COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: April 23, 2018
AGENDA NUMBER: 14
FILE NUMBER: 16-184
ITEM: Nystrom & Associates Medical Building

RECOMMENDATION: Tabled with 10 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 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 Hubbard and Cut/Fill.
  • Stabilizing vegetation is not 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>
</tr>
</thead>
<tbody>
<tr>
<td>Basins</td>
<td>1</td>
<td>Nystrom &amp; Associates</td>
</tr>
<tr>
<td>Pretreatment Device</td>
<td>?</td>
<td>Nystrom &amp; Associates</td>
</tr>
</tbody>
</table>

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 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 for the 1-year event. The rate of post-development runoff from the site does not exceed predevelopment rates for the 10, 25, and 100-year event. 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 not 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 Mercury/Aquatic Life (Macro-invertebrates)/ Aquatic Recreation (E. coli). The major stressors are Mercury/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 for Total Phosphorus (TP)/ Total Suspended Solids (TSS). There is an EPA approved Total Maximum Daily Load (TMDL) or Waste Load Allocation (WLA) for this water for Mercury.

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>
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<tr>
<td>Stormwater &amp; 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 filtration basin will be required to verify the assumed filtration rates are obtained.</td>
<td>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.</td>
</tr>
<tr>
<td>High water elevation is not provided on construction plans.</td>
<td>3. Provide high water elevation on construction plans.</td>
</tr>
<tr>
<td>Invert Elevation of the 12” outlet pipe on the pond outlet control structure is inconsistent on the grading plan and detail sheet.</td>
<td>4. Change outlet invert elevation to the correct elevation (859.2) on the pond outlet control structure detail.</td>
</tr>
<tr>
<td>It is unknow if rate control is meet for each discharge location for the project (north via overland flow and east via storm sewer outlet). Updated model required.</td>
<td>5. Provide rate control table for each discharge location off project site after model updates completed.</td>
</tr>
<tr>
<td>HydroCAD model:</td>
<td>6. Update HydroCAD model:</td>
</tr>
<tr>
<td>a) Type II rainfall distribution used instead of MSE3</td>
<td>a) Change type II rainfall distribution to MSE3.</td>
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<tr>
<td>b) Flows from south retail site not included in existing model</td>
<td>b) Include flows from south retail site in existing model.</td>
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</tbody>
</table>
c) Existing basin not included in model

d) The grate/top of weir of the basin’s outlet control structure is not modeled and/or is not set at the 100 year HWL on the construction plans

e) Bioretention soil mix B provides rate control and determines drawdown time of basin.

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<tr>
<th>Soils &amp; Erosion Control:</th>
<th>District requires all stabilization vegetation be within seven (7) days of rough grading or inactivity.</th>
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<td>Infiltration basins are not protected from erosion and sedimentation during construction. After initial grading the District requires that infiltration basins be completely surround by erosion control measures to prevent the basin from clogging.</td>
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<th>Water Quality:</th>
<th>All discharges into water quality basins are not pretreated.</th>
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<td>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.</td>
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<td>Provide an O&amp;M Agreement that meets District requirements.</td>
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**RECOMMENDATION:** Tabled with 10 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. 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.