

**ENVIRONMENTAL & NATURAL RESOURCES COMMISSION STAFF REPORT**  
Meeting Date October 8, 2025

**REPORT TO:** Environmental and Natural Resources Commission

**REPORT FROM:** Shann Finwall, AICP, Sustainability Coordinator

**PRESENTER:** Shann Finwall, AICP, Sustainability Coordinator

**AGENDA ITEM:** Century Ponds Proposed Development, 601 Century Avenue South  
– Wetland Buffer Variances

**Action Requested:**  Motion       Discussion       Public Hearing

**Form of Action:**     Resolution       Ordinance       Contract/Agreement       Proclamation

**Policy Issue:**

DR Horton is proposing a planned unit development with 133 detached single-family homes and 73 townhouse units on the former Ramsey County golf course located in the southwest quadrant of Lower Afton Road East and Century Avenue South. To move forward with the project, the applicant is requesting approval of a comprehensive plan amendment, rezoning to a Planned Unit Development, wetland buffer variances, public vacation of a wetland buffer easement, preliminary plat, and design review. The Environmental and Natural Resources Commission will review the wetland buffer variances and mitigation strategies and make a recommendation on the wetland buffer variances.

**Recommended Action:**

Motion to approve a resolution for wetland buffer variances.

**Fiscal Impact:**

Is There a Fiscal Impact?     No     Yes, the true or estimated cost is \$0

    Financing source(s):     Adopted Budget     Budget Modification     New Revenue Source  
    Use of Reserves     Other: N/A

**Strategic Plan Relevance:**

Community Inclusiveness       Financial & Asset Mgmt       Environmental Stewardship

Integrated Communication       Operational Effectiveness       Targeted Redevelopment

The City deemed the applicant’s application complete on September 16, 2025. The initial 60-day review deadline for the land use-related decisions is November 15, 2025. Minnesota State Statute 15.99 allows the City an additional 60 days if necessary to complete the review. The initial 120-day deadline for the subdivision application is January 14, 2026. The City may not extend the subdivision review timeline without the applicant’s approval after that date. The Environmental and Natural Resources Commission reviews wetland buffer variances to rectify impacts by reviewing

and making recommendations for possible repair, rehabilitation, or restoration of the wetland buffers.

**Background:**

In 2019, Ramsey County announced the closure of the Ponds at Battle Creek golf course. In 2020 and 2021, Ramsey County and the City of Maplewood collaborated on a community engagement process to review potential development scenarios for this property. In 2025, an Environmental Assessment Worksheet (EAW) was completed for the proposed development, and a negative declaration of the need for an Environmental Impact Statement for the Century Ponds Development was determined. Building on this groundwork, Ramsey County identified a potential developer and ultimately approved a purchase agreement with DR Horton to develop the property.

DR Horton’s proposed Planned Unit Development (PUD) will include a total of 206 dwelling units, 133 of which are proposed single-family homes on two different lot sizes (55’ and 65’ lots) and 73 of which are attached townhomes in four- and six-unit blocks. Each unit has an attached two- or three-car garage.

The proposed project's total lot area is 92.23 acres. The site is located along Century Avenue South, between Linwood Avenue East and Lower Afton Road East. It was the former site of the Maplewood Golf Course.

The single-family homes are on the northern end of the parcel, with access via Lower Afton Road and Century Avenue South. The townhomes are in the southern portion of the parcel, with access via Linwood Avenue East. Due to wetlands being preserved on the site, vehicle access is not permitted between the two parts of the development.

The proposed development includes a 1.73-acre public park and 1.80 miles of public paved trail. Additionally, 47% of the site is dedicated to wetlands and native areas. The project layout creates a green corridor that will be an amenity for the community and will be accessible via a public trail system. A conservation easement over this area will be dedicated to the City to ensure the wetland buffers and native areas are properly maintained.

A full background of the project and planning process can be found on the [Century Ponds Development Weblink](#).

**Wetland Review**

*Wetlands on Site*

The wetland delineation report identified 14 wetlands on the site. After review by the Ramsey-Washington Metro Watershed District six of those wetlands were deemed incidental, and eight were classified as jurisdictional wetlands. Of the jurisdictional wetlands five were upgraded from the City’s previously classified Manage C to Manage B wetlands, and three remained Manage C wetlands. Additionally, there is a Manage A wetland located within the St. Paul Police Training site located to the west of the development that will impact development on the Century Ponds site.

*Wetland Ordinance*

The City’s wetland ordinance requires that no grading, mowing, or building take place within the required wetland buffers as follows:

| Wetland Management Class | Minimum Buffer Width    | Average Buffer Width |
|--------------------------|-------------------------|----------------------|
| Manage A                 | 75 ft                   | 100 ft               |
| Manage B                 | 50 ft                   | 75 ft                |
| Manage C                 | 50 ft                   | 50 ft                |
| Storm Ponds              | 10 ft structure setback |                      |

*Wetland Buffer Impacts*

The plans reflect that the City’s required wetland buffer area for the on-site wetlands is 15.39 acres; and 0.08 acres for the off-site wetland (totaling 15.47 acres). Of the 15.47 acres of required buffer, 6.77 acres (43.8%) include existing greens, fairways, and other manicured lawn areas. The remaining 8.70 acres (56.2%) consist of native plants and naturalized areas. Ramsey Washington Metro Watershed District had worked with Ramsey County to establish the existing naturalized areas; however, no maintenance has been done since the golf course closed.

The applicant is seeking a variance to allow grading and trails within the minimum required wetland buffer, totaling 1.82 acres (11.8%) of the 15.47 acres of required buffer. The applicant states that the impact is to remove existing trails, create new trails, and create a stormwater system that will enhance the overall functionality and aesthetics of the wetlands on site.

Per the Wetland Delineation, the wetlands on the property are classified as Manage B, Manage C, and Water Quality Management Pond (WMP). The Wetland Buffer Details table below includes wetlands on the site, wetland classifications, required wetland buffers, proposed wetland buffer areas, and requested wetland buffer area variances.

**WETLAND BUFFER DETAILS**

| Wetland No. | RWMWD/Maplewood Class | Required Wetland Buffer | Proposed Buffer Area** | Requested Variance Area*** |
|-------------|-----------------------|-------------------------|------------------------|----------------------------|
| 5           | C                     | 50 ft                   | 33,381 sf              | 0 sf                       |
| 6           | B                     | 75 ft                   | 77,761 sf              | 8,375 sf                   |
| 9           | B                     | 75 ft                   | 18,751 sf              | 549 sf                     |
| 10          | B                     | 75 ft                   | 7,416 sf               | 1,562 sf                   |
| 11          | B                     | 75 ft                   | 148,255 sf             | 14,739 sf                  |
| 12          | B                     | 75 ft                   | 239,874 sf             | 16,458 sf                  |
| 13          | C                     | 50 ft                   | 18,912 sf              | 17,827 sf                  |
| 14          | C                     | 50 ft                   | 63,135 sf              | 15,001 sf                  |
| Offsite*    | A                     | 100 ft                  | 107,029 sf             | 3,504 sf                   |
| TOTAL       |                       |                         | 714.514 sf             | 79,021 sf                  |

\*This wetland is off the property, but the wetland buffer extends onto the property. The City of Maplewood and Ramsey Washington Metro Watershed District designates it as a Manage A class wetland.

\*\*The applicant needs to verify if this represents wetland buffers required by City ordinance, or if it represents wetland buffers proposed after development.

\*\*\*The applicant needs to verify if the requested variance area includes encroachments proposed by the townhouse patios and yard areas.

Per the submitted plans, encroachments within the wetland buffer that would be included in the variance are the townhouse patio and yard areas and paved bituminous trails. Details on those encroachments follow:

1. **Townhouse Patio and Yard Area Encroachments:** Several of the townhouse patios will encroach into the wetland buffers. To ensure these homes have a small, manicured yard behind their homes and patios, staff recommend at least a 15-foot strip of grass on the back side of the townhomes. This will create a useable yard area to access the back of the buildings and patios. The applicant submitted a Patio Exhibit which reflects these encroachments. However, it is unclear if these encroachments are accounted for in the Wetland Buffer Area Variances identified in the Wetland Buffer Details table above.
2. **Trails:** There are existing paved golf cart trails located within required wetland buffers that will be used as walking and biking trails in the new development. Some of the trails will be removed and rerouted, and additional trail links will be added. The wetland ordinance allows for public trails in wetland buffers if they are designed and constructed with sustainable design methods. To achieve this, City staff recommend a 5-foot strip of grass adjacent new and existing trails outside of the wetland buffers, and a 5-foot strip of grass and a 10-foot strip of native plantings adjacent new and existing trails within the wetland buffers. This will allow trail maintenance and stormwater runoff to filter into the native plants prior to entering the wetland.

#### *Required Wetland Buffer Mitigation Plan*

Before the City Council acts on a wetland buffer variance the Environmental and Natural Resources Commission makes a recommendation on the variance and mitigation plans. A wetland buffer mitigation plan is required to include one or more of the following strategies:

1. Reducing or avoiding the impact by limiting the degree or amount of the action, such as by using appropriate technology.
2. Rectifying the impact by repairing, rehabilitating, or restoring the buffer.
3. Reducing or eliminating the impact over time by prevention and maintenance operations during the life of the actions.
4. Compensating for the impact by replacing, enhancing, or providing substitute buffer land at a two-to-one ratio.
5. Monitoring the impact and taking appropriate corrective measures.
6. Where the City requires restoration or replacement of a buffer, the owner or contractor shall replant the buffer with native vegetation. A restoration plan must be approved by the City before planting.
7. Any additional conditions required by the applicable watershed district and/or the soil and water conservation district shall apply.
8. A wetland or buffer mitigation surety, such as a cash deposit or letter of credit, of 150 percent of estimated cost for mitigation. The surety will be required based on the size of the project as deemed necessary by the administrator. Funds will be held by the city until successful completion of restoration as determined by the city after a final inspection.

Wetland or buffer mitigation surety does not include other sureties required pursuant to any other provision of city ordinance or City directive.

#### *Applicant's Wetland Buffer Mitigation Plan*

The applicants are proposing planting a total of 28.22 acres of native seed throughout the development, including all 15.47 acres of the required wetland buffers and 12.75 acres of additional open spaces.

Prairie Restoration LLC submitted a native landscape restoration plan for the wetland buffers and open space sites in the development. Areas graded as part of the overall development will be treated with herbicide to kill existing weeds, tilled, and harrowed to provide a smooth seedbed, seeded with native grasses and wildflowers, and mulched with straw and anchor disked/covered with straw erosion control blanket to protect the seeding and enhance germination. The proposed seed mixes are specifically created for Rusty Patch Bumble Bee habitat. Existing naturalized areas that will not be graded will have all invasive woody species removed by flush cutting and stump treating with herbicide, prior to seeding. In areas near water, an aquatic-approved glyphosate herbicide will be used. The upland areas will then be seeded with native prairie grasses and wildflowers adapted to the well-drained, sunny conditions. The riparian areas will be seeded with wetland grasses and flowers that are adapted to the saturated soil conditions.

Brandon Bohks, Certified Minnesota Wetland Professional and Natural Resources Project Manager with Bolton and Menk, the City's contracted consultant for Century Ponds development, reviewed the native landscape restoration plan. Mr. Bohks' attached memorandum details key comments and recommendations to ensure the plan meets the City's required wetland buffer mitigation standards. Recommendations include items such as a plan identifying where each seed mix will be applied and a maintenance and monitoring schedule to ensure seed is established. These conditions will be included in the City's environmental review which is approved by the City Council as additional conditions attached to the development approval. The environmental review attached also details conditions related to tree preservation and replacement, landscaping, in addition to the wetland buffer mitigation conditions.

#### *Wetland Buffer Variance*

To approve a variance the City Council shall apply the findings for variance approval as required in Minnesota Statutes which state:

1. The variance is in harmony with the general purposes and intent of the ordinance.
2. The variance is consistent with the comprehensive plan.
3. The applicant establishes practical difficulties in complying with the ordinance. Practical difficulties mean: (1) the proposed use is reasonable, (2) the need for a variance is caused by circumstances unique to the property, not created by the property owner, (3) the proposal will not alter the essential character of the locality.

Staff reviewed the applicant's justification for the wetland variance and found the request meets the required findings to approve a variance and recommends approval of the wetland variance.

1. The proposed development meets the intent of City ordinance standards in the Planned Unit Development zoning district, R-1S, and R-3C districts and is consistent with the goals of the 2040 Comprehensive Plan.

2. The request is reasonable. The proposed improvements within the wetland buffer enhance stormwater management and increase public access to the development's natural areas. The site has several wetlands, and the proposed development will continue to protect and enhance them while creating a public amenity via a trail system that allows the public to enjoy the natural landscapes on the site.
3. The existing conditions on this property are unique and not caused by the property owner.
4. A conservation easement will be dedicated to the City over the wetlands and native areas. This easement will ensure that wetland buffers and native areas are properly maintained.
5. Overall, the proposed development of this site is in character with the surrounding uses, which include single-family residential areas. The preservation of 47% of the total site as green space provides a natural buffer between the new development and established neighborhoods, creates a green corridor through the development, and adds a public amenity to the community that is accessible to the new development and existing neighborhoods.

## **Commission and City Council Review**

### *Community Design Review Board*

September 16, 2025: The Community Design Review Board tabled the design review for additional information on the architectural design of the buildings.

### *Planning Commission*

September 16, 2025: The Planning Commission held a public hearing and then recommended approval of the land use requests.

### *Environmental and Natural Resources Commission*

October 10, 2025: The Environmental and Natural Resources Commission will review the wetland buffer variances and wetland buffer encroachment mitigation strategies and make a recommendation to the City Council.

### *City Council*

October 27, 2025: The City Council is scheduled to review the land use requests.

## **Attachments:**

1. Overview Map
2. Wetland Map
3. Applicant's Narrative
4. Site Plan
5. Grading Plan
6. Wetland Delineation Report dated March 11, 2024
7. Wetland Buffer Grading
8. Wetland Buffer Grading with Aerial Photo of Golf Course
9. Wetland Buffer Calculations
10. Wetland Buffer and Green Space Calculations

11. Trail Impacts to Wetland Buffers
12. Patio Exhibit – Overall
13. Patio Exhibit – Insets
14. Century Ponds Native Landscape Proposal from Prairie Restoration Inc.
15. Native Seeding Plan
16. Landscape Plan – Overall
17. Landscape Plan – Enlargement A
18. Landscape Plan – Enlargement B
19. Landscape Plan – Enlargement C
20. Landscape Plan – Enlargement D
21. Environmental Review by Shann Finwall, Sustainability Coordinator
22. Wetland Buffer Mitigation Report from Bolton and Menk
23. Wetland Buffer Variance Resolution

**Links:**

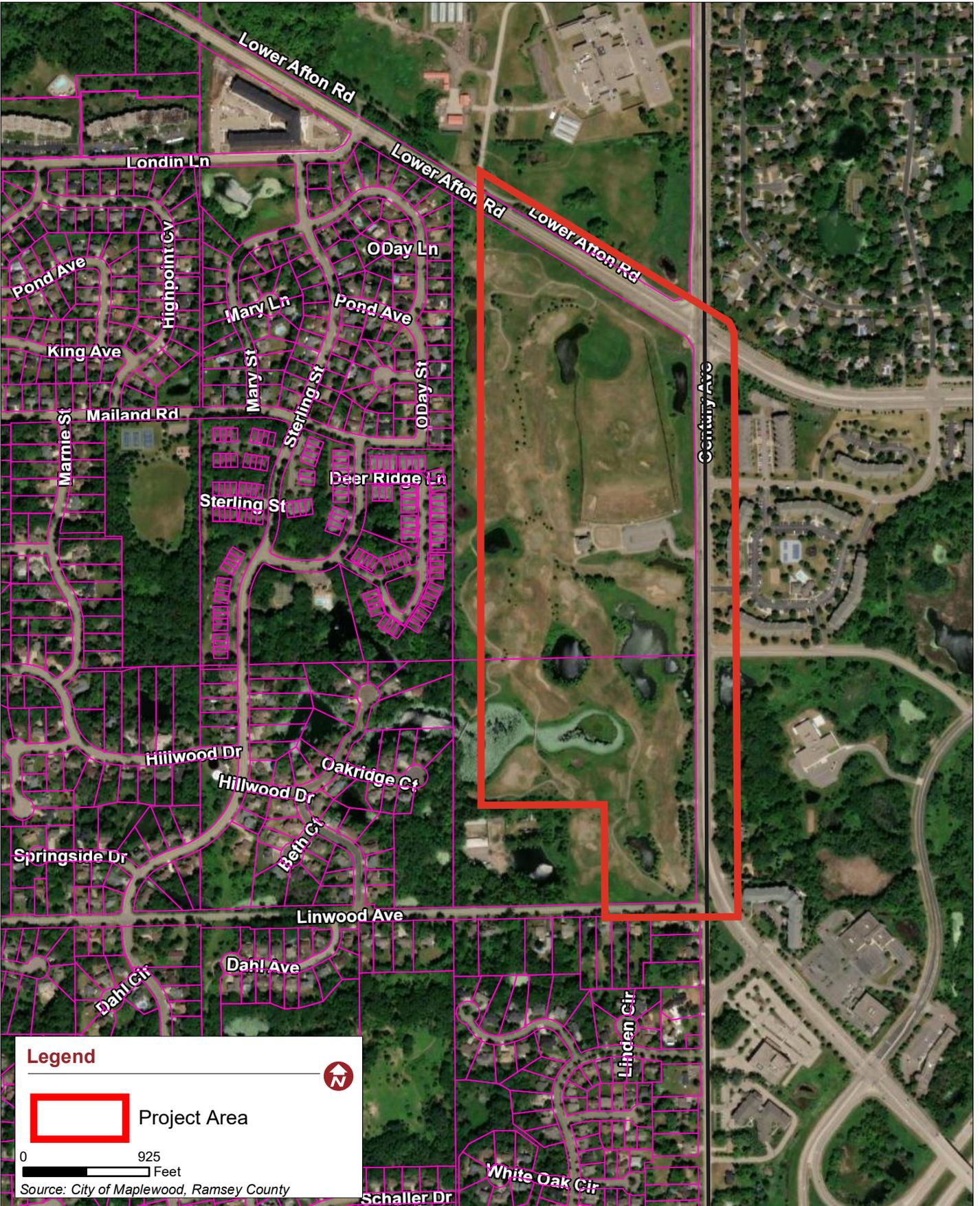
1. [Century Ponds Development Project Review](#)
  - a. September 16, 2025, Community Design Review Board
  - b. September 16, 2025, Planning Commission
  - c. Project Review Background
  - d. Environmental Review Assessment



# Overview Map - Century Ponds

City of Maplewood

August 15, 2025



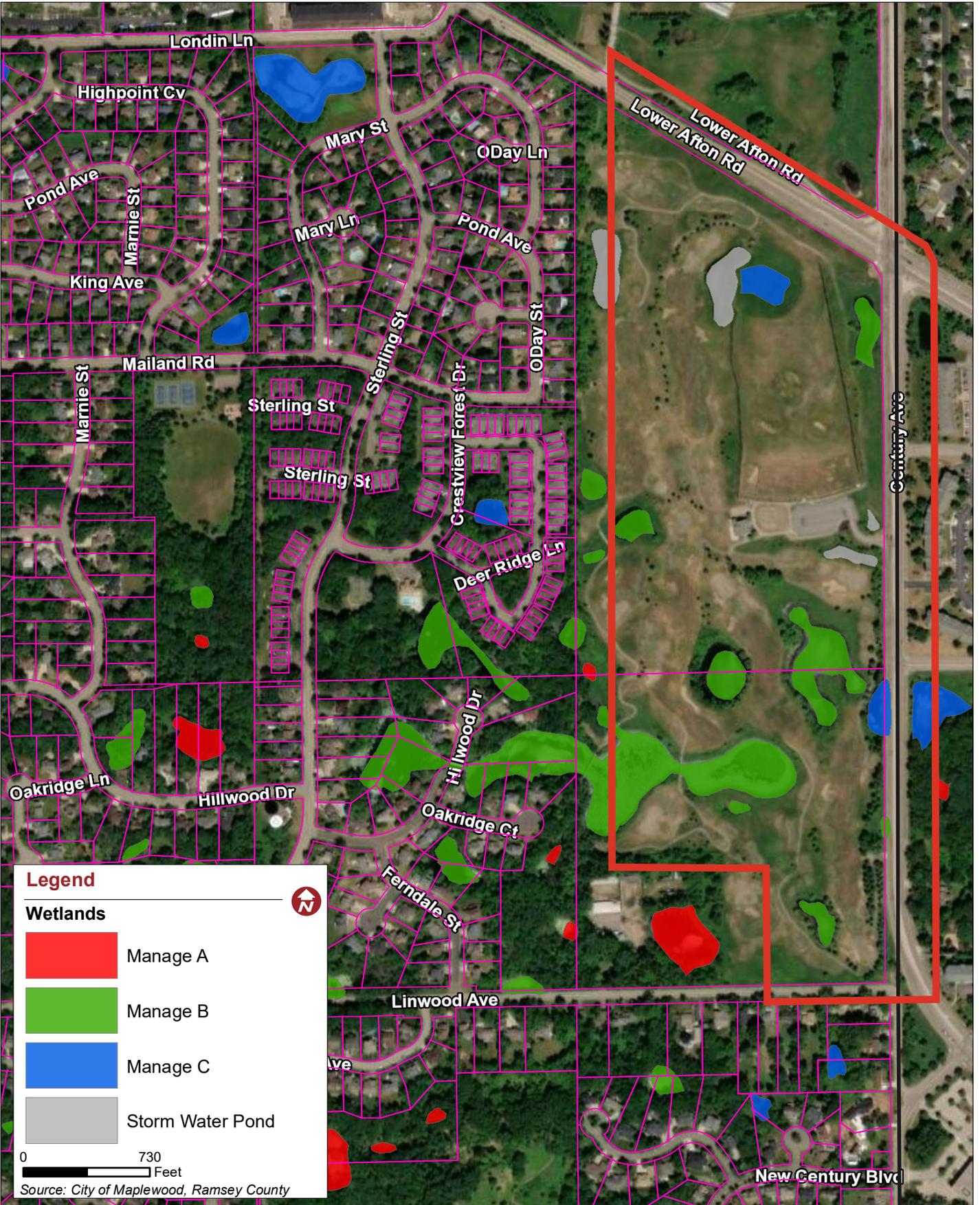


# Wetland Map - Century Ponds

City of Maplewood

August 15, 2025

Maplewood





## **CENTURY PONDS**

### **Comp Plan Amendment, Preliminary Plat, Rezoning, PUD Maplewood, MN**

---

After extensive community engagement and multiple iterations on the layout, D.R. Horton is pleased to submit this request for approval of Century Ponds. The proposed development consists of 133 single family homes & 73 townhomes, public park & trails and HOA-maintained open space on approximately 92 acres. The site is located on the former Ponds at Battle Creek Golf Course currently owned by Ramsey County. Surrounding land uses include St. Paul Police Training Facility & lower density residential to the west and south, Lower Afton Road & the Ramsey County Correctional Facility to the north, and Century Avenue & high-density residential uses within Woodbury city limits to the east.

The goals and objectives in creating this new neighborhood include the following:

- A neighborhood layout that is sensitive to the existing conditions, including multiple wetlands, wildlife habitat, cart path/trail system, availability of utilities, topography, ponding and drainage patterns.
- Design a walkable environment with sidewalks and trails.
- Preservation of trees and buffer to existing homes.
- Creation of a city-owned public park.
- Provide home styles and pricing attainable to various buyer groups that complement the surrounding neighborhood.

This application includes multiple requests for approval, including Comprehensive Plan Amendment, Preliminary Plat, Rezoning, Planned Unit Development (PUD), Community Design Review Board (CDRB), Wetland Buffer Easement Vacation and Wetland Buffer Variance.

### **EXISTING CONDITIONS**

**Trees.** Generally, the site has minimal tree coverage, except along the westerly boundary. The goal was to preserve this natural buffer between the existing and proposed neighborhoods.

**Wetlands.** A wetland investigation took place fall 2023 and a Notice of Decision was received from the Ramsey-Washington Metro Watershed District May 7, 2024. It was determined that there is 10.55 acres of wetlands. The proposed plan shows no impacts to the delineated wetlands.

As shown on the plans, there exists a Wetland Buffer Easement in favor of the City of Maplewood around the large wetland in the southwest portion of the site. DR Horton requests this be vacated, as the wetland buffer easement description does not align with the approved wetland delineation. As described, the buffer currently encroaches into planned townhome Lots 18 through 22, Block 8 of the preliminary plat.

**Ecological Study.** An ecological study was completed to locate and quantify the quality and locations of natural areas within the site. The study determined that there is approximately 9.5 acres of existing native area. This is less than the 14 acres that was being managed by the Watershed and golf course prior to its closing. This reduction could be attributed to lack of formal management and maintenance of the natural areas for the last 4 – 5 years resulting in invasive species taking over the native plants.

**Traffic.** A trip generation memorandum was prepared by Alliant in October 2024 to review the proposed accesses onto Century Avenue, Lower Afton Road and Linwood Avenue. The report summarized that the roads have sufficient capacity for this development. Washington and Ramsey Counties continue to review the access points. As shown on the preliminary plans, left turn lanes are proposed on Lower Afton and Century.

At the December neighborhood meetings, multiple residents commented about existing traffic on Linwood. There is concern that the townhome units will generate additional backups for vehicles heading toward Century Ave, as well as cut through traffic from Century onto the private townhome road (Waterleaf Way). Residents suggest that access not be available onto Linwood from the townhomes. Per City direction and for emergency access, the access is shown on the preliminary plans.

Based on the above comments, further review of the Linwood Ave/Century Ave intersection was completed. No stacking issues were observed with the current conditions.

## **COMPREHESIVE PLAN AMENDMENT**

Per the City's Comprehensive Plan, the site is guided for Park. DR Horton is requesting the property be re-guided to low density residential use. The residential use will not only create much needed new housing, but also open space, including park and trail, for

public use. Below is the density calculation per Met Council's Local Planning Handbook.

| <b>MET COUNCIL<br/>DENSITY CALCULATION</b> |  |          |
|--|--|----------|
| A  | Total Housing Units  | 206      |
| B  | Total Site Acreage   | 92.23 Ac |
|  |  |          |
|  | Outlot A<br>wetlands, trails & conservation                  | 35.85    |
|  | Outlot B<br>public park                                      | 1.68     |
|  | Outlot C<br>wetlands & conservation                          | 3.64     |
|  | Outlot D<br>pond   | 1.99     |
|  | Outlot E<br>pond   | 1.46     |
|  | Outlot G<br>wetland & conservation                           | 0.35     |
| C  | Total Acreage<br>ponds, wetlands, park, trails, conservation | 49.6 Ac  |
|  |  |          |
| D  | Total Net Acreage (B-C)                                      | 42.63 Ac |
|  |  |          |
| E  | Gross Density (A/B)  | 2.24 DUA |
|  |  |          |
| F  | Net Density (A/D)  | 4.83 DUA |

DR Horton has met with St. Paul Regional Water Services to discuss capacity, routing, and water pressure for the proposed Century Ponds. It is our understanding that capacity and pressure are adequate to meet the needs of this new neighborhood. Watermain is proposed to be extended from the existing service stubs on Lower Afton Road, Mailand Road right-of-way and Linwood Avenue to create a looped system.

Sanitary sewer is proposed to be connected to the existing stub in the northwest corner of the property to serve the entire site. An additional option being explored is connecting into the City of Woodbury's sanitary stub located in the southeast corner (off Century Ave) to serve the townhomes. Discussions between Maplewood, Woodbury & DR Horton are in process. By splitting the sanitary sewer into north and south service areas, it will lead to less construction activities around the central wetland area, allowing for shallower sanitary sewer in the north portion of the site. It will also help with future maintenance.

At the August neighborhood meetings, residents commented about school capacity concerns. As such, DR Horton met with ISD #622 Superintendent Christine Osorio who indicated the school district has capacity for new families. She was enthusiastic about the opportunity of new homes and new families in Maplewood.

### **PRELIMINARY PLAT, REZONING & PUD**

The Century Ponds Preliminary Plat proposes 206 total homesites. This includes 133 detached single-family homes and 73 townhomes. With a site acreage of 92.23, the overall (gross) density is 2.24 units per acre. The net site area (site area minus wetlands) is 81.68 acres, resulting in a net density of 2.52 units per acre. Note: this is different than the Metropolitan Council calculation, which includes, ponding, public trails, public park and conservation area.

There are two lot sizes proposed for the single-family homes. The 55' wide lots fit DR Horton's Select Home plans and the 65' wide lots are for the Tradition Series Homes. The diversity in house styles will appeal to a larger group of potential buyers at varying home buying stages (i.e. 1<sup>st</sup> time, move-up, move-down). Variety in streetscape will be achieved by the multiple elevation and floorplan options. There are approximately 7 plans with 3 to 4 elevation options per plan in each of the single-family series.

The following is a summary of each house type:

- Tradition Series Homes (65' Wide lots)
  - 55 total homes
  - 1- & 2-story homes
  - 1,800 to 3,100 square feet
  - 3-car garage
  - Foundation types – full basement, walkout, lookout
  - Anticipated pricing – upper \$500,000s to low \$700,000s
  
- Select Homes (55' Wide Lots)
  - 78 total homes
  - 1- & 2-story homes
  - 1,500 to 2,600 square feet
  - 2- & 3-car garages
  - Foundation types – slab-on-grade, walkout, lookout
  - Anticipated pricing – mid \$400,000s to low \$500,000s
  
- Townhomes (26' Wide)
  - 73 total units

- 2-story units
- 1,665 square feet
- 2-car garage
- 3-bedroom plans
- Foundation type – slab-on-grade
- Anticipated pricing – upper \$300,000s to low \$400,000s
- HOA to maintained building exteriors & grounds
- 32 guest parking spaces

Due to the wetlands, the site is naturally divided into north and south sections. The north portion which contains all the detached single-family homes is accessed from Lower Afton Road and Century Ave. The south portion contains the townhomes with access to Century Ave and Linwood Ave.

This request includes approval to rezone the property from Farm to Planned Unit Development (PUD). The PUD designation will allow flexibility within the City's zoning code to create a neighborhood that not only attracts buyers at different price points, but also provides them with desirable outdoor public spaces and areas of environmental conservation.

In the case of Century Ponds, reduced setbacks and smaller lot sizes allows the preservation of wetlands, the creation of expansive contiguous natural areas, a meandering trail system and public park.

The below table compares the R-1S Zoning Ordinance to the requested PUD standards.

|                           | R-1S Small Lot SF | Century Ponds PUD |               |
|---------------------------|-------------------|-------------------|---------------|
|                           |                   | 65' Wide Lots     | 55' Wide Lots |
| <b>Lot Standards</b>      |                   |                   |               |
| Lot Area (Min)            | 7,500 SF          | 8,450 SF          | 6,600 SF      |
| Lot Width (Min)           | 60 Ft             | 65 Ft             | 55 Ft         |
| Corner Lot Width (Min)    | 85 Ft             | 75 Ft             | 65 Ft         |
| Lot Depth (Min)           |                   | 130 Ft            | 120 Ft        |
|                           |                   |                   |               |
| <b>Setbacks</b>           |                   |                   |               |
| Front                     | 30 Ft             | 30 Ft             | 30 Ft         |
| Rear                      | 20% of Lot Depth  | 30 Ft             | 30 Ft         |
| Sides                     | 5 Ft/10 Ft        | 7.5 Ft/7.5 Ft     | 7.5 Ft/7.5 Ft |
| Side (Corner)             | 30 Ft             | 20 Ft             | 20 Ft         |
|                           |                   |                   |               |
| <b>Lot Coverage (Max)</b> | 30%               | 40%               | 40%           |
|                           |                   |                   |               |

|                      | <b>R-3C Townhomes</b> | <b>26'Wide Townhomes</b>  |
|----------------------|-----------------------|---------------------------|
| <b>Setbacks</b>      |                       |                           |
| Front                | 30 Ft                 | 30 Ft (from private road) |
| Rear                 | 20 Ft                 | 20 Ft                     |
| Sides                | 20 Ft                 | 20 Ft                     |
| Dwelling to Dwelling | 20 Ft                 | 20 Ft                     |

The below table depicts proposed ownership and maintenance of the Preliminary Plat Outlots.

| <b>OUTLOT</b> | <b>OWNERSHIP</b> | <b>USE</b>   | <b>EASEMENTS</b>  | <b>MAINTENANCE</b>  |
|---------------|------------------|--|---|---|
| A             | HOA              | <ul style="list-style-type: none"> <li>- Natural Area</li> <li>- Ponding</li> <li>- Wetland</li> <li>- Trails</li> </ul> | <ul style="list-style-type: none"> <li>- D&amp;U</li> <li>- Conservation</li> <li>- Public Trail</li> </ul> | <ul style="list-style-type: none"> <li>- HOA maintains natural areas per Conservation Easement</li> <li>- City maintains ponds</li> </ul> |
| B             | City             | Park   | None  | City  |
| C             | HOA              | <ul style="list-style-type: none"> <li>- Natural Area</li> <li>- Ponding</li> <li>- Wetland</li> <li>- Trails</li> </ul> | <ul style="list-style-type: none"> <li>- D&amp;U</li> <li>- Conservation</li> <li>- Public Trail</li> </ul> | <ul style="list-style-type: none"> <li>- HOA maintains natural areas per Conservation Easement</li> <li>- City maintains ponds</li> </ul> |
| D             | City             | Pond   | D&U   | City  |
| E             | City             | Pond   | D&U   | City  |
| F             | HOA              | Private Street   | D&U   | HOA   |

## **TRAILS, PARK & NATIVE HABITAT**

Century Ponds proposes over 3 miles of public trails and sidewalks throughout the site. The trails and sidewalks offer connectivity to the surrounding neighborhoods and more importantly to the public open spaces, including ponds, wetlands, conservation areas & park. The goal is to repurpose portions of the golf path and wetland crossings where feasible.

The trails are shown in outlots that will be owned and maintained by a homeowners' association. DR Horton proposes to dedicate an easement in favor of the public over all trails in Century Ponds.

The proposed public park is nestled among the wetlands near the western site boundary and accessible from the trail system. As shown on the preliminary plans, the park elements include playgrounds, half basketball court, picnic shelter, seating area and an informal open play area. DR Horton will work with the Parks Department to create an attractive space that nearby residents can enjoy.

The proposed Century Ponds includes a plan to re-establish, enhance and create new native areas. In all, the site will contain about 27 acres of natural area in addition to the 14.5 acres of wetlands & ponds. This means that nearly 50% of the site is native habitat, including vegetated areas, ponds and wetlands.

In October 2024, Horton met with Friends of Maplewood Nature to consider priorities for the natural areas. The discussion centered on how to improve upon the Rusty Patch Bumble Bee and other animal habitats. It was agreed that the most valuable area to focus on is the large centrally located wetland complex. As such, the proposed plan creates native habitat around the wetlands, as well as other smaller pockets in the northeast & southeast portions of the site. Furthermore, a greenway corridor along the westerly boundary, not only creates a larger buffer for the existing residents, but also additional foraging and habitat area, as well as connectivity to Battle Creek Regional Park northwest of this site. Horton plans to work with Prairie Restorations (or a similar company) in finalizing a planting plan that encourages the Rusty Patch Bumble Bee and other species of wildlife. As the planting plan is further developed, Horton will seek feedback from the Friends of Maplewood Nature and the Ramsey Washington Metro Watershed.

### **HOA & CONSERVATION EASEMENT**

For long-term maintenance and management of the native vegetation areas, DR Horton proposes that a Master Homeowners' Association (HOA) be created. It is anticipated that the native areas will be contained in outlots owned by the HOA. The Declaration of Covenants, Conditions and Restrictions (which is recorded against all properties) would specify the tasks for the ongoing maintenance of these natural areas, which would be a common expense among all the homes and townhomes in Century Ponds.

Additionally, a Conservation Easement would be created so these areas remain natural in perpetuity. The Conservation Easement would be in favor of a public entity (i.e. the city or watershed) to ensure the HOA is completing tasks as required to maintain healthy vegetation for viable habitats.

The townhomes units would be part of a sub-homeowners association (under the Master HOA). Townhomes are setup as a common interest community. Here, the association would be responsible for building exteriors, private roads and grounds maintenance (mowing & snow removal).

The single-family homes would either have their own sub-association or be direct members of the Master HOA. This will be determined at the final plat stage.

## **PUBLIC BENEFIT**

In return for relaxing the zoning standards, the following public benefits are realized in Century Ponds:

- Housing Options – Multiple housing options that are achievable to a wider range of buyers.
- Trails – Meandering public trail system providing connections to surrounding neighborhoods and most importantly to public open spaces.
- Land Dedication – Horton will dedicate the public park to the City of Maplewood.
- Park Dedication Fees – Horton to pay cash for park dedication.
- Public Park – Horton to construct the park without credit to park dedication fees.
- Environmental Conservation – Creation of nearly 27 acres of native vegetation to enhance habitat for the existing wildlife, including the Rusty Patch Bumble Bee that can be enjoyed by all Maplewood residents & visitors.

## **PUBLIC ENGAGEMENT**

As discussed at the July 8, 2024 City Council Workshop, public engagement was important in moving the project forward. DR Horton has hosted multiple meetings over the past 6 months to receive public feedback. Century ponds has evolved to the current proposed plan because of these meetings.

Below is the list of the neighborhood meetings:

- 8/15/24 & 8/21/24 - Neighborhood Meetings
  - Invitations were sent to owners within about 1,500 feet of the project boundaries. *NOTE: city public notices only require 500 feet from project boundaries.*
  - Approximately 80 to 90 attendees at each meeting.
  - Feedback included concerns about the closing of the golf course, environmental impacts & open space, density, home prices, increased taxes for existing residents, school capacity, traffic impacts, public accessibility.
- 10/24/24 – Friends of Maplewood Meeting
  - Identified areas of focus for native vegetation; suggested greenway corridor
  - Agreed to continue discussions as Horton gets further into planning process.
- 11/21/24 – Meeting with Abutting Neighbors (shared property lines w/site)
  - Approximately 25 attendees.

- Purpose of meeting was to understand any current engineering issues (i.e. drainage) with existing homes.
- Horton to meet with abutting neighbors prior to development start.
- 12/12/24 & 12/18/24 – Neighborhood Meetings
  - Invitations were sent to the same list as the August meetings (approx. 1,500 radius)
  - Approximately 20 to 30 people attended each meeting
  - Purpose was to present the revised plan
  - Feed back included appreciation for changes, tax impacts, public accessibility to park & trail, technical concerns – traffic (especially on Linwood), water capacity & water pressure, stormwater routing & watershed review process

## **COMPLETED STUDIES**

The below have been completed to date:

- Geotechnical Review – March 2024; Test Pits – Dec 2024
- Wetland Delineation – November 2023; Updated April 2024 based on comments from TEP review; Approved May 2024
- Ecological Study – July 2024
- Sound Study – July 2024
- Tree Survey – Fall of 2023
- Trip Generation Memo – Oct 2024
- Linwood Ave Traffic Review – Jan 2025
- Environmental Assessment Worksheet (EAW) – Aug 25, 2025 City Council Negative Declaration
- Archeological Survey – Sept/Oct 2025

## **PROPOSED SCHEDULE**

Spring/Summer 2025

- Environmental Assessment Worksheet (EAW)

Fall/Winter 2025

- Comprehensive Plan Amendment Request
- Preliminary Plat, Rezoning & PUD Requests
- Community Design Review Board

Spring/Summer 2026

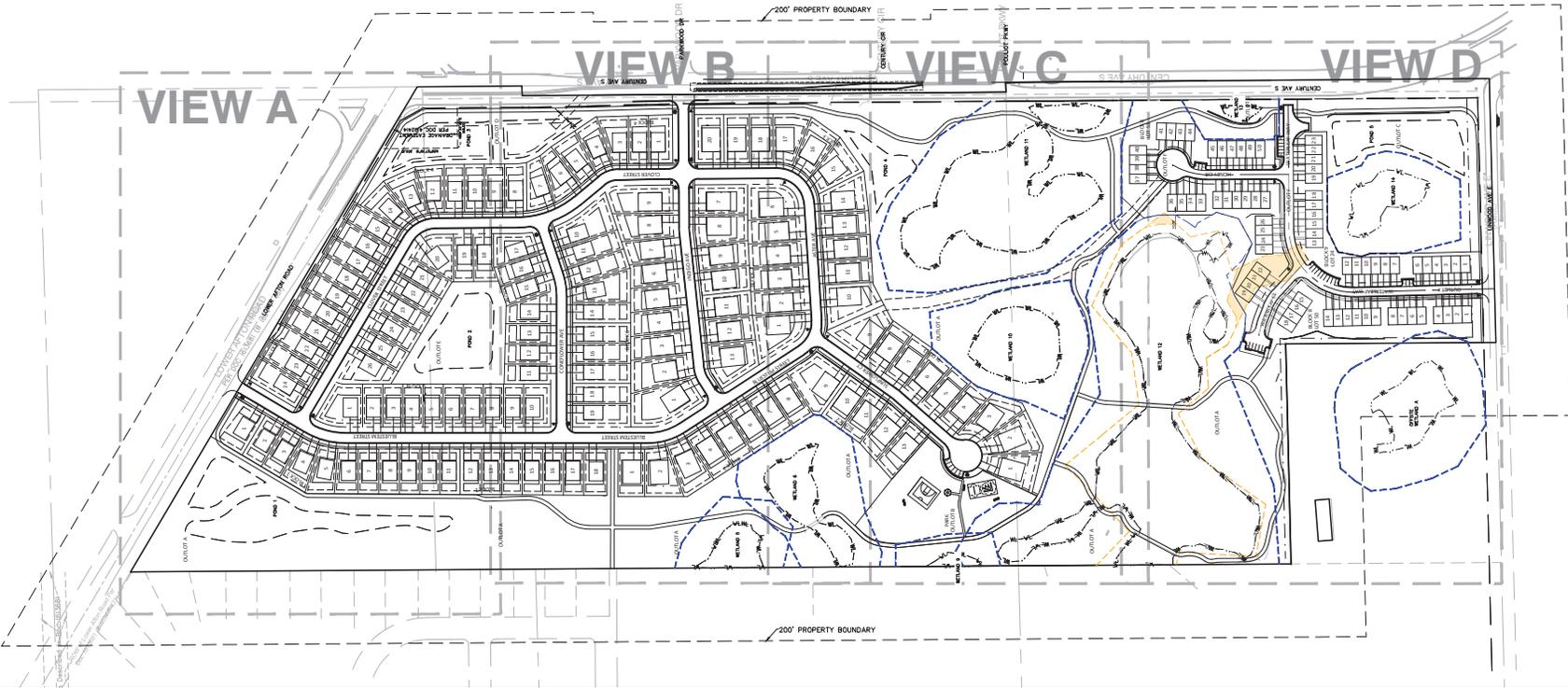
- Final Plat
- Begin Site Work – Grading, Utilities & Streets

Winter 2026

- Begin Home Construction



**ALLIANT**  
 733 Marquette Avenue  
 Suite 700  
 Minneapolis, MN 55402  
 612.758.3080  
 www.alliant-inc.com



- LEGEND:**
- EASEMENT LINE
  - - - BUILDING SETBACK
  - PROPERTY LINE
  - LOT LINE
  - ROW
  - - - WETLAND BUFFER
  - ☀ STREET LIGHT
  - ⊠ STOP SIGN
  - ▬ RETAINING WALL

**CENTURY PONDS  
 MAPLEWOOD, MN  
 PRELIMINARY PLAT  
 SITE PLAN OVERVIEW**

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.

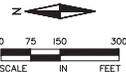
*Signature*  
 DAVE MADH, PE  
 Date: 6/15/2023 License No. 21856

**QUALITY ASSURANCE/CONTROL**

| BY        | DATE              |
|-----------|-------------------|
| DATE      | ISSUE             |
| 2/28/2023 | CITY SUBMITTAL    |
| 5/23/2023 | CITY RESUBMITTAL  |
| 6/13/2023 | CLIENT REVIEW SET |
| 7/22/2023 | CITY RESUBMITTAL  |

**PROJECT TEAM DATA**  
 DESIGNED: JP  
 DRAWN: JP  
 PROJECT NO: 4000041

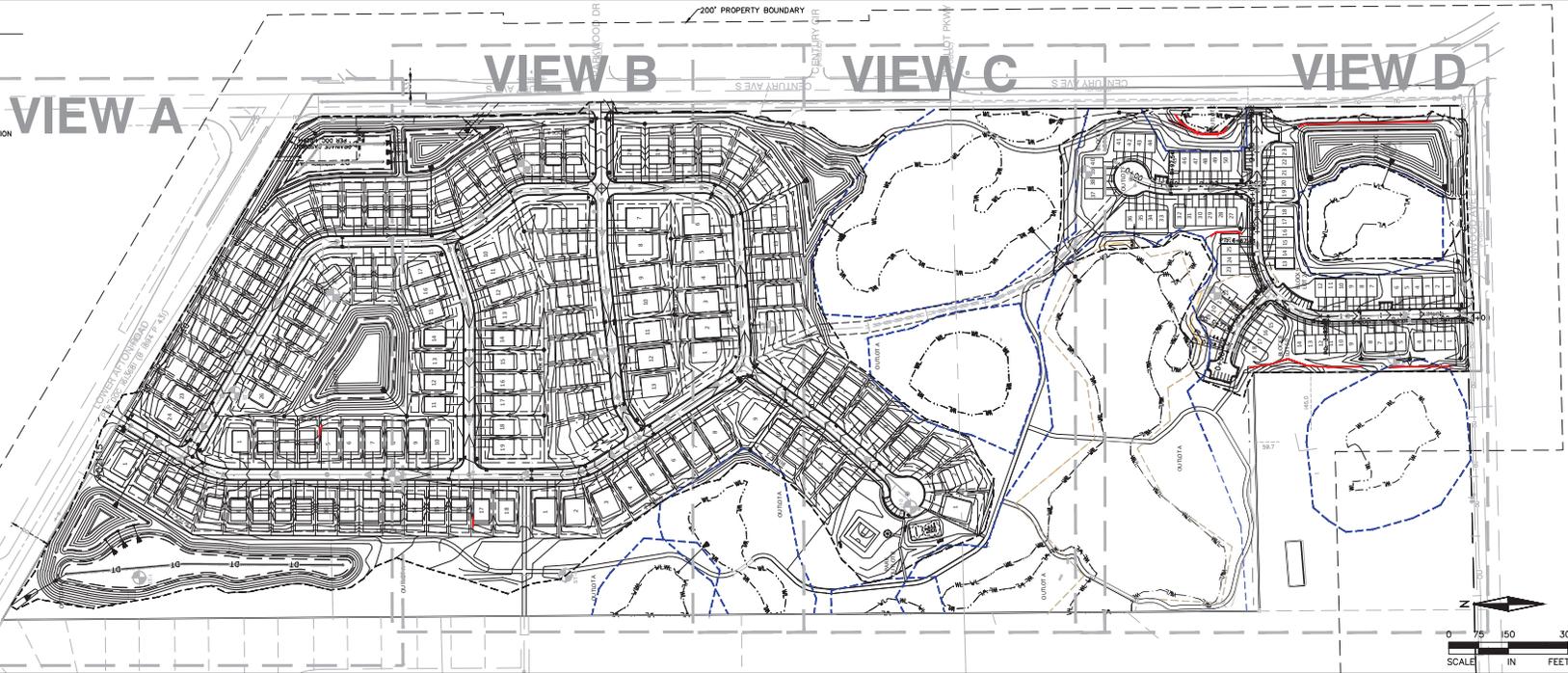
FOR REVIEW ONLY  
**PRELIMINARY**  
 NOT FOR CONSTRUCTION



Prelim\_name: s: 2023\4000041\_00 - Century\_Ponds\plan\_sheets\4000041.rvt - Jul\_22\_2023 - 8:28am



- GRADING LEGEND:**
- 780.00 GARAGE FLOOR ELEVATION
  - 780.00 ADDITIONAL REQUIRED STEPS
  - 780.00 HOUSE FLOOR ELEVATION
  - 780.00 LOWER FLOOR ELEVATION
  - 780.00 REAR ELEVATION
  - 780.00 EXISTING CONTOUR
  - 780.00 PROPOSED CONTOUR
  - 780.00 PROPOSED SPOT ELEVATION
  - 1.0% DIRECTION OF DRAINAGE
  - ROCK ENTRANCE
  - RETAINING WALL
  - SOIL BORING



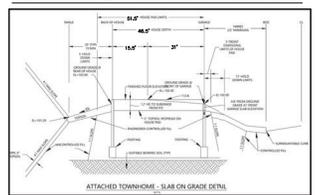
**GRADING NOTES:**

1. ALL FINISHED GRADES SHALL SLOPE AWAY FROM PROPOSED BUILDINGS AT MINIMUM GRADE OF 2.0%. ALL SWALES SHALL HAVE A MINIMUM SLOPE OF 2.00%.
2. THE CONTRACTOR SHALL KEEP THE ADJACENT ROADWAYS FREE OF DEBRIS AND PREVENT THE OFF-SITE TRACKING OF SOIL IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY AND WATERSHED.
3. NOTIFY GOPHER STATE ONE CALL, AT (800)252-1166, 48 HOURS PRIOR TO START OF CONSTRUCTION.
4. ALL IMPROVEMENTS TO CONFORM WITH CITY OF MAPLEWOOD CONSTRUCTION STANDARDS SPECIFICATION, LATEST EDITION.
5. ROCK CONSTRUCTION ENTRANCES SHALL BE PROVIDED AT ALL CONSTRUCTION ACCESS POINTS.
6. REFER TO GEOTECHNICAL REPORT AND PROJECT MANUAL FOR SOIL CORRECTION REQUIREMENTS AND TESTING REQUIREMENTS.
7. STRIP TOPSOIL PRIOR TO ANY CONSTRUCTION. REUSE STOCKPILE ON SITE. STOCKPILE PERIMETERS MUST BE PROTECTED WITH SILT FENCE.
8. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.
9. IMMEDIATELY FOLLOWING GRADING OF (3:1 OR GREATER) SIDE SLOPES AND DRAINAGE SWALES, WOOD FIBER BLANKET OR OTHER APPROVED SOIL STABILIZING METHOD (APPROVED BY ENGINEER) SHALL BE APPLIED OVER APPROVED SEED MIXTURE AND A MINIMUM OF 4" TOPSOIL.
10. THE GENERAL CONTRACTOR MUST DISCUSS DEWATERING PLANS WITH ALL SUBCONTRACTORS TO VERIFY NPDES REQUIREMENTS. IF DEWATERING IS REQUIRED DURING CONSTRUCTION, CONTRACTOR SHOULD CONSULT WITH EROSION CONTROL INSPECTOR AND ENGINEER TO DETERMINE APPROPRIATE METHOD.
11. REFER TO GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR ALL EROSION AND SEDIMENT CONTROL DEVICE LOCATIONS.
12. BUILDING PERMITS ARE REQUIRED FOR ALL RETAINING WALLS 4 FEET IN HEIGHT OR GREATER AND THE WALLS SHALL BE DESIGNED BY A STRUCTURAL ENGINEER WITH DESIGN REVIEWED AND APPROVED BY THE CITY PRIOR TO INSTALLATION. ALL WALLS EXCEEDING 30" IN HEIGHT REQUIRE THE INSTALLATION OF A 42" SAFETY RAILING.
13. PROPOSED DRIVEWAY GRADES ARE 3% MINIMUM AND 10% MAXIMUM.
14. ANY MODIFICATION TO HOMES AT TIME OF BUILDING PERMIT APPLICATION THAT DEVIATES FROM THIS GRADING PLAN MUST BE SUBMITTED AND APPROVED BY THE CITY OF MAPLEWOOD.
15. ONE STEP IS EQUAL TO 0.67 FEET.
16. GEOTECHNICAL ENGINEER TO BE PRESENT DURING EXCAVATION OF ALL PRETREATMENT AND INFILTRATION BASINS. GEOTECHNICAL ENGINEER TO PROVIDE RECOMMENDATION FOR BASIN LIMS WHICH MAY EXCEED 2' MINIMUM OF ON-SITE SLAYS PER CIVIL ENGINEERING PLANS. GEOTECHNICAL ENGINEER TO NOTIFY THE CITY OF MAPLEWOOD AND CONTRACTOR IF ACTIVE MARSH IS DISCOVERED DURING CONSTRUCTION AND PROVIDE APPROPRIATE RECOMMENDATION.
17. ALL SLOPES MUST NOT BE GREATER THAN A 3:1.
18. NO BUILDING PERMIT WILL BE ISSUED WITHIN NEW CURB CONSTRUCTION AREAS UNTIL THE PLANNING DIVISION HAS APPROVED AN ALTERNATIVE ACCESS OR VERIFIED WITH THE ENGINEERING DIVISION THAT THE CURB HAS REACHED ITS DESIGN STRENGTH.
19. ANY HOUSE TYPE MODIFICATION AT TIME OF BUILDING PERMIT APPLICATION OTHER THAN WHAT WAS IDENTIFIED ON THE APPROVED GRADING PLAN SHALL REQUIRE A REVISED GRADING PLAN SUBMITTAL FOR REVIEW AND APPROVAL.
20. CONTRACTOR TO NOT USE HEAVY WHEELED EQUIPMENT USE LOW IMPACT EARTH MOVING EQUIPMENT FOR CONSTRUCTION AND SEEDING OF INFILTRATION BASINS.
21. CITY SHALL NOT BE RESPONSIBLE FOR THE MAINTENANCE OR ANY COSTS (NOW AND FUTURE) ASSOCIATED WITH PROPOSED RETAINING WALLS.
22. ALL PUBLIC PEDESTRIAN WAYS SHALL MEET DESIGN REQUIREMENTS OUTLINED ON DETAIL PLATES STR-17 AND STR-26 FOR SUB GRADE CORRECTION.
23. IF THE DEVELOPER'S BUILDERS PROPOSE SIGNIFICANT GRADE CHANGES TO HOME AT TIME OF BUILDING PERMIT APPLICATION, THE CITY MAY REQUIRE THE GRADING PLAN BE REVISED TO REFLECT THE PROPOSED CHANGES. SIGNIFICANT CHANGE EXAMPLES ARE DROPPING THE GARAGE FLOOR ELEVATION OR MODIFYING HOME TYPE FROM A LOOKOUT TO A WALKOUT.
24. ALL MASS SITE GRADING ACTIVITIES SHALL BE COMPLETED AND A GRADING AS-BUILT SURVEY SUBMITTED TO CITY STAFF AS OUTLINED IN THE LAND DISTURBANCE REQUIREMENTS PRIOR TO ANY UTILITY AND STREET IMPROVEMENTS BEING CONSTRUCTED ON SITE AND OR RELEASE OF LAND DISTURBANCE SECURITIES.
25. NOTIFY MOBILE MARKS, RANNEY-WASHINGTON METRO WATERSHED DISTRICT, AT 651-792-7976 AT LEAST 48 HOURS PRIOR TO THE CONSTRUCTION OF ANY VOLUME REDUCTION BMPs.

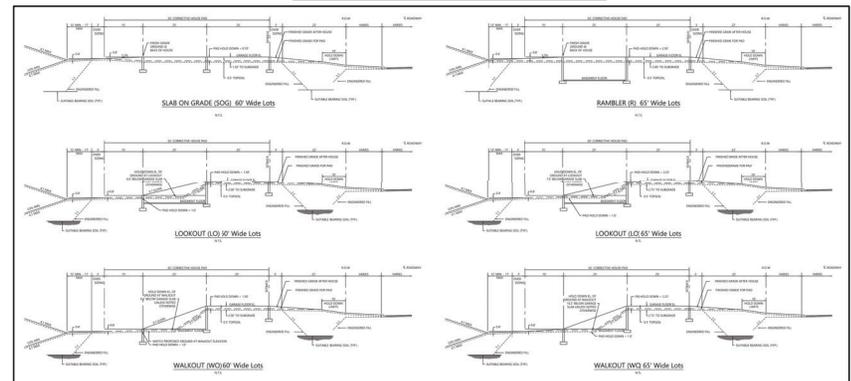
**RETAINING WALL NOTES:**

1. ALL RETAINING WALLS SHALL BE ROUGH GRADED AT A 2:1 SLOPE WITH BASE OF SLOPE AT PROPOSED WALL FACE.
2. THE RETAINING WALL SLOPE AREAS ARE TO BE MAINTAINED UNTIL RETAINING WALL CONSTRUCTION OCCURS. ANY EROSION SHALL BE REMEDIATED AND RESTORED.
3. BUILDING PERMITS ARE REQUIRED FOR ALL RETAINING WALLS 4 FEET IN HEIGHT OR GREATER AND THE WALLS SHALL BE DESIGNED BY A STRUCTURAL ENGINEER WITH DESIGN REVIEWED AND APPROVED BY THE CITY PRIOR TO INSTALLATION. ANY QUESTIONS REGARDING THE BUILDING PERMITS SHALL BE DIRECTED TO THE CITY BUILDING INSPECTOR.
4. INSTALL SAFETY RAILING ATOP ALL WALLS WHERE REQUIRED BY CODE.
5. RETAINING WALL CONTRACTOR AND/OR RETAINING WALL STRUCTURAL ENGINEER ARE RESPONSIBLE TO REVIEW CIVIL SITE ENGINEERING DRAWINGS. ANY OBSERVED CONCERNS WITH CIVIL SITE ENGINEERING DESIGN ELEMENTS RELATED TO RETAINING WALLS THAT REQUIRE MODIFICATION TO THE CIVIL SITE DESIGN IS THEIR RESPONSIBILITY TO COORDINATE WITH PROJECT OWNER AND CIVIL SITE ENGINEER. IF NO COORDINATION IS REQUESTED IT SHALL BE UNDERSTOOD THAT ALL CONDITIONS WITHIN THE CIVIL SITE DESIGN AND PLANS ARE ACCEPTABLE AND ABLE TO BE PROVIDED FOR IN THE RETAINING WALL DESIGN AND CONSTRUCTION.
6. RETAINING WALLS ARE TO BE FINAL DESIGNED AND PERMITTED BY OTHERS.

**TOWNHOME HOLD DOWN DETAILS:**



**SINGLE FAMILY HOLD DOWN DETAILS:**



CENTURY PONDS  
 MAPLEWOOD, MN  
 PRELIMINARY PLAT  
 GRADING PLAN OVERVIEW

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.

DATE: 6/13/2025  
 CONSTRUCTION  
 21836  
 License No.

