

Monday, July 10, 2017 ~ 6:30 pm 112 Algonquin Road

AGENDA

- 1. Call to Order & Roll Call
- 2. Public Comments
- 3. [Vote] Vice Chairman Julie Joyce
- 4. [Vote] Secretary
- 5. [Vote] Minutes August 9, 2016
- 6. School District 220 Presentation
- 7. Trustee's Report
- 8. Pre Application Otis Road Subdivision
- 9. Pre Application Bateman Road Subdivision (Bateman Meadows/Brenner Estates)
- 10. Route 25 Church Development Discussion
- 11. Penny Road Development Discussion
- 12. Adjournment

Chairman: Pamela Cools

NOTICE AS POSTED

VILLAGE OF BARRINGTON HILLS Plan Commission Special Meeting Minutes Tuesday, August 9, 2016 - 6:30 PM

The Special Meeting of the Village of Barrington Hills Plan Commission was called to order by Vice Chairman Pamela Cools at 6:34 PM.

Members Present:

Pam Cools Arnold Cernik John Gigerich Lou Ann Majewski Kelly Mazeski Curt Crouse Kim Van Fossan Julie Joyce

Member Absent:

Kenneth Bosworth

PUBLIC COMMENTS:

Carol McLuskie, 74 Old Hart Road, BH, asked wheter Lake County would have to adhere to Heritage Tree Ordinance. She advised the Plan Commission that at the end of Hart Road Lake County plans to remove 25 Heritage Trees for a sidewalk and bike path. She asked how she could protect her trees and received several suggestions to help mitigate her loss of trees and canopy.

PREVIOUS MINUTES:

The minutes of were amended as follows: Under TREE PRESERVATION AND ORDINANCE REVIEW paragraph beginning with Page 4, ...Mr. Kosin believed tree replacement cost should be escrow amount without overhead costs...was amended to say Mr. Kosin believed escrow amount should be tree replacement cost...

Under Barrington Hills Farm LLC, the second sentence was amended to, "He explained that Barrington Hills Farms LLC, LOCATED IN UNINCORPORATED MCHENRY COUNTY...

Commissioner Majewski motioned approval of minutes, Commissioner Cernik seconded. All accepted by voice.

TREE PRESERVATION ORDINANCE:

Vice Chairman Cools called for a motion on the Tree Preservation Ordinance. Commissioner Cernik motioned and was seconded by Commissioner Majewski. All present said Aye. Chairman Bosworth was absent. Ordinance will be forward to Board of Trustees with comments regarding Carol McLuskie.

Commissioner Joyce was thanked for her expert advice and consult.

VILLAGE OWNED PROPERTY DISCUSSION - ROUTE 25 EAST SIDE:

The taxes on the property is approximately \$3,700 per year. Commissioner Cernik suggested we sell it. Another comment was made that if it wasn't a buffer we should sell.

It was agreed that our recommendation is to sell property.

TRUSTEES REPORT:

Nothing to report.

Vice Chairman Cools requested an update of Horizon Farms/Forest Preserve Property. Consultants are looking for feedback. Suggestions included lookout tower, wildlife preserve, sledding hills, bird sanctuary. Presently north end open, south end closed. Anna Paul was asked to get contact information for Forest Preserve.

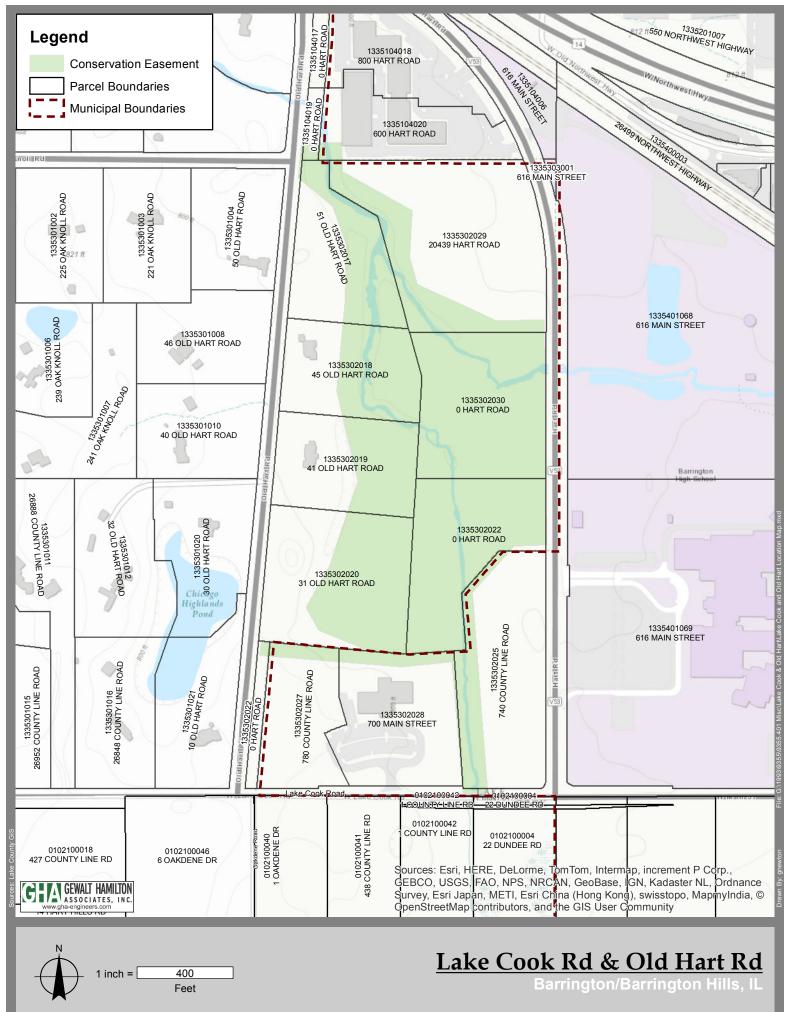
Anna Paul mentioned Kane County Department of Transportation was asking for input regarding Longmeadow Parkway.

