

Applicant: Bill Jundt: United Properties
Consultant: Pete Moreau; Sambatek
Project: Parking Ramp Construction
Location: 11000 Viking Drive: Eden Prairie
Rule(s): 3,4, 5,11 and 12
Reviewer: BCO

General Background & Comments

The project proposes the construction of a two level parking ramp, providing 460 parking stalls, for the two existing 3 story office buildings at 11000 Viking Drive in Eden Prairie. Currently, parking for these two buildings is a bituminous surface lot – the ramp will replace the existing eastern lot. An 8-foot walkway will connect the ramp with the office buildings.

The project site information is:

- Site Area: 16.22 acres
- Existing Impervious Area: 8.614 acres (375,248 square feet)
- Proposed Impervious Area: 378,275 square feet
- A net increase of 3,027 square feet
- 0.81% increase in the total site impervious area
- Disturbed and reconstructed site impervious area: 77,972 square feet
- 20.8% of the existing site impervious area will be disturbed and reconstructed
- Total disturbed area: 2.33 acres (101,495 square feet)

The Nine Mile Creek Watershed District’s Rule for Redevelopment, Rule 4.2.3, states, if a proposed activity will disturb more than 50% of the existing impervious surface on a parcel or will increase the imperviousness of the parcel by more than 50%, storm water management will apply to the entire project parcel. Otherwise, the storm water requirements will apply only to the disturbed areas and additional impervious area on the parcel. The project will disturb and replace 20.8% (77,972 square feet) of the impervious surface on the property and will increase the existing impervious area by 3,027 square feet – an increase of 0.81 %. The storm water criteria in Section 4.3.1 applies to the proposed 101,495 square feet of disturbed area of which 80,999 square feet is new and disturbed and reconstructed impervious area.

The District's requirements for both storm water management and erosion and sediment control apply to the project because more than 50 cubic yards of material will be disturbed and more than 5000 square feet altered, Rules 4.2.1a and b and 5.2.1a and b.

Silt fence, biorolls, inlet protection and a rock construction entrance are shown to be installed to provide for erosion control.

Exhibits

1. Permit Application dated August 13, 2019, received September 4, 2019.
2. Plan sheets dated August 2, 2019, prepared by Sambatek.
3. Storm water management computations dated August 2, 2019, prepared by Sambatek.
4. Geotechnical Report dated May 21, 2003 prepared by American Engineering Testing, Inc.
5. WCA Notice of Decision dated September 23, 2019 approving the on-site wetland boundary determinations by the Nine Mile Creek Watershed District being the LGU administering the requirements of WCA in Eden Prairie.
6. E-mail correspondence dated September 27, 2019 from Karen Wold, Barr Engineering Company on behalf of the Nine Mile Creek Watershed District, accepting the MnRAM summaries provided by Sambatek for the three on-site wetlands.

2.0 Floodplain Management and Drainage Alterations

The 100-year flood elevation of the South Fork of Nine Mile Creek, along the south boundary of the site is 841 M.S.L. The project does not propose any work or impacts within the floodplain of the creek.

3.0 Wetland s Management

Three wetland areas that have been identified on the site. Wetland #1 fringes on Smetana Lake (north side of the site) with Wetland #2 and #3 being excavated storm water basins, prior to WCA, on the east side of the site. As previously stated, the wetland boundaries have been determined and accepted by the District on September 23, 2019, being the LGU administering the requirements of WCA in Eden Prairie.

The MnRAM Assessment, prepared by Sambatek, has been submitted identifying the Wetland #1 as a "high value" wetland requiring a minimum buffer width of 30 feet and an average buffer width of 60 feet. Wetlands #2 and #3, portions of these wetlands were excavated in natural wetland areas, have been identified as medium value wetlands requiring a minimum buffer width of 20 feet and an average buffer width of 40 feet. These wetland buffers have been shown to be provided with the exception the proposed parking ramp will encroach 84 square feet into the 60 foot average buffer of Wetland #1. This area will be mitigated/compensated for by adding an additional 200 square feet of buffer area to comply with Rule 3.4.1a. Buffer makers as described in Rule 3.4.5 will be required to be installed at all three wetlands.

4.0 Stormwater Management

Storm water management for compliance with Rule 4.3.1 is to be provided within an underground storm water management facility (UGSWMF) to be located on the north side of the proposed ramp.

The existing and proposed 2, 10 and 100 year frequency discharges from the site are:

Frequency	Existing Discharge to the East c.f.s.	Proposed Discharge to the East c.f.s.
2 year	13.8	6.5
10 year	22.1	11.0
100 year	40.1	27.3

Rule 4.3.1b is met.

