

Applicant: Greg Hayes: Ebert Construction  
Consultant: Paul Otto; Otto Associates  
Project: Building Additions for Edina Self Storage  
Location: 7725 Washington Avenue: Edina  
Rule(s): 3,4, 5, 11 and 12  
Reviewer: BCO

### **General Background & Comments**

The project proposes the construction of two building additions (13,860 sq. ft. and 2,440 sq. ft.) to the existing one-story building located at 7725 Washington Avenue in Edina. The building additions and new sidewalk construction will add 0.52 acres (22,651 square feet) of new impervious area. Yet other site work, as shown on the site removal plan, will result in a net overall reduction of 0.09 acres (3,920 square feet) in the total site impervious area.

The project site information is:

- Site Area: 4.35 acres (189,486 square feet)
- Existing Impervious Area: 3.15 acres (137,214 square feet)
- Proposed Impervious Area: 133,294 square feet
- A net decrease of 3,920 square feet
- 2.9% decrease in the total site impervious area
- Disturbed and reconstructed site impervious area: 22,651 square feet
- 16.5% of the existing site impervious area will be disturbed and reconstructed

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 16.5% (0.52 acres - 22,651 square feet) of the impervious surface of the property. The storm water criteria in Section 4.3.1 applies to the disturbed and reconstructed impervious area – 22,651 square feet.

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

#### Exhibits

1. Permit Application dated July 9, 2019.
2. Plan sheets dated September 19, 2019, revised March 19th, June 13<sup>th</sup>, July 8<sup>th</sup>, July 22<sup>nd</sup>, August 13<sup>th</sup>, August 21<sup>st</sup>, September 19, 2019 prepared by Otto Associates.
3. Storm water management computations dated June 25, 2019, revised July 17<sup>th</sup>, August 16<sup>th</sup>, September 3<sup>rd</sup> and September 20, 2019 prepared by Otto Associates.
4. Soil boring summary dated June 5, 2019 prepared by NTI.
5. E-mail correspondence dated July 15, August 19, 2019 requesting additional information regarding the applicant's request for the site to be considered restricted as defined by District Rule 4.3.2.
6. E-mail correspondence dated August 20, 2019 from Todd Smith at the MPCA describing the agencies definition of groundwater and saturated soils.
7. Submittal dated September 3, 2019 prepared by Otto Associates titled Site Constraints Report.
8. Approved Notice of Decision dated July 30, 2019 for the wetland boundary determination on the site.
9. E-mail correspondence dated August 26, 2019 concurring with the revised MnRAM submitted by Kjolhaug Environmental Services identifying the on-site wetland as a "high-value" wetland.
10. A wetland buffer exhibit prepared by Otto Associates dated September 9, 2019.

The project submittal is now complete.

### **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 934.3 M.S.L. The project does not propose any work or impacts within the floodplain of the creek.

### **3.0 Wetland s Management**

A wetland boundary determination for the wetland located on the south side of the property has been accepted by the District on July 30, 2019 being the LGU administering the requirements of the Wetland Conservation Act in Edina. No wetland impact are proposed.

A MnRAM assessment, prepared by Kjolhaug Environmental Services, has been submitted identifying the wetland as a "high value" wetland requiring a minimum buffer width of 30 feet and an average buffer width of 60 feet. The wetland buffer exhibit dated September 9, 2019 prepared by Otto Associates shows the required buffer area of 9,813 square feet on the property with a proposed average buffer width of 9,816 square feet to be provided to comply with Rule 3.4.1a. Buffer makers as described in Rule 3.4.5 will be required to be installed.

#### **4.0 Stormwater Management**

As previously stated, a net reduction of 3,920 square feet of impervious area on the site is proposed by the project. This impervious reduction will result in the reduction in the rates of runoff for the 2, 10 and 100-year frequency storm events complying with Rule 4.3.1b.

A volume retention of 2,076 cubic feet is required for 1.1-inches of runoff from the 22,651 square feet of disturbed and reconstructed impervious area. The underground storm water management facility, UGSWMF to be located within the green space on the east side of the site, will provide 2,327 cubic feet of volume retention. With the on-site underlying soils being classified as a silty sand (SM), an infiltration rate of 0.45 inches/hour has been used based on the Minnesota Stormwater Manual. Using this infiltration rate, an area of 1,153 square feet at a maximum depth of 1.8 feet is required for the 2,076 cubic feet of volume retention to be drawn down within 48 hours. An area of 2,220 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 92% for total suspended solids (153 lbs.) and an annual removal efficiency of 92% for total phosphorus (0.9 lbs.). Rule 4.3.1c is met.