ADJOURNMENT:

Vice Chairman Cools requested a motion to adjourn. Commissioner Majewski motioned and Commissioner Mazeski seconded. All present said aye. Meeting was adjourned at 7:46 PM.

Respectfully submitted,

Kim Van Fossan, Recording Secretary





625 Forest Edge Drive, Vernon Hills, IL 60061

Tel 847.478.9700 Fax 847.478.9701

www.gha-engineers.com

Mr. Ken Garrett Building & Zoning Officer 112 Algonquin Road Barrington Hills, Illinois 60010

Re: 219 Otis Road

Septic System Relocation- Preliminary Review

Dear Mr. Garrett:

Our office has reviewed the proposed septic system relocation for 219 Otis Road. Our review is based on the preliminary engineering plan (1 sheet) prepared by Heritage Land Consultants, LLC., dated March 9, 2017. We understand that a permit application has not yet been submitted to the Village, but the preliminary plan is being submitted to verify the feasibility of constructing a septic system on a separate parcel from the house that it serves. We offer the following comments:

- 1. There is a note indicating, "Proposed New Lot Line" to the west of the proposed septic system. It is our understanding that the currently vacant parcel between 219 Otis Road and 227 Otis Road is intended to be split between the two property owners. Prior to approval of a septic system in the location shown, a subdivision application should be submitted for resubdivision of Lots 219, 223, and 227 of Goose Lake Subdivision in accordance with the Subdivision Ordinance (Title 6 of the Village Code). The Plat of Resubdivision should be approved by the Plan Commission and Village Board and recorded in Cook County prior to approval of a permit for the relocated septic system.
- 2. Soil test results, septic calculations, and lift station calculations will be required as part of the permit application for the proposed septic system relocation.

The above review comments are provided based on the preliminary engineering information provided. Additional comments may be generated as the final documents are submitted. Please include with the final engineering submittal a cover letter with a written response to each of the above comments.

Sincerely,

Gewalt Hamilton Associates, Inc.

