

Applicant: Susan Faus; City of Edina  
Consultant: Britta Hansen; Emmons and Oliver Resources, Inc.  
Project: Playground  
Location: N.E. corner of Fred Richards Golf Course – Parklawn Avenue and Nine Mile Creek Regional Trail: Edina  
Rule(s): 3,4,5,11 and 12  
Reviewer: BCO

### **General Background & Comments**

The project proposes the construction of a playground area with trails and a picnic shelter located in the northeast corner of Fred Richards Park (formerly Fred Richards Golf Course) approximately at the intersection of Parklawn Avenue and the Nine Mile Creek Regional Trail. The base of the play area will be surfaced with wood mulch. The picnic shelter, a concrete slab that is covered and has open sides, will add approximately 1000 square feet of impervious area to the park complex. The bituminous trail improvements being less than 10 feet in width will be boarded down gradient by at least 5 feet of pervious area.

The area to be disturbed for the project is adjacent to Basin #1 as identified in the Emmons and Oliver MnRAM Assessment dated August 23, 2018 prepared for the 10 wetland areas within Fred Richards Park (Park). Basin #1 has been identified as a medium value wetland requiring a 20 foot minimum and 40 foot average buffer for compliance with Rule 3.4. We are in agreement with the medium value determination for this wetland. The District, being the LGU administering the requirements of WCA in the city of Edina, has approved a wetland boundary determination, November 16, 2016, for all 10 of the wetlands within the Park. No work or impacts below the wetland boundary of Basin #1 are proposed.

A stormwater management basin (rainwater garden) is to be constructed to provide volume retention, rate control and water quality management for the proposed park improvements.

The project site information is:

- Total Site Area: 32.9 acres
- Existing Site Impervious Area within the Park: 39,000 square feet (0.9 acres)
- Proposed Increase in Impervious Area within the Park: 1,000 square feet

- 2.6% increase in the percentage of the total site impervious area within the Park
- Project area disturbed: 27,000 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. Since there is an increase of 2.6% in the overall site impervious area, storm water management is required for the disturbed area of 27,000 square feet that includes 1,000 square feet of new 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.

Silt fence, filter logs, and a rock construction entrance are to be installed to provide erosion control.

#### Exhibits

1. Permit Application dated June 7, 2019.
2. Preliminary Plans dated May 31, 2019, revised June 11, 2019, prepared by Confluence Landscape Architects.
3. Project narrative dated June 5, 2019 prepared by Emmons and Olivier Resources, Inc.
4. Storm Water Management calculations dated May 31, 2019 and revised June 11, 2019, prepared by Emmons and Olivier Resources, Inc.
5. Soil boring logs dated February 26, 2019 prepared by Braun Intertec.

### **3.0 Wetland Management**

The wetland boundaries for the ten wetlands located within Fred Richards Park have been reviewed and approved by the District, being the LGU administering the requirement of WCA in Edina, on November 16, 2016. A MnRAM Assessment for these wetlands dated August 23, 2018 prepared by Emmons and Olivier Resources has identified Basin #1, located adjacent to the proposed playground area, as a medium value wetland. The requirements of the District's buffer rule, 3.4, requires a minimum 20 foot and 40 foot average buffer to be provided for a medium value wetland. The Park playground plan shows that both the minimum and average buffer required will be provided. The area within the required buffer, that currently does not meet the requirements of section 3.4.6 of the District rules, will need to be established for compliance.

The playground plan also shows that a portion of the bituminous pedestrian trail and stormwater management basin will be located with the wetland buffer. Rule 3.4.6 allows for both to be located within the limits of a wetland buffer.

Buffer markers in accordance with section 3.4.5 and an agreement providing for maintenance of the buffer in accordance with subsection 3.4.7 of the District rules will be required.

#### **4.0 Stormwater Management**

Stormwater management for compliance with Rule 4.3.1 is to be provided within a rainwater garden to be constructed.

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

<b>Frequency</b>	<b>Existing Discharge to Basin #1 c.f.s.</b>	<b>Proposed Discharge to Basin #1 c.f.s.</b>
2 year	<1.0	<1.0
10 year	<1.0	<1.0
100 year	1.1	1.1

There is one discharge point from the site. Rule 4.3.1b is met.

