COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: June 13, 2016
AGENDA NUMBER: 16
FILE NUMBER: 16-057
ITEM: Radisson Cove

RECOMMENDATION: Table with 13 Stipulations

APPLICANT: Oak Meadows Land Holding, Inc
2281 County Rd B
Roseville, MN 55113

PURPOSE: New single family lot subdivision

LOCATION: Radisson Road just south of 127th Lane, Blaine
APPLICABILITY:
1. Any work within or adjacent to a Public ditch within the Watershed District.
2. Any work in or adjacent to wetlands, lakes or water courses
3. One or more cumulative acres of land disturbance
4. The lands and waters that have been, or may be covered by the regional flood.
5. 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) Construction Plan set by Roshell Engineering, Inc, dated 5/31/16, received 6/1/16.
2) Hydrology Memo and Models by unknown, dated 5/31/16, received 6/1/16.

PREVIOUS ACTION TAKEN: This is a new application.

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

Ditches: A crossing of the ditch is not proposed.

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

Erosion and Sediment Control: Soils affected by the proposal are Lino and Isanti.
  • Stabilizing vegetation is proposed for disturbed areas within seven (7) days of rough grading.
• Soil stockpiles have not 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 not 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 not 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 is found on the southwest corner of the property. It is unknown if the site will require dewatering.

Floodplain: There is floodplain on the property according to the District model and FEMA at 900.8 ft (NAVD 88). The project does propose to place fill within the floodplain. The total floodplain impact is negligible. The proposed impact is within the flood fringe. Compensatory storage is not needed. There are flooding concerns downstream.

High Water Flooding:
Information has been provided to substantiate low floor elevations. Low floor elevations do meet the criteria for the City of (Blaine; 1 ft above mottled, 2 ft above 100 yr).

Groundwater: Geotechnical information collected in May 2016 indicates long term groundwater elevation is present at 7 - 10 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.

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

**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 not been notified and acknowledge the changes proposed.

**Maintenance:** The Owner of the Stormwater Management features and treatment practices is unknown for the infiltration basins and the City of Blaine for the wet basin. The Stormwater Treatment Practices (STPs) consisting of the following:

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

Inspection and maintenance of stormwater facilities will be the responsibility of unknown for the infiltration basins and the City of Blaine for the wet basin. A maintenance agreement has not been executed. The applicant has not submitted a Maintenance Plan for each Stormwater Treatment Practice.

**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 not achieved. The stormwater management system utilizes infiltration basins and a wet pond.

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 not protected from erosion due to new outlet structure to CD 60-1. 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.
**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 are pretreated by a sediment basin/water quality pond, and are designed correctly. All work adjacent to wetlands, waterbodies and water conveyance systems are not 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 and drains to an Impaired Water.

There are new impervious surfaces proposed as part of this project.

**Wetlands:** Wetlands do not exist on-site according to the 1987 Federal manual, NWI, PWI and Soil Survey.

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

**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:** $4,315.00

**Wetland Escrow:** N/A

There are not ditch liens on the property.

