Permit Application Review

Applicant: Gary Wallace; Greystar Real Estate Partners
Consultant: David Bade; Westwood Professional Services
Project: Edina Promenade Residences
Location: 3650 Hazelton Road: Edina
Rule(s): 4, 5, 11, 12
Reviewer: BCO

General Background & Comments
The project proposes the constructed of a 19-story, 186 unit apartment building including six townhomes to be located on the former Guitar Center site at 3650 Hazelton Road in Edina. The building will include two levels of below grade parking.

The site is 1.29 acres in area with an additional 0.14 acres of the easterly adjacent city promenade included at the request of the Edina City Council for the development of a water amenity (rainwater garden) providing a transition between the private development and public park land. The project site information is:

- Total Site Area: 1.29 acres (56,000 square feet)
- Adjacent City Outlot: 5,935 square feet
- Total Project Area: 61,935 square feet
- Existing Total Site Impervious Area: 41,580 square feet
- New Total Site Impervious Area: 39,457 square feet (a reduction of 2,123 square feet in impervious area)
- 5.1% decrease in the site impervious area
- 100% of existing impervious area will be disturbed

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. Since the entire site
impervious area will be disturbed, storm water management is required for the entire project area of 61,935 square feet including the 39,457 square feet of 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 5000 square feet or more surface area disturbed, Rules 4.2.1a and b and 5.2.1a and b.

Storm water management is to be provided within three BMP's; 1) a proposed underground storm water management facility (UGSWMF), 2) a rainwater garden area and 3) pervious pavers that will provide volume retention, rate control and water quality management. The UGSWMF will receive the majority of the runoff from the new building. Runoff from the eastern portion of the site, Promenade Townhomes associated patios, sidewalks and lawn area will be directed to an infiltration, rainwater garden, area. The driveway entrance will be constructed of pervious pavers.

As previously stated, two levels of underground parking is proposed resulting in a low floor elevation of the structure 18 feet below grade – elevation 855.9 M.S.L. The geotechnical report provided states that a groundwater elevation of 853.4 +/- M.S.L. can be assumed based on the elevation observed in the on-site borings and elevations observed by the geotechnical engineer, Braun Intertec, on properties in the general area of 3650 Hazeltown Road. No District rule requires a specific distance separation between the low floor elevation of a structure and groundwater, however the applicant is advised that seasonal fluctuations of the groundwater elevation can occur that could cause seepage into the parking facility. Greystar Real Estate Partners is advised to include in the building design measures for preventing seepage in the event of a rise in the groundwater elevation, should it occur.

Silt fence is to be constructed at the limits of construction, inlet protection and a rock construction entrance will be provided for erosion control.

Exhibits

5. Edina City correspondence dated February 4, 2020 regarding the private use of public property for the Edina Promenade Apartments.

4.0 Stormwater Management

A UGSWMF, rainwater garden and pervious pavers to be constructed will provide volume retention, rate control and water quality management. (The UGSWMF and pervious pavers are on the applicant’s property, the rainwater garden, as noted, is on City property.)
Runoff from the site is directed to the existing trunk storm sewer system along the east side of the site, within the Promenade, that discharges to Centennial Lakes. The existing and proposed 2, 10 and 100 year frequency discharges from the site are:

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Existing Discharge c.f.s.</th>
<th>Proposed Discharge c.f.s.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 year</td>
<td>4.3</td>
<td>1.5</td>
</tr>
<tr>
<td>10 year</td>
<td>7.0</td>
<td>2.8</td>
</tr>
<tr>
<td>100 year</td>
<td>13.3</td>
<td>8.8</td>
</tr>
</tbody>
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Rule 4.3.1b is met.

An infiltration volume of 3,617 cubic feet is required for 1.1-inches of runoff from the 39,457 square feet of site impervious area. Soil borings indicate the underlying soil as poorly graded sand (SP). An infiltration rate of 0.8 inches/hour has been assumed using the Minnesota Storm Water Manual. An area of 1,129 square feet is required for volume retention using this infiltration rate. The three storm water BMP's will provide a volume of 8,778 cubic feet at a maximum inundation depth of 3.2 feet allowable for the volume retention of 3,617 cubic feet to be drawn down within 48 hours using an infiltration rate of 0.8 inches/hour. At a depth of 3.2 feet, an area of 7,765 square feet will be provided (1,129 square feet required).

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, provided in the following table, indicate the following removal efficiencies for the three proposed BMP’s.