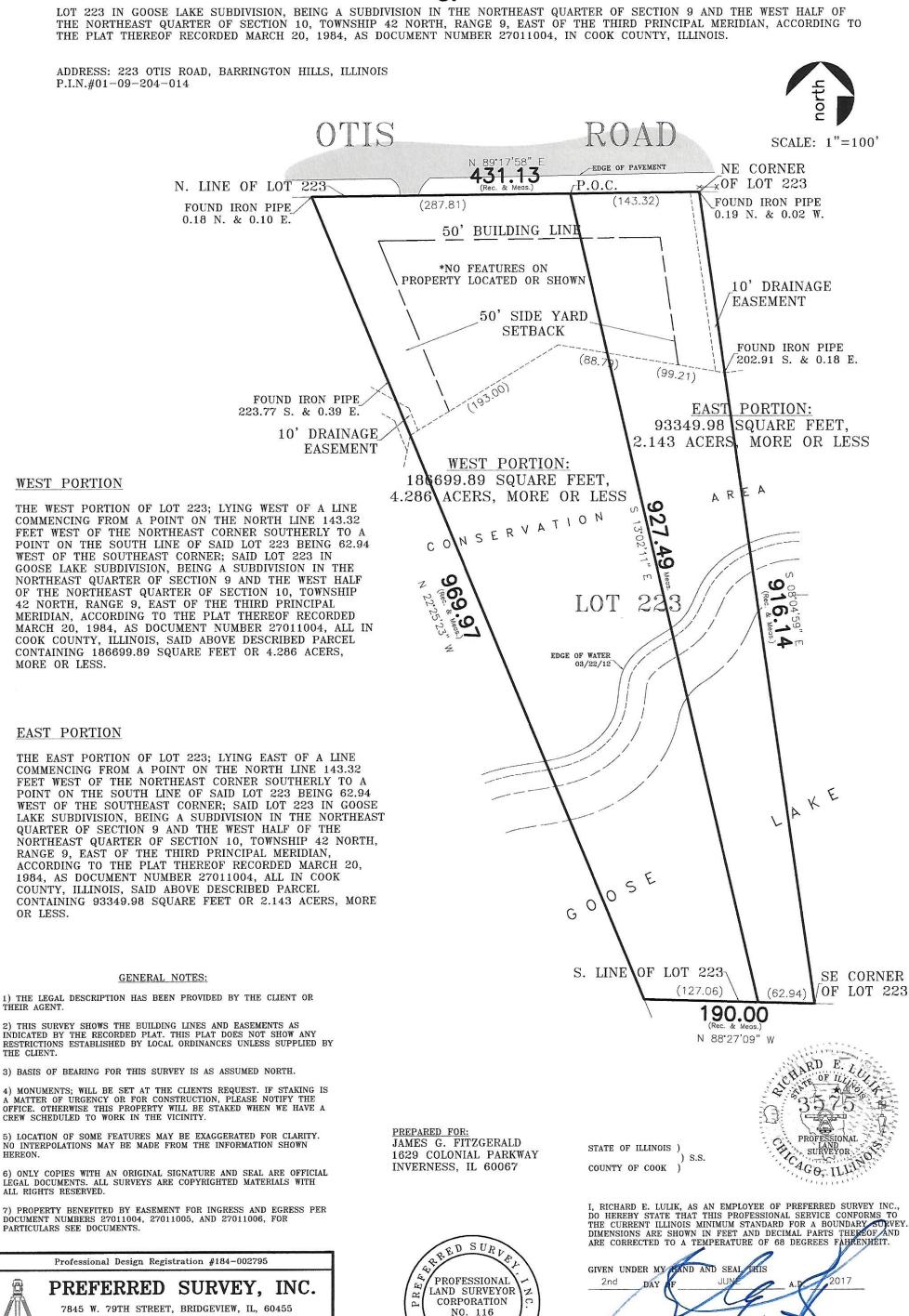
Varil J. Stuh

Daniel J. Strahan, P.E., CFM

Village Engineer

cc: Robert Kosin, VBH Director of Administration

P.I.N. DIVISION **PLAT OF SURVEY** of



STATE OF

ILLINOIS

EVIE

RICHARD E. LULIK - LIC.#035-003575

EXPIRES 11/30/18

P.S.I. NO. 171363 P.I.N.

CD/KS

FLD CREW:

CAD:

PNTN:

Phone 708-458-7845 / Fax 708-458-7855

280,049.87 Sq. Ft.

07/21/2016

www.psisurvey.com

Field Work Completed

Land Area Surveyed

July 7, 2017



625 Forest Edge Drive, Vernon Hills, IL 60061 Tel 847.478.9700 ■ Fax 847.478.9701

www.gha-engineers.com

Ms. Pamela Cools Plan Commission Chairman Village of Barrington Hills 112 Algonquin Road Barrington Hills, Illinois 60010

Re: Bateman Meadows Subdivision Pre-application Conference

Dear Ms. Cools:

We have completed a brief review of the documents submitted for purposes of the pre-application conference for the proposed Bateman Meadows Subdivision, a proposed four-lot subdivision of approximately 33 acres located on the west side of Bateman Road south of County Line Road. A previous 4-lot subdivision of this property received conditional approval from the Plan Commission and Village Board under the name Brenner Estates in 2012. However, the plat of subdivision was not recorded as the financial guarantee for the construction improvements could not be provided and the wetland permit was not received by the developer. Below is a summary of key points discussed during the previous subdivision process:

- **Floodplain** There is a regulatory floodplain within the property (Tributary to Spring Creek, Elevation of 778.10), which created challenges with respect to providing sufficient gross lot area and suitable septic area for Lot 4.
- **Wetlands** There are existing wetlands on the property that fall under the jurisidiction of the US Army Corps of Engineers. The proposed subdivision roadway will result in impacts to the existing wetlands and therefore an Army Corps permit will be required.
- Septic Systems Based on the soil mapping completed previously, soils for a majority of the site are Drummer and Ashkum, with a depth of 0" to the seasonal high water table. Extensive curtain drains will be required to provide adequate separation from the limiting layer. Based on recent revisions to the Village's septic code that were made in response to changes to the state code, it is likely that the septic systems for the currently proposed subdivision would be mound systems instead of subsurface seepage systems.
 - In addition, the previous submittal indicated that the existing septic system for the adjacent "Not Included" parcel (93 Bateman Road) was located within a portion of Lot 1. After discussion of this condition, it was determined that prior to issuance of building permits that a permit would be required for this septic system to be relocated/modified so that it is entirely located on the adjacent lot.

Please call if you should require any additional information prior to the hearing on Monday, July 10, 2017.

