

18681 Lake Drive East  
Chanhassen, MN 55317  
952-607-6512  
www.rpbcwd.org

## Riley Purgatory Bluff Creek Watershed District Permit Application Review

**Permit No:** 2023-049

**Considered at Board of Managers Meeting:** September 13

**Received complete:** August 7, 2023

**Applicant:** Lecy Brothers, Mike Mann

**Consultant:** Civil Methods , Inc., Kent Brander

**Project:** Pearson: Proposed construction of a new home on Lot 1 of the Berrospid development permitted under RPBCWD 2019-051.

**Location:** 351 Joanna Drive, Chanhassen, MN 55317

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

### Proposed Board Action

Manager \_\_\_\_\_ moved and Manager \_\_\_\_\_ seconded adoption of the following resolutions based on the permit report that follows and the presentation of the matter at the September 13, 2023 meeting of the managers:

Resolved that the application for Permit 2023-049 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 2023-049 to the applicant on behalf of RPBCWD.

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

**Applicable Rule Conformance Summary**

| Rule | Issue                 | Conforms to RBPCWD Rules? | Comments   |
|------|-----------------------|---------------------------|--|
| C    | Erosion Control Plan  | See Comment               | See rule-specific permit condition C1 related to name of individual responsible for on-site erosion control.   |
| J    | Stormwater Management | Rate                      | Yes.   |
|      |                       | Volume                    | Yes  |
|      |                       | Water Quality             | Yes.   |
|      |                       | Low Floor Elev.           | Yes  |
|      |                       | Maintenance               | Yes  |
|      |                       | Chloride Management       | Yes.   |
|      | Wetland Protection    | NA.                       |  |
| L    | Permit Fee            | Yes.                      | \$10 received August 14, 2023. The applicant must replenish the permit fee deposit to the original amount due before the permit will be issued. As of August 29, 2023 the amount due is \$960. |
| M    | Financial Assurance   | See comment.              | The financial assurance is calculated at \$1,925.  |

**Background**

At the August 5, 2020 meeting, the Board of Managers conditionally approved permit 2019-051 for the Berrospid development. The development split an existing single-family home property into a 3-lot subdivision. Since the Board’s conditional approval, the applicant worked with RPBCWD to fulfill the conditions of approval (a maintenance declaration and financial assurance), constructed a new single-family home on Lot 2, installed storm sewer, sanitary sewer and watermain, constructed the underground stormwater detentions/infiltration facility to provide volume control, water quality, and rate control for the subdivision for runoff prior to discharging offsite, seeded Lot 1 to temporarily stabilize the building area, and stabilized the remaining area of the site.

The applicant for permit 2023-049 is proposing construction of a single-family home on Lot 1 of the Berrospid development consistent with RPBCWD permit 2019-051 except that the low floor for the home to be built on Lot 1 is proposed to be lowered from 927.0 feet to 926.0 feet.

Because the work on Lot 1 proposes to have an impervious surface area and configuration materially consistent with the approved plans associated with permit 2019-051 and the stormwater management feature is already constructed, the proposed land-disturbing activities will be in compliance with RPBCWD rate control, volume control, water quality, chloride management, and maintenance requirements, pending confirmation of permit 2019-051 close-out. Therefore, permit 2023-049 analysis

focuses on erosion prevention and sediment control as well as the proposed change to the low floor for the home on Lot 1.

