 - (j) Stabilization of drainage ways.
 - (k) Control of erosion from soil stockpiles.
 - (l) Installation of permanent stabilization practices as soon as possible after final grading.
 - (m) Minimization of dust to the extent practical.
- Velocity dissipation devices shall be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive flow from the structure to a watercourse so that the natural physical and biological characteristics and functions are maintained and protected.
- The plan requirements of this subsection will meet the plan requirements of Chapter NR 216.46, Wisconsin Admin. Code, when prepared in accordance with good engineering practices and the design criteria, standards and specifications outlined in the Wisconsin Construction Site Best Management Practice Handbook (Wisconsin Department of Natural Resources Pub. WR-222 November 1993 Revision). This is important for municipalities seeking to develop a "Qualifying Local Program" under phase 2 of the federal stormwater permit program. Qualifying local programs will also be required to impose, either through this chapter or a stormwater management chapter, stormwater management plan

requirements consistent with Chapter NR 216.47, Wisconsin Administrative Code.

- (b) **Content For Activities Covering Less Than One Acre.** A control plan statement with a simple map that briefly describes the site and best management practices including a site development schedule that will be used to meet the requirements of the chapter shall be submitted to the administering authority.

31.12 PERMITTING REQUIREMENTS, PROCEDURES, AND FEES

- (1) **Permit Required.** No landowner or land user may commence a land-disturbing construction activity subject to this chapter without receiving prior approval of an erosion and sediment control plan for the site and a permit from the administering authority.
- (2) **Permit Application and Fee.** At least one landowner or land user controlling or using the site and desiring to undertake a land-disturbing construction activity subject to this chapter shall submit an application for a permit and an erosion and sediment control plan and pay an application fee. By submitting an application, the applicant is authorizing the administering authority to enter the site to obtain information required for the review of the erosion and sediment control plan, to inspect the property for permit compliance, and to authorize permanent on-site inspection authority for the duration of the permitted activity.
 - (a) Unless otherwise exempted by this chapter, a permit application must be accompanied by the following in order that the permit application be considered by the Town of Menasha Engineer: an erosion and sediment control plan, financial guarantee, and a non-refundable fee.
 - (b) The erosion control and sediment control plan shall be prepared to meet the requirements of Section A of this chapter, financial guarantees shall meet the intent of 31.14 and the fees shall be those established by the Town Board of Supervisors as set forth in the Appendix B Fee Schedule, reference this code section. *[Amended 11/28/05]*
- (3) **Permit Duration.** Permits issued under this section shall be valid for a period of one year, from the date of issuance. The administering authority may extend the permit one time for up to an additional 180 days. The administering authority may require additional BMPs as a condition of the extension if they are necessary to meet the requirements of this chapter.
- (4) **Review and Approval of Permit Application.** The administering authority shall review any permit

application that is submitted with erosion and sediment control plan or control plan statement, and the required fee. The following approval procedure shall be used:

- (a) Within 30 business days of receipt of the application, erosion and sediment control plan or control plan statement, and fee, the administering authority shall review the application and control plan and inform the applicant whether the application is approved, conditionally approved, or disapproved.
 - (b) If the requirements of this chapter are met, the administering authority shall issue the permit.
 - (c) If the conditions are not met, the administering authority shall inform the applicant in writing and may either require additional information or disapprove the plan.
 - (d) The administering authority may request additional information from the applicant. If additional information is submitted, the administering authority shall have 10 working days from the date the additional information is received to inform the applicant that the application is approved, conditionally approved, or disapproved.
 - (e) Failure by the administering authority to inform the permit applicant of a decision within the specified number of business days of a required submittal shall be deemed to mean approval of the submittal, and the applicant may proceed as if a permit had been issued. In this instance the applicant shall comply with the plan as submitted.
- (5) **Permit Conditions.** All permits shall require the permittee to:
- (a) Notify the administering authority within 2 days (48 hours) prior to commencing any land disturbing construction activity;
 - (b) Notify the administering authority of completion of any BMPs within 3 days after their installation;
 - (c) Obtain permission in writing from the administering authority prior to modifying the erosion and sediment control plan;
 - (d) Install all BMPs as identified in the approved erosion and sediment control plan;
 - (e) Maintain all road drainage systems, stormwater drainage systems, BMPs and other facilities identified in the erosion and sediment control plan;

- (f) Repair any siltation or erosion damage to adjoining surfaces and drainage ways resulting from land disturbing construction activities and document repairs in a site erosion control log;
- (g) Inspect the BMPs after each rain of 0.5 inches or more and at least once each week, make needed repairs and document the findings of the inspections in a site erosion control log with the date of inspection and the name of the person conducting the inspection;
- (h) Allow the administering authority to enter the site for the purpose of inspecting compliance with the erosion and sediment control plan or for performing any work necessary to bring the site into compliance with the control plan;
- (i) Keep a copy of the erosion and sediment control plan at the construction site; and
- (j) Notify the administering authority upon completion of construction phase of a project and that the final site stabilization is in place.

(4) General Permits for Municipal Maintenance of Public Road Ditches and Private Utility Work Projects.

