COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: April 14, 2014
AGENDA NUMBER: 12
FILE NUMBER: 14-034
ITEM: Carson Ridge

RECOMMENDATION: Table with 11 Stipulations

APPLICANT: Tony Hennen
T. H. Construction of Anoka
617 Main St, Suite 3
Anoka MN 55303-6501

PURPOSE: 18 lot single family residential development

LOCATION: 14123 Prairie Road, Andover MN
APPLICABILITY:
1. Any work in or adjacent to wetlands, lakes or water courses.
2. One or more cumulative acres of land disturbance.
3. High water table, outwash and organic soils.
4. High infiltration soils.
5. Highly erodible soils
6. Endangered, Threatened or Special concern species, elements of communities.

EXHIBITS:
1. Plan set by Hakanson Anderson; dated 3/10/2014; received 3/12/2014
2. Geotechnical Exploration and Review; by Northern Technologies; Dated 2/26/2014; received 3/12/2014
4. Wetland Delineation Report, not dated, Received 3/21/2014

HISTORY & CONSIDERATIONS:
The site consists of a house and storage building, open fields, woods and wetlands. The existing house will remain but the storage building will be removed.

FINDINGS:
Ditches and Drainage: There is not a public ditch on the property. The project site is tributary to County Ditch 57.

Floodplain: There is no floodplain on the property according to FEMA. The District Atlas 14 model predicts the 100-year elevation for the subwatershed at 878.5 feet.

Groundwater: Surficial ground water is present at 870.1 to 874.7 feet. The site does include groundwater sensitive areas. Information has been provided to substantiate low floor elevations. Low floor elevations meet the criteria for the City of Andover 3 ft above mottled soil elevation, and 2 ft above 100-year.

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.

Maintenance: The proposed project does not include a ditch maintenance easement or utility line crossings. A drainage and utility easement is provided for the storm water/infiltration pond shown on the drainage plan. Property owners affected by changes in drainage have been notified and have acknowledged the changes proposed.

Soils & Erosion Control: Soils affected by the proposal are Sartell. Stabilizing vegetation is proposed for disturbed areas within two weeks of rough grading. Adjacent
properties are protected from sediment deposition. All wetlands, waterbodies, ponds, infiltration basins and water conveyance systems are not protected from erosion and sedimentation. Project site is greater than 1 acre; an NPDES permit is required.

**Stormwater & Hydraulics:** The applicant is not meeting the volume management requirement equivalent to infiltrating runoff from the first inch of precipitation. Stormwater leaving the site is discharged into a well-defined receiving channel or pipe and routed to a public drainage system. Drainage sensitive uses 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.

**Water Quality:** Project does include new impervious drainage areas greater than 1 acre. All discharges into wetlands are pretreated by a sediment basin/water quality pond and are designed correctly. 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.

**Wetlands:** Wetlands do exist on-site according to the 1987 Federal manual, NWI, PWI and Soil Survey. No wetland impacts are proposed.

**Wildlife:** The proposed project does include the threatened species Loggerhead Shrike (*Lanius ludovicianus*). The site does not include rare natural communities. Staff has contacted the DNR for additional information on options for the property to provide habitat for the bird. The DNR literature suggests preserving scattered shrubs and trees or plant red cedar, hawthorn and plum trees for nesting. The literature also suggests leaving barb wire fences. The DNR also recommends that during the breeding season, shrubs and trees are checked for nests prior to cutting to prevent incidental takings.

