COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: September 12, 2016
AGENDA NUMBER: 16
FILE NUMBER: 16-138
ITEM: The Dental Specialists

RECOMMENDATION: Table with 7 Stipulations

APPLICANT: Ross Hedlund
7101 West 78th Street No. 100
Bloomington, MN 55439

PURPOSE: New office building on 1.4 acres

LOCATION: 3360 Northdale Blvd NW, Coon Rapids MN

APPLICABILITY:
1. One or more cumulative acres of land disturbance

EXHIBITS:
1) Geotechnical Report by AET, Inc.; dated 5/12/16, received 8/30/16.
2) Construction Plan set by BKBM; dated 8/30/16, received 8/30/16.
3) HydroCAD Report by BKBM; dated 7/14/16, received 8/30/16.

PREVIOUS ACTION TAKEN: This is a new application.
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 ditch is not proposed.

Erosion and Sediment Control: Soil affected by the proposal is Hubbard.

- Stabilizing vegetation is not proposed for disturbed areas within seven (7) days of rough grading.
- If soil is stockpiled, they are 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 does not exist on site. It is unknown if the project does not require dewatering.

Floodplain: There is no floodplain on the property according to the District model and FEMA.

High Water Flooding: Information has been provided to substantiate low floor elevations. Low floor elevations do meet the criteria for the City of Coon Rapids; 3 ft above highest anticipated water table, 2 ft over 100 yr.
Groundwater: Geotechnical information collected in April 2016 indicates long term groundwater elevation is present at 12.5 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). Including:

- Storage, production, disposal or treatment of hazardous materials
- Dry cleaning, dyeing, printing, photo processing or any other uses of hazardous materials
- Disposal of septage or septic sludge
- Vehicle or equipment maintenance/fueling area
- Underground storage tanks
- Storage and use of petroleum products
- Chemical/pesticide/herbicide storage
- Storage and use of petroleum products exceeding fifty-five (55) gallons

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 unknown. The Stormwater Treatment Practices (STPs) consisting of the following:

<table>
<thead>
<tr>
<th>Stormwater Treatment Practices</th>
<th>Number</th>
</tr>
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<tbody>
<tr>
<td>Infiltration Basins</td>
<td>1</td>
</tr>
</tbody>
</table>

It is unknown who will be responsible for the inspection and maintenance of stormwater facilities. 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 not provided.

Stormwater & Hydrology: Infiltration is allowed within the project area. The 1-inch infiltration is achieved. The stormwater management system uses an infiltration 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 not 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.

**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 not pretreated by a sediment basin/water quality pond. 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 within one (1) mile 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 of Total Suspended Solids (TSS) / Total Phosphorus (TP) / E.coli. There is not 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:** Wetland 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:** $2,680.00

**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 + (1.36 ac * $500/ac) = $2,680.00</td>
<td>1. Receipt of escrows.</td>
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</tbody>
</table>
**Stormwater & Hydraulics:** The applicant is meeting the volume management requirement equivalent to infiltrating runoff from the first inch of precipitation. A post construction test on the infiltration basin will be required to verify the assumed infiltration rates are obtained.

<table>
<thead>
<tr>
<th>Stormwater &amp; Hydraulics:</th>
<th>2. The applicant must acknowledge that the Coon Creek Watershed District shall be notified prior to the test to witness the post construction infiltration test.</th>
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<tbody>
<tr>
<td>Model Updates:</td>
<td>3. Model updates:</td>
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<tr>
<td>a. Geotechnical Report indicates that the site is SP-SM soils and the existing site appears to have been mass graded which would compact the soils. Existing and proposed soil conditions will be closer to Type “B”.</td>
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<tr>
<td>b. Pervious area in the north appears to drain toward Northdale Blvd, not to the basin as indicated in the HydroCAD model.</td>
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<td>c. Type MS3 rainfall distribution should be used in conjunction with Atlas 14 data.</td>
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<td>d. Outlet invert for basin does not match between table on C3 and HydroCAD model</td>
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<td>Soils &amp; Erosion Control: District requires all stabilization vegetation be within seven (7) days of rough grading or inactivity.</td>
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<td>It is unclear if dewatering is needed during the construction of the proposed project.</td>
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<td>Existing CB#1 should be protected from construction activities.</td>
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<td>Water Quality: All discharges into water quality basins are not pretreated. Pretreatment may include, but is not limited to sumps and forebays.</td>
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<td>4. Update construction plans to stabilize vegetation in 7 days of rough grading or inactivity.</td>
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<td>5. Provide statement whether dewatering will be required for the construction of the proposed project. If yes, provide well-field location, rates, discharge location, schedule and quantities.</td>
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<td>6. Provide inlet protection at CB#1.</td>
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<td>7. Provide pretreatment into infiltration basin at inlets using sumps or forebays. If using a sump, provide calculations (SHASM can be used) to indicate sumps are appropriately sized to meet district removal rates of 80% TSS. A minimum of 4 foot depth is required to prevent resuspension. If using a forebay, it should be designed to handle a 0.5 inch rainfall event.</td>
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RECOMMENDATION: Table with 7 Stipulations

Stipulations:
1. Receipt of escrows.
2. The applicant must acknowledge that the Coon Creek Watershed District shall be notified prior to the test to witness the post construction infiltration test.
3. Model updates:
   a. Update HydroCAD model to use Type B soils for existing and proposed.
   b. Update model and drainage map to show correct drainage pattern on the northern end of the site.
   c. Update rainfall distribution for MS3 (available in HydroCAD 10.0, build 16 and up).
   d. Provide consistent info between HydroCAD model and storm sewer information on sheet C3.
4. Update construction plans to stabilize vegetation in 7 days of rough grading or inactivity.
5. Provide statement whether dewatering will be required for the construction of the proposed project. If yes, provide well-field location, rates, discharge location, schedule and quantities.
6. Provide inlet protection at STRM#1.
7. Provide pretreatment into infiltration basin at inlets using sumps or forebays. If using a sump, provide calculations (SHASM can be used) to indicate sumps are appropriately sized to meet district removal rates of 80% TSS. A minimum of 4 foot depth is required to prevent resuspension. If using a forebay, it should be designed to handle a 0.5 inch rainfall event.