

Applicant: Derek Berube; Metro Transit
Consultant: Connor Fortune; HNTB
Project: Orange Line Bus Rapid Transit
Location: Along I-35W from West 76th Street to the southern boundary of the District:
Richfield/Bloomington
Rule(s): 4 and 5
Reviewer: BCO

General Background & Comments

The project submitted by Metro Transit proposes the construction of the necessary facilities associated with the dedication of an existing traffic lane of I-35W for bus service from downtown Minneapolis to Burnsville. The facilities within the NMCWD include a new bus station at West 76th Street and Knox Avenue, improvements to the existing Best Buy Park and Ride (both in Richfield), a bus access tunnel along Knox Avenue beneath I-494 west of the I-35W – I-494 interchange, a bus station at Knox Avenue and American Boulevard and the associated appurtenances (sidewalks, retaining walls) in Bloomington. As part of this project, a portion of the existing trunk 54-inch MnDOT storm sewer system along I-494 will require relocation because of the location and alignment of the proposed bus access tunnel. That is, the project site is a linear parcel for the bus lane and a set of several separate, discrete locations for related facilities connected, for purposes of stormwater management by conveyances. Given the public applicant and for public purpose (transit system enhancement) for the project, staff recommends that rather than NMCWD requiring documentation of all necessary land-access and –use rights, Metro Council warrant its acquisition of these to NMCWD for purposes of the application.

The portion of the work within public right-of-way considered “linear” will disturb approximately 14.1 acres with a resultant reduction in impervious area of 0.1 acres. This will include shoulder and center median grading for traffic lanes, the 54-inch storm sewer realignment as previous discussed and miscellaneous work along the corridor to provide the necessary transition of the bus traffic into the freeway traffic. Rule 4.2.4, Linear projects, states that a permit under the Stormwater Management Rule is required for linear projects creating more than 1 acre of new or additional impervious area. Therefore the stormwater requirements are not applicable to the linear portion of the project.

The non-linear portion of the project, including work in parking lots and portions of the bus stations located outside of the public right-of-way, will disturb an area of 3.04 acres with an increase of 2.01 acres in impervious area. Rule 4.0, Stormwater Management, applies to the 2.01 acres of new impervious area, which is the entirety of the impervious area within the nonlinear portions of the site. (That is, the proposed stormwater management system will treat

100 percent of the impervious areas in the separate nonlinear locations on work for the project, obviating the need for detailed analysis under the redevelopment framework in subsection 4.2.3 of the rule.). Storm water management is to be provided within several hydrodynamic separator manholes, a surface basin and an underground perforated pipe system that will provide volume retention, rate control and water quality management to meet the requirement of Rule 4.3.1.

The District's requirements for 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 of surface area will be altered, Rules 5.2.1a and b. Erosion control measures identified in the project Storm Water Pollution Prevention Plan are to be installed throughout the project area.

A Phase 2 Environmental Assessment has been completed for the project. The area north of I-494 and west of I-35W, in Richfield, identified as having levels of petroleum related compounds, chlorinated VOCs and semi-volatile compounds, represented as Benzo(a)pyrene equivalents found in shallow soil and groundwater. However, volume retention by infiltration is not proposed by the applicant in this area because of contaminants found in the soils and groundwater. Stormwater management for the project in this northern area is limited to the previously mentioned hydrodynamic separator manhole for water quality.

For the area south of I-494, no contaminants were detected in the soil borings completed nearby the proposed stormwater management facilities (SB-31 and SB-32).. Only low-level diesel range organic (DRO) was detected in a groundwater sample collected from boring SB-32. There is not a HRL established for DRO but the level detected is lower than MPCA guidance for triggering additional investigation. Therefore volume retention for the compliance with rule 4.3.1a is proposed in the area of American Boulevard and Knox Avenue. We are in agreement with this assessment and that infiltration will not likely cause or exacerbate migration of underground contaminates.

Exhibits

1. Permit Application dated February 11, 2019.
2. Preliminary Plans dated September 4, 2018 (approved by agencies) prepared by HNTB.
3. Project narrative and storm water management plan summary dated February 7, 2019 prepared by HNTB.
4. Phase II Environmental Site Assessment dated June, 2018 prepared by Wenck Associates.
5. E-mail correspondence from MnDOT dated April 4, 2019 identifying areas within the project limits where groundwater contamination was encountered and that infiltration within these area should not be considered.
6. Memorandum from Barr Engineering to the Board of Managers dated March 14, 2019 requesting a 60-day extension to the review period.

