COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: March 26, 2018
AGENDA NUMBER: 8
FILE NUMBER: 18-061
ITEM: Imagine Building

RECOMMENDATION: Table with 6 Stipulations

APPLICANT: Imagine
Town Square Drive
Blaine, MN

PURPOSE: 13,160 SQ FT Building on 1.7 Acre Lot

LOCATION: South of Town Square Dr and 108th Ln NE, Blaine MN

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

EXHIBITS:
1. Construction Plan set (6 sheets); by Plowe Engineering, dated 3/9/18, received 3/14/18.
2. HydroCAD models; by Plowe Engineering, dated 3/9/18, received 3/14/18.
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 the ditch is not proposed.

Erosion and Sediment Control: Soils affected by the proposal are Lino, Isanti and Zimmerman.
- 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 not 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 may exist on site. The project may 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 Blaine; 2 ft above mottled, 2 ft above 100 yr.

Groundwater: Geotechnical information collected in March 2018 indicates long term groundwater elevation is present at 10-11 feet below the surface. Additional Geotechnical information from surrounding area has groundwater elevations present at 4-10 feet below the surface.

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).

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 unknown. 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>2</td>
<td>Unknown</td>
</tr>
<tr>
<td>Forebay</td>
<td>1</td>
<td>Unknown</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 allowed within the project area. The 1-inch infiltration is achieved though high groundwater may require a redesign. The stormwater management system utilizes infiltration basins 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. The rate of post-development runoff from the site does not 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 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 not within one (1) mile of 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 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: $2,855.00
Wetland Escrow: $ N/A
There are not ditch liens on the property.

ISSUES/CONCERNS:

<table>
<thead>
<tr>
<th>ISSUE</th>
<th>NEED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Escrows: $2,000 + (1.71 ac * $500/ac) = $2,855.00</td>
<td>1. Receipt of escrows.</td>
</tr>
<tr>
<td>Stormwater &amp; Hydraulics: Based on existing model Subcatchment 02 area, Subcatchment 04 in proposed model appears to drain to B2, not B1.</td>
<td>2. Provide location of subcatchment 04 on drainage map and redirect in HydroCAD if necessary.</td>
</tr>
<tr>
<td>A post construction test on the infiltration basin will be required to verify the assumed infiltration rates are obtained.</td>
<td>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.</td>
</tr>
<tr>
<td>Groundwater: Mottled soils, Geotechnical reports from local area and NWL of nearby basins indicate that seasonally high groundwater is closer to 901.</td>
<td>4. Site already meets rate control through regional basin and therefore basins should be sized for volume management. It is recommended that Pond A have drain tile installed to ensure drawdown and that Pond B be raised 1-foot to provide 3-foot separation from seasonally high groundwater.</td>
</tr>
<tr>
<td>Soils &amp; Erosion Control: 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>
<td>5. After initial grading completely surround the proposed infiltration basins with erosion control measures to prevent the basin from clogging.</td>
</tr>
</tbody>
</table>
**Maintenance:** 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.

| 6. | Provide an O&M Agreement that meets District requirements. |

**RECOMMENDATION:** Table with 6 Stipulations

**Stipulations:**

1. Receipt of escrows.
2. Provide location of subcatchment 04 on drainage map and redirect in HydroCAD if necessary.
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.
4. Site already meets rate control through regional basin and therefore basins should be sized for volume management. It is recommended that Pond A have drain tile installed to ensure drawdown and that Pond B be raised 1-foot to provide 3-foot separation from seasonally high groundwater.
5. After initial grading completely surround the proposed infiltration basins with erosion control measures to prevent the basin from clogging.
6. Provide an O&M Agreement that meets District requirements.