QUALITY ASSURANCE/CONTROL

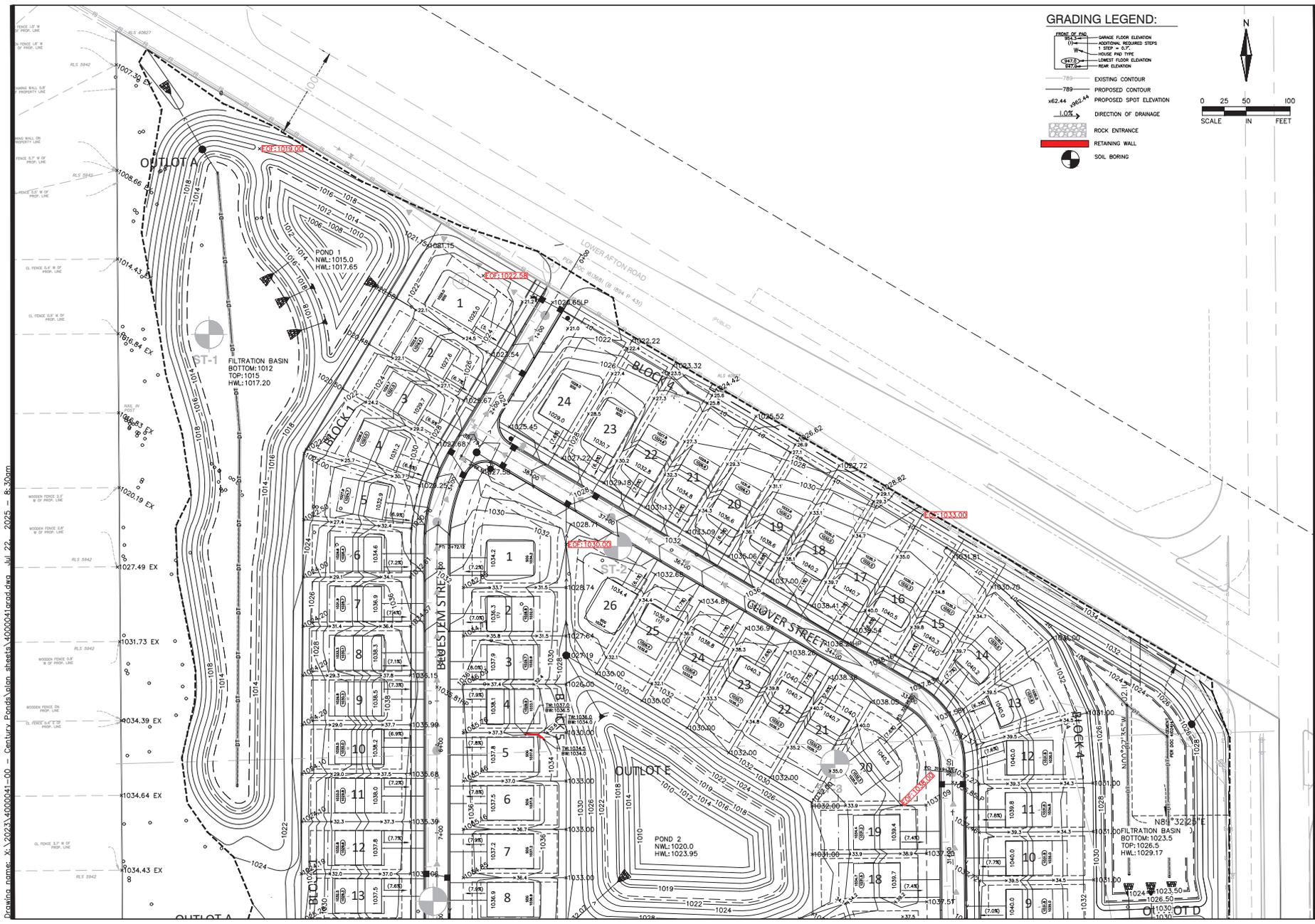
| BY        | DATE              |
|-----------|-------------------|
| DATE      | ISSUE             |
| 3/3/2025  | CITY SUBMITTAL    |
| 6/22/2025 | CITY RESUBMITTAL  |
| 6/13/2025 | CLIENT REVIEW SET |
| 7/22/2025 | CITY RESUBMITTAL  |

PROJECT TEAM DATA

DESIGNED:

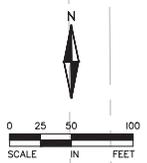
DRAWN:

PROJECT NO: 4000041



**GRADING LEGEND:**

- GARAGE FLOOR ELEVATION
- HORIZONTAL REQUIRED STEPS
- PROPOSED SPOT ELEVATION
- DIRECTION OF DRAINAGE
- ROCK ENTRANCE
- RETAINING WALL
- SOIL BORING



**ALLIANT**  
 733 Marquette Avenue  
 Suite 700  
 Minneapolis, MN 55402  
 612.758.3080  
 www.alliant-inc.com

**CENTURY PONDS**  
 MAPLEWOOD, MN  
**PRELIMINARY PLAT**  
**GRADING PLAN - VIEW A**

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 in the State of MINNESOTA.

DATE: 4/13/2025  
 License No. 21836

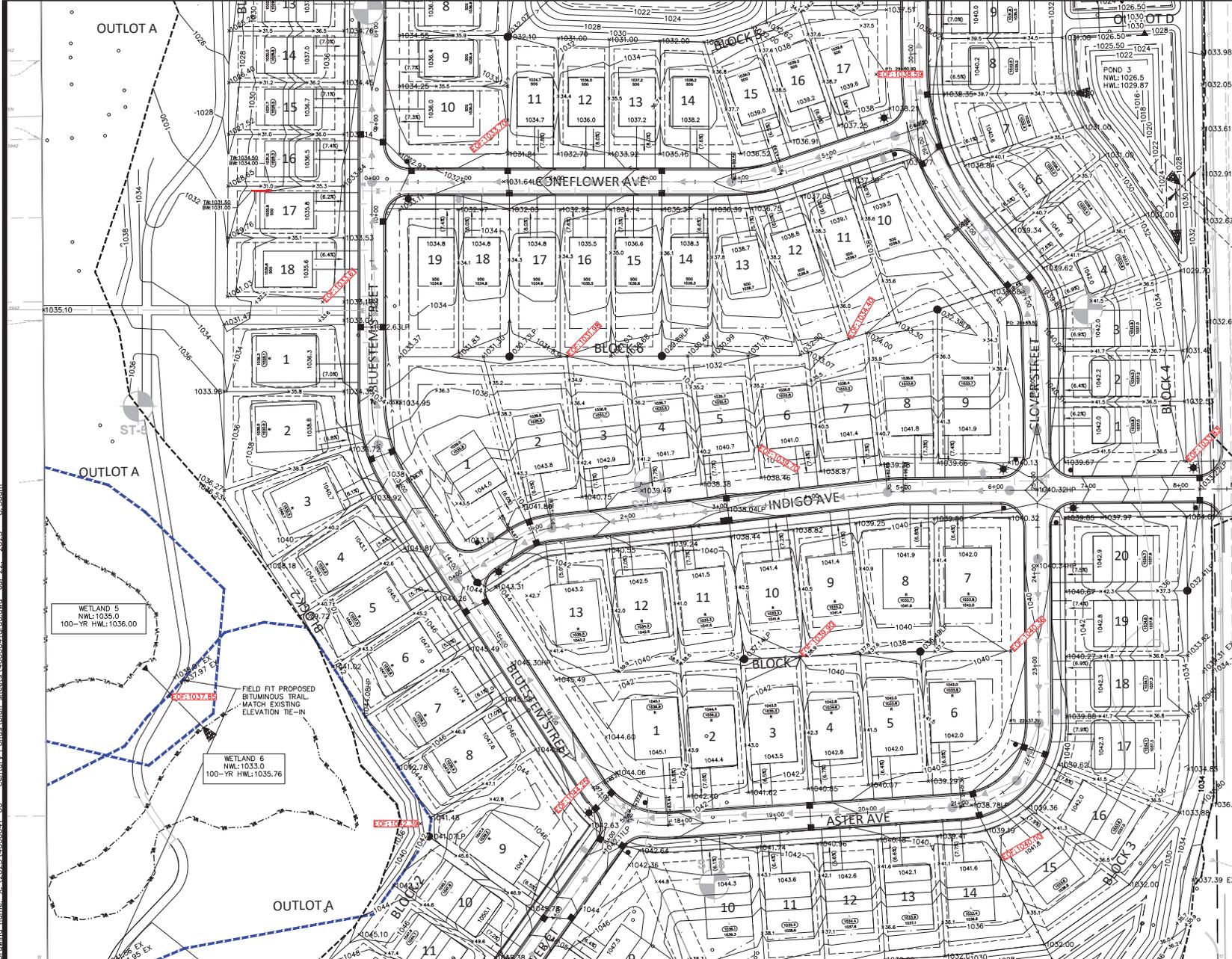
**QUALITY ASSURANCE/CONTROL**

| BY        | DATE              |
|-----------|-------------------|
| DATE      | ISSUE             |
| 2/9/2025  | CITY SUBMITTAL    |
| 5/23/2025 | CITY RESUBMITTAL  |
| 6/15/2025 | CLIENT REVIEW SET |
| 7/22/2025 | CITY RESUBMITTAL  |

**PROJECT TEAM DATA**

|              |         |
|--------------|---------|
| DESIGNED:    | JP      |
| DRAWN:       | JP      |
| PROJECT NO.: | 4000041 |

Drawing name: X:\2023\4000041-00 - Century Ponds\plan sheets\4000041.dwg, Jul 22, 2025 - 8:30am



**GRADING LEGEND:**

- GRADE FLOOR ELEVATION
- ADDITIONAL REQUIRED STEPS
- 1 STEP = 0.2'
- HOUSE FLOOR ELEVATION
- REAR ELEVATION
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- DIRECTION OF DRAINAGE
- ROCK ENTRANCE
- RETAINING WALL
- SOIL BORING

**ALLIANT**  
 733 Marquette Avenue  
 Suite 700  
 Minneapolis, MN 55402  
 612.758.3080  
 www.alliant-inc.com

**CENTURY PONDS  
 MAPLEWOOD, MN  
 PRELIMINARY PLAN  
 GRADING PLAN - VIEW B**

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 in the State of MINNESOTA.

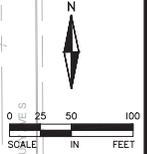
DAVE HANSEN, PE  
 Date: 5/2/2025 License No. 21836

**QUALITY ASSURANCE/CONTROL**

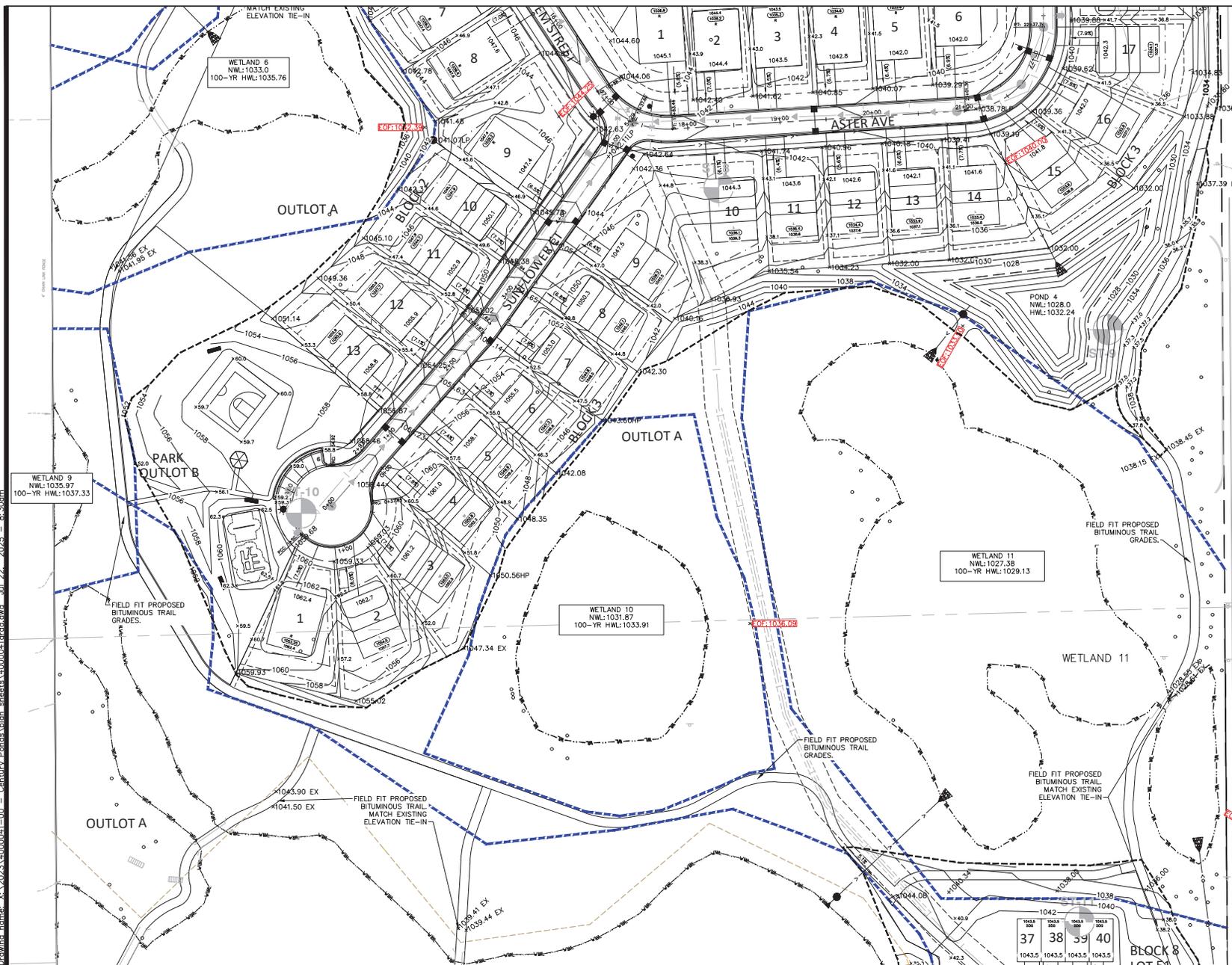
| BY        | DATE              |
|-----------|-------------------|
| DATE      | ISSUE             |
| 3/9/2025  | CITY SUBMITTAL    |
| 5/27/2025 | CITY RESUBMITTAL  |
| 6/15/2025 | CLIENT REVIEW SET |
| 7/22/2025 | CITY RESUBMITTAL  |

**PROJECT TEAM DATA**

|              |         |
|--------------|---------|
| DESIGNED:    | JP      |
| DRAWN:       | JP      |
| PROJECT NO.: | 4000041 |



Drawing name: X:\2023\4000041-00 - Century Ponds\plan\_streets\4000041\grad.dwg, Jul 22, 2025 - 8:30am



**GRADING LEGEND:**

- CHANGE FLOOR ELEVATION
- ADDITIONAL REQUIRED STEPS (1 STEP = 0.07')
- HOUSE PND TYPE
- LOWEST FLOOR ELEVATION
- NEAR ELEVATION
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- DIRECTION OF DRAINAGE
- ROCK ENTRANCE
- RETAINING WALL
- SOIL BORING

**ALLIANT**  
 733 Marquette Avenue  
 Suite 700  
 Minneapolis, MN 55402  
 612.758.3080  
 www.alliant-inc.com

**CENTURY PONDS  
 MAPLEWOOD, MN  
 PRELIMINARY PLAT  
 GRADING PLAN - VIEW C**

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.

|              |           |
|--------------|-----------|
| DATE ISSUED: | 2/18/25   |
| DATE:        | 8/13/2025 |
| DATE:        | 2/18/25   |

QUALITY ASSURANCE/CONTROL

| BY        | DATE              |
|-----------|-------------------|
| DATE      | ISSUE             |
| 2/9/2025  | CITY SUBMITTAL    |
| 5/27/2025 | CITY RESUBMITTAL  |
| 5/13/2025 | CLIENT REVIEW SET |
| 7/22/2025 | CITY RESUBMITTAL  |

PROJECT TEAM DATA

|             |         |
|-------------|---------|
| DESIGNED:   | JP      |
| DRAWN:      | JP      |
| PROJECT NO: | 4000041 |

Provision name: X:\2023\4000041\00 - Century Ponds\plan\_sheets\4000041\grad.dwg, Jul 22, 2025, 8:30am



# **Lower Afton Road**

**Maplewood, Ramsey County, Minnesota**

## **Wetland Delineation Report**

*Prepared for*

D. R. Horton

*by*

**Kjolhaug Environmental Services Company, Inc.**

(KES Project No. 2023-160)

November 17<sup>th</sup>, 2023

Updated March 11<sup>th</sup>, 2024

---

# Lower Afton Road

*Maplewood, Ramsey County, Minnesota*

## Wetland Delineation Report

### TABLE OF CONTENTS

| Title   | Page     |
|---|----------|
| <b>1. WETLAND DELINEATION SUMMARY .....</b>                             | <b>2</b> |
| <b>2. OVERVIEW .....</b>  | <b>2</b> |
| <b>3. METHODS .....</b>   | <b>3</b> |
| 3.1 Wetland Delineation .....   | 3        |
| <b>4. RESULTS .....</b>   | <b>4</b> |
| 4.1 Review of NWI, Soils, Public Waters, and NHD Information .....      | 4        |
| 4.2 Wetland Determinations and Delineations.....                        | 5        |
| 4.3 Historic Aerial Review.....   | 8        |
| 4.4 Other Areas .....   | 8        |
| 4.5 Request for Wetland Boundary and Jurisdictional Determination ..... | 8        |
| <b>5. CERTIFICATION OF DELINEATION.....</b>                             | <b>9</b> |

### FIGURES

1. Site Location
- 2A. Existing Conditions
- 2B. Existing Conditions North
- 2C. Existing Conditions South
3. National Wetlands Inventory
4. Soil Survey
5. DNR Public Waters Inventory
6. National Hydrography Dataset

### APPENDICES

- A. Joint Application Form for Activities Affecting Water Resources in Minnesota
- B. Wetland Delineation Data Forms
- C. Precipitation Data
- D. Historic Aerial Photo Review

# Lower Afton Road

*Maplewood, Ramsey County, Minnesota*

## Wetland Delineation Report

### 1. WETLAND DELINEATION SUMMARY

- The 88.53-acre Lower Afton Road site was inspected on November 1<sup>st</sup> and 2<sup>nd</sup>, 2023 for the presence and extent of wetland.
- The National Wetlands Inventory (NWI) map showed several excavated open water wetlands (PUBGx/PABGx/PUBFx), a large open water wetland (PABG/PEM1F/PEM1C), and several depressional wetlands (PEM1A) within the review area.
- The soil survey showed Seelyeville muck as the mapped hydric soil type within the review area.
- The DNR Public Waters Inventory identified DNR Public Water Wetland 62-248 W (unnamed) within the review area, two unnamed DNR Public Water Wetlands (62-439 W and 82-440 W) within 1,000 sf of the review area boundaries, and an unnamed DNR Public Water Wetland within 1,200 sf of the eastern review area boundary.
- The National Hydrography Dataset showed five Lake/Pond surface water features within the review area.
- Fourteen (14) wetlands were delineated onsite, as summarized on **Page 6 and 7** of this report. Wetlands 1, 2, 3, 4, 7, and 8 were incidentally created based on the historic aerial review.

### 2. OVERVIEW

The 88.53-acre Lower Afton Road site was inspected on November 1<sup>st</sup> and 2<sup>nd</sup>, 2023 for the presence and extent of wetland. The property was located in Section 12, Township 28 North, Range 22 West, City of Maplewood, Ramsey County, Minnesota. The site was south of Lower Afton Road and north of Linwood Avenue East, along Century Avenue South (CH 25/72) (**Figure 1**). The review area corresponded to portions of Ramsey County PIDs: 122822110002 (297 Century Avenue South; 141.04 acres) and 122822440002 (2621 Linwood Avenue East; 37.06 acres).

The site consisted of an abandoned golf course, associated paved trails, parking lots, and buildings. The site contained several historic and excavated wetlands. The previously managed greenways were dominated by planted turfgrass and several volunteer species, such as common mullein, Canada thistle, crown vetch, and common tansy. Several portions of the site appeared to

have been planted with a native seed mix containing wild bergamot, cup plant, little bluestem, big bluestem, side-oats grama, and Indian grass. Topography on the site peaked in the southwestern portion of the site (1080 ft MSL) and gradually sloped towards to the northwest corner (1010 ft MSL).

Fourteen (14) wetlands were delineated within the site boundaries. The delineated wetland boundaries and existing conditions are shown on **Figures 2, 2A, and 2B**.

**Appendix A** of this report includes a Joint Application Form for Activities Affecting Water Resources in Minnesota, which is submitted in a request for a wetland boundary and type determination approval from the Ramsey-Washington Metro Watershed District under the Minnesota Wetland Conservation Act (WCA). This report also requests incidental determination approval for Wetlands 1, 2, 3, 4, 7, and 8.

### 3. METHODS

#### 3.1 Wetland Delineation

Wetlands were identified using the Routine Determination method described in the Corps of Engineers Wetlands Delineation Manual (Waterways Experiment Station, 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0) as required under Section 404 of the Clean Water Act and the Minnesota Wetland Conservation Act.

Wetland boundaries were identified as the upper-most extent of wetland that met criteria for hydric soils, hydrophytic vegetation, and wetland hydrology. Wetland-upland boundaries were marked with pin flags that were located with handheld GPS units with sub-meter accuracy.

Soils, vegetation, and hydrology were documented at a representative location along the wetland-upland boundary. Plant species dominance was estimated based on the percent aerial or basal coverage visually estimated within a 30-foot radius for trees and vines, a 15-foot radius for the shrub layer, and a 5-foot radius for the herbaceous layer within the community type sampled.

Soils were characterized to a minimum depth of 24 inches (unless otherwise noted) using a Munsell Soil Color Book and standard soil texturing methodology. Hydric soil indicators used are from Field Indicators of Hydric Soils in the United States (USDA Natural Resources Conservation Service (NRCS) in cooperation with the National Technical Committee for Hydric Soils, Version 8.1, 2017).

Mapped soils are separated into five classes based on the composition of hydric components and the Hydric Rating by Map Unit color classes utilized on Web Soil Survey. The five classes include Hydric (100 percent hydric components), Predominantly Hydric (66 to 99 percent hydric components), Partially Hydric (33 to 65 percent hydric components), Predominantly Non-Hydric (1 to 32 percent hydric components), and Non-Hydric (less than one percent hydric components).

Plants were identified using standard regional plant keys. Taxonomy and indicator status of plant species was taken from the 2018 National Wetland Plant List (U.S. Army Corps of Engineers 2018. National Wetland Plant List, version 3.3, Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Hanover, NH).

## 4. RESULTS

### 4.1 Review of NWI, Soils, Public Waters, and NHD Information

The National Wetlands Inventory (NWI) (Minnesota Geospatial Commons 2009-2014 and U.S. Fish and Wildlife Service showed several excavated open water wetlands (PUBGx/PABGx/PUBFx), a large open water wetland (PABG/PEM1F/PEM1C), and several depressional wetlands (PEM1A) within the review area (**Figure 3**).

The Soil Survey (USDA NRCS 2015) showed Seelyeville muck as the mapped hydric soil type within the review area. Soil types mapped on the property are listed in **Table 1**, and a map showing soil types is included in **Figure 4**.

**Table 1. Soil types mapped within the Lower Afton Road review area.**

| Symbol | Map unit name                                | Acres in AOI | Percent of AOI | Rating | Hydric Category          |
|--------|--|--------------|----------------|--------|--------------------------|
| 540    | Seelyeville muck                             | 1.3          | 1.5%           | 100%   | Hydric                   |
| 166    | Ronneby fine sandy loam                      | 0            | 0.0%           | 5%     | Predominantly Non-Hydric |
| 452    | Comstock silt loam, 0 to 3 percent slopes    | 7.2          | 8.1%           | 5%     | Predominantly Non-Hydric |
| 342B   | Kingsley sandy loam, 2 to 6 percent slopes   | 0.2          | 0.2%           | 3%     | Predominantly Non-Hydric |
| 504B   | Duluth silt loam, 1 to 6 percent slopes      | 10.9         | 12.2%          | 3%     | Predominantly Non-Hydric |
| 504C   | Duluth silt loam, 6 to 12 percent slopes     | 10.9         | 12.3%          | 3%     | Predominantly Non-Hydric |
| 504D   | Duluth silt loam, 12 to 25 percent slopes    | 7.9          | 8.9%           | 3%     | Predominantly Non-Hydric |
| 507    | Poskin silt loam                             | 5            | 5.6%           | 3%     | Predominantly Non-Hydric |
| 49C    | Antigo silt loam, 6 to 15 percent slopes     | 1.4          | 1.6%           | 0%     | Non-Hydric               |
| 153B   | Santiago silt loam, 2 to 6 percent slopes    | 22.3         | 25.2%          | 0%     | Non-Hydric               |
| 342C   | Kingsley sandy loam, 6 to 12 percent slopes  | 4            | 4.5%           | 0%     | Non-Hydric               |
| 342E   | Kingsley sandy loam, 18 to 30 percent slopes | 12.9         | 14.5%          | 0%     | Non-Hydric               |
| W      | Water  | 4.8          | 5.4%           | 0%     | Non-Hydric               |

The Minnesota DNR Public Waters Inventory (Minnesota Department of Natural Resources 2015) identified DNR Public Water Wetland 62-248 W (unnamed) within the review area, two unnamed DNR Public Water Wetlands (62-439 W and 82-440 W) within 1,000 sf of the review area boundaries, and an unnamed DNR Public Water Wetland within 1,200 sf of the eastern review area boundary (**Figure 5**).

The National Hydrography Dataset (U.S. Geological Survey 2015) showed five Lake/Pond surface water features within the review area (**Figure 6**).

## **4.2 Wetland Determinations and Delineations**

Potential wetlands were evaluated during field observations on November 1<sup>st</sup> and 2<sup>nd</sup>, 2023. Fourteen (14) wetlands were identified and delineated on the property (**Figure 2**). Corresponding data forms are included in **Appendix B**. The following description of the wetlands and their adjacent upland reflects conditions observed at the time of the field visit. At that time, some vegetation was still growing, while some had senesced. Precipitation conditions were normal (typical) based on the three-month antecedent precipitation data for a date of November 1<sup>st</sup>, 2023, and above the normal range based on the 30-day rolling total. In the two weeks leading up to the site visit, 1.85” of precipitation fell (**Appendix C**). Delineated wetland characteristics are summarized in **Table 2** (see pages 6 and 7).

Table 2. Summary of Delineated Wetlands - Lower Afton Road

| WL ID | Onsite Acreage | Circular 39 | Cowardin            | Eggers and Reed   | Vegetation  | Adjacent Upland Vegetation  | Observed Drainage Features   | Observed Hydrology Indicator/s   | Mapped WTL | Mapped Soil Type & Observed Hydric Indicator  | Incidental Status **                              |
|-------|----------------|-------------|---------------------|---|---|---|--|--|------------|---|---|
| 1     | 0.04           | Type 3/1    | PEM1Cx/Ax           | Excavated shallow marsh with a seasonally flooded portion connected via excavated drainageway #1                      | Dominated by sandbar willow saplings with lesser amounts of cattails, reed canary grass, giant goldenrod.   | Common buckthorn trees/shrubs, Allegheny blackberry, bush clover, Canada thistle, wild bergamot, cup plant, Kentucky bluegrass, and crown vetch.                                      | A culvert inlet to the shallow marsh portion and two culverts on the NW boundary drained the excavated seasonally flooded portion. | Geomorphic Position & FAC-Neutral Test   | None       | Poskin silt loam (Predominantly Non-Hydric) & Santiago silt loam (Non-Hydric); Redox Dark Surface (F6)  | Incidentally Created-Excavated in historic upland |
| 2     | 0.78           | Type 5      | PUBGx               | Excavated shallow open water  | Narrow fringe of narrowleaf cattail, woolgrass, blue vervain, and sandbar willow.   | Kentucky bluegrass, knapweed, wild bergamot, side oats grama, little bluestem, and Canada goldenrod.  | None. No inlets or outlets observed.   | Geomorphic Position & FAC-Neutral Test   | PUBGx      | Poskin silt loam (Predominantly Non-Hydric) & Santiago silt loam (Non-Hydric); Redox Dark Surface (F6)  | Incidentally Created-Excavated in historic upland |
| 3     | 0.77           |             |                     |   |   |   |  |  |            | Poskin silt loam (Predominantly Non-Hydric) & Comstock silt loam (Predominantly Non-Hydric); Redox Dark Surface (F6)  |   |
| 4     | 0.81           | Type 5/3/1  | PABGx/PEM1Cx/PEM1Ax | Excavated shallow open water wetland with a shallow marsh fringe and an excavated seasonally flooded drainageway (#2) | Dominated by sandbar willow shrubs and narrowleaf cattails with lesser amounts of reed canary grass, woolgrass, purple loosestrife, northern bugleweed, and blue vervain.           | Crown vetch, Canada thistle, cup plant, Canada goldenrod, Indian grass, common tansy, wild bergamot, ground ivy, New England aster, common mullein, little bluestem, and bush clover. | A culvert along the northern wetland boundary allows hydrology to outlet.  | High Water Table, Saturation, Dry-Season Water Table, and FAC-Neutral Test                   | PABGx      | Comstock silt loam (Predominantly Non-Hydric) & Santiago silt loam (Non-Hydric); 2cm Muck (A10), Depleted Below Dark Surface (A11), and Redox Dark Surface (F6) | Incidentally Created-Excavated in historic upland |
| 5     | 0.33           | Type 3/1    | PEM1C/A             | Shallow marsh with a seasonally flooded fringe  | Dominated by river bulrush with lesser amounts of reed canary grass, narrowleaf cattail, and Pennsylvania smartweed.  | Red-osier dogwood shrubs, grass-leaved goldenrod, Canada goldenrod, and curly dock.   | Wetland 5 continued slightly offsite to the west.  | Geomorphic Position & FAC-Neutral Test   | PEM1C/A    | Duluth silt loam (Predominantly Non-Hydric); Depleted Below Dark Surface (A11) and Depleted Matrix (F3)   | Historic Wetland                                  |
| 6     | 0.65           | Type 5/2/1  | PABG/PEM1A          | Shallow open water wetland with a wet meadow fringe and a seasonally flooded portion                                  | Primarily open water with a fringe of reed canary grass, devil's beggarticks, river bulrush, and swamp milkweed. The seasonally flooded portion was dominated by reed canary grass. | Kentucky bluegrass, Canada thistle, common tansy, knapweed, and common mullein.   | None. No inlets or outlets observed.   | Geomorphic Position & FAC-Neutral Test   | PUBF/PEM1A | Duluth silt loam (Predominantly Non-Hydric); Depleted Below Dark Surface (A11)  | Historic Wetland                                  |
| 7     | 0.03           | Type 1      | PEM1Ax              | Excavated wet meadow  | Dominated by reed canary grass, pennsylvania smartweed, and woolgrass.  | Kentucky bluegrass, common burdock, witchgrass, red-osier dogwood, big bluestem, sandbar willow, Virginia mountain mint, and Canada goldenrod.  | None. No inlets or outlets observed.   | High Water Table, Saturation, Dry-Season Water Table, Geomorphic Position & FAC-Neutral Test | None       | Santiago silt loam (Non-Hydric); Depleted Matrix (F3)   | Incidentally Created-Excavated in historic upland |
| 8     | 0.23           | Type 5/3    | PEM1Fx/Cx           | Excavated shallow open water wetland with a shallow marsh fringe  | Primarily open water with a fringe of narrowleaf cattail, sandbar willow, eastern cottonwood saplings, reed canary grass, purple loosestrife, and woolgrass.                        | Kentucky bluegrass, crown vetch, big bluestem, wild bergamot, Canada goldenrod, and paper birch trees.  | None. No inlets or outlets observed.   | Geomorphic Position & FAC-Neutral Test   | PUBGFx     | Duluth silt loam (Predominantly Non-Hydric) & Santiago silt loam (Non-Hydric); 2cm Muck (A10) and Depleted Matrix (F3)  | Incidentally Created-Excavated in historic upland |

\*\* Based on historic aerial review

Table 2. Summary of Delineated Wetlands - Lower Afton Road

| WL ID | Onsite Acreage | Circular 39  | Cowardin    | Eggers and Reed   | Vegetation  | Adjacent Upland Vegetation   | Observed Drainage Features                | Observed Hydrology Indicator/s                                    | Mapped NWI WTL   | Mapped Soil Type & Observed Hydric Indicator   | Incidental Status ** |
|-------|----------------|--------------|-------------|---|---|--|---|---|--|--|----------------------|
| 9     | 0.08           | Type 5/2     | PEM1F/B     | Shallow open water with a wet meadow fringe   | Primarily open water wetland with a fringe of reed canary grass, narrowleaf cattail, blue vervain, and devil's beggartick.  | Quaking aspen and northern red oak trees, common buckthorn shrubs, kentucky bluegrass, and reed canary grass.  | Wetland 9 continues offsite to the west.  | Dry-Season Water Table, Geomorphic Position, and FAC-Neutral Test | PUBF/ PEM1A  | Duluth silt loam (Predominantly Non-Hydric) & Kinsley sandy loam (Non-Hydric); 2 cm Muck (A10) and Thick Dark Surface (A12)                  | Historic Wetland     |
| 10    | 0.91           | Type 5/3/2   | PEM1F/C/B   | Shallow open water with a shallow marsh and wet meadow fringe   | Primarily open water with fringe of narrowleaf cattails, smartweed, blue vervain, and reed canary grass.  | Red maple and northern red oak trees, common buckthorn shrubs, Kentucky bluegrass, Canada goldenrod, common mullein, curly dock, Canada thistle, and red-osier dogwood saplings.                   | None. No inlets or outlets observed.      | Dry-Season Water Table, Geomorphic position, and FAC-Neutral Test | PUBGx  | Duluth silt loam (Predominantly Non-Hydric) & Kinsley sand loam (Non-Hydric); Depleted Below Dark Surface (A11)                              | Historic Wetland     |
| 11    | 2.76           | Type 5/3/2   | PEM1F/C/B   | Shallow open water with a shallow marsh and wet meadow fringe   | Primarily open water with a fringe of narrowleaf cattail, river bulrush, devil's beggarticks, soft-stem bulrush, woolgrass, spotted joe-pye weed, blue lobelia, smartweed, blue vervain, sensitive fern, purple loosestrife, red-osier dogwood shrubs, and reed canary grass. | Kentucky bluegrass, smooth brome, common milkweed, New England aster, allegheny blackberry, virginia mountain mint, riverbank grape, common buckthorn shrubs, quaking aspen and paper birch trees. | None. No inlets or outlets observed.      | Geomorphic Position and FAC-Neutral Test                          | PUBGx/ PEM1C/ PEM1A  | Duluth silt loam (Predominantly Non-Hydric); 2 cm Muck (A10) and Thick Dark Surface (A12)  | Historic Wetland     |
| 12    | 5.22           | Type 5/3/2/1 | PEM1F/C/B/A | Shallow open water with a shallow marsh and wet meadow fringe and shallow marsh and seasonally flooded portions | Primarily open water with a fringe of narrowleaf cattail, devil's beggarticks, woolgrass, river bulrush, blue vervain, northern bugleweed, reed canary grass, and purple loosestrife.   | Quaking aspen, northern red oak, and paper birch trees, common buckthorn, smooth sumac, riverbank grape, Kentucky bluegrass, <i>Rubus sp.</i> , Canada goldenrod, and big bluestem.                | Wetland 12 continues offsite to the west. | Dry-Season Water Table, Geomorphic Position, and FAC-Neutral Test | PABG/ PEM1F/ PEM1C/ PEM1A<br>DNR Public Water Wetland 62-248 W | Kingsley sandy loam (Non-Hydric), Duluth silt loam (Predominantly Non-Hydric); Depleted Below Dark Surface (A11) and Redox Dark Surface (F6) | Historic Wetland     |
| 13    | 0.07           | Type 1       | PEM1A       | Seasonally flooded basin  | Dominated by reed canary grass with lesser amounts of Pennsylvania smartweed, curly dock, and Canada thistle.   | Red maple trees, common buckthorn shrubs, Kentucky bluegrass, common tansy, and Canada goldenrod.  | None. No inlets or outlets observed.      | Geomorphic Position and FAC-Neutral Test                          | PEM1A  | Duluth silt loam (Predominantly Non-Hydric) and Kinsley sandy loam (Non-Hydric); Redox Dark Surface (F6)                                     | Historic Wetland     |
| 14    | 0.52           | Type 5/2     | PEM1FxB     | Excavated shallow open water with wet meadow fringe   | Primarily open water with a fringe of river bulrush, reed canary grass, northern bugleweed, Canada thistle, blue flag iris, and devil's beggarticks.  | Paper birch and quaking aspen trees, Kentucky bluegrass, Canada goldenrod, and big bluestem.   | None. No inlets or outlets observed.      | Geomorphic Position and FAC-Neutral Test                          | PABGX  | Duluth silt loam (Predominantly Non-Hydric); Depleted Matrix (F3)  | Historic Wetland     |

\*\* Based on historic aerial review

### 4.3 Historic Aerial Review

A historic aerial review was conducted to determine if any of the fourteen wetlands delineated onsite were excavated in historic upland. Five Ramsey County historic aerial photographs were reviewed (2003, 1991, 1985, 1953, and 1940) (**Appendix D**). The 1991 and prior photographs represent the site before it was developed into a golf course. No wet signatures (soil saturation, standing water, crop stress, etc.) were observed in the current location of Wetlands 1, 2, 3, 4, 7, and 8. These wetlands were determined to be incidental and not regulated by the Wetland Conservation Act.

### 4.4 Other Areas

*Drainageway #1* is located in the northwest corner of the review area and connects the excavated shallow marsh portion to the excavated seasonally flooded portion of Wetland 1 and then outlets under Lower Afton Road. The channel was unvegetated with a rock bottom and uniform slopes.

*Drainageway #2* is an ephemeral drainageway along the eastern boundary. The channel was dominated by reed canary grass with lesser amounts of Canada bluejoint and woolgrass. Riprap was placed intermittently. The drainageway sloped gradually downhill to the excavated shallow open water portion of Wetland 4.

No other depressional areas with hydrophytic vegetation or wetland hydrology were observed on the site. No other areas were shown as hydric soil on the soil survey or as wetland on the NWI map.

### 4.5 Request for Wetland Boundary and Jurisdictional Determination

**Appendix A** of this report includes a Joint Application Form for Activities Affecting Water Resources in Minnesota, which is submitted in a request for a wetland boundary and type determination approval from the Ramsey-Washington Metro Watershed District under the Minnesota Wetland Conservation Act (WCA). This report also requests incidental determinations approval for Wetlands 1, 2, 3, 4, 7, and 8.

## 5. CERTIFICATION OF DELINEATION

The procedures utilized in the described delineation are based on the U.S. Army Corps of Engineers 1987 Wetlands Delineation Manual as required under Section 404 of the Clean Water Act and the Minnesota Wetland Conservation Act. This wetland delineation and report were prepared in compliance with the regulatory standards in place at the time the work was performed. Site boundaries indicated on figures within this report are approximate and do not constitute an official survey product.

Delineation completed by: Mary Clare McAleer, Wetland/Soil Specialist  
Minnesota Certified Wetland Professional In-Training No. 5466

Michael Gurrieri, Wetland Professional In-Training

Report prepared by: Mary Clare McAleer, Wetland/Soil Specialist  
Minnesota Certified Wetland Professional In-Training No. 5466

Report reviewed by:  \_\_\_\_\_ Date: November 17<sup>th</sup>, 2023

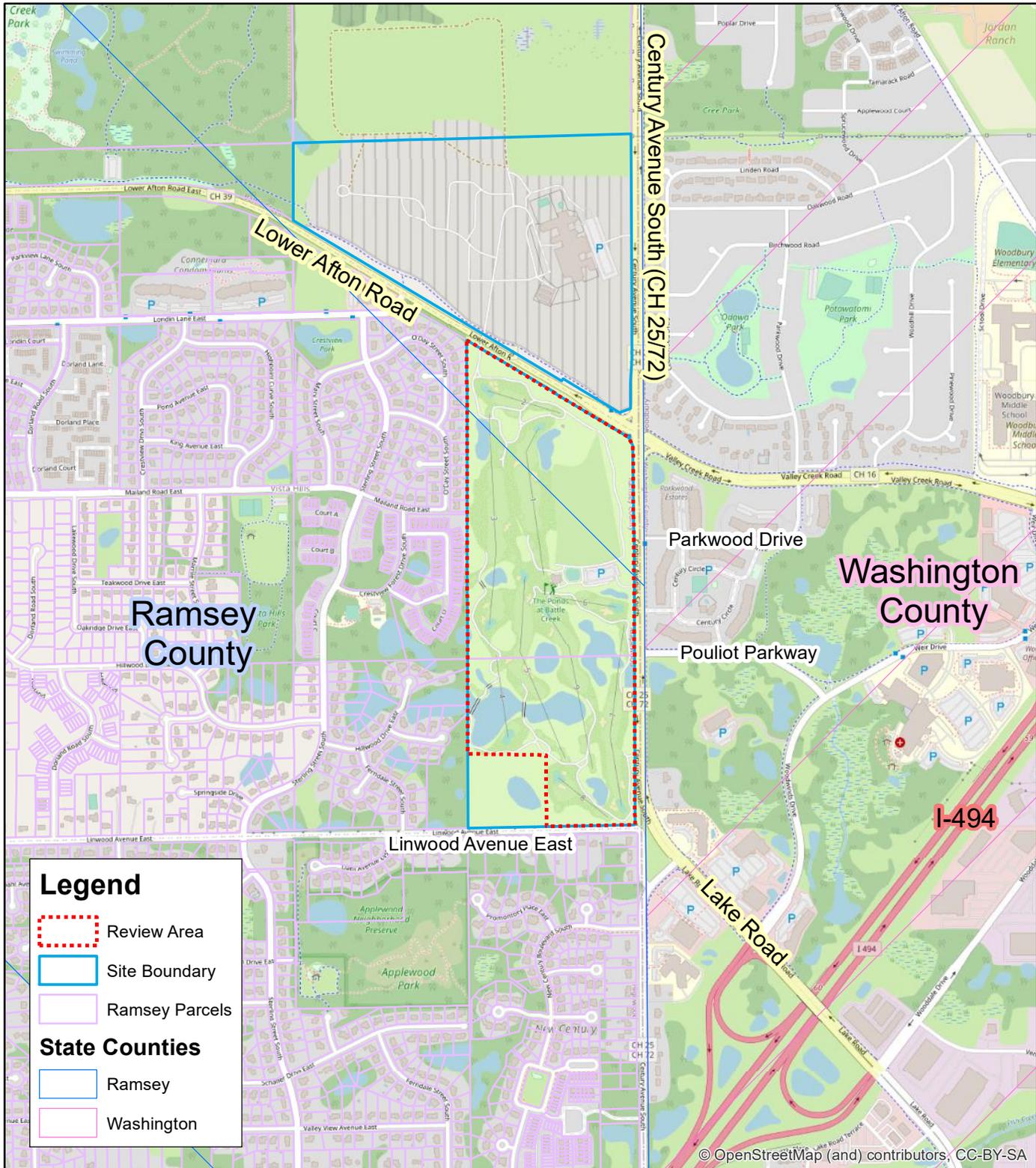
Mark Kjolhaug, Professional Wetland Scientist No. 000845

# **Lower Afton Road**

## **Wetland Delineation Report**

### **FIGURES**

1. Site Location
- 2A. Existing Conditions
- 2B. Existing Conditions North
- 2C. Existing Conditions South
3. National Wetlands Inventory
4. Soil Survey
5. DNR Protected Waters Inventory
6. National Hydrography Dataset



**Figure 1 - Site Location**

0 2,000 Feet

**Lower Afton Road (KES 2023-160)**  
**Maplewood, Minnesota**

Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.

**KJOLHAUG** ENVIRONMENTAL SERVICES COMPANY

Source: OpenStreets Map

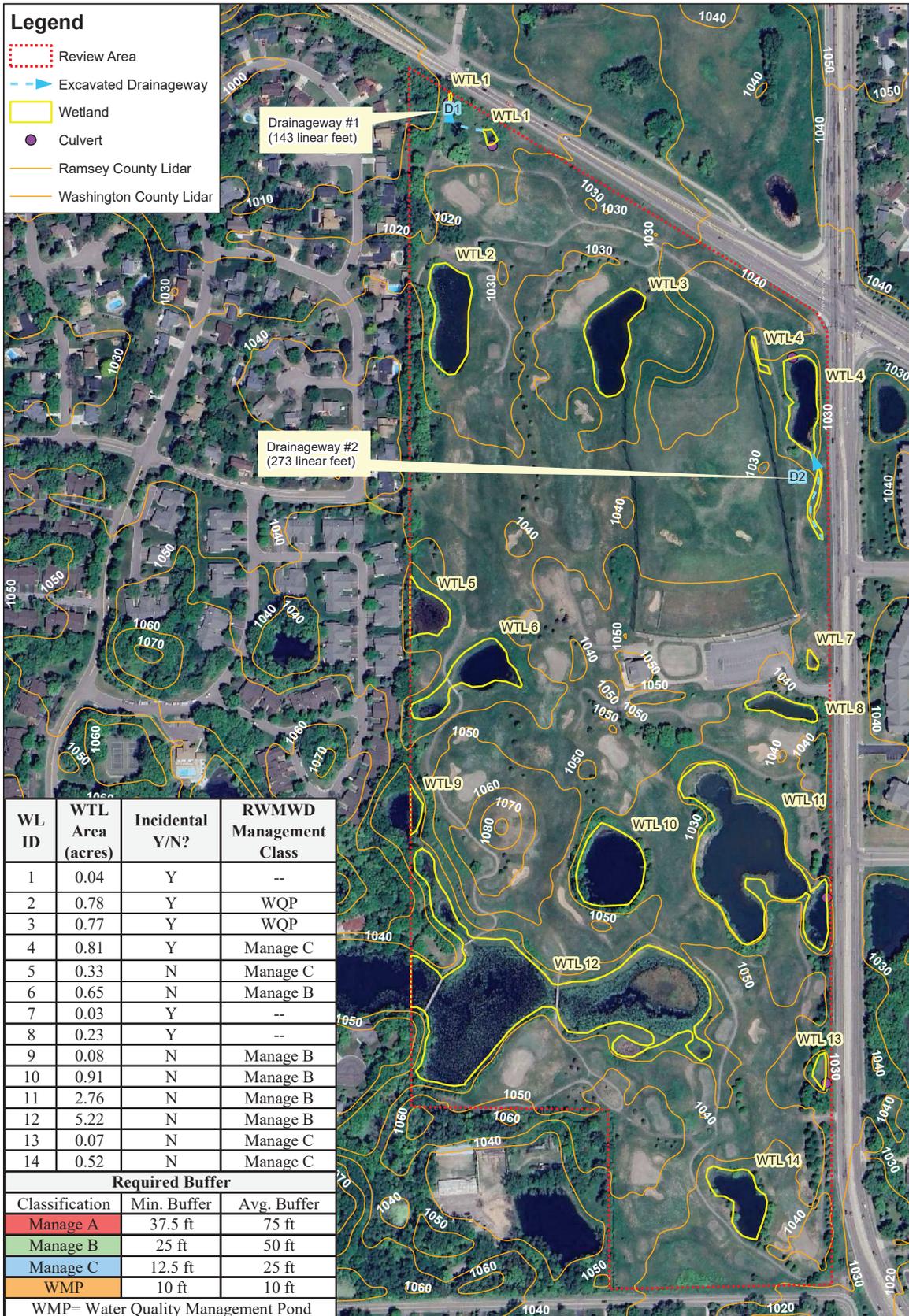


Figure 2A - Existing Conditions (5/25/2023 Google Earth Photo)

**Lower Afton Road (KES 2023-160)**  
Maplewood, Minnesota

Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.

KJØLHAUG ENVIRONMENTAL SERVICES COMPANY



Figure 2B - Existing Conditions North (5/25/2023 Google Earth Photo)

KJOLHAUG ENVIRONMENTAL SERVICES COMPANY

Lower Afton Road (KES 2023-160)  
Maplewood, Minnesota

Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.



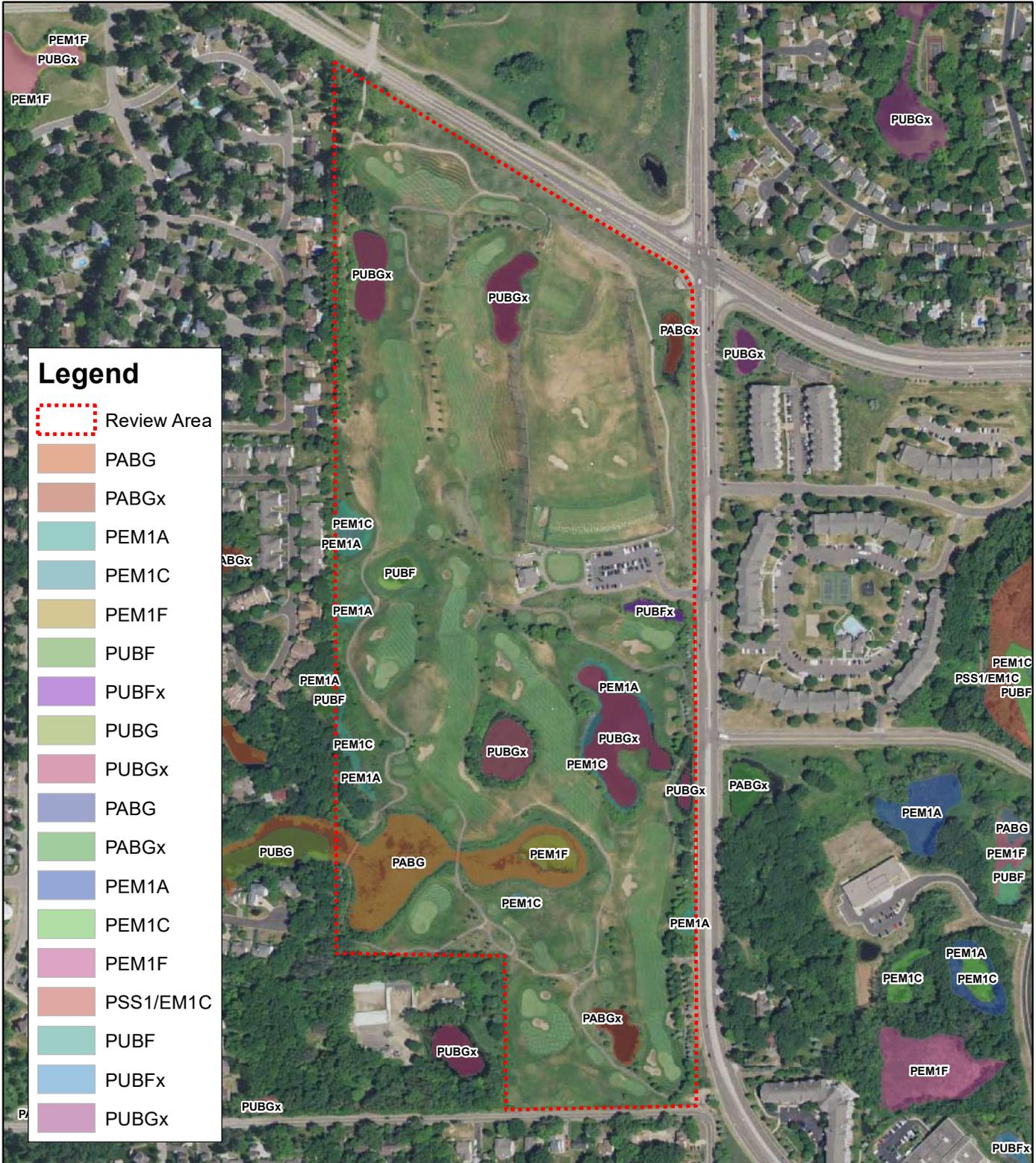
Figure 2C - Existing Conditions South (5/25/2023 Google Earth Photo)

0 600 Feet

Lower Afton Road (KES 2023-160)  
Maplewood, Minnesota

KJOLHAUG ENVIRONMENTAL SERVICES COMPANY

Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.



**Figure 3 - National Wetlands Inventory**



**KJOLHAUG** ENVIRONMENTAL SERVICES COMPANY

Source: MNGEO Spatial Commons, USFWS

0 1,000



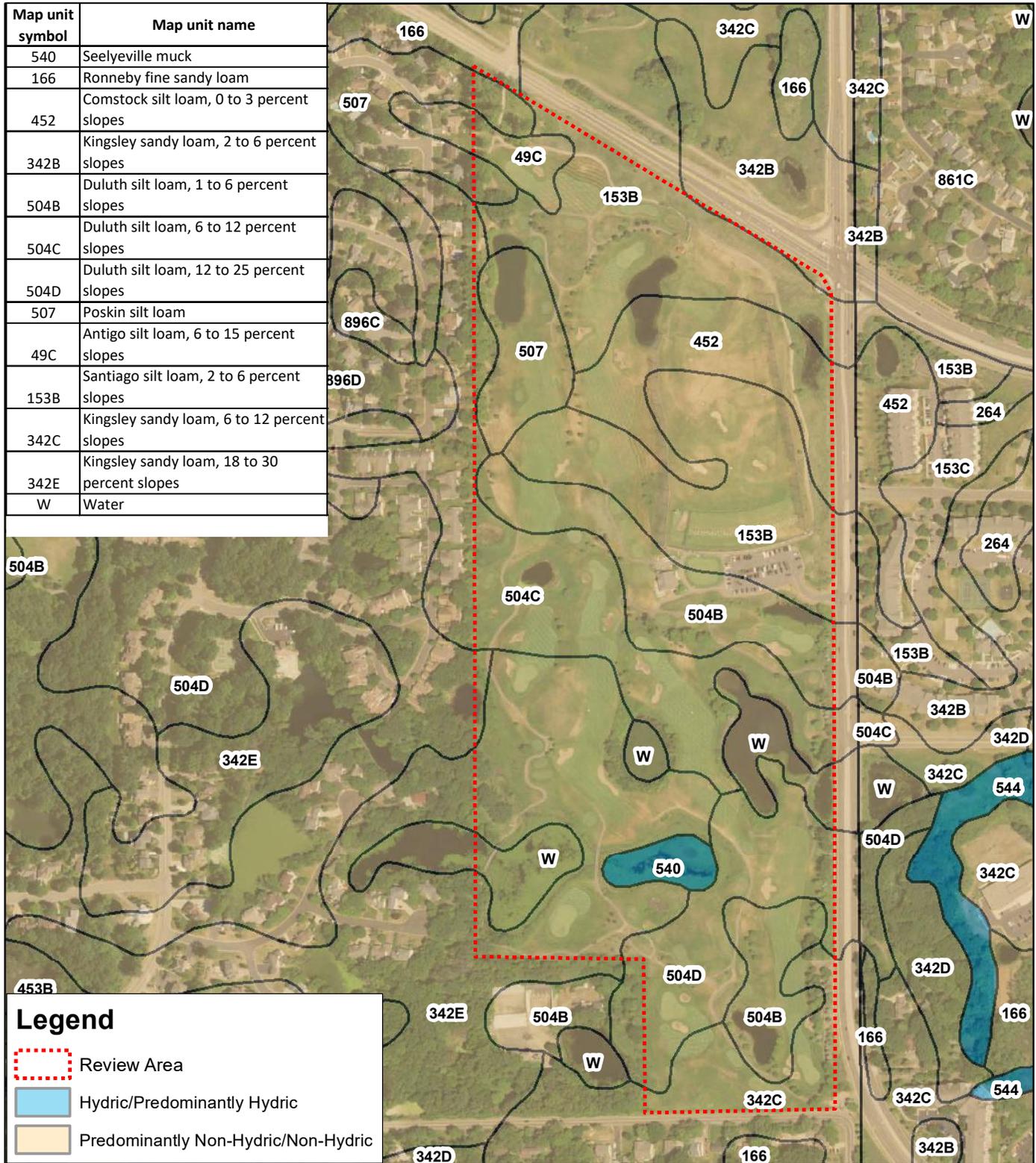
Feet

**Lower Afton Road (KES 2023 -160)**  
**Maplewood, Minnesota**

N



Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.



**Figure 4 - Soil Survey**

0 1,000 Feet

**Lower Afton Road (KES 2023-160)**  
**Maplewood, Minnesota**

Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.

**KJØLHAUG** ENVIRONMENTAL SERVICES COMPANY  
 Source: MNGEO Spatial Commons, USDA, NRCS



**Figure 5 - DNR Public Waters Inventory**

 **KJOLHAUG** ENVIRONMENTAL SERVICES COMPANY  
Source: MNGEO Spatial Commons, MN DNR

N  
0 2,000  
Feet

**Lower Afton Road (KES 2023-160)  
Maplewood, Minnesota**

Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.

