COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: April 28, 2014
AGENDA NUMBER: 13
FILE NUMBER: 14-028
ITEM: Spiral Manufacturing

RECOMMENDATION: Table with 11 Stipulations

APPLICANT: Tom Menth
11419 Yellow Pine Street
Coon Rapids MN 55448

PURPOSE: Building and parking lot addition

LOCATION: 11419 Yellow Pine Street, Coon Rapids MN
APPLICABILITY:
1. One or more cumulative acres of land disturbance.
2. High water table, outwash and organic soils.
3. High infiltration soils.
4. Highly erodible soils.
5. Any land alteration within 1 mile of an impaired water

EXHIBITS:
1. Plan Set by Hakanson Anderson dated 4-15-14, received 4-16-14.
2. Letter to Tim Kelly from Hakanson Anderson, dated 4-15-14, received 4-16-14.
5. Geotechnical report by American Engineering Testing, Inc., dated 4-16-14,

HISTORY & CONSIDERATIONS:
The proposed project is an addition to the building and parking lot.

FINDINGS:
Ditches and Drainage: There is not a public ditch on the property. Alternatives to additional drainage considered and reviewed include underground storage, additional infiltration basins, and cisterns, however none of them were deemed feasible by the applicant. The project is near the end of Ditch 54 and Coon Creek.

Floodplain: There is no floodplain on the property according to FEMA. The District Atlas 14 model predicts the 100-year elevation for the subwatershed at 850.6 feet.

Groundwater: Surficial ground water is present at 3.5 feet or 860.5. A drain tile system is used extensively under the proposed parking. The site does include groundwater sensitive areas. 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 soil elevation, 2 ft above 100-year) because the building is slab-on-grade construction. However, the lowest part of the loading dock is within the groundwater table but is connected to the drain tile system.

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 proposed project does not include a ditch maintenance easement or utility line crossings. A drainage and utility easement is not provided for the storm water/infiltration ponds shown on the drainage plan.

**Soils & Erosion Control:** Soils affected by the proposal is Fill. Stabilizing vegetation is not proposed for disturbed areas within two weeks of rough grading. Adjacent properties are not protected from sediment deposition. Project site is greater than 1 acre; an NPDES permit is required.

**Stormwater & Hydraulics:** The applicant is not meeting the volume management requirement equivalent to infiltrating runoff from the first inch of precipitation. The infiltration basin is sized to capture the first 0.8 inches of runoff from a 9,697 sf impervious subcatchment. Additionally, the bottom of the infiltration basin is located at 861 and soil borings on the site show that water may be present at 861.5. 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 exceed predevelopment rates, or rates which would interfere with sensitive downstream land uses.

**Water Quality:** Project does not include new impervious drainage areas greater than 1 acre, however, the site will have more than 1 acre (1.16 acres) of impervious surface after the addition of the building and parking lot addition. The site currently has 0.57 acres of impervious surface.

**Wetlands:** Wetlands do not exist on-site according to the 1987 Federal manual, NWI, PWI and Soil Survey.

**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:** $2,550.00

<table>
<thead>
<tr>
<th>ISSUES/CONCERNS:</th>
<th>NEED:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Groundwater:</strong> The low floor elevation is located 863.83 if it matches the existing building. Additionally, the loading dock located at the southeast corner of the new building has a low elevation between 860 and 859. A soil boring, Soil Boring #2, shows water at a depth of 3.5 feet below the 864 elevation, placing groundwater at 861.5 and less than three feet below the new building elevations.</td>
<td>1. Provide additional information to verify low floor elevations meet the criteria of the City of Coon Rapids.</td>
</tr>
<tr>
<td><strong>Stormwater &amp; Hydraulics:</strong> The applicant is not meeting the volume management requirement equivalent to infiltrating runoff from the first inch of precipitation over the existing or new impervious surfaces. All projects in the Coon Creek Watershed District must meet this requirement. If applicants cannot meet this requirement due to site constraints in its entirety, they must meet it to the greatest extent practical and explain why it cannot be met.</td>
<td>2. Provide stormwater runoff calculations that show the site is meeting the volume management requirement equivalent to infiltrating runoff from the first inch of precipitation.</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>3. Provide stormwater runoff calculations that show the site is meeting the rate control</td>
<td>4. 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><strong>Soils &amp; Erosion Control:</strong> After initial grading the District requires that infiltration basins be completely surrounded by erosion control measures to prevent the basin from clogging. Snow fence is used is specified for post-construction basin protection, however, a silt fence as shown in the plans in Detail 4, of Sheet C4 is preferred. Additionally, stabilizing vegetation is not proposed for disturbed areas within two weeks of rough grading and adjacent properties are not protected from sediment deposition.</td>
<td>5. After initial grading completely surround the proposed infiltration basins with erosion control measures to prevent the basin from clogging.</td>
</tr>
<tr>
<td>6. Provide pretreatment for the infiltration basin at the curb cut.</td>
<td>7. Provide silt fencing at eastern edge of the site.</td>
</tr>
<tr>
<td>8. Provide stabilizing vegetation for disturbed areas within two weeks of rough grading.</td>
<td>9. Provide a drainage easement around the infiltration basin.</td>
</tr>
<tr>
<td><strong>Escrows:</strong> $2,000 + (1.1 acres x $500/acre) = $2,550.00</td>
<td>10. Receipt of escrows</td>
</tr>
</tbody>
</table>
RECOMMENDATION: Table with 11 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. After initial grading completely surround the proposed infiltration basins with erosion control measures to prevent the basin from clogging.
4. Provide stormwater runoff calculations that show the site is meeting the volume management requirement equivalent to infiltrating runoff from the first inch of precipitation.
5. Provide stormwater runoff calculations that show the site is meeting the rate control.
6. Provide pretreatment for the infiltration basin at the curb cut.
7. Provide silt fencing at eastern edge of the site.
8. Provide stabilizing vegetation for disturbed areas within two weeks of rough grading.
9. Provide a drainage easement around the infiltration basin.
10. Provide additional information to verify low floor elevations meet the criteria of the City of Coon Rapids.
11. Correct title block from Ham Lake to Coon Rapids.