**Performance escrow:** $7,010.00

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<th>ISSUES/CONCERNS</th>
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<td><strong>Stormwater &amp; Hydraulics:</strong> The applicant is not meeting the</td>
<td>1. Provide stormwater runoff calculations that show the site is</td>
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<td>volume management requirement equivalent to infiltrating runoff</td>
<td>meeting the volume management requirement equivalent to infiltrating</td>
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<td>from the first inch of precipitation. The HydroCad model shows</td>
<td>runoff from the first inch of precipitation.</td>
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<td>a third infiltration basin that drains subwatershed I-3. However,</td>
<td>2. Route runoff from proposed watershed 112 (Lots 13 and 14) to</td>
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<td>It is not evident on the plans where this basin is. All projects</td>
<td>a defined basin or get permission from the City and adjacent</td>
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<td>in the Coon Creek Watershed District must meet this requirement.</td>
<td>landowner for proposed change in drainage.</td>
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<td>If applicants cannot meet this requirement due to site</td>
<td>3. Modify pond basin or it’s outlet</td>
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<td>constraints in its entirety, they must meet it to the greatest</td>
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<td>extent practical and explain why it cannot be met.</td>
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There are drainage sensitive uses downstream of the development. Therefore, the applicant must show that the 100-year rate is less than the 25-year storm.

The location of the curb cuts need to be identified on the grading and drainage plan.

The wetland delineation shows the wetland boundary at 880-881. If this is the case, then this will have an effect on the hydraulics leaving the proposed pond. The OHW of the wetland needs to be verified. If the OHW is above the pond invert of 879, the boundary conditions of the model needs to be updated to reflect a tail water effect.

The discharge leaving watershed 112 is more concentrated under proposed conditions versus existing conditions and is not discharged into a well-defined basin. This discharge either needs to be routed into the proposed pond, or the adjacent landowner must be notified and they must acknowledge the change in drainage onto their property.

**Soils & Erosion Control:** Infiltration basins are not protected from erosion and sedimentation during construction. After initial grading the District requires that infiltration basins be completely surrounded by erosion control measures to prevent the basin from clogging.

6. 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.

7. After initial grading completely surround the proposed infiltration basins and the storm water pond with erosion control measures to prevent the basin from clogging and the pond from filling with sediment during construction.

8. Identify location of infiltration
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<th>Maintenance:</th>
<th>9. The City must review and approve that the distance is acceptable.</th>
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<td>The distance (27′) from the proposed pond utility easement and the corner of the house on Lot 2, Block 2 seems small.</td>
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<td>Wildlife: The proposed project does include the threatened species Loggerhead Shrike (<em>Lanius ludovicianus</em>).</td>
<td>10. It is recommended that scattered shrubs and trees are preserved or plant red cedar, hawthorn and plum trees for nesting. Leave barb wire fences. It is also recommended that during the breeding season, shrubs and trees are checked for nests prior to cutting to prevent incidental takings.</td>
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<td>Escrows:</td>
<td>11. Receipt of escrows</td>
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<td>$1,500 + (10.2 \text{ acres} \times $500/\text{acre}) = $7,010.00</td>
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**RECOMMENDATION:** Table with 11 Stipulations

**Stipulations:**
1. Receipt of escrows.
2. 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.
3. After initial grading completely surrounded the proposed infiltration basins and the storm water pond with erosion control measures to prevent the basin from clogging and the pond from filling with sediment during construction.
4. Identify location of infiltration basin 3 on plans
5. Provide stormwater runoff calculations that show the site is meeting the volume management requirement equivalent to infiltrating runoff from the first inch of precipitation.
6. Route runoff from proposed watershed 112 (Lots 13 and 14) to a defined basin or get permission from the City and adjacent landowner for proposed change in drainage.
7. Modify pond basin or it’s outlet such that rate control is met within the drainage sensitive uses criteria (i.e. the 100-year rate proposed < the 25 year rate existing)
8. Obtain the OHW of the wetland downstream of the proposed pond and incorporate the tail water condition as a boundary condition to the model if necessary.
9. Show locations of curb cuts on the grading plan.
10. The City must review and approve that the distance is acceptable from the proposed pond utility easement and the corner of the house on Lot 2, Block 2.
11. It is recommended that scattered shrubs and trees are preserved or plant red cedar, hawthorn and plum trees for nesting. Leave barb wire fences. It is also recommended that during the breeding season, shrubs and trees are checked for nests prior to cutting to prevent incidental takings.