An infiltration volume of 92 cubic feet is required from the proposed 1,000 square feet of new site impervious area. The soil borings identified the underlying soil in the area of the rainwater garden as poorly graded sand (SP) having an infiltration rate of 0.45 inches/hour using the Minnesota Storm Water Manual. An area of 51 square feet is required for volume retention using this infiltration rate. An inundation depth of 1.8 feet is allowed using this infiltration rate for the retention volume (92 cubic feet) to be drawn down within 48 hours. At a depth of 1.8 feet, a volume of 110 cubic feet (92 cubic feet required) and an area of 246 square feet (51 square feet required) will be provided within the rainwater garden.

New bituminous trail and existing trail improvements are not to exceed 10 feet in width and will be boarded down gradient by at least 5 feet of pervious area to comply with Rule 4.2.2c.

The District's water quality criteria requires a 60% annual removal efficiency for phosphorus and 90% annual removal efficiency for total suspended solids. The results from a MIDS calculator submitted shows the rainwater garden will provide an annual removal efficiency of 99% for total phosphorus (0.09 lbs.) and 100% for total suspended solids (17 lbs.). We are in agreement with the modeling results.

Groundwater was encountered at a depth of 10 feet, elevation 817.3 +/- M.S.L., in the area of the rainwater garden. The bottom of the rainwater garden is shown to be 824 M.S.L., providing a separation of 6.7 feet. Three (3) feet of separation is required between the bottom of an infiltration area and groundwater.

District rule 4.3.3c (Low Floor Elevation) states that all new and reconstructed buildings must be constructed such that the low floor is at least two feet above the 100-year high water elevation or one foot above the emergency overflow of a constructed facility. The picnic shelter, as previously stated, is a covered concrete slab with open sides allowing surface water to flow through, should it occur. However, the overflow elevation from the rainwater garden is 826.5 M.S.L. and the elevation of the picnic slab is 827.5 M.S.L. providing one foot above the overflow as required by Rule 4.3.3c.

In accordance with Rule 4.3.1a (i), where infiltration facilities, practices or systems are proposed, pretreatment of runoff must be provided. Runoff from the proposed picnic structure is shown to sheet-flow across pervious area minimum of 10 feet to the rainwater garden– turf grass that will act as a filter and provide the required pretreatment of storm water upstream of the infiltration area(s).

The project narrative indicates that the City of Edina will not use any salt or clear snow on the project site. In addition, all City Parks maintenance staff are certified salt applicators. The engineer finds that the city will be in compliance with the chloride-management requirements in 4.3.4 of the Stormwater management rule on designation of a certified individual charged with implementation of the plan.

**5.0 Erosion and Sediment Control**

The submitted erosion and sediment control plan includes silt fence at the limits of construction and a rock construction entrance at the entryway onto the site. The project contact is Britta Hansen, Emmons and Olivier Resources, Inc.

**11.0 Fees**

Because the property owner is a public entity, no fees are charged.

Rules 2.0-6.0 ..... \$0

**12.0 Sureties**

Because the property owner is a public entity, the District’s financial assurance requirements do not apply.

Sureties for the project are: \$0

**Findings**

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

1. Rules 3, 4 and 5 are met.

**Recommendation**

Approval, contingent upon:

1. General Conditions
2. In accordance with Rule 4.3.5, submission of a document signed by an official with authority with the City of Edina being a public entity assuming the maintenance obligation for the on-site storm water management facility and the wetland buffer.
3. Designation of a Minnesota Pollution Control Agency-certified chloride applicator charged with implementation of the chloride-management plan for the park.
4. The area within the required buffer, that currently does not meet the requirements of section 3.4.6 of the District rules, will need to be established for compliance.

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 facilities, including a stage-volume relationship in tabular form, for the rainwater garden to be constructed conforming to the design specifications as approved by the District must be submitted.
2. Buffer markers in accordance with section 3.4.5 of the District rules will be required.

Board Action

It was moved by Manager \_\_\_\_\_, seconded by Manager \_\_\_\_\_ to approve permit application No. 2019-63 with the conditions recommended by staff.

