COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: August 12, 2019
AGENDA NUMBER: 19-105
ITEM: Villas at Crosstown Woods

RECOMMENDATION: Approve with 4 Stipulations

APPLICANT: Villas at Crosstown Woods, LLC
13432 Hansen Blvd
Andover, MN 55304

PURPOSE: Residential Development
48 Lots on 20 Acres

LOCATION: Constance Blvd NW & County Rd 18 in Andover, Minnesota
APPLICABILITY:
1. Any work in or adjacent to wetlands, lakes or water courses
2. One or more cumulative acres of land disturbance
3. The lands and waters that have been, or may be covered by the regional flood.

EXHIBITS:
1. Construction Plan set (6 sheets Plat, SS, GP1, GP2, EC, WI); by Sathre-Bergquist, Inc, dated 7/26/19, received 7/29/19.
2. Stormwater Management Report; by Advanced Engineering and Environmental Services, dated 7/19, received 7/29/19.

PREVIOUS ACTION TAKEN: This application was tabled at the July 22, 2019 meeting with 9 stipulations:
1. Receipt of escrows.
2. Update the HydroCAD model to reflect the correct length and outlet invert elevation for the primary outlet device of Pond #3.
3. Update the HydroCAD model to have Wetland #3 start at an elevation of 899.0.
4. Update the HydroCAD model to have Infiltration Basin #3 start at an elevation of 902.3.
5. Update the label for CBMH #14 to show 4’ sump.
6. Provide soil borings on the west half of site to ensure 3’ separation from groundwater and low floors.
7. An approved replacement plan must be issued.
8. Provide proof of purchase for wetland credits.
9. Provide notes on the plans for the contractors to follow and receive DNR flyers and factsheets associated with their correspondence letter.

FINDINGS:
Pre-application Meeting: The project as submitted has received a general review during a pre-application meeting.

Ditches: There is not a public ditch on the property.

Ditch Hydraulics: A crossing of the ditch is not proposed.

Erosion and Sediment Control: Soils affected by the proposal are Isanti and Zimmerman.
- Stabilizing vegetation is proposed for disturbed areas within seven (7) days of rough grading.
- Soil stockpiles have been proposed to be fitted with sediment-trapping measures to prevent soil loss and do have a note to stabilize within seven (7) days of inactivity.
- Adjacent properties and stormwater ponds are protected from sediment deposition.
- Construction schedules detailing when sediment trapping measures will occur; stabilization of earthen structures and the general timing of construction phases have been provided.
- Stormwater runoff does pass through a sediment basin or other sediment trapping BMP with equal or greater storage capacity.
- Stabilization adequate to prevent erosion has been provided at the outlets of all storm sewer pipes.
- All storm sewer inlets are protected from sediment-laden water during construction.
- All work adjacent to water or related resource has taken precautions to contain sediment, and stabilize the work area during construction.
- Provisions have been made to minimize transport of sediment (mud) by runoff or vehicle tracking onto the paved surface.
- Provisions have been made for cleaning road surfaces where sediment is transported by the end of the day.
- Construction entrance points are clearly located on the erosion and sediment control plan.
- The erosion and sediment control plan does provide for the repair and maintenance of all temporary and permanent erosion and sediment control practices.
- Details provided for ESC (riprap, perimeter control, concrete washout, inlet protection, etc.)

Dewatering: Shallow ground water does exist on site. The project does require dewatering.
Floodplain: There is floodplain on the property according to the District model. The District’s floodplain elevation is at 899.0 feet. The project does propose to place fill within the floodplain. The total floodplain impact is 0.1 acre-feet. The proposed impact is within the flood fringe. Compensatory storage is provided. There are no flooding concerns upstream and/or downstream.

High Water Flooding: Information has been provided to substantiate low floor elevations. Based on the current design, low floor elevations do meet the criteria for the City of Andover; 3 ft above mottled soils/groundwater. Low floor elevations do not meet the 2 ft over 100-year requirement for lots 19, 20, 27, 28, 29, 30. Darcy-Law calculations were provided to demonstrate that these low floors will not be impacted by the HWL of Basin #3.

Groundwater: Geotechnical information collected in May, 2019 indicates long term groundwater elevation is present at 4.5 to 14 feet below the surface.

The project site is not within the Emergency Response Area/10 Year Well Head Protection Area/Drinking Water Supply Management Area.

The proposal does not contain a land use discouraged or prohibited by the Safe Drinking Water Supply Act (SDSA).

Historic Sites: The proposed project does not include sites of historic or archeological significance.

Local Planning & Zoning: It is unknown if the proposed project is consistent with local planning and zoning. The applicant has not applied to the city. There is an approved local water plan.

Property owners affected by changes in drainage have not been notified or acknowledge the changes proposed.

Maintenance: The owner of the Stormwater Management features and treatment practices is the City of Andover. The Stormwater Treatment Practices (STPs) consisting of the following:

<table>
<thead>
<tr>
<th>Stormwater Treatment Practices</th>
<th>Number</th>
<th>Inspection &amp; Maintenance Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basins</td>
<td>3</td>
<td>City of Andover</td>
</tr>
<tr>
<td>Sumps</td>
<td>4</td>
<td>City of Andover</td>
</tr>
</tbody>
</table>

As a requirement of the City’s MS4 program, the city will inspect and maintain the stormwater facilities.
Easements: The proposed project does not include ditch maintenance easement. A ditch maintenance easement is not required. A maintenance access to all storm water management features is provided.