The project site information is summarized below:

| Project Site Information       | Area (acres)        |
|--------------------------------|---------------------|
| Total Site Area                | 0.41                |
| Existing Site Impervious       | 0                   |
| Disturbed Site Impervious Area | 0                   |
| Proposed Site Impervious Area  | 0.1                 |
| Change in Site Impervious Area | 0.1 (100% increase) |
| Regulated Impervious Surface   | 0.1                 |
| Total Disturbed Area           | 0.12                |

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

1. Application received August 7, 2023
2. Certificate of Survey of the Pearson Residence dated August 7, 2023.
3. Erosion control plan dated August 7, 2023
4. 351 Joanna Drive, Chanhassen: Modified Low-Floor Elevation Compliance Technical Memorandum by Civil Methods, Inc dated August 7, 2023

**Rule C: Erosion and Sediment Control**

Because the project will involve 0.12 acres of land-disturbing activity, the project must conform to the requirements in the RPBCWD Erosion and Sediment Control rule (Rule C, Subsection 2.1). The erosion control plan prepared by Civil Methods, Inc. includes installation of perimeter control (silt fence or sediment control logs), a stabilized rock construction entrance, inlet protection, daily inspection, placement of a minimum of 6 inches of topsoil (at 5% organic matter), decompaction of areas compacted during construction, and retention of native topsoil onsite to the greatest extent possible. To conform to RPBCWD Rule C requirements, the following revisions are needed:

- C1. The Applicant must provide the name, address and phone number of the individual who will remain liable to the District for performance under this rule and maintenance of erosion and sediment-control measures from the time the permitted activities commence until vegetative cover is established.

**Rule J: Stormwater Management**

Because the redevelopment project will disturb 0.12 acres of land-surface area, the project must meet the criteria of RPBCWD’s Stormwater Management rule (Rule J, Subsection 2.1). Because the work on Lot 1 proposes to have an impervious surface area and configuration materially consistent with the approved plans associated with permit 2019-051 and the stormwater management feature is already constructed, the proposed land-disturbing activities will be in compliance with RPBCWD rate control,

volume control, water quality, chloride management, and maintenance requirements, pending confirmation of permit 2019-051 close-out.

**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 an adjacent stormwater-management facility according to Rule J, Subsection 3.6a.

RPBCWD previously approved the project with a low floor elevation for the home on Lot 1 of 927.0 (2 feet above the computed 100-year) in the underground stormwater-management facility constructed under permit 2019-051. The stormwater facility configuration includes a primary and secondary outlet. Because review of underground system constructed under permit 2019-051 and the stormwater modeling submitted for the application shows the secondary outlet pipe is utilized during a 2-year event, the secondary outlet cannot be considered an emergency overflow. Typically the emergency overflow is only accessed/used for events larger than the 100-year storm to reduce the likelihood of water levels significantly exceeding the 100-year high-water level. The outlet configuration and grading is such that if water reaches the 100-year high water level within the materials around the underground stormwater facility as the modeling suggests, the water would nearly reach the ground surface and indicates that the emergency overflow would be elevation 925.0 feet (i.e., the ground surface). Because the low floor elevation of the proposed home is 1-foot above the emergency overflow of the adjacent stormwater management facility as summarized below, the proposed project is in conformance with Rule J, Subsection 3.6a.

| Location Riparian to Stormwater Facility | Low Floor Elevation (LFE) of Building (feet) | 100-year Event Flood Elevation Stormwater Facility (feet) | Freeboard to 100-year Event (feet) | Emergency Overflow (EOF) of Stormwater Feature (feet) | Required Separation to between LFE and EOF (feet) |
|--|--|---|------------------------------------|---|---|
| Lot 1                                    | 926.0  | 925.0   | 1.0                                | 925.0   | 1.0   |

**Rule L: Permit Fee Deposit:**

The RPBCWD permit fee schedule adopted in January 2023 requires permit applicants to deposit \$200 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 \$10 was received on August 7, 2023. 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 \$960 as of August 29, 2023.

**Rule M: Financial Assurance:**

|                                  | Unit | Unit Cost | # of Units | Total          |
|----------------------------------|------|-----------|------------|----------------|
| Rules C: Silt fence:             | LF   | \$2.50    | 440        | \$1,100        |
| Inlet protection                 | EA   | \$100     | 1          | \$100          |
| Rock Entrance                    | EA   | \$250     | 1          | \$250          |
| Restoration                      | Ac   | \$2,500   | 0.12       | \$300          |
| Contingency (10%)                |      | 10%       |            | \$175          |
| <b>Total Financial Assurance</b> |      |           |            | <b>\$1,925</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 J and will conform to Rule C if the Rule Specific Permit Conditions listed above are met.