Sincerely,

Gewalt Hamilton Associates, Inc.

Varil Q. Stuh

Daniel J. Strahan, P.E., CFM

Village Engineer

July 7, 2017



625 Forest Edge Drive, Vernon Hills, IL 60061 Tel 847.478.9700 ■ Fax 847.478.9701

www.gha-engineers.com

Ms. Pamela Cools Plan Commission Chairman Village of Barrington Hills 112 Algonquin Road Barrington Hills, Illinois 60010

Re: Bateman Meadows Subdivision Pre-application Conference

Dear Ms. Cools:

We have completed a brief review of the documents submitted for purposes of the pre-application conference for the proposed Bateman Meadows Subdivision, a proposed four-lot subdivision of approximately 33 acres located on the west side of Bateman Road south of County Line Road. A previous 4-lot subdivision of this property received conditional approval from the Plan Commission and Village Board under the name Brenner Estates in 2012. However, the plat of subdivision was not recorded as the financial guarantee for the construction improvements could not be provided and the wetland permit was not received by the developer. Below is a summary of key points discussed during the previous subdivision process:

- **Floodplain** There is a regulatory floodplain within the property (Tributary to Spring Creek, Elevation of 778.10), which created challenges with respect to providing sufficient gross lot area and suitable septic area for Lot 4.
- **Wetlands** There are existing wetlands on the property that fall under the jurisidiction of the US Army Corps of Engineers. The proposed subdivision roadway will result in impacts to the existing wetlands and therefore an Army Corps permit will be required.
- Septic Systems Based on the soil mapping completed previously, soils for a majority of the site are Drummer and Ashkum, with a depth of 0" to the seasonal high water table. Extensive curtain drains will be required to provide adequate separation from the limiting layer. Based on recent revisions to the Village's septic code that were made in response to changes to the state code, it is likely that the septic systems for the currently proposed subdivision would be mound systems instead of subsurface seepage systems.
 - In addition, the previous submittal indicated that the existing septic system for the adjacent "Not Included" parcel (93 Bateman Road) was located within a portion of Lot 1. After discussion of this condition, it was determined that prior to issuance of building permits that a permit would be required for this septic system to be relocated/modified so that it is entirely located on the adjacent lot.

Please call if you should require any additional information prior to the hearing on Monday, July 10, 2017.