General permits may be issued by the administering authority to a municipality for road ditch maintenance along public roads and to private utilities for utility maintenance and siting. The following conditions apply to the issuing of general permits for these purposes:

- (a) General permits may only be issued for a one year period. Road ditch maintenance and utility work shall only take place during the period between April 1 and September 1. After September 1, work must be approved on a case-by-case basis by the [administering authority]. Permit fees for utility work may differ from those charged per 31.08 of this chapter as determined by the administering authority. No permit fees shall be charged for road ditch maintenance.
- (b) A list of planned road ditch maintenance and utility work must be provided to the administering authority no less than 10 business days prior to work.
- (c) Listed sites must be accompanied with an erosion control plan. The erosion control plan may include generic erosion control practices that are applicable to the proposal.
- (d) The erosion control plan must incorporate erosion control measures for road ditch maintenance and utility work, and be designed using criteria defined in the Wisconsin

Department of Transportation Facilities Development Manual.

31.13 INSPECTION

- (1) The administering authority shall inspect any construction site that holds a permit under Section A and Section B at least once a month during the period starting March 1 and ending October 31 and at least twice during the period starting November 1 and ending February 28 to ensure compliance with the approved sediment and erosion control plan.
- (2) If land-disturbing construction activities are being carried out without a permit required by this chapter, the administering authority may enter the land pursuant to the provisions of ss. 66.0119, WI State Statutes.

31.14 FINANCIAL GUARANTEE

- (1) **Establishment of The Guarantee.** As a condition of approval and issuance of the permit, the administering authority may require the applicant to submit a financial guarantee, the form and type of which shall be acceptable to the administering authority. The financial guarantee shall be in an amount determined by the administering authority to be the estimated cost of implementing the approved erosion control plan and any permit conditions for the duration of the construction activity until final site stabilization if the landowner defaults or does not properly implement the erosion and sediment control plan, upon written notification to the landowner by the administering authority that the requirements of this chapter have not been met.
- (2) **Release of Financial Guarantee.** Conditions for the release of the financial guarantee area as follows:
 - (a) The administering authority shall release the portion of the financial guarantee established under this section, less any cost incurred by the administering authority to implement erosion control measures, following the final site stabilization and verification of said stabilization by the administering authority.
 - (b) The administering authority must approve any portion of the plan dedicated to the Town of Menasha.

CHAPTER 31, SECTION B
STORMWATER MANAGEMENT

31.15 TECHNICAL STANDARDS

The following methods shall be used in designing the water quantity, water quality, and peak flow shaving and infiltration components of stormwater practices needed to meet the water quality standards of this chapter, provided that where a provision of this chapter requires a greater standard or degree of compliance, the provisions of this chapter shall control:

- (1) Technical standards developed and disseminated by the Department of Natural Resources under subchapter V of Chapter NR 151, Wisconsin Administrative Code.
- (2) Section IV of the Field Office Technical Guide, published by the United States Dept. of Agriculture (USDA)-Natural Resources Conservation Service.
- (3) Where technical standards have not been developed and disseminated by the Wisconsin Department of Natural Resources, other technical standards may be used provided that the methods have been approved by the administering authority.
- (4) Where the administering authority determines that more stringent standards are required than those listed in (1) of this section in order to meet the provisions of this chapter, the more stringent standards may be required to be used.

31.16 STORMWATER PERFORMANCE STANDARDS [Amended 8/9/04]

- (1) **Drainage System Requirements.** The developer shall install all the storm drainage facilities indicated on the plans required in 31.18 of this chapter necessary to serve, and resulting from the phase of land development or land redevelopment.
 - (a) A drainage system shall be designed and constructed by the developer to provide for the proper drainage of the surface water of the land development or redevelopment and the drainage area of which it is apart.
 - (b) Land development or redevelopment shall be laid out to provide positive drainage away from all buildings, and individual lot drainage shall be coordinated with the general storm drainage pattern for the area.
 - (c) Any storm drainage system will be separate and independent of any storm sewer system. Storm sewers, where utilized, shall be designed in

accordance with all governmental regulations, and a copy of design computations for engineering capacities shall accompany plans submitted by the petitioners engineer for the final plat.

- (d) Stormwater drainage systems shall be designed to utilize the natural drainage and storage capacities of the site to the fullest extent practicable. Stormwater drainage systems shall be designed to provide an economical gravity flow drainage system.
 - (e) Stormwater drainage systems shall be designed to utilize the collector and land to access streets as open runoff channels during major storm events without flooding adjoining building sites. The streets will be supplementary to the minor stormwater drainage system.
- (2) **Lot Grading.** The developer is required to complete rough grading for all lots in accordance with the drainage plan. Final grading of lots shall be the responsibility of the owner or builder. Grading shall be provided in accordance with the provisions below:
- (a) **Pre-Existing Development.** Where a drainage plan exists the builder or owner at their expense shall take necessary physical and legal steps to ensure that water will flow from any point within a lot to a street right-of-way, natural or constructed drainage right-of-way or easement, or a storm sewer system and that the final grading of the lot matches the drainage plan. Where no drainage plan exists, the builder or owner shall take all necessary physical and legal steps at their expense to ensure that water will not flow contrary to established neighborhood drainage patterns. Using a minimum slope of ¼ inch per foot, the builder or owner shall take necessary physical and legal steps to insure that water will flow from any point within a lot to a street right-of-way, a natural or constructed drainage right-of-way or easement, or a storm sewer system. Lots that are adjacent to neighboring lots, ditches, curb, sidewalk, or trail, the lot shall be graded to match the existing grades, match the top of ditch grade, match the top of the curb, and/or match the top of the edge of the sidewalk or trail so that surface water will not pond or back up on his/her lot or adjacent lots. Where these provisions are not possible, he/she must provide adequate storm sewer, drain tile, or other facilities to conduct water from his/her lot to the public storm sewer or street. Violation of these provisions shall be subject to Chapter 31.05.