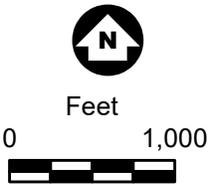
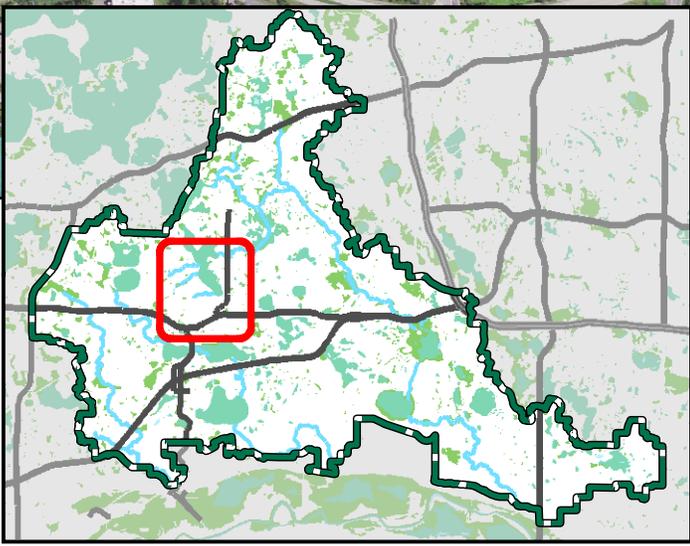
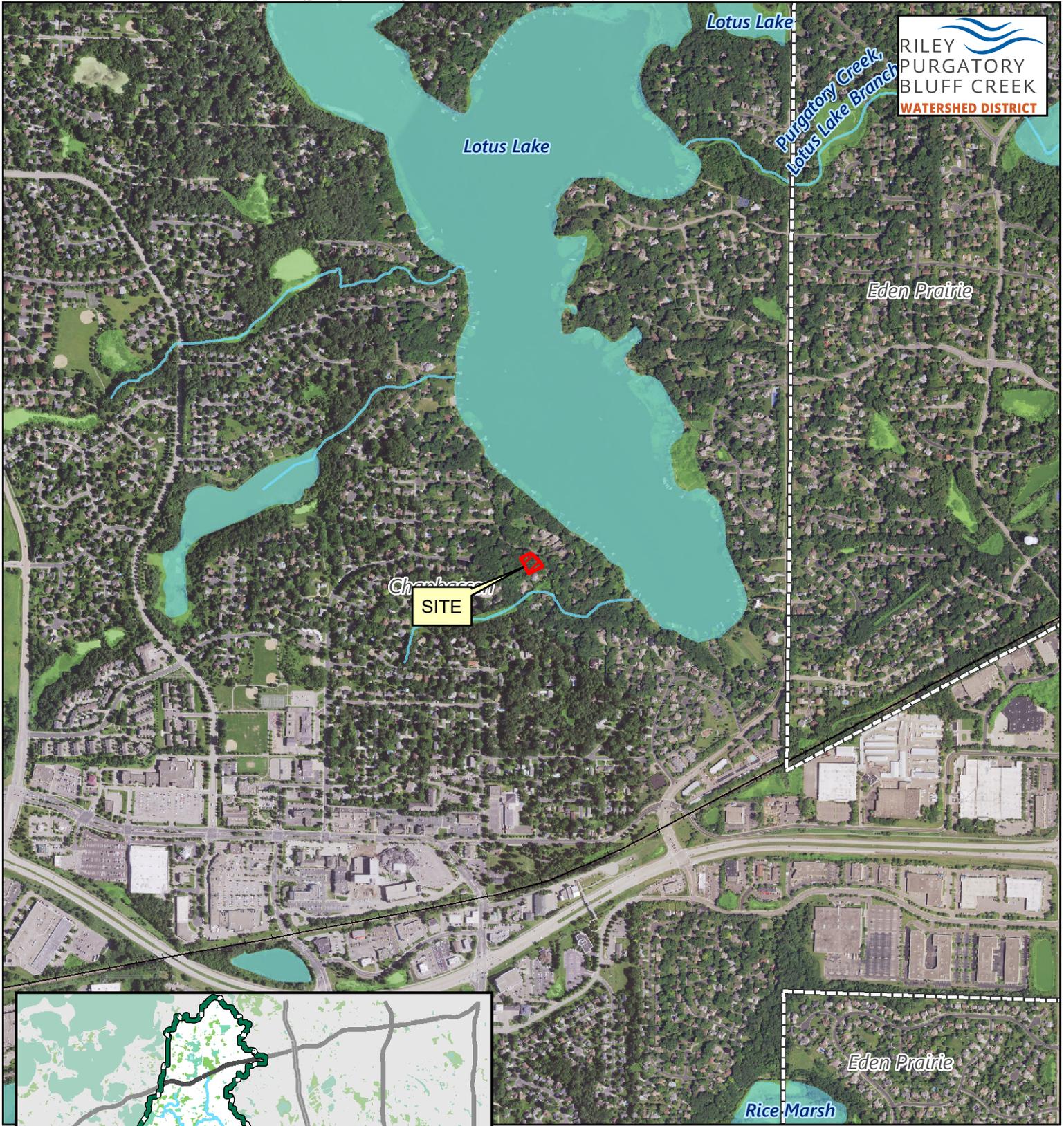
**Recommendation:**

