COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: May 14, 2018
AGENDA NUMBER: 21
FILE NUMBER: 16-184
ITEM: Nystrom & Associates Medical Building

RECOMMENDATION: Approve with 5 Stipulations

APPLICANT: Nystrom & Associates
3833 Coon Rapids Blvd. Suite 120
Coon Rapids, MN 55433

PURPOSE: 10,270 SQ FT two story medical building on 2.38 Acre Lot

LOCATION: Corner of Coon Rapids Blvd NW and Round Lake Blvd NW, Coon Rapids, MN

APPLICABILITY:
1. Within 1 mile of an impaired waters.
2. One or more cumulative acres of land disturbance
EXHIBITS:

PREVIOUS ACTION TAKEN: This is a resubmittal. The application was tabled at the 4/23/2018 meeting with 10 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. Provide high water elevation on construction plans.
4. Change outlet invert elevation to the correct elevation (859.2) on the pond outlet control structure detail.
5. Provide rate control table for each discharge location off project site after model updates completed.
6. Update HydroCAD model:
   a. Change type II distribution to MSE3.
   b. Include flows from south retail site in existing model.
   c. Include existing basin in existing model.
   d. If grate/top of weir of the basin’s outlet control structure is acting as emergency overflow then change top of weir elevation to 100 year HWL on plans. If it is not acting as emergency overflow then include in model as an outlet device.
   e. Include exfiltration routed to 6” inlet pipe as outlet device for basin in model.
7. Update construction plans to stabilize vegetation within 7 days of rough grading or inactivity.
8. After initial grading, completely surround the proposed infiltration basin with erosion control measures to prevent the basin from clogging.
9. Pretreatment needs to be provided at the inlets to the filtration basin to meet district removal rates of 80% TSS. Some pretreatment options include rain guardians, sumps, forebays, or micropools.
10. Provide an O&M Agreement that meets District requirements.

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 Hubbard and Cut/Fill.
- 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.
- 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.
- Stabilization adequate to prevent erosion has 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 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. 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 mottled, 2 ft above 100 yr.

**Groundwater:** Geotechnical information collected in May 2017 indicates long term groundwater elevation is present at 15 feet or more below the surface.

The project site is within the 10 Year Well Head Protection 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.

**Local Planning & Zoning:** The proposed project is consistent with local planning and zoning. There is an approved local water plan.

**Maintenance:** The Owner of the Stormwater Management features and treatment practices is Nystrom & Associates. The Stormwater Treatment Practices (STPs) consisting of the following:

<table>
<thead>
<tr>
<th>Stormwater Treatment Practices</th>
<th>Number</th>
<th>Maintenance Responsibility</th>
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</thead>
<tbody>
<tr>
<td>Basin</td>
<td>1</td>
<td>Nystrom &amp; Associates</td>
</tr>
<tr>
<td>Sump</td>
<td>2</td>
<td>Nystrom &amp; Associates</td>
</tr>
<tr>
<td>Rain guardian turret</td>
<td>2</td>
<td>Nystrom $ Associates</td>
</tr>
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</table>

A draft operations and maintenance agreement has been submitted and is currently under review.

**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 not allowed within the project area due to its location within a DWSMA. The 1-inch filtration is achieved. 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 exceeds predevelopment rates at the pond outlet. 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. There are no constructed storm water conveyance channels on site.

**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 basins are pretreated. 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 an Impaired Water. The Impaired Water is the Mississippi River. The Mississippi River is impaired for Aquatic Life (Macro-invertebrates)/ Aquatic Recreation (E. coli). The major stressors are Mercury/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 for Total Phosphorus (TP)/ Total Suspended Solids (TSS). There is not an EPA approved Total Maximum Daily Load (TMDL) or Waste Load Allocation (WLA) for this water for E. Coli.

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 is not required.

**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:** $3125.00

**Wetland Escrow:** $ N/A

There are not ditch liens on the property.

**ISSUES/CONCERNS:**

<table>
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<tr>
<th>ISSUE</th>
<th>NEED</th>
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<tbody>
<tr>
<td>Escrows: $2,000 + (2.25 ac * $500/ac) = $3125.00</td>
<td>1. Receipt of escrows.</td>
</tr>
</tbody>
</table>
Stormwater & Hydraulics: Rate control is not being met for basin outlet being discharged into the storm sewer.

Bioretention soil mix B provides rate control of the basin, not drain tile as modeled in HydroCAD.

2. City approval is needed for increased rates at basin outlet.

3. The filtration rate of soil mix B will need to meet at least a 1 in/hr testing rate during the basin filtration test.

Water Quality: It is unknown if pretreatment devices are appropriately sized to meet district removal rates of 80% TSS.

4. 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.

Maintenance: A maintenance agreement has been executed. The applicant has not submitted a Maintenance Plan for each Stormwater Treatment Practice.

5. Provide an O&M Agreement that meets District requirements.

RECOMMENDATION: Approve with 5 Stipulations

Stipulations:
1. Receipt of escrows.
2. City approval is needed for increased rates at basin outlet.
3. The filtration rate of soil mix B will need to meet at least a 1 in/hr testing rate during the basin filtration test.
4. 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.
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