

## Riley Purgatory Bluff Creek Watershed District Permit Application Review

**Permit No:** 2022-069

**Considered at Board of Managers Meeting:** December 7, 2022

**Received complete:** November 23, 2022

**Applicant:** Erik Overlid

**Consultant:** James R. Hill, Inc, Eric Fegerberg, P.E.

**Project:** Carver Beach Road – The project proposes development of a 1.01-acre site in Chanhassen, MN. Proposed work includes construction of a single-family home on an existing vacant parcel with associated grading, utilities, landscaping and stormwater management facilities. The stormwater management facility includes an infiltration basin to provide volume control, water quality, and rate control.

**Location:** 921 Carver Beach Road Chanhassen, MN 55317

**Reviewer:** Scott Sobiech P.E., Barr Engineering

### **Board Action**

Manager \_\_\_\_\_ moved and Manager \_\_\_\_\_ seconded adoption of the following resolution based on the permit report that follows and the presentation of the matter at the December 7, 2022 meeting of the managers:

Resolved that the application for Permit 2022-069 is approved, subject to the conditions and stipulations set forth in the Recommendations section of the attached report;

Resolved that on determination by the RPBCWD administrator that the conditions of approval have been affirmatively resolved, the RPBCWD president or administrator is authorized and directed to sign and deliver Permit 2022-069 to the applicant on behalf of RPBCWD.

Upon vote, the resolutions were adopted, \_\_\_\_\_ [VOTE TALLY].

**Applicable Rule Conformance Summary**

Rule	Issue	Conforms to RPBCWD Rules?	Comments	
C	Erosion Control Plan	Yes		
D	Wetland and Creek Buffers	See Comment	See rule-specific permit condition D1 related to providing the buffer sign detail and D2 related to recordation of wetland buffer declaration.	
J	Stormwater Management	Rate	Yes	
		Volume	Yes	
		Water Quality	Yes	
		Low Floor Elev.	Yes	
		Maintenance	See Comment	See rule-specific permit condition J1 related to recordation of stormwater facility maintenance declaration.
		Chloride Management	N/A	
		Wetland Protection	Yes	
L	Permit Fee Deposit	See Comment	\$3,000 received November 23, 2022. The applicant must replenish the permit fee deposit to the original amount due before the permit will be issued. As of November 29, 2022 the amount due is \$1,652.	
M	Financial Assurances	See Comment	The financial assurance is calculated at \$12,384	

**Background**

The proposed project includes development of a single-family home on an existing parcel with associated grading, utilities, landscaping, and stormwater management facilities. The 1.01-acre site is adjacent to an existing high value wetland.

The project proposes construction of an infiltration basin to provide stormwater quantity, volume and rate quality control.

There is a delineated wetland onsite south of the proposed development. The 100-year floodplain of the wetland from the District PCSWMM model is approximately 997.92 (NGVD29), no land-disturbing activity is proposed within the floodplain of the wetland. Because a wetland is downgradient from the proposed land disturbing activities, wetland buffer requirements apply to the proposed project.

The project site information is summarized below:

Project Site Information	Area (acres)
Total Site Area	1.01
Existing Site Impervious	0.0
Disturbed Site Impervious Area	0.0 (0%)
Proposed Site Impervious Area	0.07
Change in Site Impervious Area	0.07 (100% increase)
Regulated Impervious Surface	0.07
Total Disturbed Area	0.41

The following materials were reviewed in support of the permit request:

1. Application received August 26, 2022 (Incomplete notice was sent on September 19, 2022; materials submitted to complete application on December 21, 2022)
2. Erosion Control plan dated June 30, 2022 (revised November 18, 2022)
3. Geotechnical Exploration memo by Haugo Geotechnical Services dated August 28, 2020
4. Drainage map by James R. Hill, Inc, Inc. dated June 6, 2022 (revised November 18, 2022)
5. Electronic HydroCAD models received on revised November 21, 2022
6. P8 Modeling received on November 21, 2022
7. Infiltration testing results dated October 6, 2022
8. Slopes drawing received November 9, 2022
9. Wetland Delineation Report by Jacobson Environmental, PLLC dated April 17, 2020
10. Engineer's opinion of probable cost received November 21, 2022.

### **Rule Specific Permit Conditions**

#### **Rule C: Erosion Prevention and Sediment Control**

Because the project will involve 0.41 acres of land-disturbing activity, the project must conform to the requirements in the RPBCWD Erosion Prevention and Sediment Control rule (Rule C, Subsection 2.1). The erosion and sediment control plans prepared by James R. Hill. include installation of perimeter control on the downgradient portion of the site (silt fence), a rock construction entrance, protection of stormwater management facility, placement of a minimum of 6 inches of topsoil (at 5% organic matter), decompaction of pervious areas compacted during construction, and retention of native topsoil onsite. The Erosion and Sediment Control plan sheet indicates that Troy Asleson, Stone Cottage (651-261-1633; [troy@stonecottage.com](mailto:troy@stonecottage.com)) responsible for erosion prevention and sediment control for the site.

The proposed project is in conformance with RPBCWD's Rule C.

### Rule D: Wetland and Creek Buffers

Because the proposed work triggers a permit under RPBCWD Rule J and the onsite wetland is downgradient from the proposed construction activities, Rule D, Subsections 2.1a and 3.1 require buffer along the edge of the wetland downgradient of the activities. No land disturbing activities are proposed within the onsite wetland.

The MnRAM analysis indicates the wetland is a high value wetland. Rule D, Subsection 3.2.a.ii requires wetland buffer with an average of 60 feet from the delineated edge of the wetland, minimum 30 feet. The average buffer width provided (63 feet) conforms to Rule D, subsection 3.2.b.ii. Per Rule D, subsection 3.2c., the buffer must encompass all or part of a slope averaging 18% or greater. Because the buffer area extends to the top of slopes that average steeper than 18%, the project conforms to Rule B, subsection 3.2c. The provided buffer width to conform to the steep slopes provision (Rule B, subsection 3.2c) is greater than the required average buffer width to conform to Rule D, subsection 3.2.b.ii, indicating that both requirements are met.