Approval of the permit issuance contingent upon:

1. Financial Assurance in the amount of \$1,925.
2. Receipt of the name, address and phone number of the individual who will remain liable to the District for performance under this rule and maintenance of erosion and sediment-control measures from the time the permitted activities commence until vegetative cover is established.
3. 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 \$960 as of August 29, 2023.

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

1. Continued compliance with General Requirements.
2. Providing the following additional close-out materials:
  - a) Documentation that disturbed pervious areas remaining pervious have been decompacted per Rule C3.2c criteria
3. The work under the terms of permit 2023-049, 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 requirements.



Permit Location Map

351 JOANNADR-PEARSON  
**Permit 2023-049**  
Riley Purgatory Bluff Creek  
Watershed District

# CERTIFICATE OF SURVEY

of the:

## PEARSON RESIDENCE



### LEGAL DESCRIPTION:

Lot 1, Block 1, BERROSPID ADDITION

#### Proposed Impervious Surface Coverage:

|                      |                 |                    |
|----------------------|-----------------|--------------------|
| House/Porch/Gar.     | 3,232.1         | Square Feet        |
| Driveway             | 1,043.0         | Square Feet        |
| Sidewalk/Apron/Steps | 257.0           | Square Feet        |
| Patio/Pad            | 40.0            | Square Feet        |
| <b>Total</b>         | <b>4,572.1</b>  | <b>Square Feet</b> |
| <b>Lot Area</b>      | <b>18,289.7</b> | <b>Square Feet</b> |
|                      | <b>25%</b>      |                    |

Proposed first floor elev.= 936.5  
 Proposed top of foundation elev.= 934.8  
 Proposed garage floor elev.= 933.7  
 Proposed lowest floor elev.= 926.0

- Denotes set iron monument
- Denotes found monument
- × 000.0 Denotes existing elev.
- (000.0) Denotes proposed elev.
- Denotes proposed surface drainage
- ⊕ Denotes existing water valve/ curb stop