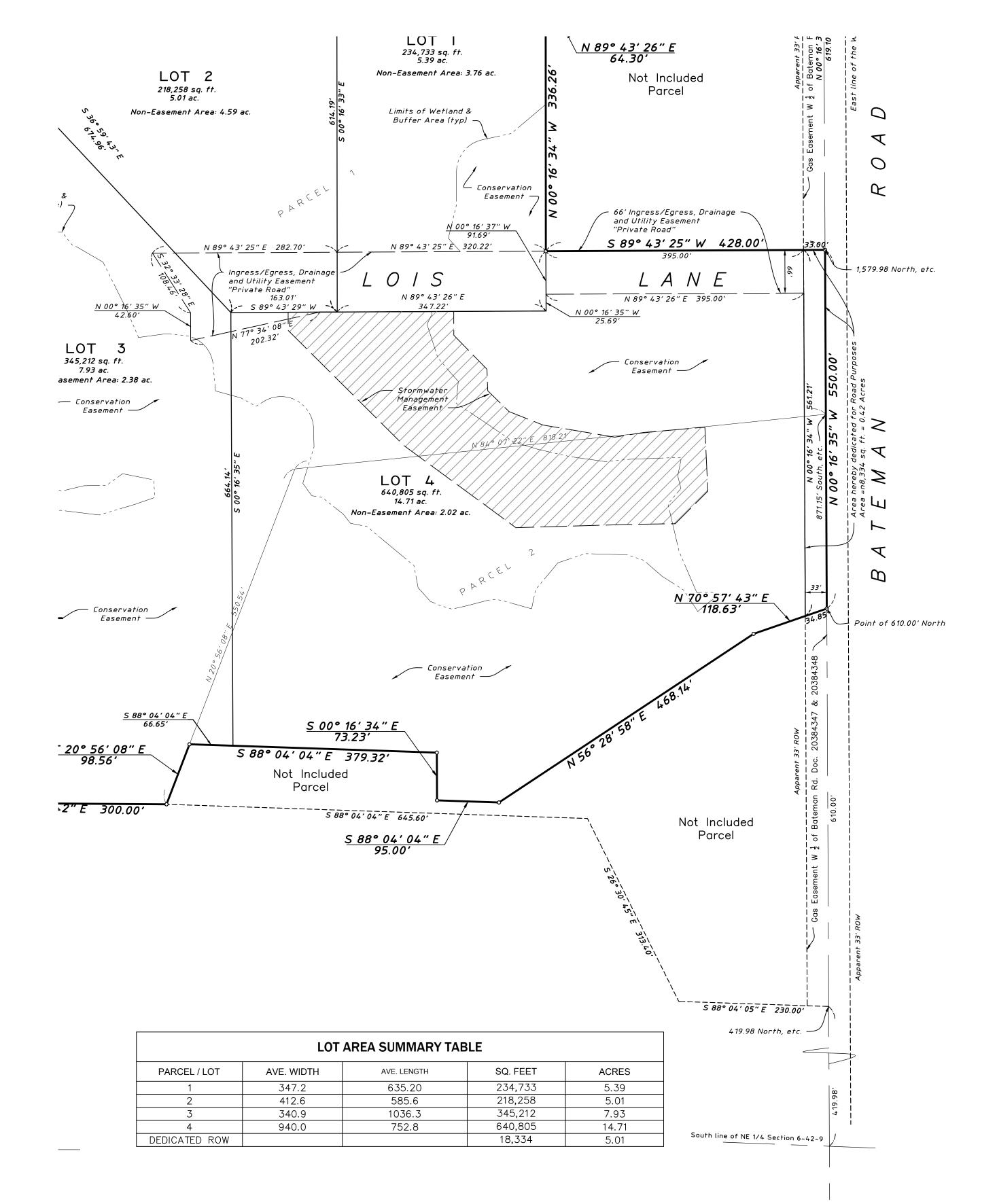
Sincerely,

Gewalt Hamilton Associates, Inc.

Varil Q. Stuh

Daniel J. Strahan, P.E., CFM

Village Engineer



LEGAL DESCRIPTION:

PARCEL 1: THAT PART OF THE WEST HALF OF THE NORTHEAST QUARTER OF SECTION 6, TOWNSHIP 42 NORTH, RANGE 9, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: BEGINNING AT A POINT ON THE EAST LINE OF SAID WEST HALF OF THE NORTHEAST QUARTER, 637.46 FEET SOUTH OF THE NORTHEAST CORNER THEREOF; THENCE SOUTH 82 DEGREES 43 MINUTES WEST 1325.33 FEET TO A POINT ON THE WEST LINE OF SAID WEST HALF OF THE NORTHEAST QUARTER, 811.66 FEET SOUTH OF THE NORTHWEST CORNER THEREOF; THENCE SOUTH ALONG THE WEST LINE 1283.38 FEET TO THE NORTH LINE OF THE SOUTH 696.56 FEET OF SAID NORTHEAST QUARTER (AS MEASURED ALONG THE WEST LINE OF SAID NORTHEAST QUARTER); THENCE EAST ALONG THE NORTH LINE OF SAID 696.56 FEET A DISTANCE OF 300 FEET; THENCE NORTHEASTERLY 550.54 FEET ALONG A LINE MAKING AN ANGLE OF 109 DEGREES 02 MINUTES 50 SECONDS (AS MEASURED FROM WEST TO NORTHEAST) WITH THE NORTH LINE OF SAID SOUTH 696.56 FEET: THENCE EASTERLY 818.20 FEET TO A POINT ON THE EAST LINE OF THE WEST HALF OF SAID NORTHEAST QUARTER 871.15 FEET SOUTH OF THE POINT OF BEGINNING; THENCE NORTH ALONG THE EAST LINE OF THE WEST HALF OF SAID NORTHEAST QUARTER, 871.15 FEET TO THE POINT OF BEGINNING (EXCEPTING THEREFROM THAT PART THEREOF DESCRIBED AS FOLLOWS: THAT PART OF THE WEST HALF OF THE NORTHEAST QUARTER OF SECTION 6 AFORESAID DESCRIBED AS COMMENCING AT A POINT ON THE EAST LINE OF SAID WEST HALF, SAID POINT BEING 1579.98 FEET NORTH OF THE SOUTH LINE OF SAID NORTHEAST QUARTER (AS MEASURED ALONG THE EAST LINE OF SAID WEST HALF) TO THE POINT OF BEGINNING; THENCE WEST (AT A RIGHT ANGLE TO THE LAST DESCRIBED LINE), 428.00 FEET; THENCE NORTH 0 DEGREES 03 MINUTES EAST ALONG A LINE PARALLEL WITH THE EAST LINE OF SAID WEST HALF 336.26 FEET; THENCE SOUTH 89 DEGREES 57 MINUTES EAST 64.30 FEET; THENCE NORTH 0 DEGREES 03 MINUTES EAST 235.88 FEET; THENCE NORTH 82 DEGREES 41 MINUTES 34 SECONDS EAST 366.72 FEET TO A POINT 637.46 FEET SOUTH OF THE NORTHEAST CORNER OF THE SAID WEST HALF OF THE NORTHEAST QUARTER OF SECTION 6; THENCE SOUTH 0 DEGREES 03 MINUTES WEST ALONG SAID EAST LINE, 619.10 FEET, MORE OR LESS, TO THE POINT OF BEGINNING), IN COOK COUNTY, ILLINOIS.