4.0 Stormwater Management

Storm water management to comply with the requirements of Rule 4 for the 2.01 acres of new impervious area created outside of the corridor right-of-way will be provided by a Sciclone Hydrodynamic Separator manhole for water quality and rate control north of I-494, two SAFL

pre-treatment manholes, for water quality, a Sciclone Hydrodynamic Separator manhole for water quality and rate control, a surface stormwater basin (Surge basin) for rate control, volume retention and water quality and 216 lineal-feet of 54-inch perforated pipe for rate control, volume retention and water quality constructed on the south side of I-494.

The existing and proposed 2, 10 and 100 year frequency discharges from the 3.0 acres of total drainage area including the 2.01 acres of new impervious area are:

Frequency	Existing Discharge North Area c.f.s.	Proposed Discharge North Area c.f.s.
2 year	67.4	66.8
10 year	78.6	75.7
100 year	99.1	97.1

Frequency	Existing Discharge South Area c.f.s.	Proposed Discharge South Area c.f.s.
2 year	5.2	<1.0
10 year	10.2	<1.0
100 year	20.6	5.1

The northern drainage system will connect to the existing MnDOT drainage system at I-494 and Penn Avenue. The Minnesota Department of Transportation has approved this proposed connection. The southern system connects to a City of Bloomington storm system at American Boulevard and Knox Avenue. The City has required that the discharges from the entire 3.01 area be assumed to be routed through the surge basin and 54-inch infiltration system to show that the detention provided does not increase the rate of runoff for the 2, 10, and 100 year storm events.

Volume retention of 8,026 cubic feet is required from the 87,556 square feet (2.01 acres) of new site impervious area. Soil borings in the infiltration area indicate the soils as a sand, (SP) having an infiltration rate of 0.8 inches/hour using the Minnesota Stormwater Manual. Using this infiltration rate, an area of 2,508 square feet is required for volume retention with a 48 hour drawdown period to comply with Rule 4.3.1a. The proposed infiltration areas are approximately 8,668 square feet (2,508 square feet required) and a volume of 8,860 cubic feet (8,026 cubic feet required) provided by the surface basin and underground perforated pipe system.

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 submitted indicate the basin and underground pipe system provides an annual removal efficiency of 100% for total suspended solids (728 lbs.) and an annual removal efficiency of 100% for total phosphorus (4.01 lbs.). Rule 4.3.1c is met.

The borings submitted indicate that groundwater was not encountered to a depth of 19.9 feet, elevation 817.1 +/- M.S.L. The bottom elevation of basin is 827 M.S.L., a separation of 9.9 feet

and the bottom elevation of the underground pipe system is 820.5 M.S.L., a separation of 3.4 feet. A three (3) foot separation is required between the bottom of an infiltration facility and groundwater.

The finished floor elevation of an adjacent existing building, located outside of the project right-of-way, to both the basin and underground pipe system is 835 M.S.L. This elevation was determined using the 1-foot lidar topographic data available for the area. The calculated 100-year flood elevation for the basin is 832.5 M.S.L. and for the underground system is 830.7 M.S.L., a minimum separation of 2.5 feet and 4.3 feet, respectively with the building elevation. Compliance with the portion of Rule 4.3.3 that states a stormwater facility must be constructed at an elevation that ensures that no adjacent habitable building will be brought into noncompliance with a standard in subsection 4.3.3 is met.

In accordance with Rule 4.3.1a (i), the pre-treatment of runoff prior to the infiltration area(s) will be provided by two SAFL pre-treatment manholes and a Sciclone Hydrodynamic Separator manhole.

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

Erosion control measures include sediment control logs and inlet protection. The project contact is Connor Fortune, HNTB.

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

1. The proposed project includes the information necessary, plan sheets and erosion control plan, for review.
2. Rule 4 and 5 are met.

Recommendation

Approval, contingent upon:

1. General Conditions
2. In accordance with subsection 1.2, submission of a document signed by a Metro Transit official with authority warranting the acquisition of the necessary land-access and-use

rights for the project and/or authorization to apply on the behalf of the various underlying fee-title property owners.

3. In accordance with Rule 4.3.5, submission of a document signed by an official with authority with Metro Transit assuming the maintenance obligation for the on-site storm water management facilities.

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 basin and underground perforated pipe system, constructed conforming to the design specifications as approved by the District must be submitted.
2. 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.

Board Action

It was moved by Manager _____, seconded by Manager _____ to approve permit application No. 2019-06 with the conditions recommended by staff.

Permit #: 2019-06
Project Name: Orange Line Bus Rapid Transit: Richfield/Bloomington
Approval Date: April 17, 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.2019-06

Is hereby issued to Derek Berube, Metro Transit, subject to the conditions specified in the attached form:

For the Orange Line Bus Rapid Transit along I-35W in Richfield and Bloomington.

Jodi Peterson, Chair
Nine Mile Creek Watershed District

This permit expires on: April 1, 2020