-See Civil Methods, Inc. Plan Sheet for Erosion Control Details

### DEMARS-GABRIEL LAND SURVEYORS, INC.

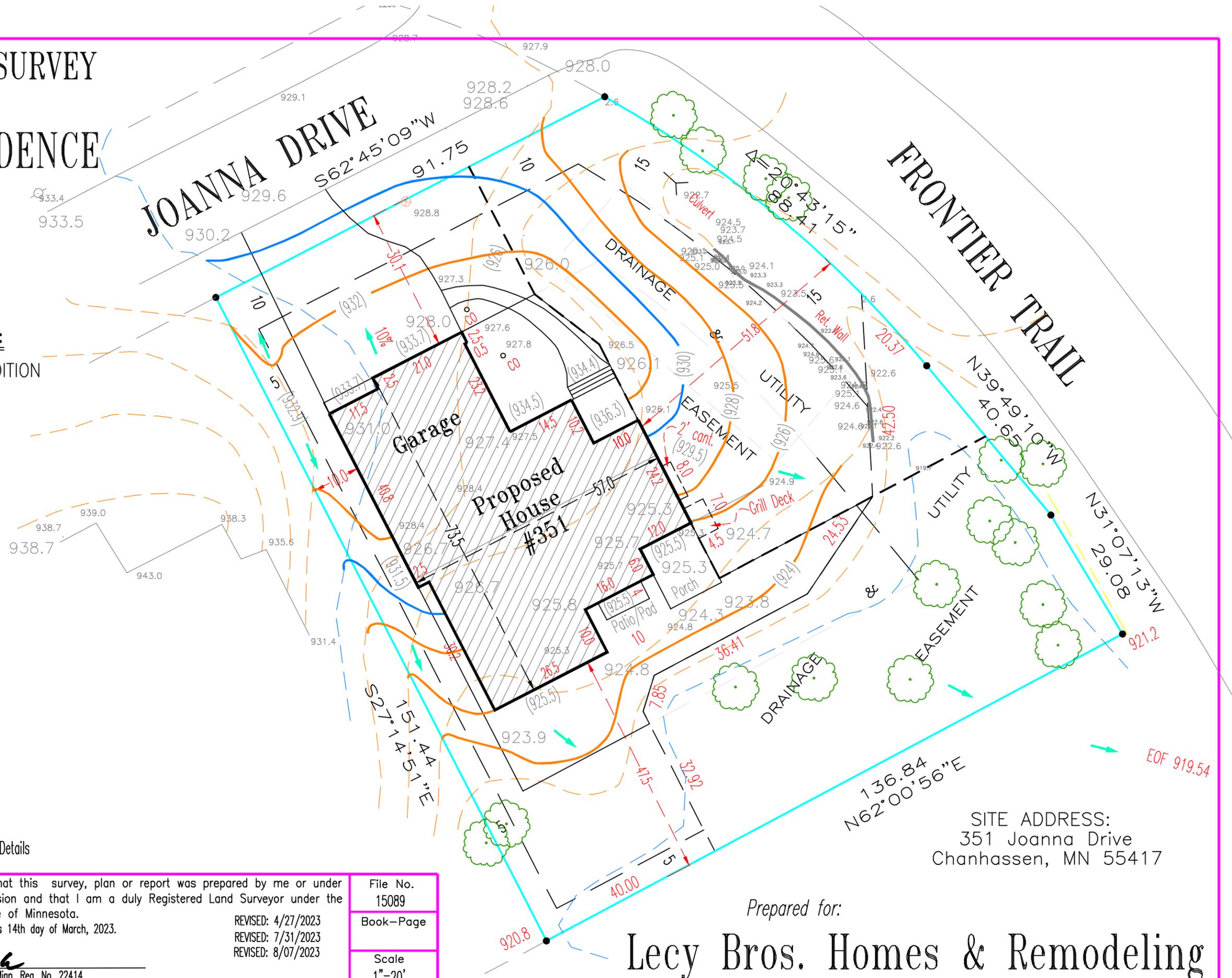
2317 W. 93rd St.  
 Bloomington, MN 55431  
 Phone: (763) 559-0908  
 cell: (612) 751-6785  
 dec@qwestoffice.net

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the Laws of the State of Minnesota.  
 As surveyed by me this 14th day of March, 2023.

