

# Village Engineer Memo

## Memo

**To:** Leah Hofer, Assistant to the Village Manager  
**From:** Brandon Flunker P.E. CFM  
**Date:** Jan 30, 2023  
**Subject:** Bayside Middle School Civil and Storm Review  
**Copies:** **Mustafa Emir, PE – Village Engineer; Andy Pederson, Village Manager**

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Our office has reviewed the preliminary Civil Plans and Stormwater Management Plan submitted by Kapur, Inc for the Bayside Middle School Reconstruction project. The following comments shall be addressed.

### STORMWATER

The proposed plans show the complete demolition and rebuild of the school with alterations of the site disturbing over 12 acres. It is anticipated that over ½ acre of impervious area will be created and disturbed requiring stormwater management to meet MMSD chapter 13 rules. The runoff at each discharge point shall not exceed pre-development runoff volume during the critical time period of 1.5 hours from 11.75 to 13.25 hours. To meet DNR NR 151 requirements, the redevelopment site is regulated as follows: 40% total suspended solids reduction from the parking and drive lanes on the site.

The modeling provided in HydroCAD and WinSLAMM presented in the Stormwater Management Plan does meet Chapter 13 and NR 151. The discharges at each location (King Rd and to Ellsworth Park) are shown at less than existing, as well as the volumetric discharge during the critical time period. The TSS reduction is 62%.

### Comments:

1. SWMP -7 and SWMP -3 Calculations are contradictory. Revise.
2. SHOW ALL DETAILS
3. Why are there two measurements for the HydroCAD outlet devices, for example BIO-1 (5.0" Vert. 6" Orifice)
4. BIO-1 secondary device HydroCAD inputs do not match WinSLAMM inputs, reconcile
5. Provide a schedule for construction of SWM devices, including interim devices
6. Provide Maintenance Plan
7. Provide a Draft Maintenance Agreement
8. Include provision to manage stormwater during the interim condition so that the discharges from the site do not exceed the existing conditions. Include a model to support the design.
9. An open ditch along King Rd shall be maintained for stormwater conveyance, whether the bus lane is kept or eliminated.

### SITE UTILITIES

Watermain comments will be provided by Mequon Water Utility and NSFD.

### Comments:

1. Sanitary Rim and Invert elevations are not provided for the laterals to King Rd and to Standish
2. Show details for utility connections.
3. Describe methods for abandonment of sanitary utilities. Village will require a 48 hour notice in advance of abandonment for inspection of abandonment at the Standish Manhole and King Rd connection.



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4. Show road cuts locations and pavement cross sections for utility tie ins/ abandonments.
5. Sizing, Length, and Slope for the storm pipe at Ellsworth Entrance not shown on the plans.
6. Storm sewer ST MH-5 to EX ST INLT-2 sizing is contradictory on the storm sewer computation sheet and Sheet C105T. Reconcile.
7. Storm sewer CB-12 to ST MH-2 slope is contradictory on the storm sewer computation sheet and Sheet C105T. Reconcile.

GENERAL

1. We encourage the use of green infrastructure wherever possible to manage stormwater.
2. Provide a haul route map for review. Please note Village staff will take a pre-construction video of the roadways and will require a road bond for the haul route. Contractor shall maintain clean roadways throughout the project.
3. It is in our professional opinion that the bus lane is not an appropriate use of the King Rd right-of-way and is not recommended. One or more workable alternatives shall be developed.
4. Show vehicle turning movements from King to Ellsworth, from Ellsworth to King.
5. Provide an asphalt pavement design for breaking and turning locations on King Rd
6. All plans and stormwater management plan must be stamped by a professional engineer registered in Wisconsin.

-Brandon Flunker, PE CFM  
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