COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: October 28, 2019
AGENDA NUMBER: 9
FILE NUMBER: 19-121
ITEM: Constance Blvd Terrace, LLC

RECOMMENDATION: Table with 7 Stipulations

APPLICANT: Gus Afrooz, Constance Blvd Terrace, LLC
4050 85th Lane NE, Circle Pines, MN 55014

PURPOSE: Development of 26.25 acres of farm land into 13 single family residential lots

LOCATION: 3807 Constance Blvd. NE in Ham Lake, MN

APPLICABILITY:
1. Within 1 mile of an impaired waters.
2. Any work within or adjacent to a Public ditch within the Watershed District.
3. Any work in or adjacent to wetlands, lakes or water courses
4. One or more cumulative acres of land disturbance
5. Activities upstream from land that is dependent upon removal of water from the soil profile for their continued use (Drainage Sensitive Land Uses)
6. High infiltration soils
7. Highly erodible soils
8. Endangered, Threatened or Special concern species, elements or communities

EXHIBITS:
2. Title Sheet, Preliminary Plat, Grading Plan and Livability Plan set (7 sheets); by EG Rud & Sons, dated 10/15/2019, received 10/16/2019.
5. City of Ham Lake Comment letter with Developer Comments, Received 7/31/2019.
8. NHIS Response letter ERDB 20190388, dated 7/17/19, Received 9/11/19.
9. Wetland Replacement Plan; by Jacobson Environmental, received 6/25/19, update received 8/29/19.
PREVIOUS ACTION TAKEN: The project was tabled for the September 23, 2019 Board Meeting. The following issues were identified:

1. Receipt of escrows.
2. Soils and water table elevations appear to be amenable for infiltration on this site. Provide a valve or other shutoff for the drain tile so that it can function as an infiltration basin but can be drained if necessary, or route the drain tile discharge to the excavation in the HydroCAD model.
3. Provide a piped discharge from the pond and from Tippecanoe Street to the pond that functions properly with adequate head space assuming that the infiltration bench is plugged or otherwise not functioning. This may require parallel pipes from Pond 1 to Tippecanoe Street.
4. The 100-year post project conditions runoff rate and volume must be less than the proposed 25-year event.
5. Update the report to match the results of the HydroCAD model.
6. Provide updated proposed drainage area maps. Ensure that every drainage area and basin in the model has a matching node identification number in the report and that the models are routed properly.
7. Route Pond P2 to the excavation in the HydroCAD model.
8. Provide dewatering plans and copy of DNR appropriations permits if dewatering is used.
9. The LGU must issue an approved replacement plan.
10. Provide proof of purchase for wetland credits.
11. Provide note on plans that contractors must receive the DNR flyers/Fact Sheets regarding Banding’s Turtles and follow DNR recommendations.

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

Ditches: There is a public ditch on the property. The public ditch is County Ditch 11 according to the public drainage map.

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 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 not 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 not 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 may exist on site. The project may require dewatering.

**Floodplain:** There is floodplain on the property according to the District model but not FEMA. The District’s floodplain elevation is at 898.2 feet. The project does not propose to place fill within the floodplain. The total floodplain impact is 0 acre-feet. The proposed impact is not within the floodway/flood fringe. Compensatory storage is not needed. There are flooding concerns upstream.

**High Water Flooding:** Information has been provided to substantiate low floor elevations. Low floor elevations meet the criteria for the City of Ham Lake; 1 ft above mottled soil or the 100-year high water level.

**Groundwater:** Geotechnical information collected in April of 2019 indicates long term groundwater elevation present at about 6 to 11 feet below the surface, corresponding to elevations between about 893 to 896.

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

**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 or acknowledge the changes proposed.

**Maintenance:** The owner of the Stormwater Management features and treatment practices is City of Ham Lake. 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>2</td>
<td>City</td>
</tr>
<tr>
<td>Infiltration basins</td>
<td>1</td>
<td>City</td>
</tr>
<tr>
<td>Filtration Basin</td>
<td>1</td>
<td>City</td>
</tr>
<tr>
<td>Sumps</td>
<td>3</td>
<td>City</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 include ditch maintenance easement. A ditch maintenance easement is required. A maintenance access to all storm water management features is provided.

