

Permit Application Review

Permit No. 2020-107
Received complete: October 1, 2020

Applicant: Pam Snyder; Continental Property Group
Consultant: Brian Kallio; Wenck
Project: Parking Lot Construction
Location: 2001 West 94th Street: Bloomington
Rule(s): 4,5,11,12
Reviewer: BCO

General Background & Comments

This is an after-the-fact submittal and permit review for the construction of a 71,500 square foot parking lot at 2001 West 94th Street in Bloomington. The project has not received City of Bloomington approval.

The overall site was originally developed in 2006-2007, prior to the District's current rules being adopted (2008). A stormwater basin was constructed on the eastern side of the site at the time, primarily for rate control and water quality. To provide stormwater-management for the newly constructed parking lot, the applicant is proposing to expand the existing stormwater basin and add an infiltration basin to the site.

The project site information is:

- Total Site Area: 25.1 acres
- Existing Site Impervious Area (based on 2006 air photos): 16.64 acres (724,838 square feet) – provided by the applicant
- Parking Lot Impervious area proposed: 71,500 square feet
- % increase in Site Impervious Area: 9.9%

Since the parking lot construction increased the site impervious area by less than 50%, in accordance with Rule 4.2.3, Redevelopment, the storm water requirements of Rule 4.3 apply to the new impervious area.

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 5000 square feet or more of surface area will be disturbed, Rule 5.2.1a and b. The erosion control to be installed is for the reconstruction of the stormwater basin and construction of the infiltration facility.

The District staff has been informed that Progressive Rail will be leasing the parking lot for material storage, possibly salt. The storage of material that has the possibility of contaminating the underlying soils and potentially groundwater from surface runoff (and wind erosion) that is adjacent to and tributary to a stormwater facility designed to infiltrate stormwater runoff has the potential to reach the adjacent stormwater facilities and severely diminish their efficiency and effectiveness, in addition to increasing the risk of chloride entering groundwater.

Silt fence is to be installed encircling the site for erosion control.

Exhibits

1. Permit Application dated September 29, 2020.
2. Plans dated October 1, 2020 prepared by Wenck.
3. Storm Water Management Plan dated September 23, 2020, revised October 1, 2020, prepared by Wenck.
4. Geotechnical report dated December 13, 2007 prepared by American Engineering Testing.
5. E-mail correspondence from Barr Engineering dated September 24, 2020 to the permit applicant stating the concern of the potential use of the site in relationship to the infiltration basin.
6. E-mail correspondence dated September 25, 2020 from Pam Snyder, Continental Property group stating that should Progressive Rail, the project lease, seek to store salt on the property that approval would need to be obtained by them from the City of Bloomington.

4.0 Stormwater Management

Storm water management is proposed within an on-site surface basin to be reconstruction for providing rate control and water quality management and an infiltration basin constructed for volume retention.

Rule 4.3.1b requires the peak flow rates must be maintained at existing conditions for the 2, 10 and 100-year storm events for all points where storm water discharge leaves the parcel.

There is one discharge point from the area of the site where the parking lot was constructed.

Frequency	Existing Discharge Point c.f.s.	Proposed Discharge Point c.f.s.
2 year	5.1	4.8
10 year	6.0	6.0
100 year	7.7	7.8

The discharges are within the degree of engineering accuracy for assumptions made in computing rates of runoff.

For volume retention, a volume of 6,554 cubic feet is required from the 71,500 square feet of new impervious area. The geotechnical report indicates the underlying soil in the location of stormwater basin/infiltration facility are poorly graded sand (SP). An infiltration rate of 0.8

inches/hour was used which is typical for a SP soil type material using the Minnesota Storm Water Manual. An area of 2,048 square feet is required for volume retention to be drawn down within 48 hours using an infiltration rate of 0.8 inches/hour. The infiltration basin will provide a retention volume of 9,814 cubic feet (6,554 cubic feet required) and an area of 6,598 square feet (2,048 square feet required.) Section 4.3.1a of the District Rules is met.

The District's water quality criteria (Rule 4.3.1c) requires a 60% annual removal efficiency for phosphorus and 90% annual removal efficiency for total suspended solids. The results of a MIDS calculator shows the reconstructed on-site basin will provide an annual removal efficiency of 90% for phosphorus (4.9 lbs.) and 92% annual removal efficiency for total suspended solids (919 lbs.). We agree with the modelling results. The requirements of section 4.3.1c of the District rules are met.

A boring in the area of the infiltration facility did not encounter groundwater to a depth of 26 feet, elevation 797.2 M.S.L. – the bottom of the boring. The bottom of the proposed infiltration basin is shown to be 820 M.S.L. providing a minimum separation of 22.8 feet between the basin bottom and the elevation of bottom of the boring. A minimum 3-foot separation is required to be provided between the bottom of an infiltration area and groundwater.