PARCEL 2: THAT PART OF THE WEST HALF OF THE NORTHEAST QUARTER OF SECTION 6, TOWNSHIP 42 NORTH, RANGE 9, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: BEGINNING ON THE WEST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 6 AT A POINT 696.56 FEET (AS MEASURED ALONG SAID WEST LINE) NORTH OF THE SOUTH LINE OF SAID NORTHEAST QUARTER; THENCE EASTERLY PARALLEL WITH THE SOUTH LINE OF SAID NORTHEAST QUARTER A DISTANCE OF 300.00 FEET TO THE POINT OF BEGINNING OF THE TRACT OF LAND HEREIN DESCRIBED; THENCE NORTHEASTERLY 550.54 FEET ALONG A LINE MAKING AN ANGLE OF 109 DEGREES 02 MINUTES 50 SECONDS (AS MEASURED FROM WEST TO NORTHEAST) WITH THE LAST DESCRIBED LINE; THENCE EASTERLY 818.20 FEET, MORE OR LESS, TO A POINT ON THE EAST LINE OF THE WEST HALF OF SAID NORTHEAST QUARTER, 1508.61 FEET SOUTH OF THE NORTH LINE OF SAID SECTION 6; THENCE SOUTH 0 DEGREES 03 MINUTES WEST ALONG THE EAST LINE OF THE WEST HALF OF SAID NORTHEAST QUARTER, A DISTANCE OF 908.65 FEET TO A POINT 419.98 FEET NORTH OF THE SOUTH LINE OF SAID NORTHEAST QUARTER; THENCE NORTH 87 DEGREES 44 MINUTES 30 SECONDS WEST 230.00 FEET; THENCE NORTH 26 DEGREES 09 MINUTES 10 SECONDS WEST 314.15 FEET; THENCE NORTH 87 DEGREES 44 MINUTES 30 SECONDS WEST 645.60 FEET TO THE POINT OF BEGINNING (EXCEPTING THEREFROM THAT PART THEREOF DESCRIBED AS FOLLOWS: THAT PART OF THE WEST HALF OF THE NORTHEAST QUARTER OF SECTION 6 AFORESAID DESCRIBED AS COMMENCING ON THE WEST HALF OF SAID WEST HALF AT A POINT 696.56 FEET (AS MEASURED ALONG SAID WEST LINE) NORTH OF THE SOUTH LINE OF SAID NORTHEAST QUARTER; THENCE EASTERLY PARALLEL WITH THE SOUTH LINE OF SAID NORTHEAST QUARTER A DISTANCE OF 300.00 FEET TO THE POINT OF BEGINNING OF THE TRACT HEREIN DESCRIBED; THENCE NORTHEASTERLY 98.56 FEET ALONG A LINE MAKING AN ANGLE OF 109 DEGREES 02 MINUTES 50 SECONDS (AS MEASURED FROM WEST TO NORTHEAST) WITH THE LAST DESCRIBED LINE; THENCE EASTERLY PARALLEL WITH THE SOUTH LINE OF SAID NORTHEAST QUARTER 379.32 FEET; THENCE SOUTH 0 DEGREES 03 MINUTES WEST PARALLEL TO THE EAST LINE OF THE WEST HALF OF SAID NORTHEAST QUARTER 73.23 FEET; THENCE EAST PARALLEL WITH THE SOUTH LINE OF SAID NORTHEAST QUARTER 95.00 FEET; THENCE NORTH 56 DEGREES 48 MINUTES 32 SECONDS EAST 468.14 FEET; THENCE NORTH 71 DEGREES 38 MINUTES 12 SECONDS EAST 118.48 FEET; THENCE SOUTH 00 DEGREES 03 MINUTES 00 SECONDS WEST, PARALLEL TO THE EAST LINE OF THE WEST HALF AFORESAID 610.00 FEET TO A POINT 419.98 FEET NORTH OF THE SOUTH LINE OF SAID NORTHEAST QUARTER; THENCE NORTH 87 DEGREES 44 MINUTES 30 SECONDS WEST 230.00 FEET; THENCE NORTH 26 DEGREES 09 MINUTES 10 SECONDS WEST 314.15 FEET; THENCE NORTH 87 DEGREES 44 MINUTES 30 SECONDS WEST 645.60 FEET TO THE POINT OF BEGINNING), IN COOK COUNTY, ILLINOIS.

