COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE:       June 13, 2016
AGENDA NUMBER:      13
FILE NUMBER:        16-093
ITEM:               Ham Lake Professional Building

RECOMMENDATION:     Table with 9 Stipulations

APPLICANT:          Stone Construction
                     Attn: Paul Stone
                     2181 107th Ln NE
                     Blaine, MN 55449

PURPOSE:            New commercial building on 2 acres

LOCATION:           NW Quad of Aberdeen and 133rd Lane
APPLICABILITY:
1. One or more cumulative acres of land disturbance
2. Endangered, Threatened or Special concern species, elements or communities

EXHIBITS:
1) Construction Plan set by Hakanson Anderson; dated 5/31/16, received 6/1/16.
2) Stormwater Management Plan by Hakanson Anderson; dated 5/27/16, 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: There is not a public ditch on the property.

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

Erosion and Sediment Control: Soils affected by the proposal are Lino and Zimmerman. No SWPPP was submitted.
- Stabilizing vegetation is not proposed for disturbed areas within seven (7) days of rough grading.
- It is unknown if 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 not 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 not been made to minimize transport of sediment (mud) by runoff or vehicle racking onto the paved surface.
- Provisions have not been made for cleaning road surfaces where sediment is transported by the end of the day.
- Construction entrance points are not clearly located on the erosion and sediment control plan.
- The erosion and sediment control plan does not provide for the repair and maintenance of all temporary and permanent erosion and sediment control practices.

Dewatering:
Groundwater information was not provided, it is unknown if shallow ground water exists on site. It is unknown if the project requires dewatering.

An assessment of risks to other water and related resources has not been conducted.

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

High Water Flooding:
Information is not needed to substantiate low floor elevations, slab on grade proposed for building. Low floor elevations meet the criteria for the City of Ham Lake; 1 ft above 100 yr.

Groundwater: Geotechnical information was not provided.

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

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 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>
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<tbody>
<tr>
<td>Infiltration Basin</td>
<td>1</td>
</tr>
<tr>
<td>Sumps</td>
<td>2</td>
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Inspection and maintenance of stormwater facilities will be the responsibility of unknown. 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 does utilize infiltration basin and regional ponding. 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. It is unknown if the rate of post-development runoff from the site does exceed predevelopment rates, or rates which would interfere with sensitive downstream land uses. Based on the current model, properties and waterways downstream from the project may not be protected from erosion due to increases in the volume, velocity and peak water flow rates of stormwater runoff. Concentrated storm water leaving the 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.

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 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 required.

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 endangered or threatened species, rare natural community is the Black Huckleberry (*Gaylussacia baccata*)

The applicant has not contacted the MDNR natural heritage or endangered species program.

Performance Escrow: $2,900.00

Wetland Escrow: N/A

There are not ditch liens on the property.

**ISSUES/CONCERNS:**

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<th>ISSUE</th>
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<tr>
<td><strong>Stormwater &amp; Hydraulics:</strong> Regional ponding is being used for infiltration and rate control. However, provided HydroCAD models do not include entire project site in drainage area or account for proposed impervious. Autodesk model provided is not consistent with HydroCAD HWL for existing basins and does not illustrate that rate control is being met. Existing flow is 4.4 cfs out of 121P and proposed is 6.6 cfs in the output summary.</td>
<td>1. Provide model that shows rate control is being met on site for Pond 18P and regionally for the rest of the site. Provide summary table with outflow values for 2, 10 and 100-Yr storm events for existing and proposed conditions.</td>
</tr>
<tr>
<td>Autodesk model indicates that the HWL for 18P is 903.5 and 904.7 for existing and proposed conditions respectively. Current grading indicates that basin overtopping will be at approximately 904.0’</td>
<td>2. Overflow location and elevation needs to be shown on grading plan for the on-site infiltration basin. Discharge from overflow needs to be included in model for downstream basin and stormsewer.</td>
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</tbody>
</table>
A post construction test on the infiltration basin will be required to verify the assumed infiltration rates are obtained.

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.

**Soils & Erosion Control:** No SWPPP was provided.

4. Provide SWPPP

**District requires all sites to stabilize vegetation within seven (7) days of rough grading or inactivity.**

5. Update construction plans to stabilize vegetation in 7 days of rough grading or inactivity.

**Water Quality:** Sumps are shown on utility plan but no calculations were provided to indicate district removal efficiencies of 80% TSS has been met.

6. Provide calculations (SHASM can be used) to indicate district removal rates of 80% TSS is being met with 3’ sumps.

**Maintenance:** The Owner of the Stormwater Management features and treatment practices is unknown and no O&M agreement has been submitted.

7. An O&M agreement for the infiltration basin and 2 sumps on-site needs to be provided that meets district standards.

**Wildlife:** The project has the potential to include the endangered or threatened species, rare natural community Black Huckleberry (*Gaylussacia baccata*).

8. Contact the DNR to have a DNR Natural Heritage Information System (NHIS) data review completed to determine if any records of state-protected species may be located within the boundary of this project.

**Escrows:** $2,000 + (1.8 ac * $500/ac) = $2,900.00

9. Receipt of Escrows

**RECOMMENDATION:** Table with 9 Stipulations

**Stipulations:**

1. Receipt of escrows.

2. Provide model that shows rate control is being met on site for Pond 18P and regional for the rest of the site and summary table with outflow values for 2, 10 and 100-Yr storm events.

3. Overflow location and elevation needs to be shown on grading plan. Discharge from overflow needs to be included in model for downstream basin and stormsewer if directed toward Aberdeen.

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. Provide SWPPP.

6. Applicant shall provide calculations for the sizing of sumps to meet the 80% removal efficiency requirement or add device to improve sediment capture. If using SHASM to calculate removal rates, the MnDOT road sand particle size distribution is acceptable.

7. An O&M agreement for the infiltration basin and 2 sumps on-site needs to be provided that meets district standards.

8. Confirm with City that the elevation for the stormsewer connection stub is correct.

9. Contact the DNR to have a DNR Natural Heritage Information System (NHIS) data review completed to determine if any records of state-protected species may be located within the boundary of this project.