- (b) **New Development or Redevelopment.** Where a drainage plan exists the builder or owner at their expense shall take necessary physical and legal steps to ensure that water will flow from any point within a lot to a street right-of-way, natural or constructed drainage right-of-way or easement, or a storm sewer system and that the final grading of the lot matches the drainage plan. In the event the final grading does not conform to the drainage plan a solution shall be determined by the Community Development Director or his/her designee that does not substantially conflict with the approved drainage plan. Violation of these provisions shall be subject to Chapter 31.05. In all cases, grading for new development or redevelopment shall be subject to the following:
- (1) **Lot Grading Adjacent To Principal Structures.** For lawns adjacent to principal structures the elevation of the ground directly adjacent to the structures shall be at least six (6) inches higher than the elevation of the ground six (6) feet from such structure; provided this requirement shall not apply to buildings directly adjacent to public rights-of-way.
 - (2) **Lot Grading Adjacent To Public Rights-Of-Way or Easements.** Wherever private or public property meets a public street right-of-way, public walkway easement, public sidewalk, public trail, the finished grade of the lawn shall meet the top of the ditch, top of the curb, and/or top edge of the sidewalk or trail.
 - (3) **Lot Grading Adjacent To Pre-Existing Development.** Wherever lots meet existing grades it shall be graded to match the grade of any existing neighboring lots, so that surface water will not pond, back up, or pose a threat to neighboring lots.
- (3) **Bridges and Culverts.** All new and replacement culverts and bridges over waterways shall be designed so as to accommodate, according to the categories below, the designated flood event without over topping the related roadway or railway track.
- (1) Minor and collector streets used or intended to be used primarily for access to abutting properties: a 10-year recurrence interval flood discharge.
 - (2) Arterial streets and highways, other than freeways and expressways, used or intended to be used primarily to carry heavy volumes of traffic: a 50-year recurrence interval flood discharge.
- (a) **Freeway And Expressway.** A 100-year recurrence interval flood discharge.
- (1) Railways. A 100-year recurrence flood discharge.
 - (2) The depth of flow over the top of minor, collector, and arterial streets and highways shall not exceed six inches during the 100-year recurrence interval flood discharge.
 - (3) Bridges and culverts shall be designed to facilitate fish passage through elimination of hydraulic drops, maintenance of low flow channels, and minimization of excess stream enclosures.
- (b) **Street Drainage.** All streets shall be provided with an adequate storm drainage system. The street storm drainage system shall serve as the minor drainage system and shall be designed to carry street, adjacent land and building stormwater drainage. Stormwater shall not be permitted to be run into the sanitary sewer system within the proposed land development or redevelopment. Temporary accumulations of storm runoff from ponding or flowing water, in or near minor system components, shall be permitted during events beyond the 10-year providing such accumulations do not encroach on any traffic land of any collector or arterial street, nor be more than 6-inches deep as measured at the centerline of any local street.
- (c) **Off-Street Drainage.** The design of the off-street major drainage system shall include the entire watershed affecting the land development or redevelopment and shall be extended to a watercourse or ditch adequate to receive the storm drainage. When the drainage system is outside of the street right-of-way, the developer shall make provisions for an easement pursuant to 31.16(3) of this chapter, to provide for the future maintenance of said system.

(d) **Drainage Piping System.** All drainage piping shall be no smaller than 15-inches in diameter. All drainage piping located beneath or crossing a Town roadway shall be constructed of Class 3 reinforced concrete unless the depth of cover is less than 2-feet where the pipe shall be Class 5 reinforced concrete. Prefabricated end sections shall be provided at the ends of all culvert pipes. In areas of high susceptibility of erosion to the embankment at the ends of the culverts, the Town Engineer may order the use of rip-rap, headwall or slope paving at the ends of the culvert. All culverts shall be a minimum of 40-feet in length. The culvert length shall be increased as is necessary to provide a stable embankment slope of no steeper than two (2) (horizontal) to one (1) (vertical).

(e) **Storm Sewer.** Storm sewers shall be constructed per the requirements as set forth in the Standard Specifications for Sewer & Water Construction in Wisconsin, Fourth Edition, March 1, 1980. All storm sewer pipes shall be one of the following materials:

- Reinforced concrete for all sizes
- PVC SDR 3S for sizes less than 15-inches
- ABS truss pipe for sizes less than 15-inches

(f) **Protection Of Drainage Systems.** Open drainage piping and culverts with any opening dimension in excess of 18-inches shall be equipped with debris grates having an exposed area of at least 18-inches, shall be equipped with debris grates having an exposed area of at least five (5) times the pipe opening area to avoid backwater accumulations from trash buildup and unsafe stream velocities and a maximum opening size of 6-inches. Drainage piping outfalls with any opening dimension in excess of 36-inches shall be protected from unauthorized entry by fencing, partial or total submergence of the outlet, debris grates or other methods approved by the Town Engineer unless in such a location as to render routine maintenance operations impossible. Outfalls and their channels shall be protected from damages due to scour and erosion to the satisfaction of the Town Engineer.

All underground storm sewer systems shall be designed to convey the runoff generated from a ten (10) year frequency rainfall event. In addition, there shall be provisions within the design layout of the subdivision or area to be serviced by this storm sewer for the

conveyance of the runoff volume in excess of the ten (10) year return frequency rainfall event so as to provide protection of major structures, building and roadways from flooding and ponding in excess of 2-feet.

(g) **Agricultural Drains.** Agricultural drain tiles, which are disturbed during construction, shall be restored, reconnected or connected to public storm drainage facilities.