Prepared: April 24, 2017

HAEGER ENGINEERING

www.haegerengineering.com

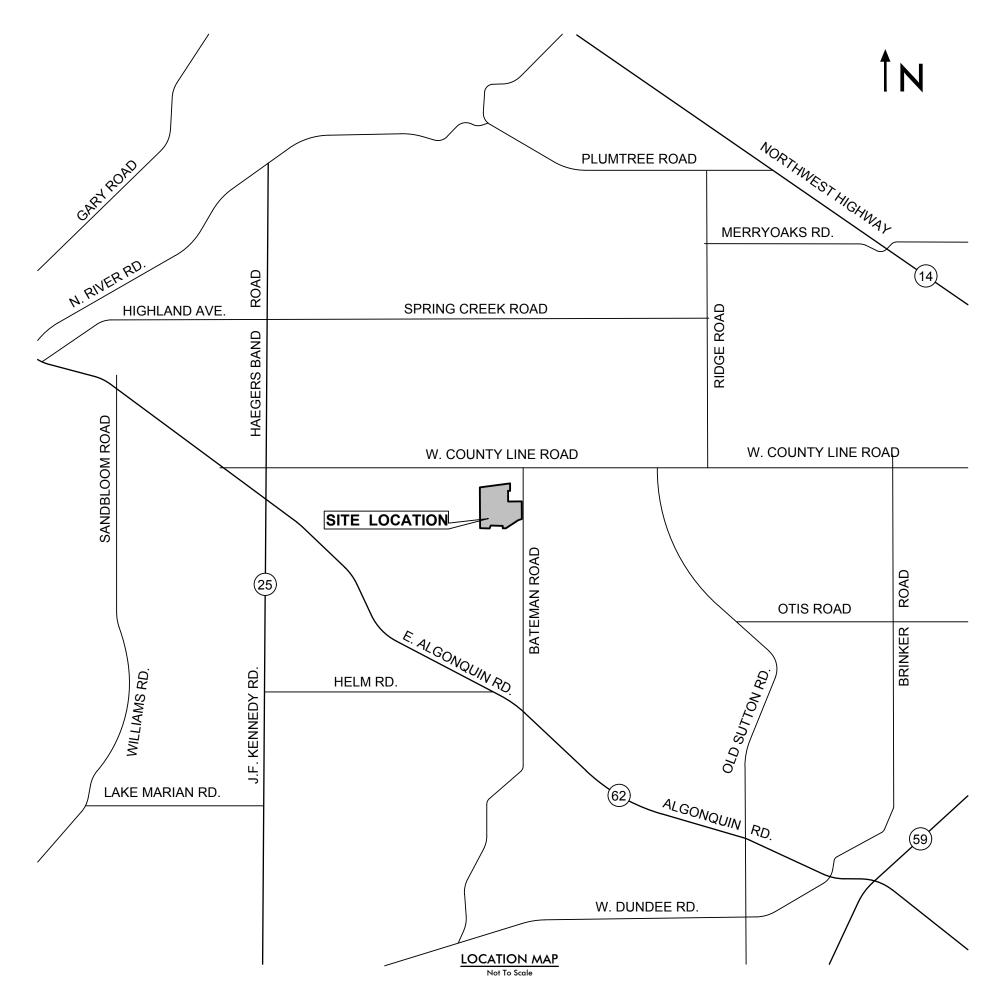
consulting engineers • land surveyors

100 East State Parkway, Schaumburg, IL 60173
Tel: 847.394.6600 Fax: 847.394.6608
Illinois Professional Design Firm License No. 184-003152

PRELIMINARY ENGINEERING PLANS BATEMAN MEADOWS

SITE IMPROVEMENT PLANS

SECTION 6 TOWNSHIP 42 NORTH RANGE 9 EAST BATEMAN ROAD, BARRINGTON HILLS, ILLINOIS COOK COUNTY



INDEX TO SHEETS					
NO.	DESCRIPTION				
C1.0	TITLE SHEET				
C2.0	EXISTING CONDITIONS & DEMOLITION PLAN				
C3.0	OVERALL SITE PLAN				
C4.0	GRADING & UTILITY PLAN				
C4.1	WETLAND IMPACT PLAN				
C4.2	FLOODPLAIN IMPACT & MITIGATION PLAN				
C5.0	Preliminary Landscaping Plan				
C6.0	EROSION CONTROL PLAN				
C7.0	TYPICAL DETAILS				

PREPARED BY:

Haeger Engineering LLC
Illinois Prof. Design Firm #184-003152
100 East State Parkway
Schaumburg, IL 60173
Tel: 847-394-6600
Fax: 847-394-6608
www.haegerengineering.com

VILLAGE OF BARRINTON HILLS

112 Algonquin Road
Barrington Hills, IL 60010
Phone: (847) 551-3000

BENCHMARKS:

Village Benchmark:

REFERENCE MONUMENT No. BH 21 78' EAST OF NEC OF BH FIRE STATION, 104' WEST OF THE WEST ENTRANCE TO VILLAGE HALL, 8.3' SOUTHWEST OF FLAGPOLE.

Elevation = 890.15

Temporary Site Benchmark:

EXISTING WELL ON PROPOSED LOT NO. 3, NAVD ELEV. 782.88 (OBSERVED 4-19-11). PREVIOUS MEASUREMENT ELEV. 782.51 ELEV. 782.51 (ELEV. EQ. ADD 0.33 FEET TO ELEVATIONS SHOWN ON PLANS)



Call 811 at least 48 hours, excluding weekends and holidays, before you dig.

