COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: August 28, 2017
AGENDA NUMBER: 11
FILE NUMBER: 17-155
ITEM: Cardinal Court

RECOMMENDATION: Table with 8 Stipulations

APPLICANT: King of Glory Lutheran Church
10103 University Ave NE
Blaine, MN 55434

PURPOSE: 8 Townhomes on 1.5 Acres

LOCATION: NW Corner of 3rd Street NE & 101st Ave NE, Blaine MN

APPLICABILITY:
1. Within 1 mile of an impaired waters.
2. Any work in or adjacent to wetlands, lakes or water courses
3. One or more cumulative acres of land disturbance
4. The lands and waters that have been, or may be covered by the regional flood.
5. Endangered, Threatened or Special concern species, elements or communities.

EXHIBITS:
1. Construction Plan set (8 sheets); by Plowe Engineering, dated 8/16/17, received 8/16/17.
2. Stormwater Management Report; by Plowe Engineering, dated 8/16/17, received 8/16/17.

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 Hubbard, Isanti and Sartell.
• 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.
• Stormwater runoff does 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 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 exist on site. The project does may require dewatering.

Floodplain: There is floodplain on the property according to the District model and FEMA. The District’s floodplain elevation is at 894.3 feet. The project does not propose to place fill within the floodplain. There are no flooding concerns downstream.

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 August 2017 indicates long term groundwater elevation is present at 11 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).

**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 should be 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>
<th>Maintenance Responsibility</th>
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</thead>
<tbody>
<tr>
<td>Basins</td>
<td>1</td>
<td>Unknown</td>
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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. The stormwater management system utilizes a biofiltration 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 does not exceed predevelopment rates, or rates which would interfere with sensitive downstream land uses. Properties and waterways downstream from the project are not 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 wetlands are pretreated by a sediment basin/water quality pond, and are not 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 within one (1) mile of and drains to an Impaired Water. The Impaired Water is Pleasure Creek. Pleasure Creek is impaired for (Aquatic Life (Macro-invertebrates)/ Aquatic Recreation (E. coli). The major stressors are 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:** Wetlands do not exist on-site according to the 1987 Federal manual, NWI, PWI and Soil Survey. Wetlands have been delineated. The most recent delineation was completed in August 2017.

**Wetland Replacement Plan:** A wetland replacement plan 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 communities are the Beach Heather and Seaside Threesawn.

**Performance Escrow:** $2,750.00

**Wetland Escrow:** $N/A

There are not ditch liens on the property.

**ISSUES/CONCERNS:**

<table>
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<th>ISSUE</th>
<th>NEED</th>
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<tbody>
<tr>
<td><strong>Escrows:</strong> $2,000 + (1.5 ac * $500/ac) = $2,750.00</td>
<td>1. Receipt of escrows.</td>
</tr>
<tr>
<td><strong>Stormwater &amp; Hydraulics:</strong> 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. Current grading plan indicates overflow will be over entire east side of proposed basin which may result in long term erosion.</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. 3. Provide defined EOF at biofiltration basin with ECB, such as Enkmat, to protect bank from erosion. 4. Provide spot elevations for swales along backyards to ensure drainage</td>
</tr>
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</table>
Unclear if proposed swales will ensure water is directed into proposed biofiltration basin or if water will flow to adjacent property to the east. is into proposed biofiltration basin and does not escape offsite.

**Soils & Erosion Control:** It is unclear if dewatering is needed during the construction of the proposed project.

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.

**Water Quality:** Sump provided has a depth of 3 feet.

6. A minimum of 4-foot deep sump at CBMH#1 to prevent resuspension.

**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.

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

**Wildlife:** The proposed project may include endangered or threatened species, rare natural communities, colonial waterbird nesting sites, migratory waterfowl concentration areas, deer wintering areas or wildlife travel corridors.

8. Provide documentation from the DNR if the proposed project includes endangered or threatened species, rare natural communities, colonial waterbird nesting sites, migratory waterfowl concentration areas, deer wintering areas or wildlife travel corridors.

**RECOMMENDATION:** Table with 8 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 defined EOF at biofiltration basin with ECB, such as Enkamat, to protect bank from erosion.
4. Provide spot elevations for swales along backyards to ensure drainage is into proposed biofiltration basin and does not escape offsite.
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 minimum of 4-foot deep sump at CBMH#1 to prevent resuspension.
7. Provide an O&M Agreement that meets District requirements.
8. Provide documentation from the DNR if the proposed project includes endangered or threatened species, rare natural communities, colonial waterbird nesting sites, migratory waterfowl concentration areas, deer wintering areas or wildlife travel corridors.