(h) **Open Channel Systems.** Where open channels are utilized, they shall be designed so as to minimize maintenance requirements and maximum safety. Drainage easements (in lieu of dedications) may be utilized to accommodate open channels provided adequate access for maintenance of the drainage is also provided.

(1) **Design Details.** All ditch side slopes shall not exceed a 3:1 slope. The minimum depth of road ditches below the finished grade of the centerline shall be 18-inches deep, except that at a high point of the ditch, the depth may be a minimum of 12-inches. The maximum depth of road ditches below the finished grade of the centerline shall be 60 inches deep. There shall be a minimum of 46-feet in width between the centerline of the road ditches.

(2) **Grade.** The minimum grade for any ditch invert shall not be less than 2.0% in the direction of flow. Where the grade is less than 2.0% but greater than 1.5%, additional facilities shall be provided consisting of a minimum of a 6-inch diameter sump pump collector system. Where the grade is less than 1.5% but greater than 1.0%, additional facilities shall be provided consisting of a storm sewer system capable of handling stormwater runoff as described in Chapter 31.18(7)d. No new drainage way shall be designed at less than 1.0% grade.

(3) **Ditch Lining.** All ditches not having a concrete paved invert section shall be dressed with a minimum of 3-inches of top soil, carefully graded to the established line and elevations.

- (4) **Seeding.** The seed bed shall be prepared by raking to remove lumps, stones, rocks and debris. The seed shall be composed of seeds of the purity, germination and proportions, by weight, as given below:

TABLE OF SEED MIXTURES

Seed Species	Mixtures		No. 1 %	No. 2 %
	in % Purity	Min. % Germination		
Kentucky Bluegrass	85	80	45	20
Creeping Red-Fescue	97	80	35	55
Perennial Ryegrass	95	90	5	10
White Clover	95	90	15	---
Empire Birdsfoot Trefoil	95	80	---	15

Seed Mixture No. 1 is intended for use on projects where average loam, heavy clay, or moisture soils predominate. Seed Mixture No. 1 shall be sown at a rate of 1-1/2 pounds per 1,000 square feet. Seed Mixture No. 2 is intended for use on projects where light, dry, sandy or gravelly soils predominate. Seed Mixture No. 2 shall be sown at a rate of 2 pounds per 1,000 square feet.

In areas where the soils are potentially highly erosive, the Town Board may require a specially designed seed mixture and seeding rate as recommended in 630.2.1.5.1.2 of the State of Wisconsin Department of Transportation Standard Specifications for Road and Bridge Construction, latest Edition.

- (5) **Mulching.** All seeded areas must be mulched. Mulching material shall consist of any straw or hay in an air condition or wood excelsior fiber, wood chips or other suitable material of a similar nature which is substantially free of noxious weed seeds and objectionable foreign matter.

Mulch shall be placed on a given area within three (3) days after the seeding has been completed. The mulching material shall be uniformly spread over the seeded areas to a loose depth of no less than 1-inch.

In ditches which shall be especially susceptible to erosion, the Town Engineer may order the use of excelsior mat or jute netting over seeded areas.

- (6) All open drainage ways and culverts shall be designed to convey the runoff generated from a twenty-five (25) year return frequency rainfall event as required to meet the provisions of the

Surface Water Drainage Section of Winnebago County Zoning Ordinance.

- (4) **Drainage Easements.** Where a proposed land development or redevelopment is traversed by a watercourse, drainage way, channel or stream:

- (a) There shall be provided a stormwater easement or drainage right-of-way conforming substantially to the lines of such water course, or both, as will be adequate for the purpose and as may be necessary to comply with this chapter; or
- (b) The watercourse, drainage way, channel or stream may be relocated in such a manner that the maintenance of adequate drainage will be assured. When channels are relocated, a stormwater easement or drainage right-of-way conforming to the lines of the relocated watercourse and such further width for construction, or both, will be provided. For state designated navigable streams, such relocations shall only be in accordance with a permit issued by the Wisconsin Department of Natural Resources; or
- (c) Wherever possible, drainage shall be maintained in an easement by an open channel with vegetated banks and adequate width for maximum potential volume flow. In all cases, such easements shall be wide enough to convey the 10-year critical duration storm for the minor drainage system, and the 100-year critical duration storm for the major drainage system. The drainage easement under all circumstances shall not be less than 30-feet in width.

- (5) **Stormwater Discharge Quantity.** Unless otherwise provided for in this chapter, all new land development and land redevelopment activities subject to this chapter shall establish on-site best management practices (BMP) to control the peak flow rates of stormwater discharged from the site and to preserve base flow in streams. The BMPs shall be designed, installed or applied, and maintained to the maximum extent practicable in accordance with a stormwater management plan submitted in accordance with Section 31.08 of this chapter. Infiltration of stormwater runoff from driveways, sidewalks, rooftops, and landscaped areas shall be incorporated to the maximum extent practicable, as defined by the Community Development Department, to provide volume control in addition to control of peak flows. All of the following standards shall apply to the stormwater management plan.

- (a) By design, maintain or lower peak runoff discharge rates as compared to pre-settlement (meadow) conditions for the 2-, 10- and 100-year, 24-hour design storms applicable to the site, using the Runoff Curve Numbers designated on Table 1 for the appropriate site soil hydrologic group. If NRCS TR-55 methodology is not used for the hydrologic calculations, the local administering authority must approve an equivalent methodology.