*DEC*  
 David E. Crook Minn. Reg. No. 22414

REVISED: 4/27/2023  
 REVISED: 7/31/2023  
 REVISED: 8/07/2023

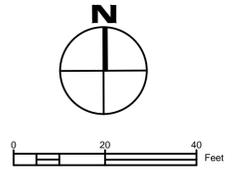
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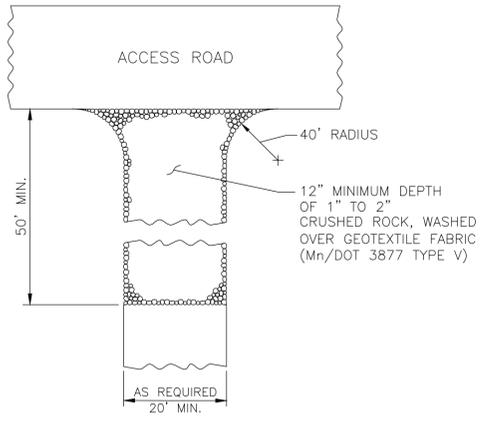
SITE ADDRESS:  
 351 Joanna Drive  
 Chanhassen, MN 55417

Prepared for:

# Lecy Bros. Homes & Remodeling



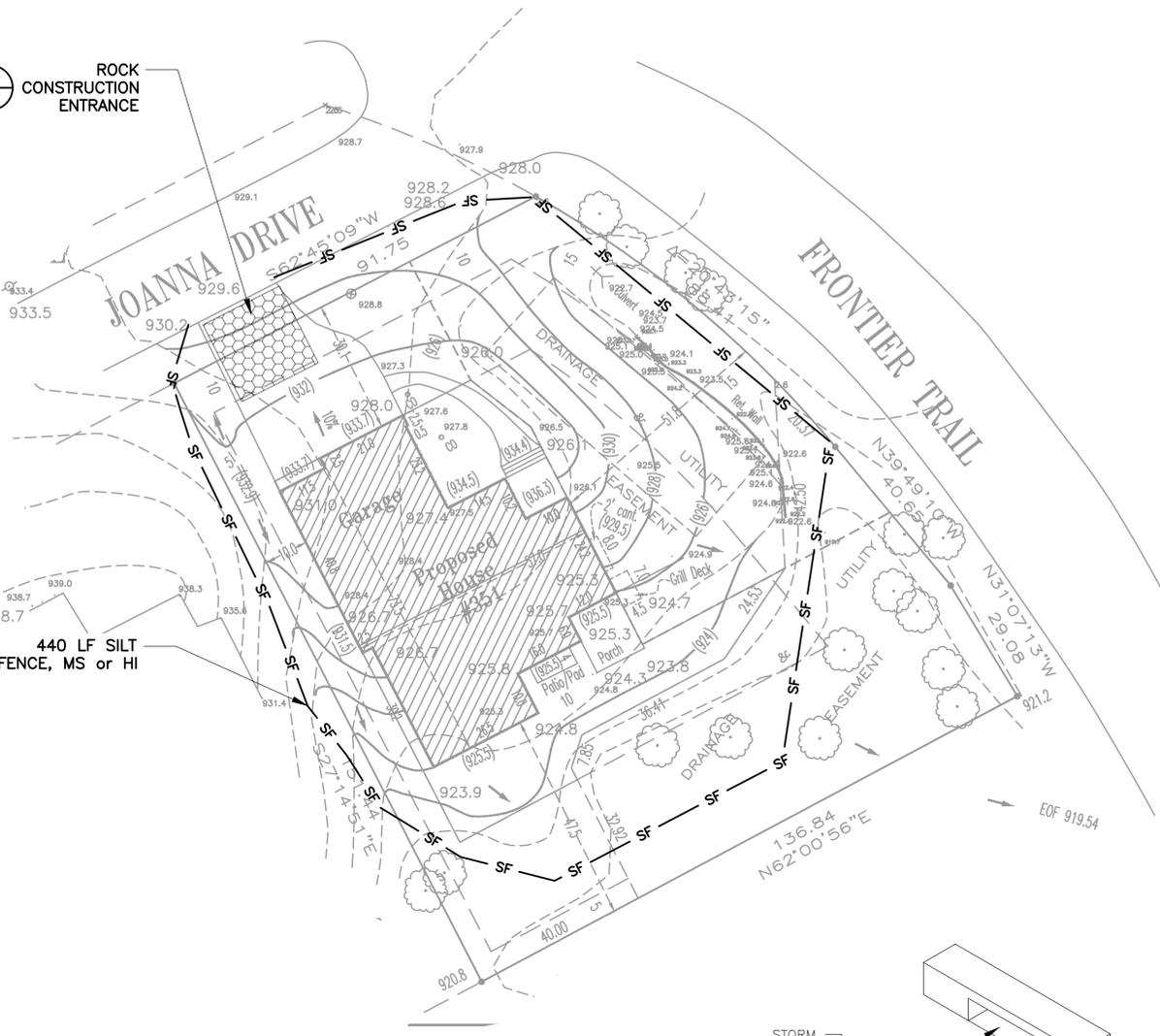
- LEGEND:**
- PROPERTY LINE
  - ▨ STABILIZED CONST. ENTRANCE
  - SF — SILT FENCE