### Wetland buffer summary

RPBCWD Wetland Value	Required Minimum Width (ft)	Required Average Width (ft)	Required Area (sq ft)	Provided Area (sq ft)	Provided Minimum Width (ft)	Provided Average Width (ft)
High	30	60	9,888	10,543	41	63

The plans require revegetating disturbed areas within the proposed buffer with native vegetation, thus conforming to Rule D, Subsection 3.3. A note is included on the plan sheet indicating the project will be constructed so as to minimize the potential transfer of aquatic invasive species (e.g., zebra mussels, Eurasian watermilfoil, etc.) to the maximum extent possible conforming to Rule D, Subsection 3.6.

To conform to the RPBCWD Rule D the following revisions are needed:

- D1. The plans and specifications must identify the installation date of the buffer markers, which must be set to ensure protection of buffer area during and after land-disturbing activities, and the buffer sign detail in material conformity with RPBCWD requirements. This information is needed prior to issuance of the permit (Rule D, Subsection 3.4a)
- D2. Buffer areas and maintenance requirements must be documented in a declaration recorded after review and approval by RPBCWD in accordance with Rule D, Subsection 3.5. The maintenance declaration must also include an exhibit clearly showing the buffer area and monument locations.

### Rule J: Stormwater Management

Because the project will disturb 0.41 acres of surface area, the project must meet the criteria of RPBCWD's Stormwater Management rule (Rule J, Subsection 2.1).

The project proposes construction of an infiltration facility to provide stormwater quantity, volume and rate quality control. An infiltration basin proposed at the southern side of the property will provide water quality, rate control and abstraction for the new developed impervious area. The filtration basin has an elevated underdrain system situated in aggregate to promote infiltration prior to discharging to the downgradient wetland.

**Rate Control**

In order to meet the rate control criteria listed in Subsection 3.1.a, the 2-, 10-, and 100-year post development peak runoff rates must be equal to or less than the existing discharge rates at all locations where stormwater leaves the site. The Applicant used a HydroCAD hydrologic model to simulate runoff rates for pre- and post-development conditions for the 2-, 10-, and 100-year frequency storm events using a nested rainfall distribution, and a 100-year frequency, 10-day snowmelt event. The existing and proposed 2-, 10-, and 100-year frequency discharges from the site are summarized in the table below.

Modeled Discharge Location	2-Year Discharge (cfs)		10-Year Discharge (cfs)		100-Year Discharge (cfs)		10-Day Snowmelt (cfs)	
	Ex	Prop	Ex	Prop	Ex	Prop	Ex	Prop
Site Discharge (Wetland)	1.1	0.3	2.2	1.2	4.4	3.3	0.1	<0.1

The proposed stormwater management plan will provide rate control in compliance with the RPBCWD requirements for the 2-, 10-, and 100-year events. Thus, the proposed project meets the rate control requirements in Rule J, Subsection 3.1a.

**Volume Abstraction**

Subsection 3.1.b of Rule J requires the abstraction onsite of 1.1 inches of runoff from all impervious surface of the parcel. An abstraction volume of 278 cubic feet is required from the 0.07 acres (3,033 square feet) of impervious area on the project for volume retention. The Applicant proposes an infiltration basin to provide volume abstraction. retreatment is provided by grass filter strips between the impervious surfaces and the infiltration basin (Rule J, Subsection 3.1.b.1).

Soil borings performed by Haugo Geotechnical Services, Inc. dated August 28, 2020 show that soils onsite typically consist of native glacial till soils composed of clayey sand (SC), silty clayey sand (SC-SM), and silty sand (SM). Groundwater was not encountered in either soil boring performed by Haugo Geotechnical to depths of 6.6 and 9.8 foot soil borings (Elevations 997.8 feet and 991.5 feet). The bottom of the filtration basin is at an elevation of 1001.0 feet. This indicates that groundwater is at least 3 feet below the bottom of the proposed stormwater management system (Rule J, Subsection 3.1.b.ii.2).

Double ring infiltrometer testing results show an average infiltration rate of 3.24 inches per hour (in/hr) beneath the proposed stormwater management feature. The engineer concurs with the applicant’s

design infiltration rates of 1.62 inches per hour. The proposed stormwater facility provides adequate surface area to drawdown the abstraction volumes within the required 48-hour period, thus conforming with Rule J, Subsection 3.1.b.3. The table below summarizes the volume abstraction required and the volume abstraction achieved by the proposed stormwater management facility on site. The engineer concurs with the submitted information and finds that the proposed project will conform with Rule J, Subsection 3.1.b.

**Volume Abstraction Summary**

Required Abstraction Depth (inches)	Required Abstraction Volume (cubic feet)	Provided Abstraction Depth (inches)	Provided Abstraction Volume (cubic feet)
1.1	273	1.8	464

**Water Quality Management**

Subsection 3.1.c of Rule J requires the Applicant provide volume abstraction in accordance with 3.1b or least 60 percent annual removal efficiency for total phosphorus (TP), and at least 90 percent annual removal efficiency for total suspended solids (TSS) from site runoff, and no net increase in TSS or TP loading leaving the site from existing conditions. Because the BMP proposed by the applicant provides more volume abstraction than is require by 3.1b, the engineer finds that the proposed project is in conformance with Rule J, Subsection 3.1.c.

**Low floor Elevation**

All new buildings must be constructed such that the lowest floor is at least two feet above the 100-year high water elevation or one foot above the emergency overflow of a stormwater-management facility according to Rule J, Subsection 3.6a. In addition, a stormwater-management facility must be constructed at an elevation that ensures that no adjacent habitable building will be brought into noncompliance with this requirement, according to Rule J, Subsection 3.6b. The low floor elevation of the proposed home and the adjacent stormwater management feature is summarized below and shows the proposed project is in conformance with Rule J, Subsection 3.6a.

