



To: Jay Hedges, Village Manager

From: Tim Paulson, P.E., CFM  
Engineering Enterprises, Inc.

Date: March 8, 2020

**Re: *Oakstead - Preliminary Stormwater Management Report  
Supplemental Review Memo***

EEI Job #: HA2020

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This memo is to provide a short summary of stormwater management for the Oakstead development. We reviewed the Preliminary Stormwater Management Report, dated January 18, 2021, submitted by Crown for the Oakstead Development, and issued comments in our review letter dated, January 29, 2021 (attached). The Preliminary Report is generally compliant with the Village's Stormwater Management Ordinance (SMO). Final calculations will be submitted and reviewed with final engineering.

One of the principle purposes of the SMO is to manage and mitigate the effects of urbanization on stormwater drainage and a primary tool to accomplish this is with runoff control. The control of runoff is accomplished through the use of detention facilities with restricted release which ensures that the peak rate of flow leaving a development is significantly reduced in the developed condition compared to the undeveloped condition.

The runoff rate is restricted through two main requirements: An allowable release rate of 0.10 cubic feet per second (cfs) per acre of development area and a requirement not to cause an adverse impact to the downstream outfall. The Preliminary Stormwater Report demonstrates that detention is provided to comply with the allowable release rate requirements and a final analysis of downstream outfalls will be completed with final engineering.

The northern part of Oakstead is tributary to a large wetland complex and floodplain in the Lakewood Crossing Development (See attached FEMA Floodplain Map). The post development runoff from the northern part of Oakstead will be routed through detention basins and then into existing storm sewer and overland routes to this wetland/floodplain area and then downstream. In accordance with the Ordinance, these peak rates of runoff from Oakstead will be reduced in the developed condition.

If you have any questions or require additional information, please call.

January 29, 2021

Daniel J. Olsem, P.E. (Via Email)  
Vice President of Engineering & Construction  
Crown Community Development  
1751 A West Diehl Road  
Naperville, IL 60563

**Re: Oakstead – Revised Preliminary Engineering Review  
Village of Hampshire**

Mr. Olsem:

We are in receipt of the following items for the above referenced project:

- Preliminary Engineering Plan (7 Sheets) dated January 18, 2021 prepared by Cemcon, Ltd.
- Preliminary Plat of Subdivision (4 Sheets) dated January 18, 2021 prepared by Cemcon, Ltd.
- Preliminary Kane County Stormwater Management Report dated January 18, 2021 prepared by Cemcon, Ltd.

Our review of these plans is to generally determine their compliance with local ordinances and whether the improvements will conform to existing local systems and equipment. This review and our comments do not relieve the designer from his duties to conform to all required codes, regulations, and acceptable standards of engineering and land surveying practice. Engineering Enterprises, Inc.'s review is not intended as an in-depth quality assurance review, we cannot and do not assume responsibility for design errors or omissions in the plans. As such, we offer the following comments:

### **General**

1. The Preliminary Plan is generally consistent with the previously approved Oakstead plans. There is a large area added to the development which includes the District 300 Elementary School Site. Further review will be required as the project moves forward with annexation and zoning approvals.
2. A phasing plan will need to be developed in conjunction with the School site development plan and adequate improvements installed to support the School Site development. School District Plans are in the development and review process.
3. The Preliminary Stormwater Report is generally acceptable. Further review and permit application will be required as the project moves into final engineering. The following preliminary comments need to be considered for final engineering:
  - During final engineering the outfall locations will have to be assessed for compliance with ordinance requirements
  - Existing and compensatory depressional storage will have to be addressed in accordance with ordinance requirements at final engineering.

- An updated wetland delineation was provided for the northern portion of the development. A jurisdictional determination from the US Army Corp will be required. Any impacts to the wetlands will have to be addressed at final engineering as required based on jurisdiction. A wetland delineation will be required for the south portion of the project. The wetland areas and appropriate buffers will need to be shown on the final plans.
  - The Oakstead North Hydrologic and Hydraulic calculations are generally acceptable. The existing and proposed floodplain and floodway limits should be delineated on the plans and plat. Impacts to the floodplain area must be addressed in accordance with the stormwater ordinance requirements. The floodplain elevation determination and mapping must go through the IDNR and FEMA approval process to establish these regulatory floodplain limits.
  - The plans show drain tile information for the northern portion of the project. A current drain tile survey will need to be provided for the entirety of the project.
4. A permit will be required from KDOT for the work in the Big Timber Road ROW. Plans should be submitted to KDOT.
  5. A permit will be required from IDOT for Route 20 connection and work with in the Route 20 ROW. Plans should be submitted to IDOT.
  6. A new Traffic Study will be required for the development. There is a significant increase in development area with the annexation and a new land use with the School site.
  7. A preliminary landscape plan should be provided including tree survey information as required by ordinance.
  8. The Plat of Annexation submitted for the new area, including the D300 School site, dated September 23, 2020 is acceptable.

### **Preliminary Engineering Plans**

9. This is a preliminary review; a detailed review will occur as final engineering plans are developed and submitted for approval.
10. The water main layout is generally consistent with the Village's water master planning for the area. Coordination will be required to confirm the water improvements that must be completed in the first phase of development in support of the School Site.
11. The sanitary layout is generally consistent with the Village's master planning for the area. However, sizing needs to be confirmed as some of the elements of the planning area have changed in the time since Oakstead was first planned. In addition, coordination will be required to confirm the sanitary improvements that must be completed in the first phase of development in support of the School Site.
12. The storm sewer layout is generally acceptable and design calculations and sizing will be required with final engineering.
13. The areas backing up to the detention basins should be provided with sump pump connections with a shared outfall into the basins.

14. Storm sewer and sump pump connections need to be provided for the areas backing up to the wetland areas. These areas should not discharge directly to the wetland area as this will count as part of the allowable stormwater release for the development.
15. Roadway inlets adjacent to wetland areas should not discharge directly into the wetland area.
16. There is a pedestrian trail typical section on the plan sheet, but no trail location called out on the plans.
17. The callout for Superpave in the road cross sections should be updated to the current IDOT specifications.
18. Streetlighting should be added to the Preliminary Plan.

### **Preliminary Plat of Subdivision**

19. This a preliminary review and the following items should be addressed with submittal of Final Plat documents for the development.
20. All Lots need to be numbered including the School Site and the Open Space areas. The designation 'Open Space No.' is not allowed.
21. All lot areas, dimensions, easements, and ROW will be confirmed at the time of Final Plat.
22. Village certificates and easement provisions must be used on the Final Plat.
23. A Final Plat should be prepared and submitted for the area that includes the School Site and the required improvements for the School Site.

The developer should submit the required documents for review as the project proceeds. If you have any questions or require additional information, please call our office.

Respectfully submitted,

ENGINEERING ENTERPRISES, INC.



Timothy N. Paulson, P.E., CFM  
Senior Project Manager

BPS/TNP/JAM2

pc: Jeff Magnussen, Village President (Via e-mail)  
Jay Hedges, Village Manager (Via e-mail)  
Linda Vasquez, Village Clerk (Via e-mail)  
Lori Lyons, Finance Director (Via e-mail)  
Mark Schuster, Village Attorney (Via e-mail)  
Dave Gauger, P.E., Cemcon, Ltd (Via e-mail)  
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