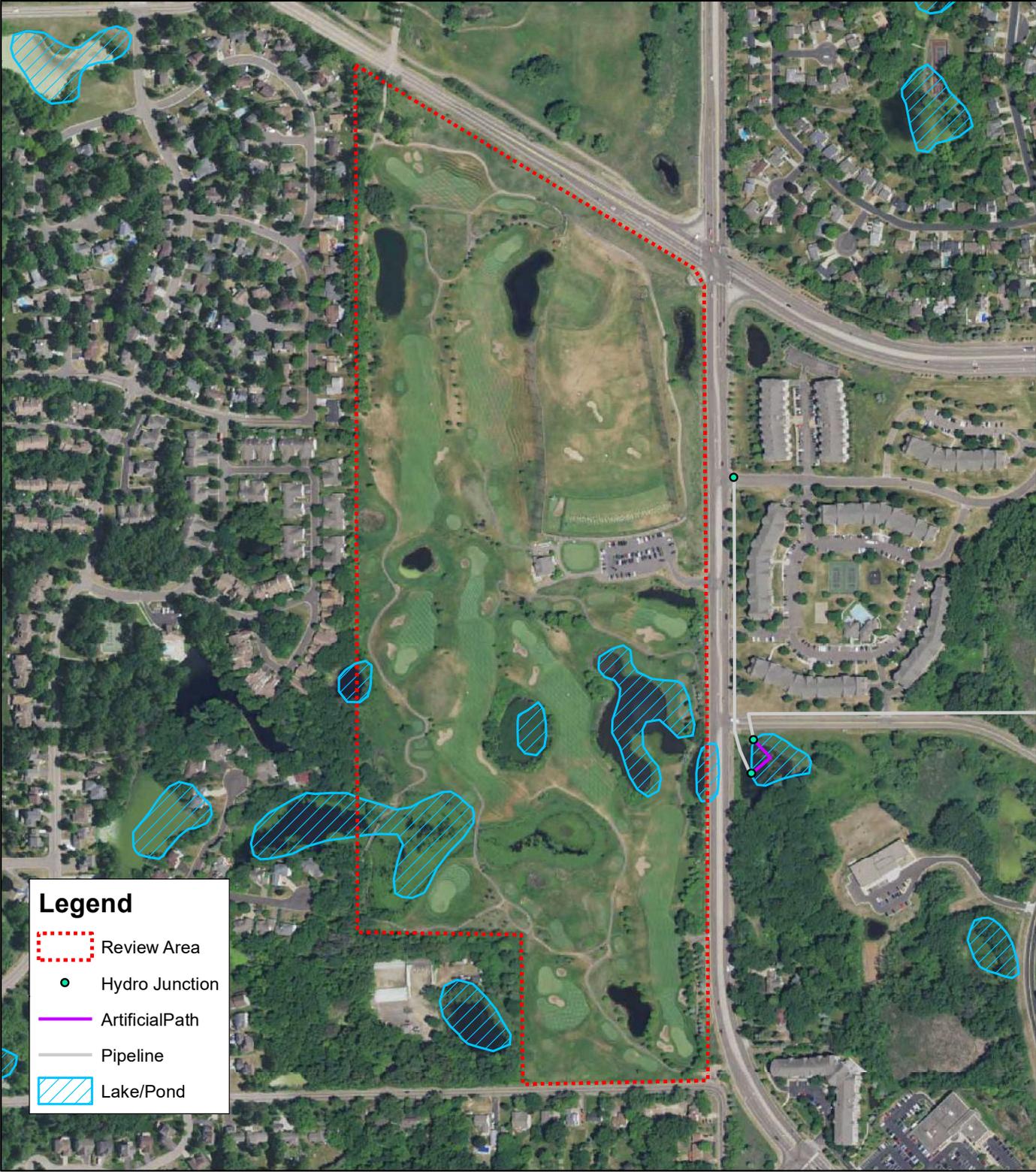


Figure 6 - National Hydrography Dataset



**KJOLHAUG** ENVIRONMENTAL SERVICES COMPANY  
Source: MNGEO Spatial Commons, USGS

N



0 1,000  
Feet



**Lower Afton Road (2023 - 160)  
Maplewood, Minnesota**

Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.

# **Lower Afton Road**

## **Wetland Delineation Report**

### **APPENDIX A**

#### **Joint Application Form for Activities Affecting Water Resources in Minnesota**

Project Name and/or Number: Lower Afton Road (KES# 2023-160)

## PART ONE: Applicant Information

If applicant is an entity (company, government entity, partnership, etc.), an authorized contact person must be identified. If the applicant is using an agent (consultant, lawyer, or other third party) and has authorized them to act on their behalf, the agent's contact information must also be provided.

**Applicant/Landowner Name:** D. R. Horton, Deb Ridgeway  
**Mailing Address:** 20860 Kenbridge Court, Suite 100, Lakeville, MN 55044  
**Phone:** (952) 985-7864  
**E-mail Address:** dridgeway@drhorton.com

**Authorized Contact (do not complete if same as above):**

**Mailing Address:**  
**Phone:**  
**E-mail Address:**

**Agent Name:** Kjolhaug Environmental Services; c/o Mary Clare McAleer  
**Mailing Address:** 2500 Shadywood Road Excelsior, MN 55331  
**Phone:** (224) 456-7944  
**E-mail Address:** maryclare@kjolhaugenv.com

## PART TWO: Site Location Information

**County:** Ramsey **City/Township:** Maplewood  
**Parcel ID and/or Address:** 122822110002 (297 Century Avenue S) and 122822440002 (2621 Linwood Ave E)  
**Legal Description (Section, Township, Range):** S: 12, T: 28N, R: 22W  
**Lat/Long (decimal degrees):** (44.928513, -92.987635)  
**Attach a map showing the location of the site in relation to local streets, roads, highways.**  
**Approximate size of site (acres) or if a linear project, length (feet):** 177.79 acres

If you know that your proposal will require an individual Permit from the U.S. Army Corps of Engineers, you must provide the names and addresses of all property owners adjacent to the project site. This information may be provided by attaching a list to your application or by using block 25 of the Application for Department of the Army permit which can be obtained at:

[http://www.mvp.usace.army.mil/Portals/57/docs/regulatory/RegulatoryDocs/engform\\_4345\\_2012oct.pdf](http://www.mvp.usace.army.mil/Portals/57/docs/regulatory/RegulatoryDocs/engform_4345_2012oct.pdf)

## PART THREE: General Project/Site Information

If this application is related to a delineation approval, exemption determination, jurisdictional determination, or other correspondence submitted *prior to* this application then describe that here and provide the Corps of Engineers project number.

Describe the project that is being proposed, the project purpose and need, and schedule for implementation and completion. The project description must fully describe the nature and scope of the proposed activity including a description of all project elements that effect aquatic resources (wetland, lake, tributary, etc.) and must also include plans and cross section or profile drawings showing the location, character, and dimensions of all proposed activities and aquatic resource impacts.

**Wetland delineation concurrence/approval. Concurrence on incidental determination for Wetland 1, 2, 3, 4, 7, and 8.**

Project Name and/or Number: Lower Afton Road (KES# 2023-160)

## PART FOUR: Aquatic Resource Impact<sup>1</sup> Summary

If your proposed project involves a direct or indirect impact to an aquatic resource (wetland, lake, tributary, etc.) identify each impact in the table below. Include all anticipated impacts, including those expected to be temporary. Attach an overhead view map, aerial photo, and/or drawing showing all of the aquatic resources in the project area and the location(s) of the proposed impacts. Label each aquatic resource on the map with a reference number or letter and identify the impacts in the following table.

| Aquatic Resource ID (as noted on overhead view) | Aquatic Resource Type (wetland, lake, tributary etc.) | Type of Impact (fill, excavate, drain, or remove vegetation) | Duration of Impact Permanent (P) or Temporary (T) <sup>1</sup> | Size of Impact <sup>2</sup> | Overall Size of Aquatic Resource <sup>3</sup> | Existing Plant Community Type(s) in Impact Area <sup>4</sup> | County, Major Watershed #, and Bank Service Area # of Impact Area <sup>5</sup> |
|---|---|--|--|-----------------------------|---|--|--|
|   |   |  |  |                             |   |  |  |
|   |   |  |  |                             |   |  |  |
|   |   |  |  |                             |   |  |  |
|   |   |  |  |                             |   |  |  |
|   |   |  |  |                             |   |  |  |

<sup>1</sup>If impacts are temporary; enter the duration of the impacts in days next to the "T". For example, a project with a temporary access fill that would be removed after 220 days would be entered "T (220)".

<sup>2</sup>Impacts less than 0.01 acre should be reported in square feet. Impacts 0.01 acre or greater should be reported as acres and rounded to the nearest 0.01 acre. Tributary impacts must be reported in linear feet of impact and an area of impact by indicating first the linear feet of impact along the flowline of the stream followed by the area impact in parentheses). For example, a project that impacts 50 feet of a stream that is 6 feet wide would be reported as 50 ft (300 square feet).

<sup>3</sup>This is generally only applicable if you are applying for a de minimis exemption under MN Rules 8420.0420 Subp. 8, otherwise enter "N/A".

<sup>4</sup>Use *Wetland Plants and Plant Community Types of Minnesota and Wisconsin* 3<sup>rd</sup> Ed. as modified in MN Rules 8420.0405 Subp. 2.

<sup>5</sup>Refer to Major Watershed and Bank Service Area maps in MN Rules 8420.0522 Subp. 7.

If any of the above identified impacts have already occurred, identify which impacts they are and the circumstances associated with each:

## PART FIVE: Applicant Signature

Check here if you are requesting a pre-application consultation with the Corps and LGU based on the information you have provided. Regulatory entities will not initiate a formal application review if this box is checked.

By signature below, I attest that the information in this application is complete and accurate. I further attest that I possess the authority to undertake the work described herein.

Signature:  Date: 11/6/2023

I hereby authorize Kjolhaug Environmental Services to act on my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this application.

<sup>1</sup> The term "impact" as used in this joint application form is a generic term used for disclosure purposes to identify activities that may require approval from one or more regulatory agencies. For purposes of this form it is not meant to indicate whether or not those activities may require mitigation/replacement.

Project Name and/or Number: Lower Afton Road (KES# 2023-160)

## Attachment A

# Request for Delineation Review, Wetland Type Determination, or Jurisdictional Determination

By submission of the enclosed wetland delineation report, I am requesting that the U.S. Army Corps of Engineers, St. Paul District (Corps) and/or the Wetland Conservation Act Local Government Unit (LGU) provide me with the following (check all that apply):

**Wetland Type Confirmation**

**Delineation Concurrence.** Concurrence with a delineation is a written notification from the Corps and a decision from the LGU concurring, not concurring, or commenting on the boundaries of the aquatic resources delineated on the property. Delineation concurrences are generally valid for five years unless site conditions change. Under this request alone, the Corps will not address the jurisdictional status of the aquatic resources on the property, only the boundaries of the resources within the review area (including wetlands, tributaries, lakes, etc.).

**Wetland delineation concurrence/approval. Concurrence on incidental determination for Wetland 1, 2, 3, 4, 7, and 8.**

**Preliminary Jurisdictional Determination.** A preliminary jurisdictional determination (PJD) is a non-binding written indication from the Corps that waters, including wetlands, identified on a parcel may be waters of the United States. For purposes of computation of impacts and compensatory mitigation requirements, a permit decision made on the basis of a PJD will treat all waters and wetlands in the review area as if they are jurisdictional waters of the U.S. PJDs are advisory in nature and may not be appealed.

**Approved Jurisdictional Determination.** An approved jurisdictional determination (AJD) is an official Corps determination that jurisdictional waters of the United States are either present or absent on the property. AJDs can generally be relied upon by the affected party for five years. An AJD may be appealed through the Corps administrative appeal process.

In order for the Corps and LGU to process your request, the wetland delineation must be prepared in accordance with the 1987 Corps of Engineers Wetland Delineation Manual, any approved Regional Supplements to the 1987 Manual, and the *Guidelines for Submitting Wetland Delineations in Minnesota* (2013).

<http://www.mvp.usace.army.mil/Missions/Regulatory/DelineationJDGuidance.aspx>

Project Name and/or Number: Lower Afton Road (KES# 2023-160)

## Attachment B

### Supporting Information for Applications Involving Exemptions, No Loss Determinations, and Activities Not Requiring Mitigation

Complete this part *if* you maintain that the identified aquatic resource impacts in Part Four do not require wetland replacement/compensatory mitigation OR *if* you are seeking verification that the proposed water resource impacts are either exempt from replacement or are not under CWA/WCA jurisdiction.

Identify the specific exemption or no-loss provision for which you believe your project or site qualifies:

**Chapter 8420.0105 Subp. 2 D states, "his chapter does not regulate impacts to incidental wetlands. "Incidental wetlands" are wetland areas that the landowner can demonstrate, to the satisfaction of the local government unit, were created in nonwetland areas solely by actions, the purpose of which was not to create the wetland. Incidental wetlands include drainage ditches, impoundments, or excavations constructed in nonwetlands solely for the purpose of effluent treatment, containment of waste material, storm water retention or detention, drainage, soil and water conservation practices, and water quality improvements and not as part of a wetland replacement process that may, over time, take on wetland characteristics."**

Provide a detailed explanation of how your project or site qualifies for the above. Be specific and provide and refer to attachments and exhibits that support your contention. Applicants should refer to rules (e.g. WCA rules), guidance documents (e.g. BWSR guidance, Corps guidance letters/public notices), and permit conditions (e.g. Corps General Permit conditions) to determine the necessary information to support the application. Applicants are strongly encouraged to contact the WCA LGU and Corps Project Manager prior to submitting an application if they are unsure of what type of information to provide:

**See report. Based on the historical aerial review, the current locations of Wetlands 1, 2, 3, 4, 7, and 8 were upland based on the 1940, 1953, 1985, and 1991 Ramsey County Aerial Photography.**

# **Lower Afton Road**

## **Wetland Delineation Report**

### **APPENDIX B**

#### **Wetland Delineation Data Forms**

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site Lower Afton Road City/County: Maplewood/Ramsey Sampling Date: 11/1/2023  
 Applicant/Owner: D.R. Horton State: MN Sampling Point: SP1-1UP  
 Investigator(s): Mary Clare M. & Michael G. Section, Township, Range: S: 12, T:28N, R:22W  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex  
 Slope (%): 2-4% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Poskin silt loam NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? Yes  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? Yes  
 (If needed, explain any answers in remarks.)

**SUMMARY OF FINDINGS**

|  |          |  |
|--|----------|--|
| Hydrophytic vegetation present?          | <u>N</u> | <b>Is the sampled area within a wetland?</b> <u>N</u><br>If yes, optional wetland site ID: _____ |
| Hydric soil present?                     | <u>N</u> |  |
| Indicators of wetland hydrology present? | <u>N</u> |  |

Remarks: (Explain alternative procedures here or in a separate report.)  
 Climatic conditions are typical (normal) based on the gridded database.

**VEGETATION -- Use scientific names of plants.**

| Tree Stratum (Plot size: <u>30 ft.</u> )          | Absolute % Cover | Dominant Species | Indicator Status | <b>Dominance Test Worksheet</b><br>Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)<br>Total Number of Dominant Species Across all Strata: <u>2</u> (B)<br>Percent of Dominant Species that are OBL, FACW, or FAC: <u>50.00%</u> (A/B) |
|---|------------------|------------------|------------------|---|
| 1 _____   | _____            | _____            | _____            |   |
| 2 _____   | _____            | _____            | _____            |   |
| 3 _____   | _____            | _____            | _____            |   |
| 4 _____   | _____            | _____            | _____            |   |
| 5 _____   | _____            | _____            | _____            |   |
| <u>0</u> = Total Cover                            |                  |                  |                  |   |
| Sapling/Shrub stratum (Plot size: <u>15 ft.</u> ) | Absolute % Cover | Dominant Species | Indicator Status |   |
| 1 <u>Rhamnus cathartica</u>                       | <u>15</u>        | <u>Y</u>         | <u>FAC</u>       |   |
| 2 _____   | _____            | _____            | _____            |   |
| 3 _____   | _____            | _____            | _____            |   |
| 4 _____   | _____            | _____            | _____            |   |
| 5 _____   | _____            | _____            | _____            |   |
| <u>15</u> = Total Cover                           |                  |                  |                  |   |
| Herb stratum (Plot size: <u>5 ft.</u> )           | Absolute % Cover | Dominant Species | Indicator Status |   |
| 1 <u>Solidago canadensis</u>                      | <u>40</u>        | <u>Y</u>         | <u>FACU</u>      |   |
| 2 <u>Rhamnus cathartica</u>                       | <u>10</u>        | <u>N</u>         | <u>FAC</u>       |   |
| 3 <u>Cirsium arvense</u>                          | <u>5</u>         | <u>N</u>         | <u>FACU</u>      |   |
| 4 _____   | _____            | _____            | _____            |   |
| 5 _____   | _____            | _____            | _____            |   |
| 6 _____   | _____            | _____            | _____            |   |
| 7 _____   | _____            | _____            | _____            |   |
| 8 _____   | _____            | _____            | _____            |   |
| 9 _____   | _____            | _____            | _____            |   |
| 10 _____  | _____            | _____            | _____            |   |
| <u>55</u> = Total Cover                           |                  |                  |                  |   |
| Woody vine stratum (Plot size: <u>30 ft.</u> )    | Absolute % Cover | Dominant Species | Indicator Status |   |
| 1 _____   | _____            | _____            | _____            |   |
| 2 _____   | _____            | _____            | _____            |   |
| <u>0</u> = Total Cover                            |                  |                  |                  |   |

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ Rapid test for hydrophytic vegetation  
 \_\_\_ Dominance test is >50%  
 \_\_\_ Prevalence index is ≤3.0\*  
 \_\_\_ Morphological adaptations\* (provide supporting data in Remarks or on a separate sheet)  
 \_\_\_ Problematic hydrophytic vegetation\* (explain)  
 \*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

**Hydrophytic vegetation present?** N

Remarks: (Include photo numbers here or on a separate sheet)

**SOIL**

Sampling Point: SP1-1UP

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |       |       |         |         |
|---|---------------|-----|----------------|---|-------|-------|---------|---------|
| Depth (Inches)  | Matrix        |     | Redox Features |   |       |       | Texture | Remarks |
|   | Color (moist) | %   | Color (moist)  | % | Type* | Loc** |         |         |
| 0-12  | 10YR 3/3      | 100 |                |   |       |       | Loam    |         |
| 12-24   | 10YR 3/3      | 95  | 10YR 4/6       | 5 | C     | M     | Loam    |         |
|   |               |     |                |   |       |       |         |         |
|   |               |     |                |   |       |       |         |         |
|   |               |     |                |   |       |       |         |         |
|   |               |     |                |   |       |       |         |         |
|   |               |     |                |   |       |       |         |         |

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

|  |   |  |
|--|---|--|
| <p><b>Hydric Soil Indicators:</b></p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)</p> | <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> | <p><b>Indicators for Problematic Hydric Soils:</b></p> <p><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)</p> <p><input type="checkbox"/> Dark Surface (S7) (LRR K, L)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (explain in remarks)</p> <p><br/></p> <p>*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic</p> |
|--|---|--|

|  |   |
|--|---|
| <p><b>Restrictive Layer (if observed):</b></p> <p>Type: _____</p> <p>Depth (inches): _____</p> | <p><b>Hydric soil present?</b> <u>  N  </u></p> |
|--|---|

Remarks:

**HYDROLOGY**

|   |   |   |
|---|---|---|
| <b>Wetland Hydrology Indicators:</b>  |   |   |
| <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1)</p> <p><input type="checkbox"/> Sediment Deposits (B2)</p> <p><input type="checkbox"/> Drift Deposits (B3)</p> <p><input type="checkbox"/> Algal Mat or Crust (B4)</p> <p><input type="checkbox"/> Iron Deposits (B5)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p> | <p><u>Secondary Indicators (minimum of two required)</u></p> <p><input type="checkbox"/> Aquatic Fauna (B13)</p> <p><input type="checkbox"/> True Aquatic Plants (B14)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Gauge or Well Data (D9)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> | <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Stunted or Stressed Plants (D1)</p> <p><input type="checkbox"/> Geomorphic Position (D2)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p> |

|   |   |
|---|---|
| <p><b>Field Observations:</b></p> <p>Surface water present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water table present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Saturation present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>(includes capillary fringe)</p> | <p><b>Indicators of wetland hydrology present?</b> <u>  N  </u></p> |
|---|---|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
No free water or saturation observed within 24 inches of soil surface.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site Lower Afton Road City/County: Maplewood/Ramsey Sampling Date: 11/1/2023  
 Applicant/Owner: D.R. Horton State: MN Sampling Point: SP1-1W  
 Investigator(s): Mary Clare M. & Michael G. Section, Township, Range: S: 12, T:28N, R:22W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave  
 Slope (%): 0-2% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name Poskin silt loam NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology X significantly disturbed? Are "normal circumstances" present? Yes  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in remarks.)

**SUMMARY OF FINDINGS**

|  |          |   |
|--|----------|---|
| Hydrophytic vegetation present?          | <u>Y</u> | <b>Is the sampled area within a wetland?</b> <u>Y</u><br>if yes, optional wetland site ID: <u>Wetland 1</u> |
| Hydric soil present?                     | <u>Y</u> |   |
| Indicators of wetland hydrology present? | <u>Y</u> |   |

Remarks: (Explain alternative procedures here or in a separate report.)  
 Climatic conditions are typical (normal) based on the gridded database. The hydrology has been disturbed by the excavated portion that drains the shallow marsh portion of Wetland 1. The excavation now represent normal circumstances.

**VEGETATION -- Use scientific names of plants.**

| Tree Stratum                                    | (Plot size: <u>30 ft.</u> ) | Absolute % Cover | Dominant Species | Indicator Status | <b>Dominance Test Worksheet</b><br>Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)<br>Total Number of Dominant Species Across all Strata: <u>1</u> (B)<br>Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)  |
|---|-----------------------------|------------------|------------------|------------------|---|
| 1   |                             |                  |                  |                  |   |
| 2   |                             |                  |                  |                  |   |
| 3   |                             |                  |                  |                  |   |
| 4   |                             |                  |                  |                  |   |
| 5   |                             |                  |                  |                  |   |
|   |                             | <u>0</u>         | = Total Cover    |                  | <b>Prevalence Index Worksheet</b><br>Total % Cover of:<br>OBL species <u>5</u> x 1 = <u>5</u><br>FACW species <u>80</u> x 2 = <u>160</u><br>FAC species <u>0</u> x 3 = <u>0</u><br>FACU species <u>15</u> x 4 = <u>60</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column totals <u>100</u> (A) <u>225</u> (B)<br>Prevalence Index = B/A = <u>2.25</u>   |
| Sapling/Shrub stratum                           | (Plot size: <u>15 ft.</u> ) |                  |                  |                  |   |
| 1   |                             |                  |                  |                  |   |
| 2   |                             |                  |                  |                  |   |
| 3   |                             |                  |                  |                  |   |
| 4   |                             |                  |                  |                  |   |
| 5   |                             |                  |                  |                  |   |
|   |                             | <u>0</u>         | = Total Cover    |                  |   |
| Herb stratum                                    | (Plot size: <u>5 ft.</u> )  |                  |                  |                  |   |
| 1   | <u>Phalaris arundinacea</u> | <u>80</u>        | <u>Y</u>         | <u>FACW</u>      |   |
| 2   | <u>Solidago canadensis</u>  | <u>15</u>        | <u>N</u>         | <u>FACU</u>      |   |
| 3   | <u>Lycopus uniflorus</u>    | <u>5</u>         | <u>N</u>         | <u>OBL</u>       |   |
| 4   |                             |                  |                  |                  |   |
| 5   |                             |                  |                  |                  |   |
| 6   |                             |                  |                  |                  |   |
| 7   |                             |                  |                  |                  |   |
| 8   |                             |                  |                  |                  |   |
| 9   |                             |                  |                  |                  |   |
| 10  |                             |                  |                  |                  |   |
|   |                             | <u>100</u>       | = Total Cover    |                  |   |
| Woody vine stratum                              | (Plot size: <u>30 ft.</u> ) |                  |                  |                  | <b>Hydrophytic Vegetation Indicators:</b><br><u>  </u> Rapid test for hydrophytic vegetation<br><u>X</u> Dominance test is >50%<br><u>X</u> Prevalence index is ≤3.0*<br><br>Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)<br><br>Problematic hydrophytic vegetation* (explain)<br><br>*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic |
| 1   |                             |                  |                  |                  |   |
| 2   |                             |                  |                  |                  |   |
|   |                             | <u>0</u>         | = Total Cover    |                  |   |
| <b>Hydrophytic vegetation present?</b> <u>Y</u> |                             |                  |                  |                  |   |

Remarks: (Include photo numbers here or on a separate sheet)

**SOIL**

Sampling Point: SP1-1W

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |    |       |       |            |         |
|---|---------------|-----|----------------|----|-------|-------|------------|---------|
| Depth (Inches)  | Matrix        |     | Redox Features |    |       |       | Texture    | Remarks |
|   | Color (moist) | %   | Color (moist)  | %  | Type* | Loc** |            |         |
| 0-8   | 10YR 2/2      | 85  | 10YR 4/6       | 15 | C     | M     | Silty Loam |         |
| 8-16  | 10YR 2/1      | 95  | 10YR 4/6       | 5  | C     | M     | Clay Loam  |         |
| 16-24   | 10YR 2/2      | 100 |                |    |       |       | Silty Loam |         |
|   |               |     |                |    |       |       |            |         |
|   |               |     |                |    |       |       |            |         |
|   |               |     |                |    |       |       |            |         |
|   |               |     |                |    |       |       |            |         |

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

|   |  |  |   |  |  |  |  |  |
|---|--|--|---|--|--|--|--|--|
| <b>Hydric Soil Indicators:</b><br><input type="checkbox"/> Histosol (A1)<br><input type="checkbox"/> Histic Epipedon (A2)<br><input type="checkbox"/> Black Histic (A3)<br><input type="checkbox"/> Hydrogen Sulfide (A4)<br><input type="checkbox"/> Stratified Layers (A5)<br><input type="checkbox"/> 2 cm Muck (A10)<br><input type="checkbox"/> Depleted Below Dark Surface (A11)<br><input type="checkbox"/> Thick Dark Surface (A12)<br><input type="checkbox"/> Sandy Mucky Mineral (S1)<br><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) |  |  | <input type="checkbox"/> Sandy Gleyed Matrix (S4)<br><input type="checkbox"/> Sandy Redox (S5)<br><input type="checkbox"/> Stripped Matrix (S6)<br><input type="checkbox"/> Loamy Mucky Mineral (F1)<br><input type="checkbox"/> Loamy Gleyed Matrix (F2)<br><input type="checkbox"/> Depleted Matrix (F3)<br><input checked="" type="checkbox"/> Redox Dark Surface (F6)<br><input type="checkbox"/> Depleted Dark Surface (F7)<br><input type="checkbox"/> Redox Depressions (F8) |  |  | <b>Indicators for Problematic Hydric Soils:</b><br><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)<br><input type="checkbox"/> Dark Surface (S7) (LRR K, L)<br><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)<br><input type="checkbox"/> Very Shallow Dark Surface (TF12)<br><input type="checkbox"/> Other (explain in remarks) |  |  |
| *Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic  |  |  |   |  |  |  |  |  |

|   |                                      |
|---|--------------------------------------|
| <b>Restrictive Layer (if observed):</b><br>Type: _____<br>Depth (inches): _____ | <b>Hydric soil present?</b> <u>Y</u> |
|---|--------------------------------------|

Remarks:

**HYDROLOGY**

|  |   |  |  |  |  |
|--|---|--|--|--|--|
| <b>Wetland Hydrology Indicators:</b><br>Primary Indicators (minimum of one is required; check all that apply)  |   |  | Secondary Indicators (minimum of two required) |  |  |
| <input type="checkbox"/> Surface Water (A1)<br><input type="checkbox"/> High Water Table (A2)<br><input type="checkbox"/> Saturation (A3)<br><input type="checkbox"/> Water Marks (B1)<br><input type="checkbox"/> Sediment Deposits (B2)<br><input type="checkbox"/> Drift Deposits (B3)<br><input type="checkbox"/> Algal Mat or Crust (B4)<br><input type="checkbox"/> Iron Deposits (B5)<br><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)<br><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)<br><input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Aquatic Fauna (B13)<br><input type="checkbox"/> True Aquatic Plants (B14)<br><input type="checkbox"/> Hydrogen Sulfide Odor (C1)<br><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)<br><input type="checkbox"/> Presence of Reduced Iron (C4)<br><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)<br><input type="checkbox"/> Thin Muck Surface (C7)<br><input type="checkbox"/> Gauge or Well Data (D9)<br><input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Surface Soil Cracks (B6)<br><input type="checkbox"/> Drainage Patterns (B10)<br><input type="checkbox"/> Dry-Season Water Table (C2)<br><input type="checkbox"/> Crayfish Burrows (C8)<br><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)<br><input type="checkbox"/> Stunted or Stressed Plants (D1)<br><input checked="" type="checkbox"/> Geomorphic Position (D2)<br><input checked="" type="checkbox"/> FAC-Neutral Test (D5) |  |  |  |

|  |  |
|--|--|
| <b>Field Observations:</b><br>Surface water present? Yes _____ No <u>X</u> Depth (inches): _____<br>Water table present? Yes _____ No <u>X</u> Depth (inches): _____<br>Saturation present? Yes _____ No <u>X</u> Depth (inches): _____<br>(includes capillary fringe) | <b>Indicators of wetland hydrology present?</b> <u>Y</u> |
|--|--|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 No free water or saturation observed within 24 inches of soil surface. The shallow marsh portion had approximately 3 inches of surface water.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site Lower Afton Road City/County: Maplewood/Ramsey Sampling Date: 11/1/2023  
 Applicant/Owner: D.R. Horton State: MN Sampling Point: SP2/3-1Up  
 Investigator(s): Mary Clare M. & Michael G. Section, Township, Range: S: 12, T:28N, R:22W  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Linear  
 Slope (%): 2-6% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name Santiago silt loam NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? Yes  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in remarks.)

**SUMMARY OF FINDINGS**

|  |          |  |
|--|----------|--|
| Hydrophytic vegetation present?          | <u>N</u> | <b>Is the sampled area within a wetland?</b> <u>N</u><br>if yes, optional wetland site ID: _____ |
| Hydric soil present?                     | <u>N</u> |  |
| Indicators of wetland hydrology present? | <u>N</u> |  |

Remarks: (Explain alternative procedures here or in a separate report.)  
 Climatic conditions are typical (normal) based on the gridded database.

**VEGETATION -- Use scientific names of plants.**

| Tree Stratum             | (Plot size: <u>30 ft.</u> )    | Absolute % Cover | Dominant Species | Indicator Status | <b>Dominance Test Worksheet</b><br>Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)<br>Total Number of Dominant Species Across all Strata: <u>2</u> (B)<br>Percent of Dominant Species that are OBL, FACW, or FAC: <u>50.00%</u> (A/B)  |
|--------------------------|--------------------------------|------------------|------------------|------------------|--|
| 1                        | _____                          | _____            | _____            | _____            |  |
| 2                        | _____                          | _____            | _____            | _____            |  |
| 3                        | _____                          | _____            | _____            | _____            |  |
| 4                        | _____                          | _____            | _____            | _____            |  |
| 5                        | _____                          | _____            | _____            | _____            |  |
| <u>0</u> = Total Cover   |                                |                  |                  |                  | <b>Prevalence Index Worksheet</b><br>Total % Cover of:<br>OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>50</u> x 3 = <u>150</u><br>FACU species <u>50</u> x 4 = <u>200</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column totals <u>100</u> (A) <u>350</u> (B)<br>Prevalence Index = B/A = <u>3.50</u>   |
| Sapling/Shrub stratum    | (Plot size: <u>15 ft.</u> )    |                  |                  |                  |  |
| 1                        | _____                          | _____            | _____            | _____            |  |
| 2                        | _____                          | _____            | _____            | _____            |  |
| 3                        | _____                          | _____            | _____            | _____            |  |
| 4                        | _____                          | _____            | _____            | _____            |  |
| 5                        | _____                          | _____            | _____            | _____            |  |
| <u>0</u> = Total Cover   |                                |                  |                  |                  |  |
| Herb stratum             | (Plot size: <u>5 ft.</u> )     |                  |                  |                  |  |
| 1                        | <u>Poa pratensis</u>           | <u>50</u>        | <u>Y</u>         | <u>FAC</u>       |  |
| 2                        | <u>Solidago canadensis</u>     | <u>25</u>        | <u>Y</u>         | <u>FACU</u>      |  |
| 3                        | <u>Monarda fistulosa</u>       | <u>10</u>        | <u>N</u>         | <u>FACU</u>      |  |
| 4                        | <u>Schizachyrium scoparium</u> | <u>10</u>        | <u>N</u>         | <u>FACU</u>      |  |
| 5                        | <u>Bouteloua dactyloides</u>   | <u>5</u>         | <u>N</u>         | <u>FACU</u>      |  |
| 6                        | _____                          | _____            | _____            | _____            |  |
| 7                        | _____                          | _____            | _____            | _____            |  |
| 8                        | _____                          | _____            | _____            | _____            |  |
| 9                        | _____                          | _____            | _____            | _____            |  |
| 10                       | _____                          | _____            | _____            | _____            |  |
| <u>100</u> = Total Cover |                                |                  |                  |                  |  |
| Woody vine stratum       | (Plot size: <u>30 ft.</u> )    |                  |                  |                  | <b>Hydrophytic Vegetation Indicators:</b><br>____ Rapid test for hydrophytic vegetation<br>____ Dominance test is >50%<br>____ Prevalence index is ≤3.0*<br>____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)<br>____ Problematic hydrophytic vegetation* (explain)<br>____<br>*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic |
| 1                        | _____                          | _____            | _____            | _____            |  |
| 2                        | _____                          | _____            | _____            | _____            |  |
| <u>0</u> = Total Cover   |                                |                  |                  |                  |  |

Remarks: (Include photo numbers here or on a separate sheet)

**SOIL**

Sampling Point: SP2/3-1Up

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |    |       |       |            |                   |
|---|---------------|-----|----------------|----|-------|-------|------------|-------------------|
| Depth (Inches)  | Matrix        |     | Redox Features |    |       |       | Texture    | Remarks           |
|   | Color (moist) | %   | Color (moist)  | %  | Type* | Loc** |            |                   |
| 0-12  | 10YR 2/2      | 100 |                |    |       |       | Clay loam  |                   |
| 12-24   | 10YR 2/2      | 90  | 10YR 4/6       | 10 | C     | M     | Sandy loam | Gravel inclusions |
|   |               |     |                |    |       |       |            |                   |
|   |               |     |                |    |       |       |            |                   |
|   |               |     |                |    |       |       |            |                   |
|   |               |     |                |    |       |       |            |                   |
|   |               |     |                |    |       |       |            |                   |
|   |               |     |                |    |       |       |            |                   |

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

|  |   |  |
|--|---|--|
| <p><b>Hydric Soil Indicators:</b></p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)</p> | <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> | <p><b>Indicators for Problematic Hydric Soils:</b></p> <p><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)</p> <p><input type="checkbox"/> Dark Surface (S7) (LRR K, L)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (explain in remarks)</p> <p><br/></p> <p>*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic</p> |
|--|---|--|

|  |   |
|--|---|
| <p><b>Restrictive Layer (if observed):</b></p> <p>Type: _____</p> <p>Depth (inches): _____</p> | <p><b>Hydric soil present?</b> <u>  N  </u></p> |
|--|---|

Remarks:

**HYDROLOGY**

|   |   |
|---|---|
| <b>Wetland Hydrology Indicators:</b>  |   |
| <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1)</p> <p><input type="checkbox"/> Sediment Deposits (B2)</p> <p><input type="checkbox"/> Drift Deposits (B3)</p> <p><input type="checkbox"/> Algal Mat or Crust (B4)</p> <p><input type="checkbox"/> Iron Deposits (B5)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p> | <p><u>Secondary Indicators (minimum of two required)</u></p> <p><input type="checkbox"/> Aquatic Fauna (B13)</p> <p><input type="checkbox"/> True Aquatic Plants (B14)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Gauge or Well Data (D9)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> |

|   |   |
|---|---|
| <p><b>Field Observations:</b></p> <p>Surface water present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water table present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Saturation present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>(includes capillary fringe)</p> | <p><b>Indicators of wetland hydrology present?</b> <u>  N  </u></p> |
|---|---|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
No free water or saturation observed within 24 inches of the soil surface.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site Lower Afton Road City/County: Maplewood/Ramsey Sampling Date: 11/1/2023  
 Applicant/Owner: D.R. Horton State: MN Sampling Point: SP2/3-1W  
 Investigator(s): Mary Clare M. & Michael G. Section, Township, Range: S: 12, T:28N, R:22W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave  
 Slope (%): 1 to 3% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Santiago silt loam NWI Classification: PUBGx

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? Yes  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in remarks.)

**SUMMARY OF FINDINGS**

|  |          |   |
|--|----------|---|
| Hydrophytic vegetation present?          | <u>Y</u> | <b>Is the sampled area within a wetland?</b> <u>Y</u><br>if yes, optional wetland site ID: <u>Wetland 2/3</u> |
| Hydric soil present?                     | <u>Y</u> |   |
| Indicators of wetland hydrology present? | <u>Y</u> |   |

Remarks: (Explain alternative procedures here or in a separate report.)  
 Climatic conditions are typical (normal) based on the gridded database.

**VEGETATION -- Use scientific names of plants.**

| Tree Stratum          | (Plot size: <u>30 ft.</u> ) | Absolute % Cover | Dominant Species | Indicator Status | <b>Dominance Test Worksheet</b><br>Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)<br>Total Number of Dominant Species Across all Strata: <u>1</u> (B)<br>Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)   |
|-----------------------|-----------------------------|------------------|------------------|------------------|--|
| 1                     |                             |                  |                  |                  |  |
| 2                     |                             |                  |                  |                  |  |
| 3                     |                             |                  |                  |                  |  |
| 4                     |                             |                  |                  |                  |  |
| 5                     |                             |                  |                  |                  |  |
|                       |                             | <u>0</u>         | = Total Cover    |                  |  |
| Sapling/Shrub stratum | (Plot size: <u>15 ft.</u> ) |                  |                  |                  | <b>Prevalence Index Worksheet</b><br>Total % Cover of:<br>OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>90</u> x 2 = <u>180</u><br>FAC species <u>0</u> x 3 = <u>0</u><br>FACU species <u>0</u> x 4 = <u>0</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column totals <u>90</u> (A) <u>180</u> (B)<br>Prevalence Index = B/A = <u>2.00</u> |
| 1                     |                             |                  |                  |                  |  |
| 2                     |                             |                  |                  |                  |  |
| 3                     |                             |                  |                  |                  |  |
| 4                     |                             |                  |                  |                  |  |
| 5                     |                             |                  |                  |                  |  |
|                       |                             | <u>0</u>         | = Total Cover    |                  |  |
| Herb stratum          | (Plot size: <u>5 ft.</u> )  |                  |                  |                  |  |
| 1                     | <u>Phalaris arundinacea</u> | <u>80</u>        | <u>Y</u>         | <u>FACW</u>      |  |
| 2                     | <u>Salix interior</u>       | <u>10</u>        | <u>N</u>         | <u>FACW</u>      |  |
| 3                     |                             |                  |                  |                  |  |
| 4                     |                             |                  |                  |                  |  |
| 5                     |                             |                  |                  |                  |  |
| 6                     |                             |                  |                  |                  |  |
| 7                     |                             |                  |                  |                  |  |
| 8                     |                             |                  |                  |                  |  |
| 9                     |                             |                  |                  |                  |  |
| 10                    |                             |                  |                  |                  |  |
|                       |                             | <u>90</u>        | = Total Cover    |                  |  |
| Woody vine stratum    | (Plot size: <u>30 ft.</u> ) |                  |                  |                  |  |
| 1                     |                             |                  |                  |                  |  |
| 2                     |                             |                  |                  |                  |  |
|                       |                             | <u>0</u>         | = Total Cover    |                  |  |

Remarks: (Include photo numbers here or on a separate sheet)

**SOIL**

Sampling Point: SP2/3-1W

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |       |       |         |         |
|---|---------------|-----|----------------|---|-------|-------|---------|---------|
| Depth (Inches)  | Matrix        |     | Redox Features |   |       |       | Texture | Remarks |
|   | Color (moist) | %   | Color (moist)  | % | Type* | Loc** |         |         |
| 0-6   | 10YR 2/2      | 100 |                |   |       |       | Loam    |         |
| 6-16  | 10YR 2/2      | 95  | 10YR 4/6       | 5 | C     | M     | Loam    |         |
|   |               |     |                |   |       |       |         |         |
|   |               |     |                |   |       |       |         |         |
|   |               |     |                |   |       |       |         |         |
|   |               |     |                |   |       |       |         |         |
|   |               |     |                |   |       |       |         |         |

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

|  |  |  |
|--|--|--|
| <p><b>Hydric Soil Indicators:</b></p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)</p> | <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input checked="" type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> | <p><b>Indicators for Problematic Hydric Soils:</b></p> <p><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)</p> <p><input type="checkbox"/> Dark Surface (S7) (LRR K, L)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (explain in remarks)</p> <p><br/></p> <p>*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic</p> |
|--|--|--|

|  |   |
|--|---|
| <p><b>Restrictive Layer (if observed):</b></p> <p>Type: _____</p> <p>Depth (inches): _____</p> | <p><b>Hydric soil present?</b> <u>Y</u></p> |
|--|---|

Remarks:

**HYDROLOGY**

|   |  |   |
|---|--|---|
| <b>Wetland Hydrology Indicators:</b>  |  |   |
| <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1)</p> <p><input type="checkbox"/> Sediment Deposits (B2)</p> <p><input type="checkbox"/> Drift Deposits (B3)</p> <p><input type="checkbox"/> Algal Mat or Crust (B4)</p> <p><input type="checkbox"/> Iron Deposits (B5)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p> | <p><input type="checkbox"/> Aquatic Fauna (B13)</p> <p><input type="checkbox"/> True Aquatic Plants (B14)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Gauge or Well Data (D9)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> | <p><u>Secondary Indicators (minimum of two required)</u></p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input checked="" type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Stunted or Stressed Plants (D1)</p> <p><input checked="" type="checkbox"/> Geomorphic Position (D2)</p> <p><input checked="" type="checkbox"/> FAC-Neutral Test (D5)</p> |

|   |   |
|---|---|
| <p><b>Field Observations:</b></p> <p>Surface water present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water table present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>12</u></p> <p>Saturation present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>12</u></p> <p>(includes capillary fringe)</p> | <p><b>Indicators of wetland hydrology present?</b> <u>Y</u></p> |
|---|---|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Free water observed within 12 inches of the soil surface. Surface water was observed within the center of the basin.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site Lower Afton Road City/County: Maplewood/Ramsey Sampling Date: 11/1/2023  
 Applicant/Owner: D.R. Horton State: MN Sampling Point: SP4-1Up  
 Investigator(s): Mary Clare M. & Michael G. Section, Township, Range: S: 12, T:28N, R:22W  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Linear  
 Slope (%): 2 to 4% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name Comstock silt loam NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? Yes  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? Yes  
 (If needed, explain any answers in remarks.)

**SUMMARY OF FINDINGS**

|  |          |  |
|--|----------|--|
| Hydrophytic vegetation present?          | <u>N</u> | <b>Is the sampled area within a wetland?</b> <u>N</u><br>if yes, optional wetland site ID: _____ |
| Hydric soil present?                     | <u>N</u> |  |
| Indicators of wetland hydrology present? | <u>N</u> |  |

Remarks: (Explain alternative procedures here or in a separate report.)  
 Climatic conditions are typical (normal) based on the gridded database.

**VEGETATION -- Use scientific names of plants.**

| Tree Stratum (Plot size: <u>30 ft.</u> )                 | Absolute % Cover | Dominant Species | Indicator Status | <b>Dominance Test Worksheet</b><br>Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)<br>Total Number of Dominant Species Across all Strata: <u>3</u> (B)<br>Percent of Dominant Species that are OBL, FACW, or FAC: <u>33.33%</u> (A/B)  |
|--|------------------|------------------|------------------|--|
| 1 <u>Betula papyrifera</u>                               | <u>10</u>        | <u>Y</u>         | <u>FACU</u>      |  |
| 2 _____  | _____            | _____            | _____            | <b>Prevalence Index Worksheet</b><br>Total % Cover of:<br>OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>3</u> x 2 = <u>6</u><br>FAC species <u>60</u> x 3 = <u>180</u><br>FACU species <u>60</u> x 4 = <u>240</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column totals <u>123</u> (A) <u>426</u> (B)<br>Prevalence Index = B/A = <u>3.46</u>   |
| 3 _____  | _____            | _____            | _____            |  |
| 4 _____  | _____            | _____            | _____            |  |
| 5 _____  | _____            | _____            | _____            |  |
| <u>10</u> = Total Cover                                  |                  |                  |                  |  |
| <b>Sapling/Shrub stratum</b> (Plot size: <u>15 ft.</u> ) |                  |                  |                  | <b>Hydrophytic Vegetation Indicators:</b><br>_____ Rapid test for hydrophytic vegetation<br>_____ Dominance test is >50%<br>_____ Prevalence index is ≤3.0*<br>_____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)<br>_____ Problematic hydrophytic vegetation* (explain)<br>_____<br>*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic |
| 1 _____  | _____            | _____            | _____            |  |
| 2 _____  | _____            | _____            | _____            |  |
| 3 _____  | _____            | _____            | _____            |  |
| 4 _____  | _____            | _____            | _____            |  |
| 5 _____  | _____            | _____            | _____            |  |
| <u>0</u> = Total Cover                                   |                  |                  |                  |  |
| <b>Herb stratum</b> (Plot size: <u>5 ft.</u> )           |                  |                  |                  |  |
| 1 <u>Poa pratensis</u>                                   | <u>60</u>        | <u>Y</u>         | <u>FAC</u>       |  |
| 2 <u>Lotus corniculatus</u>                              | <u>30</u>        | <u>Y</u>         | <u>FACU</u>      |  |
| 3 <u>Schizachyrium scoparium</u>                         | <u>15</u>        | <u>N</u>         | <u>FACU</u>      |  |
| 4 <u>Solidago canadensis</u>                             | <u>5</u>         | <u>N</u>         | <u>FACU</u>      |  |
| 5 <u>Symphotrichum novae-angliae</u>                     | <u>3</u>         | <u>N</u>         | <u>FACW</u>      |  |
| 6 _____  | _____            | _____            | _____            |  |
| 7 _____  | _____            | _____            | _____            |  |
| 8 _____  | _____            | _____            | _____            |  |
| 9 _____  | _____            | _____            | _____            |  |
| 10 _____   | _____            | _____            | _____            |  |
| <u>113</u> = Total Cover                                 |                  |                  |                  |  |
| <b>Woody vine stratum</b> (Plot size: <u>30 ft.</u> )    |                  |                  |                  | <b>Hydrophytic vegetation present?</b> <u>N</u>  |
| 1 _____  | _____            | _____            | _____            |  |
| 2 _____  | _____            | _____            | _____            |  |
| <u>0</u> = Total Cover                                   |                  |                  |                  |  |

Remarks: (Include photo numbers here or on a separate sheet)

**SOIL**

Sampling Point: SP4-1Up

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |       |       |            |         |
|---|---------------|-----|----------------|---|-------|-------|------------|---------|
| Depth (Inches)  | Matrix        |     | Redox Features |   |       |       | Texture    | Remarks |
|   | Color (moist) | %   | Color (moist)  | % | Type* | Loc** |            |         |
| 0-12  | 10YR 3/1      | 100 |                |   |       |       | Slity loam |         |
| 12-24   | 10YR 3/3      | 95  | 10Y/R 4/6      | 5 | C     | M     | Loam       |         |
|   |               |     |                |   |       |       |            |         |
|   |               |     |                |   |       |       |            |         |
|   |               |     |                |   |       |       |            |         |
|   |               |     |                |   |       |       |            |         |
|   |               |     |                |   |       |       |            |         |

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

|   |  |  |  |  |  |
|---|--|--|--|--|--|
| <b>Hydric Soil Indicators:</b><br><input type="checkbox"/> Histosol (A1)<br><input type="checkbox"/> Histic Epipedon (A2)<br><input type="checkbox"/> Black Histic (A3)<br><input type="checkbox"/> Hydrogen Sulfide (A4)<br><input type="checkbox"/> Stratified Layers (A5)<br><input type="checkbox"/> 2 cm Muck (A10)<br><input type="checkbox"/> Depleted Below Dark Surface (A11)<br><input type="checkbox"/> Thick Dark Surface (A12)<br><input type="checkbox"/> Sandy Mucky Mineral (S1)<br><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) |  | <input type="checkbox"/> Sandy Gleyed Matrix (S4)<br><input type="checkbox"/> Sandy Redox (S5)<br><input type="checkbox"/> Stripped Matrix (S6)<br><input type="checkbox"/> Loamy Mucky Mineral (F1)<br><input type="checkbox"/> Loamy Gleyed Matrix (F2)<br><input type="checkbox"/> Depleted Matrix (F3)<br><input type="checkbox"/> Redox Dark Surface (F6)<br><input type="checkbox"/> Depleted Dark Surface (F7)<br><input type="checkbox"/> Redox Depressions (F8) |  | <b>Indicators for Problematic Hydric Soils:</b><br><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)<br><input type="checkbox"/> Dark Surface (S7) (LRR K, L)<br><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)<br><input type="checkbox"/> Very Shallow Dark Surface (TF12)<br><input type="checkbox"/> Other (explain in remarks) |  |
|---|--|--|--|--|--|

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

|   |  |
|---|--|
| <b>Restrictive Layer (if observed):</b><br>Type: _____<br>Depth (inches): _____ | <b>Hydric soil present?</b> <u>  N  </u> |
|---|--|

Remarks:

**HYDROLOGY**

|   |   |  |  |  |  |
|---|---|--|--|--|--|
| <b>Wetland Hydrology Indicators:</b><br>Primary Indicators (minimum of one is required; check all that apply) |   |  | Secondary Indicators (minimum of two required) |  |  |
| <input type="checkbox"/> Surface Water (A1)   | <input type="checkbox"/> Aquatic Fauna (B13)                        | <input type="checkbox"/> Surface Soil Cracks (B6)                  |  |  |  |
| <input type="checkbox"/> High Water Table (A2)  | <input type="checkbox"/> True Aquatic Plants (B14)                  | <input type="checkbox"/> Drainage Patterns (B10)                   |  |  |  |
| <input type="checkbox"/> Saturation (A3)  | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                 | <input type="checkbox"/> Dry-Season Water Table (C2)               |  |  |  |
| <input type="checkbox"/> Water Marks (B1)   | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) | <input type="checkbox"/> Crayfish Burrows (C8)                     |  |  |  |
| <input type="checkbox"/> Sediment Deposits (B2)   | <input type="checkbox"/> Presence of Reduced Iron (C4)              | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |  |  |  |
| <input type="checkbox"/> Drift Deposits (B3)  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Stunted or Stressed Plants (D1)           |  |  |  |
| <input type="checkbox"/> Algal Mat or Crust (B4)  | <input type="checkbox"/> Thin Muck Surface (C7)                     | <input type="checkbox"/> Geomorphic Position (D2)                  |  |  |  |
| <input type="checkbox"/> Iron Deposits (B5)   | <input type="checkbox"/> Gauge or Well Data (D9)                    | <input type="checkbox"/> FAC-Neutral Test (D5)                     |  |  |  |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)  | <input type="checkbox"/> Other (Explain in Remarks)                 |  |  |  |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)  |   |  |  |  |  |
| <input type="checkbox"/> Water-Stained Leaves (B9)  |   |  |  |  |  |

|  |  |
|--|--|
| <b>Field Observations:</b><br>Surface water present? Yes _____ No <u>  X  </u> Depth (inches): _____<br>Water table present? Yes _____ No <u>  X  </u> Depth (inches): _____<br>Saturation present? Yes _____ No <u>  X  </u> Depth (inches): _____<br>(includes capillary fringe) | <b>Indicators of wetland hydrology present?</b> <u>  N  </u> |
|--|--|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 No free water or saturation observed within 24 inches of soil surface.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site Lower Afton Road City/County: Maplewood/Ramsey Sampling Date: 11/1/2023  
 Applicant/Owner: D.R. Horton State: MN Sampling Point: SP4-1W  
 Investigator(s): Mary Clare M. & Michael G. Section, Township, Range: S: 12, T:28N, R:22W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave  
 Slope (%): 1-3% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name Comstock silt loam NWI Classification: PABGx

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? Yes  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in remarks.)

**SUMMARY OF FINDINGS**

|  |          |   |
|--|----------|---|
| Hydrophytic vegetation present?          | <u>Y</u> | <b>Is the sampled area within a wetland?</b> <u>Y</u><br>if yes, optional wetland site ID: <u>Wetland 4</u> |
| Hydric soil present?                     | <u>Y</u> |   |
| Indicators of wetland hydrology present? | <u>Y</u> |   |

Remarks: (Explain alternative procedures here or in a separate report.)  
 Climatic conditions are typical (normal) based on the gridded database.

**VEGETATION -- Use scientific names of plants.**

| Tree Stratum   | (Plot size: <u>30 ft.</u> )       | Absolute % Cover | Dominant Species | Indicator Status | <b>Dominance Test Worksheet</b><br>Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)<br>Total Number of Dominant Species Across all Strata: <u>1</u> (B)<br>Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)   |
|--|-----------------------------------|------------------|------------------|------------------|--|
| 1  |                                   |                  |                  |                  |  |
| 2  |                                   |                  |                  |                  |  |
| 3  |                                   |                  |                  |                  |  |
| 4  |                                   |                  |                  |                  |  |
| 5  |                                   |                  |                  |                  |  |
|  |                                   | <u>0</u>         | = Total Cover    |                  | <b>Prevalence Index Worksheet</b><br>Total % Cover of:<br>OBL species <u>5</u> x 1 = <u>5</u><br>FACW species <u>103</u> x 2 = <u>206</u><br>FAC species <u>0</u> x 3 = <u>0</u><br>FACU species <u>0</u> x 4 = <u>0</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column totals <u>108</u> (A) <u>211</u> (B)<br>Prevalence Index = B/A = <u>1.95</u> |
| <b>Sapling/Shrub stratum</b> (Plot size: <u>15 ft.</u> ) |                                   |                  |                  |                  |  |
| 1  |                                   |                  |                  |                  |  |
| 2  |                                   |                  |                  |                  |  |
| 3  |                                   |                  |                  |                  |  |
| 4  |                                   |                  |                  |                  |  |
| 5  |                                   |                  |                  |                  |  |
|  |                                   | <u>0</u>         | = Total Cover    |                  |  |
| <b>Herb stratum</b> (Plot size: <u>5 ft.</u> )           |                                   |                  |                  |                  |  |
| 1  | <u>Phalaris arundinacea</u>       | <u>70</u>        | <u>Y</u>         | <u>FACW</u>      |  |
| 2  | <u>Salix interior</u>             | <u>20</u>        | <u>N</u>         | <u>FACW</u>      |  |
| 3  | <u>Cornus sericea</u>             | <u>10</u>        | <u>N</u>         | <u>FACW</u>      |  |
| 4  | <u>Typha angustifolia</u>         | <u>5</u>         | <u>N</u>         | <u>OBL</u>       |  |
| 5  | <u>Symphytichum novae-angliae</u> | <u>3</u>         | <u>N</u>         | <u>FACW</u>      |  |
| 6  |                                   |                  |                  |                  |  |
| 7  |                                   |                  |                  |                  |  |
| 8  |                                   |                  |                  |                  |  |
| 9  |                                   |                  |                  |                  |  |
| 10   |                                   |                  |                  |                  |  |
|  |                                   | <u>108</u>       | = Total Cover    |                  |  |
| <b>Woody vine stratum</b> (Plot size: <u>30 ft.</u> )    |                                   |                  |                  |                  |  |
| 1  |                                   |                  |                  |                  |  |
| 2  |                                   |                  |                  |                  |  |
|  |                                   | <u>0</u>         | = Total Cover    |                  |  |

Remarks: (Include photo numbers here or on a separate sheet)

**SOIL**

Sampling Point: SP4-1W

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |    |       |       |         |         |
|---|---------------|-----|----------------|----|-------|-------|---------|---------|
| Depth (Inches)  | Matrix        |     | Redox Features |    |       |       | Texture | Remarks |
|   | Color (moist) | %   | Color (moist)  | %  | Type* | Loc** |         |         |
| 0-4   | 10YR 2/1      | 100 |                |    |       |       | Muck    |         |
| 4-18  | 10YR 4/2      | 90  | 10Y/R 4/6      | 10 | C     | M     | Loam    |         |
|   |               |     |                |    |       |       |         |         |
|   |               |     |                |    |       |       |         |         |
|   |               |     |                |    |       |       |         |         |
|   |               |     |                |    |       |       |         |         |
|   |               |     |                |    |       |       |         |         |

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

|  |   |  |
|--|---|--|
| <p><b>Hydric Soil Indicators:</b></p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input checked="" type="checkbox"/> 2 cm Muck (A10)</p> <p><input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)</p> | <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> | <p><b>Indicators for Problematic Hydric Soils:</b></p> <p><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)</p> <p><input type="checkbox"/> Dark Surface (S7) (LRR K, L)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (explain in remarks)</p> <p><br/></p> <p>*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic</p> |
|--|---|--|

|  |   |
|--|---|
| <p><b>Restrictive Layer (if observed):</b></p> <p>Type: _____</p> <p>Depth (inches): _____</p> | <p><b>Hydric soil present?</b> <u>Y</u></p> |
|--|---|

Remarks:

**HYDROLOGY**

|   |   |
|---|---|
| <b>Wetland Hydrology Indicators:</b>  |   |
| <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input checked="" type="checkbox"/> High Water Table (A2)</p> <p><input checked="" type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1)</p> <p><input type="checkbox"/> Sediment Deposits (B2)</p> <p><input type="checkbox"/> Drift Deposits (B3)</p> <p><input type="checkbox"/> Algal Mat or Crust (B4)</p> <p><input type="checkbox"/> Iron Deposits (B5)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p> | <p><u>Secondary Indicators (minimum of two required)</u></p> <p><input type="checkbox"/> Aquatic Fauna (B13)</p> <p><input type="checkbox"/> True Aquatic Plants (B14)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Gauge or Well Data (D9)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> |

|   |   |
|---|---|
| <p><b>Field Observations:</b></p> <p>Surface water present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water table present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>8</u></p> <p>Saturation present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>8</u></p> <p>(includes capillary fringe)</p> | <p><b>Indicators of wetland hydrology present?</b> <u>Y</u></p> |
|---|---|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Free water observed 8 inches from the soil surface. Surface water present in the center of the basin.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site Lower Afton Road City/County: Maplewood/Ramsey Sampling Date: 11/1/2023  
 Applicant/Owner: D.R. Horton State: MN Sampling Point: SP4-2W  
 Investigator(s): Mary Clare M. & Michael G. Section, Township, Range: S: 12, T:28N, R:22W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave  
 Slope (%): 1-3% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name Comstock silt loam NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? Yes  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in remarks.)

**SUMMARY OF FINDINGS**

|  |          |   |
|--|----------|---|
| Hydrophytic vegetation present?          | <u>Y</u> | <b>Is the sampled area within a wetland?</b> <u>Y</u><br>if yes, optional wetland site ID: <u>Wetland 4</u> |
| Hydric soil present?                     | <u>Y</u> |   |
| Indicators of wetland hydrology present? | <u>Y</u> |   |

Remarks: (Explain alternative procedures here or in a separate report.)  
 Climatic conditions are typical (normal) based on the gridded database.