Lot Riparian to Stormwater Facility	Low Floor Elevation of Building (feet)	Adjacent Stormwater Facility	100-year Event Flood Elevation of Adjacent Stormwater Facility (feet)	Freeboard to 100-year Event (feet)
Proposed House	1015.5	Infiltration Basin	1001.91	13.59

**Maintenance**

Subsection 3.7 of Rule J requires the submission of a maintenance plan. All stormwater management structures and facilities must be designed for maintenance access and properly maintained in perpetuity to assure that they continue to function as designed. The Applicant provided a draft maintenance and inspection declaration for review that provides the maintenance and inspection required by Rule J, Subsection 3.7.

- J1. Permit applicant must provide a proof of recordation of the maintenance and inspection declaration as a condition of issuance of the permit. A draft of the declaration must be provided for District review and approval prior to recordation as a condition of issuance of the permit.

### ***Chloride Management***

Subsection 3.8 of Rule J requires the submission of chloride management plan that designates the individual authorized to implement the chloride management plan and the MPCA-certified salt applicator engaged in implementing the plan. The RPBCWD chloride-management plan requirement applies to the streets and common areas of the project site, but not the individual single-family homes. Because there are no street or common areas, Rule J, subsection 3.8 does not impose requirements on this project.

### ***Wetland Protection***

Because runoff from this site is directly tributary to a downstream, high value wetland, the project must comply with the wetland protection criteria in Rule J, Subsection 3.10

In accordance with Rule J, subsection 3.10a, there is no proposed activity subject to Rule J that will alter the site in a manner that increases the bounce in water level, duration of inundation, or change the runout elevation in the subwatershed for the wetland receiving runoff from the land disturbing activities. Because the applicant's HydroCAD model results demonstrate, and the engineer concurs, that the proposed flow rate and volumes flowing towards the off-site wetland are less than the under existing conditions, the bounce and inundation will not increase, thus the project meets the Bounce and Inundation criterion.

Rule J, Subsection 3.10b requires that treatment of runoff to high value wetlands archive 90 percent total suspended solids removal and 75 percent total phosphorus removal. The off-site wetland is a high value wetland. P8 modeling results show the proposed infiltration basin will provide 90.0% TSS and 81.1% TP removals, thus the engineer finds that the proposed project is in conformance with Rule J, Subsection 3.10b.

### **Rule L: Permit Fee Deposit:**

The RPBCWD permit fee schedule adopted in February 2020 requires permit applicants to deposit \$3,000 to be held in escrow and applied to cover the \$10 permit-processing fee and reimburse RPBCWD for permit review and inspection-related costs and when a permit application is approved, the deposit must be replenished to the applicable deposit amount by the applicant before the permit will be issued to cover actual costs incurred to monitor compliance with permit conditions and the RPBCWD Rules. A permit fee deposit of \$3,000 was received on November 23, 2022. The applicant must replenish the permit fee deposit to the original amount due before the permit will be issued. Subsequently, if the costs of review, administration, inspections and closeout-related or other regulatory activities exceed the fee deposit amount, the applicant will be required to replenish the deposit to the original amount or

such lesser amount as the RPBCWD administrator deems sufficient within 30 days of receiving notice that such deposit is due. The administrator will close out the relevant application or permit and revoke prior approvals, if any, if the permit-fee deposit is not timely replenished.

- L1. The applicant must replenish the permit fee deposit to the original amount due before the permit will be issued. The amount needed to replenish the permit fee deposit is \$1,652 as of November 29, 2022.

**Rule M: Financial Assurance:**

	Unit	Unit Cost	# of Units	Total
Rules C: Silt fence:	LF	\$2.50	330	\$825
Inlet protection	EA	\$100	0	\$0
Rock Entrance	EA	\$250	1	\$250
Restoration	Ac	\$2,500	0.41	\$1,025
Rule D: Wetland and Creek Buffer	EA	\$5,000	1	\$5,000
Rules J: Stormwater Management Rain Garden: 125% of engineer’s opinion of cost (\$3,326)	EA	125% OPC	1	\$4,158
Contingency (10%)		10%		\$1,126
<b>Total Financial Assurance</b>				<b>\$12,384</b>

**Applicable General Requirements:**

1. The RPBCWD Administrator and Engineer shall be notified at least three days prior to commencement of work.
2. Construction must be consistent with the plans, specifications, and models that were submitted by the applicant that were the basis of permit approval. The date(s) of the approved plans, specifications, and modeling are listed above and on the permit.
3. The grant of the permit does not relieve the permittee of any responsibility to obtain approval of any other regulatory body with authority.
4. The issuance of this permit does not convey any rights to 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.
5. In all cases where the doing by the permittee of anything authorized by this permit involves 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, must acquire all necessary property rights and interest.
6. RPBCWD’s determination to issue this permit was made in reliance on the information provided by the applicant. Any substantive change in the work affecting the nature and extent of applicability of RPBCWD regulatory requirements or substantive changes in the methods or means of compliance with RPBCWD regulatory requirements must be the subject of an application for a permit modification to the RPBCWD.
7. If the conditions herein are met and the permit is issued by RPBCWD, the applicant, by accepting the permit, grants access to the site of the work at all reasonable times during and after construction to authorized representatives of the RPBCWD for inspection of the work.



## **Findings**

1. The proposed project includes the information necessary, plan sheets and erosion control plan for review.
2. The proposed project conforms to Rule C and will conform to Rules D and J if the Rule Specific Permit Conditions listed above are met.