Table 1 – Maximum Pre-Settlement (Meadow) Runoff Curve Numbers

Hydrologic Soil Group	A	B	C	D
Runoff Curve Number	30	58	71	78

SOURCE: "Urban Hydrology for Small Watersheds" USDA Technical Release 55; June, 1986

- (b) Discharge velocities must be non-erosive to discharge locations, outfall channels, and receiving streams.
 - (c) Infiltration of stormwater, to reduce the volume of runoff, will be encouraged where technically feasible. If stormwater infiltration can be demonstrated, the reduced volume may be taken into account when designing practices to meet the peak flow control, and pollution control requirements of this chapter.
 - (d) If infiltration is employed on a site, groundwater quality shall be protected from pollutants in the stormwater. Stormwater runoff from industrial manufacturing and fueling and vehicle maintenance areas shall not be directed to infiltration structures.
- (6) **Stormwater Discharge Quality.** Unless otherwise provided for in this chapter, all land development and land redevelopment activities subject to this chapter shall establish on-site management practices to control the discharge of stormwater pollutants. The BMPs shall be designed, installed or applied and maintained, in accordance with a stormwater management plan for the long-term control of post-construction stormwater discharges, to control total suspended solids and other pollutants carried in runoff. All of the following apply:

- (a) **Sediment Control:** By design, reduce the annual average total suspended solids load in runoff by 80% for new development and 40% for redevelopment as compared to no controls for the site. The sediment reduction shall be accomplished in one of the following ways:
 - (1) For new development, a wet detention basin/pond may be installed to receive stormwater runoff from the entire site. The

area shall be designed to meet standards contained in the Wisconsin Department of Natural Resources Wet Detention Standard Code 1001 (06/99) or a subsequently adopted version.

- (2) By any other alternative method acceptable to the approving authority. If a discrepancy exists between the developer and approving authority regarding ability to reach the required sediment reduction using alternative methods, the developer shall use Source Loading and Management Model (SLAMM), P8, or an equivalent methodology to determine percentage of sediment removal. If the administrative authority finds that SLAMM shows that the required reduction will be met with the proposed design then the developer will have reached the sediment control requirements of this chapter.

If 80% of the total suspended solids load for new development, or 40% of the total suspended solids load for redevelopment will not be controlled from the site by design, then the stormwater management plan shall include a reasonable justification for not controlling 80% of the total suspended solids load for new development, or 40% of the total suspended solids load for redevelopment, from the site as compared to no sediment controls.

- (b) **Petroleum and Hydrocarbon Control:** Fueling and vehicle maintenance areas shall have BMPs designed, installed or applied, and maintained to reduce petroleum within runoff, in order that the runoff that enters the waters of the state contains no visible petroleum sheen after the point of treatment. Stormwater management devices do not substitute for emergency action spill control plans if required under different regulations.

(c) **Setback Areas:**

- (1) Setback areas shall not be used for principal or accessory structures or uses, nor shall they be used for stormwater management detention or retention ponds.

TOWN OF MENASHA CODE

- (2) A setback shall be provided along all watercourses. Permanent vegetative cover will provide for bank stability, maintenance of fish habitat, and filtering of pollutants from up slope overland flow areas (cover can be mowed lawn). The setback will keep the watercourse open to convey runoff and to provide some flood storage. No structures will be allowed in the buffer/setback area except road and utility crossings, boathouses where adjacent to navigable water, structures which are part of the stormwater management plan, and structures allowed by S. 59.692(1v) when adjacent to navigable water.
- (3) Fill will not be allowed except where approved by the administering authority based on an engineering study of the watercourse that has assessed the impact of the fill on flood storage and flow conveyance. The above-mentioned study must show that the flow from a 100-year rain event is contained within the watercourse setback area.
- (4) The buffer area shall be provided on each side of the watercourse and the minimum width on each side of the watercourse is as follows. Zoning provisions and Wisconsin Administrative Code Chapter NR 151 may require a greater setback from navigable water.
- (a) For watercourses within watersheds less than 81 acres, 25 feet from the watercourse centerline.
 - (b) For watercourses within watersheds of between 81 and 350 acres, 35 feet from the watercourse centerline.
 - (c) For watercourses within watersheds over 350 acres, 50 feet from the Ordinary High Water Mark of navigable waters, or the centerline of a non-navigable watercourse.
- (5) A setback shall be provided along all wetland boundaries. Wetland boundaries shall be field-staked by a field biologist, surveyed by a registered land surveyor, and approved by the Wisconsin Department of Natural Resources and all other regulating authorities. Should the wetlands be a part of a plat or certified survey map, the wetlands shall be recorded on the face of the document. Wetland delineations may require a rezoning.
- (a) For single and two-family residential development, setbacks shall occur 25 feet from delineated wetland boundaries, except in cases when the administering authority deems a larger buffer is necessary.
 - (b) For other than residential development, setbacks shall occur 50 feet from delineated wetlands boundaries, except in cases when the administering authority deems a larger buffer is necessary.
 - (c) A larger buffer may be required if deemed necessary by the administering authority based on site characteristics.
 - (d) Existing wetlands shall not be used to meet any of the setback requirements from watercourses and watersheds as required in this chapter unless permitted by the Wisconsin Department of Natural Resources and/or Army Corp of Engineers.
 - (e) Stormwater discharges shall be pre-treated prior to infiltration where necessary to prolong maintenance of the infiltration practice and to prevent discharge of stormwater pollutant at concentrations that will result in exceedance of ground water preventative action limits or enforcement standards established by the Department of Natural Resources in Wisconsin Administrative Code Chapter NR 140. Stormwater shall not be injected underground through excavations or openings in a manner that would violate Chapter NR 812.05 Wisconsin Administrative Code.
 - (f) Stormwater ponds and infiltration devices shall not be located closer to water supply wells than as indicated below without first notifying and obtaining approval from the administering authority:
 - (1) 100 feet from a well serving a private water system or a transient, non-community public water system;
 - (2) 1,200 feet from a well serving a municipal public water system, an other-than municipal public water system, or a non-transient non-community public water system;
 - (3) Within the boundary of a recharge area to a wellhead identified in a wellhead area protection plan.
- (7) **Alternate Requirements.** The administering authority may establish stormwater management requirements either more stringent or less stringent than those set forth in Chapter 31.16(1) to (6) above provided that at least one of the following conditions applies.

