COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: March 13, 2017
AGENDA NUMBER: 14
FILE NUMBER: 16-172
ITEM: Rylie’s Way

RECOMMENDATION: Table with 5 Stipulations

APPLICANT: Warren and Diane Hoffman
15740 Lexington Ave
Ham Lake MN 55304

PURPOSE: Custom Graded Residential Lots

LOCATION: 176th Ave West between Durant and Lever St NE,
Ham Lake, 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.
4. Activities upstream from land that is dependent upon removal of water from the soil profile for their continued use (Drainage Sensitive Land Uses)

EXHIBITS:
1. Geotechnical Report by Tradewell Soil Testing; dated 02/25/16, received 11/09/16 and supplementary report, dated 12/12/16, received 1/17/17.
2. HydroCAD models by Oliver & Associates; dated 2/14/17, received 2/28/17.
3. Construction Plans by Oliver & Associates; revised 2/14/17, received 2/28/17.
PREVIOUS ACTION TAKEN: The application was tabled at the January 23, 2017 meeting with 6 stipulations. The stipulations were:

1. Receipt of escrows.
2. MSE-3 rainfall distribution or other NOAA distribution for the project area needs to be used instead of Type II to be consistent with Atlas 14 rainfall distribution. MSE-3 distribution is included in HydroCAD v10, starting on Build 16.
3. Details need to be provided for outlets of 3P and 4P.
4. The applicant must acknowledge that they will conduct a post construction test on the infiltration basin by filling the basin to a minimum depth of 6 inches with water and monitor the time necessary to drain. The Coon Creek Watershed District shall be notified prior to the test to witness the results.
5. Pretreatment needs to be provided for 4P. In addition to sediment forebay, a RainGuardian may be another option for pretreatment.
6. Provide an O&M Agreement that meets District requirements.

FINDINGS:

Pre-application Meeting: The project as submitted has not received a general review during a pre-application meeting.

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

Ditch Hydraulics: A crossing of a public ditch is not proposed. A crossing of a private ditch is proposed with a 15” CMP.

Erosion and Sediment Control: Soils affected by the proposal are Lino and Rifle.
- 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.
- 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 racking 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.

Dewatering: Shallow ground water does exist on site. Dewatering is not anticipated.

Floodplain: There is floodplain on the property, according to the District model but not FEMA. The project does propose to place negligible volume of fill within the floodplain. There are flooding concerns upstream and downstream.

High Water Flooding: Information has been provided to substantiate low floor elevations. Low floor elevations do meet the criteria for the City of Ham Lake; 1 ft above mottled soil or 100 yr.

Groundwater: Geotechnical information collected in February 2016 indicates long term groundwater elevation is present at greater than 4 feet below the surface.

The site is not within a Municipal Drinking Water Supply Area (DWSMA).

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: The proposed project is consistent with local planning and zoning. There is an approved local water plan.

Property owners affected by changes in drainage have been notified and acknowledge the changes proposed.

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

<table>
<thead>
<tr>
<th>Stormwater Treatment Practices</th>
<th>Number</th>
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<tbody>
<tr>
<td>Infiltration Basin</td>
<td>2</td>
</tr>
<tr>
<td>Wet Detention Basin</td>
<td>1</td>
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</tbody>
</table>

As a requirement of the City of Ham Lake’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. The stormwater management system utilizes infiltration basins and a wet basin. Stormwater leaving the site is discharged into a well-defined receiving channel or pipe and routed to a public drainage system.

Drainage sensitive uses do exist downstream from the proposed site. The rate of post-development runoff from the site does not exceed predevelopment rates, or rates which would interfere with sensitive downstream land uses. 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. No on-site constructed storm water conveyance channels are proposed as part of the project.

**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 or infiltration basins are pretreated 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 completed in June 2006. The wetland boundary has not been checked.

The wetland is not a DNR protected water.

The total proposed wetland impact is 0 square feet.

**Wetland Replacement Plan:**
A wetland replacement plan has not been submitted and is not required.

**Wildlife:**
The proposed project does not include endangered or threatened species, rare natural communities, colonial waterbird nesting sites, migratory waterfowl concentration areas, deer wintering areas or wildlife travel corridors.
Performance Escrow: $3,050.00
Wetland Escrow: N/A
There are not ditch liens on the property.

ISSUES/CONCERNS:

<table>
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<tr>
<th>ISSUE</th>
<th>NEED</th>
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<tbody>
<tr>
<td><strong>Stormwater &amp; Hydraulics:</strong> Type-II rainfall values were used instead of MSE-3.</td>
<td>1. MSE-3 rainfall distribution or other NOAA distribution for the project area needs to be used instead of Type II to be consistent with Atlas 14 rainfall. MSE-3 distribution is included in HydroCAD v10, starting on Build 16.</td>
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<td>Clarity is required for outlet structures used in model for infiltration basins.</td>
<td>2. Details need to be provided for outlets of 3P and 4P.</td>
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<td>A post construction test on the infiltration basin will be required to verify the assumed infiltration rates are obtained.</td>
<td>3. The applicant must acknowledge that they will conduct a post construction test on the infiltration basin by filling the basin to a minimum depth of 6 inches with water and monitor the time necessary to drain. The Coon Creek Watershed District shall be notified prior to the test to witness the results.</td>
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<td><strong>Soils &amp; Erosion Control:</strong> District requires all stabilization vegetation be within seven (7) days of rough grading or inactivity.</td>
<td>4. Update construction plans to stabilize vegetation in 7 days of rough grading or inactivity on Sheets 2 and 3.</td>
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<td><strong>Other:</strong> City Comments dated 3/3/2017 indicate that design changes may be required.</td>
<td>5. City approval that indicates no additional design changes will be required on-site.</td>
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RECOMMENDATION: Table with 5 Stipulations

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