A volume retention of 7,425 cubic feet is required for 1.1-inches of runoff from the 80,999 square feet of new and disturbed and reconstructed impervious area. The UGSWMF will provide 9,818 cubic feet of volume retention. With the on-site underlying soils being classified as a sandy clay loam (ML) in the area of the proposed UGSWMF, an infiltration rate of 0.2 inches/hour has been used based on the Minnesota Stormwater Manual. Using this infiltration rate, an area of 9,281 square feet at a maximum depth of 0.8 feet is required for the 7,425 cubic feet of volume retention to be drawn down within 48 hours. An area of 11,392 square feet is to be provided within the UGSWMF. Rule 4.3.1a is met.

The District's water quality criterion requires a 60% annual removal efficiency for phosphorus and 90% annual removal efficiency for total suspended solids. The results of a MIDS calculator indicate the UGSWMF will provide an annual removal efficiency of 91% for total suspended solids (573 lbs.) and an annual removal efficiency of 91% for total phosphorus (3.16 lbs.). Rule 4.3.1c is met.

District Rule 4.3.3c states that all new and reconstructed buildings must be constructed such that the low floor elevation is at least two feet above the 100-year high water elevation or one foot above the emergency overflow of a constructed facility. In addition, all new and reconstructed buildings must be constructed such that no opening where surface flow can enter the structure is less than two feet above the 100-year high water elevation of an adjacent facility or waterbody. The finished floor and low opening of the proposed parking ramp is elevation 865.5 M.S.L. The calculated 100-year frequency high water elevation of the UGSWMF is 861.1 M.S.L. – a separation of 4.3 feet to be provided for compliance with Rule 4.3.3c.

The geotechnical report indicates that groundwater was encountered at an elevation of approximately 843.3 M.S.L. The bottom of the proposed UGSWMF is to be elevation 858.5 M.S.L, a separation of 15.2 feet. A minimum separation of 3 feet is required between the bottom of an infiltration facility and the elevation of groundwater.

Pretreatment of storm water prior to discharging to an infiltration facility, Rule 4.3.1a (i), will be provided by the isolator row and the clean-outs that are a part of the ADS Stormtec SC-740 Chamber System (UGSWMF) to be installed.

In accordance with Rule 4.3.4, a post-project chloride management plan must be provided that will, 1) designate an individual authorized to implement the chloride-use plan and 2) designate

a MPCA certified salt applicator engaged in the implementation of the chloride-use plan for the site.

5.0 Erosion and Sediment Control

The submitted erosion and sediment control plan includes silt fence at the limits of construction, inlet protection and a rock construction entrance at the entryway onto the site. The project contact is Pete Moreau, Sambatek.

11.0 Permit Fees

Fees for the project are:

Rules 2.0-6.0 \$1,500

12.0 Financial Assurances

Financial Assurances for the project are:

Rule 4.0 Volume Retention: 11,392 sq. ft. x \$12/sq. ft. = \$136,704 \$136,704

Chloride Management: \$5000

Rule 5: Silt fence: 1,856 L.F. x \$2.50/L.F. = \$4,640

Bioroll: 78 L.F. x \$5/L.F. = \$390

Inlet Protection: 5 x \$100/each = \$500

Site restoration: 2.33 acres x \$2500/ acre = \$5,825 \$11,355

Contingency and Administration \$63,741

Findings

The proposed project includes the information necessary, plan sheets and erosion control plan, for review.

1. Rules 4 and 5 are met.

Recommendation

Approval, contingent upon:

1. General Conditions
2. Financial Assurance in the amount of \$216,800 - \$211,800 for storm water management, erosion control and site restoration and \$5,000 for compliance with the chloride management requirements.
3. Submission of documentation that a drainage easement over the storm water-management facility has been submitted to Eden Prairie (4.5.4i), if such easements are required by the city.
4. A receipt showing recordation of a maintenance declaration for the on-site storm water management facility and wetland buffers. A draft of the declaration must be approved by the District prior to recordation.

By accepting the permit, when issued, the applicant agrees to the following stipulations:

1. Per Rule 4.5.6, an as-built drawing of the storm water facility, including a stage-volume relationship in tabular form for the underground storm water management facility, conforming to the design specifications as approved by the District must be submitted.
2. Wetland buffer markers, for the three wetlands, installed as described in Rule 3.4.5.
3. Submission of a plan for post-project management of Chloride use on the site. The plan must include 1) the designation of an individual authorized to implement the chloride use plan and 2) the designation of a Minnesota Pollution Control Agency certified salt applicator engaged in the implementation of the chloride-use plan for the site. The release of the \$5,000 of the financial assurance required for the chloride-management plan requires that chloride-management plan has been provided and approved by the District's Administrator.
4. For the release of the \$211,800 financial assurance required in Recommendation #2, Rule 12.4.1b requires demonstration and confirmation that the storm water management facilities have been constructed or installed and are functioning as designed and permitted. Verification, through daily observation logs and photographs, must be provided showing the storm water facilities used for volume retention have drawn down within 48 hours from the completion of two 1-inch (approximate) separate rainfall events.