COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: May 13, 2013
AGENDA NUMBER: 13
FILE NUMBER: 13 - 009
ITEM: Marquest Meadows West

RECOMMENDATION: Table with 8 stipulations

APPLICANT: Charles Plow
Plow Engineering
6775 Lake Drive NE Suite 110
Blaine, MN 55014

PURPOSE: Subdivision Construction

LOCATION: 115th and Jefferson, Blaine MN
APPLICABILITY:
1. Any work in or adjacent to wetlands, lakes or water courses.
2. One or more cumulative acres of land disturbance.

EXHIBITS:
3. SWPPP by Plowe Engineering, Inc, dated 2/7/2013, received 2/20/2013.
4. Subgrade Exploration For Marquest Meadows West, by Allied Engineering, dated 02/14/2013, received 3/1/2013
5. Updated Plan Set, dated 4/12/13, received 4/15/13
6. Updated Stormwater Drainage Report, dated 4/12/13, received 4/15/12
7. Creekside Development Official Plat 10/3/83, received 4/15/13

HISTORY & CONSIDERATIONS: This project has not been reviewed by the board.

FINDINGS:
Ditches and Drainage: There is not a public ditch on the property. The project site is tributary to County Ditch 41 (Sand Creek). The trend in land use for this drainage area is toward residential. There are no flooding concerns downstream. Alternatives to additional drainage considered and reviewed include infiltration.

Floodplain: There is no floodplain on the property according to FEMA. The District model predicts the 100-year elevation for the subwatershed at 891.3 feet. The total floodplain impact is 0 acre-feet, within the flood/fringeway. Compensatory storage is not needed.

Groundwater: Groundwater ground water is present on the site at 6 feet (889.2), 17 feet (883.2), and 9 feet (885.4) for sample sites 1, 2, and 3 respectively according to the soil boring report. The site does not include groundwater sensitive areas. Low floor elevations do meet the criteria for the City of Blaine (2 ft above mottled soil elevation).

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 provided for the storm water/infiltration pond shown on the drainage plan. It is unknown if property owners affected by changes in drainage have been notified and have acknowledged the changes
proposed. It is unknown if permission has been granted by adjacent property owners for grading which is proposed off of the applicant’s property.

**Soils & Erosion Control:** Soils affected by the proposal are Sartell, Lino, and Isanti. Stabilizing vegetation is proposed for disturbed areas within seven days of rough grading. Adjacent properties are not protected from sediment deposition. All wetlands, waterbodies, ponds, infiltration basins and water conveyance systems are protected from erosion and sedimentation. Project site is greater than 1 acre; an NPDES permit is required.

**Stormwater & Hydraulics:** The applicant is meeting the volume management requirement equivalent to infiltrating runoff from the first inch of precipitation to the maximum extent practicable. 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.

**Water Quality:** The proposed project does not include new impervious drainage areas greater than 1 acre. 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. All discharges into wetlands or waters of the district are pretreated by a sediment basin / water quality pond or its equivalent which are designed correctly.

**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. No substantial adverse alteration or significant detrimental impact on a species food supply, security or reproductive cycle or the alteration or removal of a plant species will occur.

**Wetlands:** Wetlands do exist on-site according to the NWI, Soil Survey. A wetland delineation has been submitted. Staff has not visited the site. The wetland boundary has not been approved. It is unclear if there are wetlands on the site.

It is unclear if the project proposes any wetland impacts.

**Escrows:** Escrows have not been paid. $1500 + (6 acre *200/acre) = $2,700.00

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<tr>
<th>ISSUES/CONCERNS</th>
<th>Needs</th>
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<tr>
<td><strong>Escrows:</strong> Escrows have not been paid.</td>
<td><strong>Performance Escrow;</strong> $1500 + (6 acre *200/acre) = $2,700.00</td>
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<td><strong>Groundwater:</strong> The grading plan shows proposed contours through the proposed</td>
<td>Revise grading plan such that surface water is not routed into the building pad of lot 4</td>
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<td>Housepad that are not reasonable and should be revised.</td>
<td>and 5</td>
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**Maintenance:** It is unknown if property owners affected by changes in drainage have been notified and have acknowledged the changes proposed.

It is unknown if permission has been granted by adjacent property owners for grading which is proposed off of the applicant’s property.

Provide signed documentation from the owner of Creekside Lot 20 allowing construction and installation of the discharge pipe between the proposed infiltration basin and the pond to the north on adjacent property.

**Stormwater & Hydraulics:** Overland flow from the existing church parking lot will now flow across private property towards the existing northern stormwater pond with no method to prevent obstruction of flow.

The applicant has not acknowledged that they will perform a post construction test of the infiltration basin.

Provide a clear channel for flow from the existing church parking lot to the proposed infiltration basin.

Provide a drainage and utility easement over the channel to ensure access for inspection and maintenance purposes.

The pond for Creekside has an overflow elevation of 893.0 according to the creekside plans. At any elevation above 892.0, the Creekside pond and the infiltration basin will be interconnected. Since walkouts are proposed at 894.5 for lots 6 and 7, it is going to be necessary to include the Creekside pond and contributing watersheds to the proposed model for the site in order to determine the 100-year elevation for the project. With runout elevation on the Creekside pond at 893.0, a 10-day snowmelt model run, and the 100-year precipitation based on Atlas 14 will be necessary.

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.

The applicant should coordinate with the City of Blaine to ensure Low floors are approvable by the City with appropriate consideration given to the control elevation of the Creekside Pond.

Include the Creekside development and Creekside pond in the proposed site model.
**Wetlands:** It is unclear if the project proposes any wetland impacts.

Upland data-points 1 and 2 both have 100% of the dominant species facultative or wetter (Meeting the Fac Neutral test for vegetation). The report states that soil borings were not accomplished due to frozen conditions but the locations are determined to be non-wetland. Without supporting hydrology and soils data a determination of the sample point not meeting the wetland criteria cannot be made when the vegetation criteria is clearly met.

A spring field check of the site during the growing season will be needed to make a final determination as to the existence of wetlands on site.

Changes to the grading plan could occur depending on the findings of that investigation.

**CONCLUSIONS:** This project does not meet District standards. The following items must be submitted in order to proceed with further review.

- The new NOAA Atlas 14 100-year storm event for this site will be 7.1 inches.

**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. Revise drainage swale behind Lot 4 with spot elevations showing that it drains at 2% slope or grater.
4. Include stormwater system with area drains behind Lot 4 or spot elevations and contouring showing at least a 2% grade.
5. Provide signed documentation from the owner of Creekside Lot 20 allowing construction and installation of the discharge pipe between the proposed infiltration basin and the pond to the north on adjacent property.
6. A well-defined channel and drainage easement that will direct water from the existing church parking lot to the proposed basin needs to be shown on the plans.
7. The applicant should coordinate with the City of Blaine to ensure Low floors are approvable by the City with appropriate consideration given to the control elevation of the Creekside Pond.
   a. Include the Creekside development and Creekside pond in the proposed site model.
8. A spring field check of the site during the growing season will be needed to make a final determination as to the existence of wetlands on site.
   a. Changes to the grading plan could occur depending on the findings of that investigation.