A 100-year frequency flood elevation has not been calculated for the UGSWMF. The system has been designed to retain 1.1-inches of runoff from the 22,651 square feet of impervious area. Once the capacity of the system is reached, the building roof runoff will flow down the parking lot, as it currently does reaching the storm sewer system along Washington Avenue. The project engineer has stated that sufficient overflow capacity will be provided away from the scupper-storm sewer inlet minimizing the potential of the runoff flow pattern "short-circuiting" from this connection and affecting the existing structure and proposed building addition.

The geotechnical report indicates that groundwater was encountered at elevation 834 M.S.L. The bottom of the proposed UGSWMF is to be elevation 845 M.S.L, a separation of 11 feet. A minimum separation of 3 feet is required between the bottom of an infiltration facility and groundwater.

Pretreatment of storm water prior to discharging to an infiltration facility, Rule 4.3.1a (i), will be provided by a sump manhole structure upstream of the UGSWMF.

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 Greg Hayes, Ebert Construction.

### **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: 1,153 sq. ft. x \$12/sq. ft. = \$13,836 \$13,836

Chloride Management: \$5000

Rule 5: Silt fence: 280 L.F. x \$2.50/L.F. = \$700

Bioroll: 184 L.F. x \$5/L.F. = \$920

Inlet Protection: 1 x \$100/each = \$100

Site restoration: 0.5 acres x \$2500/ acre = \$1,250 \$2,970

Contingency and Administration \$7,294

### **Findings**

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

1. Rules 4 and 5 are met.

### **Recommendation**

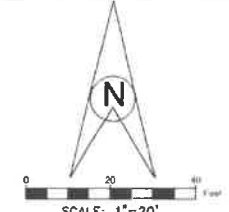
Approval, contingent upon:

1. General Conditions
2. Financial Assurance in the amount of \$29,100 - \$24,100 for stormwater 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 stormwater-management facility has been submitted to Edina (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. A draft of the declaration must be approved by the District prior to recordation.
5. A plan showing flow direction and sufficient overflow capacity provided for runoff to be directed away from the existing building and building addition once the capacity of the underground system has been reached and during spring runoff conditions when portions of the existing system maybe frozen.

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 installed as described in Rule 3.4.5.

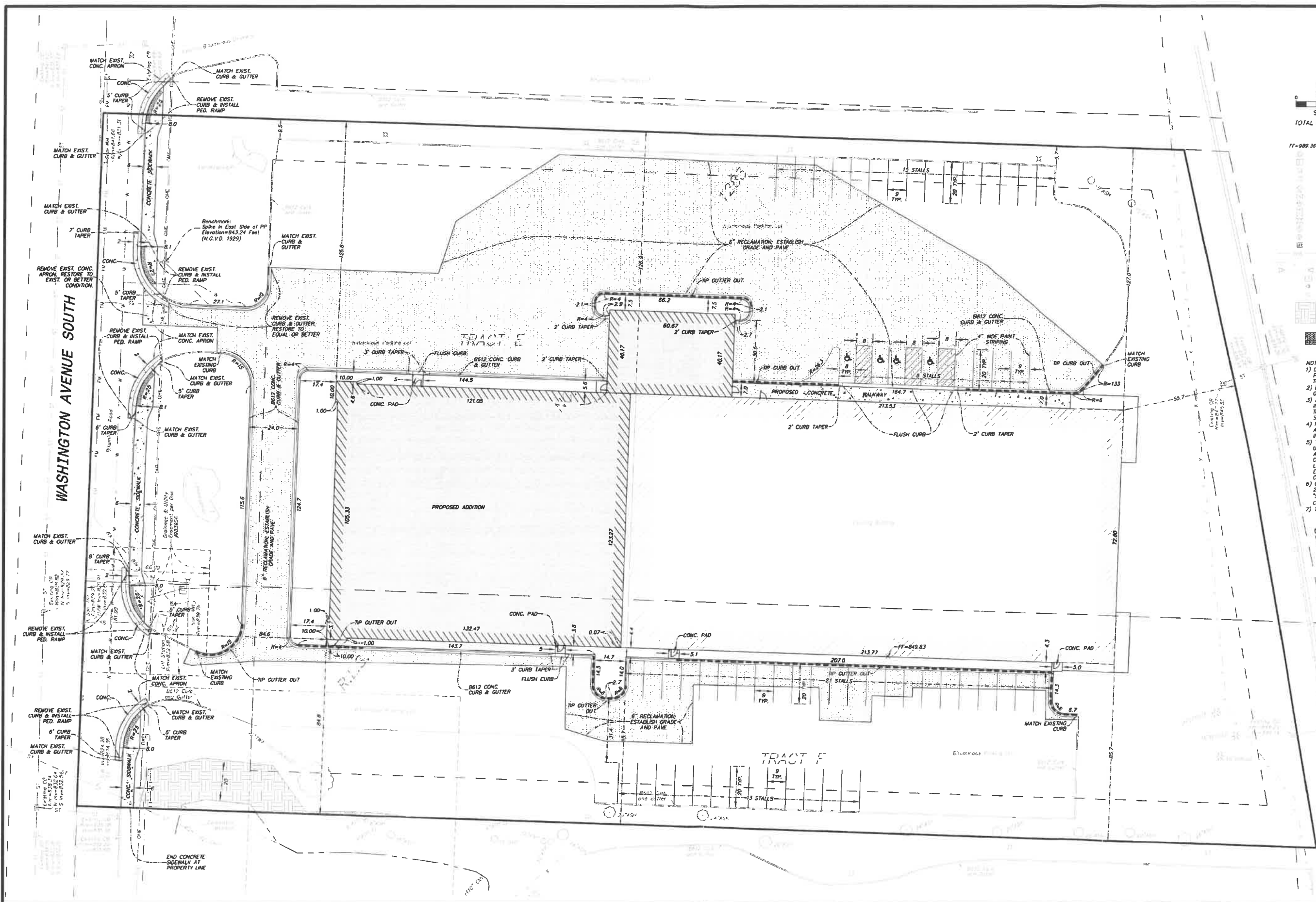
3. Submission of a plan for post-project management of Chloride use on the site. The plan must include 1) the designation of an individual authorized to implement the chloride use plan and 2) the designation of a Minnesota Pollution Control Agency certified salt applicator engaged in the implementation 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 \$24,100 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.