## **Recommendation:**

Approval of the permit issuance contingent upon:

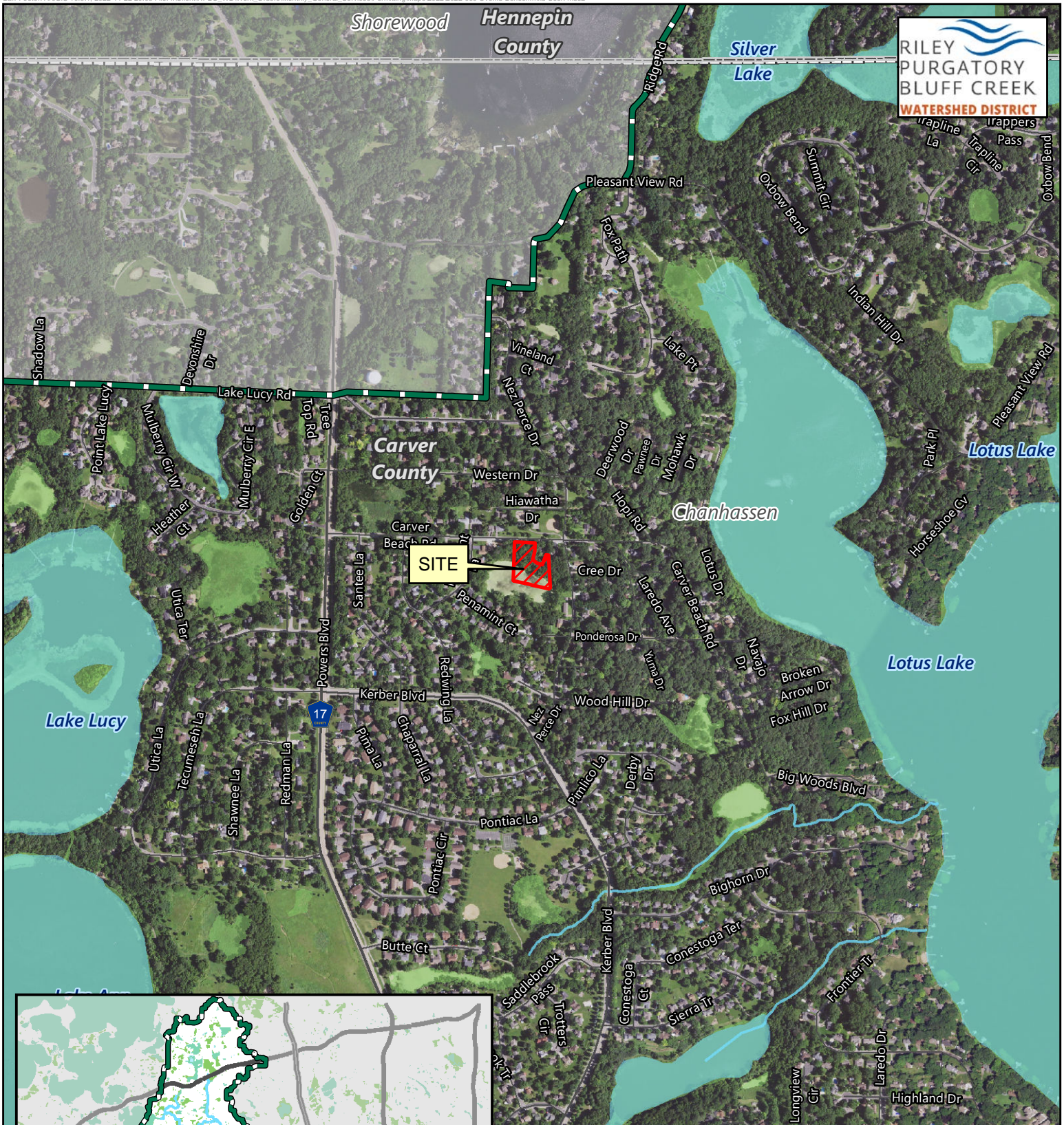
1. Financial Assurance in the amount of \$12,384.
2. Receipt of plans and/or specifications must identifying the installation date of the buffer markers, which must be set to ensure protection of buffer area during and after land-disturbing activities, and the buffer sign detail in material conformity with RPBCWD requirements.
3. Receipt showing recordation of the maintenance declaration for the wetland buffer and stormwater management facility. A draft of the declaration must be reviewed and approved by the District prior to recordation. Permit applicant must provide a proof of recordation as a condition of issuance of the permit.
4. The applicant must replenish the permit fee deposit to the original amount due before the permit will be issued. The amount needed to replenish the permit fee deposit is \$1,652 as of November 29, 2022.

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

1. Continued compliance with General Requirements.
2. Per Rule J Subsection 4.5, upon completion of the site work, the permittee must submit as-built drawings demonstrating that at the time of final stabilization, the stormwater management facility conform to design specifications and function as intended and approved by the District. As-built/record drawings must be signed by a professional engineer licensed in Minnesota and include, but not limited to:
  - a) the surveyed bottom elevations, water levels, and general topography of all facilities;
  - b) the size, type, and surveyed invert elevations of all stormwater facility inlets and outlets;
  - c) the surveyed elevations of all emergency overflows including stormwater facility, street, and other;
  - d) other important features to show that the project was constructed as approved by the Managers and protects the public health, welfare, and safety.
  - e) photographic evidence of buffer marker locations indicated by permanent, free-standing markers in accordance with Rule D, Subsection 3.4 criteria.
3. Providing the following additional close-out materials:
  - a) Documentation that constructed infiltration facility performs as designed. This may include infiltration testing, flood testing, or other with prior approval from RPBCWD
  - b) Documentation that disturbed pervious areas remaining pervious have been decompacted per Rule C.2c criteria