**ISSUES/CONCERNS:**

<table>
<thead>
<tr>
<th>ISSUE</th>
<th>NEED</th>
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</thead>
<tbody>
<tr>
<td>Escrow: $2,000 + (4.63 ac * $500/ac) = $4,315.00</td>
<td>1. Receipt of escrows.</td>
</tr>
<tr>
<td><strong>Stormwater &amp; Hydraulics:</strong> New pond outlet pipe to CD 60-1 will cause scouring of southern side of CD 60-1 bank.</td>
<td>2. Provide riprap at a 4:1 expansion from outlet structure to southern side of bank of CD 60-1.</td>
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<tr>
<td>Curb cut and swale for western drainage area is not recommended due to long term maintenance issues and feasibility.</td>
<td>3. Discharge from Subwatershed 3S should be directed into a curb cut and connected to Western Basin via pipe to eliminate swale between lots 2 and 3. Another option is to direct 3S into wet basin and redesign Pond and Infiltration basin to be a single basin.</td>
</tr>
<tr>
<td>The applicant is not meeting the volume management requirement equivalent to infiltrating runoff from the first inch of precipitation. All projects in the Coon Creek Watershed District must meet this requirement. If applicants cannot meet this requirement due to site constraints in its entirety, they must meet it to the greatest extent practical and explain why it cannot be met.</td>
<td>4. Infiltration is not feasible due to high groundwater at the proposed detention basin. However, filtration should be provided to meet district requirements.</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>5. The applicant must acknowledge that they will conduct a post construction test on the infiltration basins 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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<tr>
<td>Overflow weirs for infiltration basins is 902.0. HWL for West basin is 902.7 and 902.3 for South basin. Based on grading plan, the basins will overflow to the west and south along entire basin length at 902.0, not just the overflow locations.</td>
<td>6. Provide spot elevations indicating water will be contained to HWL in basin or additional grading to prevent overtopping outside of proposed weirs.</td>
</tr>
<tr>
<td>Consistency is needed between plan set and model.</td>
<td>7. Stormsewer information needs to be shown on grading plan including pipe inverts, rims, length and sizing.</td>
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<tr>
<td><strong>Soils &amp; Erosion Control:</strong> All storm sewer inlets are not protected from sediment-laden water during construction.</td>
<td>8. Inlet protection also needed at 3 CBs south of the project site along southbound Radisson Rd NE.</td>
</tr>
<tr>
<td>Soil stockpiles have not been proposed to be fitted with sediment-trapping measures to prevent soil loss.</td>
<td>9. Soil stockpile locations are unknown and no sediment-trapping measures are provided in the SWPPP.</td>
</tr>
<tr>
<td>It is unknown if dewatering is required.</td>
<td>10. Clarify if dewatering is required.</td>
</tr>
<tr>
<td><strong>Water Quality:</strong> All discharges into wetlands/water quality basins are not pretreated by a sediment traps.</td>
<td>11. Curb cuts need to have sediment capture device such as a Rain Guardian or sumps, to meet pretreatment requirements for western infiltration basin and Wet basin.</td>
</tr>
</tbody>
</table>
**Maintenance:** A maintenance agreement has not been executed for infiltration basins.

<table>
<thead>
<tr>
<th>Maintenance</th>
<th>12. City of Blaine does not maintain infiltration basins, only wet detention basins. An O&amp;M agreement for infiltration basins that meets District requirements is needed.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Floodplain:</strong> No legend was provided on grading plan.</td>
<td>13. Clarification is needed as to what low floors are for each lot. As-built will need to be provided to ensure grading is consistent with proposed plan.</td>
</tr>
</tbody>
</table>

**RECOMMENDATION:** Table with 13 Stipulations

**Stipulations:**

1. Receipt of escrows.
2. Provide riprap at pond outlet in CD 60-1 at 4:1 ratio to prevent scouring of southern bank.
3. Remove swale between Lots 2 and 3 and replace with pipe. Or redirect 3S to wet basin and combine Pond and Western Infiltration basin into single basin to meet rate control and infiltration/filtration requirements.
4. Filtration should be provided to meet district requirements for infiltration at wet basin.
5. 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.
6. Provide spot elevations indicating water will be contained to HWL in basin or additional grading to prevent overtopping outside of proposed weirs.
7. Stormsewer information needs to be shown on grading plan including pipe inverts, rims, length and sizing.
8. Inlet protection at three catch basins south of project area on Radisson Rd NE.
9. Soil stockpile locations are unknown and no sediment-trapping measures are provided in the SWPPP.
10. Clarify if dewatering is required.
11. Curb cuts need to have sediment capture device such as a Rain Guardian or sumps, to meet pretreatment requirements for western infiltration basin and Wet basin.
12. City of Blaine does not maintain infiltration basins, only wet detention basins. An O&M agreement for infiltration basins that meets District requirements is needed for west and south infiltration basins.
13. Clarification is needed as to what low floors are for each lot. As-built will need to be provided to ensure custom grading is consistent with proposed plans.