**Permit #:** 2019-63  
**Project Name:** Fred Richards Park Playground; Parklawn Avenue and Nine Mile Creek Regional Trail: Edina  
**Approval Date:** June 19, 2019

## General Provisions

1. All temporary erosion control measures shown on the erosion and sedimentation control plans must be installed prior to commencement of surface or vegetation alteration and be maintained until completion of construction and vegetation is established as determined by NMCWD.

If silt fence is used, the bottom flap must be buried and the maximum allowable spacing between posts is 4-foot on center. All posts must be either 2-inch x 2-inch pine, hardwood, or steel fence posts. If hay bales are used, all bales must be staked in place and reinforced on the downstream side with snow fence.

2. All areas altered because of construction must be restored with seed and disced mulch, sod, wood fiber blanket, or be hard surfaced within two weeks after completion of land alteration and no later than the end of the permit period.
3. Upon final stabilization, the permit applicant is responsible for the removal of all erosion control measures installed throughout the project site.
4. At the entryway onto the site, a rock filter dike being a minimum of two feet in height and having maximum side slopes of 4:1 must be constructed. This rock filter dike will enable construction traffic to enter the site and also provide an erosion control facility.
5. If dewatering is required and sump pumps are used, all pumped water must be discharged through an erosion control facility prior to leaving the construction site. Proper energy dissipation must be provided at the outlet of the pump system.
6. The NMCWD must be notified a minimum of 48 hours prior to commencement of construction.
7. The NMCWD, its officers, employees and agents review, comment upon, and approve plans and specifications prepared by permit applicants and their consultants for the limited administrative purpose of determining whether there is reasonable assurance that the proposed project will comply with the regulations and criteria of the NMCWD. The determination of the NMCWD that issuance of this permit is appropriate was made in reliance on the information provided by the applicant.
8. The grant of this permit shall not in any way relieve the permittee, its engineer, or other professional consultants of responsibility, nor shall it make the NMCWD responsible for the technical adequacy of the engineer's or consultant's work. The grant of this permit shall not relieve the permittee from complying with all conditions and requirements of the permit which shall be retained by the permittee with the permit.
9. The issue of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.
10. This permit is permissive only. No liability shall be imposed upon the NMCWD or any of its officers, agents or employees, officially or personally, on account of the granting of this permit or on account of any damage to any person or property resulting from any act or omission of the permittee or any of its agents, employees, or contractors.

11. In all cases where the doing by the permittee of anything authorized by this permit shall involve the taking, using, or damaging of any property, rights or interests of any other person or persons, or of any publicly-owned lands or improvements or interests, the permittee, before proceeding therewith, shall obtain the written consent of all persons, agencies, or authorities concerned, and shall acquire all necessary property, rights, and interest.
12. The permit is transferable only with the approval of the NMCWD (see NMCWD Rule 1.0). The permittee shall make no changes, without written permission previously obtained from the NMCWD, in the dimensions, capacity, or location of any items of work authorized by this permit.
13. The permittee shall grant access to the site at all reasonable times during and after construction to authorized representatives of the NMCWD for inspection of the work authorized by this permit.
14. This permit may be terminated by the NMCWD at any time deemed necessary in the interest of public health and welfare, or for violation of any of the provisions of this permit.
15. Construction work authorized under this permit shall be completed on or before date specified above. The permittee may, in writing, request that the NMCWD extend the time to complete the project in accordance with NMCWD Rule 1.0.



## Permit No.2019-63

Is hereby issued to Susan Faus, City of Edina, subject to the conditions specified in the attached form:

For construction of the playground at Fred Richards Park located approximately at the intersection of Parklawn Avenue and the Nine Mile Creek Regional Trail in Edina

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Jodi Peterson, Chair  
Nine Mile Creek Watershed District

This permit expires on: July 1, 2020



**CONFLUENCE**

LANDSCAPE ARCHITECT  
**CONFLUENCE**  
 1300 WALNUT STREET  
 DES MOINES, IOWA 50309  
 PH: 515.288.4875 FAX: 515.288.8359

**EOR** Emmons & Olivier  
 Resources, Inc.  
 7030 6th Street North  
 Oakdale, MN 55128  
 Tel: 651.770.8448  
 www.eorinc.com

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT  
 WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND  
 THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER  
 THE LAWS OF THE STATE OF MINNESOTA.