**VEGETATION -- Use scientific names of plants.**

| Tree Stratum          | (Plot size: <u>30 ft.</u> )     | Absolute % Cover | Dominant Species | Indicator Status | <b>Dominance Test Worksheet</b><br>Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)<br>Total Number of Dominant Species Across all Strata: <u>1</u> (B)<br>Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)  |
|-----------------------|---------------------------------|------------------|------------------|------------------|---|
| 1                     |                                 |                  |                  |                  |   |
| 2                     |                                 |                  |                  |                  |   |
| 3                     |                                 |                  |                  |                  |   |
| 4                     |                                 |                  |                  |                  |   |
| 5                     |                                 |                  |                  |                  |   |
|                       |                                 | <u>0</u>         | = Total Cover    |                  |   |
| Sapling/Shrub stratum | (Plot size: <u>15 ft.</u> )     |                  |                  |                  | <b>Prevalence Index Worksheet</b><br>Total % Cover of:<br>OBL species <u>14</u> x 1 = <u>14</u><br>FACW species <u>80</u> x 2 = <u>160</u><br>FAC species <u>0</u> x 3 = <u>0</u><br>FACU species <u>0</u> x 4 = <u>0</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column totals <u>94</u> (A) <u>174</u> (B)<br>Prevalence Index = B/A = <u>1.85</u>  |
| 1                     |                                 |                  |                  |                  |   |
| 2                     |                                 |                  |                  |                  |   |
| 3                     |                                 |                  |                  |                  |   |
| 4                     |                                 |                  |                  |                  |   |
| 5                     |                                 |                  |                  |                  |   |
|                       |                                 | <u>0</u>         | = Total Cover    |                  |   |
| Herb stratum          | (Plot size: <u>5 ft.</u> )      |                  |                  |                  | <b>Hydrophytic Vegetation Indicators:</b><br><u>  </u> Rapid test for hydrophytic vegetation<br><u>X</u> Dominance test is >50%<br><u>X</u> Prevalence index is ≤3.0*<br><br>Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)<br><br>Problematic hydrophytic vegetation* (explain)<br><br>*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic |
| 1                     | <u>Phalaris arundinacea</u>     | <u>80</u>        | <u>Y</u>         | <u>FACW</u>      |   |
| 2                     | <u>Scirpus cyperinus</u>        | <u>7</u>         | <u>N</u>         | <u>OBL</u>       |   |
| 3                     | <u>Calamagrostis canadensis</u> | <u>7</u>         | <u>N</u>         | <u>OBL</u>       |   |
| 4                     |                                 |                  |                  |                  |   |
| 5                     |                                 |                  |                  |                  |   |
| 6                     |                                 |                  |                  |                  |   |
| 7                     |                                 |                  |                  |                  |   |
| 8                     |                                 |                  |                  |                  |   |
| 9                     |                                 |                  |                  |                  |   |
| 10                    |                                 |                  |                  |                  |   |
|                       |                                 | <u>94</u>        | = Total Cover    |                  |   |
| Woody vine stratum    | (Plot size: <u>30 ft.</u> )     |                  |                  |                  | <b>Hydrophytic vegetation present?</b> <u>Y</u>   |
| 1                     |                                 |                  |                  |                  |   |
| 2                     |                                 |                  |                  |                  |   |
|                       |                                 | <u>0</u>         | = Total Cover    |                  |   |

Remarks: (Include photo numbers here or on a separate sheet)

**SOIL**

Sampling Point: SP4-2W

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |    |       |       |           |         |
|---|---------------|-----|----------------|----|-------|-------|-----------|---------|
| Depth (Inches)  | Matrix        |     | Redox Features |    |       |       | Texture   | Remarks |
|   | Color (moist) | %   | Color (moist)  | %  | Type* | Loc** |           |         |
| 0-6   | 10YR 2/2      | 100 |                |    |       |       | Clay loam |         |
| 6-18  | 10YR 3/2      | 95  | 10YR 4/6       | 5  | C     | M     | Clay loam |         |
| 18-24   | 10YR 3/2      | 70  | 10YR 4/6       | 30 | C     | M     | Clay      |         |
|   |               |     |                |    |       |       |           |         |
|   |               |     |                |    |       |       |           |         |
|   |               |     |                |    |       |       |           |         |
|   |               |     |                |    |       |       |           |         |

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

|  |  |  |
|--|--|--|
| <p><b>Hydric Soil Indicators:</b></p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)</p> | <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input checked="" type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> | <p><b>Indicators for Problematic Hydric Soils:</b></p> <p><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)</p> <p><input type="checkbox"/> Dark Surface (S7) (LRR K, L)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (explain in remarks)</p> <p><br/></p> <p>*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic</p> |
|--|--|--|

|  |   |
|--|---|
| <p><b>Restrictive Layer (if observed):</b></p> <p>Type: _____</p> <p>Depth (inches): _____</p> | <p><b>Hydric soil present?</b> <u>Y</u></p> |
|--|---|

Remarks:

**HYDROLOGY**

|   |   |   |
|---|---|---|
| <b>Wetland Hydrology Indicators:</b>  |   |   |
| <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1)</p> <p><input type="checkbox"/> Sediment Deposits (B2)</p> <p><input type="checkbox"/> Drift Deposits (B3)</p> <p><input type="checkbox"/> Algal Mat or Crust (B4)</p> <p><input type="checkbox"/> Iron Deposits (B5)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p> | <p><u>Secondary Indicators (minimum of two required)</u></p> <p><input type="checkbox"/> Aquatic Fauna (B13)</p> <p><input type="checkbox"/> True Aquatic Plants (B14)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Gauge or Well Data (D9)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> | <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Stunted or Stressed Plants (D1)</p> <p><input checked="" type="checkbox"/> Geomorphic Position (D2)</p> <p><input checked="" type="checkbox"/> FAC-Neutral Test (D5)</p> |

|   |   |
|---|---|
| <p><b>Field Observations:</b></p> <p>Surface water present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water table present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Saturation present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>(includes capillary fringe)</p> | <p><b>Indicators of wetland hydrology present?</b> <u>Y</u></p> |
|---|---|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
No free water or saturation observed within 24 inches of soil surface.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site Lower Afton Road City/County: Maplewood/Ramsey Sampling Date: 11/1/2023  
 Applicant/Owner: D.R. Horton State: MN Sampling Point: SP5-1Up  
 Investigator(s): Mary Clare M. & Michael G. Section, Township, Range: S: 12, T:28N, R:22W  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Linear  
 Slope (%): 5-8% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name Duluth silt loam NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? Yes  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? Yes  
 (If needed, explain any answers in remarks.)

**SUMMARY OF FINDINGS**

|  |          |  |
|--|----------|--|
| Hydrophytic vegetation present?          | <u>N</u> | <b>Is the sampled area within a wetland?</b> <u>N</u><br>if yes, optional wetland site ID: _____ |
| Hydric soil present?                     | <u>N</u> |  |
| Indicators of wetland hydrology present? | <u>N</u> |  |

Remarks: (Explain alternative procedures here or in a separate report.)  
 Climatic conditions are typical (normal) based on the gridded database.

**VEGETATION -- Use scientific names of plants.**

| Tree Stratum          | (Plot size: <u>30 ft.</u> ) | Absolute % Cover         | Dominant Species | Indicator Status | <b>Dominance Test Worksheet</b><br>Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)<br>Total Number of Dominant Species Across all Strata: <u>2</u> (B)<br>Percent of Dominant Species that are OBL, FACW, or FAC: <u>50.00%</u> (A/B)  |
|-----------------------|-----------------------------|--------------------------|------------------|------------------|--|
| 1                     | _____                       | _____                    | _____            | _____            |  |
| 2                     | _____                       | _____                    | _____            | _____            |  |
| 3                     | _____                       | _____                    | _____            | _____            |  |
| 4                     | _____                       | _____                    | _____            | _____            |  |
| 5                     | _____                       | _____                    | _____            | _____            |  |
|                       |                             | <u>0</u> = Total Cover   |                  |                  |  |
| Sapling/Shrub stratum | (Plot size: <u>15 ft.</u> ) |                          |                  |                  | <b>Prevalence Index Worksheet</b><br>Total % Cover of:<br>OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>30</u> x 2 = <u>60</u><br>FAC species <u>0</u> x 3 = <u>0</u><br>FACU species <u>70</u> x 4 = <u>280</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column totals <u>100</u> (A) <u>340</u> (B)<br>Prevalence Index = B/A = <u>3.40</u>  |
| 1                     | _____                       | _____                    | _____            | _____            |  |
| 2                     | _____                       | _____                    | _____            | _____            |  |
| 3                     | _____                       | _____                    | _____            | _____            |  |
| 4                     | _____                       | _____                    | _____            | _____            |  |
| 5                     | _____                       | _____                    | _____            | _____            |  |
|                       |                             | <u>0</u> = Total Cover   |                  |                  |  |
| Herb stratum          | (Plot size: <u>5 ft.</u> )  |                          |                  |                  | <b>Hydrophytic Vegetation Indicators:</b><br>____ Rapid test for hydrophytic vegetation<br>____ Dominance test is >50%<br>____ Prevalence index is ≤3.0*<br>____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)<br>____ Problematic hydrophytic vegetation* (explain)<br>____<br>*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic |
| 1                     | <u>Solidago canadensis</u>  | <u>70</u>                | <u>Y</u>         | <u>FACU</u>      |  |
| 2                     | <u>Phalaris arundinacea</u> | <u>30</u>                | <u>Y</u>         | <u>FACW</u>      |  |
| 3                     | _____                       | _____                    | _____            | _____            |  |
| 4                     | _____                       | _____                    | _____            | _____            |  |
| 5                     | _____                       | _____                    | _____            | _____            |  |
| 6                     | _____                       | _____                    | _____            | _____            |  |
| 7                     | _____                       | _____                    | _____            | _____            |  |
| 8                     | _____                       | _____                    | _____            | _____            |  |
| 9                     | _____                       | _____                    | _____            | _____            |  |
| 10                    | _____                       | _____                    | _____            | _____            |  |
|                       |                             | <u>100</u> = Total Cover |                  |                  |  |
| Woody vine stratum    | (Plot size: <u>30 ft.</u> ) |                          |                  |                  | <b>Hydrophytic vegetation present?</b> <u>N</u>  |
| 1                     | _____                       | _____                    | _____            | _____            |  |
| 2                     | _____                       | _____                    | _____            | _____            |  |
|                       |                             | <u>0</u> = Total Cover   |                  |                  |  |

Remarks: (Include photo numbers here or on a separate sheet)

**SOIL**

Sampling Point: SP5-1Up

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |       |       |           |         |
|---|---------------|-----|----------------|---|-------|-------|-----------|---------|
| Depth (Inches)  | Matrix        |     | Redox Features |   |       |       | Texture   | Remarks |
|   | Color (moist) | %   | Color (moist)  | % | Type* | Loc** |           |         |
| 0-14  | 10YR 3/2      | 100 |                |   |       |       | Loam      |         |
| 14-24   | 10YR 4/1      | 95  | 10YR 4/4       | 5 | C     | M     | Clay loam |         |
|   |               |     |                |   |       |       |           |         |
|   |               |     |                |   |       |       |           |         |
|   |               |     |                |   |       |       |           |         |
|   |               |     |                |   |       |       |           |         |
|   |               |     |                |   |       |       |           |         |

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

|   |  |  |  |  |  |
|---|--|--|--|--|--|
| <b>Hydric Soil Indicators:</b><br><input type="checkbox"/> Histosol (A1)<br><input type="checkbox"/> Histic Epipedon (A2)<br><input type="checkbox"/> Black Histic (A3)<br><input type="checkbox"/> Hydrogen Sulfide (A4)<br><input type="checkbox"/> Stratified Layers (A5)<br><input type="checkbox"/> 2 cm Muck (A10)<br><input type="checkbox"/> Depleted Below Dark Surface (A11)<br><input type="checkbox"/> Thick Dark Surface (A12)<br><input type="checkbox"/> Sandy Mucky Mineral (S1)<br><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) |  | <input type="checkbox"/> Sandy Gleyed Matrix (S4)<br><input type="checkbox"/> Sandy Redox (S5)<br><input type="checkbox"/> Stripped Matrix (S6)<br><input type="checkbox"/> Loamy Mucky Mineral (F1)<br><input type="checkbox"/> Loamy Gleyed Matrix (F2)<br><input type="checkbox"/> Depleted Matrix (F3)<br><input type="checkbox"/> Redox Dark Surface (F6)<br><input type="checkbox"/> Depleted Dark Surface (F7)<br><input type="checkbox"/> Redox Depressions (F8) |  | <b>Indicators for Problematic Hydric Soils:</b><br><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)<br><input type="checkbox"/> Dark Surface (S7) (LRR K, L)<br><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)<br><input type="checkbox"/> Very Shallow Dark Surface (TF12)<br><input type="checkbox"/> Other (explain in remarks) |  |
|---|--|--|--|--|--|

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

|   |  |
|---|--|
| <b>Restrictive Layer (if observed):</b><br>Type: _____<br>Depth (inches): _____ | <b>Hydric soil present?</b> <u>  N  </u> |
|---|--|

Remarks:

**HYDROLOGY**

|   |   |  |  |  |  |
|---|---|--|--|--|--|
| <b>Wetland Hydrology Indicators:</b><br>Primary Indicators (minimum of one is required; check all that apply) |   |  | Secondary Indicators (minimum of two required) |  |  |
| <input type="checkbox"/> Surface Water (A1)   | <input type="checkbox"/> Aquatic Fauna (B13)                        | <input type="checkbox"/> Surface Soil Cracks (B6)                  |  |  |  |
| <input type="checkbox"/> High Water Table (A2)  | <input type="checkbox"/> True Aquatic Plants (B14)                  | <input type="checkbox"/> Drainage Patterns (B10)                   |  |  |  |
| <input type="checkbox"/> Saturation (A3)  | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                 | <input type="checkbox"/> Dry-Season Water Table (C2)               |  |  |  |
| <input type="checkbox"/> Water Marks (B1)   | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) | <input type="checkbox"/> Crayfish Burrows (C8)                     |  |  |  |
| <input type="checkbox"/> Sediment Deposits (B2)   | <input type="checkbox"/> Presence of Reduced Iron (C4)              | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |  |  |  |
| <input type="checkbox"/> Drift Deposits (B3)  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Stunted or Stressed Plants (D1)           |  |  |  |
| <input type="checkbox"/> Algal Mat or Crust (B4)  | <input type="checkbox"/> Thin Muck Surface (C7)                     | <input type="checkbox"/> Geomorphic Position (D2)                  |  |  |  |
| <input type="checkbox"/> Iron Deposits (B5)   | <input type="checkbox"/> Gauge or Well Data (D9)                    | <input type="checkbox"/> FAC-Neutral Test (D5)                     |  |  |  |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)  | <input type="checkbox"/> Other (Explain in Remarks)                 |  |  |  |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)  |   |  |  |  |  |
| <input type="checkbox"/> Water-Stained Leaves (B9)  |   |  |  |  |  |

|  |  |
|--|--|
| <b>Field Observations:</b><br>Surface water present? Yes _____ No <u>  X  </u> Depth (inches): _____<br>Water table present? Yes _____ No <u>  X  </u> Depth (inches): _____<br>Saturation present? Yes _____ No <u>  X  </u> Depth (inches): _____<br>(includes capillary fringe) | <b>Indicators of wetland hydrology present?</b> <u>  N  </u> |
|--|--|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 No free water or saturation observed within 24 inches of soil surface.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site Lower Afton Road City/County: Maplewood/Ramsey Sampling Date: 11/1/2023  
 Applicant/Owner: D.R. Horton State: MN Sampling Point: SP5-1W  
 Investigator(s): Mary Clare M. & Michael G. Section, Township, Range: S: 12, T:28N, R:22W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave  
 Slope (%): 0-3% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Duluth silt loam NWI Classification: PEM1C/A

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? Yes  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in remarks.)

**SUMMARY OF FINDINGS**

|  |          |   |
|--|----------|---|
| Hydrophytic vegetation present?          | <u>Y</u> | <b>Is the sampled area within a wetland?</b> <u>Y</u><br>if yes, optional wetland site ID: <u>Wetland 5</u> |
| Hydric soil present?                     | <u>Y</u> |   |
| Indicators of wetland hydrology present? | <u>Y</u> |   |

Remarks: (Explain alternative procedures here or in a separate report.)  
 Climatic conditions are typical (normal) based on the gridded database.

**VEGETATION -- Use scientific names of plants.**

| Tree Stratum          | (Plot size: <u>30 ft.</u> )      | Absolute % Cover | Dominant Species | Indicator Status | <b>Dominance Test Worksheet</b><br>Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)<br>Total Number of Dominant Species Across all Strata: <u>1</u> (B)<br>Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)   |
|-----------------------|----------------------------------|------------------|------------------|------------------|--|
| 1                     |                                  |                  |                  |                  |  |
| 2                     |                                  |                  |                  |                  |  |
| 3                     |                                  |                  |                  |                  |  |
| 4                     |                                  |                  |                  |                  |  |
| 5                     |                                  |                  |                  |                  |  |
|                       |                                  | <u>0</u>         | = Total Cover    |                  |  |
| Sapling/Shrub stratum | (Plot size: <u>15 ft.</u> )      |                  |                  |                  | <b>Prevalence Index Worksheet</b><br>Total % Cover of:<br>OBL species <u>5</u> x 1 = <u>5</u><br>FACW species <u>100</u> x 2 = <u>200</u><br>FAC species <u>0</u> x 3 = <u>0</u><br>FACU species <u>0</u> x 4 = <u>0</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column totals <u>105</u> (A) <u>205</u> (B)<br>Prevalence Index = B/A = <u>1.95</u> |
| 1                     |                                  |                  |                  |                  |  |
| 2                     |                                  |                  |                  |                  |  |
| 3                     |                                  |                  |                  |                  |  |
| 4                     |                                  |                  |                  |                  |  |
| 5                     |                                  |                  |                  |                  |  |
|                       |                                  | <u>0</u>         | = Total Cover    |                  |  |
| Herb stratum          | (Plot size: <u>5 ft.</u> )       |                  |                  |                  |  |
| 1                     | <u>Phalaris arundinacea</u>      | <u>100</u>       | <u>Y</u>         | <u>FACW</u>      |  |
| 2                     | <u>Bolboschoenus fluviatilis</u> | <u>5</u>         | <u>N</u>         | <u>OBL</u>       |  |
| 3                     |                                  |                  |                  |                  |  |
| 4                     |                                  |                  |                  |                  |  |
| 5                     |                                  |                  |                  |                  |  |
| 6                     |                                  |                  |                  |                  |  |
| 7                     |                                  |                  |                  |                  |  |
| 8                     |                                  |                  |                  |                  |  |
| 9                     |                                  |                  |                  |                  |  |
| 10                    |                                  |                  |                  |                  |  |
|                       |                                  | <u>105</u>       | = Total Cover    |                  |  |
| Woody vine stratum    | (Plot size: <u>30 ft.</u> )      |                  |                  |                  |  |
| 1                     |                                  |                  |                  |                  |  |
| 2                     |                                  |                  |                  |                  |  |
|                       |                                  | <u>0</u>         | = Total Cover    |                  |  |

Remarks: (Include photo numbers here or on a separate sheet)

**SOIL**

Sampling Point: SP5-1W

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |    |       |       |                 |         |
|---|---------------|-----|----------------|----|-------|-------|-----------------|---------|
| Depth (Inches)  | Matrix        |     | Redox Features |    |       |       | Texture         | Remarks |
|   | Color (moist) | %   | Color (moist)  | %  | Type* | Loc** |                 |         |
| 0-7   | 10YR 2/1      | 100 |                |    |       |       | Loam            |         |
| 7-14  | 10YR 5/1      | 100 |                |    |       |       | Sandy clay loam |         |
| 14-24   | 10YR 5/1      | 85  | 10YR 4/6       | 15 | C     | M     | Sandy clay loam |         |
|   |               |     |                |    |       |       |                 |         |
|   |               |     |                |    |       |       |                 |         |
|   |               |     |                |    |       |       |                 |         |
|   |               |     |                |    |       |       |                 |         |

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

|  |  |   |  |  |  |
|--|--|---|--|--|--|
| <b>Hydric Soil Indicators:</b><br><input type="checkbox"/> Histosol (A1)<br><input type="checkbox"/> Histic Epipedon (A2)<br><input type="checkbox"/> Black Histic (A3)<br><input type="checkbox"/> Hydrogen Sulfide (A4)<br><input type="checkbox"/> Stratified Layers (A5)<br><input type="checkbox"/> 2 cm Muck (A10)<br><input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)<br><input type="checkbox"/> Thick Dark Surface (A12)<br><input type="checkbox"/> Sandy Mucky Mineral (S1)<br><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) |  | <input type="checkbox"/> Sandy Gleyed Matrix (S4)<br><input type="checkbox"/> Sandy Redox (S5)<br><input type="checkbox"/> Stripped Matrix (S6)<br><input type="checkbox"/> Loamy Mucky Mineral (F1)<br><input type="checkbox"/> Loamy Gleyed Matrix (F2)<br><input checked="" type="checkbox"/> Depleted Matrix (F3)<br><input type="checkbox"/> Redox Dark Surface (F6)<br><input type="checkbox"/> Depleted Dark Surface (F7)<br><input type="checkbox"/> Redox Depressions (F8) |  | <b>Indicators for Problematic Hydric Soils:</b><br><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)<br><input type="checkbox"/> Dark Surface (S7) (LRR K, L)<br><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)<br><input type="checkbox"/> Very Shallow Dark Surface (TF12)<br><input type="checkbox"/> Other (explain in remarks) |  |
|--|--|---|--|--|--|

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

|   |                                      |
|---|--------------------------------------|
| <b>Restrictive Layer (if observed):</b><br>Type: _____<br>Depth (inches): _____ | <b>Hydric soil present?</b> <u>Y</u> |
|---|--------------------------------------|

Remarks:

**HYDROLOGY**

|   |   |   |  |  |  |
|---|---|---|--|--|--|
| <b>Wetland Hydrology Indicators:</b><br>Primary Indicators (minimum of one is required; check all that apply) |   |   | Secondary Indicators (minimum of two required) |  |  |
| <input type="checkbox"/> Surface Water (A1)   | <input type="checkbox"/> Aquatic Fauna (B13)                        | <input type="checkbox"/> Surface Soil Cracks (B6)                   |  |  |  |
| <input type="checkbox"/> High Water Table (A2)  | <input type="checkbox"/> True Aquatic Plants (B14)                  | <input type="checkbox"/> Drainage Patterns (B10)                    |  |  |  |
| <input type="checkbox"/> Saturation (A3)  | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                 | <input type="checkbox"/> Dry-Season Water Table (C2)                |  |  |  |
| <input type="checkbox"/> Water Marks (B1)   | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) | <input type="checkbox"/> Crayfish Burrows (C8)                      |  |  |  |
| <input type="checkbox"/> Sediment Deposits (B2)   | <input type="checkbox"/> Presence of Reduced Iron (C4)              | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  |  |  |  |
| <input type="checkbox"/> Drift Deposits (B3)  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input checked="" type="checkbox"/> Stunted or Stressed Plants (D1) |  |  |  |
| <input type="checkbox"/> Algal Mat or Crust (B4)  | <input type="checkbox"/> Thin Muck Surface (C7)                     | <input checked="" type="checkbox"/> Geomorphic Position (D2)        |  |  |  |
| <input type="checkbox"/> Iron Deposits (B5)   | <input type="checkbox"/> Gauge or Well Data (D9)                    | <input checked="" type="checkbox"/> FAC-Neutral Test (D5)           |  |  |  |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)  | <input type="checkbox"/> Other (Explain in Remarks)                 |   |  |  |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)  |   |   |  |  |  |
| <input type="checkbox"/> Water-Stained Leaves (B9)  |   |   |  |  |  |

|  |  |
|--|--|
| <b>Field Observations:</b><br>Surface water present? Yes _____ No <u>X</u> Depth (inches): _____<br>Water table present? Yes _____ No <u>X</u> Depth (inches): _____<br>Saturation present? Yes _____ No <u>X</u> Depth (inches): _____<br>(includes capillary fringe) | <b>Indicators of wetland hydrology present?</b> <u>Y</u> |
|--|--|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 No free water or saturation observed within 24 inches of the soil surface. About 3 inches of surface water present in the center of the basin.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site Lower Afton Road City/County: Maplewood/Ramsey Sampling Date: 11/1/2023  
 Applicant/Owner: D.R. Horton State: MN Sampling Point: SP6-1Up  
 Investigator(s): Mary Clare M. & Michael G. Section, Township, Range: S: 12, T:28N, R:22W  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Linear  
 Slope (%): 4 to 7% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name Duluth silt loam NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? Yes  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? Yes  
 (If needed, explain any answers in remarks.)

**SUMMARY OF FINDINGS**

|  |          |  |
|--|----------|--|
| Hydrophytic vegetation present?          | <u>N</u> | <b>Is the sampled area within a wetland?</b> <u>N</u><br>if yes, optional wetland site ID: _____ |
| Hydric soil present?                     | <u>N</u> |  |
| Indicators of wetland hydrology present? | <u>N</u> |  |

Remarks: (Explain alternative procedures here or in a separate report.)  
 Climatic conditions are typical (normal) based on the gridded database.

**VEGETATION -- Use scientific names of plants.**

| Tree Stratum          | (Plot size: <u>30 ft.</u> ) | Absolute % Cover | Dominant Species | Indicator Status | <b>Dominance Test Worksheet</b><br>Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)<br>Total Number of Dominant Species Across all Strata: <u>2</u> (B)<br>Percent of Dominant Species that are OBL, FACW, or FAC: <u>50.00%</u> (A/B)   |
|-----------------------|-----------------------------|------------------|------------------|------------------|---|
| 1                     |                             |                  |                  |                  |   |
| 2                     |                             |                  |                  |                  |   |
| 3                     |                             |                  |                  |                  |   |
| 4                     |                             |                  |                  |                  |   |
| 5                     |                             |                  |                  |                  |   |
|                       |                             | <u>0</u>         | = Total Cover    |                  | <b>Prevalence Index Worksheet</b><br>Total % Cover of:<br>OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>50</u> x 2 = <u>100</u><br>FAC species <u>10</u> x 3 = <u>30</u><br>FACU species <u>30</u> x 4 = <u>120</u><br>UPL species <u>20</u> x 5 = <u>100</u><br>Column totals <u>110</u> (A) <u>350</u> (B)<br>Prevalence Index = B/A = <u>3.18</u>   |
| Sapling/Shrub stratum | (Plot size: <u>15 ft.</u> ) |                  |                  |                  |   |
| 1                     |                             |                  |                  |                  |   |
| 2                     |                             |                  |                  |                  |   |
| 3                     |                             |                  |                  |                  |   |
| 4                     |                             |                  |                  |                  |   |
| 5                     |                             |                  |                  |                  |   |
|                       |                             | <u>0</u>         | = Total Cover    |                  |   |
| Herb stratum          | (Plot size: <u>5 ft.</u> )  |                  |                  |                  |   |
| 1                     | <u>Phalaris arundinacea</u> | <u>50</u>        | <u>Y</u>         | <u>FACW</u>      |   |
| 2                     | <u>Cirsium arvense</u>      | <u>20</u>        | <u>Y</u>         | <u>FACU</u>      |   |
| 3                     | <u>Tanacetum vulgare</u>    | <u>15</u>        | <u>N</u>         | <u>UPL</u>       |   |
| 4                     | <u>Solidago canadensis</u>  | <u>10</u>        | <u>N</u>         | <u>FACU</u>      |   |
| 5                     | <u>Poa pratensis</u>        | <u>10</u>        | <u>N</u>         | <u>FAC</u>       |   |
| 6                     | <u>Centaurea stoebe</u>     | <u>5</u>         | <u>N</u>         | <u>UPL</u>       |   |
| 7                     |                             |                  |                  |                  |   |
| 8                     |                             |                  |                  |                  |   |
| 9                     |                             |                  |                  |                  |   |
| 10                    |                             |                  |                  |                  |   |
|                       |                             | <u>110</u>       | = Total Cover    |                  |   |
| Woody vine stratum    | (Plot size: <u>30 ft.</u> ) |                  |                  |                  | <b>Hydrophytic Vegetation Indicators:</b><br>___ Rapid test for hydrophytic vegetation<br>___ Dominance test is >50%<br>___ Prevalence index is ≤3.0*<br>___ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)<br>___ Problematic hydrophytic vegetation* (explain)<br>*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic |
| 1                     |                             |                  |                  |                  |   |
| 2                     |                             |                  |                  |                  |   |
|                       |                             | <u>0</u>         | = Total Cover    |                  |   |

Remarks: (Include photo numbers here or on a separate sheet)

**SOIL**

Sampling Point: SP6-1Up

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |       |       |         |                        |
|---|---------------|-----|----------------|---|-------|-------|---------|------------------------|
| Depth (Inches)  | Matrix        |     | Redox Features |   |       |       | Texture | Remarks                |
|   | Color (moist) | %   | Color (moist)  | % | Type* | Loc** |         |                        |
| 0-4   | 10YR 3/2      | 100 |                |   |       |       | Loam    |                        |
| 4-12  | 10YR 4/4      | 100 |                |   |       |       | Loam    | Restricted= Compaction |
|   |               |     |                |   |       |       |         |                        |
|   |               |     |                |   |       |       |         |                        |
|   |               |     |                |   |       |       |         |                        |
|   |               |     |                |   |       |       |         |                        |
|   |               |     |                |   |       |       |         |                        |

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

|  |  |  |
|--|--|--|
| <p><b>Hydric Soil Indicators:</b></p> <p>___ Histosol (A1)</p> <p>___ Histic Epipedon (A2)</p> <p>___ Black Histic (A3)</p> <p>___ Hydrogen Sulfide (A4)</p> <p>___ Stratified Layers (A5)</p> <p>___ 2 cm Muck (A10)</p> <p>___ Depleted Below Dark Surface (A11)</p> <p>___ Thick Dark Surface (A12)</p> <p>___ Sandy Mucky Mineral (S1)</p> <p>___ 5 cm Mucky Peat or Peat (S3)</p> | <p>___ Sandy Gleyed Matrix (S4)</p> <p>___ Sandy Redox (S5)</p> <p>___ Stripped Matrix (S6)</p> <p>___ Loamy Mucky Mineral (F1)</p> <p>___ Loamy Gleyed Matrix (F2)</p> <p>___ Depleted Matrix (F3)</p> <p>___ Redox Dark Surface (F6)</p> <p>___ Depleted Dark Surface (F7)</p> <p>___ Redox Depressions (F8)</p> | <p><b>Indicators for Problematic Hydric Soils:</b></p> <p>___ Coast Prairie Redox (A16) (LRR K, L, R)</p> <p>___ Dark Surface (S7) (LRR K, L)</p> <p>___ Iron-Manganese Masses (F12) (LRR K, L, R)</p> <p>___ Very Shallow Dark Surface (TF12)</p> <p>___ Other (explain in remarks)</p> |
|--|--|--|

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

|   |   |
|---|---|
| <p><b>Restrictive Layer (if observed):</b></p> <p>Type: <u>Compacted</u></p> <p>Depth (inches): <u>12</u></p> | <p><b>Hydric soil present?</b> <u>N</u></p> |
|---|---|

Remarks:

**HYDROLOGY**

|  |  |
|--|--|
| <b>Wetland Hydrology Indicators:</b>   |  |
| <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <p>___ Surface Water (A1)</p> <p>___ High Water Table (A2)</p> <p>___ Saturation (A3)</p> <p>___ Water Marks (B1)</p> <p>___ Sediment Deposits (B2)</p> <p>___ Drift Deposits (B3)</p> <p>___ Algal Mat or Crust (B4)</p> <p>___ Iron Deposits (B5)</p> <p>___ Inundation Visible on Aerial Imagery (B7)</p> <p>___ Sparsely Vegetated Concave Surface (B8)</p> <p>___ Water-Stained Leaves (B9)</p> | <p><u>Secondary Indicators (minimum of two required)</u></p> <p>___ Aquatic Fauna (B13)</p> <p>___ True Aquatic Plants (B14)</p> <p>___ Hydrogen Sulfide Odor (C1)</p> <p>___ Oxidized Rhizospheres on Living Roots (C3)</p> <p>___ Presence of Reduced Iron (C4)</p> <p>___ Recent Iron Reduction in Tilled Soils (C6)</p> <p>___ Thin Muck Surface (C7)</p> <p>___ Gauge or Well Data (D9)</p> <p>___ Other (Explain in Remarks)</p> |

|   |   |
|---|---|
| <p><b>Field Observations:</b></p> <p>Surface water present? Yes ___ No <u>X</u> Depth (inches): _____</p> <p>Water table present? Yes ___ No <u>X</u> Depth (inches): _____</p> <p>Saturation present? Yes ___ No <u>X</u> Depth (inches): _____</p> <p>(includes capillary fringe)</p> | <p><b>Indicators of wetland hydrology present?</b> <u>N</u></p> |
|---|---|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 No free water or saturation observed within 12 inches of soil surface.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site Lower Afton Road City/County: Maplewood/Ramsey Sampling Date: 11/1/2023  
 Applicant/Owner: D.R. Horton State: MN Sampling Point: SP6-1W  
 Investigator(s): Mary Clare M. & Michael G. Section, Township, Range: S: 12, T:28N, R:22W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave  
 Slope (%): 4 to 7% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Duluth silt loam NWI Classification: PEM1A

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? Yes  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in remarks.)

**SUMMARY OF FINDINGS**

|  |          |   |
|--|----------|---|
| Hydrophytic vegetation present?          | <u>Y</u> | <b>Is the sampled area within a wetland?</b> <u>Y</u><br>if yes, optional wetland site ID: <u>Wetland 6</u> |
| Hydric soil present?                     | <u>Y</u> |   |
| Indicators of wetland hydrology present? | <u>Y</u> |   |

Remarks: (Explain alternative procedures here or in a separate report.)  
 Climatic conditions are typical (normal) based on the gridded database.

**VEGETATION -- Use scientific names of plants.**

| Tree Stratum          | (Plot size: <u>30 ft.</u> ) | Absolute % Cover | Dominant Species | Indicator Status | <b>Dominance Test Worksheet</b><br>Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)<br>Total Number of Dominant Species Across all Strata: <u>1</u> (B)<br>Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)  |
|-----------------------|-----------------------------|------------------|------------------|------------------|---|
| 1                     |                             |                  |                  |                  |   |
| 2                     |                             |                  |                  |                  |   |
| 3                     |                             |                  |                  |                  |   |
| 4                     |                             |                  |                  |                  |   |
| 5                     |                             |                  |                  |                  |   |
|                       |                             | <u>0</u>         | = Total Cover    |                  |   |
| Sapling/Shrub stratum | (Plot size: <u>15 ft.</u> ) |                  |                  |                  | <b>Prevalence Index Worksheet</b><br>Total % Cover of:<br>OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>85</u> x 2 = <u>170</u><br>FAC species <u>0</u> x 3 = <u>0</u><br>FACU species <u>15</u> x 4 = <u>60</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column totals <u>100</u> (A) <u>230</u> (B)<br>Prevalence Index = B/A = <u>2.30</u> |
| 1                     |                             |                  |                  |                  |   |
| 2                     |                             |                  |                  |                  |   |
| 3                     |                             |                  |                  |                  |   |
| 4                     |                             |                  |                  |                  |   |
| 5                     |                             |                  |                  |                  |   |
|                       |                             | <u>0</u>         | = Total Cover    |                  |   |
| Herb stratum          | (Plot size: <u>5 ft.</u> )  |                  |                  |                  |   |
| 1                     | <u>Phalaris arundinacea</u> | <u>75</u>        | <u>Y</u>         | <u>FACW</u>      |   |
| 2                     | <u>Cirsium arvense</u>      | <u>15</u>        | <u>N</u>         | <u>FACU</u>      |   |
| 3                     | <u>Verbena hastata</u>      | <u>10</u>        | <u>N</u>         | <u>FACW</u>      |   |
| 4                     |                             |                  |                  |                  |   |
| 5                     |                             |                  |                  |                  |   |
| 6                     |                             |                  |                  |                  |   |
| 7                     |                             |                  |                  |                  |   |
| 8                     |                             |                  |                  |                  |   |
| 9                     |                             |                  |                  |                  |   |
| 10                    |                             |                  |                  |                  |   |
|                       |                             | <u>100</u>       | = Total Cover    |                  |   |
| Woody vine stratum    | (Plot size: <u>30 ft.</u> ) |                  |                  |                  |   |
| 1                     |                             |                  |                  |                  |   |
| 2                     |                             |                  |                  |                  |   |
|                       |                             | <u>0</u>         | = Total Cover    |                  |   |

Remarks: (Include photo numbers here or on a separate sheet)

**SOIL**

Sampling Point: SP6-1W

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |    |       |       |            |                   |
|---|---------------|-----|----------------|----|-------|-------|------------|-------------------|
| Depth (Inches)  | Matrix        |     | Redox Features |    |       |       | Texture    | Remarks           |
|   | Color (moist) | %   | Color (moist)  | %  | Type* | Loc** |            |                   |
| 0-4   | 10YR 3/2      | 100 |                |    |       |       | Loam       |                   |
| 4-10  | 10YR 4/2      | 80  | 10YR 4/6       | 20 | C     | M     | Clay Loam  |                   |
| 10-14   | 10YR 4/2      | 70  | 10YR 4/6       | 30 | C     | M     | Clay Loam  |                   |
| 14-22   | 10YR 2/1      |     |                |    |       |       | Sandy Loam | Burried A Horizon |
| 22-24   | 10YR 5/1      | 98  | 10YR 4/6       | 2  | C     | M     | Loam       |                   |
|   |               |     |                |    |       |       |            |                   |
|   |               |     |                |    |       |       |            |                   |
|   |               |     |                |    |       |       |            |                   |

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

|   |   |
|---|---|
| <p><b>Hydric Soil Indicators:</b></p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)</p> | <p><b>Indicators for Problematic Hydric Soils:</b></p> <p><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)</p> <p><input type="checkbox"/> Dark Surface (S7) (LRR K, L)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (explain in remarks)</p> |
| <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p>   | <p>*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic</p>   |

|  |   |
|--|---|
| <p><b>Restrictive Layer (if observed):</b></p> <p>Type: _____</p> <p>Depth (inches): _____</p> | <p><b>Hydric soil present?</b> <u>Y</u></p> |
|--|---|

Remarks:

**HYDROLOGY**

|   |   |
|---|---|
| <b>Wetland Hydrology Indicators:</b>  |   |
| <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1)</p> <p><input type="checkbox"/> Sediment Deposits (B2)</p> <p><input type="checkbox"/> Drift Deposits (B3)</p> <p><input type="checkbox"/> Algal Mat or Crust (B4)</p> <p><input type="checkbox"/> Iron Deposits (B5)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p> | <p><u>Secondary Indicators (minimum of two required)</u></p> <p><input type="checkbox"/> Aquatic Fauna (B13)</p> <p><input type="checkbox"/> True Aquatic Plants (B14)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Gauge or Well Data (D9)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> |

|   |   |
|---|---|
| <p><b>Field Observations:</b></p> <p>Surface water present? Yes _____ No <u>X</u> Depth (inches): _____</p> <p>Water table present? Yes _____ No <u>X</u> Depth (inches): _____</p> <p>Saturation present? Yes _____ No <u>X</u> Depth (inches): _____</p> <p>(includes capillary fringe)</p> | <p><b>Indicators of wetland hydrology present?</b> <u>Y</u></p> |
|---|---|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
No free water or saturation observed within 24 inches of soil surface.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site Lower Afton Road City/County: Maplewood/Ramsey Sampling Date: 11/1/2023  
 Applicant/Owner: D.R. Horton State: MN Sampling Point: SP7-1Up  
 Investigator(s): Mary Clare M. & Michael G. Section, Township, Range: S: 12, T:28N, R:22W  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Linear  
 Slope (%): 3 to 8% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name Santiago silt loam NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? Yes  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in remarks.)

**SUMMARY OF FINDINGS**

|  |          |  |
|--|----------|--|
| Hydrophytic vegetation present?          | <u>Y</u> | <b>Is the sampled area within a wetland?</b> <u>N</u><br>if yes, optional wetland site ID: _____ |
| Hydric soil present?                     | <u>N</u> |  |
| Indicators of wetland hydrology present? | <u>N</u> |  |

Remarks: (Explain alternative procedures here or in a separate report.)  
 Climatic conditions are typical (normal) based on the gridded database.

**VEGETATION -- Use scientific names of plants.**

| Tree Stratum          | (Plot size: <u>30 ft.</u> )     | Absolute % Cover | Dominant Species | Indicator Status | <b>Dominance Test Worksheet</b><br>Number of Dominant Species that are OBL, FACW, or FAC: <u>2</u> (A)<br>Total Number of Dominant Species Across all Strata: <u>2</u> (B)<br>Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)  |
|-----------------------|---------------------------------|------------------|------------------|------------------|---|
| 1                     |                                 |                  |                  |                  |   |
| 2                     |                                 |                  |                  |                  |   |
| 3                     |                                 |                  |                  |                  |   |
| 4                     |                                 |                  |                  |                  |   |
| 5                     |                                 |                  |                  |                  |   |
|                       |                                 | <u>0</u>         | = Total Cover    |                  | <b>Prevalence Index Worksheet</b><br>Total % Cover of:<br>OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>25</u> x 2 = <u>50</u><br>FAC species <u>80</u> x 3 = <u>240</u><br>FACU species <u>0</u> x 4 = <u>0</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column totals <u>105</u> (A) <u>290</u> (B)<br>Prevalence Index = B/A = <u>2.76</u> |
| Sapling/Shrub stratum | (Plot size: <u>15 ft.</u> )     |                  |                  |                  |   |
| 1                     | <u>Salix interior</u>           | <u>15</u>        | <u>Y</u>         | <u>FACW</u>      |   |
| 2                     |                                 |                  |                  |                  |   |
| 3                     |                                 |                  |                  |                  |   |
| 4                     |                                 |                  |                  |                  |   |
| 5                     |                                 |                  |                  |                  |   |
|                       |                                 | <u>15</u>        | = Total Cover    |                  |   |
| Herb stratum          | (Plot size: <u>5 ft.</u> )      |                  |                  |                  |   |
| 1                     | <u>Poa pratensis</u>            | <u>70</u>        | <u>Y</u>         | <u>FAC</u>       |   |
| 2                     | <u>Andropogon gerardii</u>      | <u>10</u>        | <u>N</u>         | <u>FAC</u>       |   |
| 3                     | <u>Pycnanthemum virginianum</u> | <u>10</u>        | <u>N</u>         | <u>FACW</u>      |   |
| 4                     |                                 |                  |                  |                  |   |
| 5                     |                                 |                  |                  |                  |   |
| 6                     |                                 |                  |                  |                  |   |
| 7                     |                                 |                  |                  |                  |   |
| 8                     |                                 |                  |                  |                  |   |
| 9                     |                                 |                  |                  |                  |   |
| 10                    |                                 |                  |                  |                  |   |
|                       |                                 | <u>90</u>        | = Total Cover    |                  |   |
| Woody vine stratum    | (Plot size: <u>30 ft.</u> )     |                  |                  |                  |   |
| 1                     |                                 |                  |                  |                  |   |
| 2                     |                                 |                  |                  |                  |   |
|                       |                                 | <u>0</u>         | = Total Cover    |                  |   |

Remarks: (Include photo numbers here or on a separate sheet)  
 All but one species FAC or drier.

**SOIL**

Sampling Point: SP7-1Up

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |       |       |         |         |
|---|---------------|-----|----------------|---|-------|-------|---------|---------|
| Depth (Inches)  | Matrix        |     | Redox Features |   |       |       | Texture | Remarks |
|   | Color (moist) | %   | Color (moist)  | % | Type* | Loc** |         |         |
| 0-10  | 10YR 3/2      | 100 |                |   |       |       | Loam    |         |
| 10-24   | 10YR 4/6      | 100 |                |   |       |       | Loam    |         |
|   |               |     |                |   |       |       |         |         |
|   |               |     |                |   |       |       |         |         |
|   |               |     |                |   |       |       |         |         |
|   |               |     |                |   |       |       |         |         |
|   |               |     |                |   |       |       |         |         |

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

|   |  |  |  |  |  |
|---|--|--|--|--|--|
| <b>Hydric Soil Indicators:</b><br><input type="checkbox"/> Histosol (A1)<br><input type="checkbox"/> Histic Epipedon (A2)<br><input type="checkbox"/> Black Histic (A3)<br><input type="checkbox"/> Hydrogen Sulfide (A4)<br><input type="checkbox"/> Stratified Layers (A5)<br><input type="checkbox"/> 2 cm Muck (A10)<br><input type="checkbox"/> Depleted Below Dark Surface (A11)<br><input type="checkbox"/> Thick Dark Surface (A12)<br><input type="checkbox"/> Sandy Mucky Mineral (S1)<br><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) |  | <input type="checkbox"/> Sandy Gleyed Matrix (S4)<br><input type="checkbox"/> Sandy Redox (S5)<br><input type="checkbox"/> Stripped Matrix (S6)<br><input type="checkbox"/> Loamy Mucky Mineral (F1)<br><input type="checkbox"/> Loamy Gleyed Matrix (F2)<br><input type="checkbox"/> Depleted Matrix (F3)<br><input type="checkbox"/> Redox Dark Surface (F6)<br><input type="checkbox"/> Depleted Dark Surface (F7)<br><input type="checkbox"/> Redox Depressions (F8) |  | <b>Indicators for Problematic Hydric Soils:</b><br><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)<br><input type="checkbox"/> Dark Surface (S7) (LRR K, L)<br><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)<br><input type="checkbox"/> Very Shallow Dark Surface (TF12)<br><input type="checkbox"/> Other (explain in remarks) |  |
|---|--|--|--|--|--|

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

|   |  |
|---|--|
| <b>Restrictive Layer (if observed):</b><br>Type: _____<br>Depth (inches): _____ | <b>Hydric soil present?</b> <u>  N  </u> |
|---|--|

Remarks:

**HYDROLOGY**

|   |   |  |  |  |  |
|---|---|--|--|--|--|
| <b>Wetland Hydrology Indicators:</b><br>Primary Indicators (minimum of one is required; check all that apply) |   |  | Secondary Indicators (minimum of two required) |  |  |
| <input type="checkbox"/> Surface Water (A1)   | <input type="checkbox"/> Aquatic Fauna (B13)                        | <input type="checkbox"/> Surface Soil Cracks (B6)                  |  |  |  |
| <input type="checkbox"/> High Water Table (A2)  | <input type="checkbox"/> True Aquatic Plants (B14)                  | <input type="checkbox"/> Drainage Patterns (B10)                   |  |  |  |
| <input type="checkbox"/> Saturation (A3)  | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                 | <input type="checkbox"/> Dry-Season Water Table (C2)               |  |  |  |
| <input type="checkbox"/> Water Marks (B1)   | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) | <input type="checkbox"/> Crayfish Burrows (C8)                     |  |  |  |
| <input type="checkbox"/> Sediment Deposits (B2)   | <input type="checkbox"/> Presence of Reduced Iron (C4)              | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |  |  |  |
| <input type="checkbox"/> Drift Deposits (B3)  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Stunted or Stressed Plants (D1)           |  |  |  |
| <input type="checkbox"/> Algal Mat or Crust (B4)  | <input type="checkbox"/> Thin Muck Surface (C7)                     | <input type="checkbox"/> Geomorphic Position (D2)                  |  |  |  |
| <input type="checkbox"/> Iron Deposits (B5)   | <input type="checkbox"/> Gauge or Well Data (D9)                    | <input type="checkbox"/> FAC-Neutral Test (D5)                     |  |  |  |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)  | <input type="checkbox"/> Other (Explain in Remarks)                 |  |  |  |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)  |   |  |  |  |  |
| <input type="checkbox"/> Water-Stained Leaves (B9)  |   |  |  |  |  |

|  |  |
|--|--|
| <b>Field Observations:</b><br>Surface water present? Yes _____ No <u>  X  </u> Depth (inches): _____<br>Water table present? Yes _____ No <u>  X  </u> Depth (inches): _____<br>Saturation present? Yes _____ No <u>  X  </u> Depth (inches): _____<br>(includes capillary fringe) | <b>Indicators of wetland hydrology present?</b> <u>  N  </u> |
|--|--|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 No free water or saturation observed within 24 inches of soil surface.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site Lower Afton Road City/County: Maplewood/Ramsey Sampling Date: 11/1/2023  
 Applicant/Owner: D.R. Horton State: MN Sampling Point: SP7-1W  
 Investigator(s): Mary Clare M. & Michael G. Section, Township, Range: S: 12, T:28N, R:22W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave  
 Slope (%): 0 to 2% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name Santiago silt loam NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? Yes  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? Yes  
 (If needed, explain any answers in remarks.)

**SUMMARY OF FINDINGS**

|  |          |   |
|--|----------|---|
| Hydrophytic vegetation present?          | <u>Y</u> | <b>Is the sampled area within a wetland?</b> <u>Y</u><br>if yes, optional wetland site ID: <u>Wetland 7</u> |
| Hydric soil present?                     | <u>Y</u> |   |
| Indicators of wetland hydrology present? | <u>Y</u> |   |

Remarks: (Explain alternative procedures here or in a separate report.)  
 Climatic conditions are typical (normal) based on the gridded database.

**VEGETATION -- Use scientific names of plants.**

| Tree Stratum          | (Plot size: <u>30 ft.</u> )    | Absolute % Cover | Dominant Species | Indicator Status | <b>Dominance Test Worksheet</b><br>Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)<br>Total Number of Dominant Species Across all Strata: <u>1</u> (B)<br>Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)   |
|-----------------------|--------------------------------|------------------|------------------|------------------|--|
| 1                     |                                |                  |                  |                  |  |
| 2                     |                                |                  |                  |                  |  |
| 3                     |                                |                  |                  |                  |  |
| 4                     |                                |                  |                  |                  |  |
| 5                     |                                |                  |                  |                  |  |
|                       |                                | <u>0</u>         | = Total Cover    |                  |  |
| Sapling/Shrub stratum | (Plot size: <u>15 ft.</u> )    |                  |                  |                  | <b>Prevalence Index Worksheet</b><br>Total % Cover of:<br>OBL species <u>5</u> x 1 = <u>5</u><br>FACW species <u>100</u> x 2 = <u>200</u><br>FAC species <u>0</u> x 3 = <u>0</u><br>FACU species <u>0</u> x 4 = <u>0</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column totals <u>105</u> (A) <u>205</u> (B)<br>Prevalence Index = B/A = <u>1.95</u> |
| 1                     |                                |                  |                  |                  |  |
| 2                     |                                |                  |                  |                  |  |
| 3                     |                                |                  |                  |                  |  |
| 4                     |                                |                  |                  |                  |  |
| 5                     |                                |                  |                  |                  |  |
|                       |                                | <u>0</u>         | = Total Cover    |                  |  |
| Herb stratum          | (Plot size: <u>5 ft.</u> )     |                  |                  |                  |  |
| 1                     | <u>Phalaris arundinacea</u>    | <u>95</u>        | <u>Y</u>         | <u>FACW</u>      |  |
| 2                     | <u>Persicaria pensylvanica</u> | <u>5</u>         | <u>N</u>         | <u>FACW</u>      |  |
| 3                     | <u>Scirpus cyperinus</u>       | <u>5</u>         | <u>N</u>         | <u>OBL</u>       |  |
| 4                     |                                |                  |                  |                  |  |
| 5                     |                                |                  |                  |                  |  |
| 6                     |                                |                  |                  |                  |  |
| 7                     |                                |                  |                  |                  |  |
| 8                     |                                |                  |                  |                  |  |
| 9                     |                                |                  |                  |                  |  |
| 10                    |                                |                  |                  |                  |  |
|                       |                                | <u>105</u>       | = Total Cover    |                  |  |
| Woody vine stratum    | (Plot size: <u>30 ft.</u> )    |                  |                  |                  |  |
| 1                     |                                |                  |                  |                  |  |
| 2                     |                                |                  |                  |                  |  |
|                       |                                | <u>0</u>         | = Total Cover    |                  |  |

Remarks: (Include photo numbers here or on a separate sheet)

**SOIL**

Sampling Point: SP7-1W

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |    |                |    |       |       |           |         |
|---|---------------|----|----------------|----|-------|-------|-----------|---------|
| Depth (Inches)  | Matrix        |    | Redox Features |    |       |       | Texture   | Remarks |
|   | Color (moist) | %  | Color (moist)  | %  | Type* | Loc** |           |         |
| 0-12  | 10YR 4/2      | 85 | 10YR 4/6       | 15 | C     | M     | Clay loam |         |
|   |               |    |                |    |       |       |           |         |
|   |               |    |                |    |       |       |           |         |
|   |               |    |                |    |       |       |           |         |
|   |               |    |                |    |       |       |           |         |
|   |               |    |                |    |       |       |           |         |
|   |               |    |                |    |       |       |           |         |

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains.      \*\*Location: PL = Pore Lining, M = Matrix

|  |  |  |
|--|--|--|
| <p><b>Hydric Soil Indicators:</b></p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)</p> | <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input checked="" type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> | <p><b>Indicators for Problematic Hydric Soils:</b></p> <p><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)</p> <p><input type="checkbox"/> Dark Surface (S7) (LRR K, L)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (explain in remarks)</p> <p><br/></p> <p>*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic</p> |
|--|--|--|

|  |  |
|--|--|
| <p><b>Restrictive Layer (if observed):</b></p> <p>Type: _____</p> <p>Depth (inches): _____</p> | <p><b>Hydric soil present?</b>    <u>  Y  </u></p> |
|--|--|

Remarks:

**HYDROLOGY**

|   |   |
|---|---|
| <b>Wetland Hydrology Indicators:</b>  |   |
| <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input checked="" type="checkbox"/> High Water Table (A2)</p> <p><input checked="" type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1)</p> <p><input type="checkbox"/> Sediment Deposits (B2)</p> <p><input type="checkbox"/> Drift Deposits (B3)</p> <p><input type="checkbox"/> Algal Mat or Crust (B4)</p> <p><input type="checkbox"/> Iron Deposits (B5)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p> | <p><u>Secondary Indicators (minimum of two required)</u></p> <p><input type="checkbox"/> Aquatic Fauna (B13)</p> <p><input type="checkbox"/> True Aquatic Plants (B14)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Gauge or Well Data (D9)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> |

|   |  |
|---|--|
| <p><b>Field Observations:</b></p> <p>Surface water present?    Yes _____ No <u>  X  </u>    Depth (inches): _____</p> <p>Water table present?      Yes <u>  X  </u>    No _____    Depth (inches): <u>  8  </u></p> <p>Saturation present?        Yes <u>  X  </u>    No _____    Depth (inches): <u>  8  </u></p> <p>(includes capillary fringe)</p> | <p><b>Indicators of wetland hydrology present?</b>    <u>  Y  </u></p> |
|---|--|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 Water table present at 8 inches below soil surface. About 2" of surface water present in the center of the basin.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site Lower Afton Road City/County: Maplewood/Ramsey Sampling Date: 11/1/2023  
 Applicant/Owner: D.R. Horton State: MN Sampling Point: SP8-1Up  
 Investigator(s): Mary Clare M. & Michael G. Section, Township, Range: S: 12, T:28N, R:22W  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Linear  
 Slope (%): 3-5% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name Duluth silt loam NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? Yes  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in remarks.)

**SUMMARY OF FINDINGS**

|  |          |  |
|--|----------|--|
| Hydrophytic vegetation present?          | <u>Y</u> | <b>Is the sampled area within a wetland?</b> <u>N</u><br>if yes, optional wetland site ID: _____ |
| Hydric soil present?                     | <u>N</u> |  |
| Indicators of wetland hydrology present? | <u>N</u> |  |

Remarks: (Explain alternative procedures here or in a separate report.)  
 Climatic conditions are typical (normal) based on the gridded database.

**VEGETATION -- Use scientific names of plants.**

| Tree Stratum          | (Plot size: <u>30 ft.</u> ) | Absolute % Cover | Dominant Species | Indicator Status | <b>Dominance Test Worksheet</b><br>Number of Dominant Species that are OBL, FACW, or FAC: <u>3</u> (A)<br>Total Number of Dominant Species Across all Strata: <u>3</u> (B)<br>Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)   |
|-----------------------|-----------------------------|------------------|------------------|------------------|--|
| 1                     |                             |                  |                  |                  |  |
| 2                     |                             |                  |                  |                  |  |
| 3                     |                             |                  |                  |                  |  |
| 4                     |                             |                  |                  |                  |  |
| 5                     |                             |                  |                  |                  |  |
|                       |                             | <u>0</u>         | = Total Cover    |                  |  |
| Sapling/Shrub stratum | (Plot size: <u>15 ft.</u> ) |                  |                  |                  | <b>Prevalence Index Worksheet</b><br>Total % Cover of:<br>OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>30</u> x 2 = <u>60</u><br>FAC species <u>60</u> x 3 = <u>180</u><br>FACU species <u>20</u> x 4 = <u>80</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column totals <u>110</u> (A) <u>320</u> (B)<br>Prevalence Index = B/A = <u>2.91</u>  |
| 1                     | <u>Cornus alba</u>          | <u>30</u>        | <u>Y</u>         | <u>FACW</u>      |  |
| 2                     |                             |                  |                  |                  |  |
| 3                     |                             |                  |                  |                  |  |
| 4                     |                             |                  |                  |                  |  |
| 5                     |                             |                  |                  |                  |  |
|                       |                             | <u>30</u>        | = Total Cover    |                  |  |
| Herb stratum          | (Plot size: <u>5 ft.</u> )  |                  |                  |                  | <b>Hydrophytic Vegetation Indicators:</b><br>____ Rapid test for hydrophytic vegetation<br><u>X</u> Dominance test is >50%<br><u>X</u> Prevalence index is ≤3.0*<br>____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)<br>____ Problematic hydrophytic vegetation* (explain)<br>____<br>*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic |
| 1                     | <u>Poa pratensis</u>        | <u>40</u>        | <u>Y</u>         | <u>FAC</u>       |  |
| 2                     | <u>Andropogon gerardii</u>  | <u>20</u>        | <u>Y</u>         | <u>FAC</u>       |  |
| 3                     | <u>Solidago canadensis</u>  | <u>10</u>        | <u>N</u>         | <u>FACU</u>      |  |
| 4                     | <u>Monarda fistulosa</u>    | <u>10</u>        | <u>N</u>         | <u>FACU</u>      |  |
| 5                     |                             |                  |                  |                  |  |
| 6                     |                             |                  |                  |                  |  |
| 7                     |                             |                  |                  |                  |  |
| 8                     |                             |                  |                  |                  |  |
| 9                     |                             |                  |                  |                  |  |
| 10                    |                             |                  |                  |                  |  |
|                       |                             | <u>80</u>        | = Total Cover    |                  |  |
| Woody vine stratum    | (Plot size: <u>30 ft.</u> ) |                  |                  |                  | <b>Hydrophytic vegetation present?</b> <u>Y</u>  |
| 1                     |                             |                  |                  |                  |  |
| 2                     |                             |                  |                  |                  |  |
|                       |                             | <u>0</u>         | = Total Cover    |                  |  |

Remarks: (Include photo numbers here or on a separate sheet)  
 All but one species FAC or drier.