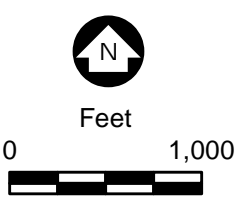
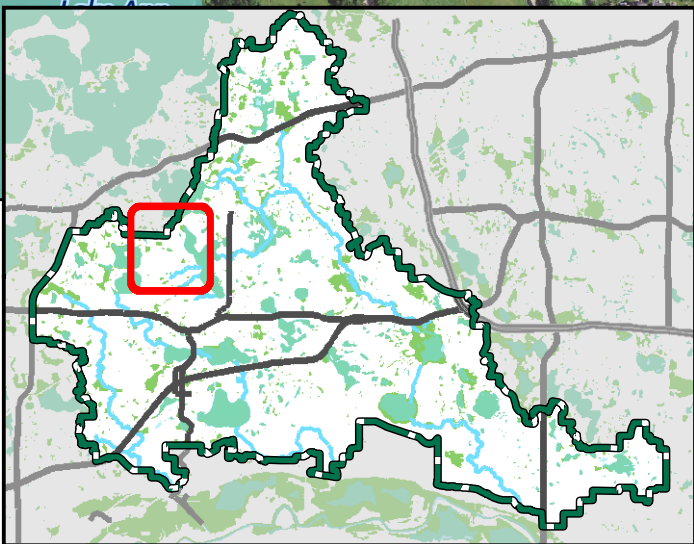
4. The work under the terms of permit 2022-069, if issued, must have an impervious surface area and configuration materially consistent with the approved plans. Design that differs materially from the approved plans (e.g., in terms of total impervious area) will need to be the subject of a request for a permit modification or new permit, which will be subject to review for compliance with all applicable regulatory requirement





**RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT**

**SITE**



Permit Location Map

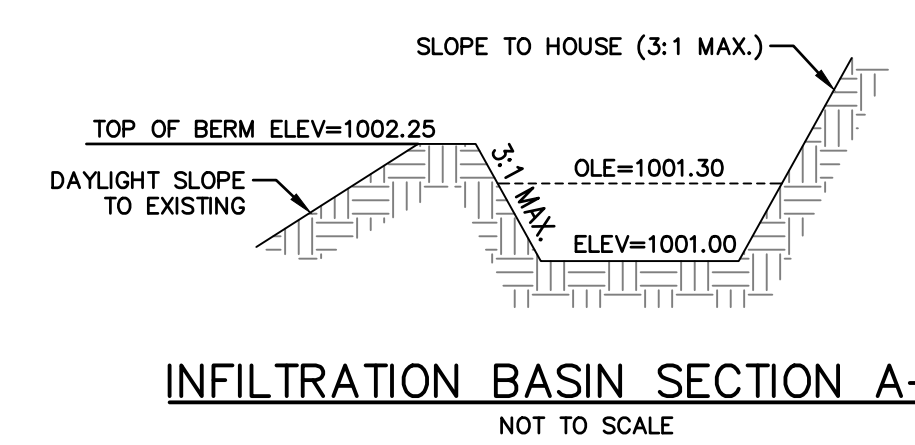
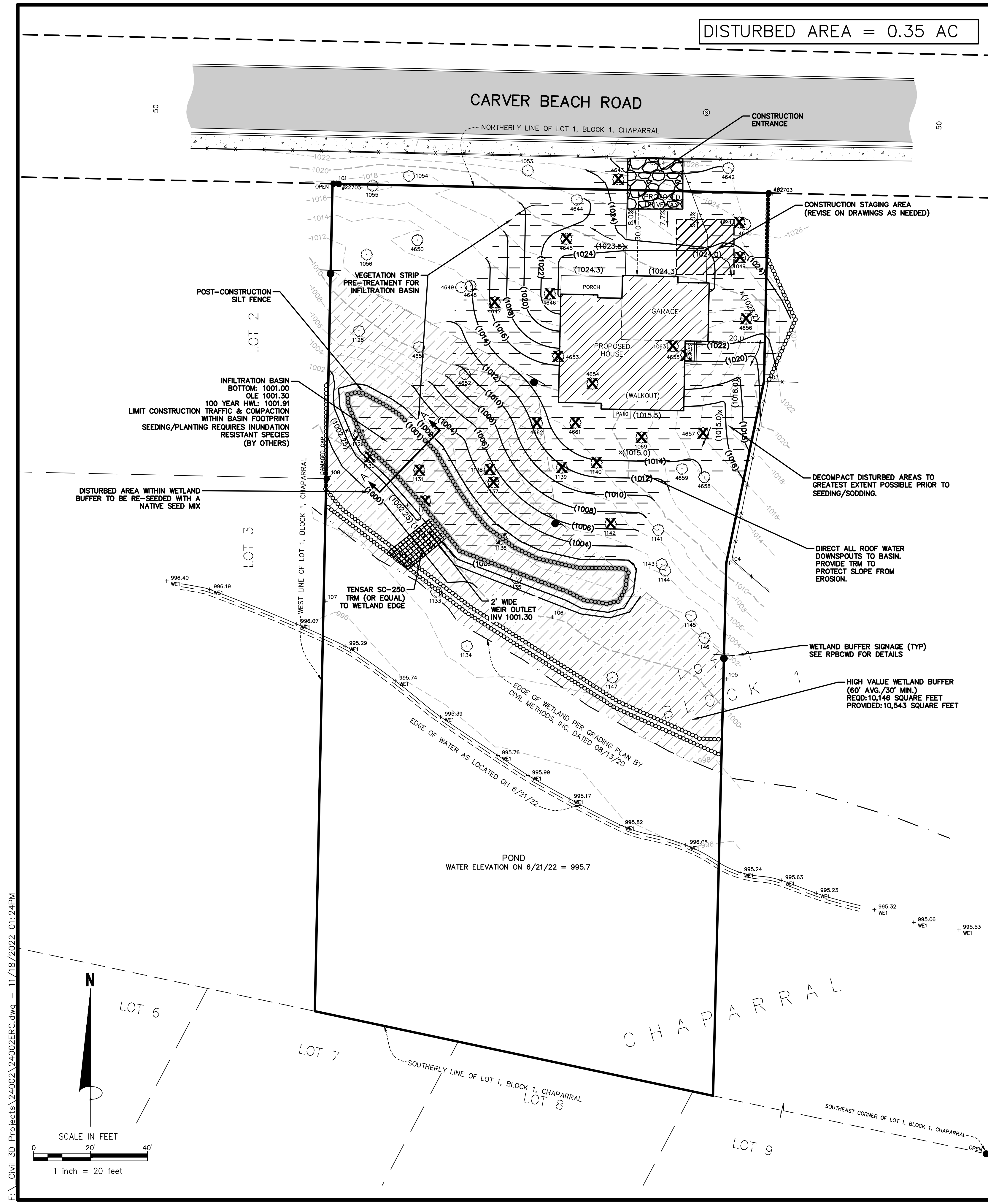
OVERLID / BENSON