- (a) The administering authority determines that an added level of protection is needed to protect sensitive resources.
- (b) The administering authority determines that the land development and land redevelopment activity is covered by an approved stormwater management system plan or existing conditions allow for management consistent with the purpose and intent of this chapter.
- (c) Provisions are made to manage stormwater by an off-site facility, provided that all of the following conditions for the off-site facility are met:
 - (1) The facility is in place,
 - (2) The facility is designed and adequately sized to provide a level of stormwater control equal to or greater than that which would be afforded by on-site practices meeting the performance standards of this chapter, and
 - (3) The facility has a legally obligated entity responsible for its long-term operation and maintenance.
- (d) The administering authority finds that meeting the minimum on-site management requirements of this chapter is not feasible due to space or site restrictions, or other unique conditions; provided that where this section is deemed applicable the maximum possible requirements shall be met.
- (e) The application is for a non-domestic agricultural structure, or, a structure classified as an animal lot as defined in the Livestock Waste Management Ordinance, Chapter 13, Winnebago County General Code.
- (f) The permit application is for land development activity on a single lot and the administering authority determines that less stringent requirements are needed for review and approval.

31.17 PERMITTING REQUIREMENTS, PROCEDURES, AND FEES
[Amended 8/9/04]

- (1) **Permit Required.** No land owner or land operator may undertake a land development or land redevelopment activity subject to this chapter without receiving a permit from the administering authority prior to commencing the proposed activity. Land development activities generally fall into the following categories: commercial, industrial, platted subdivisions, or single lot activities. Stormwater plans for commercial, industrial, subdivisions, will require more detailed information generally provided by an engineer whereas, single lot activities normally will require non-engineered plans. Minor land

development activities such as the construction of a fence, minor landscaping, or construction of minor structures (10 x 10 or smaller) may be considered exempt from permit requirements if the administering authority determines that no, or very minimal, adverse impacts will result. The determination of impact shall be based, without limitation, upon criteria such as ponding of water, backing up of water, or a threat to neighboring property.

- (2) **Permit Application And Fee.** Unless specifically excluded by this chapter or by the administering authority, any land owner or operator desiring a permit shall submit to the administering authority a permit application made on a form provided by the administering authority for that purpose.
 - (a) Unless otherwise exempted by this chapter or by the administering authority, a permit application must be accompanied by the following in order that the permit application may be considered for approval by the administering authority: a stormwater management plan, a maintenance agreement, and a non-refundable permit administration fee established in Appendix B Fee Schedule, reference this code section. Where otherwise exempted all stormwater facilities shall be in place prior to occupancy being granted by the Building Inspection Department. *[Amended 11/28/05]*
 - (b) The stormwater management plan shall be prepared to meet the requirements of Section B of this chapter; the maintenance agreement shall be prepared to meet the requirements of 31.19 of this chapter; the financial guarantee shall meet the requirements of 31.20 of this chapter; and fees shall be those established by the Town of Menasha Board of Supervisors as set forth in Appendix B Fee Schedule, reference this code section. *[Amended 11/28/05]*
- (3) **Review and Approval of Permit Application.** The administering authority shall review any permit application that is submitted with a stormwater management plan, maintenance agreement, and the required fee. The following approval procedure shall be used:
 - (a) Within 30 business days of the receipt of a complete permit application, including all items as required by Chapter 31.15(2)(a), the administering authority shall inform the applicant whether the application, plan and maintenance agreement are approved, approved conditionally, or disapproved. The administering authority shall base the decision on requirements set forth in 31.15, 31.16, and 31.18 of this chapter.
 - (b) If the stormwater permit application, plan and maintenance agreement are approved, the administering authority shall issue the permit.