**SOIL**

Sampling Point: SP8-1Up

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |   |                |   |       |       |            |         |
|---|---------------|---|----------------|---|-------|-------|------------|---------|
| Depth (Inches)  | Matrix        |   | Redox Features |   |       |       | Texture    | Remarks |
|   | Color (moist) | % | Color (moist)  | % | Type* | Loc** |            |         |
| 0-14  | 10YR 3/2      |   |                |   |       |       | Loam       |         |
| 14-24   | 10YR 4/4      |   |                |   |       |       | Sandy Loam |         |
|   |               |   |                |   |       |       |            |         |
|   |               |   |                |   |       |       |            |         |
|   |               |   |                |   |       |       |            |         |
|   |               |   |                |   |       |       |            |         |
|   |               |   |                |   |       |       |            |         |

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

|   |  |  |  |  |  |
|---|--|--|--|--|--|
| <b>Hydric Soil Indicators:</b><br><input type="checkbox"/> Histosol (A1)<br><input type="checkbox"/> Histic Epipedon (A2)<br><input type="checkbox"/> Black Histic (A3)<br><input type="checkbox"/> Hydrogen Sulfide (A4)<br><input type="checkbox"/> Stratified Layers (A5)<br><input type="checkbox"/> 2 cm Muck (A10)<br><input type="checkbox"/> Depleted Below Dark Surface (A11)<br><input type="checkbox"/> Thick Dark Surface (A12)<br><input type="checkbox"/> Sandy Mucky Mineral (S1)<br><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) |  | <input type="checkbox"/> Sandy Gleyed Matrix (S4)<br><input type="checkbox"/> Sandy Redox (S5)<br><input type="checkbox"/> Stripped Matrix (S6)<br><input type="checkbox"/> Loamy Mucky Mineral (F1)<br><input type="checkbox"/> Loamy Gleyed Matrix (F2)<br><input type="checkbox"/> Depleted Matrix (F3)<br><input type="checkbox"/> Redox Dark Surface (F6)<br><input type="checkbox"/> Depleted Dark Surface (F7)<br><input type="checkbox"/> Redox Depressions (F8) |  | <b>Indicators for Problematic Hydric Soils:</b><br><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)<br><input type="checkbox"/> Dark Surface (S7) (LRR K, L)<br><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)<br><input type="checkbox"/> Very Shallow Dark Surface (TF12)<br><input type="checkbox"/> Other (explain in remarks) |  |
|---|--|--|--|--|--|

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

|   |  |
|---|--|
| <b>Restrictive Layer (if observed):</b><br>Type: _____<br>Depth (inches): _____ | <b>Hydric soil present?</b> <u>  N  </u> |
|---|--|

Remarks:

**HYDROLOGY**

|   |   |  |  |  |  |
|---|---|--|--|--|--|
| <b>Wetland Hydrology Indicators:</b><br>Primary Indicators (minimum of one is required; check all that apply) |   |  | Secondary Indicators (minimum of two required) |  |  |
| <input type="checkbox"/> Surface Water (A1)   | <input type="checkbox"/> Aquatic Fauna (B13)                        | <input type="checkbox"/> Surface Soil Cracks (B6)                  |  |  |  |
| <input type="checkbox"/> High Water Table (A2)  | <input type="checkbox"/> True Aquatic Plants (B14)                  | <input type="checkbox"/> Drainage Patterns (B10)                   |  |  |  |
| <input type="checkbox"/> Saturation (A3)  | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                 | <input type="checkbox"/> Dry-Season Water Table (C2)               |  |  |  |
| <input type="checkbox"/> Water Marks (B1)   | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) | <input type="checkbox"/> Crayfish Burrows (C8)                     |  |  |  |
| <input type="checkbox"/> Sediment Deposits (B2)   | <input type="checkbox"/> Presence of Reduced Iron (C4)              | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |  |  |  |
| <input type="checkbox"/> Drift Deposits (B3)  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Stunted or Stressed Plants (D1)           |  |  |  |
| <input type="checkbox"/> Algal Mat or Crust (B4)  | <input type="checkbox"/> Thin Muck Surface (C7)                     | <input type="checkbox"/> Geomorphic Position (D2)                  |  |  |  |
| <input type="checkbox"/> Iron Deposits (B5)   | <input type="checkbox"/> Gauge or Well Data (D9)                    | <input type="checkbox"/> FAC-Neutral Test (D5)                     |  |  |  |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)  | <input type="checkbox"/> Other (Explain in Remarks)                 |  |  |  |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)  |   |  |  |  |  |
| <input type="checkbox"/> Water-Stained Leaves (B9)  |   |  |  |  |  |

|  |  |
|--|--|
| <b>Field Observations:</b><br>Surface water present? Yes _____ No <u>  X  </u> Depth (inches): _____<br>Water table present? Yes _____ No <u>  X  </u> Depth (inches): _____<br>Saturation present? Yes _____ No <u>  X  </u> Depth (inches): _____<br>(includes capillary fringe) | <b>Indicators of wetland hydrology present?</b> <u>  N  </u> |
|--|--|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 No free water or saturation observed within 24 inches of soil surface.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site Lower Afton Road City/County: Maplewood/Ramsey Sampling Date: 11/1/2023  
 Applicant/Owner: D.R. Horton State: MN Sampling Point: SP8-1W  
 Investigator(s): Mary Clare M. & Michael G. Section, Township, Range: S: 12, T:28N, R:22W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave  
 Slope (%): 1-3% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name Duluth silt loam NWI Classification: PUBFx

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? Yes  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in remarks.)

**SUMMARY OF FINDINGS**

|  |          |   |
|--|----------|---|
| Hydrophytic vegetation present?          | <u>Y</u> | <b>Is the sampled area within a wetland?</b> <u>Y</u><br>if yes, optional wetland site ID: <u>Wetland 8</u> |
| Hydric soil present?                     | <u>Y</u> |   |
| Indicators of wetland hydrology present? | <u>Y</u> |   |

Remarks: (Explain alternative procedures here or in a separate report.)  
 Climatic conditions are typical (normal) based on the gridded database.

**VEGETATION -- Use scientific names of plants.**

| Tree Stratum   | (Plot size: <u>30 ft.</u> ) | Absolute % Cover | Dominant Species | Indicator Status | <b>Dominance Test Worksheet</b><br>Number of Dominant Species that are OBL, FACW, or FAC: <u>2</u> (A)<br>Total Number of Dominant Species Across all Strata: <u>2</u> (B)<br>Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)   |
|--|-----------------------------|------------------|------------------|------------------|--|
| 1  |                             |                  |                  |                  |  |
| 2  |                             |                  |                  |                  |  |
| 3  |                             |                  |                  |                  |  |
| 4  |                             |                  |                  |                  |  |
| 5  |                             |                  |                  |                  |  |
|  |                             | <u>0</u>         | = Total Cover    |                  | <b>Prevalence Index Worksheet</b><br>Total % Cover of:<br>OBL species <u>20</u> x 1 = <u>20</u><br>FACW species <u>60</u> x 2 = <u>120</u><br>FAC species <u>0</u> x 3 = <u>0</u><br>FACU species <u>0</u> x 4 = <u>0</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column totals <u>80</u> (A) <u>140</u> (B)<br>Prevalence Index = B/A = <u>1.75</u> |
| <b>Sapling/Shrub stratum</b> (Plot size: <u>15 ft.</u> ) |                             |                  |                  |                  |  |
| 1  |                             |                  |                  |                  |  |
| 2  |                             |                  |                  |                  |  |
| 3  |                             |                  |                  |                  |  |
| 4  |                             |                  |                  |                  |  |
| 5  |                             |                  |                  |                  |  |
|  |                             | <u>0</u>         | = Total Cover    |                  |  |
| <b>Herb stratum</b> (Plot size: <u>5 ft.</u> )           |                             |                  |                  |                  |  |
| 1  | <u>Phalaris arundinacea</u> | <u>40</u>        | <u>Y</u>         | <u>FACW</u>      |  |
| 2  | <u>Salix interior</u>       | <u>20</u>        | <u>Y</u>         | <u>FACW</u>      |  |
| 3  | <u>Typha angustifolia</u>   | <u>15</u>        | <u>N</u>         | <u>OBL</u>       |  |
| 4  | <u>Scirpus cyperinus</u>    | <u>5</u>         | <u>N</u>         | <u>OBL</u>       |  |
| 5  |                             |                  |                  |                  |  |
| 6  |                             |                  |                  |                  |  |
| 7  |                             |                  |                  |                  |  |
| 8  |                             |                  |                  |                  |  |
| 9  |                             |                  |                  |                  |  |
| 10   |                             |                  |                  |                  |  |
|  |                             | <u>80</u>        | = Total Cover    |                  |  |
| <b>Woody vine stratum</b> (Plot size: <u>30 ft.</u> )    |                             |                  |                  |                  |  |
| 1  |                             |                  |                  |                  |  |
| 2  |                             |                  |                  |                  |  |
|  |                             | <u>0</u>         | = Total Cover    |                  |  |

Remarks: (Include photo numbers here or on a separate sheet)

**SOIL**

Sampling Point: SP8-1W

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |    |       |       |           |         |
|---|---------------|-----|----------------|----|-------|-------|-----------|---------|
| Depth (Inches)  | Matrix        |     | Redox Features |    |       |       | Texture   | Remarks |
|   | Color (moist) | %   | Color (moist)  | %  | Type* | Loc** |           |         |
| 0-2   | 10YR 3/1      | 100 |                |    |       |       | Muck      |         |
| 2-12  | 10YR 4/2      | 70  | 10YR 4/6       | 20 | C     | M     | Clay Loam |         |
|   |               |     | 10YR 4/1       | 10 | D     | M     | Clay Loam |         |
| 12-24   | 10YR 4/1      | 80  | 10YR 4/6       | 20 | C     | M     | Clay Loam |         |
|   |               |     |                |    |       |       |           |         |
|   |               |     |                |    |       |       |           |         |
|   |               |     |                |    |       |       |           |         |
|   |               |     |                |    |       |       |           |         |

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

|   |   |
|---|---|
| <p><b>Hydric Soil Indicators:</b></p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input checked="" type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)</p> | <p><b>Indicators for Problematic Hydric Soils:</b></p> <p><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)</p> <p><input type="checkbox"/> Dark Surface (S7) (LRR K, L)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (explain in remarks)</p> |
| <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input checked="" type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p>  | <p>*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic</p>   |

|  |   |
|--|---|
| <p><b>Restrictive Layer (if observed):</b></p> <p>Type: _____</p> <p>Depth (inches): _____</p> | <p><b>Hydric soil present?</b> <u>Y</u></p> |
|--|---|

Remarks:

**HYDROLOGY**

|   |   |   |
|---|---|---|
| <b>Wetland Hydrology Indicators:</b>  |   |   |
| <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1)</p> <p><input type="checkbox"/> Sediment Deposits (B2)</p> <p><input type="checkbox"/> Drift Deposits (B3)</p> <p><input type="checkbox"/> Algal Mat or Crust (B4)</p> <p><input type="checkbox"/> Iron Deposits (B5)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p> | <p><u>Secondary Indicators (minimum of two required)</u></p> <p><input type="checkbox"/> Aquatic Fauna (B13)</p> <p><input type="checkbox"/> True Aquatic Plants (B14)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Gauge or Well Data (D9)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> | <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Stunted or Stressed Plants (D1)</p> <p><input checked="" type="checkbox"/> Geomorphic Position (D2)</p> <p><input checked="" type="checkbox"/> FAC-Neutral Test (D5)</p> |

|   |   |
|---|---|
| <p><b>Field Observations:</b></p> <p>Surface water present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water table present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Saturation present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>(includes capillary fringe)</p> | <p><b>Indicators of wetland hydrology present?</b> <u>Y</u></p> |
|---|---|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
No free water or saturation observed within 24 inches of soil surface.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site Lower Afton Road City/County: Maplewood/Ramsey Sampling Date: 11/1/2023  
 Applicant/Owner: D.R. Horton State: MN Sampling Point: SP9-1Up  
 Investigator(s): Mary Clare M. & Michael G. Section, Township, Range: S: 12, T:28N, R:22W  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Linear  
 Slope (%): 10-12% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name Duluth silt loam NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? Yes  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? Yes  
 (If needed, explain any answers in remarks.)

**SUMMARY OF FINDINGS**

|  |          |  |
|--|----------|--|
| Hydrophytic vegetation present?          | <u>Y</u> | <b>Is the sampled area within a wetland?</b> <u>N</u><br>if yes, optional wetland site ID: _____ |
| Hydric soil present?                     | <u>N</u> |  |
| Indicators of wetland hydrology present? | <u>N</u> |  |

Remarks: (Explain alternative procedures here or in a separate report.)  
 Climatic conditions are typical (normal) based on the gridded database.

**VEGETATION -- Use scientific names of plants.**

| Tree Stratum          | (Plot size: <u>30 ft.</u> ) | Absolute % Cover | Dominant Species | Indicator Status | <b>Dominance Test Worksheet</b><br>Number of Dominant Species that are OBL, FACW, or FAC: <u>2</u> (A)<br>Total Number of Dominant Species Across all Strata: <u>3</u> (B)<br>Percent of Dominant Species that are OBL, FACW, or FAC: <u>66.67%</u> (A/B)   |
|-----------------------|-----------------------------|------------------|------------------|------------------|---|
| 1                     |                             |                  |                  |                  |   |
| 2                     |                             |                  |                  |                  |   |
| 3                     |                             |                  |                  |                  |   |
| 4                     |                             |                  |                  |                  |   |
| 5                     |                             |                  |                  |                  |   |
|                       |                             | <u>0</u>         | = Total Cover    |                  |   |
| Sapling/Shrub stratum | (Plot size: <u>15 ft.</u> ) |                  |                  |                  | <b>Prevalence Index Worksheet</b><br>Total % Cover of:<br>OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>10</u> x 2 = <u>20</u><br>FAC species <u>30</u> x 3 = <u>90</u><br>FACU species <u>60</u> x 4 = <u>240</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column totals <u>100</u> (A) <u>350</u> (B)<br>Prevalence Index = B/A = <u>3.50</u>   |
| 1                     | <u>Rhamnus cathartica</u>   | <u>10</u>        | <u>Y</u>         | <u>FAC</u>       |   |
| 2                     |                             |                  |                  |                  |   |
| 3                     |                             |                  |                  |                  |   |
| 4                     |                             |                  |                  |                  |   |
| 5                     |                             |                  |                  |                  |   |
|                       |                             | <u>10</u>        | = Total Cover    |                  |   |
| Herb stratum          | (Plot size: <u>5 ft.</u> )  |                  |                  |                  | <b>Hydrophytic Vegetation Indicators:</b><br>____ Rapid test for hydrophytic vegetation<br><u>X</u> Dominance test is >50%<br>____ Prevalence index is ≤3.0*<br>____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)<br>____ Problematic hydrophytic vegetation* (explain)<br>____ *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic |
| 1                     | <u>Solidago canadensis</u>  | <u>50</u>        | <u>Y</u>         | <u>FACU</u>      |   |
| 2                     | <u>Poa pratensis</u>        | <u>20</u>        | <u>Y</u>         | <u>FAC</u>       |   |
| 3                     | <u>Glechoma hederacea</u>   | <u>10</u>        | <u>N</u>         | <u>FACU</u>      |   |
| 4                     | <u>Phalaris arundinacea</u> | <u>10</u>        | <u>N</u>         | <u>FACW</u>      |   |
| 5                     |                             |                  |                  |                  |   |
| 6                     |                             |                  |                  |                  |   |
| 7                     |                             |                  |                  |                  |   |
| 8                     |                             |                  |                  |                  |   |
| 9                     |                             |                  |                  |                  |   |
| 10                    |                             |                  |                  |                  |   |
|                       |                             | <u>90</u>        | = Total Cover    |                  |   |
| Woody vine stratum    | (Plot size: <u>30 ft.</u> ) |                  |                  |                  | <b>Hydrophytic vegetation present?</b> <u>Y</u>   |
| 1                     |                             |                  |                  |                  |   |
| 2                     |                             |                  |                  |                  |   |
|                       |                             | <u>0</u>         | = Total Cover    |                  |   |

Remarks: (Include photo numbers here or on a separate sheet)  
 All but one species FAC or drier. PI > 3

**SOIL**

Sampling Point: SP9-1Up

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |    |       |       |            |                   |  |
|---|---------------|-----|----------------|----|-------|-------|------------|-------------------|--|
| Depth (Inches)  | Matrix        |     | Redox Features |    |       |       | Texture    | Remarks           |  |
|   | Color (moist) | %   | Color (moist)  | %  | Type* | Loc** |            |                   |  |
| 0-6   | 10YR 2/2      | 100 |                |    |       |       | Loam       |                   |  |
| 6-15  | 10YR 3/3      | 95  | 10YR 4/6       | 5  | C     | M     | Loamy Sand |                   |  |
| 15-24   | 10YR 3/3      | 82  | 10YR 4/6       | 15 | C     | M     | Sandy Loam | Gravel Inclusions |  |
|   |               |     | 10YR 4/1       | 3  | D     | M     | Sandy Loam | Gravel Inclusions |  |
|   |               |     |                |    |       |       |            |                   |  |
|   |               |     |                |    |       |       |            |                   |  |
|   |               |     |                |    |       |       |            |                   |  |
|   |               |     |                |    |       |       |            |                   |  |

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

|   |  |  |  |  |  |
|---|--|--|--|--|--|
| <b>Hydric Soil Indicators:</b><br><input type="checkbox"/> Histosol (A1)<br><input type="checkbox"/> Histic Epipedon (A2)<br><input type="checkbox"/> Black Histic (A3)<br><input type="checkbox"/> Hydrogen Sulfide (A4)<br><input type="checkbox"/> Stratified Layers (A5)<br><input type="checkbox"/> 2 cm Muck (A10)<br><input type="checkbox"/> Depleted Below Dark Surface (A11)<br><input type="checkbox"/> Thick Dark Surface (A12)<br><input type="checkbox"/> Sandy Mucky Mineral (S1)<br><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) |  | <input type="checkbox"/> Sandy Gleyed Matrix (S4)<br><input type="checkbox"/> Sandy Redox (S5)<br><input type="checkbox"/> Stripped Matrix (S6)<br><input type="checkbox"/> Loamy Mucky Mineral (F1)<br><input type="checkbox"/> Loamy Gleyed Matrix (F2)<br><input type="checkbox"/> Depleted Matrix (F3)<br><input type="checkbox"/> Redox Dark Surface (F6)<br><input type="checkbox"/> Depleted Dark Surface (F7)<br><input type="checkbox"/> Redox Depressions (F8) |  | <b>Indicators for Problematic Hydric Soils:</b><br><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)<br><input type="checkbox"/> Dark Surface (S7) (LRR K, L)<br><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)<br><input type="checkbox"/> Very Shallow Dark Surface (TF12)<br><input type="checkbox"/> Other (explain in remarks) |  |
|---|--|--|--|--|--|

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

|   |  |
|---|--|
| <b>Restrictive Layer (if observed):</b><br>Type: _____<br>Depth (inches): _____ | <b>Hydric soil present?</b> <u>  N  </u> |
|---|--|

Remarks:

**HYDROLOGY**

|   |   |  |  |  |  |
|---|---|--|--|--|--|
| <b>Wetland Hydrology Indicators:</b><br>Primary Indicators (minimum of one is required; check all that apply) |   |  | Secondary Indicators (minimum of two required) |  |  |
| <input type="checkbox"/> Surface Water (A1)   | <input type="checkbox"/> Aquatic Fauna (B13)                        | <input type="checkbox"/> Surface Soil Cracks (B6)                  |  |  |  |
| <input type="checkbox"/> High Water Table (A2)  | <input type="checkbox"/> True Aquatic Plants (B14)                  | <input type="checkbox"/> Drainage Patterns (B10)                   |  |  |  |
| <input type="checkbox"/> Saturation (A3)  | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                 | <input type="checkbox"/> Dry-Season Water Table (C2)               |  |  |  |
| <input type="checkbox"/> Water Marks (B1)   | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) | <input type="checkbox"/> Crayfish Burrows (C8)                     |  |  |  |
| <input type="checkbox"/> Sediment Deposits (B2)   | <input type="checkbox"/> Presence of Reduced Iron (C4)              | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |  |  |  |
| <input type="checkbox"/> Drift Deposits (B3)  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Stunted or Stressed Plants (D1)           |  |  |  |
| <input type="checkbox"/> Algal Mat or Crust (B4)  | <input type="checkbox"/> Thin Muck Surface (C7)                     | <input type="checkbox"/> Geomorphic Position (D2)                  |  |  |  |
| <input type="checkbox"/> Iron Deposits (B5)   | <input type="checkbox"/> Gauge or Well Data (D9)                    | <input type="checkbox"/> FAC-Neutral Test (D5)                     |  |  |  |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)  | <input type="checkbox"/> Other (Explain in Remarks)                 |  |  |  |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)  |   |  |  |  |  |
| <input type="checkbox"/> Water-Stained Leaves (B9)  |   |  |  |  |  |

|  |  |
|--|--|
| <b>Field Observations:</b><br>Surface water present? Yes _____ No <u>  X  </u> Depth (inches): _____<br>Water table present? Yes _____ No <u>  X  </u> Depth (inches): _____<br>Saturation present? Yes _____ No <u>  X  </u> Depth (inches): _____<br>(includes capillary fringe) | <b>Indicators of wetland hydrology present?</b> <u>  N  </u> |
|--|--|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 No free water or saturation observed within 24 inches of soil surface.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site Lower Afton Road City/County: Maplewood/Ramsey Sampling Date: 11/1/2023  
 Applicant/Owner: D.R. Horton State: MN Sampling Point: SP9-1W  
 Investigator(s): Mary Clare M. & Michael G. Section, Township, Range: S: 12, T:28N, R:22W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave  
 Slope (%): 0 to 2% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name Duluth silt loam NWI Classification: PEM1A

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? Yes  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in remarks.)

**SUMMARY OF FINDINGS**

|  |          |   |
|--|----------|---|
| Hydrophytic vegetation present?          | <u>Y</u> | <b>Is the sampled area within a wetland?</b> <u>Y</u><br>if yes, optional wetland site ID: <u>Wetland 9</u> |
| Hydric soil present?                     | <u>Y</u> |   |
| Indicators of wetland hydrology present? | <u>Y</u> |   |

Remarks: (Explain alternative procedures here or in a separate report.)  
 Climatic conditions are typical (normal) based on the gridded database.

**VEGETATION -- Use scientific names of plants.**

| Tree Stratum          | (Plot size: <u>30 ft.</u> ) | Absolute % Cover | Dominant Species | Indicator Status | <b>Dominance Test Worksheet</b><br>Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)<br>Total Number of Dominant Species Across all Strata: <u>1</u> (B)<br>Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)  |
|-----------------------|-----------------------------|------------------|------------------|------------------|---|
| 1                     |                             |                  |                  |                  |   |
| 2                     |                             |                  |                  |                  |   |
| 3                     |                             |                  |                  |                  |   |
| 4                     |                             |                  |                  |                  |   |
| 5                     |                             |                  |                  |                  |   |
|                       |                             | <u>0</u>         | = Total Cover    |                  |   |
| Sapling/Shrub stratum | (Plot size: <u>15 ft.</u> ) |                  |                  |                  | <b>Prevalence Index Worksheet</b><br>Total % Cover of:<br>OBL species <u>5</u> x 1 = <u>5</u><br>FACW species <u>95</u> x 2 = <u>190</u><br>FAC species <u>0</u> x 3 = <u>0</u><br>FACU species <u>0</u> x 4 = <u>0</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column totals <u>100</u> (A) <u>195</u> (B)<br>Prevalence Index = B/A = <u>1.95</u> |
| 1                     |                             |                  |                  |                  |   |
| 2                     |                             |                  |                  |                  |   |
| 3                     |                             |                  |                  |                  |   |
| 4                     |                             |                  |                  |                  |   |
| 5                     |                             |                  |                  |                  |   |
|                       |                             | <u>0</u>         | = Total Cover    |                  |   |
| Herb stratum          | (Plot size: <u>5 ft.</u> )  |                  |                  |                  |   |
| 1                     | <u>Phalaris arundinacea</u> | <u>95</u>        | <u>Y</u>         | <u>FACW</u>      |   |
| 2                     | <u>Lycopus uniflorus</u>    | <u>5</u>         | <u>N</u>         | <u>OBL</u>       |   |
| 3                     |                             |                  |                  |                  |   |
| 4                     |                             |                  |                  |                  |   |
| 5                     |                             |                  |                  |                  |   |
| 6                     |                             |                  |                  |                  |   |
| 7                     |                             |                  |                  |                  |   |
| 8                     |                             |                  |                  |                  |   |
| 9                     |                             |                  |                  |                  |   |
| 10                    |                             |                  |                  |                  |   |
|                       |                             | <u>100</u>       | = Total Cover    |                  |   |
| Woody vine stratum    | (Plot size: <u>30 ft.</u> ) |                  |                  |                  |   |
| 1                     |                             |                  |                  |                  |   |
| 2                     |                             |                  |                  |                  |   |
|                       |                             | <u>0</u>         | = Total Cover    |                  |   |

Remarks: (Include photo numbers here or on a separate sheet)

**SOIL**

Sampling Point: SP9-1W

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |       |       |           |                 |
|---|---------------|-----|----------------|---|-------|-------|-----------|-----------------|
| Depth (Inches)  | Matrix        |     | Redox Features |   |       |       | Texture   | Remarks         |
|   | Color (moist) | %   | Color (moist)  | % | Type* | Loc** |           |                 |
| 0-6   | 10YR 2/1      | 100 |                |   |       |       | Muck      |                 |
| 6-26  | 10YR 2/1      | 100 |                |   |       |       | Clay Loam | Sand Inclusions |
|   |               |     |                |   |       |       |           |                 |
|   |               |     |                |   |       |       |           |                 |
|   |               |     |                |   |       |       |           |                 |
|   |               |     |                |   |       |       |           |                 |
|   |               |     |                |   |       |       |           |                 |

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

|  |   |  |
|--|---|--|
| <p><b>Hydric Soil Indicators:</b></p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input checked="" type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input checked="" type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)</p> | <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> | <p><b>Indicators for Problematic Hydric Soils:</b></p> <p><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)</p> <p><input type="checkbox"/> Dark Surface (S7) (LRR K, L)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (explain in remarks)</p> <p><br/></p> <p>*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic</p> |
|--|---|--|

|  |   |
|--|---|
| <p><b>Restrictive Layer (if observed):</b></p> <p>Type: _____</p> <p>Depth (inches): _____</p> | <p><b>Hydric soil present?</b> <u>Y</u></p> |
|--|---|

Remarks:  
Assumed depleted at some depth based on vegetation and water table observed in the sample borehole.

**HYDROLOGY**

|   |   |
|---|---|
| <b>Wetland Hydrology Indicators:</b>  |   |
| <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1)</p> <p><input type="checkbox"/> Sediment Deposits (B2)</p> <p><input type="checkbox"/> Drift Deposits (B3)</p> <p><input type="checkbox"/> Algal Mat or Crust (B4)</p> <p><input type="checkbox"/> Iron Deposits (B5)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p> | <p><u>Secondary Indicators (minimum of two required)</u></p> <p><input type="checkbox"/> Aquatic Fauna (B13)</p> <p><input type="checkbox"/> True Aquatic Plants (B14)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Gauge or Well Data (D9)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> |

|   |   |
|---|---|
| <p><b>Field Observations:</b></p> <p>Surface water present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water table present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>22</u></p> <p>Saturation present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>22</u></p> <p>(includes capillary fringe)</p> | <p><b>Indicators of wetland hydrology present?</b> <u>Y</u></p> |
|---|---|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
Free water present at 22 inches below soil surface.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site Lower Afton Road City/County: Maplewood/Ramsey Sampling Date: 11/1/2023  
 Applicant/Owner: D.R. Horton State: MN Sampling Point: SP10-1Up  
 Investigator(s): Mary Clare M. & Michael G. Section, Township, Range: S: 12, T:28N, R:22W  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Linear  
 Slope (%): 4 to 7% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name Duluth silt loam NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? Yes  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in remarks.)

**SUMMARY OF FINDINGS**

|  |          |  |
|--|----------|--|
| Hydrophytic vegetation present?          | <u>Y</u> | <b>Is the sampled area within a wetland?</b> <u>N</u><br>if yes, optional wetland site ID: _____ |
| Hydric soil present?                     | <u>N</u> |  |
| Indicators of wetland hydrology present? | <u>N</u> |  |

Remarks: (Explain alternative procedures here or in a separate report.)  
 Climatic conditions are typical (normal) based on the gridded database.

**VEGETATION -- Use scientific names of plants.**

| Tree Stratum (Plot size: <u>30 ft.</u> )                | Absolute % Cover         | Dominant Species | Indicator Status | <b>Dominance Test Worksheet</b>   |
|---|--------------------------|------------------|------------------|---|
| 1 <u>Acer rubrum</u>                                    | <u>5</u>                 | <u>Y</u>         | <u>FAC</u>       |   |
| 2 _____   | _____                    | _____            | _____            | Total Number of Dominant Species Across all Strata: <u>2</u> (B)                                  |
| 3 _____   | _____                    | _____            | _____            | Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)                      |
| 4 _____   | _____                    | _____            | _____            | <b>Prevalence Index Worksheet</b>   |
| 5 _____   | <u>5</u> = Total Cover   | _____            | _____            |   |
| <b>Sapling/Shrub stratum (Plot size: <u>15 ft.</u>)</b> |                          |                  |                  | OBL species <u>0</u> x 1 = <u>0</u>   |
| 1 _____   | _____                    | _____            | _____            | FACW species <u>0</u> x 2 = <u>0</u>  |
| 2 _____   | _____                    | _____            | _____            | FAC species <u>105</u> x 3 = <u>315</u>   |
| 3 _____   | _____                    | _____            | _____            | FACU species <u>5</u> x 4 = <u>20</u>   |
| 4 _____   | _____                    | _____            | _____            | UPL species <u>0</u> x 5 = <u>0</u>   |
| 5 _____   | <u>0</u> = Total Cover   | _____            | _____            | Column totals <u>110</u> (A) <u>335</u> (B)   |
| <b>Herb stratum (Plot size: <u>5 ft.</u>)</b>           |                          |                  |                  | Prevalence Index = B/A = <u>3.05</u>  |
| 1 <u>Poa pratensis</u>                                  | <u>100</u>               | <u>Y</u>         | <u>FAC</u>       | <b>Hydrophytic Vegetation Indicators:</b>   |
| 2 <u>Solidago canadensis</u>                            | <u>5</u>                 | <u>N</u>         | <u>FACU</u>      |   |
| 3 _____   | _____                    | _____            | _____            |   |
| 4 _____   | _____                    | _____            | _____            |   |
| 5 _____   | _____                    | _____            | _____            |   |
| 6 _____   | _____                    | _____            | _____            |   |
| 7 _____   | _____                    | _____            | _____            |   |
| 8 _____   | _____                    | _____            | _____            |   |
| 9 _____   | _____                    | _____            | _____            |   |
| 10 _____  | <u>105</u> = Total Cover | _____            | _____            |   |
| <b>Woody vine stratum (Plot size: <u>30 ft.</u>)</b>    |                          |                  |                  | *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic |
| 1 _____   | _____                    | _____            | _____            |   |
| 2 _____   | <u>0</u> = Total Cover   | _____            | _____            | <b>Hydrophytic vegetation present?</b> <u>Y</u>   |

Remarks: (Include photo numbers here or on a separate sheet)  
 All species FAC or drier. PI > 3

**SOIL**

Sampling Point: SP10-1Up

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |       |       |         |                   |
|---|---------------|-----|----------------|---|-------|-------|---------|-------------------|
| Depth (Inches)  | Matrix        |     | Redox Features |   |       |       | Texture | Remarks           |
|   | Color (moist) | %   | Color (moist)  | % | Type* | Loc** |         |                   |
| 0-8   | 10YR 3/2      | 100 |                |   |       |       | Loam    |                   |
| 8-18  | 10YR 4/4      | 100 |                |   |       |       | Loam    | Gravel Inclusions |
| 18+   |               |     |                |   |       |       |         | Restricted        |
|   |               |     |                |   |       |       |         |                   |
|   |               |     |                |   |       |       |         |                   |
|   |               |     |                |   |       |       |         |                   |
|   |               |     |                |   |       |       |         |                   |

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

|   |  |  |  |  |  |
|---|--|--|--|--|--|
| <b>Hydric Soil Indicators:</b><br><input type="checkbox"/> Histosol (A1)<br><input type="checkbox"/> Histic Epipedon (A2)<br><input type="checkbox"/> Black Histic (A3)<br><input type="checkbox"/> Hydrogen Sulfide (A4)<br><input type="checkbox"/> Stratified Layers (A5)<br><input type="checkbox"/> 2 cm Muck (A10)<br><input type="checkbox"/> Depleted Below Dark Surface (A11)<br><input type="checkbox"/> Thick Dark Surface (A12)<br><input type="checkbox"/> Sandy Mucky Mineral (S1)<br><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) |  | <input type="checkbox"/> Sandy Gleyed Matrix (S4)<br><input type="checkbox"/> Sandy Redox (S5)<br><input type="checkbox"/> Stripped Matrix (S6)<br><input type="checkbox"/> Loamy Mucky Mineral (F1)<br><input type="checkbox"/> Loamy Gleyed Matrix (F2)<br><input type="checkbox"/> Depleted Matrix (F3)<br><input type="checkbox"/> Redox Dark Surface (F6)<br><input type="checkbox"/> Depleted Dark Surface (F7)<br><input type="checkbox"/> Redox Depressions (F8) |  | <b>Indicators for Problematic Hydric Soils:</b><br><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)<br><input type="checkbox"/> Dark Surface (S7) (LRR K, L)<br><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)<br><input type="checkbox"/> Very Shallow Dark Surface (TF12)<br><input type="checkbox"/> Other (explain in remarks) |  |
|---|--|--|--|--|--|

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

|   |                                      |
|---|--------------------------------------|
| <b>Restrictive Layer (if observed):</b><br>Type: <u>Rock</u><br>Depth (inches): <u>18</u> | <b>Hydric soil present?</b> <u>N</u> |
|---|--------------------------------------|

Remarks:

**HYDROLOGY**

|   |   |  |  |  |  |
|---|---|--|--|--|--|
| <b>Wetland Hydrology Indicators:</b><br>Primary Indicators (minimum of one is required; check all that apply) |   |  | Secondary Indicators (minimum of two required) |  |  |
| <input type="checkbox"/> Surface Water (A1)   | <input type="checkbox"/> Aquatic Fauna (B13)                        | <input type="checkbox"/> Surface Soil Cracks (B6)                  |  |  |  |
| <input type="checkbox"/> High Water Table (A2)  | <input type="checkbox"/> True Aquatic Plants (B14)                  | <input type="checkbox"/> Drainage Patterns (B10)                   |  |  |  |
| <input type="checkbox"/> Saturation (A3)  | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                 | <input type="checkbox"/> Dry-Season Water Table (C2)               |  |  |  |
| <input type="checkbox"/> Water Marks (B1)   | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) | <input type="checkbox"/> Crayfish Burrows (C8)                     |  |  |  |
| <input type="checkbox"/> Sediment Deposits (B2)   | <input type="checkbox"/> Presence of Reduced Iron (C4)              | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |  |  |  |
| <input type="checkbox"/> Drift Deposits (B3)  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Stunted or Stressed Plants (D1)           |  |  |  |
| <input type="checkbox"/> Algal Mat or Crust (B4)  | <input type="checkbox"/> Thin Muck Surface (C7)                     | <input type="checkbox"/> Geomorphic Position (D2)                  |  |  |  |
| <input type="checkbox"/> Iron Deposits (B5)   | <input type="checkbox"/> Gauge or Well Data (D9)                    | <input type="checkbox"/> FAC-Neutral Test (D5)                     |  |  |  |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)  | <input type="checkbox"/> Other (Explain in Remarks)                 |  |  |  |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)  |   |  |  |  |  |
| <input type="checkbox"/> Water-Stained Leaves (B9)  |   |  |  |  |  |

|  |  |
|--|--|
| <b>Field Observations:</b><br>Surface water present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____<br>Water table present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____<br>Saturation present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____<br>(includes capillary fringe) | <b>Indicators of wetland hydrology present?</b> <u>N</u> |
|--|--|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 No free water or saturation observed within 18 inches of soil surface.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site Lower Afton Road City/County: Maplewood/Ramsey Sampling Date: 11/1/2023  
 Applicant/Owner: D.R. Horton State: MN Sampling Point: SP10-1W  
 Investigator(s): Mary Clare M. & Michael G. Section, Township, Range: S: 12, T:28N, R:22W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave  
 Slope (%): 0 to 3% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name Duluth silt loam NWI Classification: PUBGx

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? Yes  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in remarks.)

**SUMMARY OF FINDINGS**

|  |          |  |
|--|----------|--|
| Hydrophytic vegetation present?          | <u>Y</u> | <b>Is the sampled area within a wetland?</b> <u>Y</u><br>if yes, optional wetland site ID: <u>Wetland 10</u> |
| Hydric soil present?                     | <u>Y</u> |  |
| Indicators of wetland hydrology present? | <u>Y</u> |  |

Remarks: (Explain alternative procedures here or in a separate report.)  
 Climatic conditions are atypical (dry) based on the gridded database.

**VEGETATION -- Use scientific names of plants.**

| Tree Stratum          | (Plot size: <u>30 ft.</u> )    | Absolute % Cover | Dominant Species | Indicator Status | <b>Dominance Test Worksheet</b><br>Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)<br>Total Number of Dominant Species Across all Strata: <u>1</u> (B)<br>Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)  |
|-----------------------|--------------------------------|------------------|------------------|------------------|---|
| 1                     |                                |                  |                  |                  |   |
| 2                     |                                |                  |                  |                  |   |
| 3                     |                                |                  |                  |                  |   |
| 4                     |                                |                  |                  |                  |   |
| 5                     |                                |                  |                  |                  |   |
|                       |                                | <u>0</u>         | = Total Cover    |                  | <b>Prevalence Index Worksheet</b><br>Total % Cover of:<br>OBL species <u>40</u> x 1 = <u>40</u><br>FACW species <u>40</u> x 2 = <u>80</u><br>FAC species <u>0</u> x 3 = <u>0</u><br>FACU species <u>0</u> x 4 = <u>0</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column totals <u>80</u> (A) <u>120</u> (B)<br>Prevalence Index = B/A = <u>1.50</u>   |
| Sapling/Shrub stratum | (Plot size: <u>15 ft.</u> )    |                  |                  |                  |   |
| 1                     |                                |                  |                  |                  |   |
| 2                     |                                |                  |                  |                  |   |
| 3                     |                                |                  |                  |                  |   |
| 4                     |                                |                  |                  |                  |   |
| 5                     |                                |                  |                  |                  |   |
|                       |                                | <u>0</u>         | = Total Cover    |                  |   |
| Herb stratum          | (Plot size: <u>5 ft.</u> )     |                  |                  |                  | <b>Hydrophytic Vegetation Indicators:</b><br><u>  </u> Rapid test for hydrophytic vegetation<br><u>X</u> Dominance test is >50%<br><u>X</u> Prevalence index is ≤3.0*<br><br>Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)<br><br>Problematic hydrophytic vegetation* (explain)<br><br>*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic |
| 1                     | <u>Typha angustifolia</u>      | <u>40</u>        | <u>Y</u>         | <u>OBL</u>       |   |
| 2                     | <u>Verbena hastata</u>         | <u>15</u>        | <u>N</u>         | <u>FACW</u>      |   |
| 3                     | <u>Persicaria pensylvanica</u> | <u>15</u>        | <u>N</u>         | <u>FACW</u>      |   |
| 4                     | <u>Phalaris arundinacea</u>    | <u>10</u>        | <u>N</u>         | <u>FACW</u>      |   |
| 5                     |                                |                  |                  |                  |   |
| 6                     |                                |                  |                  |                  |   |
| 7                     |                                |                  |                  |                  |   |
| 8                     |                                |                  |                  |                  |   |
| 9                     |                                |                  |                  |                  |   |
| 10                    |                                |                  |                  |                  |   |
|                       |                                | <u>80</u>        | = Total Cover    |                  |   |
| Woody vine stratum    | (Plot size: <u>30 ft.</u> )    |                  |                  |                  | <b>Hydrophytic vegetation present?</b> <u>Y</u>   |
| 1                     |                                |                  |                  |                  |   |
| 2                     |                                |                  |                  |                  |   |
|                       |                                | <u>0</u>         | = Total Cover    |                  |   |

Remarks: (Include photo numbers here or on a separate sheet)

**SOIL**

Sampling Point: SP10-1W

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |    |       |       |           |         |
|---|---------------|-----|----------------|----|-------|-------|-----------|---------|
| Depth (Inches)  | Matrix        |     | Redox Features |    |       |       | Texture   | Remarks |
|   | Color (moist) | %   | Color (moist)  | %  | Type* | Loc** |           |         |
| 0-8   | 10YR 2/1      | 100 |                |    |       |       | Loam      |         |
| 8-16  | 10YR 5/1      | 60  | 10YR 4/6       | 40 | C     | M     | Clay Loam |         |
| 16-24   | 10YR 6/2      | 70  | 10YR 4/6       | 30 | C     | M     | Clay Loam |         |
|   |               |     |                |    |       |       |           |         |
|   |               |     |                |    |       |       |           |         |
|   |               |     |                |    |       |       |           |         |
|   |               |     |                |    |       |       |           |         |

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

|  |   |  |
|--|---|--|
| <b>Hydric Soil Indicators:</b><br><input type="checkbox"/> Histosol (A1)<br><input type="checkbox"/> Histic Epipedon (A2)<br><input type="checkbox"/> Black Histic (A3)<br><input type="checkbox"/> Hydrogen Sulfide (A4)<br><input type="checkbox"/> Stratified Layers (A5)<br><input type="checkbox"/> 2 cm Muck (A10)<br><input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)<br><input type="checkbox"/> Thick Dark Surface (A12)<br><input type="checkbox"/> Sandy Mucky Mineral (S1)<br><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) | <input type="checkbox"/> Sandy Gleyed Matrix (S4)<br><input type="checkbox"/> Sandy Redox (S5)<br><input type="checkbox"/> Stripped Matrix (S6)<br><input type="checkbox"/> Loamy Mucky Mineral (F1)<br><input type="checkbox"/> Loamy Gleyed Matrix (F2)<br><input checked="" type="checkbox"/> Depleted Matrix (F3)<br><input type="checkbox"/> Redox Dark Surface (F6)<br><input type="checkbox"/> Depleted Dark Surface (F7)<br><input type="checkbox"/> Redox Depressions (F8) | <b>Indicators for Problematic Hydric Soils:</b><br><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)<br><input type="checkbox"/> Dark Surface (S7) (LRR K, L)<br><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)<br><input type="checkbox"/> Very Shallow Dark Surface (TF12)<br><input type="checkbox"/> Other (explain in remarks) |
|--|---|--|

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

|   |                                      |
|---|--------------------------------------|
| <b>Restrictive Layer (if observed):</b><br>Type: _____<br>Depth (inches): _____ | <b>Hydric soil present?</b> <u>Y</u> |
|---|--------------------------------------|

Remarks:

**HYDROLOGY**

|  |   |   |  |  |  |
|--|---|---|--|--|--|
| <b>Wetland Hydrology Indicators:</b><br>Primary Indicators (minimum of one is required; check all that apply)  |   |   | Secondary Indicators (minimum of two required) |  |  |
| <input type="checkbox"/> Surface Water (A1)<br><input type="checkbox"/> High Water Table (A2)<br><input type="checkbox"/> Saturation (A3)<br><input type="checkbox"/> Water Marks (B1)<br><input type="checkbox"/> Sediment Deposits (B2)<br><input type="checkbox"/> Drift Deposits (B3)<br><input type="checkbox"/> Algal Mat or Crust (B4)<br><input type="checkbox"/> Iron Deposits (B5)<br><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)<br><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)<br><input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Aquatic Fauna (B13)<br><input type="checkbox"/> True Aquatic Plants (B14)<br><input type="checkbox"/> Hydrogen Sulfide Odor (C1)<br><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)<br><input type="checkbox"/> Presence of Reduced Iron (C4)<br><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)<br><input type="checkbox"/> Thin Muck Surface (C7)<br><input type="checkbox"/> Gauge or Well Data (D9)<br><input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Surface Soil Cracks (B6)<br><input type="checkbox"/> Drainage Patterns (B10)<br><input checked="" type="checkbox"/> Dry-Season Water Table (C2)<br><input type="checkbox"/> Crayfish Burrows (C8)<br><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)<br><input type="checkbox"/> Stunted or Stressed Plants (D1)<br><input checked="" type="checkbox"/> Geomorphic Position (D2)<br><input checked="" type="checkbox"/> FAC-Neutral Test (D5) |  |  |  |

|  |  |
|--|--|
| <b>Field Observations:</b><br>Surface water present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____<br>Water table present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>18</u><br>Saturation present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>18</u><br>(includes capillary fringe) | <b>Indicators of wetland hydrology present?</b> <u>Y</u> |
|--|--|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 Free water present at 18 inches below the soil surface. Surface water present in the center of the basin.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site Lower Afton Road City/County: Maplewood/Ramsey Sampling Date: 11/1/2023  
 Applicant/Owner: D.R. Horton State: MN Sampling Point: SP11-1Up  
 Investigator(s): Mary Clare M. & Michael G. Section, Township, Range: S: 12, T:28N, R:22W  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Linear  
 Slope (%): 5 to 8% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name Duluth silt loam NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? Yes  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in remarks.)

**SUMMARY OF FINDINGS**

|  |          |  |
|--|----------|--|
| Hydrophytic vegetation present?          | <u>Y</u> | <b>Is the sampled area within a wetland?</b> <u>N</u><br>if yes, optional wetland site ID: _____ |
| Hydric soil present?                     | <u>N</u> |  |
| Indicators of wetland hydrology present? | <u>N</u> |  |

Remarks: (Explain alternative procedures here or in a separate report.)  
 Climatic conditions are typical (normal) based on the gridded database.

**VEGETATION -- Use scientific names of plants.**

| Tree Stratum   | (Plot size: <u>30 ft.</u> ) | Absolute % Cover | Dominant Species | Indicator Status | <b>Dominance Test Worksheet</b><br>Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)<br>Total Number of Dominant Species Across all Strata: <u>1</u> (B)<br>Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)   |
|--|-----------------------------|------------------|------------------|------------------|--|
| 1  |                             |                  |                  |                  |  |
| 2  |                             |                  |                  |                  |  |
| 3  |                             |                  |                  |                  |  |
| 4  |                             |                  |                  |                  |  |
| 5  |                             |                  |                  |                  |  |
|  |                             | <u>0</u>         | = Total Cover    |                  | <b>Prevalence Index Worksheet</b><br>Total % Cover of:<br>OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>90</u> x 3 = <u>270</u><br>FACU species <u>5</u> x 4 = <u>20</u><br>UPL species <u>10</u> x 5 = <u>50</u><br>Column totals <u>105</u> (A) <u>340</u> (B)<br>Prevalence Index = B/A = <u>3.24</u> |
| <b>Sapling/Shrub stratum</b> (Plot size: <u>15 ft.</u> ) |                             |                  |                  |                  |  |
| 1  |                             |                  |                  |                  |  |
| 2  |                             |                  |                  |                  |  |
| 3  |                             |                  |                  |                  |  |
| 4  |                             |                  |                  |                  |  |
| 5  |                             |                  |                  |                  |  |
|  |                             | <u>0</u>         | = Total Cover    |                  |  |
| <b>Herb stratum</b> (Plot size: <u>5 ft.</u> )           |                             |                  |                  |                  |  |
| 1  | <u>Poa pratensis</u>        | <u>90</u>        | <u>Y</u>         | <u>FAC</u>       |  |
| 2  | <u>Verbascum thapsus</u>    | <u>10</u>        | <u>N</u>         | <u>UPL</u>       |  |
| 3  | <u>Cirsium arvense</u>      | <u>5</u>         | <u>N</u>         | <u>FACU</u>      |  |
| 4  |                             |                  |                  |                  |  |
| 5  |                             |                  |                  |                  |  |
| 6  |                             |                  |                  |                  |  |
| 7  |                             |                  |                  |                  |  |
| 8  |                             |                  |                  |                  |  |
| 9  |                             |                  |                  |                  |  |
| 10   |                             |                  |                  |                  |  |
|  |                             | <u>105</u>       | = Total Cover    |                  |  |
| <b>Woody vine stratum</b> (Plot size: <u>30 ft.</u> )    |                             |                  |                  |                  |  |
| 1  |                             |                  |                  |                  |  |
| 2  |                             |                  |                  |                  |  |
|  |                             | <u>0</u>         | = Total Cover    |                  |  |

Remarks: (Include photo numbers here or on a separate sheet)  
 All species FAC or drier. PI > 3

**SOIL**

Sampling Point: SP11-1Up

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |       |       |           |         |
|---|---------------|-----|----------------|---|-------|-------|-----------|---------|
| Depth (Inches)  | Matrix        |     | Redox Features |   |       |       | Texture   | Remarks |
|   | Color (moist) | %   | Color (moist)  | % | Type* | Loc** |           |         |
| 0-10  | 10YR 3/2      | 100 |                |   |       |       | Loam      |         |
| 10-24   | 10YR 4/4      | 100 |                |   |       |       | Clay Loam |         |
|   |               |     |                |   |       |       |           |         |
|   |               |     |                |   |       |       |           |         |
|   |               |     |                |   |       |       |           |         |
|   |               |     |                |   |       |       |           |         |
|   |               |     |                |   |       |       |           |         |

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

|   |  |  |  |  |  |
|---|--|--|--|--|--|
| <b>Hydric Soil Indicators:</b><br><input type="checkbox"/> Histosol (A1)<br><input type="checkbox"/> Histic Epipedon (A2)<br><input type="checkbox"/> Black Histic (A3)<br><input type="checkbox"/> Hydrogen Sulfide (A4)<br><input type="checkbox"/> Stratified Layers (A5)<br><input type="checkbox"/> 2 cm Muck (A10)<br><input type="checkbox"/> Depleted Below Dark Surface (A11)<br><input type="checkbox"/> Thick Dark Surface (A12)<br><input type="checkbox"/> Sandy Mucky Mineral (S1)<br><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) |  | <input type="checkbox"/> Sandy Gleyed Matrix (S4)<br><input type="checkbox"/> Sandy Redox (S5)<br><input type="checkbox"/> Stripped Matrix (S6)<br><input type="checkbox"/> Loamy Mucky Mineral (F1)<br><input type="checkbox"/> Loamy Gleyed Matrix (F2)<br><input type="checkbox"/> Depleted Matrix (F3)<br><input type="checkbox"/> Redox Dark Surface (F6)<br><input type="checkbox"/> Depleted Dark Surface (F7)<br><input type="checkbox"/> Redox Depressions (F8) |  | <b>Indicators for Problematic Hydric Soils:</b><br><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)<br><input type="checkbox"/> Dark Surface (S7) (LRR K, L)<br><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)<br><input type="checkbox"/> Very Shallow Dark Surface (TF12)<br><input type="checkbox"/> Other (explain in remarks) |  |
|---|--|--|--|--|--|

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

|   |  |
|---|--|
| <b>Restrictive Layer (if observed):</b><br>Type: _____<br>Depth (inches): _____ | <b>Hydric soil present?</b> <u>  N  </u> |
|---|--|

Remarks:

**HYDROLOGY**

|   |   |  |  |  |  |
|---|---|--|--|--|--|
| <b>Wetland Hydrology Indicators:</b><br>Primary Indicators (minimum of one is required; check all that apply) |   |  | Secondary Indicators (minimum of two required) |  |  |
| <input type="checkbox"/> Surface Water (A1)   | <input type="checkbox"/> Aquatic Fauna (B13)                        | <input type="checkbox"/> Surface Soil Cracks (B6)                  |  |  |  |
| <input type="checkbox"/> High Water Table (A2)  | <input type="checkbox"/> True Aquatic Plants (B14)                  | <input type="checkbox"/> Drainage Patterns (B10)                   |  |  |  |
| <input type="checkbox"/> Saturation (A3)  | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                 | <input type="checkbox"/> Dry-Season Water Table (C2)               |  |  |  |
| <input type="checkbox"/> Water Marks (B1)   | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) | <input type="checkbox"/> Crayfish Burrows (C8)                     |  |  |  |
| <input type="checkbox"/> Sediment Deposits (B2)   | <input type="checkbox"/> Presence of Reduced Iron (C4)              | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |  |  |  |
| <input type="checkbox"/> Drift Deposits (B3)  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Stunted or Stressed Plants (D1)           |  |  |  |
| <input type="checkbox"/> Algal Mat or Crust (B4)  | <input type="checkbox"/> Thin Muck Surface (C7)                     | <input type="checkbox"/> Geomorphic Position (D2)                  |  |  |  |
| <input type="checkbox"/> Iron Deposits (B5)   | <input type="checkbox"/> Gauge or Well Data (D9)                    | <input type="checkbox"/> FAC-Neutral Test (D5)                     |  |  |  |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)  | <input type="checkbox"/> Other (Explain in Remarks)                 |  |  |  |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)  |   |  |  |  |  |
| <input type="checkbox"/> Water-Stained Leaves (B9)  |   |  |  |  |  |

|  |  |
|--|--|
| <b>Field Observations:</b><br>Surface water present? Yes _____ No <u>  X  </u> Depth (inches): _____<br>Water table present? Yes _____ No <u>  X  </u> Depth (inches): _____<br>Saturation present? Yes _____ No <u>  X  </u> Depth (inches): _____<br>(includes capillary fringe) | <b>Indicators of wetland hydrology present?</b> <u>  N  </u> |
|--|--|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 No free water or saturation observed within 24 inches of soil surface.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site Lower Afton Road City/County: Maplewood/Ramsey Sampling Date: 11/1/2023  
 Applicant/Owner: D.R. Horton State: MN Sampling Point: SP11-1W  
 Investigator(s): Mary Clare M. & Michael G. Section, Township, Range: S: 12, T:28N, R:22W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave  
 Slope (%): 0-2% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name Duluth silt loam NWI Classification: PEM1C

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? Yes  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? Yes  
 (If needed, explain any answers in remarks.)

**SUMMARY OF FINDINGS**

|  |          |  |
|--|----------|--|
| Hydrophytic vegetation present?          | <u>Y</u> | <b>Is the sampled area within a wetland?</b> <u>Y</u><br>if yes, optional wetland site ID: <u>Wetland 11</u> |
| Hydric soil present?                     | <u>Y</u> |  |
| Indicators of wetland hydrology present? | <u>Y</u> |  |

Remarks: (Explain alternative procedures here or in a separate report.)  
 Climatic conditions are typical (normal) based on the gridded database.