**Permit 2022-069**

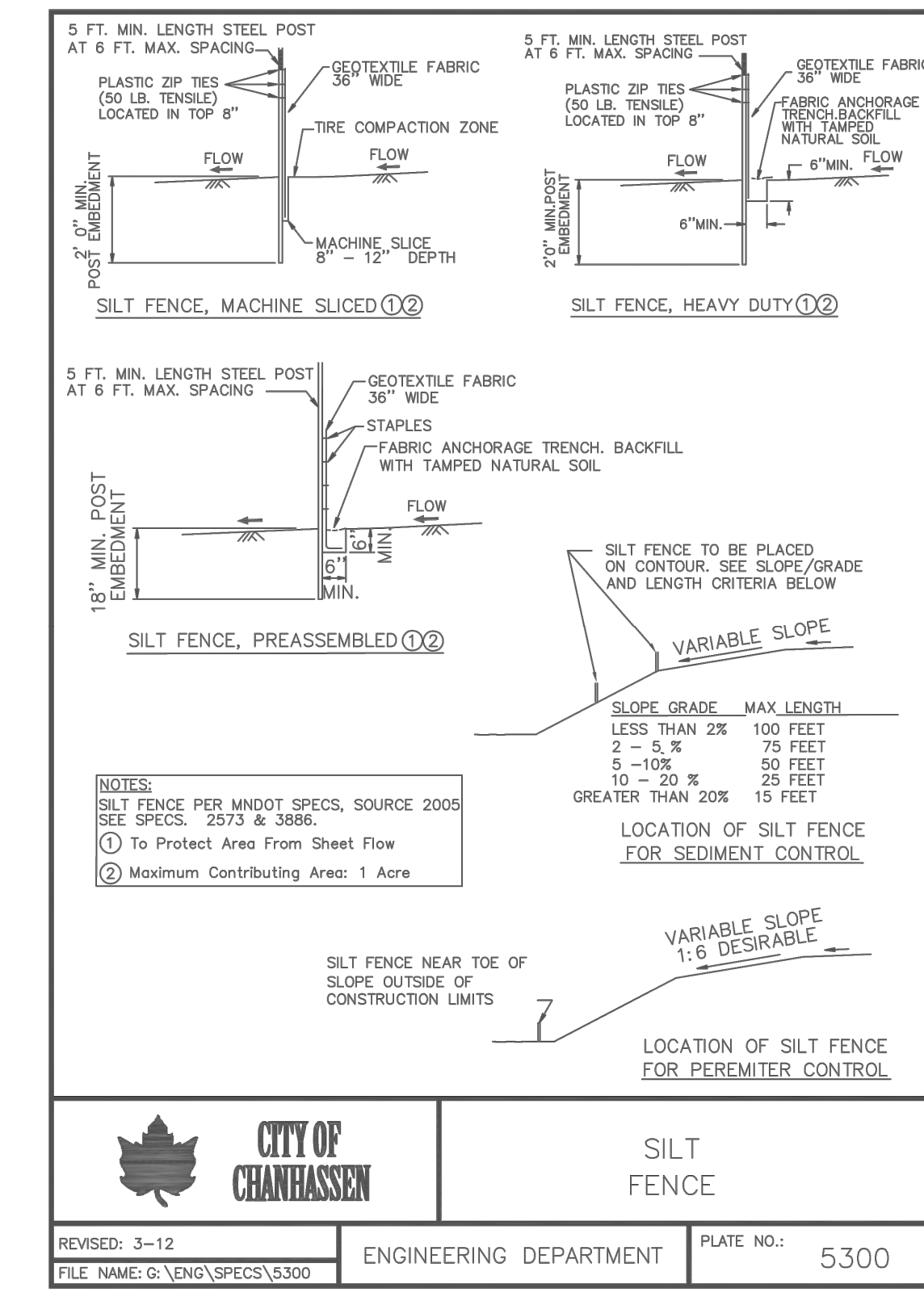
Riley Purgatory Bluff Creek Watershed District