TOWN OF MENASHA CODE

- (c) If the stormwater permit application, plan or maintenance agreement is disapproved, the administering authority shall detail in writing of the reasons for disapproval.
 - (d) The administering authority may request additional information from the applicant. If additional information is submitted, the administering authority shall have 10 business days from the date the additional information is received to inform the applicant that the plan and maintenance agreement are either approved, approved conditionally, or disapproved.
 - (e) Failure by the administering authority to inform the permit applicant of a decision within the specified number of business days of a required submittal shall be deemed to constitute an approval of the submittal, and the applicant may proceed as if a permit had been issued. In this instance the applicant shall comply with the plan as submitted.
- (4) **Permit Conditions.** All permits issued under this chapter shall be subject to the following conditions, and holders of permits issued under this chapter shall be deemed to have accepted these conditions. The administering authority may suspend or revoke a permit for violation of a permit condition, following written notification to the permittee.
- (a) Compliance with the permit does not relieve the permit holder of the responsibility to comply with other applicable federal, state, and local laws and regulations.
 - (b) The permit holder shall design, install, and maintain all structural and non-structural stormwater management measures in accordance with the approved stormwater management plan and the permit.
 - (c) The permit holder shall notify the administering authority at least three (3) business days before commencing any work in conjunction with the stormwater management plan, and within three (3) business days upon completion of the stormwater management practices. If required as a special condition under par. (d), the permit holder shall make additional notification according to a schedule set forth by the administering authority so that practice installations can be inspected during construction.
 - (d) Permits issued under this subsection may include any special conditions needed to meet the performance standards in 31.15 or a financial guarantee as provided for in 31.20 of this chapter. Permits issued as a result of a violation notice may contain conditions necessary to correct the violation, including specifying a timeframe within which certain actions need to be taken.
 - (e) Stormwater management practices that are constructed as part of this chapter shall be certified, “as-built” by a professional engineer licensed in Wisconsin. Completed stormwater management practices must pass a final inspection by the administering authority or its designee to determine if they are in accordance with the approved stormwater management plan and chapter. The administering authority or its designee shall notify the permit holder in writing of any changes required in such practices to bring them into compliance with the conditions of the permit.
 - (f) The permit holder shall notify the administering authority of any modifications it intends to make to an approved stormwater management plan. The administering authority may require that the proposed modifications be submitted for approval prior to incorporation into the stormwater management plan and execution.
 - (g) The permit holder shall maintain all stormwater management practices in accordance with the stormwater management plan until the practices either become the responsibility of a municipality, or are transferred to subsequent private owners as specified in the approved maintenance agreement.
 - (h) If so directed by the administering authority the permit holder shall repair at the permit holder’s own expense all damage to adjoining municipal facilities and watercourses caused by stormwater runoff, where such damage is caused by activities that are not in compliance with the approved stormwater management plan.
 - (i) The permit holder shall permit property access to the administering authority or its designee for the purpose of inspecting the property for compliance with the approved stormwater management plan and this permit. Permission so granted shall remain in place as specified in the recorded maintenance agreement.
 - (j) Where site development or redevelopment involves changes in direction, increases in peak rate and/or total volume of runoff from a site, the administering authority shall require the permittee to make appropriate legal arrangements with adjacent property owners concerning the prevention of endangerment to property or public safety.

- (k) The permit holder authorizes the administering authority of perform any work or operations necessary to bring stormwater management measures into conformance with the approved stormwater management plan and to charge any such costs against any performance bond posted for the project a special assessment pursuant to Section 66.60 of the WI State Statues.
 - (l) The permit holder shall provide a one-year written guarantee from the accepted date on all facilities dedicated to the Town and installed as part of the stormwater plan and accepted by the Town of Menasha.
 - (m) The permit holder is subject to the enforceable actions detailed in 31.05 of the stormwater management chapter if the permit holder fails to comply with the terms of this permit.
- (5) **Permit Duration.** Permits issued under this section shall be valid for one (1) year from the date of issuance. The administering authority may extend the period one time for up to an additional 180 days. Additional conditions may be imposed as a result of the extension as are necessary to achieve compliance with the originally approved plan.

31.18 STORMWATER MANAGEMENT PLAN

- (1) **Plan Requirements.** The stormwater management plan required under Chapter 31.03(2) of this chapter shall contain any information the administering authority requires to evaluate the environmental characteristics of the area affected by land development and land redevelopment activity, the potential impacts of the proposed development upon the quality and quantity of stormwater discharges, the potential impacts upon water resources and drainage utilities, and the effectiveness and acceptability of proposed stormwater management measures in meeting the performance standards set forth in this chapter. Unless specified otherwise by this chapter, stormwater management plans shall contain at a minimum the following information:
- (a) Name, address, and telephone number for the following or their designees: landowner; developer; project engineer for practice design and certification; person(s) responsible for installation of stormwater management practices; person(s) responsible for maintenance of stormwater management practices prior to the transfer, if any, of maintenance responsibility to another party.
 - (b) A proper legal description of the property proposed to be developed referenced to the U.S. Public Land Survey system or to block and lot numbers within a recorded land subdivision plat

as well as the correct tax parcel number, and where applicable, the correct address.

- (c) Pre-development site conditions, including:
 - (1) One or more site maps at a scale of not less than 1 inch equals 100 feet unless otherwise required by the approving authority. The site maps shall show the following: site location and legal property description; predominant soil types and hydrologic soil groups; existing cover type and condition; existing 2 foot contours; proposed elevations; benchmark(s) as required by the approving authority; topography and drainage network including enough of the contiguous properties to show runoff patterns onto, through, and from the site; watercourses that may affect or be affected by runoff from the site; flow path and direction for all stormwater conveyance sections, including time of travel and time of concentration applicable to each; watershed boundaries used in determinations of peak flow discharge rates and discharge volumes from the site; lakes, streams, wetlands, channels, ditches, and other watercourses on and immediately adjacent to the site; limits of the 100 year floodplain; location of wells located within 1,250 feet of stormwater detention ponds, infiltration basins, or infiltration trenches; wellhead protection areas covering the project area and delineated pursuant to Chapter NR 811.16 Wisconsin Administrative Code.
 - (2) Computations of peak flow discharge rates and discharge volumes for the 2-year, 10-year, and 100-year/24 hour storm events. All major assumptions used in developing input parameters shall be clearly stated. The computations shall be made for each discharge point in the development, and the geographic areas used in making the calculations shall be clearly cross-referenced to the required map(s).
- (d) Post-development site conditions, including:
 - (1) Explanation of the provisions to preserve and use natural topography and land cover features to minimize changes in peak flow runoff rates and volumes to surface waters and wetlands.
 - (2) Explanation of any restrictions on stormwater management measures in the development area imposed by wellhead protection plans and chapters.

