COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: July 22, 2019
AGENDA NUMBER: 12
FILE NUMBER: 19-110
ITEM: Red Mill Retail

RECOMMENDATION: Table with 8 Stipulations

APPLICANT: William Bailey
Red Mills Properties, LLC
1815 W River Road
Minneapolis, MN 55411

PURPOSE: Construction of new retail/restaurant building within an existing parking lot.

LOCATION: 3200 Main Street
Coon Rapids, MN 55448
APPLICABILITY:
1. Within 1 mile of an impaired waters.
2. One or more cumulative acres of land disturbance.

EXHIBITS:
1. Preliminary Plat, by Westwood Professional Services, Inc., not dated, received 7/10/19.
2. Construction Plan set (14 sheets); by Westwood Professional Services, Inc., dated 7/9/19, received 7/10/19.
5. Preliminary Project Schedule and Timeline, by Amcon Construction, dated 4/16/19, received 7/10/19.

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.
Erosion and Sediment Control: Soils affected by the proposal are Hubbard.

- 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 and have a note to stabilize within seven (7) days of inactivity.
- 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 tracking 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 provides for the repair and maintenance of all temporary and permanent erosion and sediment control practices.
- Details are provided for ESC (riprap, perimeter control, concrete washout, inlet protection, etc.)

Dewatering: Shallow ground water does not exist on site. It is unknown if the project requires 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 2019 indicates long term groundwater elevation is present between 12.0 and 17.5 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).
**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 Red Mills Properties, LLC. The Stormwater Treatment Practices (STPs) consist of the following:

<table>
<thead>
<tr>
<th>Stormwater Treatment Practices</th>
<th>Number</th>
<th>Inspection &amp; Maintenance Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rain Garden/Infiltration Basin</td>
<td>5</td>
<td>Red Mills Properties, LLC</td>
</tr>
<tr>
<td>RainGuardians</td>
<td>5</td>
<td>Red Mills Properties, LLC</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. The 1.1-inch infiltration required by the City is not achieved. The stormwater management system utilizes rain gardens/infiltration basins. Calculations have been provided that illustrate the 1-inch infiltration volume is achieved below outlet.

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 wetlands/stormwater basins are pretreated by Rain Guardians. 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 Coon Creek. Coon 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 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 not been delineated and do not need to be.

**Wetland Replacement Plan:** A wetland replacement plan has not been submitted and 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.

The applicant has not contacted the MDNR natural heritage or endangered species program and does not need to.

If the project is present, the project does not propose substantial adverse alteration or significant detrimental impact on a species or removal of a plant species will occur.

**Performance Escrow:** $2,740.00  
**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><strong>Escrows:</strong> $2,000 + (1.48 ac * $500/ac = $2,740.00</td>
<td>1. Receipt of escrows.</td>
</tr>
</tbody>
</table>
| **Stormwater & Hydraulics:** The applicant is meeting the volume management requirement equivalent to infiltrating runoff from the first inch of precipitation. However, the 1.1-inch volume required by the City is not met.  
Calculations were provided to illustrate that the 1.1-inch volume management requirement is achieved below the outlet of the stormwater feature but are not correct. 50,694 SF of impervious is proposed. The 1.1” volume = 4,647 CF. Based on the HydroCAD model, 4,630 CF of volume is provided by the infiltration basins. | 2. Revise the design of the rain gardens/infiltration basins to meet the volume management requirement. If the required volume cannot be met in its entirety due to site constraints, they must meet it to the greatest extent practical and explain why it cannot be met. |
| 3. Update calculations in the Stormwater Management Plan to illustrate the 1.1-inch infiltration volume requirements are met below the outlet. | 4. Lower the infiltration rate used in the HydroCAD model to be consistent |


An infiltration rate of 1.63 in/hr was used in the HydroCAD model. The soil borings indicate SP and SM soils within the proposed basins.

Discrepancies were found in elevations shown on the construction plans and in the HydroCAD model.

HWL of the infiltration basins not shown on the construction plans.

The Stormwater management plan indicates that Rain Guardians will be installed for pretreatment to the infiltration basins. However, the construction plans only show curb cuts with rip rap.

<table>
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<th>Soils &amp; Erosion Control:</th>
<th>Maintenance:</th>
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<td>It is unclear if dewatering is needed during the construction of the proposed project.</td>
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5. Revise the construction plans or HydroCAD model to fix the following discrepancies:
   a. Infiltration basin 1: OCS 201 rim elevation is 869.55’ on the plans and 868.90’ in the HydroCAD model.
   b. Infiltration basin 4: OCS 204 rim elevation is 869.00’ on the plans and 868.90’ in the HydroCAD.

6. Revise the construction plans with the following:
   a. Label the HWL for each infiltration basin on the construction plans.
   b. Provide callouts with locations and elevations for the Rain Guardians on the construction plans.
   c. Provide a detail for the Rain Guardians.

7. 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.

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

**RECOMMENDATION:** Table with 8 Stipulations

**Stipulations:**
1. Receipt of escrows.
2. Revise the design of the rain gardens/infiltration basins to meet the volume management requirement. If the required volume cannot be met in its entirety due
to site constraints, they must meet it to the greatest extent practical and explain why it cannot be met.

3. Update calculations in the Stormwater Management Plan to illustrate the 1.1-inch infiltration volume requirements are met below the outlet.

4. Lower the infiltration rate used in the HydroCAD model to be consistent with the recommended SP/SM infiltration rates provided in the Geotechnical Report.

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

**Note:**

1. Consider connecting the concrete “throat” and RainGuardian Turret with rebar or dowels. Wenck staff has noticed joint separation after installation such that water bypasses the RainGuardian.