**Stormwater & Hydrology:** Infiltration is allowed within the project area but is only feasible for portions of the project area due to high groundwater. The 1-inch
infiltration/filtration may be achieved. The stormwater management system utilizes wet ponds with infiltration and filtration bench areas. Calculations are not provided that illustrate the 1-inch infiltration volume is provided below outlet.

Drainage sensitive uses exist downstream from the proposed site. The rate of post-development runoff from the site may 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. 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/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 within one (1) mile of and drains to an Impaired Water. The Impaired Water is Coon Creek. Coon Creek is impaired for (Aquatic Life (Macro-invertebrates)/ Aquatic Recreation (E. coli). The major stressors are Total Suspended Solids (TSS)/ Total Phosphorus (TP)/E.coli. There is an EPA approved Total Maximum Daily Load (TMDL) or Waste Load Allocation (WLA) for this 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 9/15/19. The wetland boundary has been checked.

The wetland is not a DNR protected water.

The total proposed wetland impact is 0.17 acres. The impact is through fill in two locations as shown below:
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 not need to contact the DNR area hydrologist and does need to contact the Corps of Engineers.

Two alternatives, plus the proposed project, have been submitted. On-site sequencing does apply. The avoidance alternatives are being reviewed.

1. The applicant suggests that avoidance is not reasonable because there is no feasible and prudent alternative:
1) The basic purpose of the project cannot reasonably be accomplished at an alternative site, alternative sites are not available, alternative sites are not practical/prudent; 
2) The basic purpose of the project can be accomplished by further design modification which would avoid wetland impacts; and 
3) The applicant has not demonstrated that the activity will minimize wetland impacts through:
   a. modifying the size, scope, and configuration of the project.

**Wetland Replacement Plan:** A wetland replacement plan application has been submitted. The wetland replacement plan has been sent to TEP members for comment and is in comment period.

Replacement is proposed to be through purchasing wetland credits at a ratio of 2:1. The credits will be purchased through wetland bank #1537.

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.

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

**Performance Escrow:** $15,125.00

**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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<tbody>
<tr>
<td>Escrows: $2,000 + (26.25 ac * $500/ac) = $15,125.00</td>
<td>1. Receipt of escrows.</td>
</tr>
<tr>
<td><strong>Maintenance:</strong> Ditch easement for CD 11 appears to be provided but not clearly labeled.</td>
<td>2. Clearly label easement for CD 11 that is 50 feet from centerline.</td>
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<tr>
<td><strong>Stormwater &amp; Hydraulics:</strong> Unable to verify summary tables. HydroCAD provided only has pond information.</td>
<td>3. Provide model with all inputs such as reaches, subcatchments and ponds.</td>
</tr>
<tr>
<td><strong>Pond 2 outlet, OCS 501 does not match between detail and HydroCAD model.</strong></td>
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<tr>
<td>4. Provide consistent information between plans and HydroCAD model for 6-inch orifice at OCS 501.</td>
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</table>
| **Soils & Erosion Control:** Riprap at FES into CD 11 is not provided.  
Sediment control for stormsewer pipes entering CD11 are not provided. |
| 5. Provide location on construction plans and detail for riprap at outlets of FES into CD 11. Detail should illustrate that riprap is flush with existing grade of banks and extends to bottom of ditch.  
6. Add double row silt fence at the perimeter of Culvert 4 and FES 111. |
| **Wetlands:** Wetland credits are proposed to be purchased to replace the wetland impacts. |
| 7. Provide proof of purchase for wetland credits. |

**RECOMMENDATION:** Table with 7 Stipulations

**Stipulations:**

1. Receipt of escrows.
2. Clearly label easement for CD 11 that is 50 feet from centerline.
3. Provide model with all inputs such as reaches, subcatchments and ponds.
4. Provide consistent information between plans and HydroCAD model for 6-inch orifice at OCS 501.
5. Provide location on construction plans and detail for riprap at outlets of FES into CD 11. Detail should illustrate that riprap is flush with existing grade of banks and extends to bottom of ditch.
6. Add double row silt fence at the perimeter of Culvert 4 and FES 111.
7. Provide proof of purchase for wetland credits.