- (3) One or more site maps at a scale of not less than 1 inch equals 100 feet, or as otherwise required by the approving authority, showing the following: post-construction pervious land use including vegetative cover type and condition; impervious land use including all buildings, structures, and pavement; post-construction elevations; post-construction drainage network including enough of the contiguous properties to show runoff patterns onto, through, and from the site; locations and dimensions of drainage easements; locations of maintenance easements specified in the maintenance agreement; flow path and direction for all stormwater conveyance sections, including time of travel and time of concentration applicable to each; location and type of all stormwater management conveyance and treatment practices, including the on-site and off-site tributary drainage area; location and type of conveyance system that will carry runoff from the drainage and treatment practices to the nearest adequate outlet such as a curbed street, storm drain, or natural drainage way; watershed boundaries used in determinations of peak flow discharge rates and discharge volumes; any changes to lakes, streams, wetlands, channels, ditches, and other watercourses on and immediately adjacent to the site.
- (4) Computation of the inches of initial runoff that will be infiltrated across the site if infiltration practices are employed.
- (5) Computations of peak flow discharge rates for the 2-year, 10-year, and 100-year/24 hour storm events. All major assumptions used in developing input parameters shall be clearly stated. The computations of peak flow discharge rates shall be made for each discharge point in the development, and the geographic areas used in making the calculations shall be clearly cross-referenced to the required map(s).
- (6) Detailed results of investigations of soils and groundwater required for the placement and design of stormwater management measures.
- (7) Detailed results of impact assessments on wetland functional values.
- (8) Design computations and all applicable assumptions for the storm sewer system.
- (9) Design computations and all applicable assumptions for stormwater quality practices as needed to show that practices are appropriately sized to meet the performance standards of this chapter.
- (10) Detailed drawings including cross-sections and profiles of all permanent stormwater conveyance and treatment practices.
- (e) A description and installation schedule for the stormwater management practices needed to meet the performance standards in Chapters 31.15 and 31.16.
- (f) A maintenance plan developed for the life of each stormwater management practice including the required maintenance activities and maintenance activity schedule.
- (g) Cost estimates for the construction, operation, and maintenance of each stormwater management practice.
- (h) Other information requested in writing by the administering authority to determine compliance of the proposed stormwater management measures with the provisions of this chapter.
- (i) All site investigations, plans, designs, computations, and drawings shall be certified by a Registered Professional Engineer, licensed to practice in the State of Wisconsin, to the effect that they have been prepared in accordance with accepted engineering practice and requirements of this chapter.
- (2) **Alternate Requirements.** The administering authority may prescribe alternative submittal requirements for applicants seeking an exemption to on-site stormwater management performance standards under 31.15 of this chapter.

31.19 MAINTENANCE AGREEMENT

- (1) **Maintenance Agreement Required.** The maintenance agreement required for stormwater management practices under 31.19 of this chapter shall be an agreement between the administering authority and the permittee to provide for on-site inspection of construction allowed by the permit both during and after construction, and to inspect and enforce maintenance of stormwater practices beyond the duration period of this permit. The agreement or recordable document shall be recorded with the Winnebago County Register of Deeds so that it is binding upon all subsequent owners of land served by the stormwater management practices.
- (2) **Agreement Provisions.** The maintenance agreement shall contain the following information and provisions:

TOWN OF MENASHA CODE

- (a) Identification of the stormwater facilities and designation of the drainage area served by the facilities.
- (b) A schedule for regular maintenance of each aspect of the stormwater management system consistent with the stormwater management plan required under 31.18. An annual or more frequent schedule for maintenance and inspection shall be contained in the agreement.
- (c) Identification of the landowner(s), organization or municipality responsible for long term maintenance of the stormwater management practices identified in the stormwater plan required under 31.18.
- (d) Requirement that the landowner(s), organization, or municipality shall maintain stormwater management practices in accordance with the schedule included in par. (b).
- (e) Authorization for the administering authority to access the property to conduct inspections of stormwater practices as necessary to ascertain that the practices are being maintained and operated in accordance with the agreement.
- (f) Agreement that the administering authority notify the party designated under the maintenance agreement of maintenance problems that require correction and time frame for correction as determined by the administering authority.
- (g) If the responsible party does not perform the required corrections in the specified time, the Town is authorized to perform the corrected actions identified in the inspection report. The Town shall assess the landlord for the cost of such work. The cost of such work shall be assessed against the property as a special assessment pursuant to WI State Statutes Section 66.60.

notice to the landowner by the administering authority that the requirements of this chapter have not been met.

(2) **Conditions For Release.** Conditions for the release of the financial guarantee are as follows:

- (a) The administering authority shall release the portion of the financial guarantee established under this section, less any costs incurred by the administering authority to complete installation of practices, upon submission of “as built plans” by a licensed professional engineer licensed to practice in the State of Wisconsin. The administering authority may make provisions for a partial pro-rata release of the financial guarantee based on the completion of various development stages.
- (b) The administering authority must approve any portion of the plan dedicated to the Town of Menasha.

31.20 FINANCIAL GUARANTEE

- (1) **Establishment of The Guarantee.** The administering authority may require the submittal of a financial guarantee, the form and type of which shall be acceptable to the administering authority. The financial guarantee shall be in an amount determined by the administering authority to be the estimated cost of construction and the estimated cost of maintenance of the stormwater management practices during the period which the designated party in the maintenance agreement has maintenance responsibility. The financial guarantee shall give the administering authority the authorization to use the funds to complete the stormwater management practices if the landowner defaults or does not properly implement the approved stormwater management plan, upon written