**VEGETATION -- Use scientific names of plants.**

| Tree Stratum          | (Plot size: <u>30 ft.</u> ) | Absolute % Cover | Dominant Species | Indicator Status | <b>Dominance Test Worksheet</b><br>Number of Dominant Species that are OBL, FACW, or FAC: <u>3</u> (A)<br>Total Number of Dominant Species Across all Strata: <u>3</u> (B)<br>Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)  |
|-----------------------|-----------------------------|------------------|------------------|------------------|---|
| 1                     |                             |                  |                  |                  |   |
| 2                     |                             |                  |                  |                  |   |
| 3                     |                             |                  |                  |                  |   |
| 4                     |                             |                  |                  |                  |   |
| 5                     |                             |                  |                  |                  |   |
|                       |                             | <u>0</u>         | = Total Cover    |                  |   |
| Sapling/Shrub stratum | (Plot size: <u>15 ft.</u> ) |                  |                  |                  | <b>Prevalence Index Worksheet</b><br>Total % Cover of:<br>OBL species <u>60</u> x 1 = <u>60</u><br>FACW species <u>40</u> x 2 = <u>80</u><br>FAC species <u>0</u> x 3 = <u>0</u><br>FACU species <u>5</u> x 4 = <u>20</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column totals <u>105</u> (A) <u>160</u> (B)<br>Prevalence Index = B/A = <u>1.52</u>   |
| 1                     | <u>Cornus alba</u>          | <u>10</u>        | <u>Y</u>         | <u>FACW</u>      |   |
| 2                     |                             |                  |                  |                  |   |
| 3                     |                             |                  |                  |                  |   |
| 4                     |                             |                  |                  |                  |   |
| 5                     |                             |                  |                  |                  |   |
|                       |                             | <u>10</u>        | = Total Cover    |                  |   |
| Herb stratum          | (Plot size: <u>5 ft.</u> )  |                  |                  |                  | <b>Hydrophytic Vegetation Indicators:</b><br><u>  </u> Rapid test for hydrophytic vegetation<br><u>X</u> Dominance test is >50%<br><u>X</u> Prevalence index is ≤3.0*<br><br>Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)<br><br>Problematic hydrophytic vegetation* (explain)<br><br>*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic |
| 1                     | <u>Typha angustifolia</u>   | <u>60</u>        | <u>Y</u>         | <u>OBL</u>       |   |
| 2                     | <u>Phalaris arundinacea</u> | <u>30</u>        | <u>Y</u>         | <u>FACW</u>      |   |
| 3                     | <u>Solidago canadensis</u>  | <u>5</u>         | <u>N</u>         | <u>FACU</u>      |   |
| 4                     |                             |                  |                  |                  |   |
| 5                     |                             |                  |                  |                  |   |
| 6                     |                             |                  |                  |                  |   |
| 7                     |                             |                  |                  |                  |   |
| 8                     |                             |                  |                  |                  |   |
| 9                     |                             |                  |                  |                  |   |
| 10                    |                             |                  |                  |                  |   |
|                       |                             | <u>95</u>        | = Total Cover    |                  |   |
| Woody vine stratum    | (Plot size: <u>30 ft.</u> ) |                  |                  |                  | <b>Hydrophytic vegetation present?</b> <u>Y</u>   |
| 1                     |                             |                  |                  |                  |   |
| 2                     |                             |                  |                  |                  |   |
|                       |                             | <u>0</u>         | = Total Cover    |                  |   |

Remarks: (Include photo numbers here or on a separate sheet)

**SOIL**

Sampling Point: SP11-1W

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |       |       |                 |         |
|---|---------------|-----|----------------|---|-------|-------|-----------------|---------|
| Depth (Inches)  | Matrix        |     | Redox Features |   |       |       | Texture         | Remarks |
|   | Color (moist) | %   | Color (moist)  | % | Type* | Loc** |                 |         |
| 0-6   | 10YR 2/1      | 100 |                |   |       |       | Muck            |         |
| 6-18  | 10YR 2/1      | 100 |                |   |       |       | Clay Loam       |         |
| 18-24   | 10YR 6/1      | 100 |                |   |       |       | Sandy Clay Loam |         |
|   |               |     |                |   |       |       |                 |         |
|   |               |     |                |   |       |       |                 |         |
|   |               |     |                |   |       |       |                 |         |
|   |               |     |                |   |       |       |                 |         |
|   |               |     |                |   |       |       |                 |         |

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

|   |  |  |  |  |  |
|---|--|--|--|--|--|
| <b>Hydric Soil Indicators:</b><br><input type="checkbox"/> Histosol (A1)<br><input type="checkbox"/> Histic Epipedon (A2)<br><input type="checkbox"/> Black Histic (A3)<br><input type="checkbox"/> Hydrogen Sulfide (A4)<br><input type="checkbox"/> Stratified Layers (A5)<br><input checked="" type="checkbox"/> 2 cm Muck (A10)<br><input type="checkbox"/> Depleted Below Dark Surface (A11)<br><input checked="" type="checkbox"/> Thick Dark Surface (A12)<br><input type="checkbox"/> Sandy Mucky Mineral (S1)<br><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) |  | <input type="checkbox"/> Sandy Gleyed Matrix (S4)<br><input type="checkbox"/> Sandy Redox (S5)<br><input type="checkbox"/> Stripped Matrix (S6)<br><input type="checkbox"/> Loamy Mucky Mineral (F1)<br><input type="checkbox"/> Loamy Gleyed Matrix (F2)<br><input type="checkbox"/> Depleted Matrix (F3)<br><input type="checkbox"/> Redox Dark Surface (F6)<br><input type="checkbox"/> Depleted Dark Surface (F7)<br><input type="checkbox"/> Redox Depressions (F8) |  | <b>Indicators for Problematic Hydric Soils:</b><br><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)<br><input type="checkbox"/> Dark Surface (S7) (LRR K, L)<br><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)<br><input type="checkbox"/> Very Shallow Dark Surface (TF12)<br><input type="checkbox"/> Other (explain in remarks) |  |
|---|--|--|--|--|--|

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

|   |                                      |
|---|--------------------------------------|
| <b>Restrictive Layer (if observed):</b><br>Type: _____<br>Depth (inches): _____ | <b>Hydric soil present?</b> <u>Y</u> |
|---|--------------------------------------|

Remarks:

**HYDROLOGY**

|  |   |  |  |  |  |
|--|---|--|--|--|--|
| <b>Wetland Hydrology Indicators:</b><br>Primary Indicators (minimum of one is required; check all that apply)  |   |  | Secondary Indicators (minimum of two required) |  |  |
| <input type="checkbox"/> Surface Water (A1)<br><input type="checkbox"/> High Water Table (A2)<br><input type="checkbox"/> Saturation (A3)<br><input type="checkbox"/> Water Marks (B1)<br><input type="checkbox"/> Sediment Deposits (B2)<br><input type="checkbox"/> Drift Deposits (B3)<br><input type="checkbox"/> Algal Mat or Crust (B4)<br><input type="checkbox"/> Iron Deposits (B5)<br><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)<br><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)<br><input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Aquatic Fauna (B13)<br><input type="checkbox"/> True Aquatic Plants (B14)<br><input type="checkbox"/> Hydrogen Sulfide Odor (C1)<br><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)<br><input type="checkbox"/> Presence of Reduced Iron (C4)<br><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)<br><input type="checkbox"/> Thin Muck Surface (C7)<br><input type="checkbox"/> Gauge or Well Data (D9)<br><input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Surface Soil Cracks (B6)<br><input type="checkbox"/> Drainage Patterns (B10)<br><input type="checkbox"/> Dry-Season Water Table (C2)<br><input type="checkbox"/> Crayfish Burrows (C8)<br><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)<br><input type="checkbox"/> Stunted or Stressed Plants (D1)<br><input checked="" type="checkbox"/> Geomorphic Position (D2)<br><input checked="" type="checkbox"/> FAC-Neutral Test (D5) |  |  |  |

|  |  |
|--|--|
| <b>Field Observations:</b><br>Surface water present? Yes _____ No <u>X</u> Depth (inches): _____<br>Water table present? Yes _____ No <u>X</u> Depth (inches): _____<br>Saturation present? Yes _____ No <u>X</u> Depth (inches): _____<br>(includes capillary fringe) | <b>Indicators of wetland hydrology present?</b> <u>Y</u> |
|--|--|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 No free water or saturation observed within 24 inches of soil surface.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site Lower Afton Road City/County: Maplewood/Ramsey Sampling Date: 11/1/2023  
 Applicant/Owner: D.R. Horton State: MN Sampling Point: SP12-1Up  
 Investigator(s): Mary Clare M. & Michael G. Section, Township, Range: S: 12, T:28N, R:22W  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Linear  
 Slope (%): 10 to 14% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name Kingsley sandy loam NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? Yes  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in remarks.)

**SUMMARY OF FINDINGS**

|  |          |  |
|--|----------|--|
| Hydrophytic vegetation present?          | <u>N</u> | <b>Is the sampled area within a wetland?</b> <u>N</u><br>if yes, optional wetland site ID: _____ |
| Hydric soil present?                     | <u>N</u> |  |
| Indicators of wetland hydrology present? | <u>N</u> |  |

Remarks: (Explain alternative procedures here or in a separate report.)  
 Climatic conditions are typical (normal) based on the gridded database.

**VEGETATION -- Use scientific names of plants.**

| Tree Stratum          | (Plot size: <u>30 ft.</u> ) | Absolute % Cover | Dominant Species | Indicator Status | <b>Dominance Test Worksheet</b><br>Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A)<br>Total Number of Dominant Species Across all Strata: <u>1</u> (B)<br>Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (A/B)   |
|-----------------------|-----------------------------|------------------|------------------|------------------|--|
| 1                     | _____                       | _____            | _____            | _____            |  |
| 2                     | _____                       | _____            | _____            | _____            |  |
| 3                     | _____                       | _____            | _____            | _____            |  |
| 4                     | _____                       | _____            | _____            | _____            |  |
| 5                     | _____                       | _____            | _____            | _____            |  |
|                       |                             | <u>0</u>         | = Total Cover    |                  |  |
| Sapling/Shrub stratum | (Plot size: <u>15 ft.</u> ) |                  |                  |                  | <b>Prevalence Index Worksheet</b><br>Total % Cover of:<br>OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>10</u> x 2 = <u>20</u><br>FAC species <u>20</u> x 3 = <u>60</u><br>FACU species <u>65</u> x 4 = <u>260</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column totals <u>95</u> (A) <u>340</u> (B)<br>Prevalence Index = B/A = <u>3.58</u> |
| 1                     | _____                       | _____            | _____            | _____            |  |
| 2                     | _____                       | _____            | _____            | _____            |  |
| 3                     | _____                       | _____            | _____            | _____            |  |
| 4                     | _____                       | _____            | _____            | _____            |  |
| 5                     | _____                       | _____            | _____            | _____            |  |
|                       |                             | <u>0</u>         | = Total Cover    |                  |  |
| Herb stratum          | (Plot size: <u>5 ft.</u> )  |                  |                  |                  |  |
| 1                     | <u>Solidago canadensis</u>  | <u>65</u>        | <u>Y</u>         | <u>FACU</u>      |  |
| 2                     | <u>Poa pratensis</u>        | <u>15</u>        | <u>N</u>         | <u>FAC</u>       |  |
| 3                     | <u>Cornus alba</u>          | <u>10</u>        | <u>N</u>         | <u>FACW</u>      |  |
| 4                     | <u>Andropogon gerardii</u>  | <u>5</u>         | <u>N</u>         | <u>FAC</u>       |  |
| 5                     | _____                       | _____            | _____            | _____            |  |
| 6                     | _____                       | _____            | _____            | _____            |  |
| 7                     | _____                       | _____            | _____            | _____            |  |
| 8                     | _____                       | _____            | _____            | _____            |  |
| 9                     | _____                       | _____            | _____            | _____            |  |
| 10                    | _____                       | _____            | _____            | _____            |  |
|                       |                             | <u>95</u>        | = Total Cover    |                  |  |
| Woody vine stratum    | (Plot size: <u>30 ft.</u> ) |                  |                  |                  |  |
| 1                     | _____                       | _____            | _____            | _____            |  |
| 2                     | _____                       | _____            | _____            | _____            |  |
|                       |                             | <u>0</u>         | = Total Cover    |                  |  |

Remarks: (Include photo numbers here or on a separate sheet)

**SOIL**

Sampling Point: SP12-1Up

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |       |       |            |         |
|---|---------------|-----|----------------|---|-------|-------|------------|---------|
| Depth (Inches)  | Matrix        |     | Redox Features |   |       |       | Texture    | Remarks |
|   | Color (moist) | %   | Color (moist)  | % | Type* | Loc** |            |         |
| 0-8   | 10YR 3/2      | 100 |                |   |       |       | Loam       |         |
| 8-24  | 10YR 4/4      | 100 |                |   |       |       | Sandy Loam |         |
|   |               |     |                |   |       |       |            |         |
|   |               |     |                |   |       |       |            |         |
|   |               |     |                |   |       |       |            |         |
|   |               |     |                |   |       |       |            |         |
|   |               |     |                |   |       |       |            |         |

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

|   |  |  |  |  |  |
|---|--|--|--|--|--|
| <b>Hydric Soil Indicators:</b><br><input type="checkbox"/> Histosol (A1)<br><input type="checkbox"/> Histic Epipedon (A2)<br><input type="checkbox"/> Black Histic (A3)<br><input type="checkbox"/> Hydrogen Sulfide (A4)<br><input type="checkbox"/> Stratified Layers (A5)<br><input type="checkbox"/> 2 cm Muck (A10)<br><input type="checkbox"/> Depleted Below Dark Surface (A11)<br><input type="checkbox"/> Thick Dark Surface (A12)<br><input type="checkbox"/> Sandy Mucky Mineral (S1)<br><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) |  | <input type="checkbox"/> Sandy Gleyed Matrix (S4)<br><input type="checkbox"/> Sandy Redox (S5)<br><input type="checkbox"/> Stripped Matrix (S6)<br><input type="checkbox"/> Loamy Mucky Mineral (F1)<br><input type="checkbox"/> Loamy Gleyed Matrix (F2)<br><input type="checkbox"/> Depleted Matrix (F3)<br><input type="checkbox"/> Redox Dark Surface (F6)<br><input type="checkbox"/> Depleted Dark Surface (F7)<br><input type="checkbox"/> Redox Depressions (F8) |  | <b>Indicators for Problematic Hydric Soils:</b><br><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)<br><input type="checkbox"/> Dark Surface (S7) (LRR K, L)<br><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)<br><input type="checkbox"/> Very Shallow Dark Surface (TF12)<br><input type="checkbox"/> Other (explain in remarks) |  |
|---|--|--|--|--|--|

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

|   |  |
|---|--|
| <b>Restrictive Layer (if observed):</b><br>Type: _____<br>Depth (inches): _____ | <b>Hydric soil present?</b> <u>  N  </u> |
|---|--|

Remarks:

**HYDROLOGY**

|   |   |  |  |  |  |
|---|---|--|--|--|--|
| <b>Wetland Hydrology Indicators:</b><br>Primary Indicators (minimum of one is required; check all that apply) |   |  | Secondary Indicators (minimum of two required) |  |  |
| <input type="checkbox"/> Surface Water (A1)   | <input type="checkbox"/> Aquatic Fauna (B13)                        | <input type="checkbox"/> Surface Soil Cracks (B6)                  |  |  |  |
| <input type="checkbox"/> High Water Table (A2)  | <input type="checkbox"/> True Aquatic Plants (B14)                  | <input type="checkbox"/> Drainage Patterns (B10)                   |  |  |  |
| <input type="checkbox"/> Saturation (A3)  | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                 | <input type="checkbox"/> Dry-Season Water Table (C2)               |  |  |  |
| <input type="checkbox"/> Water Marks (B1)   | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) | <input type="checkbox"/> Crayfish Burrows (C8)                     |  |  |  |
| <input type="checkbox"/> Sediment Deposits (B2)   | <input type="checkbox"/> Presence of Reduced Iron (C4)              | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |  |  |  |
| <input type="checkbox"/> Drift Deposits (B3)  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Stunted or Stressed Plants (D1)           |  |  |  |
| <input type="checkbox"/> Algal Mat or Crust (B4)  | <input type="checkbox"/> Thin Muck Surface (C7)                     | <input type="checkbox"/> Geomorphic Position (D2)                  |  |  |  |
| <input type="checkbox"/> Iron Deposits (B5)   | <input type="checkbox"/> Gauge or Well Data (D9)                    | <input type="checkbox"/> FAC-Neutral Test (D5)                     |  |  |  |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)  | <input type="checkbox"/> Other (Explain in Remarks)                 |  |  |  |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)  |   |  |  |  |  |
| <input type="checkbox"/> Water-Stained Leaves (B9)  |   |  |  |  |  |

|  |  |
|--|--|
| <b>Field Observations:</b><br>Surface water present? Yes _____ No <u>  X  </u> Depth (inches): _____<br>Water table present? Yes _____ No <u>  X  </u> Depth (inches): _____<br>Saturation present? Yes _____ No <u>  X  </u> Depth (inches): _____<br>(includes capillary fringe) | <b>Indicators of wetland hydrology present?</b> <u>  N  </u> |
|--|--|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 No free water or saturation observed within 24 inches of soil surface.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site Lower Afton Road City/County: Maplewood/Ramsey Sampling Date: 11/1/2023  
 Applicant/Owner: D.R. Horton State: MN Sampling Point: SP12-1W  
 Investigator(s): Mary Clare M. & Michael G. Section, Township, Range: S: 12, T:28N, R:22W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave  
 Slope (%): 0 to 2% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name Kingsley sandy loam NWI Classification: PABG

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? Yes  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? Yes  
 (If needed, explain any answers in remarks.)

**SUMMARY OF FINDINGS**

|  |          |  |
|--|----------|--|
| Hydrophytic vegetation present?          | <u>Y</u> | <b>Is the sampled area within a wetland?</b> <u>Y</u><br>if yes, optional wetland site ID: <u>Wetland 12</u> |
| Hydric soil present?                     | <u>Y</u> |  |
| Indicators of wetland hydrology present? | <u>Y</u> |  |

Remarks: (Explain alternative procedures here or in a separate report.)  
 Climatic conditions are typical (normal) based on the gridded database.

**VEGETATION -- Use scientific names of plants.**

| Tree Stratum          | (Plot size: <u>30 ft.</u> )      | Absolute % Cover | Dominant Species | Indicator Status | <b>Dominance Test Worksheet</b><br>Number of Dominant Species that are OBL, FACW, or FAC: <u>2</u> (A)<br>Total Number of Dominant Species Across all Strata: <u>2</u> (B)<br>Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)  |
|-----------------------|----------------------------------|------------------|------------------|------------------|---|
| 1                     |                                  |                  |                  |                  |   |
| 2                     |                                  |                  |                  |                  |   |
| 3                     |                                  |                  |                  |                  |   |
| 4                     |                                  |                  |                  |                  |   |
| 5                     |                                  |                  |                  |                  |   |
|                       |                                  | <u>0</u>         | = Total Cover    |                  |   |
| Sapling/Shrub stratum | (Plot size: <u>15 ft.</u> )      |                  |                  |                  | <b>Prevalence Index Worksheet</b><br>Total % Cover of:<br>OBL species <u>42</u> x 1 = <u>42</u><br>FACW species <u>65</u> x 2 = <u>130</u><br>FAC species <u>0</u> x 3 = <u>0</u><br>FACU species <u>0</u> x 4 = <u>0</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column totals <u>107</u> (A) <u>172</u> (B)<br>Prevalence Index = B/A = <u>1.61</u>   |
| 1                     |                                  |                  |                  |                  |   |
| 2                     |                                  |                  |                  |                  |   |
| 3                     |                                  |                  |                  |                  |   |
| 4                     |                                  |                  |                  |                  |   |
| 5                     |                                  |                  |                  |                  |   |
|                       |                                  | <u>0</u>         | = Total Cover    |                  |   |
| Herb stratum          | (Plot size: <u>5 ft.</u> )       |                  |                  |                  | <b>Hydrophytic Vegetation Indicators:</b><br><u>  </u> Rapid test for hydrophytic vegetation<br><u>X</u> Dominance test is >50%<br><u>X</u> Prevalence index is ≤3.0*<br><br>Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)<br><br>Problematic hydrophytic vegetation* (explain)<br><br>*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic |
| 1                     | <u>Phalaris arundinacea</u>      | <u>60</u>        | <u>Y</u>         | <u>FACW</u>      |   |
| 2                     | <u>Lythrum salicaria</u>         | <u>30</u>        | <u>Y</u>         | <u>OBL</u>       |   |
| 3                     | <u>Bolboschoenus fluviatilis</u> | <u>7</u>         | <u>N</u>         | <u>OBL</u>       |   |
| 4                     | <u>Bidens frondosa</u>           | <u>5</u>         | <u>N</u>         | <u>FACW</u>      |   |
| 5                     | <u>Lycopus uniflorus</u>         | <u>5</u>         | <u>N</u>         | <u>OBL</u>       |   |
| 6                     |                                  |                  |                  |                  |   |
| 7                     |                                  |                  |                  |                  |   |
| 8                     |                                  |                  |                  |                  |   |
| 9                     |                                  |                  |                  |                  |   |
| 10                    |                                  |                  |                  |                  |   |
|                       |                                  | <u>107</u>       | = Total Cover    |                  |   |
| Woody vine stratum    | (Plot size: <u>30 ft.</u> )      |                  |                  |                  | <b>Hydrophytic vegetation present?</b> <u>Y</u>   |
| 1                     |                                  |                  |                  |                  |   |
| 2                     |                                  |                  |                  |                  |   |
|                       |                                  | <u>0</u>         | = Total Cover    |                  |   |

Remarks: (Include photo numbers here or on a separate sheet)

**SOIL**

Sampling Point: SP12-1W

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |    |                |    |       |       |           |         |
|---|---------------|----|----------------|----|-------|-------|-----------|---------|
| Depth (Inches)  | Matrix        |    | Redox Features |    |       |       | Texture   | Remarks |
|   | Color (moist) | %  | Color (moist)  | %  | Type* | Loc** |           |         |
| 0-5   | 10YR 2/2      | 95 | 10YR 4/6       | 5  | C     | M     | Clay Loam |         |
| 5-24  | 10YR 5/2      | 90 | 10YR 4/6       | 10 | C     | M     | Clay Loam |         |
|   |               |    |                |    |       |       |           |         |
|   |               |    |                |    |       |       |           |         |
|   |               |    |                |    |       |       |           |         |
|   |               |    |                |    |       |       |           |         |
|   |               |    |                |    |       |       |           |         |

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

|   |  |  |
|---|--|--|
| <p><b>Hydric Soil Indicators:</b></p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)</p> | <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input checked="" type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> | <p><b>Indicators for Problematic Hydric Soils:</b></p> <p><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)</p> <p><input type="checkbox"/> Dark Surface (S7) (LRR K, L)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (explain in remarks)</p> <p><br/></p> <p>*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic</p> |
|---|--|--|

|  |   |
|--|---|
| <p><b>Restrictive Layer (if observed):</b></p> <p>Type: _____</p> <p>Depth (inches): _____</p> | <p><b>Hydric soil present?</b> <u>Y</u></p> |
|--|---|

Remarks:

**HYDROLOGY**

|   |   |
|---|---|
| <b>Wetland Hydrology Indicators:</b>  |   |
| <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1)</p> <p><input type="checkbox"/> Sediment Deposits (B2)</p> <p><input type="checkbox"/> Drift Deposits (B3)</p> <p><input type="checkbox"/> Algal Mat or Crust (B4)</p> <p><input type="checkbox"/> Iron Deposits (B5)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p> | <p><u>Secondary Indicators (minimum of two required)</u></p> <p><input type="checkbox"/> Aquatic Fauna (B13)</p> <p><input type="checkbox"/> True Aquatic Plants (B14)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Gauge or Well Data (D9)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> |

|   |   |
|---|---|
| <p><b>Field Observations:</b></p> <p>Surface water present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water table present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>14</u></p> <p>Saturation present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>14</u></p> <p>(includes capillary fringe)</p> | <p><b>Indicators of wetland hydrology present?</b> <u>Y</u></p> |
|---|---|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Free water present at 14 inches below soil surface. Surface water present within the center of the basin.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site Lower Afton Road City/County: Maplewood/Ramsey Sampling Date: 11/1/2023  
 Applicant/Owner: D.R. Horton State: MN Sampling Point: SP12-2W  
 Investigator(s): Mary Clare M. & Michael G. Section, Township, Range: S: 12, T:28N, R:22W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave  
 Slope (%): 0 to 2% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name Kingsley sandy loam NWI Classification: PEM1C

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? Yes  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in remarks.)

**SUMMARY OF FINDINGS**

|  |          |  |
|--|----------|--|
| Hydrophytic vegetation present?          | <u>Y</u> | <b>Is the sampled area within a wetland?</b> <u>Y</u><br>if yes, optional wetland site ID: <u>Wetland 12</u> |
| Hydric soil present?                     | <u>Y</u> |  |
| Indicators of wetland hydrology present? | <u>Y</u> |  |

Remarks: (Explain alternative procedures here or in a separate report.)  
 Climatic conditions are typical (normal) based on the gridded database.

**VEGETATION -- Use scientific names of plants.**

| Tree Stratum          | (Plot size: <u>30 ft.</u> )      | Absolute % Cover | Dominant Species | Indicator Status | <b>Dominance Test Worksheet</b><br>Number of Dominant Species that are OBL, FACW, or FAC: <u>2</u> (A)<br>Total Number of Dominant Species Across all Strata: <u>2</u> (B)<br>Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)   |
|-----------------------|----------------------------------|------------------|------------------|------------------|--|
| 1                     |                                  |                  |                  |                  |  |
| 2                     |                                  |                  |                  |                  |  |
| 3                     |                                  |                  |                  |                  |  |
| 4                     |                                  |                  |                  |                  |  |
| 5                     |                                  |                  |                  |                  |  |
|                       |                                  | <u>0</u>         | = Total Cover    |                  |  |
| Sapling/Shrub stratum | (Plot size: <u>15 ft.</u> )      |                  |                  |                  | <b>Prevalence Index Worksheet</b><br>Total % Cover of:<br>OBL species <u>55</u> x 1 = <u>55</u><br>FACW species <u>50</u> x 2 = <u>100</u><br>FAC species <u>0</u> x 3 = <u>0</u><br>FACU species <u>5</u> x 4 = <u>20</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column totals <u>110</u> (A) <u>175</u> (B)<br>Prevalence Index = B/A = <u>1.59</u> |
| 1                     |                                  |                  |                  |                  |  |
| 2                     |                                  |                  |                  |                  |  |
| 3                     |                                  |                  |                  |                  |  |
| 4                     |                                  |                  |                  |                  |  |
| 5                     |                                  |                  |                  |                  |  |
|                       |                                  | <u>0</u>         | = Total Cover    |                  |  |
| Herb stratum          | (Plot size: <u>5 ft.</u> )       |                  |                  |                  |  |
| 1                     | <i>Bolboschoenus fluviatilis</i> | <u>50</u>        | <u>Y</u>         | <u>OBL</u>       |  |
| 2                     | <i>Phalaris arundinacea</i>      | <u>40</u>        | <u>Y</u>         | <u>FACW</u>      |  |
| 3                     | <i>Solidago gigantea</i>         | <u>10</u>        | <u>N</u>         | <u>FACW</u>      |  |
| 4                     | <i>Lythrum salicaria</i>         | <u>5</u>         | <u>N</u>         | <u>OBL</u>       |  |
| 5                     | <i>Cirsium arvense</i>           | <u>5</u>         | <u>N</u>         | <u>FACU</u>      |  |
| 6                     |                                  |                  |                  |                  |  |
| 7                     |                                  |                  |                  |                  |  |
| 8                     |                                  |                  |                  |                  |  |
| 9                     |                                  |                  |                  |                  |  |
| 10                    |                                  |                  |                  |                  |  |
|                       |                                  | <u>110</u>       | = Total Cover    |                  |  |
| Woody vine stratum    | (Plot size: <u>30 ft.</u> )      |                  |                  |                  |  |
| 1                     |                                  |                  |                  |                  |  |
| 2                     |                                  |                  |                  |                  |  |
|                       |                                  | <u>0</u>         | = Total Cover    |                  |  |

Remarks: (Include photo numbers here or on a separate sheet)

**SOIL**

Sampling Point: SP12-2W

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |    |                |    |       |       |           |         |
|---|---------------|----|----------------|----|-------|-------|-----------|---------|
| Depth (Inches)  | Matrix        |    | Redox Features |    |       |       | Texture   | Remarks |
|   | Color (moist) | %  | Color (moist)  | %  | Type* | Loc** |           |         |
| 0-10  | 10YR 2/1      | 95 | 10YR 4/6       | 5  | C     | M     | Loam      |         |
| 10-24   | 10YR 4/1      | 85 | 10YR 4/6       | 15 | C     | M     | Clay Loam |         |
|   |               |    |                |    |       |       |           |         |
|   |               |    |                |    |       |       |           |         |
|   |               |    |                |    |       |       |           |         |
|   |               |    |                |    |       |       |           |         |
|   |               |    |                |    |       |       |           |         |

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

|  |  |   |  |  |  |
|--|--|---|--|--|--|
| <b>Hydric Soil Indicators:</b><br><input type="checkbox"/> Histosol (A1)<br><input type="checkbox"/> Histic Epipedon (A2)<br><input type="checkbox"/> Black Histic (A3)<br><input type="checkbox"/> Hydrogen Sulfide (A4)<br><input type="checkbox"/> Stratified Layers (A5)<br><input type="checkbox"/> 2 cm Muck (A10)<br><input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)<br><input type="checkbox"/> Thick Dark Surface (A12)<br><input type="checkbox"/> Sandy Mucky Mineral (S1)<br><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) |  | <input type="checkbox"/> Sandy Gleyed Matrix (S4)<br><input type="checkbox"/> Sandy Redox (S5)<br><input type="checkbox"/> Stripped Matrix (S6)<br><input type="checkbox"/> Loamy Mucky Mineral (F1)<br><input type="checkbox"/> Loamy Gleyed Matrix (F2)<br><input type="checkbox"/> Depleted Matrix (F3)<br><input checked="" type="checkbox"/> Redox Dark Surface (F6)<br><input type="checkbox"/> Depleted Dark Surface (F7)<br><input type="checkbox"/> Redox Depressions (F8) |  | <b>Indicators for Problematic Hydric Soils:</b><br><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)<br><input type="checkbox"/> Dark Surface (S7) (LRR K, L)<br><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)<br><input type="checkbox"/> Very Shallow Dark Surface (TF12)<br><input type="checkbox"/> Other (explain in remarks) |  |
|--|--|---|--|--|--|

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

|   |                                      |
|---|--------------------------------------|
| <b>Restrictive Layer (if observed):</b><br>Type: _____<br>Depth (inches): _____ | <b>Hydric soil present?</b> <u>Y</u> |
|---|--------------------------------------|

Remarks:

**HYDROLOGY**

|  |   |  |  |  |  |
|--|---|--|--|--|--|
| <b>Wetland Hydrology Indicators:</b><br>Primary Indicators (minimum of one is required; check all that apply)  |   |  | Secondary Indicators (minimum of two required) |  |  |
| <input type="checkbox"/> Surface Water (A1)<br><input type="checkbox"/> High Water Table (A2)<br><input type="checkbox"/> Saturation (A3)<br><input type="checkbox"/> Water Marks (B1)<br><input type="checkbox"/> Sediment Deposits (B2)<br><input type="checkbox"/> Drift Deposits (B3)<br><input type="checkbox"/> Algal Mat or Crust (B4)<br><input type="checkbox"/> Iron Deposits (B5)<br><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)<br><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)<br><input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Aquatic Fauna (B13)<br><input type="checkbox"/> True Aquatic Plants (B14)<br><input type="checkbox"/> Hydrogen Sulfide Odor (C1)<br><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)<br><input type="checkbox"/> Presence of Reduced Iron (C4)<br><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)<br><input type="checkbox"/> Thin Muck Surface (C7)<br><input type="checkbox"/> Gauge or Well Data (D9)<br><input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Surface Soil Cracks (B6)<br><input type="checkbox"/> Drainage Patterns (B10)<br><input type="checkbox"/> Dry-Season Water Table (C2)<br><input type="checkbox"/> Crayfish Burrows (C8)<br><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)<br><input type="checkbox"/> Stunted or Stressed Plants (D1)<br><input checked="" type="checkbox"/> Geomorphic Position (D2)<br><input checked="" type="checkbox"/> FAC-Neutral Test (D5) |  |  |  |

|  |  |
|--|--|
| <b>Field Observations:</b><br>Surface water present? Yes _____ No <u>X</u> Depth (inches): _____<br>Water table present? Yes _____ No <u>X</u> Depth (inches): _____<br>Saturation present? Yes _____ No <u>X</u> Depth (inches): _____<br>(includes capillary fringe) | <b>Indicators of wetland hydrology present?</b> <u>Y</u> |
|--|--|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 No free water or saturation observed within 24 inches of the soil surface.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site Lower Afton Road City/County: Maplewood/Ramsey Sampling Date: 11/1/2023  
 Applicant/Owner: D.R. Horton State: MN Sampling Point: SP13-1Up  
 Investigator(s): Mary Clare M. & Michael G. Section, Township, Range: S: 12, T:28N, R:22W  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Linear  
 Slope (%): 1-6% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name Duluth silt loam NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? Yes  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in remarks.)

**SUMMARY OF FINDINGS**

|  |          |  |
|--|----------|--|
| Hydrophytic vegetation present?          | <u>Y</u> | <b>Is the sampled area within a wetland?</b> <u>N</u><br>if yes, optional wetland site ID: _____ |
| Hydric soil present?                     | <u>N</u> |  |
| Indicators of wetland hydrology present? | <u>N</u> |  |

Remarks: (Explain alternative procedures here or in a separate report.)  
 Climatic conditions are typical (normal) based on the gridded database.

**VEGETATION -- Use scientific names of plants.**

| Tree Stratum (Plot size: <u>30 ft.</u> )                 | Absolute % Cover | Dominant Species | Indicator Status | <b>Dominance Test Worksheet</b>  |
|--|------------------|------------------|------------------|--|
| 1 <u>Acer rubrum</u>                                     | <u>10</u>        | <u>Y</u>         | <u>FAC</u>       |  |
| 2 _____  | _____            | _____            | _____            | Total Number of Dominant Species Across all Strata: <u>3</u> (B)   |
| 3 _____  | _____            | _____            | _____            | Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)   |
| 4 _____  | _____            | _____            | _____            | <b>Prevalence Index Worksheet</b>  |
| 5 _____  | _____            | _____            | _____            |  |
| <u>10</u> = Total Cover                                  |                  |                  |                  | OBL species <u>0</u> x 1 = <u>0</u>  |
| <u>Sapling/Shrub stratum</u> (Plot size: <u>15 ft.</u> ) |                  |                  |                  | FACW species <u>0</u> x 2 = <u>0</u>   |
| 1 <u>Rhamnus cathartica</u>                              | <u>5</u>         | <u>Y</u>         | <u>FAC</u>       | FAC species <u>110</u> x 3 = <u>330</u>  |
| 2 _____  | _____            | _____            | _____            | FACU species <u>5</u> x 4 = <u>20</u>  |
| 3 _____  | _____            | _____            | _____            | UPL species <u>0</u> x 5 = <u>0</u>  |
| 4 _____  | _____            | _____            | _____            | Column totals <u>115</u> (A) <u>350</u> (B)  |
| 5 _____  | _____            | _____            | _____            | Prevalence Index = B/A = <u>3.04</u>   |
| <u>5</u> = Total Cover                                   |                  |                  |                  | <b>Hydrophytic Vegetation Indicators:</b><br>_____ Rapid test for hydrophytic vegetation<br><u>X</u> Dominance test is >50%<br>_____ Prevalence index is ≤3.0*<br><br>Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)<br><br>_____ Problematic hydrophytic vegetation* (explain)<br><br>*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic |
| <u>Herb stratum</u> (Plot size: <u>5 ft.</u> )           |                  |                  |                  |  |
| 1 <u>Poa pratensis</u>                                   | <u>95</u>        | <u>Y</u>         | <u>FAC</u>       |  |
| 2 <u>Glechoma hederacea</u>                              | <u>5</u>         | <u>N</u>         | <u>FACU</u>      |  |
| 3 _____  | _____            | _____            | _____            |  |
| 4 _____  | _____            | _____            | _____            |  |
| 5 _____  | _____            | _____            | _____            |  |
| 6 _____  | _____            | _____            | _____            |  |
| 7 _____  | _____            | _____            | _____            |  |
| 8 _____  | _____            | _____            | _____            |  |
| 9 _____  | _____            | _____            | _____            |  |
| 10 _____   | _____            | _____            | _____            |  |
| <u>100</u> = Total Cover                                 |                  |                  |                  |  |
| <u>Woody vine stratum</u> (Plot size: <u>30 ft.</u> )    |                  |                  |                  |  |
| 1 _____  | _____            | _____            | _____            |  |
| 2 _____  | _____            | _____            | _____            |  |
| <u>0</u> = Total Cover                                   |                  |                  |                  |  |

Remarks: (Include photo numbers here or on a separate sheet)  
 All species FAC or drier. PI > 3

**SOIL**

Sampling Point: SP13-1Up

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |       |       |           |         |
|---|---------------|-----|----------------|---|-------|-------|-----------|---------|
| Depth (Inches)  | Matrix        |     | Redox Features |   |       |       | Texture   | Remarks |
|   | Color (moist) | %   | Color (moist)  | % | Type* | Loc** |           |         |
| 0-14  | 10YR 3/1      | 100 |                |   |       |       | Silt Loam |         |
| 14-24   | 10YR 4/4      | 100 |                |   |       |       | Silt Loam |         |
|   |               |     |                |   |       |       |           |         |
|   |               |     |                |   |       |       |           |         |
|   |               |     |                |   |       |       |           |         |
|   |               |     |                |   |       |       |           |         |
|   |               |     |                |   |       |       |           |         |

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

|  |   |  |
|--|---|--|
| <p><b>Hydric Soil Indicators:</b></p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)</p> | <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> | <p><b>Indicators for Problematic Hydric Soils:</b></p> <p><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)</p> <p><input type="checkbox"/> Dark Surface (S7) (LRR K, L)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (explain in remarks)</p> <p><br/></p> <p>*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic</p> |
|--|---|--|

|  |   |
|--|---|
| <p><b>Restrictive Layer (if observed):</b></p> <p>Type: _____</p> <p>Depth (inches): _____</p> | <p><b>Hydric soil present?</b> <u>  N  </u></p> |
|--|---|

Remarks:

**HYDROLOGY**

|   |   |
|---|---|
| <b>Wetland Hydrology Indicators:</b>  |   |
| <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1)</p> <p><input type="checkbox"/> Sediment Deposits (B2)</p> <p><input type="checkbox"/> Drift Deposits (B3)</p> <p><input type="checkbox"/> Algal Mat or Crust (B4)</p> <p><input type="checkbox"/> Iron Deposits (B5)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p> | <p><u>Secondary Indicators (minimum of two required)</u></p> <p><input type="checkbox"/> Aquatic Fauna (B13)</p> <p><input type="checkbox"/> True Aquatic Plants (B14)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Gauge or Well Data (D9)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> |

|   |   |
|---|---|
| <p><b>Field Observations:</b></p> <p>Surface water present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water table present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Saturation present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>(includes capillary fringe)</p> | <p><b>Indicators of wetland hydrology present?</b> <u>  N  </u></p> |
|---|---|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
No free water or saturation observed within 24 inches of soil surface.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site Lower Afton Road City/County: Maplewood/Ramsey Sampling Date: 11/1/2023  
 Applicant/Owner: D.R. Horton State: MN Sampling Point: SP13-1W  
 Investigator(s): Mary Clare M. & Michael G. Section, Township, Range: S: 12, T:28N, R:22W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave  
 Slope (%): 0 to 2% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name Duluth silt loam NWI Classification: PEM1A

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? Yes  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in remarks.)

**SUMMARY OF FINDINGS**

|  |          |  |
|--|----------|--|
| Hydrophytic vegetation present?          | <u>Y</u> | <b>Is the sampled area within a wetland?</b> <u>Y</u><br>if yes, optional wetland site ID: <u>Wetland 13</u> |
| Hydric soil present?                     | <u>Y</u> |  |
| Indicators of wetland hydrology present? | <u>Y</u> |  |

Remarks: (Explain alternative procedures here or in a separate report.)  
 Climatic conditions are typical (normal) based on the gridded database.

**VEGETATION -- Use scientific names of plants.**

| Tree Stratum          | (Plot size: <u>30 ft.</u> ) | Absolute % Cover | Dominant Species | Indicator Status | <b>Dominance Test Worksheet</b><br>Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)<br>Total Number of Dominant Species Across all Strata: <u>1</u> (B)<br>Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)  |
|-----------------------|-----------------------------|------------------|------------------|------------------|---|
| 1                     |                             |                  |                  |                  |   |
| 2                     |                             |                  |                  |                  |   |
| 3                     |                             |                  |                  |                  |   |
| 4                     |                             |                  |                  |                  |   |
| 5                     |                             |                  |                  |                  |   |
|                       |                             | <u>0</u>         | = Total Cover    |                  | <b>Prevalence Index Worksheet</b><br>Total % Cover of:<br>OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>100</u> x 2 = <u>200</u><br>FAC species <u>0</u> x 3 = <u>0</u><br>FACU species <u>0</u> x 4 = <u>0</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column totals <u>100</u> (A) <u>200</u> (B)<br>Prevalence Index = B/A = <u>2.00</u>  |
| Sapling/Shrub stratum | (Plot size: <u>15 ft.</u> ) |                  |                  |                  |   |
| 1                     |                             |                  |                  |                  |   |
| 2                     |                             |                  |                  |                  |   |
| 3                     |                             |                  |                  |                  |   |
| 4                     |                             |                  |                  |                  |   |
| 5                     |                             |                  |                  |                  |   |
|                       |                             | <u>0</u>         | = Total Cover    |                  |   |
| Herb stratum          | (Plot size: <u>5 ft.</u> )  |                  |                  |                  |   |
| 1                     | <u>Phalaris arundinacea</u> | <u>100</u>       | <u>Y</u>         | <u>FACW</u>      |   |
| 2                     |                             |                  |                  |                  |   |
| 3                     |                             |                  |                  |                  |   |
| 4                     |                             |                  |                  |                  |   |
| 5                     |                             |                  |                  |                  |   |
| 6                     |                             |                  |                  |                  |   |
| 7                     |                             |                  |                  |                  |   |
| 8                     |                             |                  |                  |                  |   |
| 9                     |                             |                  |                  |                  |   |
| 10                    |                             |                  |                  |                  |   |
|                       |                             | <u>100</u>       | = Total Cover    |                  |   |
| Woody vine stratum    | (Plot size: <u>30 ft.</u> ) |                  |                  |                  | <b>Hydrophytic Vegetation Indicators:</b><br><u>  </u> Rapid test for hydrophytic vegetation<br><u>X</u> Dominance test is >50%<br><u>X</u> Prevalence index is ≤3.0*<br><br>Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)<br><br>Problematic hydrophytic vegetation* (explain)<br><br>*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic |
| 1                     |                             |                  |                  |                  |   |
| 2                     |                             |                  |                  |                  |   |
|                       |                             | <u>0</u>         | = Total Cover    |                  |   |

Remarks: (Include photo numbers here or on a separate sheet)

**SOIL**

Sampling Point: SP13-1W

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |    |       |       |           |         |
|---|---------------|-----|----------------|----|-------|-------|-----------|---------|
| Depth (Inches)  | Matrix        |     | Redox Features |    |       |       | Texture   | Remarks |
|   | Color (moist) | %   | Color (moist)  | %  | Type* | Loc** |           |         |
| 0-4   | 10YR 2/1      | 100 |                |    |       |       | Loam      |         |
| 4-12  | 10YR 2/1      | 93  | 10YR 4/6       | 7  | C     | M     | Silt Loam |         |
| 12-24   | 10YR 2/1      | 90  | 10YR 4/6       | 10 | C     | M     | Silt Loam |         |
|   |               |     |                |    |       |       |           |         |
|   |               |     |                |    |       |       |           |         |
|   |               |     |                |    |       |       |           |         |
|   |               |     |                |    |       |       |           |         |

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

|  |  |  |
|--|--|--|
| <p><b>Hydric Soil Indicators:</b></p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)</p> | <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input checked="" type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> | <p><b>Indicators for Problematic Hydric Soils:</b></p> <p><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)</p> <p><input type="checkbox"/> Dark Surface (S7) (LRR K, L)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (explain in remarks)</p> <p><br/></p> <p>*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic</p> |
|--|--|--|

|  |   |
|--|---|
| <p><b>Restrictive Layer (if observed):</b></p> <p>Type: _____</p> <p>Depth (inches): _____</p> | <p><b>Hydric soil present?</b> <u>Y</u></p> |
|--|---|

Remarks:

**HYDROLOGY**

|   |   |   |
|---|---|---|
| <b>Wetland Hydrology Indicators:</b>  |   |   |
| <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1)</p> <p><input type="checkbox"/> Sediment Deposits (B2)</p> <p><input type="checkbox"/> Drift Deposits (B3)</p> <p><input type="checkbox"/> Algal Mat or Crust (B4)</p> <p><input type="checkbox"/> Iron Deposits (B5)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p> | <p><u>Secondary Indicators (minimum of two required)</u></p> <p><input type="checkbox"/> Aquatic Fauna (B13)</p> <p><input type="checkbox"/> True Aquatic Plants (B14)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Gauge or Well Data (D9)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> | <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Stunted or Stressed Plants (D1)</p> <p><input checked="" type="checkbox"/> Geomorphic Position (D2)</p> <p><input checked="" type="checkbox"/> FAC-Neutral Test (D5)</p> |

|   |   |
|---|---|
| <p><b>Field Observations:</b></p> <p>Surface water present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water table present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Saturation present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>(includes capillary fringe)</p> | <p><b>Indicators of wetland hydrology present?</b> <u>Y</u></p> |
|---|---|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
No free water or saturation observed within 24 inches of soil surface.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site Lower Afton Road City/County: Maplewood/Ramsey Sampling Date: 11/1/2023  
 Applicant/Owner: D.R. Horton State: MN Sampling Point: SP14-1Up  
 Investigator(s): Mary Clare M. & Michael G. Section, Township, Range: S: 12, T:28N, R:22W  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Linear  
 Slope (%): 1-6% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name Duluth silt loam NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? Yes  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in remarks.)

**SUMMARY OF FINDINGS**

|  |          |  |
|--|----------|--|
| Hydrophytic vegetation present?          | <u>N</u> | <b>Is the sampled area within a wetland?</b> <u>N</u><br>if yes, optional wetland site ID: _____ |
| Hydric soil present?                     | <u>N</u> |  |
| Indicators of wetland hydrology present? | <u>N</u> |  |

Remarks: (Explain alternative procedures here or in a separate report.)  
 Climatic conditions are typical (normal) based on the gridded database.

**VEGETATION -- Use scientific names of plants.**

| Tree Stratum (Plot size: <u>30 ft.</u> )                 | Absolute % Cover | Dominant Species | Indicator Status | <b>Dominance Test Worksheet</b>  |
|--|------------------|------------------|------------------|--|
| 1 <u>Betula papyrifera</u>                               | <u>15</u>        | <u>Y</u>         | <u>FACU</u>      |  |
| 2 _____  | _____            | _____            | _____            | <b>Prevalence Index Worksheet</b><br>Total % Cover of:<br>OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>70</u> x 3 = <u>210</u><br>FACU species <u>40</u> x 4 = <u>160</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column totals <u>110</u> (A) <u>370</u> (B)<br>Prevalence Index = B/A = <u>3.36</u>   |
| 3 _____  | _____            | _____            | _____            |  |
| 4 _____  | _____            | _____            | _____            |  |
| 5 _____  | _____            | _____            | _____            |  |
| <u>15</u> = Total Cover                                  |                  |                  |                  |  |
| <b>Sapling/Shrub stratum</b> (Plot size: <u>15 ft.</u> ) |                  |                  |                  | <b>Hydrophytic Vegetation Indicators:</b><br>____ Rapid test for hydrophytic vegetation<br>____ Dominance test is >50%<br>____ Prevalence index is ≤3.0*<br>____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)<br>____ Problematic hydrophytic vegetation* (explain)<br>____<br>*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic |
| 1 _____  | _____            | _____            | _____            |  |
| 2 _____  | _____            | _____            | _____            |  |
| 3 _____  | _____            | _____            | _____            |  |
| 4 _____  | _____            | _____            | _____            |  |
| 5 _____  | _____            | _____            | _____            |  |
| 6 _____  | _____            | _____            | _____            |  |
| 7 _____  | _____            | _____            | _____            |  |
| 8 _____  | _____            | _____            | _____            |  |
| 9 _____  | _____            | _____            | _____            |  |
| 10 _____   | _____            | _____            | _____            |  |
| <u>0</u> = Total Cover                                   |                  |                  |                  |  |
| <b>Herb stratum</b> (Plot size: <u>5 ft.</u> )           |                  |                  |                  | <b>Hydrophytic vegetation present?</b> <u>N</u>  |
| 1 <u>Poa pratensis</u>                                   | <u>60</u>        | <u>Y</u>         | <u>FAC</u>       |  |
| 2 <u>Solidago canadensis</u>                             | <u>25</u>        | <u>Y</u>         | <u>FACU</u>      |  |
| 3 <u>Andropogon gerardii</u>                             | <u>10</u>        | <u>N</u>         | <u>FAC</u>       |  |
| 4 _____  | _____            | _____            | _____            |  |
| 5 _____  | _____            | _____            | _____            |  |
| 6 _____  | _____            | _____            | _____            |  |
| 7 _____  | _____            | _____            | _____            |  |
| 8 _____  | _____            | _____            | _____            |  |
| 9 _____  | _____            | _____            | _____            |  |
| 10 _____   | _____            | _____            | _____            |  |
| <u>95</u> = Total Cover                                  |                  |                  |                  |  |
| <b>Woody vine stratum</b> (Plot size: <u>30 ft.</u> )    |                  |                  |                  |  |
| 1 _____  | _____            | _____            | _____            |  |
| 2 _____  | _____            | _____            | _____            |  |
| <u>0</u> = Total Cover                                   |                  |                  |                  |  |

Remarks: (Include photo numbers here or on a separate sheet)

**SOIL**

Sampling Point: SP14-1Up

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |       |       |           |         |
|---|---------------|-----|----------------|---|-------|-------|-----------|---------|
| Depth (Inches)  | Matrix        |     | Redox Features |   |       |       | Texture   | Remarks |
|   | Color (moist) | %   | Color (moist)  | % | Type* | Loc** |           |         |
| 0-16  | 10YR 3/1      | 100 |                |   |       |       | Silt Loam |         |
| 16-24   | 10YR 3/1      | 97  | 10YR 4/4       | 3 | C     | M     | Silt Loam |         |
|   |               |     |                |   |       |       |           |         |
|   |               |     |                |   |       |       |           |         |
|   |               |     |                |   |       |       |           |         |
|   |               |     |                |   |       |       |           |         |
|   |               |     |                |   |       |       |           |         |

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

|   |  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|--|
| <b>Hydric Soil Indicators:</b><br><input type="checkbox"/> Histosol (A1)<br><input type="checkbox"/> Histic Epipedon (A2)<br><input type="checkbox"/> Black Histic (A3)<br><input type="checkbox"/> Hydrogen Sulfide (A4)<br><input type="checkbox"/> Stratified Layers (A5)<br><input type="checkbox"/> 2 cm Muck (A10)<br><input type="checkbox"/> Depleted Below Dark Surface (A11)<br><input type="checkbox"/> Thick Dark Surface (A12)<br><input type="checkbox"/> Sandy Mucky Mineral (S1)<br><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) |  |  | <input type="checkbox"/> Sandy Gleyed Matrix (S4)<br><input type="checkbox"/> Sandy Redox (S5)<br><input type="checkbox"/> Stripped Matrix (S6)<br><input type="checkbox"/> Loamy Mucky Mineral (F1)<br><input type="checkbox"/> Loamy Gleyed Matrix (F2)<br><input type="checkbox"/> Depleted Matrix (F3)<br><input type="checkbox"/> Redox Dark Surface (F6)<br><input type="checkbox"/> Depleted Dark Surface (F7)<br><input type="checkbox"/> Redox Depressions (F8) |  |  | <b>Indicators for Problematic Hydric Soils:</b><br><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)<br><input type="checkbox"/> Dark Surface (S7) (LRR K, L)<br><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)<br><input type="checkbox"/> Very Shallow Dark Surface (TF12)<br><input type="checkbox"/> Other (explain in remarks) |  |  |
| *Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic  |  |  |  |  |  |  |  |  |

|   |  |
|---|--|
| <b>Restrictive Layer (if observed):</b><br>Type: _____<br>Depth (inches): _____ | <b>Hydric soil present?</b> <u>  N  </u> |
|---|--|

Remarks:

**HYDROLOGY**

|   |   |  |  |  |  |
|---|---|--|--|--|--|
| <b>Wetland Hydrology Indicators:</b><br>Primary Indicators (minimum of one is required; check all that apply) |   |  | Secondary Indicators (minimum of two required) |  |  |
| <input type="checkbox"/> Surface Water (A1)   | <input type="checkbox"/> Aquatic Fauna (B13)                        | <input type="checkbox"/> Surface Soil Cracks (B6)                  |  |  |  |
| <input type="checkbox"/> High Water Table (A2)  | <input type="checkbox"/> True Aquatic Plants (B14)                  | <input type="checkbox"/> Drainage Patterns (B10)                   |  |  |  |
| <input type="checkbox"/> Saturation (A3)  | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                 | <input type="checkbox"/> Dry-Season Water Table (C2)               |  |  |  |
| <input type="checkbox"/> Water Marks (B1)   | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) | <input type="checkbox"/> Crayfish Burrows (C8)                     |  |  |  |
| <input type="checkbox"/> Sediment Deposits (B2)   | <input type="checkbox"/> Presence of Reduced Iron (C4)              | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |  |  |  |
| <input type="checkbox"/> Drift Deposits (B3)  | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Stunted or Stressed Plants (D1)           |  |  |  |
| <input type="checkbox"/> Algal Mat or Crust (B4)  | <input type="checkbox"/> Thin Muck Surface (C7)                     | <input type="checkbox"/> Geomorphic Position (D2)                  |  |  |  |
| <input type="checkbox"/> Iron Deposits (B5)   | <input type="checkbox"/> Gauge or Well Data (D9)                    | <input type="checkbox"/> FAC-Neutral Test (D5)                     |  |  |  |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)  | <input type="checkbox"/> Other (Explain in Remarks)                 |  |  |  |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)  |   |  |  |  |  |
| <input type="checkbox"/> Water-Stained Leaves (B9)  |   |  |  |  |  |

|  |  |
|--|--|
| <b>Field Observations:</b><br>Surface water present?    Yes _____ No <u>  X  </u> Depth (inches): _____<br>Water table present?     Yes _____ No <u>  X  </u> Depth (inches): _____<br>Saturation present?      Yes _____ No <u>  X  </u> Depth (inches): _____<br>(includes capillary fringe) | <b>Indicators of wetland hydrology present?</b> <u>  N  </u> |
|--|--|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 No free water or saturation observed within 24 inches of soil surface.

**WETLAND DETERMINATION DATA FORM - Midwest Region**

Project/Site Lower Afton Road City/County: Maplewood/Ramsey Sampling Date: 11/1/2023  
 Applicant/Owner: D.R. Horton State: MN Sampling Point: SP14-1W  
 Investigator(s): Mary Clare M. & Michael G. Section, Township, Range: S: 12, T:28N, R:22W  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave  
 Slope (%): 0 to 2% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name Duluth silt loam NWI Classification: PABGx

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal circumstances" present? Yes  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? Yes  
 (If needed, explain any answers in remarks.)

**SUMMARY OF FINDINGS**

|  |          |  |
|--|----------|--|
| Hydrophytic vegetation present?          | <u>Y</u> | <b>Is the sampled area within a wetland?</b> <u>Y</u><br>if yes, optional wetland site ID: <u>Wetland 14</u> |
| Hydric soil present?                     | <u>Y</u> |  |
| Indicators of wetland hydrology present? | <u>Y</u> |  |

Remarks: (Explain alternative procedures here or in a separate report.)  
 Climatic conditions are typical (normal) based on the gridded database.

**VEGETATION -- Use scientific names of plants.**

| Tree Stratum          | (Plot size: <u>30 ft.</u> ) | Absolute % Cover | Dominant Species | Indicator Status | <b>Dominance Test Worksheet</b><br>Number of Dominant Species that are OBL, FACW, or FAC: <u>2</u> (A)<br>Total Number of Dominant Species Across all Strata: <u>2</u> (B)<br>Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)  |
|-----------------------|-----------------------------|------------------|------------------|------------------|---|
| 1                     |                             |                  |                  |                  |   |
| 2                     |                             |                  |                  |                  |   |
| 3                     |                             |                  |                  |                  |   |
| 4                     |                             |                  |                  |                  |   |
| 5                     |                             |                  |                  |                  |   |
|                       |                             | <u>0</u>         | = Total Cover    |                  |   |
| Sapling/Shrub stratum | (Plot size: <u>15 ft.</u> ) |                  |                  |                  | <b>Prevalence Index Worksheet</b><br>Total % Cover of:<br>OBL species <u>30</u> x 1 = <u>30</u><br>FACW species <u>70</u> x 2 = <u>140</u><br>FAC species <u>0</u> x 3 = <u>0</u><br>FACU species <u>0</u> x 4 = <u>0</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column totals <u>100</u> (A) <u>170</u> (B)<br>Prevalence Index = B/A = <u>1.70</u>   |
| 1                     |                             |                  |                  |                  |   |
| 2                     |                             |                  |                  |                  |   |
| 3                     |                             |                  |                  |                  |   |
| 4                     |                             |                  |                  |                  |   |
| 5                     |                             |                  |                  |                  |   |
|                       |                             | <u>0</u>         | = Total Cover    |                  |   |
| Herb stratum          | (Plot size: <u>5 ft.</u> )  |                  |                  |                  | <b>Hydrophytic Vegetation Indicators:</b><br><u>  </u> Rapid test for hydrophytic vegetation<br><u>X</u> Dominance test is >50%<br><u>X</u> Prevalence index is ≤3.0*<br><br>Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)<br><u>  </u> Problematic hydrophytic vegetation* (explain)<br><br>*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic |
| 1                     | <u>Phalaris arundinacea</u> | <u>70</u>        | <u>Y</u>         | <u>FACW</u>      |   |
| 2                     | <u>Scirpus pedicellatus</u> | <u>25</u>        | <u>Y</u>         | <u>OBL</u>       |   |
| 3                     | <u>Lycopus uniflorus</u>    | <u>5</u>         | <u>N</u>         | <u>OBL</u>       |   |
| 4                     |                             |                  |                  |                  |   |
| 5                     |                             |                  |                  |                  |   |
| 6                     |                             |                  |                  |                  |   |
| 7                     |                             |                  |                  |                  |   |
| 8                     |                             |                  |                  |                  |   |
| 9                     |                             |                  |                  |                  |   |
| 10                    |                             |                  |                  |                  |   |
|                       |                             | <u>100</u>       | = Total Cover    |                  |   |
| Woody vine stratum    | (Plot size: <u>30 ft.</u> ) |                  |                  |                  | <b>Hydrophytic vegetation present?</b> <u>Y</u>   |
| 1                     |                             |                  |                  |                  |   |
| 2                     |                             |                  |                  |                  |   |
|                       |                             | <u>0</u>         | = Total Cover    |                  |   |

Remarks: (Include photo numbers here or on a separate sheet)

**SOIL**

Sampling Point: SP14-1W

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |    |                |    |       |       |                 |         |
|---|---------------|----|----------------|----|-------|-------|-----------------|---------|
| Depth (Inches)  | Matrix        |    | Redox Features |    |       |       | Texture         | Remarks |
|   | Color (moist) | %  | Color (moist)  | %  | Type* | Loc** |                 |         |
| 0-12  | 10YR 5/2      | 70 | 10YR 4/6       | 30 | C     | M     | Loam            |         |
| 12-24   | 10YR 4/6      |    |                |    |       |       | Sandy Clay Loam |         |
|   |               |    |                |    |       |       |                 |         |
|   |               |    |                |    |       |       |                 |         |
|   |               |    |                |    |       |       |                 |         |
|   |               |    |                |    |       |       |                 |         |
|   |               |    |                |    |       |       |                 |         |

\*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. \*\*Location: PL = Pore Lining, M = Matrix

|   |  |   |  |  |  |
|---|--|---|--|--|--|
| <b>Hydric Soil Indicators:</b><br><input type="checkbox"/> Histosol (A1)<br><input type="checkbox"/> Histic Epipedon (A2)<br><input type="checkbox"/> Black Histic (A3)<br><input type="checkbox"/> Hydrogen Sulfide (A4)<br><input type="checkbox"/> Stratified Layers (A5)<br><input type="checkbox"/> 2 cm Muck (A10)<br><input type="checkbox"/> Depleted Below Dark Surface (A11)<br><input type="checkbox"/> Thick Dark Surface (A12)<br><input type="checkbox"/> Sandy Mucky Mineral (S1)<br><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) |  | <input type="checkbox"/> Sandy Gleyed Matrix (S4)<br><input type="checkbox"/> Sandy Redox (S5)<br><input type="checkbox"/> Stripped Matrix (S6)<br><input type="checkbox"/> Loamy Mucky Mineral (F1)<br><input type="checkbox"/> Loamy Gleyed Matrix (F2)<br><input checked="" type="checkbox"/> Depleted Matrix (F3)<br><input type="checkbox"/> Redox Dark Surface (F6)<br><input type="checkbox"/> Depleted Dark Surface (F7)<br><input type="checkbox"/> Redox Depressions (F8) |  | <b>Indicators for Problematic Hydric Soils:</b><br><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)<br><input type="checkbox"/> Dark Surface (S7) (LRR K, L)<br><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)<br><input type="checkbox"/> Very Shallow Dark Surface (TF12)<br><input type="checkbox"/> Other (explain in remarks) |  |
|---|--|---|--|--|--|

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

|   |                                      |
|---|--------------------------------------|
| <b>Restrictive Layer (if observed):</b><br>Type: _____<br>Depth (inches): _____ | <b>Hydric soil present?</b> <u>Y</u> |
|---|--------------------------------------|

Remarks:

**HYDROLOGY**

|  |   |  |  |
|--|---|--|--|
| <b>Wetland Hydrology Indicators:</b><br>Primary Indicators (minimum of one is required; check all that apply)  |   | Secondary Indicators (minimum of two required)   |  |
| <input type="checkbox"/> Surface Water (A1)<br><input type="checkbox"/> High Water Table (A2)<br><input type="checkbox"/> Saturation (A3)<br><input type="checkbox"/> Water Marks (B1)<br><input type="checkbox"/> Sediment Deposits (B2)<br><input type="checkbox"/> Drift Deposits (B3)<br><input type="checkbox"/> Algal Mat or Crust (B4)<br><input type="checkbox"/> Iron Deposits (B5)<br><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)<br><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)<br><input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Aquatic Fauna (B13)<br><input type="checkbox"/> True Aquatic Plants (B14)<br><input type="checkbox"/> Hydrogen Sulfide Odor (C1)<br><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)<br><input type="checkbox"/> Presence of Reduced Iron (C4)<br><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)<br><input type="checkbox"/> Thin Muck Surface (C7)<br><input type="checkbox"/> Gauge or Well Data (D9)<br><input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Surface Soil Cracks (B6)<br><input type="checkbox"/> Drainage Patterns (B10)<br><input type="checkbox"/> Dry-Season Water Table (C2)<br><input type="checkbox"/> Crayfish Burrows (C8)<br><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)<br><input type="checkbox"/> Stunted or Stressed Plants (D1)<br><input checked="" type="checkbox"/> Geomorphic Position (D2)<br><input checked="" type="checkbox"/> FAC-Neutral Test (D5) |  |

|  |  |
|--|--|
| <b>Field Observations:</b><br>Surface water present? Yes _____ No <u>X</u> Depth (inches): _____<br>Water table present? Yes _____ No <u>X</u> Depth (inches): _____<br>Saturation present? Yes _____ No <u>X</u> Depth (inches): _____<br>(includes capillary fringe) | <b>Indicators of wetland hydrology present?</b> <u>Y</u> |
|--|--|

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 No free water or saturation observed within 24 inches of soil surface. Surface water present in the center of the basin.