**Stormwater & Hydrology:** Infiltration is allowed within the project area. The 1-inch infiltration is achieved to the greatest extent practicable. The stormwater management system utilizes wet ponds and infiltration.

Drainage sensitive uses do exist downstream from the proposed site. The rate of post-development runoff from the site exceeds predevelopment rates by 0.2 cfs for the 2-year and 0.1 cfs for the 10-year events. The post-development rates do not exceed pre-development rates for the 25-year and 100-year events. The post-development 100-year rate exceeds the pre-development 25-year rate by 0.1 cfs. The increase in discharge rates is not anticipated to cause adverse impacts downstream. Properties and waterways downstream from the project are protected from erosion due to increases in the volume, velocity and peak water flow rates of stormwater runoff. Concentrated storm water leaving a site is discharged directly into a well-defined natural or man-made off-site receiving channel or pipe. All on-site constructed storm water conveyance channels are constructed to withstand the expected velocity from a 2-year frequency storm without erosion.

### Site Volume Summary Discharged to the Southeast (Wetland #4)

<table>
<thead>
<tr>
<th></th>
<th>Existing (acre-ft)</th>
<th>Proposed (acre-ft)</th>
<th>Change (acre-ft)</th>
<th>Wetland #4 Bounce (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-yr</td>
<td>0.03</td>
<td>1.83</td>
<td>+1.8</td>
<td>+0.16</td>
</tr>
<tr>
<td>10-yr</td>
<td>0.04</td>
<td>2.93</td>
<td>+2.9</td>
<td>+0.26</td>
</tr>
<tr>
<td>25-yr</td>
<td>0.05</td>
<td>3.88</td>
<td>+3.9</td>
<td>+0.34</td>
</tr>
<tr>
<td>100-yr</td>
<td>0.10</td>
<td>5.81</td>
<td>+5.7</td>
<td>+0.51</td>
</tr>
</tbody>
</table>

Wetland #4 bounce was determined from the static change in volume over the wetland area (±490,000 sf). With wetland #4 discharging under normal conditions it is assumed that the bounce would be one third of that shown in the table above. No adverse impacts are anticipated due to the increase in volume downstream.

**Water Quality:** The proposed project does not cause an exceedance of State water quality standards. The project does not contribute to the adverse impact of wetlands through inundation or volume of flow. All discharges into wetlands/stormwater basins are pretreated by a sediment basin/water quality pond, and are designed correctly. All work adjacent to wetlands, waterbodies and water conveyance systems are protected from erosion. The proposal will not detrimentally affect the existing water quality of the receiving water. The proposal will not cause extreme fluctuations of water levels or temperature changes.

**Impairments:** This project is not within one (1) mile of an Impaired Water.

There are new impervious surfaces proposed as part of this project.
Wetlands: Wetlands do exist on-site according to the 1987 Federal manual, NWI, PWI and Soil Survey. Wetlands have been delineated. The most recent delineation was approved on 1/17/19. The wetland boundary has been checked.

The wetlands are not a DNR protected water.

The total proposed wetland impact is 0.323 acres. The impact is through fill/drainage/conversion in 6 locations as shown below:

The de minimis is 2,500 sf (type 1 2, 6, 7, 8) or 100 sf (type 3, 4, 5). TEP members have been notified with a complete plan and have been requested to submit comments.

The project is not wetland dependent.

The project is not exempt.

The applicant does need to contact the DNR area hydrologist and the Corps of Engineers.

Two or more alternatives, plus the proposed project, have been submitted. On-site sequencing does apply. The avoidance alternatives are considered good faith efforts. None of the avoidance alternatives are considered feasible and prudent.

Alternatives may exist because:
1) The basic purpose of the project can be accomplished by further design modification which would minimize wetland impacts.

**Wetland Replacement Plan:** A wetland replacement plan has been submitted and is required.

The wetland replacement plan has been sent to TEP members for comments and comments have been received and addressed.

Replacement is proposed to be through purchasing wetland credits at a ratio of 2:1. The credits will be purchased through wetland bank #1409.

The TEP has approved the wetland mitigation plan.

**Wildlife:** The proposed project does include endangered or threatened species, rare natural communities, colonial waterbird nesting sites, migratory waterfowl concentration areas, deer wintering areas or wildlife travel corridors. The applicant has contacted the MDNR natural heritage or endangered species program. MDNR has responded to the applicant 5/8/19 correspondence #ERDB 20190311.

If the project is present, the project does may propose substantial adverse alteration or significant detrimental impact on a species or removal of a plant species will occur.

**Performance Escrow:** $10,450
**Wetland Escrow:** $ N/A
There are not ditch liens on the property.

**ISSUES/CONCERNS:**

<table>
<thead>
<tr>
<th>ISSUE</th>
<th>NEED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Escrows: $2,000 + (16.9 ac * $500/ac) = $10,450</td>
<td>1. Receipt of escrows.</td>
</tr>
<tr>
<td>Stormwater &amp; Hydraulics: Pond #2 OCS rim elevation is set 0.4’ above the 100-yr HWL. An overland EOF to the south is set 0.9’ above the 100-yr HWL.</td>
<td>2. Update plans to have the OCS rim or the overland EOF set at the HWL.</td>
</tr>
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<td>Wetlands: A wetland replacement plan has been provided. The LGU has not approved the replacement plan. Wetland credits are proposed to be purchased to replace the wetland impacts.</td>
<td>3. An approved replacement plan must be issued. 4. Provide proof of purchase for wetland credits.</td>
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