- LEGEND**
- FF-989.36 denotes Finished Floor Elevation
  - denotes Gas Meter
  - denotes Electrical Pedestal
  - denotes Light Pole
  - denotes Sign
  - denotes Power Pole
  - denotes Water Valve
  - denotes Water Shutoff Valve
  - denotes Gas Valve
  - denotes Hydrant
  - denotes Sanitary Manhole
  - denotes Storm Manhole
  - denotes Catch Basin
  - denotes Overhead Electric Line
  - denotes Fence Line
  - denotes Existing Culvert
  - denotes Telephone Pedestal
  - denotes Guy Wire
  - denotes Bollard
  - denotes Wetland Buffer
  - denotes Detectable Warnings

- NOTES:**
- 1) DIMENSIONS MEASURED OFF THE PROPERTY LINES ARE PERPENDICULAR TO THEM.
  - 2) DIMENSIONS ARE MEASURED TO BACK OF CURB.
  - 3) ALL PEDESTRIAN FACILITIES SHALL BE IN ACCORDANCE WITH CHAPTER 1341 OF THE MINN. STATE BUILDING CODE AND ADA STANDARDS.
  - 4) REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL BUILDING AND SITE INFORMATION.
  - 5) THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION.
  - 6) CONSTRUCTION SHALL CONFORM TO 2018 EDITION OF THE MNDOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION."
  - 7) TOTAL OF 59 STRIPED PARKING STALLS