# **Lower Afton Road**

## **Wetland Delineation Report**

### **APPENDIX C**

#### **Precipitation Data**

**Maplewood, Minnesota: Precipitation Summary**  
**Source: Minnesota Climatology Working Group**  
**Site Visit: November 1<sup>st</sup> and 2<sup>nd</sup>, 2023**

**Monthly Totals: 2023**

Target: T 28N R 22W S 12, Lat: 44.928513 Lon: -92.987635

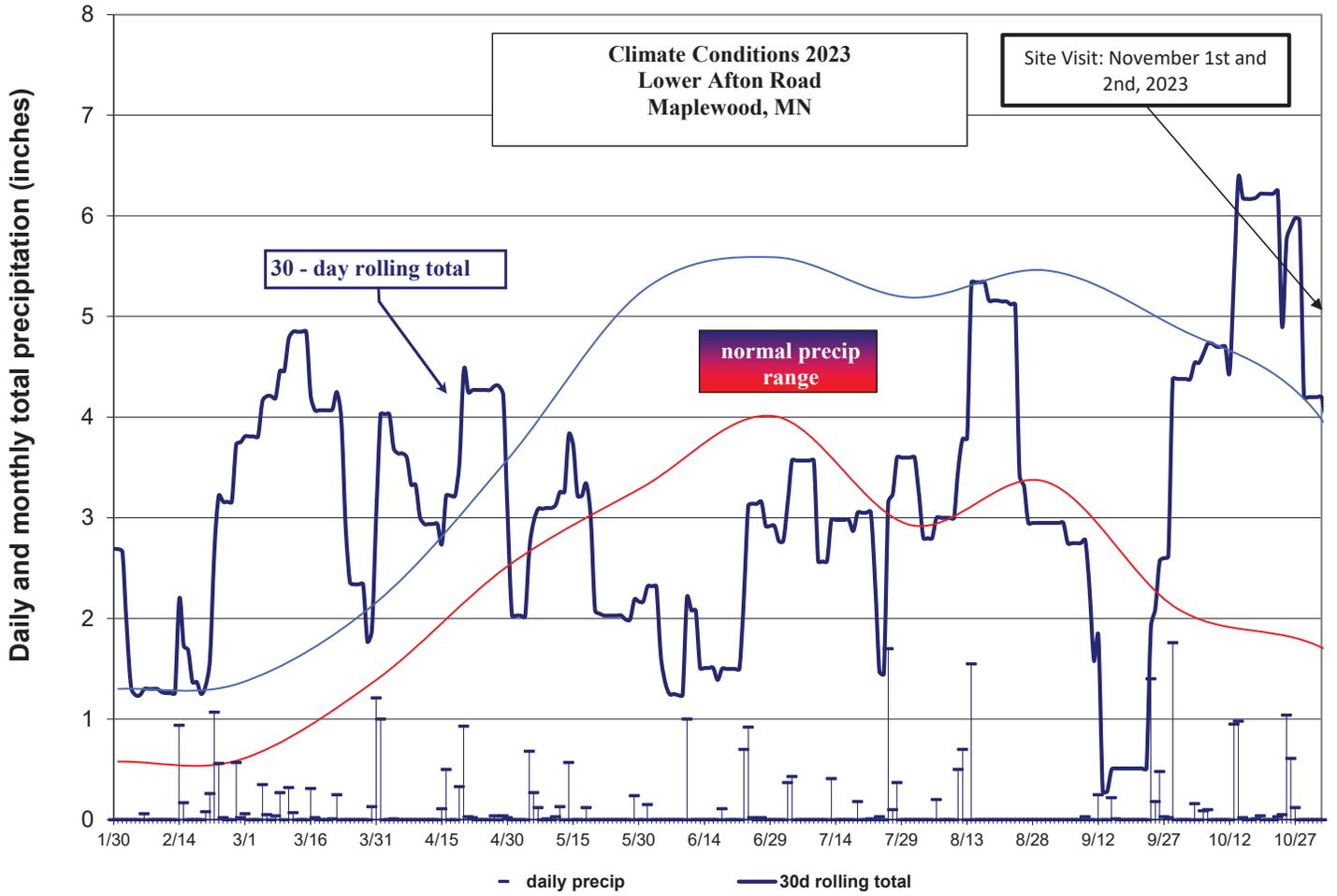
| mon | year | cc | tttN | rrw | ss | nynn | oooooooo | pre  |
|-----|------|----|------|-----|----|------|----------|------|
| Jan | 2023 | 62 | 29N  | 22W | 35 | SWCD |          | 2.69 |
| Feb | 2023 | 62 | 29N  | 22W | 35 | SWCD |          | 3.75 |
| Mar | 2023 | 62 | 29N  | 22W | 35 | SWCD |          | 3.09 |
| Apr | 2023 | 82 | 28N  | 21W | 18 | SWCD |          | 3.03 |
| May | 2023 | 82 | 28N  | 21W | 18 | SWCD |          | 2.17 |
| Jun | 2023 | 82 | 28N  | 21W | 18 | SWCD |          | 2.92 |
| Jul | 2023 | 82 | 28N  | 21W | 18 | SWCD |          | 3.60 |
| Aug | 2023 | 82 | 28N  | 21W | 18 | SWCD |          | 2.95 |
| Sep | 2023 | 82 | 28N  | 21W | 18 | SWCD |          | 4.38 |
| Oct | 2023 | 82 | 28N  | 21W | 16 | SWCD |          | 4.20 |
| Nov | 2023 |    |      |     |    |      | m        |      |

**August/September/October/November Daily Records**

| Date         | Precip. | Date         | Precip. | Date         | Precip. | Date        | Precip. |
|--------------|---------|--------------|---------|--------------|---------|-------------|---------|
| Aug 1, 2023  | 0       | Sep 1, 2023  | 0       | Oct 1, 2023  | m       | Nov 1, 2023 | 0       |
| Aug 2, 2023  | 0       | Sep 2, 2023  | 0       | Oct 2, 2023  | 0       | Nov 2, 2023 | 0       |
| Aug 3, 2023  | 0       | Sep 3, 2023  | 0       | Oct 3, 2023  | T       |             |         |
| Aug 4, 2023  | 0       | Sep 4, 2023  | 0       | Oct 4, 2023  | .16     |             |         |
| Aug 5, 2023  | 0       | Sep 5, 2023  | 0       | Oct 5, 2023  | 0       |             |         |
| Aug 6, 2023  | .20     | Sep 6, 2023  | 0       | Oct 6, 2023  | .09     |             |         |
| Aug 7, 2023  | 0       | Sep 7, 2023  | 0       | Oct 7, 2023  | .10     |             |         |
| Aug 8, 2023  | 0       | Sep 8, 2023  | 0       | Oct 8, 2023  | 0       |             |         |
| Aug 9, 2023  | 0       | Sep 9, 2023  | .03     | Oct 9, 2023  | 0       |             |         |
| Aug 10, 2023 | 0       | Sep 10, 2023 | 0       | Oct 10, 2023 | 0       |             |         |
| Aug 11, 2023 | .50     | Sep 11, 2023 | 0       | Oct 11, 2023 | 0       |             |         |
| Aug 12, 2023 | .70     | Sep 12, 2023 | .25     | Oct 12, 2023 | 0       |             |         |
| Aug 13, 2023 | -       | Sep 13, 2023 | 0       | Oct 13, 2023 | .95     |             |         |
| Aug 14, 2023 | 1.55    | Sep 14, 2023 | 0       | Oct 14, 2023 | .98     |             |         |
| Aug 15, 2023 | 0       | Sep 15, 2023 | .22     | Oct 15, 2023 | .02     |             |         |
| Aug 16, 2023 | 0       | Sep 16, 2023 | .01     | Oct 16, 2023 | 0       |             |         |
| Aug 17, 2023 | 0       | Sep 17, 2023 | 0       | Oct 17, 2023 | 0       |             |         |
| Aug 18, 2023 | 0       | Sep 18, 2023 | 0       | Oct 18, 2023 | .01     |             |         |
| Aug 19, 2023 | 0       | Sep 19, 2023 | 0       | Oct 19, 2023 | .04     |             |         |
| Aug 20, 2023 | 0       | Sep 20, 2023 | 0       | Oct 20, 2023 | 0       |             |         |
| Aug 21, 2023 | 0       | Sep 21, 2023 | 0       | Oct 21, 2023 | 0       |             |         |
| Aug 22, 2023 | 0       | Sep 22, 2023 | 0       | Oct 22, 2023 | 0       |             |         |
| Aug 23, 2023 | 0       | Sep 23, 2023 | 0       | Oct 23, 2023 | .03     |             |         |
| Aug 24, 2023 | 0       | Sep 24, 2023 | 1.40    | Oct 24, 2023 | .05     |             |         |
| Aug 25, 2023 | 0       | Sep 25, 2023 | .18     | Oct 25, 2023 | 1.04    |             |         |
| Aug 26, 2023 | 0       | Sep 26, 2023 | .48     | Oct 26, 2023 | .61     |             |         |
| Aug 27, 2023 | 0       | Sep 27, 2023 | .03     | Oct 27, 2023 | .12     |             |         |
| Aug 28, 2023 | 0       | Sep 28, 2023 | .02     | Oct 28, 2023 | 0       |             |         |
| Aug 29, 2023 | 0       | Sep 29, 2023 | 1.76    | Oct 29, 2023 | 0       |             |         |
| Aug 30, 2023 | 0       | Sep 30, 2023 | 0       | Oct 30, 2023 | 0       |             |         |
| Aug 31, 2023 | 0       |              |         | Oct 31, 2023 | 0       |             |         |

**1991-2020 Summary Statistics**

|      | Jan  | Feb  | Mar  | Apr  | May  | Jun  | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  | WARM  | ANN   | WAT   |
|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|
| 30%  | 0.58 | 0.60 | 1.39 | 2.52 | 3.31 | 4.01 | 2.93 | 3.36 | 2.10 | 1.75 | 1.04 | 0.84 | 19.59 | 31.67 | 31.37 |
| 70%  | 1.30 | 1.36 | 2.16 | 3.58 | 5.26 | 5.59 | 5.19 | 5.46 | 4.89 | 4.09 | 1.86 | 1.83 | 23.54 | 36.75 | 36.36 |
| mean | 0.98 | 1.00 | 1.85 | 3.10 | 4.33 | 5.03 | 4.25 | 4.47 | 3.37 | 2.98 | 1.73 | 1.43 | 21.46 | 34.53 | 34.46 |



# Minnesota State Climatology Office

State Climatology Office - DNR Division of Ecological and Water Resources

[home](#) | [current conditions](#) | [journal](#) | [past data](#) | [summaries](#) | [agriculture](#) | [other sites](#) | [about us](#) 

## Precipitation Worksheet Using Gridded Database

### Precipitation data for target wetland location:

county: **Washington** township number: **28N**  
 township name: **unnamed** range number: **22W**  
 nearest community: **Highwood** section number: **12**

### Aerial photograph or site visit date:

**Wednesday, November 1, 2023**

### Score using 1991-2020 normal period

| values are in inches<br>A 'R' following a monthly total indicates a provisional value derived from radar-based estimates. | first prior month:<br><b>October 2023</b> | second prior month:<br><b>September 2023</b> | third prior month:<br><b>August 2023</b> |
|---|---|--|--|
| estimated precipitation total for this location:  | <b>4.20</b>                               | <b>4.57R</b>                                 | <b>3.23R</b>                             |
| there is a 30% chance this location will have less than:  | 1.75                                      | 2.10   | 3.36                                     |
| there is a 30% chance this location will have more than:  | 4.09                                      | 4.89   | 5.46                                     |
| type of month: <b>dry normal wet</b>  | <b>wet</b>                                | <b>normal</b>                                | <b>dry</b>                               |
| monthly score   | <b>3 * 3 = 9</b>                          | <b>2 * 2 = 4</b>                             | <b>1 * 1 = 1</b>                         |
| multi-month score:<br><b>6 to 9 (dry) 10 to 14 (normal) 15 to 18 (wet)</b>  | <b>Normal (14)</b>                        |  |  |

### Other Resources:

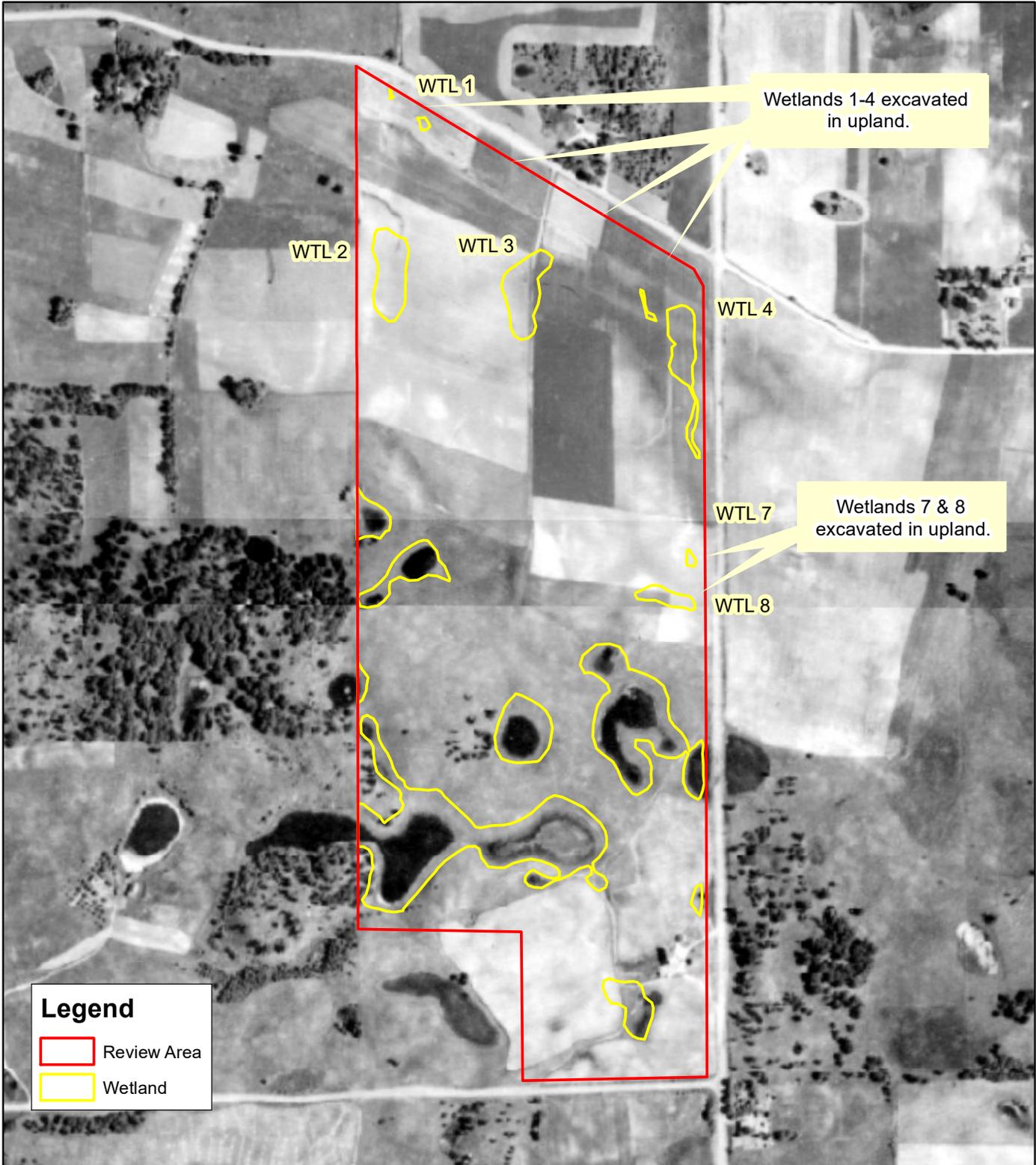
- [retrieve daily precipitation data](#)
- [view radar-based precipitation estimates](#)
- [view weekly precipitation maps](#)
- [Evaluating Antecedent Precipitation Conditions](#) (BWSR)

# **Lower Afton Road**

## **Wetland Delineation Report**

### **APPENDIX D**

#### **Historic Aerial Review**



### Historic Aerial Review- 1940 Ramsey County Aerial Photo

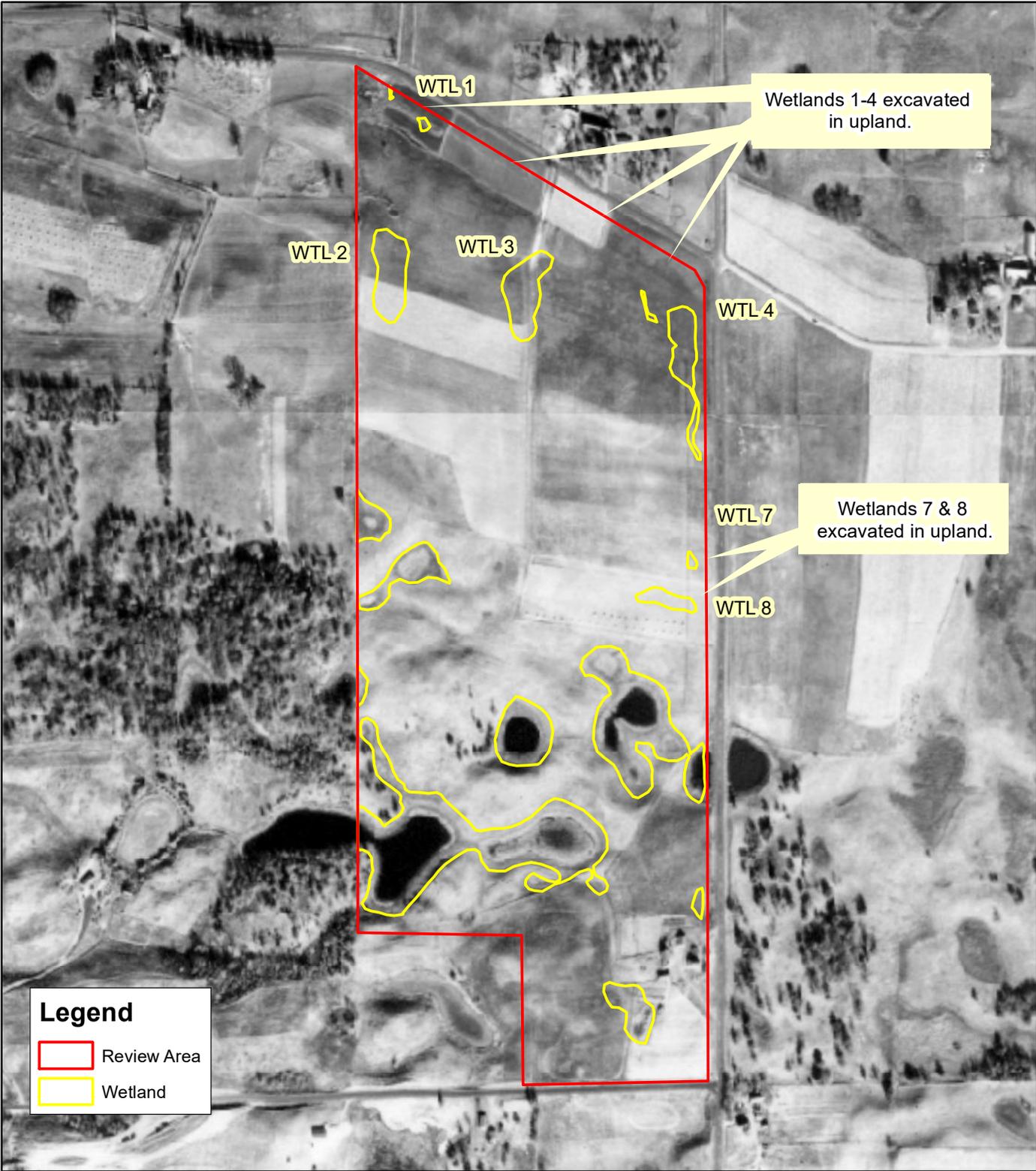
 **KJOLHAUG** ENVIRONMENTAL SERVICES COMPANY  
Source: MNGEO Spatial Commons, USGS

N

0 1,000 Feet

**Lower Afton Road (2023 - 160)  
Maplewood, Minnesota**

Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.



Historic Aerial Review- 1953 Ramsey County Aerial Photo



**KJOLHAUG** ENVIRONMENTAL SERVICES COMPANY  
Source: MNGEO Spatial Commons, USGS

N

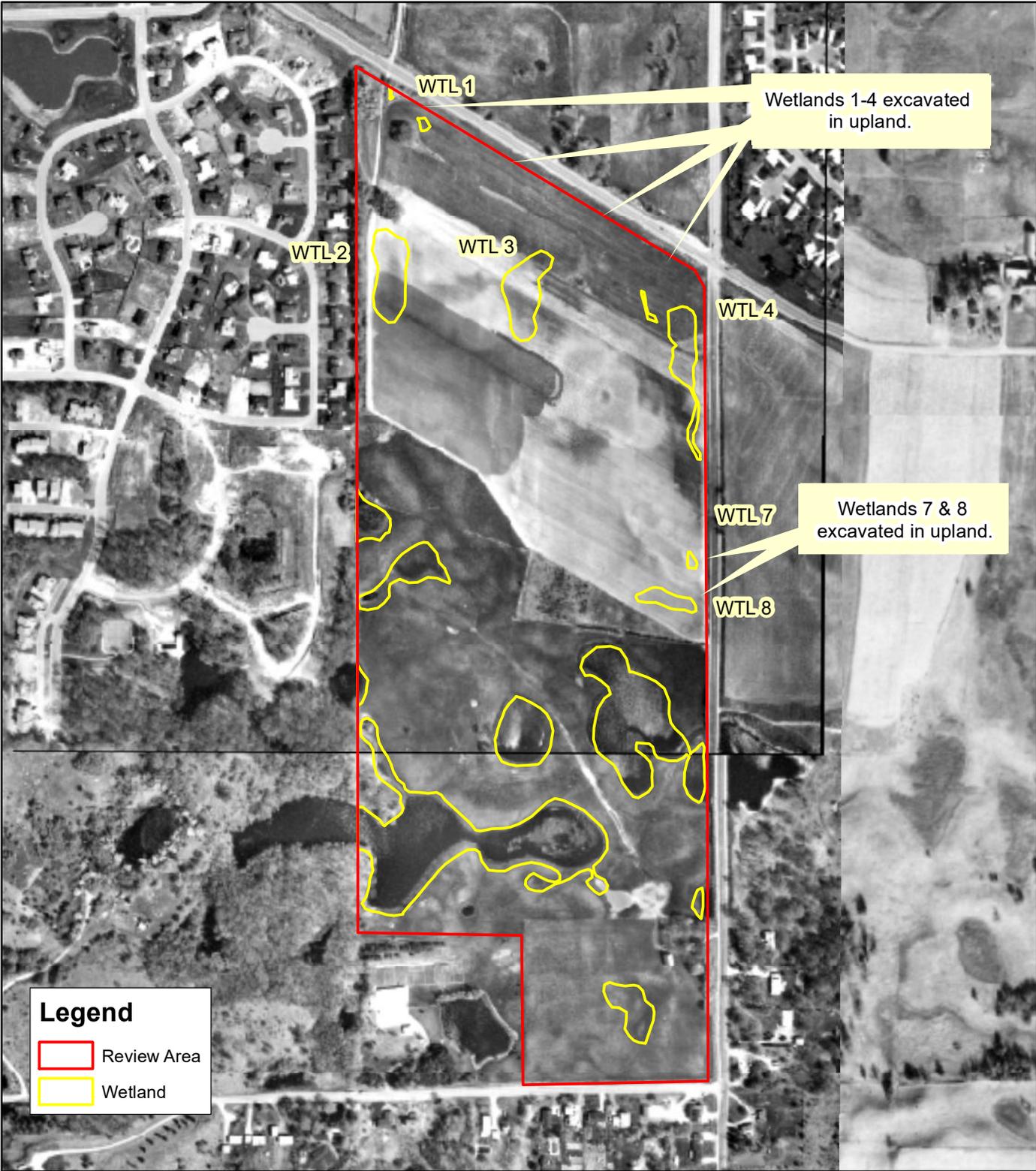


0 1,000  
Feet



**Lower Afton Road (2023 - 160)  
Maplewood, Minnesota**

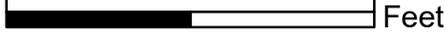
Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.



### Historic Aerial Review- 1985 Ramsey County Aerial Photo



0 1,000



Feet

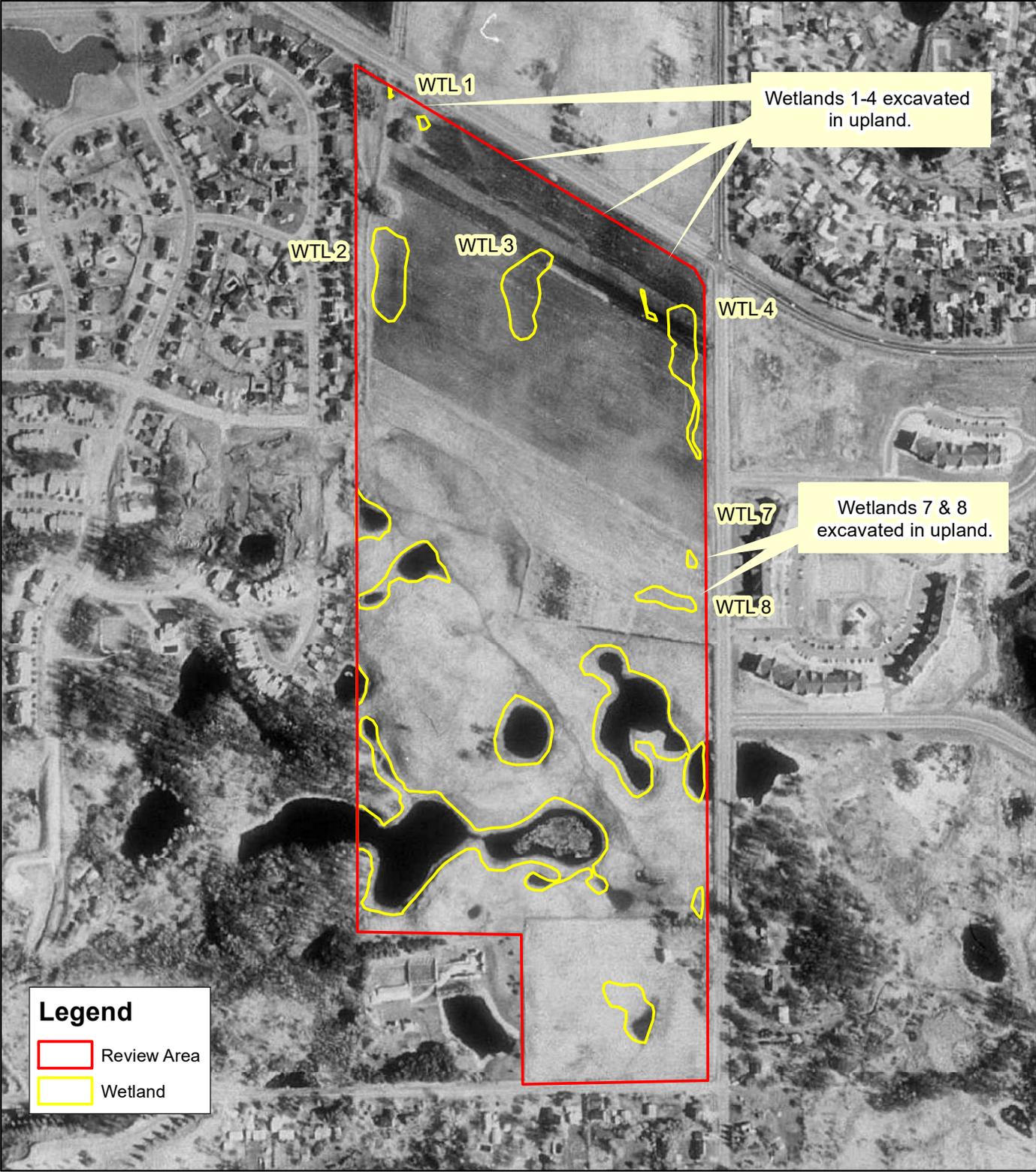
**Lower Afton Road (2023 - 160)**  
**Maplewood, Minnesota**

Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.



**KJOLHAUG** ENVIRONMENTAL SERVICES COMPANY

Source: MNGEO Spatial Commons, USGS



Historic Aerial Review- 1991 Ramsey County Aerial Photo



0 1,000  
Feet

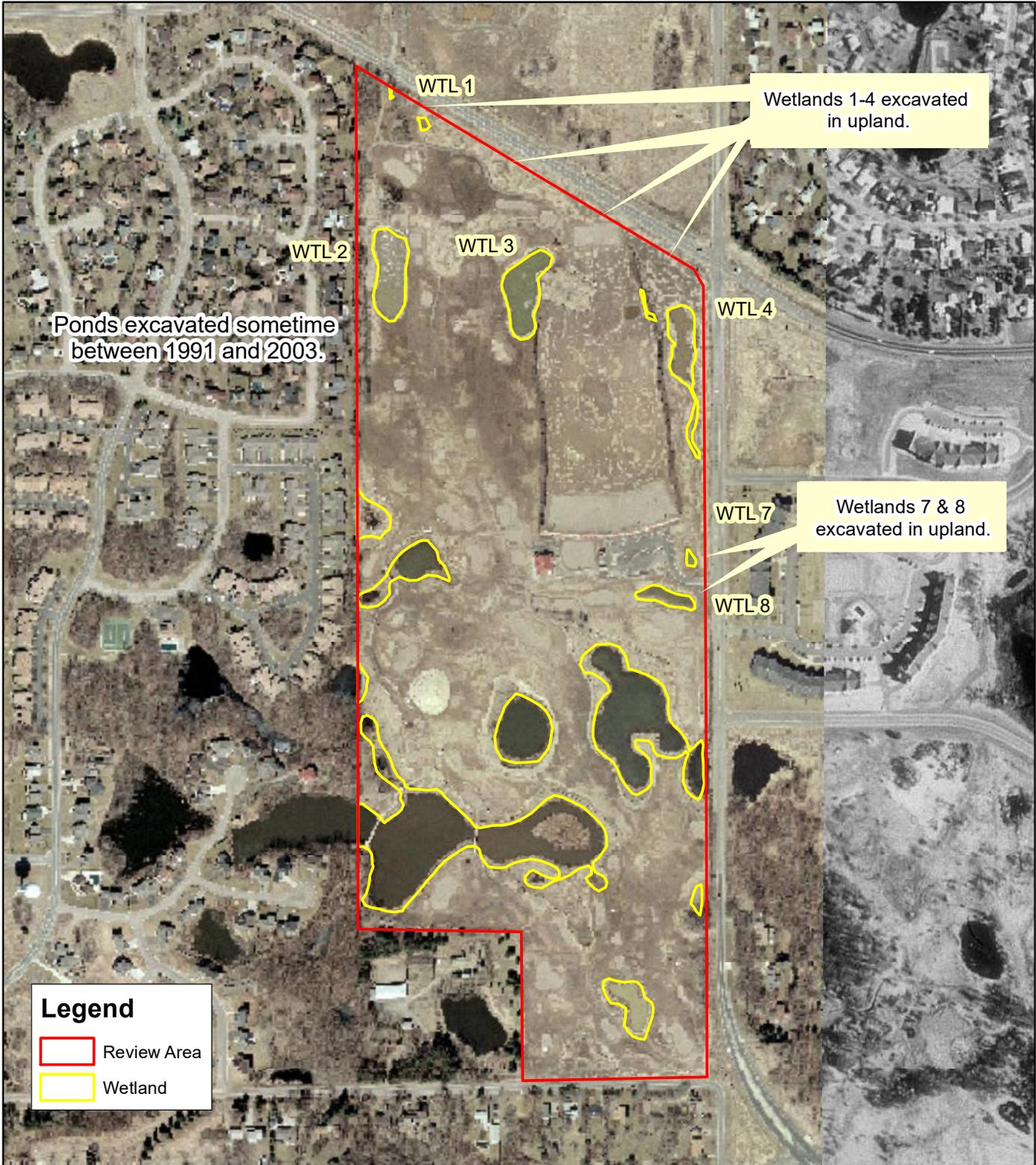


**KJOLHAUG** ENVIRONMENTAL SERVICES COMPANY

Source: MNGEO Spatial Commons, USGS

**Lower Afton Road (2023 - 160)**  
**Maplewood, Minnesota**

Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.



### Historic Aerial Review- 2003 Ramsey County Aerial Photo

N

0 1,000 Feet

**KJOLHAUG** ENVIRONMENTAL SERVICES COMPANY

Source: MNGEO Spatial Commons, USGS

**Lower Afton Road (2023 - 160)**  
**Maplewood, Minnesota**

Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.

**LEGEND**

-  BUFFER VARIANCE AREAS  
TOTAL AREA: 79,154 SF  
(1.82 AC)
-  RETAINING WALLS
-  WETLAND BUFFER



**LEGEND**

-  BUFFER VARIANCE AREAS  
TOTAL AREA: 79,154 SF  
(1.82 AC)
-  RETAINING WALLS
-  WETLAND BUFFER





**WETLAND SUMMARY:**

| WETLAND | R/WMD MANAGEMENT CLASS | MAPLEWOOD MANAGEMENT CLASS | AREA                             |
|---------|------------------------|----------------------------|----------------------------------|
| 5       | C                      | B                          | 14,405 SF (0.33 AC)              |
| 6       | B                      | B                          | 28,494 SF (0.66 AC)              |
| 9       | B                      | B                          | 3,534 SF (0.08 AC)               |
| 10      | B                      | B                          | 39,708 SF (0.91 AC)              |
| 11      | B                      | B                          | 120,323 SF (2.76 AC)             |
| 12      | B                      | A/B                        | 227,543 SF (5.22 AC)             |
| 13      | C                      | B                          | 2,890 SF (0.07 AC)               |
| 14      | C                      | B                          | 22,544 SF (0.52 AC)              |
|         |                        |                            | TOTAL AREA=459,441 SF (10.55 AC) |

OFFSITE A A N/A

\*AREA WITHIN WETLAND LIMITS AND INSIDE PROPERTY BOUNDARIES.

**WETLAND BUFFER CALCULATIONS:**

| CLASSIFICATION: | R/WMD REQUIRED BUFFER: |              |
|-----------------|------------------------|--------------|
|                 | MIN BUFFER:            | AVG. BUFFER: |
| MANAGE A        | 37.5'                  | 75'          |
| MANAGE B        | 25'                    | 50'          |
| MANAGE C        | 12.5'                  | 25'          |

| CLASSIFICATION: | CITY OF MAPLEWOOD REQUIRED BUFFER: |              |
|-----------------|------------------------------------|--------------|
|                 | MIN BUFFER:                        | AVG. BUFFER: |
| MANAGE A        | 75'                                | 100'         |
| MANAGE B        | 50'                                | 75'          |
| MANAGE C        | 50'                                | 50'          |

| WETLAND                   | FRONTAGE: | BUFFER LENGTH: | BUFFER AREA:          | MIN. BUFFER WIDTH: | AVG. BUFFER REQ.: | OVERALL AVG. BUFFER WIDTH: |
|---------------------------|-----------|----------------|-----------------------|--------------------|-------------------|----------------------------|
| 5                         | 344 LF    | 579 LF         | 33,381 SF             | 50'                | 75'               | 78.79'                     |
| 6                         | 949 LF    | 1084 LF        | 77,761 SF             | 50'                | 75'               | 76.83'                     |
| 9                         | 176 LF    | 419 LF         | 18,751 SF             | 50'                | 75'               | 75.64'                     |
| 10                        | 729 LF    | 1,308 LF       | 70,416 SF             | 50'                | 75'               | 75.21'                     |
| 11                        | 2,258 LF  | 1,653 LF       | 148,255 SF            | 50'                | 75'               | 77.61'                     |
| 12                        | 3,773 LF  | 2,468 LF       | 239,874 SF            | 50'                | 75'               | 80.38'                     |
| *13                       | 149 LF    | 438 LF         | 18,912 SF             | 50'                | 75'               | 86.80'                     |
| 14                        | 668 LF    | 1,117 LF       | 63,135 SF             | 50'                | 75'               | 75.52'                     |
| TOTAL BUFFER AREA ONSITE: |           |                | 670,485 SF (15.39 AC) |                    |                   |                            |
| OFFSITE A                 | 837 LF    | 1,357 LF       | 107,029 SF            | 75'                | 100'              | 103.4'                     |

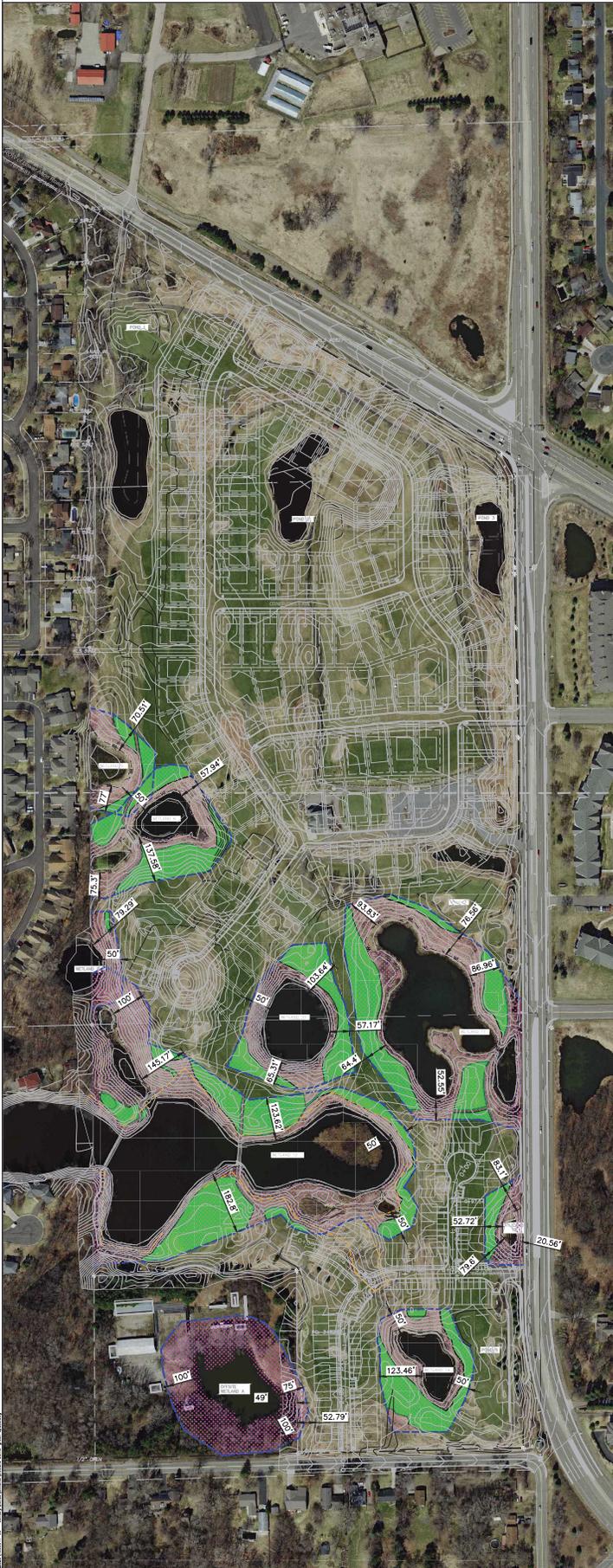
NOTE:  
LINEAR FRONTAGE AND BUFFER AREA NOT CALCULATED ALONG SIDES FACING PUBLIC ROW OR SITE BOUNDARIES.

\*WETLAND 13 EXCLUDES BUFFER AREA AND FRONTAGE ALONG CENTURY AVE DUE TO ROW RESTRICTIONS. ADEQUATE BUFFER AREA PROVIDED WITHIN DEVELOPED AREA TO MEET CITY REQUIREMENTS.

BUFFER LENGTH IS CALCULATED AT THE WIDEST BUFFER LIMITS AND IS USED TO CALCULATE AREA WIDTH OF BUFFER

**LEGEND:**

- EASEMENT LINE
- PROPERTY LINE
- LOT LINE
- W---W--- WETLAND DELINEATION
- WETLAND BUFFER
- WETLAND BUFFER AREA



**WETLAND SUMMARY:**

| WETLAND | RWMW MANAGEMENT CLASS | MAPLEWOOD MANAGEMENT CLASS | AREA                             |
|---------|-----------------------|----------------------------|----------------------------------|
| 5       | C                     | B                          | 14,405 SF (0.33 AC)              |
| 6       | B                     | B                          | 28,494 SF (0.66 AC)              |
| 9       | B                     | B                          | 3,534 SF (0.08 AC)               |
| 10      | B                     | B                          | 39,708 SF (0.91 AC)              |
| 11      | B                     | B                          | 120,323 SF (2.76 AC)             |
| 12      | B                     | A/B                        | 227,543 SF (5.22 AC)             |
| 13      | C                     | B                          | 2,890 SF (0.07 AC)               |
| 14      | C                     | B                          | 22,544 SF (0.52 AC)              |
|         |                       |                            | TOTAL AREA=459,441 SF (10.55 AC) |

OFFSITE A A N/A  
 \*AREA WITHIN WETLAND LIMITS AND INSIDE PROPERTY BOUNDARIES.

**WETLAND BUFFER CALCULATIONS:**

| CLASSIFICATION: | RWMW REQUIRED BUFFER: MIN BUFFER: | AVG. BUFFER: |
|-----------------|-----------------------------------|--------------|
| MANAGE A        | 37.5'                             | 75'          |
| MANAGE B        | 25'                               | 50'          |
| MANAGE C        | 12.5'                             | 25'          |

| CLASSIFICATION: | CITY OF MAPLEWOOD REQUIRED BUFFER: MIN BUFFER: | AVG. BUFFER: |
|-----------------|--|--------------|
| MANAGE A        | 75'  | 100'         |
| MANAGE B        | 50'  | 75'          |
| MANAGE C        | 50'  | 50'          |

| WETLAND                   | FRONTAGE: | BUFFER LENGTH: | BUFFER AREA:          | MIN. BUFFER WIDTH: | AVG. BUFFER REQ.: | OVERALL AVG. BUFFER WIDTH: |
|---------------------------|-----------|----------------|-----------------------|--------------------|-------------------|----------------------------|
| 5                         | 344 LF    | 579 LF         | 33,381 SF             | 50'                | 75'               | 78.79'                     |
| 6                         | 949 LF    | 1084 LF        | 77,761 SF             | 50'                | 75'               | 76.83'                     |
| 9                         | 176 LF    | 419 LF         | 18,751 SF             | 50'                | 75'               | 75.64'                     |
| 10                        | 729 LF    | 1,308 LF       | 70,416 SF             | 50'                | 75'               | 75.21'                     |
| 11                        | 2,258 LF  | 1,653 LF       | 148,255 SF            | 50'                | 75'               | 77.61"                     |
| 12                        | 3,773 LF  | 2,468 LF       | 239,874 SF            | 50'                | 75'               | 80.38"                     |
| *13                       | 149 LF    | 438 LF         | 18,912 SF             | 50'                | 75'               | 86.80"                     |
| 14                        | 668 LF    | 1,117 LF       | 63,135 SF             | 50'                | 75'               | 75.52"                     |
| TOTAL BUFFER AREA ONSITE: |           |                | 670,485 SF (15.39 AC) |                    |                   |                            |
| OFFSITE A                 | 837 LF    | 1,357 LF       | 107,029 SF            | 75'                | 100'              | 103.4'                     |

NOTE:  
 LINEAR FRONTAGE AND BUFFER AREA NOT CALCULATED ALONG SIDES FACING PUBLIC ROW OR SITE BOUNDARIES.

\*WETLAND 13 EXCLUDES BUFFER AREA AND FRONTAGE ALONG CENTURY AVE DUE TO ROW RESTRICTIONS. ADEQUATE BUFFER AREA PROVIDED WITHIN DEVELOPED AREA TO MEET CITY REQUIREMENTS.

BUFFER LENGTH IS CALCULATED AT THE WIDEST BUFFER LIMITS AND IS USED TO CALCULATE AREA WIDTH OF BUFFER

| WETLAND | BUFFER AREA: | GREEN SPACE** WITHIN BUFFER: | % OF BUFFER AREA: |
|---------|--------------|------------------------------|-------------------|
| 5       | 33,381 SF    | 8,859 SF                     | 26.5%             |
| 6       | 77,761 SF    | 42,431 SF                    | 54.6%             |
| 9       | 18,751 SF    | 682 SF                       | 3.6%              |
| 10      | 70,416 SF    | 36,013 SF                    | 51.3%             |
| 11      | 148,255 SF   | 66,169 SF                    | 44.6%             |
| 12      | 239,874 SF   | 96,840 SF                    | 40.4%             |
| *13     | 18,912 SF    | 8,345 SF                     | 44.1%             |
| 14      | 63,135 SF    | 35,661 SF                    | 56.5%             |

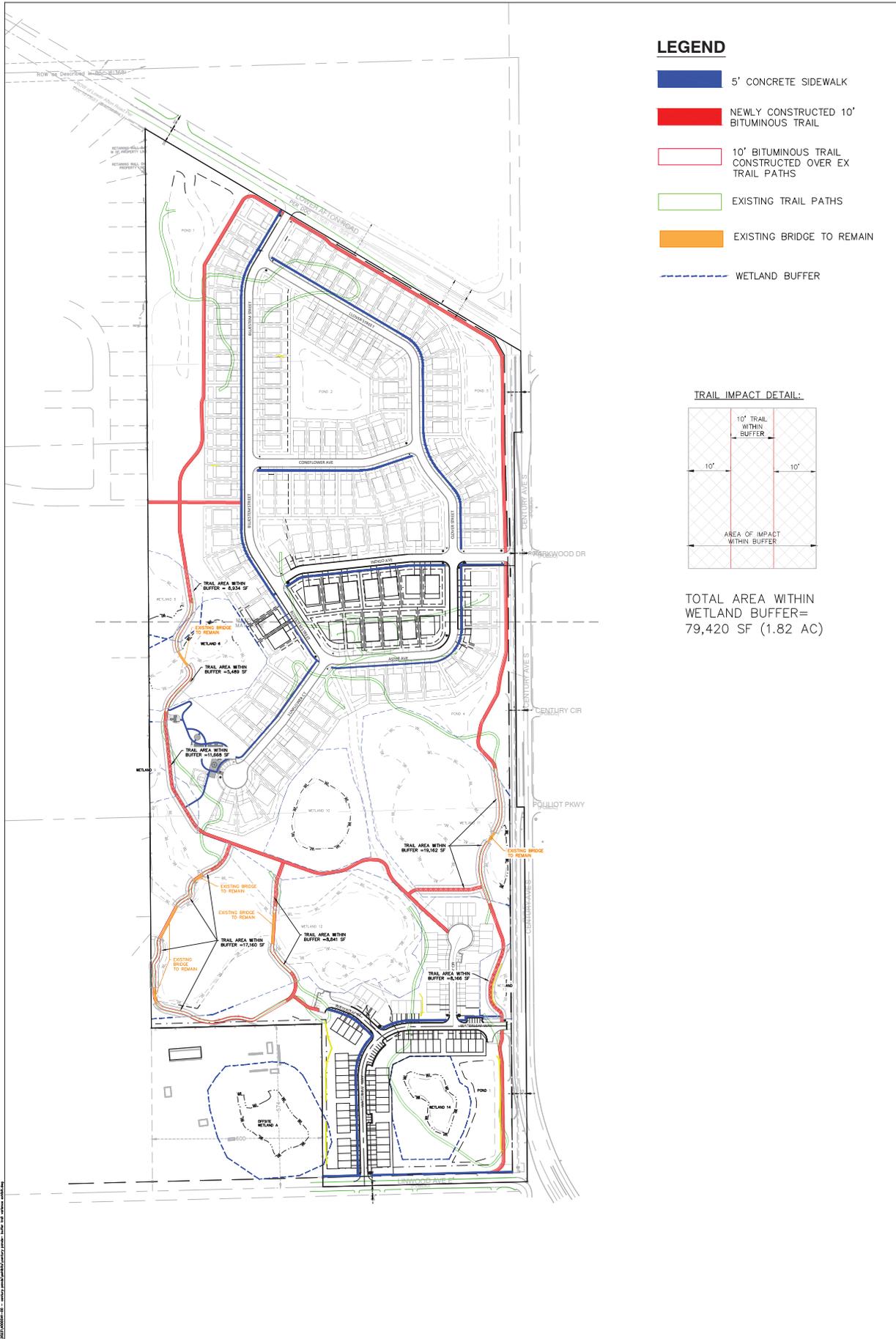
TOTAL GREEN SPACE\*\* WITHIN BUFFERS: 295,000 SF (6.77 AC)

TOTAL % OF BUFFER AREA CONTAINING GREEN SPACE: 43.9%

\*\*GREEN SPACE = AREA WITHIN THE WETLAND BUFFERS PREVIOUSLY BEING MAINTAINED AS GOLF COURSE TO BE CONVERTED TO NATIVE AREAS

**LEGEND:**

- EASEMENT LINE
- PROPERTY LINE
- LOT LINE
- WETLAND DELINEATION
- WETLAND BUFFER
- WETLAND BUFFER AREA
- GREEN SPACE AREA

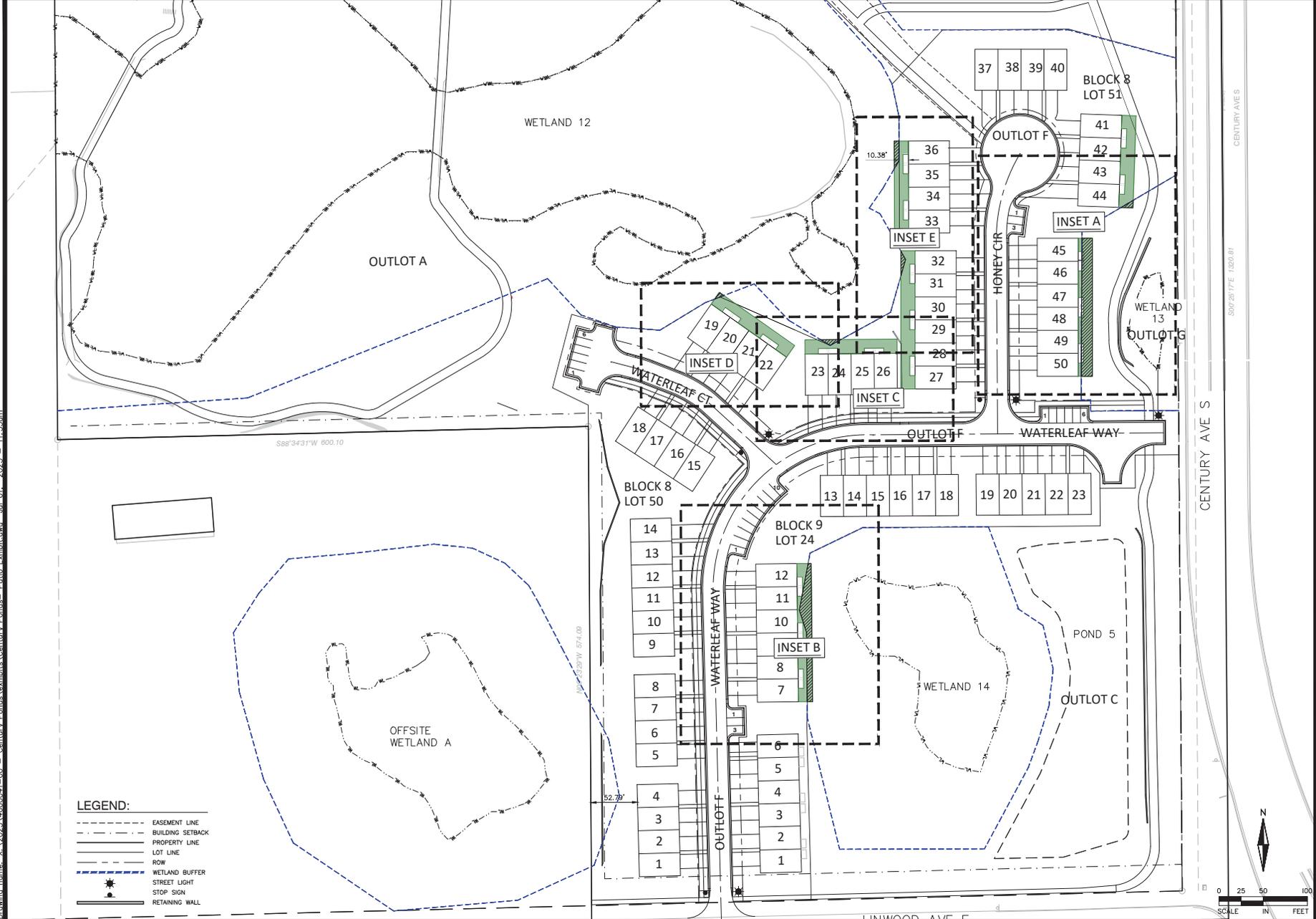


**TRAIL IMPACTS TO WETLAND BUFFERS**  
 MAPLEWOOD, MN



**ALLIANT**  
 733 Marquette Avenue  
 Suite 700  
 Minneapolis, MN 55402  
 612.758.3080  
 www.alliant-inc.com

Drawing name: X:\2023\4000041-00 - Century Ponds\exhibits\Century Ponds - Patio Exhibit.dwg - Jul 01, 2025 - 11:35am



**CENTURY PONDS**  
 MAPLEWOOD, MN  
**PRELIMINARY PLAT**  
**PATIO EXHIBIT - OVERALL**

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  
 DAVE NASH, PE

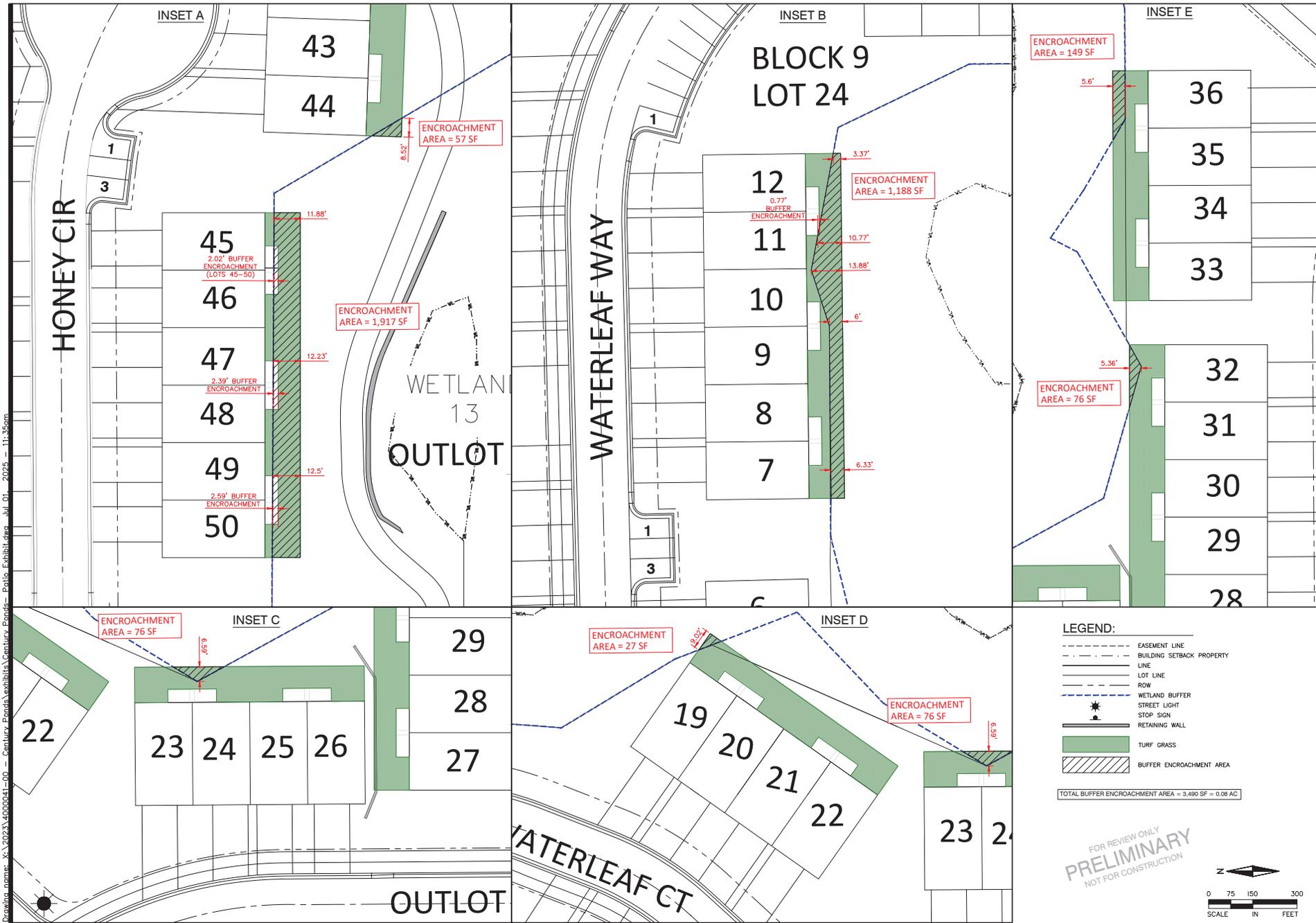
|                           |             |
|---------------------------|-------------|
| Date                      | License No. |
| QUALITY ASSURANCE/CONTROL |             |
| BY                        | DATE        |
| DATE                      | ISSUE       |
|                           |             |
|                           |             |
|                           |             |
|                           |             |
|                           |             |
|                           |             |

**PROJECT TEAM DATA**  
 DESIGNED: JP  
 DRAWN: JP  
 PROJECT NO: 4000041

**EX-1**



**ALLIANT**  
 733 Marquette Avenue  
 Suite 700  
 Minneapolis, MN 55402  
 612.758.3080  
 www.alliant-inc.com



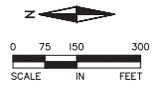
CENTURY PONDS  
 MAPLEWOOD, MN  
 PRELIMINARY PLAT  
 PATIO EXHIBIT - INSETS

**LEGEND:**

- EASEMENT LINE
- BUILDING SETBACK PROPERTY
- LINE
- LOT LINE
- ROW
- WETLAND BUFFER
- STREET LIGHT
- STOP SIGN
- RETAINING WALL
- TURF GRASS
- BUFFER ENCROACHMENT AREA

TOTAL BUFFER ENCROACHMENT AREA = 3,490 SF = 0.08 AC

FOR REVIEW ONLY  
**PRELIMINARY**  
 NOT FOR CONSTRUCTION



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.