1 ROCK CONSTRUCTION ENTRANCE

1 ROCK CONSTRUCTION ENTRANCE

2 440 LF SILT FENCE, MS or HI

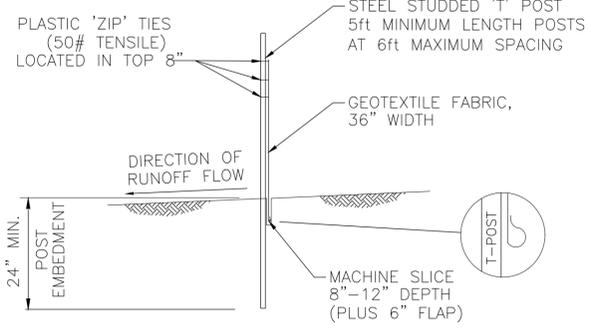


**SEDIMENT CONTROL & TURF RESTORATION NOTES:**

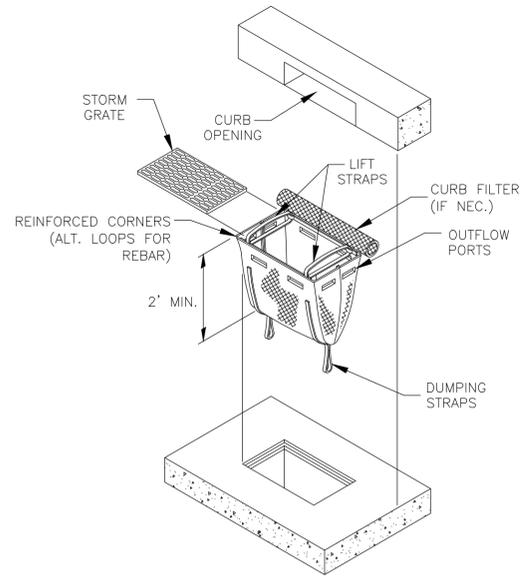
1. Natural topography and soil conditions must be protected, including retention onsite of native topsoil to the greatest extent possible.
2. Additional measures, such as hydraulic mulching and other practices as specified by the District must be used on slopes of 3:1 (H:V) or steeper to provide adequate stabilization.
3. Final site stabilization measures must specify that at least six inches of topsoil (with a minimum of 5% organic matter) be spread and incorporated into the underlying soil during final site treatment wherever topsoil has been removed.
4. Construction site waste such as discarded building materials, concrete truck washout, chemicals, litter and sanitary waste must be properly managed.
5. 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.
6. All temporary erosion and sediment control BMPs must be removed upon final stabilization.
7. Soil surfaces compacted during construction and remaining pervious upon completion of construction must be decompacted to achieve a soil compaction testing pressure of less than 1,400 kilopascals or 200 pounds per square inch in the upper 12 inches of the soil profile while taking care to protect utilities, tree roots, and other existing vegetation.
8. 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.
9. 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 perform these responsibilities 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.