DISTURBED AREA = 0.35 AC

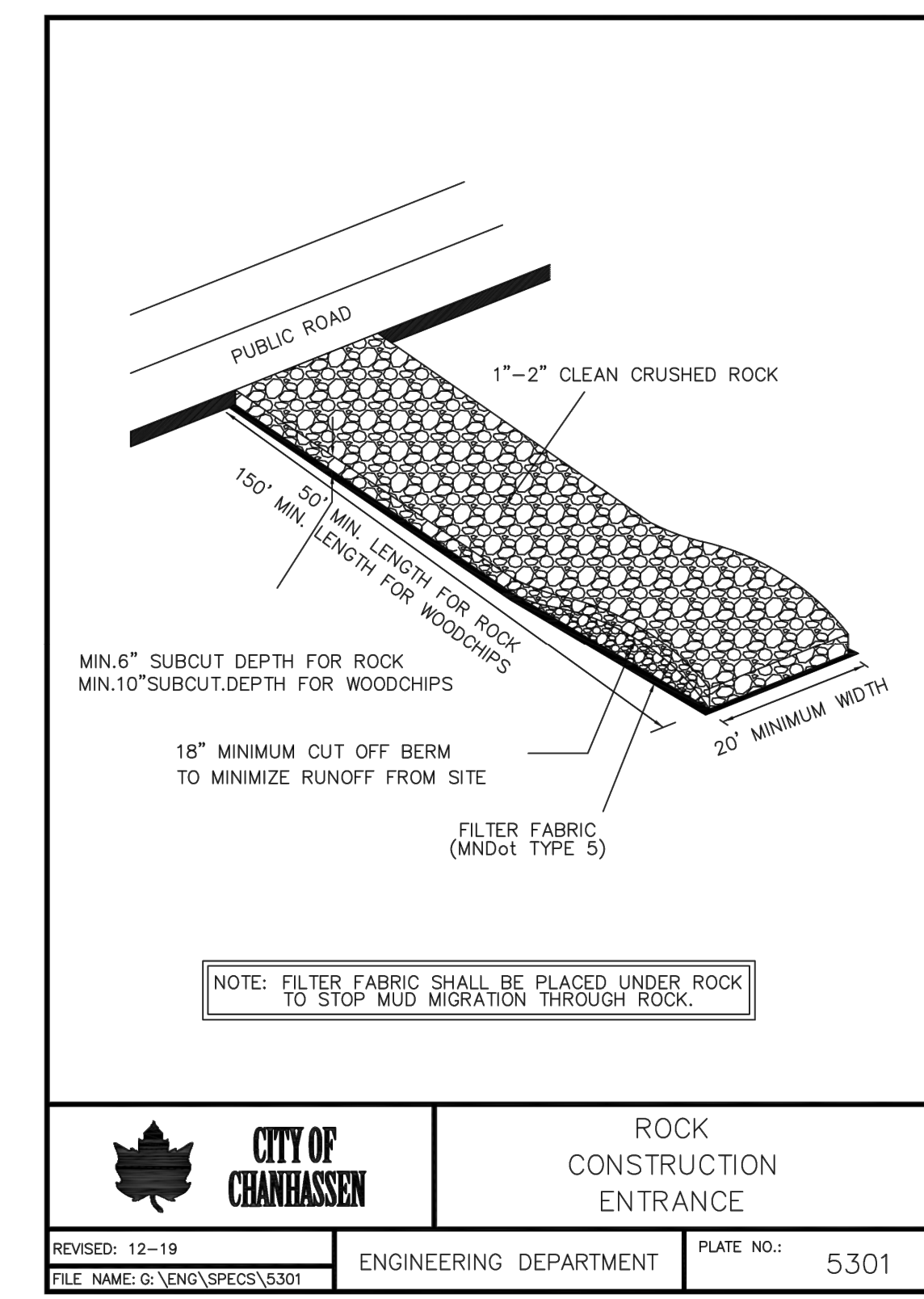


- LEGEND**
- FOUND IRON PIPE
  - SET IRON PIPE
  - FOUND NAIL
  - CURB STOP
  - CONIFEROUS
  - DECIDUOUS
  - OVERHEAD POWER
  - CHAIN LINK FENCE LINE
  - WOOD FENCE LINE
  - CONCRETE SURFACE
  - BITUMINOUS SURFACE
  - PAVER SURFACE
  - LANDSCAPE MATERIAL
  - 900.0 EXISTING SPOT ELEVATION
  - EXISTING CONTOUR
  - PROPOSED EROSION CONTROL FENCE
  - PROPOSED 8" BIOROLL
  - DE-COMPACT PERVIOUS AREA TO GREATEST EXTENT PRACTICABLE
  - PROPOSED WETLAND BUFFER