DAVE NASH, PE  
 Date: \_\_\_\_\_ License No.: \_\_\_\_\_

QUALITY ASSURANCE/CONTROL

| BY   | DATE  |
|------|-------|
| DATE | ISSUE |
|      |       |
|      |       |
|      |       |
|      |       |
|      |       |
|      |       |
|      |       |
|      |       |

PROJECT TEAM DATA

|              |         |
|--------------|---------|
| DESIGNED:    | JP      |
| DRAWN:       | JP      |
| PROJECT NO.: | 4000041 |

EX-2

Drawing name: X:\2023\4000041-00 - Century Ponds\exhibits\Century Ponds - Patio Exhibit.dwg - Jul 01, 2025 - 11:35am



# Century Ponds Native Landscape

**Prepared For:**

D.R. Horton  
ATTN: Deb Ridgeway  
601 Century Ave S  
Maplewood, MN 55119  
952-985-7864  
DRidgeway@drhorton.com

**Prepared By:**

Keith Robertson  
Prairie Restorations, Inc.  
763-631-9449  
youremail@prairieresto.com





## ABOUT

Our Mission is to produce the most ecologically appropriate seeds, plants products, and services and to utilize them to restore and manage native plant communities.

Prairie Restorations, Inc. has been dedicated to the restoration and management of native plant communities for over 45 years. We have worked with thousands of clients on a wide variety of projects in both the public and private sectors throughout the upper Midwest.

Our team consists of experienced professionals, most of whom hold degrees in biology, forestry, or natural resources. Our teams are based out of 5 service sites across the state of Minnesota, providing a full range of services from consulting, design, install, and management.

We are committed to, and passionate about, protecting and enhancing our valuable natural resources. This dedication and expertise are brought to every project. We are excited about and appreciate the opportunity to provide you with this proposal.



# Prairie Restorations, Inc.



## WHERE WE ARE

- Princeton, MN
- Scandia, MN
- Watertown, MN
- Randolph, MN
- Esko, MN

We have multiple locations around Minnesota to service just about any site in the state and surrounding areas. We also have garden centers open to the public in our Princeton, and Scandia, MN locations.

We are committed to providing exceptional service and building lasting relationships within the communities we serve.

# Native Installation Overview

## Project Overview

1. Establishing a native landscape will provide a long-term, ecologically sound landscape that is adapted to the existing conditions of the site. It will add a distinctive look to the property and provide valuable habitat for songbirds, butterflies, bees, and other pollinators. Additionally, native plantings contribute significantly to carbon sequestration by storing carbon in their biomass and roots. They also aid in stormwater purification by filtering out pollutants and excess nutrients, thus improving water quality. Furthermore, native landscapes help restore soils by promoting biodiversity, preventing erosion, and enhancing soil structure and nutrient cycling, leading to healthier and more resilient ecosystems.
2. The upland areas will be seeded with native prairie grasses and wildflowers adapted to the well-drained, sunny conditions. The Riparian areas will be seeded with wetland grasses and flowers that are adapted to the saturated soil conditions.
3. Following initial grading (done by others) the site will be treated with herbicide to kill existing weeds, tilled, and harrowed to provide a smooth seedbed, seeded with native grasses and wildflowers, and mulched with straw and anchor disked/covered with straw erosion blanket to protect the seeding and enhance germination.

# Project Areas



## Project Dimensions & Planting Zones

1. The Native Seeding Project Area is approximately 25.59 Acres  
With 6.34 Acres of Maintained area and 19.25 Acres of New installation areas
2. Depending on condition and the number of native species present of maintained areas restoration techniques may vary in some cases a full restoration will be needed.

# Project Site Preparation

## Planting Preparation

1. Project area will be graded before the seeding work begins (*done by general contractor*).
2. Remove invasive woody species by flush cutting and stump treating with Triclopyr herbicide.
3. Allow regrowth to occur. Apply glyphosate and triclopyr herbicides per the manufacturer's directions to the growing vegetation. Allow a minimum of 30 days before disturbing the site with other procedures. 2-3 Site preparations for sprays may be needed to control unwanted plant species.
4. As per the manufacturer's directions, in areas near water, apply an aquatic-approved glyphosate herbicide in areas with growing vegetation. Allow a minimum of 10 days before disturbing the vegetation with other procedures.
5. Remove dead vegetation by implementing a controlled burn using appropriate procedures, equipment, and permits. (If needed in Maintained Areas)
6. Mow the dead vegetation and remove excess thatch as needed. (If needed in Maintained Areas)
7. Mow the existing vegetation with a sickle or flail-type mower to a height of 4" to 6". (If needed in Maintained Areas)
8. Harley-rake, Harrow, or hand-rake, the soil to remove thatch and create a smooth seedbed.

# Project Installation

## Seed & Seeding

1. Seeding can occur during the growing season up to freeze-up, and in some instances after freeze-up.
2. To stabilize the site, the project area will only be planted with native grasses and wildflowers.
3. All Native seed mixes seed will be seeded with a no-till seed drill designed for native seeding (Truax® or equivalent), or Vicon Broadcast seeder
4. A raking will follow to incorporate the seed into the soil.
5. In areas too steep or small for equipment, the seed will be hand broadcast and raked into the soil.
6. A harrowing or raking will follow all grass seeding.

## Project Seed Mixes

On the next pages are the custom seed mixes proposed for your site. Each description includes the specific species, the percent of the mix, and overall seeding rate for your project site. Project seed mixes generated using PRI's PRESTO application. Using the address and sight conditions PRESTO creates a list of ecologically appropriate native species historically seen in the area. Seed mixes specifically created for Rust Patch Bumble Bee habitat.

Seed Mixes are subject to change based on availability but will incorporate appropriate native species if changed

**Dry Prairie Mix****Dry Grass Mix**

|                         |                    |        |
|-------------------------|--------------------|--------|
| Andropogon gerardii     | Big Bluestem       | 20.00% |
| Bouteloua curtipendula  | Sideoats Grama     | 16.00% |
| Elymus canadensis       | Canada Wild Rye    | 5.00%  |
| Elymus trachycaulus     | Slender Wheatgrass | 6.00%  |
| Juncus tenuis           | Path Rush          | 1.00%  |
| Panicum virgatum        | Switchgrass        | 2.00%  |
| Sorghastrum nutans      | Indiangrass        | 10.00% |
| Schizachyrium scoparium | Little Bluestem    | 40.00% |

**Grasses seeded at 12 Lbs/Acre****Wildflowers Seeded at 64 Oz/Acre****Dry Wildflower Mix**

|                              |                       |        |
|------------------------------|-----------------------|--------|
| Achillea millefolium         | Common Yarrow         | 3.00%  |
| Amorpha canescens            | Leadplant             | 4.00%  |
| Anemone virginiana           | Tall Thimbleweed      | 2.00%  |
| Artemisia ludoviciana        | Prairie Sage          | 1.00%  |
| Asclepias syriaca            | Common Milkweed       | 3.00%  |
| Asclepias verticillata       | Whorled Milkweed      | 1.00%  |
| Dalea candida                | White Prairie Clover  | 15.00% |
| Dalea purpurea               | Purple Prairie Clover | 15.00% |
| Drymocallis arguta           | Prairie Cinquefoil    | 1.00%  |
| Heliopsis helianthoides      | Common Ox-eye         | 5.00%  |
| Monarda fistulosa            | Wild Bergamot         | 2.00%  |
| Ratibida pinnata             | Yellow Coneflower     | 3.00%  |
| Rudbeckia hirta              | Black-eyed Susan      | 14.00% |
| Solidago nemoralis           | Gray Goldenrod        | 2.00%  |
| Solidago rigida              | Stiff Goldenrod       | 5.00%  |
| Solidago speciosa            | Showy Goldenrod       | 4.00%  |
| Symphotrichum ericoides      | Heath Aster           | 1.00%  |
| Symphotrichum lanceolatum    | Panicled Aster        | 2.00%  |
| Symphotrichum oolentangiense | Sky Blue Aster        | 4.00%  |
| Zizia aptera                 | Heartleaf Alexanders  | 5.00%  |
| Zizia aurea                  | Golden Alexanders     | 8.00%  |

**Mesic Prairie Mix****Mesic Grass Mix**

|                         |                    |        |
|-------------------------|--------------------|--------|
| Andropogon gerardii     | Big Bluestem       | 18.00% |
| Bouteloua curtipendula  | Sideoats Grama     | 9.00%  |
| Carex bebbii            | Bebb's Sedge       | 0.50%  |
| Carex brevior           | Plains Oval Sedge  | 3.00%  |
| Carex vulpinoidea       | Fox Sedge          | 0.50%  |
| Elymus canadensis       | Canada Wild Rye    | 8.00%  |
| Elymus trachycaulus     | Slender Wheatgrass | 5.50%  |
| Koeleria macrantha      | June Grass         | 0.50%  |
| Panicum virgatum        | Switchgrass        | 1.00%  |
| Sporobolus heterolepis  | Prairie Dropseed   | 3.00%  |
| Sorghastrum nutans      | Indiangrass        | 15.00% |
| Schizachyrium scoparium | Little Bluestem    | 36.00% |

**Grasses seeded at 13 Lbs/Acre****Wildflowers seeded at 64 Oz/Acre****Mesic Wildflower Mix**

|                             |                       |        |
|-----------------------------|-----------------------|--------|
| Achillea millefolium        | Common Yarrow         | 4.00%  |
| Agastache foeniculum        | Fragrant Giant Hyssop | 5.00%  |
| Amorpha canescens           | Leadplant             | 3.00%  |
| Anemone cylindrica          | Thimbleweed           | 1.00%  |
| Asclepias syriaca           | Common Milkweed       | 4.00%  |
| Asclepias tuberosa          | Butterfly Milkweed    | 2.00%  |
| Asclepias verticillata      | Whorled Milkweed      | 1.00%  |
| Coreopsis palmata           | Prairie Coreopsis     | 4.00%  |
| Dalea candida               | White Prairie Clover  | 12.00% |
| Dalea purpurea              | Purple Prairie Clover | 12.00% |
| Doellingeria umbellata      | Flat-topped Aster     | 1.00%  |
| Drymocallis arguta          | Prairie Cinquefoil    | 2.00%  |
| Lespedeza capitata          | Bush Clover           | 5.00%  |
| Liatris aspera              | Rough Blazing Star    | 1.00%  |
| Monarda fistulosa           | Wild Bergamot         | 2.00%  |
| Ratibida pinnata            | Yellow Coneflower     | 2.00%  |
| Rudbeckia hirta             | Black-eyed Susan      | 13.00% |
| Symphotrichum lanceolatum   | Panicled Aster        | 1.00%  |
| Solidago rigida             | Stiff Goldenrod       | 4.00%  |
| Solidago speciosa           | Showy Goldenrod       | 4.00%  |
| Symphotrichum laeve         | Smooth Blue Aster     | 4.00%  |
| Symphotrichum novae-angliae | New England Aster     | 2.00%  |
| Verbena hastata             | Blue Vervain          | 4.00%  |
| Zizia aurea                 | Golden Alexanders     | 7.00%  |

## Riparian Seed Mix

### Riparian Grass Mix

|                          |                    |        |
|--------------------------|--------------------|--------|
| Andropogon gerardii      | Big Bluestem       | 26.00% |
| Bromus ciliatus          | Fringed Brome      | 6.00%  |
| Calamagrostis canadensis | Bluejoint Grass    | 1.00%  |
| Carex stricta            | Tussock Sedge      | 2.00%  |
| Carex vulpinoidea        | Fox Sedge          | 1.00%  |
| Elymus canadensis        | Canada Wild Rye    | 8.00%  |
| Elymus virginicus        | Virginia Wild Rye  | 10.00% |
| Glyceria grandis         | American Manna     | 1.00%  |
| Glyceria striata         | Fowl Manna Grass   | 1.00%  |
| Juncus torreyi           | Torrey's Rush      | 0.50%  |
| Scirpus cyperinus        | Woolgrass          | 0.50%  |
| Sorghastrum nutans       | Indiangrass        | 15.00% |
| Spartina pectinata       | Prairie Cord Grass | 4.00%  |
| Schizachyrium scoparium  | Little Bluestem    | 24.00% |

Grasses Seeded at 8lb/Acre

Wildflowers Seeded at 48 Oz/Acre

### Riparian Wildflower Mix

|                              |                       |        |
|------------------------------|-----------------------|--------|
| Agastache foeniculum         | Fragrant Giant Hyssop | 4.00%  |
| Anemone canadensis           | Canada Anemone        | 4.00%  |
| Asclepias incarnata          | Swamp Milkweed        | 4.00%  |
| Asclepias syriaca            | Common Milkweed       | 3.00%  |
| Dalea candida                | White Prairie Clover  | 10.00% |
| Dalea purpurea               | Purple Prairie Clover | 8.00%  |
| Doellingeria umbellata       | Flat-topped Aster     | 2.00%  |
| Eutrochium maculatum         | Joe Pye Weed          | 4.00%  |
| Eupatorium perfoliatum       | Boneset               | 3.00%  |
| Heliopsis helianthoides      | Common Ox-eye         | 4.00%  |
| Iris versicolor              | Blue Flag Iris        | 3.50%  |
| Liatris ligulistylis         | Meadow Blazing Star   | 2.00%  |
| Liatris pycnostachya         | Tall Blazing Star     | 3.00%  |
| Mimulus ringens              | Monkey Flower         | 0.50%  |
| Monarda fistulosa            | Wild Bergamot         | 2.00%  |
| Physostegia virginiana       | Obedient Plant        | 3.00%  |
| Symphyotrichum lateriflorum  | Calico Aster          | 1.00%  |
| Solidago rigida              | Stiff Goldenrod       | 6.00%  |
| Symphyotrichum novae-angliae | New England Aster     | 3.00%  |
| Symphyotrichum puniceum      | Red-Stalked Aster     | 1.00%  |
| Vernonia fasciculata         | Ironweed              | 3.00%  |
| Verbena hastata              | Blue Vervain          | 4.00%  |
| Veronicastrum virginicum     | Culver's Root         | 2.00%  |
| Zizia aurea                  | Golden Alexanders     | 4.00%  |
| Pycnanthemum virginianum     | Mountain Mint         | 2.00%  |
| Rudbeckia hirta              | Black-eyed Susan      | 12.00% |
| Symphyotrichum laeve         | Smooth Blue Aster     | 2.00%  |

## Erosion Control

1. The cover crop will be sown along with the native grasses.
2. All areas not blanketed will be mulched with clean straw at the rate of 1.5 tons per acre.
3. The straw will be disk anchored immediately after mulching.
4. Erosion blanket (S150 S75 SC150 SC150bn C125 C125bn Anti-wash geo-jute or equivalent) will be applied per the manufacturer's directions to designated areas. (Type of Blanket will depend on site conditions.



## Integrated Plant Management

The establishment of a new prairie represents not only a dedication to restoring our natural habitats but also to preserving biodiversity and ecological balance. Proper management of this installation is crucial. If neglected, invasive species will likely take over. Regular maintenance ensures that the natural processes and succession stages of the prairie are facilitated effectively.

### Management Example

Our management team will put together a schedule of maintenance for you along with a customized quote for providing the service. Below is an example of expected maintenance for the most critical time, the first 3 years.

- **Year 1** – Monitoring, 3 mowing visits, a spot spraying visit to control annual and biannual weeds.  
[REDACTED]
- **Year 2** – Monitoring, Spring mow, 3 management visits that include spot spraying, spot mowing, and hand weeding.  
[REDACTED]
- **Year 3** – Spring prescribed burn, 3 management visits that include spot spraying, spot mowing, and hand weeding.  
[REDACTED]

(This is a general outline with estimated prices (not including mobilization or material costs) based on a 1-acre planting. Your proposal and prices will vary.)



Thank you  
for trusting  
us with your  
restoration  
project.



**Prairie Restorations, Inc.** 

31646 128<sup>th</sup> Street  
Princeton, MN 55371  
[Sales@PrairieResto.com](mailto:Sales@PrairieResto.com)



**WETLAND BUFFER CALCULATIONS:**

- EXISTING HABITAT AREA TO BE MAINTAINED (6.12 AC)
- NEW PROPOSED ENHANCED AREA (22.10 AC)

NOTES:  
 \*REFER TO PRAIRIE RESTORATION INC. NATIVE LANDSCAPING DOCUMENT FOR FULL RESTORATION AND SEEDING PLAN.

- PROJECT SEED MIXES:**
- DRY PRAIRIE MIX
    - DRY GRASS MIX- SEEDED AT 12LBS/AC
    - DRY WILDFLOWER MIX- SEEDED AT 64 OZ/AC
  - MESIC PRAIRIE MIX
    - MESIC GRASS MIX- SEEDED AT 13LBS/AC
    - MESIC WILDFLOWER MIX- SEEDED AT 64 OZ/AC
  - RIPARIAN SEED MIX
    - RIPARIAN GRASS MIX- SEEDED AT 8LBS/ AC
    - RIPARIAN WILDFLOWER MIX- SEEDED AT 48 OZ/ AC

**EXPECTED 3 YEAR MAINTENANCE PLAN:**

YEAR 1- MONITORING, 3 MOWING VISITS, A SPOT SPRAYING VISIT TO CONTROL ANNUAL AND BIENNIAL WEEDS.

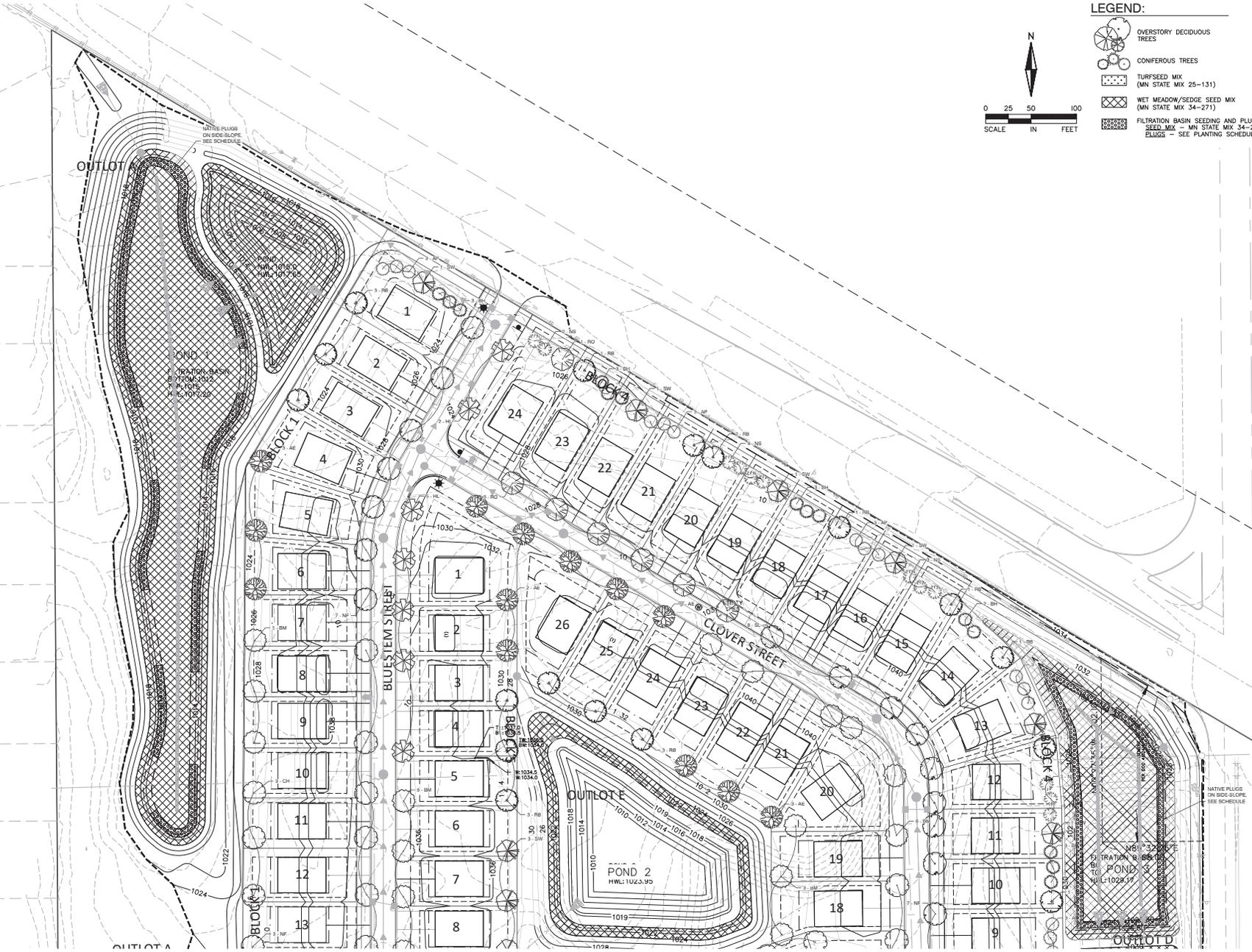
YEAR 2- MONITORING, SPRING MOW, 3 MANAGEMENT VISITS THAT INCLUDE SPOT SPRAYING, SPOT MOWING AND HAND WEEDING.

YEAR 3- SPRING PRESCRIBED BURN, 3 MANAGEMENT VISITS THAT INCLUDE SPOT SPRAYING, SPOT MOWING, AND HAND WEEDING.

- LEGEND:**
- EASEMENT LINE
  - PROPERTY LINE
  - LOT LINE
  - W---W---W--- WETLAND DELINEATION
  - W---W---W--- WETLAND BUFFER



Drawing name: X:\2023\4000041-00 - century\_ponds\plan\_sheets\4000041\land.dwg - See 10 - 2025 - 3:34pm



**LEGEND:**

- OVERSTORY DECIDUOUS TREES
- CONIFEROUS TREES
- TURFSEED MIX (MN STATE MIX 25-131)
- WET MEADOW/EDGE SEED MIX (MN STATE MIX 34-271)
- FILTRATION BASIN SEEDING AND PLUGS  
SEED MIX - MN STATE MIX 34-271  
PLUGS - SEE PLANTING SCHEDULE

0 25 50 100  
SCALE IN FEET

N

**ALLIANT**  
733 Marquette Avenue  
Suite 700  
Minneapolis, MN 55402  
612.758.3080  
www.alliant-inc.com

CENTURY PONDS  
MAPLEWOOD, MN  
PRELIMINARY PLAN  
LANDSCAPE PLAN - ENLARGEMENT A

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 LANDSCAPE ARCHITECT under the laws of the State of MINNESOTA.

JOHN GRODINSKI, P.L.A., A.S.L.A.

Date License No.

QUALITY ASSURANCE/CONTROL

| BY        | DATE              |
|-----------|-------------------|
| DATE      | ISSUE             |
| 2/5/2025  | CITY SUBMITTAL    |
| 3/27/2025 | CITY RESUBMITTAL  |
| 6/13/2025 | CLIENT REVIEW SET |
| 7/22/2025 | CITY RESUBMITTAL  |

PROJECT TEAM DATA

|              |         |
|--------------|---------|
| DESIGNED:    | MC      |
| DRAWN:       | SRM     |
| PROJECT NO.: | 4000041 |



**ALLIANT**  
 733 Marquette Avenue  
 Suite 700  
 Minneapolis, MN 55402  
 612.758.3080  
 www.alliant-inc.com

CENTURY PONDS  
 MAPLEWOOD, MN

PRELIMINARY PLAN

LANDSCAPE PLAN - ENLARGEMENT B

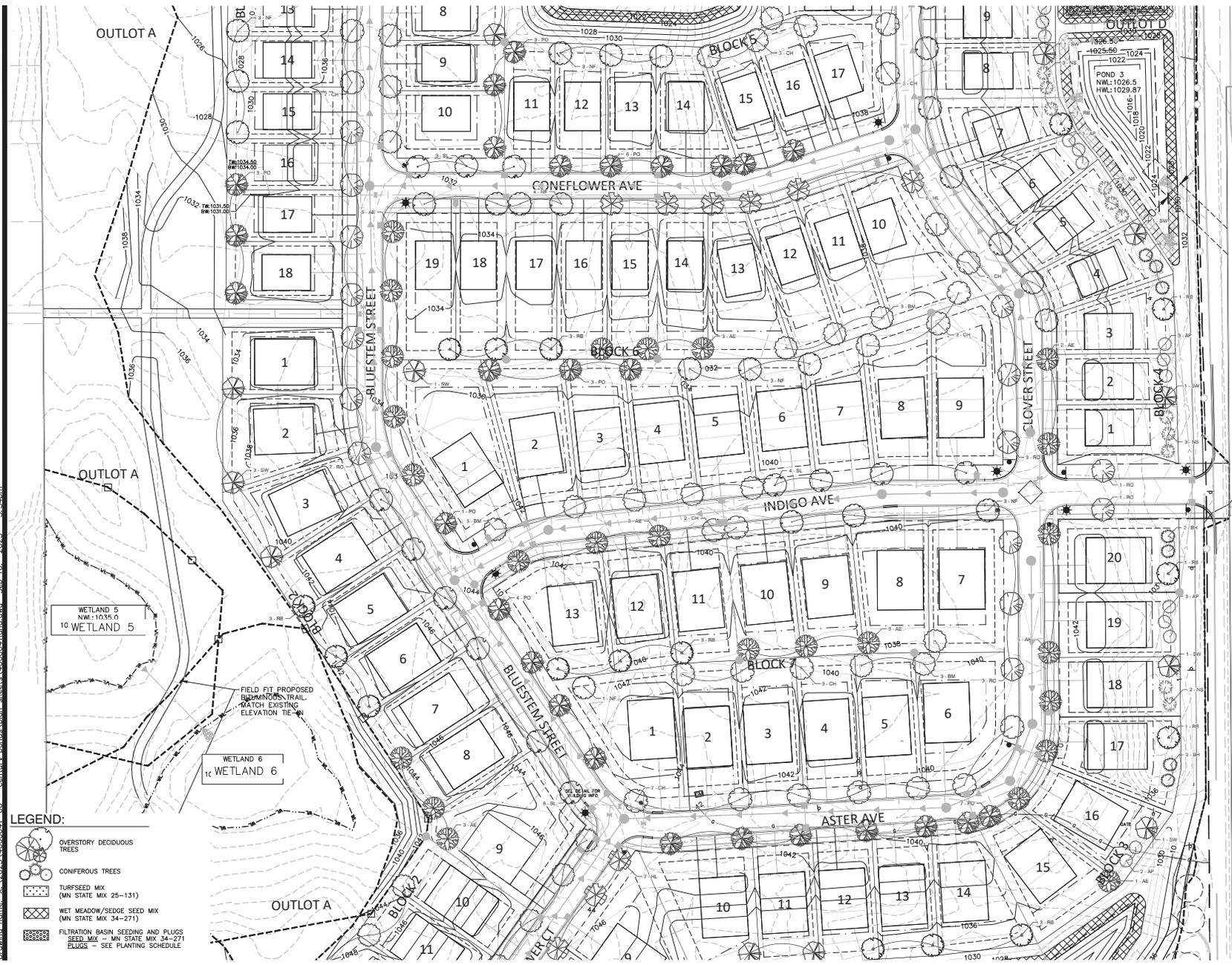
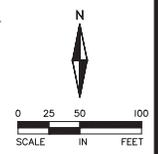
I hereby certify that this plan, specification, or report was prepared for me or under my direct supervision and that I am a duly Licensed LANDSCAPE ARCHITECT under the laws of the State of MINNESOTA.

JOHN GROWNOV, P.L.A. ASLA

|                           |                   |
|---------------------------|-------------------|
| Date                      | License No.       |
| QUALITY ASSURANCE/CONTROL |                   |
| BY                        | DATE              |
| DATE                      | ISSUE             |
| 3/25/2023                 | CITY SUBMITTAL    |
| 5/22/2023                 | CITY RESUBMITTAL  |
| 6/13/2023                 | CLIENT REVIEW SET |
| 7/22/2023                 | CITY RESUBMITTAL  |

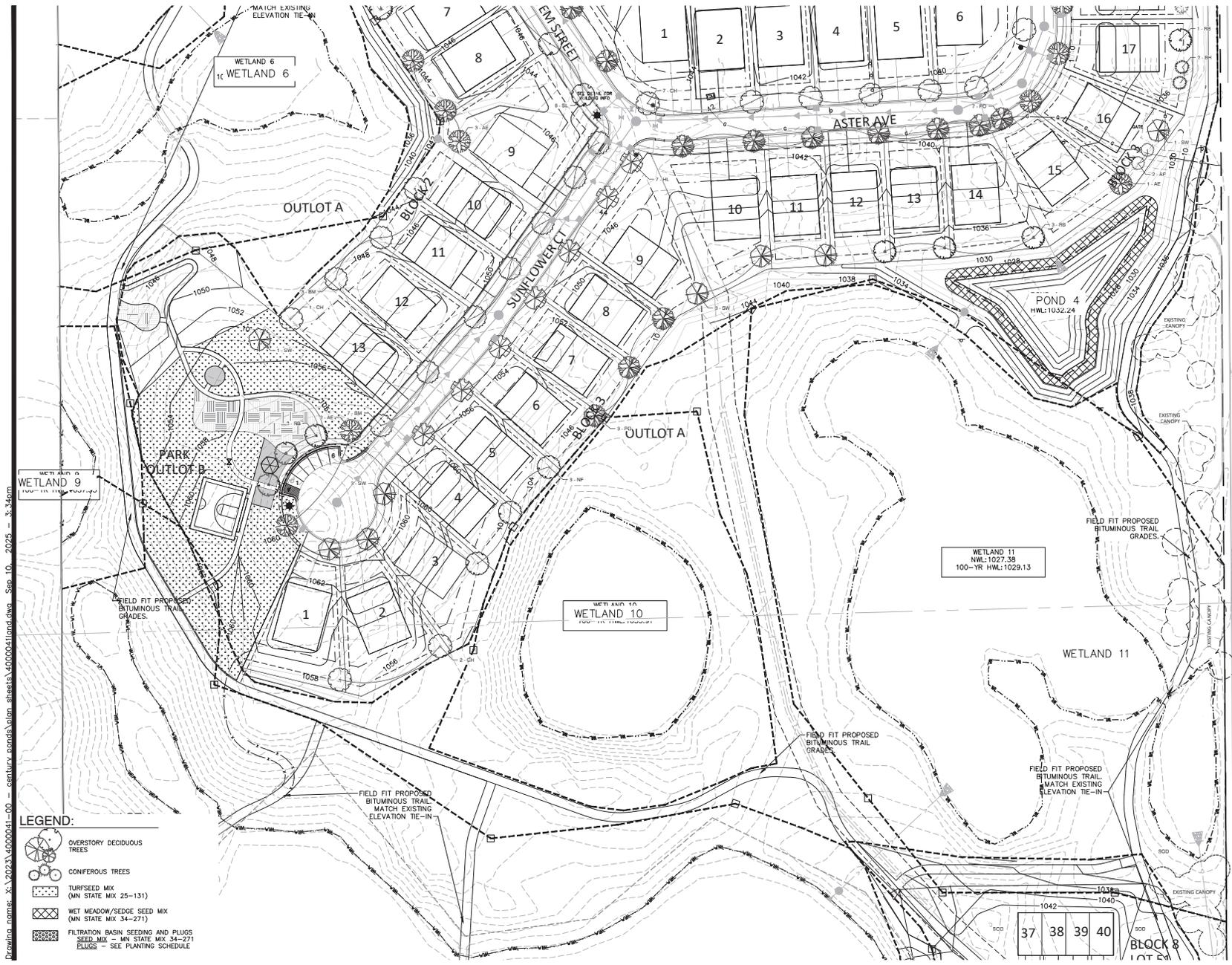
|                   |         |
|-------------------|---------|
| PROJECT TEAM DATA |         |
| DESIGNED:         | SM      |
| DRAWN:            | SM      |
| PROJECT NO.:      | 4000041 |

63



- LEGEND:**
- OVERSTORY DECIDUOUS TREES
  - OVERSTORY CONIFEROUS TREES
  - TURFSEED MIX (MN STATE MIX 25-131)
  - WET MEADOW/SEDE SEED MIX (MN STATE MIX 34-271)
  - FILTRATION BASIN SEEDING AND PLUGS (SEED MIX - MN STATE MIX 34-271, PLUGS - SEE PLANTING SCHEDULE)

Drawing name: X:\2023\4000041-00 - century\_ponds\plan\_sheets\4000041\land.dwg, Sep. 10, 2025, - 3.34cm



**ALLIANT**  
 733 Marquette Avenue  
 Suite 700  
 Minneapolis, MN 55402  
 612.758.3080  
 www.alliant-inc.com

**CENTURY PONDS**  
 MARLEWOOD, MN  
**PRELIMINARY PLAN**  
**LANDSCAPE PLAN - ENLARGEMENT C**

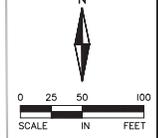
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed LANDSCAPE ARCHITECT in the State of MINNESOTA.

JOHN GRONHOV, P.L.A., A.S.L.A.

|                           |                   |
|---------------------------|-------------------|
| Date                      | License No.       |
| QUALITY ASSURANCE/CONTROL |                   |
| BY                        | DATE              |
| DATE                      | ISSUE             |
| 2/9/2025                  | CITY SUBMITTAL    |
| 3/27/2025                 | CITY RESUBMITTAL  |
| 6/13/2025                 | CLIENT REVIEW SET |
| 7/22/2025                 | CITY RESUBMITTAL  |

PROJECT TEAM DATA

|              |         |
|--------------|---------|
| DESIGNED:    | MK      |
| DRAWN:       | SRM     |
| PROJECT NO.: | 4000041 |



64

Drawing name: X:\2023\4000041 - Century Ponds\Site\4000041 Landscape - Sep 10, 2025 - 3:34pm



## Environmental Review

|                        |   |
|------------------------|---|
| <b>Project:</b>        | Century Ponds   |
| <b>Location:</b>       | 297/601 Century Avenue  |
| <b>Date of Plans:</b>  | July 22, 2025 and Undated Wetland Plans Submitted<br>September 10 and 18, 2025  |
| <b>Date of Review:</b> | October 2, 2025   |
| <b>Reviewer:</b>       | Shann Finwall, Sustainability Coordinator<br>(651) 249-2304, <a href="mailto:shann.finwall@maplewoodmn.gov">shann.finwall@maplewoodmn.gov</a> |

### Background:

DR Horton is proposing to redevelop the former Ramsey County Ponds golf course. The proposed project includes the construction of new single-family residential housing and townhomes. There are significant trees and wetlands located on the property. The proposal must comply with the City's tree and wetland ordinances, and landscape and stormwater basin planting policies.

### Trees:

1. Tree Preservation Ordinance:
  - a. Significant Trees: Maplewood's tree preservation ordinance describes a significant tree as a healthy tree as follows - hardwood tree with a minimum of 6 inches in diameter, an evergreen tree with a minimum of 8 inches in diameter, and a softwood tree with a minimum of 12 inches in diameter.
  - b. Specimen Trees: A specimen tree is defined as a healthy tree of any species which is 28 inches in diameter or greater.
  - c. Tree Replacement: Tree replacement is based on a calculation of significant trees located on the parcel and significant trees removed. Credits are given for all specimen trees that are preserved.
2. Tree Impacts and Replacement Requirements: The tree preservation plan shows 359 significant trees equaling 5,589 diameter inches on the site. The applicant is proposing to remove 94 significant trees equaling 2,147 diameter inches, which is 38 percent of the tree coverage on the site.

Based on the City's tree preservation ordinance tree replacement calculation, the applicant is required to replace 282 caliper inches of replacement trees, which equals 141 – 2 caliper inch trees.

3. Tree Replacement: The landscape plan includes 532 new trees, for a total of 1,440 caliper inches, which exceeds the tree replacement requirements of 282

caliper inches. Tree replacement for most of the single-family lots will include one tree in the back yard and one tree in the front yard, within the right-of-way.

4. Tree Recommendations:

a. Prior to the issuance of a grading permit the applicant must submit the following:

1) Tree Inventory and Tree Preservation Plans: A revised tree inventory and tree preservation plan with the following changes:

- a) Identification of all trees that are dead or unhealthy, and indicating whether those trees are included in the tree calculation or removed from the calculation per the City's tree ordinance.
- b) Identification of all specimen trees and whether those trees will be removed or saved. The current plan identifies most of the specimen trees with an asterisk, however, some trees over 28 inches in diameter are not called out as specimen trees.
- c) Preservation of the 23-caliper inch White Oak near the proposed playground (Tree #1187).
- d) Updated tree replacement calculation as needed based on the above-mentioned corrections.

2) Landscape Plan: A revised landscape plan with the following tree changes:

a) Make the following tree species changes:

- 1. Reduce the number of Northern Pin Oaks, Red Oaks, and Swamp White Oaks with climate resilient species. Northern Pin Oak and Red Oak are highly susceptible to oak wilt, and they make up 67 trees for a total of 167.5 caliper inches, 11.6 percent of the proposed tree cover. Thirty-three trees are Swamp Oaks, which are less susceptible, but still the same genus. South Maplewood is an area where oak wilt has been identified.
- 2. Replace the Northern Flare Sugar Maple and Burgundy Belle Red Maple with a climate resilient species. Maple trees are an overabundant tree species in Maplewood.

b) Tree Mitigation Requirement from Tree Preservation Plan Section:

1. Ensure that the correct number of caliper inches for tree replacement is accurately reflected in this section. The current plan states 543 caliper inches of replacement trees are required. According to the tree replacement calculation 282 caliper inches of trees are required to be replaced.
  2. Identify how the total inches of trees being replaced is calculated in this section. This includes identifying the number of trees, times the size of trees, and how the total inches proposed equals 1,440 caliper inches.
- c) Landscape Schedule Section: The scientific name of Balsam Fir is incorrect, *Abies balsamea* is the correct name.
- d) Existing Trees to be Preserved Section: Show all existing trees to be preserved on the landscape plan.
- e) Additional Tree Planting: While the development meets the City's tree replacement requirements, it is a large development adjacent residential property. As such, additional tree planting should take place in the following key areas (dependent on existing trees to be preserved):
1. Outlot A – on the west side of the filtration basin (Pond 1).
  2. Trails – along the existing and newly established trails.
  3. Outlet B (Park) – There is one tree proposed in the internal section of the park, and five trees along the cul-de-sac. There is an opportunity for additional trees throughout the internal section of the park, especially on the south side of the park to help shade the site in the future.
  4. Townhouse and park parking areas – Addition of trees (and other landscaping) to prevent vehicle headlights from being directed into windows.
- 3) Tree Maintenance and Replacement Plan: The Landscape Plan shows replacement trees being planted within the single-family home rights-of-way. The developers' agreement should include a requirement that the homeowner's association be responsible for the maintenance and replacement of the trees in the right-of-way.
- 4) Tree Protection Plan: In addition to the tree protection fence detailed in the tree preservation plan, the developer must submit an overall tree protection plan that identifies how trees being

preserved will be protected per the City's tree ordinance and standards during development.

- 5) Tree Removal Plan: Submit a tree removal schedule which is mindful of the Northern Long-Eared Bat inclusive dates of November 15 to March 31, avoiding tree removal during this timeframe.
- 6) Surety: A cash escrow or letter of credit to cover the cost of the replacement trees. This surety will be refunded once all trees are planted with a one-year warranty.

**Wetlands:**

1. Wetland Ordinance:

- a. Wetlands on Site: The November 17, 2023, wetland delineation report identified 14 wetlands. After review by the Ramsey-Washington Metro Watershed District six of those wetlands were deemed incidental, and eight were classified as jurisdictional wetlands. Of the jurisdictional wetlands five were upgraded from the City's previously classified Manage C to Manage B wetlands, and three remained Manage C wetlands. Additionally, there is a Manage A wetland located within the St. Paul Police Training site located to the west of Century Ponds that will impact development on the Century Ponds site.

The City's wetland ordinance requires that no grading, mowing, or building take place within the required wetland buffers as follows:

- Manage A: 100-foot average, and 75-foot minimum wetland buffer
- Manage B: 75-foot average, and 50-foot minimum wetland buffer
- Manage C: 50-foot minimum wetland buffer
- Storm Ponds: 10-foot setback to structures

- b. Wetland Buffer Averaging: The wetland ordinance allows flexibility in instances where, because of the unique physical characteristics of a specific parcel of land, the averaging of buffer width for the entire parcel may be necessary to allow for the reasonable use of the land during a development or construction project. The wetland ordinance allows encroachments to a Manage A wetland within 75 feet and a Manage B wetland within 50 feet of the wetland edge if the buffer width will be compensated for by increased buffer widths elsewhere in the same parcel to achieve the required average buffer width.

- c. Wetland Buffer Averaging and Variance Assessment: Wetland buffer averaging and wetland buffer variances are allowed based on an assessment of the following:

- 1) Undue hardship would arise from not allowing the average buffer, or would otherwise not be in the public interest.
- 2) Size of parcel.

- 3) Configuration of existing roads and utilities.
- 4) Percentage of parcel covered by wetland.
- 5) Configuration of wetlands on the parcel.
- 6) Averaging will not cause degradation of the wetland or stream.
- 7) Averaging will ensure the protection or enhancement of portions of the buffer which are found to be the most ecologically beneficial to the wetland or stream.
- 8) A wetland buffer mitigation plan is required for construction of development projects that will require averaging or wetland buffer variances. In reviewing the mitigation plan, the City may require one or more of the following actions:
  - a) Reducing or avoiding the impact by limiting the degree or amount of the action, such as by using appropriate technology.
  - b) Rectifying the impact by repairing, rehabilitating, or restoring the buffer.
  - c) Reducing or eliminating the impact over time by prevention and maintenance operations during the life of the actions.
  - d) Compensating for the impact by replacing, enhancing, or providing substitute buffer land at a two-to-one ratio.
  - e) Monitoring the impact and taking appropriate corrective measures.
  - f) Where the city requires restoration or replacement of a buffer, the owner or contractor shall replant the buffer with native vegetation. A restoration plan must be approved by the city before planting.
  - g) Any additional conditions required by the applicable watershed district and/or the soil and water conservation district shall apply.
  - h) A wetland or buffer mitigation surety, such as a cash deposit or letter of credit, of 150 percent of estimated cost for mitigation. The surety will be required based on the size of the project as deemed necessary by the administrator. Funds will be held by the city until successful completion of restoration as determined by the city after a final inspection. Wetland or buffer mitigation surety does not include other sureties required pursuant to any other provision of city ordinance or city directive.

2. Wetland Impacts: Of the nine wetlands on site or adjacent Century Ponds, eight wetland buffers will be impacted due to grading on the site, requiring wetland buffer variances as follows:

| WETLAND NO. | RWMWD/ MAPLEWOOD CLASS | REQUIRED AVG BUFFER WIDTH | PROPOSED BUFFER AREA | REQUESTED VARIANCE AREA |
|-------------|------------------------|---------------------------|----------------------|-------------------------|
| 5           | C                      | 50 FT                     | 33,381 SF            | 0 SF                    |
| 6           | B                      | 75 FT                     | 77,761 SF            | 8,375 SF                |
| 9           | B                      | 75 FT                     | 18,751 SF            | 549 SF                  |
| 10          | B                      | 75 FT                     | 7,416 SF             | 1,562 SF                |
| 11          | B                      | 75 FT                     | 148,255 SF           | 14,739 SF               |
| 12          | B                      | 75 FT                     | 239,874 SF           | 16,458 SF               |
| 13          | C                      | 50 FT                     | 18,912 SF            | 17,827 SF               |
| 14          | C                      | 50 FT                     | 63,135 SF            | 15,001 SF               |
| OFFSITE *   | A                      | 100 FT                    | 107,029 SF           | 3,504 SF                |
| TOTAL       |                        |                           | 714,514 SF           | 79,021 SF               |

In addition to encroachments by the development grading, the townhouse patios and yard areas and neighborhood trails will impact the wetland buffers as follows:

- a. Townhouse Patio and Yard Areas: Several of the townhouse patios will encroach into the wetland buffers. To ensure these homes have a small, manicured yard behind their homes and patios, staff recommended a 15-foot strip of grass on the back side of the buildings. This will create a useable lawn area to access the back of the buildings and patios. It is unclear whether these encroachments are accounted for in the requested variance area identified in the table above.
- b. Trails: There are existing paved golf cart trails throughout the site, including within the City’s required wetland buffers. The trails will be used as walking and biking trails in the new development. Some of the trails will be removed and rerouted, and additional trail links will be added. The wetland ordinance allows for public trails in wetland buffers if they are designed and constructed with sustainable design methods. To achieve this, City staff recommended a five-foot strip of grass adjacent new and existing trails outside of the wetland buffers, and a 5-foot strip of grass plus a 10-foot strip of native plantings adjacent new and existing trails within the wetland buffers. This will allow for maintenance adjacent the trails, while allowing stormwater runoff to filter into the native plants prior to entering the wetland.

3. Wetland Buffer Recommendations:

- a. Prior to the issuance of a grading permit the applicant must submit the following:
  - 1) Grading Plan: Plans showing the dimensional setback of the grading to the edge of all wetlands.

- 2) Wetland Plan:
  - a) Plans must show the dimensional setback of the grading to the edge of all wetlands.
  - b) Plans should identify if the patios and yard areas located behind the townhouses, within the wetland buffers, are included in the “Requested Wetland Buffer Variance” square footage calculations.
  - c) Plans should identify if the “Proposed Buffer Area” is representative of the overall square footage of all City required wetland buffers or wetland buffers that will be established after development.
- 3) Landscape Plan: Plans showing a five-foot strip of grass adjacent existing trails, and a 5-foot strip of grass plus a 10-foot strip of native plantings adjacent new trails within a wetland buffer.
- 4) Wetland Buffer Mitigation Plan: Updated plans meeting the requirements of the October 1, 2025, Century Ponds Development – Natural Resources Review authored by Brandon Bohks, CMWP, Natural Resources Project Manager, Bolten and Menk.
- 5) Wetland Buffer Sign Plan: Identify the location of wetland buffer signs to be installed along the approved wetland buffers. The signs should be placed every 100 feet at a minimum. The City of Maplewood supplies wetland buffer signs identifying that no building, mowing, or grading should take place within the buffer. There is a \$35 fee per sign.
- 6) Wetland Buffer Sign Installation: Install the City wetland buffer signs that specify that no building, mowing, cutting, grading, filling or dumping be allowed within the buffer.
- 7) Surety: A cash escrow or letter of credit to cover 150 percent of the wetland buffer mitigation. The City will retain the surety for up to three years as outlined in the maintenance agreement to ensure the wetland buffer mitigation and plantings are established and maintained.

**Landscape Policies and Recommendations:**

Review of the overall landscape plan to ensure nonnative and invasive species are avoided, seed mix is appropriate for use in areas proposed, and plantings are climate resilient.

1. Prior to the issuance of a grading permit the applicant must submit the following:
  - a. Revised landscape plans for the following areas:

- 1) Sullivant's Milkweed: Identify on the landscape plans how the developer will coordinate with the Department of Natural Resources with further information about the location and number of Sullivant's Milkweed present on the site to discuss approved avoidance measures and/or the need for a Permit to Take.
- 2) Park Landscape Plan: Final landscape plans for the new park to be reviewed and approved as part of the City's park development process. At a minimum tree planting within the park should include all trees proposed on the August 22, 2025, landscape plan, plus additional trees as determined through the review process.
- 3) Single-Family and Townhome Landscape Plans:
  - a) Foundation planting plans for each single-family home and townhome to include a mix of perennials.
  - b) Landscape plans showing the use of energy conservation planting strategies, such as vegetation that provides shade to east and west-facing windows while avoiding shade to south-facing windows to maximize solar exposure during the winter and minimize solar exposure in the summer.

### **Stormwater Basin Recommendations**

Several stormwater ponds and filtration basins are proposed throughout the development. The stormwater ponds and filtration basins are required to be planted, ideally with deep-rooted native plants. The City requires a portion of the basin to be planted rather than seeded; typically a minimum of 5,000 square feet of plantings are required in large basins. Using plants rather than seed hastens establishment and provides a better chance of successful establishment. Basin bottoms and lower elevations almost never establish successfully from seed since the seed is washed away when stormwater flows into the basin.

1. Prior to the issuance of a grading permit the applicant must submit the following:
  - a. Revised landscape plan that shows a detailed planting plan for each pond and filtration basin to include a mix of native plugs and seed.



**BOLTON  
& MENK**

Real People. Real Solutions.

Attachment 22

3507 High Point Drive North  
Bldg. 1 – Suite E130  
Oakdale, MN 55128

Phone: (651) 704-9970  
Bolton-Menk.com

## MEMORANDUM

Date: 10/1/2025

To: City of Maplewood Staff (Jon Jarosch, Steve Love, Shann Finwall, Audra Robbins)

From: Brandon Bohks, CMWP  
Natural Resources Project Manager

Subject: Century Ponds Development – Natural Resources Review  
Review Comments – Native Seeding Plan & Wetland Buffer Mitigation

---

City of Maplewood Team,

Following a detailed review of the Native Seeding and Buffer Mitigation Plan submitted for the Century Ponds project, please find below a summary of key comments and recommendations for consideration and incorporation into the final plan:

### Summary of Review Comments – Vegetation/Seeding Plan

- **Tailored Maintenance Plan Required**  
The current maintenance plan appears to be a generic template from the Native Seeding Proposal (NSP). It should be revised to reflect site-specific conditions and management needs for both the existing habitat area (6.12 acres) and the proposed enhanced habitat area (22.10 acres).
- **Include Detailed Management Schedule**  
A clear and comprehensive schedule outlining maintenance activities (e.g., mowing, spraying, prescribed burns) should be provided for both habitat areas. This schedule should be integrated into the Wetland Buffer Mitigation Plan.
- **Clarify Seed Mix Application Zones**  
The plan should specify where each seed mix (dry prairie, mesic prairie, riparian) will be applied. Including elevation data will support appropriate placement and review of seeding efforts.
- **Improve Visual Clarity of Seeding Plan**  
Given the scale and complexity of the plan, it is recommended to use two separate plan sheets to document seed mix areas. This will improve legibility and reduce confusion when interpreting hatched areas.
- **Integrate Prairie Restoration Plan Content**  
Relevant details from the Prairie Restoration Plan should be incorporated into the Wetland Buffer Mitigation Plan to ensure consistency and completeness of restoration strategies.
- **Expand Detail for Existing Habitat Activities**  
The plan currently lacks sufficient detail regarding proposed activities within the existing habitat area. Additional specificity is needed to evaluate the effectiveness of maintenance and restoration efforts.

Name: Century Ponds Development – NR Review

Date: 10/1/2025

Page: 2

### Summary of Review Comments – Wetland Buffer Mitigation Plan

- **Buffer Measurement Description:**  
Clearly identify where buffer widths do not meet required averages and explain the cause (e.g., site constraints, ROW limitations).
- **Average Buffer Width Calculation:**  
Include a clear methodology section in the plan that explains how average buffer widths and areas were calculated.
- **Restoration Activities:**  
Provide detailed descriptions of proposed restoration or enhancement actions, such as native seeding, invasive species control, and prescribed burns.
- **Performance Metrics:**  
Include and define measurable ecological goals (e.g., percent native cover, species richness) to evaluate success.
- **Monitoring and Maintenance Schedule:**  
Outline a timeline for implementation, monitoring, and adaptive management to ensure long-term viability.
- **Mitigation Actions**  
Describe what actions will be taken to satisfy mitigation measures outlined in the Century Ponds Environmental Reivew.

## WETLAND BUFFER VARIANCE RESOLUTION

BE IT RESOLVED by the City Council of the City of Maplewood, Minnesota, as follows:

### Section 1. Background

1.01 D.R. Horton has requested approval of wetland buffer variances to allow grading and trail construction within the required wetland buffers.

1.02 The property is located at 601 Century Avenue South and is legally described as:  
(PIN: 12-28-22-11-0002 and 12-28-22-44-0002)

That part of the Southeast Quarter of the Northeast Quarter, lying Southwesterly of Lower Afton Road as described in Document 1613681, on file and of record in the office of the County Recorder, Section 12, Township 28, Range 22, Ramsey County, Minnesota according to the government survey thereof, Ramsey County, Minnesota.

Also:

The Northeast Quarter of the Southeast Quarter, EXCEPT the East 1.6 Rods, Section 12, Township 28, Range 22, Ramsey County, Minnesota according to the government survey thereof, Ramsey County, Minnesota.

Also:

The Southeast Quarter of the Southeast Quarter EXCEPT the South 574.00 feet of the West 600.00 feet, Section 12, Township 28, Range 22, Ramsey County, Minnesota according to the government survey thereof, Ramsey County, Minnesota.

Abstract Property

### Section 2. Standards

2.01 City Ordinance Section 18-221 (d) (1) requires a minimum buffer width of 100 feet from Manage A Wetlands, 75 feet from Manage B Wetlands, and 50 feet from Manage C Wetlands.

2.02 City Ordinance Section 18-221 (h) (1) provides procedures for granting a variance to the wetland ordinance requirements and refers to the state statute where a variance may be granted when:

1. The variance is in harmony with the general purposes and intent of this ordinance;
2. When the variance is consistent with the comprehensive plan; and

3. When the applicant establishes that there are practical difficulties in complying with the ordinance. Practical difficulties mean: (1) The proposed use is reasonable; (2) the need for a variance is caused by circumstances unique to the property, not created by the property owner; (3) the proposal will not alter the essential character of the locality.

Section 3. Findings

3.01 The Maplewood City Council makes the following findings:

1. The proposed development meets the intent of city ordinance standards in the PUD zoning district, R-1S, and R-3C districts, and is consistent with the goals of the 2040 Comprehensive Plan.
2. The request is reasonable. The proposed improvements within the wetland buffer enhance stormwater management and increase public access to the development's natural areas. The site has several wetlands, and the proposed development will continue to protect and enhance them while creating a public amenity via a trail system that allows the public to enjoy the natural landscapes on the site.
3. The existing conditions on this property are unique and not caused by the property owner.
4. A conservation easement will be dedicated to the City over the wetlands and native areas. This easement will ensure that wetland buffers and native areas are properly maintained.
5. Overall, the proposed development of this site is in character with the surrounding uses, which include single-family residential areas. The preservation of 47% of the total site as green space provides a natural buffer between the new development and established neighborhoods, creates a green corridor through the development, and adds a public amenity to the community that is accessible to the new development and existing neighborhoods.

Section 4. City Review Process

4.01 The City conducted the following review when considering the public vacation request.

1. On September 16, 2025, the planning commission held a public hearing. City staff published a hearing notice in the Pioneer Press and sent notices to the surrounding property owners. The planning commission gave everyone at the hearing a chance to speak and present written statements. The planning commission recommended that the city council approve this resolution.

3. On October 27, 2025, the city council discussed the wetland buffer variance request. They considered reports and recommendations from the planning commission, environmental and natural resources commission, and city staff.

Section 5. City Council Action

5.01 The city council hereby \_\_\_\_\_ the resolution. Approval is based on the findings outlined in Section 3 of this resolution. Approval is subject to the following conditions:

1. The applicant shall obtain all required permits from the Ramsey-Washington Metro Watershed District.
2. The site must be developed and maintained in substantial conformance with the following plans:
  - a. Wetland, grading and site plans, date-stamped July 22, 2025.