**POLLUTION PREVENTION NOTES:**

1. Concrete washout shall not be permitted onsite, unless done per MPCA standard.
2. Vehicle or equipment washing will not be performed on site.
3. All solid waste must be disposed of in accordance with all applicable federal and state regulations.
4. All hazardous materials must be properly stored to prevent spills or leaks; dispose per all applicable regulations, including MN Rule Ch. 7045.
5. Pesticides, herbicides, fertilizers, cleaners, paints, treatment chemicals, etc., must be stored under cover to prevent pollutant discharge (or similarly protected to prevent contact with stormwater).
6. DEWATERING, if necessary, shall be done in a manner so as to not discharge sediment-laden water or cause downstream nuisance conditions of standing water or erosion.
  - 6.1. Discharge dewatering towards street.
  - 6.2. Dewatering water shall be inspected for turbidity (cloudy with sediment); if present, filtration mechanism shall be installed at pump inlet and/or outlet to remove sediment. This may include pumping from a perforated barrel lined with a filter fabric, pumping to a sediment filter sack or temporary settling basin (lined dumpster, pit, etc.) with in-line Chitosan sock (or similar non-toxic flocculant) and discharge from the surface, or similar filtration mechanism approved by the City.
- 6.3. Dewatering must be done to MPCA standards.



2 SILT FENCE - MACHINE SLICED



3 INLET PROTECTION - SEDIMENT SACK

| Mechanical Properties   | Test Method | Units   | MARV                    |
|-------------------------|-------------|---|-------------------------|
| Grab Tensile Strength   | ASTM D 4632 | kN (lbs)  | 1.78 (400) x 1.46 (315) |
| Grab Tensile Elongation | ASTM D 4632 | %   | 15 x 15                 |
| Puncture Strength       | ASTM D 4833 | kN (lbs)  | 0.67 (150)              |
| Mullen Burst Strength   | ASTM D 3786 | kPa (psi)                                       | 5508 (800)              |
| Trapezoid Tear Strength | ASTM D 4633 | kN (lbs)  | 0.67 (150) x 0.24 (165) |
| UV Resistance           | ASTM D 4355 | %   | 90                      |
| Apparent Opening Size   | ASTM D 4751 | mm (US Std. Sieve)                              | 0.425 (40)              |
| Flow Rate               | ASTM D 4491 | l/min/m <sup>2</sup> (gal/min/ft <sup>2</sup> ) | 2852 (70)               |
| Permittivity            | ASTM D 4491 | Sec <sup>-1</sup>                               | 0.90                    |

NOTE:  
RECTANGULAR DANDY SACK SHOWN. SIZE USED SHALL MATCH OPENING; EQUIVALENT BAG UNIT MAY BE USED (INCLUDE OVERFLOW PORTS)

Print Date: 8/15/2023 7:28 AM  
File Loc: C:\CIVIL\Methods, Inc\CDM - Documents\17 - Documents\17 - Joanna Drive Chanhassen\08 DRAWINGS AND SPECIFICATIONS\CD\Sheets\08 EROSION.dwg