Rule 4.3.3 states a stormwater management facility must be constructed at an elevation that ensures that no habitable building will be brought into noncompliance with a standard in subsection 4.3.3 of the NMCWD rules. The low floor and low opening elevation of the adjacent building is 823.8 M.S.L. The 100-year high water elevation of the infiltration basin is 821.5 M.S.L. and the stormwater basin is 820.0 M.S.L. A separation of 2.4 feet and 3.8 feet, respectively, will be provided. Rule 4.3.3 requires a minimum separation of 2 feet between the highwater elevation of a constructed stormwater facility and the low floor and low opening of a structure.

Pretreatment of stormwater prior to discharging to the infiltration basin will be provided in vegetated swales with ditch checks upstream of the basin for compliance with subsection 4.3.1a (i) of the rules.

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. The chloride-use plan will need to provide for management of any chloride materials to be placed and retained on the site.

5.0 Erosion and Sediment Control

The submitted erosion and sediment control plan includes silt fence at the limits of the basin reconstruction and the construction of the infiltration basin. The project contact is Pam Snyder, Continental Property Group.

11.0 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 Infiltration: 2048 sq. ft. x \$12/sq. ft. = \$24,576	\$3,576
Chloride Management	\$5,000
Rule 5: Silt fence: 630 L.F. x \$2.50/L.F.= \$1,575	
Site restoration: 0.5 acres x \$2500/acre = \$1,250	\$3,625
Contingency and Administration	\$13,099

Findings

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

Recommendation

Approval, contingent upon:

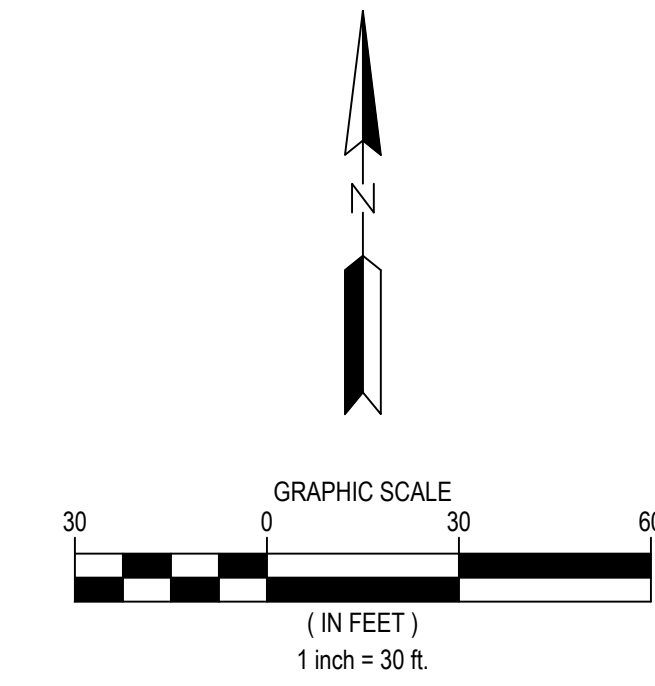
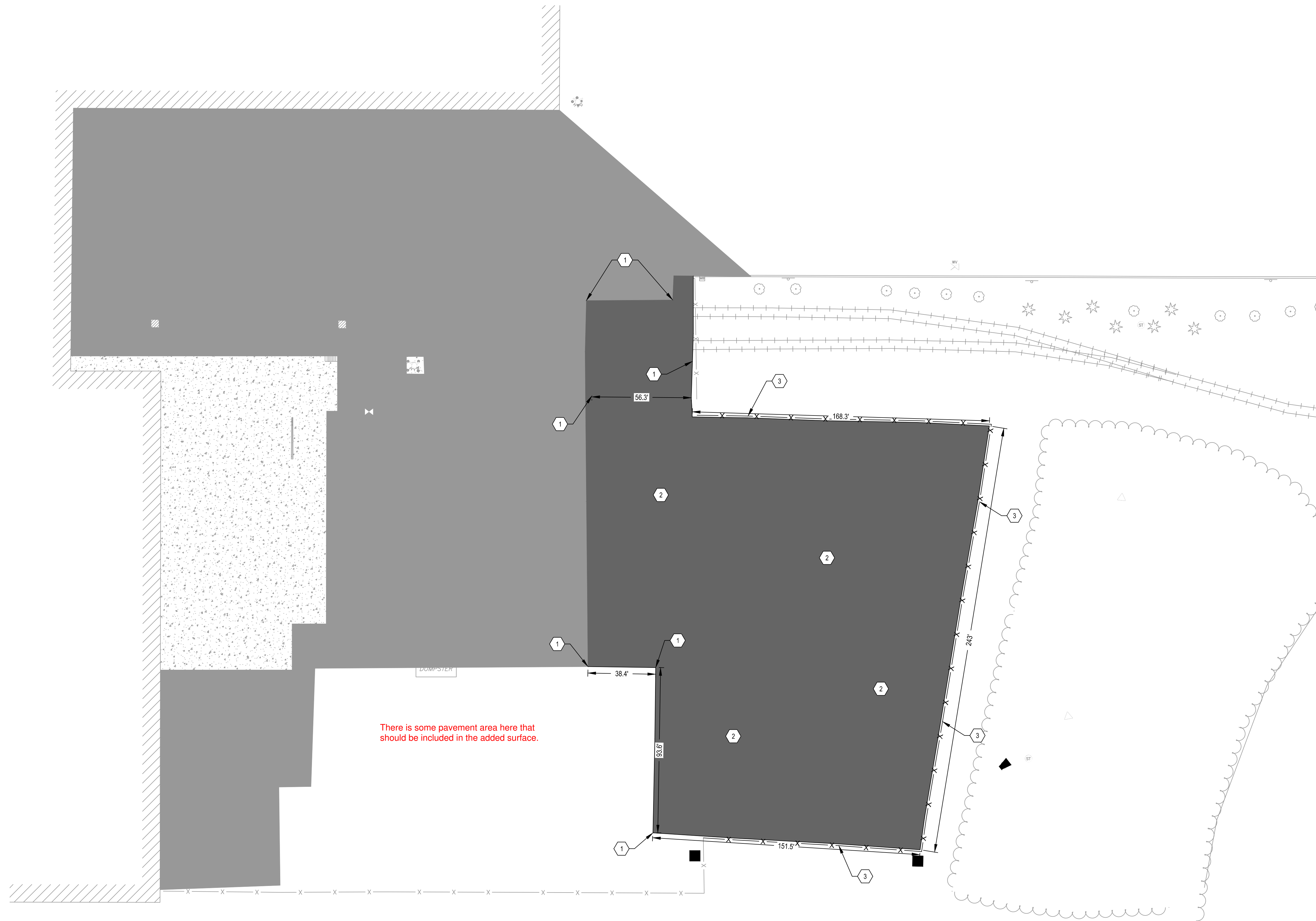
1. General Conditions
2. Submission of documentation of preliminary or final planning or regulatory approval from the City of Bloomington.
3. Submittal of written documentation from 2145 DE LLC (property owner) stating that Continental Property Group is an authorized representative of the property owner for obtaining the necessary approvals and compliance with the requirements of the Nine Mile Creek Watershed District
4. Financial Assurance in the amount of \$48,000, \$43,000 for stormwater management, erosion control, and site restoration, and \$5,000 for compliance with the chloride management requirements.
5. Submittal of documentation that a drainage easement over hydrologic features has been submitted to the City of Bloomington (Rule 4.5.4i) if such easement is required by the City.
6. A receipt showing recordation of a maintenance declaration for the on-site stormwater management facilities. 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 4.5.8, an as-built drawing of the stormwater facility conforming to the design specifications, including a stage volume relationship in tabular form for the infiltration basin.
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. 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.