TRUNK HIGHWAY NO. 169



| <table border="1"> <thead> <tr> <th>REV. NO.</th> <th>DATE</th> <th>BY</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>3-27-19</td> <td>S.O.S.</td> <td>REMOVALS</td> </tr> <tr> <td>2</td> <td>4-12-19</td> <td>S.O.S.</td> <td>PARKING STALLS</td> </tr> <tr> <td>3</td> <td>6-13-19</td> <td>T.J.B.</td> <td>ADD SIDEWALK ALONG WASHINGTON AVENUE SOUTH</td> </tr> <tr> <td>4</td> <td>7-8-19</td> <td>T.J.B.</td> <td>REVISE PED RAMP AND PROPOSED UTILITIES</td> </tr> <tr> <td>5</td> <td>7-22-19</td> <td>T.J.B.</td> <td>REVISE STORMWATER POND, REMOVALS, &amp; UTILITIES</td> </tr> </tbody> </table> | REV. NO. | DATE   | BY  | DESCRIPTION | 1 | 3-27-19 | S.O.S. | REMOVALS | 2 | 4-12-19 | S.O.S. | PARKING STALLS | 3 | 6-13-19 | T.J.B. | ADD SIDEWALK ALONG WASHINGTON AVENUE SOUTH | 4 | 7-8-19 | T.J.B. | REVISE PED RAMP AND PROPOSED UTILITIES | 5 | 7-22-19 | T.J.B. | REVISE STORMWATER POND, REMOVALS, & UTILITIES | <table border="1"> <thead> <tr> <th>REV. NO.</th> <th>DATE</th> <th>BY</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>6</td> <td>8-15-19</td> <td>T.J.B.</td> <td>PROPOSED ADDITION DIMENSIONS.</td> </tr> <tr> <td>7</td> <td>8-21-19</td> <td>T.J.B.</td> <td>INFILTRATION BASIN</td> </tr> <tr> <td>8</td> <td>9-19-19</td> <td>T.J.B.</td> <td>INFILTRATION SYSTEM</td> </tr> </tbody> </table> | REV. NO. | DATE | BY | DESCRIPTION | 6 | 8-15-19 | T.J.B. | PROPOSED ADDITION DIMENSIONS. | 7 | 8-21-19 | T.J.B. | INFILTRATION BASIN | 8 | 9-19-19 | T.J.B. | INFILTRATION SYSTEM | <p>DESIGNED DRAWN<br/>P.E.O. S.O.S.</p> <p>CHECKED<br/>P.E.O.</p> <p>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.</p> <p><b>OTTO ASSOCIATES</b><br/>Engineers &amp; Land Surveyors, Inc.</p> <p>www.ottoassociates.com<br/>9 West Division Street<br/>Buffalo, MN 55313<br/>(763)682-4727<br/>Fax: (763)682-3522</p> <p>Paul E. Otto<br/>License # 40062<br/>Date: 9-19-19</p> | <p><b>EDINA SELF STORAGE</b><br/>EBERT CONSTRUCTION<br/>EDINA, MN</p> | <p><b>SITE PLAN</b></p> <p>SHEET NO. C2.4 OF C8 SHEETS</p> | <p>PROJECT NO:<br/>19-0145</p> <p>DATE:<br/>3-25-19</p> |
|--|----------|--------|---|-------------|---|---------|--------|----------|---|---------|--------|----------------|---|---------|--------|--|---|--------|--------|--|---|---------|--------|---|--|----------|------|----|-------------|---|---------|--------|-------------------------------|---|---------|--------|--------------------|---|---------|--------|---------------------|---|---|--|---|
| REV. NO.   | DATE     | BY     | DESCRIPTION                                   |             |   |         |        |          |   |         |        |                |   |         |        |  |   |        |        |  |   |         |        |   |  |          |      |    |             |   |         |        |                               |   |         |        |                    |   |         |        |                     |   |   |  |   |
| 1  | 3-27-19  | S.O.S. | REMOVALS                                      |             |   |         |        |          |   |         |        |                |   |         |        |  |   |        |        |  |   |         |        |   |  |          |      |    |             |   |         |        |                               |   |         |        |                    |   |         |        |                     |   |   |  |   |
| 2  | 4-12-19  | S.O.S. | PARKING STALLS                                |             |   |         |        |          |   |         |        |                |   |         |        |  |   |        |        |  |   |         |        |   |  |          |      |    |             |   |         |        |                               |   |         |        |                    |   |         |        |                     |   |   |  |   |
| 3  | 6-13-19  | T.J.B. | ADD SIDEWALK ALONG WASHINGTON AVENUE SOUTH    |             |   |         |        |          |   |         |        |                |   |         |        |  |   |        |        |  |   |         |        |   |  |          |      |    |             |   |         |        |                               |   |         |        |                    |   |         |        |                     |   |   |  |   |
| 4  | 7-8-19   | T.J.B. | REVISE PED RAMP AND PROPOSED UTILITIES        |             |   |         |        |          |   |         |        |                |   |         |        |  |   |        |        |  |   |         |        |   |  |          |      |    |             |   |         |        |                               |   |         |        |                    |   |         |        |                     |   |   |  |   |
| 5  | 7-22-19  | T.J.B. | REVISE STORMWATER POND, REMOVALS, & UTILITIES |             |   |         |        |          |   |         |        |                |   |         |        |  |   |        |        |  |   |         |        |   |  |          |      |    |             |   |         |        |                               |   |         |        |                    |   |         |        |                     |   |   |  |   |
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| 6  | 8-15-19  | T.J.B. | PROPOSED ADDITION DIMENSIONS.                 |             |   |         |        |          |   |         |        |                |   |         |        |  |   |        |        |  |   |         |        |   |  |          |      |    |             |   |         |        |                               |   |         |        |                    |   |         |        |                     |   |   |  |   |
| 7  | 8-21-19  | T.J.B. | INFILTRATION BASIN                            |             |   |         |        |          |   |         |        |                |   |         |        |  |   |        |        |  |   |         |        |   |  |          |      |    |             |   |         |        |                               |   |         |        |                    |   |         |        |                     |   |   |  |   |
| 8  | 9-19-19  | T.J.B. | INFILTRATION SYSTEM                           |             |   |         |        |          |   |         |        |                |   |         |        |  |   |        |        |  |   |         |        |   |  |          |      |    |             |   |         |        |                               |   |         |        |                    |   |         |        |                     |   |   |  |   |