<table>
<thead>
<tr>
<th>Stormwater Facility</th>
<th>Annual Removal Efficiency for Total Suspended Solids</th>
<th>Annual Removal Efficiency for total Phosphorous</th>
</tr>
</thead>
<tbody>
<tr>
<td>UGSWMF</td>
<td>91% (208 lbs.)</td>
<td>91% (1.21 lbs.)</td>
</tr>
<tr>
<td>Rainwater Garden</td>
<td>97% (85 lbs.)</td>
<td>96% (0.48 lbs.)</td>
</tr>
<tr>
<td>Pervious Pavers</td>
<td>100% (45 lbs.)</td>
<td>100% (0.25 lbs.)</td>
</tr>
</tbody>
</table>

Rule 4.3.1c is met. The project agent has requested that the excess volume credits created by the project be banked, in accordance with Rule 4.4, for runoff retention and water quality volume credits. The credits available to be banked are 5,161 cubic feet (the difference between the volume provided, 8,778 cubic feet, minus the volume required for volume retention, 3,617 cubic feet. Final approval of deposit of the banked volume amount(s), however will need to be determined based on submission of as-builds for the facilities and confirmation of stormwater-treatment volumes achieved, as well as the city’s and applicant’s determination as to the ownership of the portion of the banked volume that is provided by the rain garden.
The soil boring logs indicates that groundwater was encountered at elevation 853.4 +/- M.S.L. The bottom of the UGSMWF is shown to be 861.3 M.S.L., a separation of 8.3 feet; the bottom of the rainwater garden at elevation 868.4 M.S.L., a separation of 15 feet and the bottom of the pervious pavers at elevation 867.5 M.S.L., a separation of 14.1 feet. A 3 foot of separation is required between the bottom of an infiltration facility and groundwater.

Rule 4.3.2 a states, all structures riparian to inundation areas or constructed or natural storm water management facilities must be located and elevations must be set according to Appendix 4a, "Suggested Low Floor Guidance." Referring to Plot 6, Appendix 4A of the District Rules for the pervious pavers (closest of the three stormwater facilities to the structure) being 8 feet from the wall of the building, a minimum (vertical) separation of 0.35 feet is required between the low floor elevation of the structure (855.9 M.S.L) and groundwater (853.4 M.S.L.). A separation of 2.9 feet is to be provided. Rule 4.3.2 is met.

As stated earlier, the siting of the low floor of a structure in relationship to the elevation of groundwater is not a requirement or rule of the District. However the applicant is advised that seasonal fluctuations of the groundwater elevation can occur that could cause seepage into the parking facility. Greystar Real Estate Partners is advised to include in the building design measures for preventing seepage in the event of a rise in the groundwater elevation, should it occur.

In accordance with Rule 4.3.1a (i), where below-ground infiltration facilities, practices or systems are proposed, pretreatment of runoff must be provided. The plans show that a sump manhole will provide the pretreatment of storm water upstream of the UGSMWF and the rock foundation material will provide the pretreatment for the pavers. Pretreatment will be required upstream of the rainwater garden.

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 gravel construction entrance. The project contact is David Bade, Westwood Professional Services.

11.0 Fees
Fees for the project are:

Rules 2.0-6.0 $750

12.0 Financial Assurances
Financial Assurances for the project are:

Rule 4.0 Volume Retention: 1,129 sq. ft. x $12/sq. ft. = $13,548 $13,548
Chloride Management: $5000

Rule 5: Silt fence: 1,425 L.F. x $2.50/L.F. = $3,563
Inlet Control: 4 x $100/each = $400
Site restoration: 1.5 acres x $2500/acre = $3,750 $7,713
Contingency and Administration $9,239

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

1. Rules 4 and 5 are met.
2. Since the documentation submitted shows that less than three feet of vertical separation is to be provided between the low floor elevation of the parking garage and groundwater, the applicant is advised that seasonal fluctuations of the groundwater elevation can occur and the building design should include measures for handling a rise in the groundwater elevation, should it occur.
3. If proposed, the establishment of a volume bank for runoff retention credits under section 4 of the Stormwater Management Rule must be submitted to the District and approved by the Board of Managers.

**Recommendation**
Approval, contingent upon:

1. **General Conditions**
2. Financial Assurance in the amount of $35,500 - $30,500 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 Edina (4.5.4i), if such easement is required by the city, and a receipt showing recordation of a maintenance declaration for the on-site storm water management facility. A draft of the declaration must be approved by the District prior to recordation.
4. Submittal of a revised plan showing that pretreatment of runoff will be provided upstream of the proposed rainwater garden to comply with Rule 4.3.1a (i). Constructing manhole OCS-102 with a sump would comply with this requirement.

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

1. Documentation of the final agreement between the City of Edina and the applicant as to the right of the project property to continue to drain to the rain garden for the surface water runoff from the 0.14 acres of the eastern portion of the promenade included as part of the project and allocation of responsibility for maintenance of the rain garden.
2. Per Rule 4.5.6, an as-built drawing of the storm water facility conforming to the design specifications, including a stage volume relationship in tabular form for the UGSWMF, pervious pavers and the rainwater garden, as approved by the District must be submitted.
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
applicant 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 $30,500 financial assurance required in Recommendation #2, Rule 12.4.1b requires demonstration and confirmation that the storm water management facility has been constructed or installed and is 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.
STORM SEWER LEGEND

GENERAL STORM SEWER NOTES

STORM KEYNOTES

Pavers
Rainwater Garden
Underground Stormwater Management System

STORM SEWER PLAN

FOOTING AND FOUNDATION PERMIT
NOT FOR CONSTRUCTION