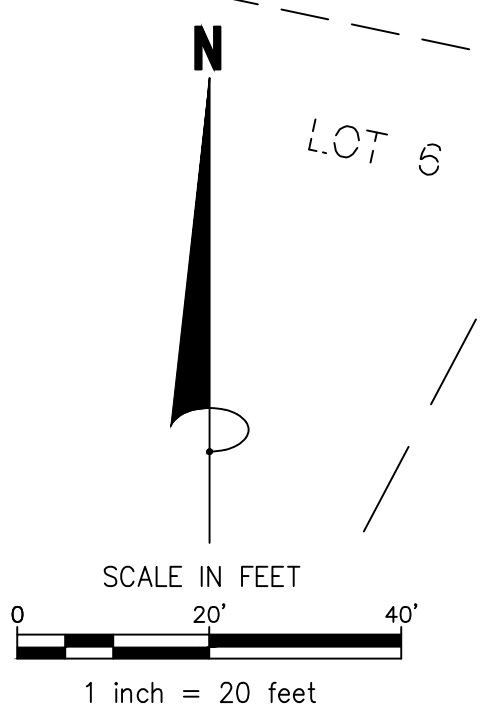


**EROSION CONTROL NOTES**

1. ACTIVITIES MUST BE CONDUCTED SO AS TO MINIMIZE THE POTENTIAL TRANSFER OF AQUATIC INVASIVE SPECIES (E.G. ZEBRA MUSSELS, EURASIAN WATERMILFOIL, ETC.) TO THE MAXIMUM EXTENT POSSIBLE.
2. BUFFER AREAS DISTURBED MUST BE PLANTED WITH NATIVE VEGETATION AND MAINTAINED TO RETAIN NATURAL RESOURCES AND ECOLOGICAL VALUE.
3. NO FILL, DEBRIS, OR OTHER MATERIAL WILL BE PLACED WITHIN A BUFFER.
4. NATURAL TOPOGRAPHY AND SOIL CONDITIONS MUST BE PROTECTED, INCLUDING RETENTION ON-SITE OF NATIVE TOPSOIL TO THE GREATEST EXTENT POSSIBLE.
5. CONSTRUCTION SHOULD INCLUDE MINIMIZATION OF THE DISTURBANCE INTENSITY AND DURATION, INCLUDING PHASING OF DISTURBANCE TO MINIMIZE QUANTITY OF DISTURBED AREA AT ANY ONE TIME.
6. ADDITIONAL MEASURES, SUCH AS HYDRAULIC MULCHING AND OTHER PRACTICES AS SPECIFIED BY THE DISTRICT MUST BE USED ON SLOPES OF 3:1 (H:V) OR STEEPER TO PROVIDE ADEQUATE STABILIZATION.
7. ALL STORMWATER-MANAGEMENT FACILITIES MUST BE PROTECTED WITH EROSION PREVENTION AND SEDIMENT CONTROL BMPs.
8. FINAL SITE STABILIZATION MEASURES MUST SPECIFY THAT AT LEAST SIX INCHES OF TOPSOIL OR ORGANIC MATTER BE SPREAD AND INCORPORATED INTO THE UNDERLYING SOIL DURING FINAL SITE TREATMENT WHEREVER TOPSOIL HAS BEEN REMOVED.
9. CONSTRUCTION SITE WASTE, SUCH AS DISCARDED BUILDING MATERIALS, CONCRETE TRUCK WASHOUT, CHEMICALS, LITTER, AND SANITARY WASTE MUST BE PROPERLY MANAGED.
10. STAKING OFF AND MARKING OF PROPOSED INFILTRATION FACILITIES TO PREVENT SOIL COMPACTION BY HEAVY EQUIPMENT, STOCKPILING OF MATERIALS, AND TRAFFIC. IF INFILTRATION FACILITIES ARE IN PLACE DURING CONSTRUCTION ACTIVITIES, BEST PRACTICES MUST BE DEPLOYED TO PREVENT SEDIMENT AND OTHER MATERIAL FROM ENTERING THE PRACTICE(S). INFILTRATION FACILITIES MUST NOT BE EXCAVATED TO WITHIN 3 FEET OF FINAL GRADE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND FULLY STABILIZED. ANY ACCUMULATED SEDIMENT IN AN INFILTRATION FACILITY MUST BE REMOVED IN A MANNER THAT PREVENTS COMPACTION OF THE FACILITY BOTTOM. TO PROVIDE A WELL-AERATED, HIGHLY POROUS SURFACE, THE SOILS BELOW AN INFILTRATION PRACTICE MUST BE LOOSENEED TO A MINIMUM DEPTH OF 18 INCHES PRIOR TO INSTALLATION OR PLANTING.
11. ALL TEMPORARY EROSION AND SEDIMENT CONTROL BMPs MUST BE MAINTAINED UNTIL COMPLETION OF CONSTRUCTION AND VEGETATION IS ESTABLISHED SUFFICIENTLY TO ENSURE STABILITY OF THE SITE, AS DETERMINED BY THE DISTRICT.
12. ALL TEMPORARY EROSION AND SEDIMENT CONTROL BMPs MUST BE REMOVED UPON FINAL STABILIZATION.
13. SOIL SURFACES COMPACTED DURING CONSTRUCTION AND REMAINING PERVIOUS UPON COMPLETION OF CONSTRUCTION MUST BE DECOMPACTED TO ACHIEVE:
  - a. A SOIL COMPACTION TESTING PRESSURE OF LESS THAN 1,400 KILOPASCALS OR 200 POUNDS PER SQUARE INCH IN THE UPPER 12 INCHES OF SOIL
  - OR
  - b. A BULK DENSITY OF LESS THAN 1.4 GRAMS PER CUBIC CENTIMETER OR 87 POUNDS PER CUBIC FOOT IN THE UPPER 12 INCHES OF SOIL.
14. THE PERMITTEE MUST, AT A MINIMUM, INSPECT, MAINTAIN, AND REPAIR ALL DISTURBED SURFACES AND ALL EROSION AND SEDIMENT CONTROL FACILITIES AND SOIL STABILIZATION MEASURES EVERY DAY WORK IS PERFORMED ON THE SITE AND AT LEAST WEEKLY UNTIL LAND-DISTURBING ACTIVITY HAS CEASED. THEREAFTER, THE PERMITTEE MUST RESPONSIBLY AT LEAST WEEKLY UNTIL VEGETATIVE COVER IS ESTABLISHED. THE PERMITTEE WILL MAINTAIN A LOG OF ACTIVITIES UNDER THIS SECTION FOR INSPECTION BY THE DISTRICT ON REQUEST.
15. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN 7 CALENDAR DAYS AFTER LAND-DISTURBING WORK HAS TEMPORARILY OR PERMANENTLY CEASED ON A PROPERTY THAT DRAINS TO AN IMPAIRED WATER, WITHIN 14 DAYS ELSEWHERE.
  - a. INTERIM STABILIZATION (PRIOR TO HOME CONSTRUCTION) SHALL INCLUDE SEED AND MULCHING OF ALL DISTURBED AREAS.
  - b. ALL DISTURBED AREAS SHALL BE STABILIZED WITH SOD OR LANDSCAPING UPON COMPLETION OF HOME CONSTRUCTION.
  - c. DISTURBED AREAS OUTSIDE OF PROPERTY SHALL BE RESTORED TO EXISTING OR BETTER CONDITION.
16. TOPSOIL SHALL CONFORM TO THE RPBWCD DEFINITION OF TOPSOIL AND CONTAIN A MINIMUM 5% ORGANIC MATTER.
17. CONTACT FOR PERFORMANCE AND MAINTENANCE OF EROSION CONTROL MEASURES UNDER RULE C UNTIL VEGETATIVE COVER IS ESTABLISHED:  
 TROY ASLESON  
 651-261-1633  
 TROY@STONECOTTAGE.COM  
 14787 ENERGY VALLEY WAY, APPLE VALLEY, MN 55124



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**James R. Hill, Inc.**  
 PLANNERS / ENGINEERS / SURVEYORS  
 2500 WEST C.R. 42, SUITE 120, BURNSVILLE, MN 55337  
 PHONE: 952.890.6044  
 www.jrhinc.com

**921 CARVER BEACH ROAD**  
 CHANHASSEN, MINNESOTA  
**EROSION CONTROL PLAN**  
 FOR  
**STONE COTTAGE HOMES**

DRAWN BY	EPF
DATE	06/30/22
REVISIONS	
A. 8/22/22: House plan	
B. 11/18/22: Watershed Comments	
CAD FILE	24002ERC.dwg
PROJECT NO.	24002
FILE NO.	1-22-041
SHEET 3 OF 4	

**CITY OF CHANHASSEN**  
 ENGINEERING DEPARTMENT  
 REVISION: 12-19  
 FILE NAME: G:\VENO\SPECS\5301  
 ROCK CONSTRUCTION ENTRANCE  
 PLATE NO.: 5301

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.  
**ERIC P. FAGERBERG, P.E.**  
 Date: 06/30/2022 Reg. No. 53772