KYLE D. CRAWFORD  
 DATE: 05/31/2019 LICENSE # 64806

**FRED RICHARDS - PHASE 1**  
 CITY OF EDINA / MN

REVISION SCHEDULE		
ISSUE	DATE	DESCRIPTION
▲	01/12/19	ADDENDUM 1
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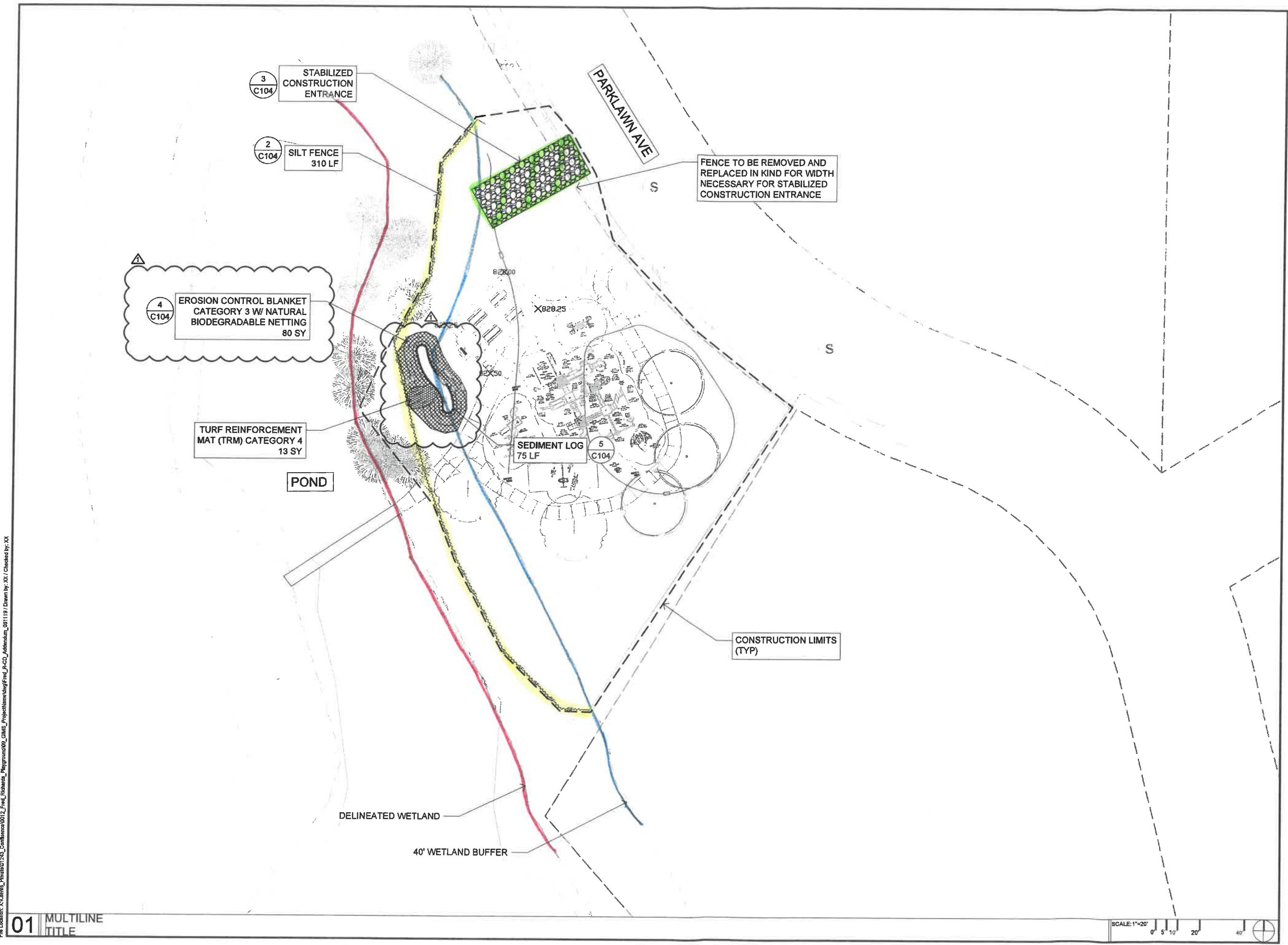
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**EROSION CONTROL  
 PLAN**

CONFLUENCE PROJECT NO: 18042

**C102**



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