3. For the release of the \$43,000 financial assurance required, Rule 12.4.1b requires demonstration and confirmation that the stormwater management facility (infiltration basin) has been constructed or installed and is functioning as designed and permitted. Verification, through daily observation logs and photographs, must be provided showing the stormwater facilities used for volume retention have drawn down within 48 hours from the completion of two 1-inch (approximate) separate rainfall events.



NOTES

- CONTRACTOR TO FIELD VERIFY EXISTING PAVEMENT SECTION AND MATCH EXISTING.

KEYNOTES

- APPROXIMATE LIMIT OF PAVEMENT ADDED AFTER 2006
- HEAVY DUTY BITUMINOUS PAVEMENT
- APPROXIMATE FENCE LINE ADDED AFTER 2006

LEGEND

- PROPERTY BOUNDARY
- LOT LINE
- EASEMENT LINE
- SETBACK LINE
- RIGHT OF WAY LINE
- SECTION LINE
- QUARTER LINE
- EXISTING EASEMENT LINE
- EXISTING PROPERTY LINE
- ROAD CENTERLINE
- HEAVY DUTY BITUMINOUS PAVEMENT
- GRASS / LANDSCAPING
- FENCE
- STORM MANHOLE
- STORM CATCH BASIN
- FLARED END SECTION
- STORM CLEANOUT



7500 OLSON MEMORIAL HWY
SUITE 300
GOLDEN VALLEY, MN 55427
PHONE: 763-252-6800
FAX: 952-831-1288
WWW.WENCK.COM

SUB CONSULTANT:

CLIENT:
**CONTINENTAL
PROPERTY
GROUP, INC.**

PROJECT TITLE:
**DE LLC BLOOMINGTON
STORMWATER REVIEW**
2001 W 94TH STREET
CITY OF BLOOMINGTON, HENNEPIN COUNTY MINNESOTA

ISSUE NO.:	DESCRIPTION:	DATE:

CERTIFICATION:
NOT FOR CONSTRUCTION

PROJECT NO.: 5005-20-500

DWN BY: BJC CHK'D BY: BFK APP'D BY: BFK

ISSUE DATE: 09/23/2020

ISSUE NO.: 1

SHEET TITLE:
SITE PLAN

SHEET NO.:
C-101