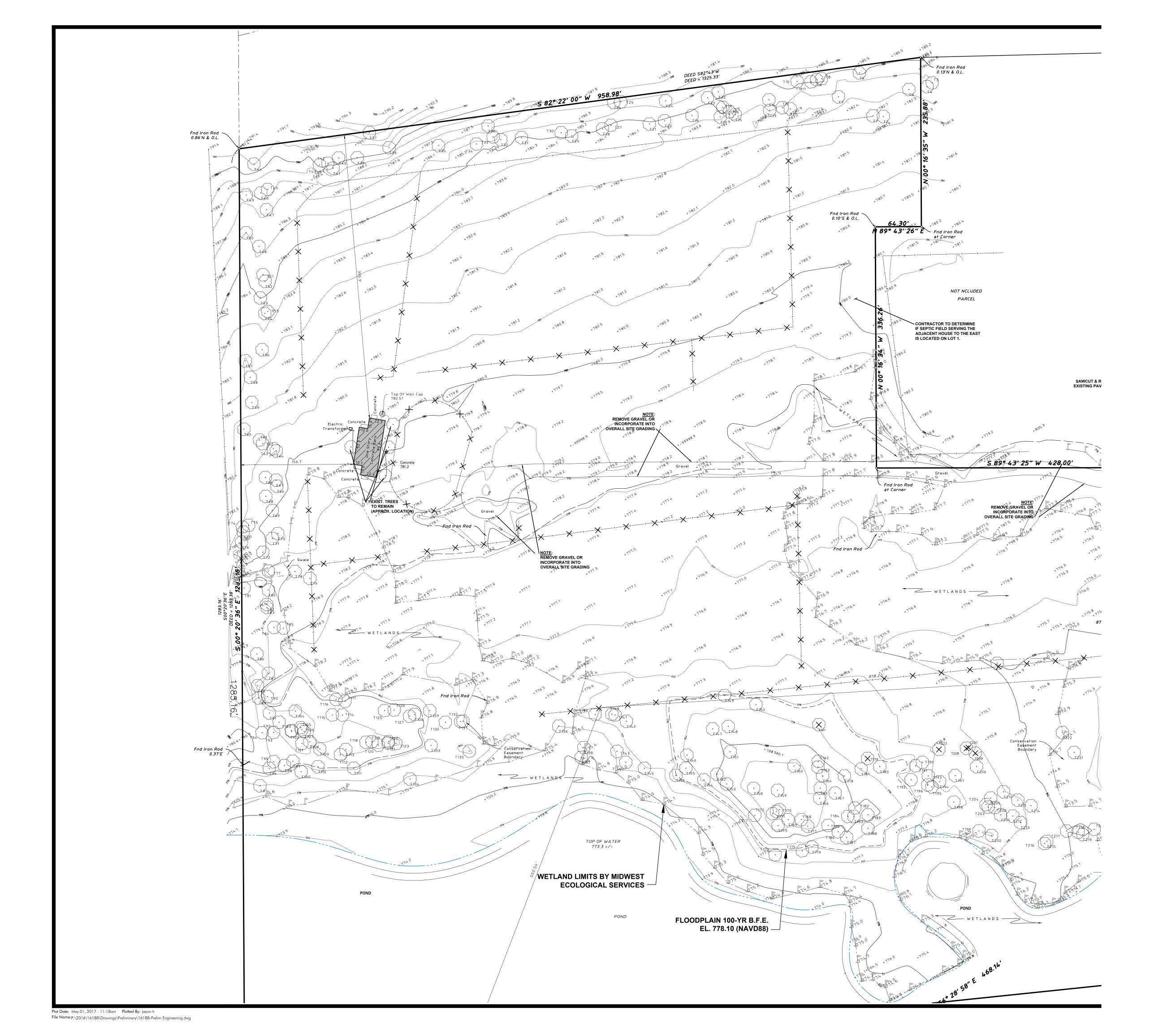
LEGEND Existing Symbol Description Proposed Symbol Storm Sewer Manhole Catch Basin Flared End Section Headwall Area Drain Sanitary Sewer Manhole Clean Out Storm Sewer Perforated Underdrain -->----Hand Hole x-----x Fence Guardrail I I I Pipe Bollard Gas Valve Gas Line Electric Line Overhead Utility Line Fiber Optic Line Electrical Pedestal Electric Manhole Guy Wire Utility Pole Telephone Manhole Telephone Line —— CATV—— Cable TV Line —— *САТV*—— Cable TV Pedestal Flagpole \sim Curb & Gutter P XXX.XX Pavement Elevation XXX.XX **Ground Elevation** Open Lid Frame & Grate Gr XXX.XX Closed Lid Frame & Lid Rim XXX.XX Hardscape Flow Contour Line Deciduous Tree Coniferous Tree

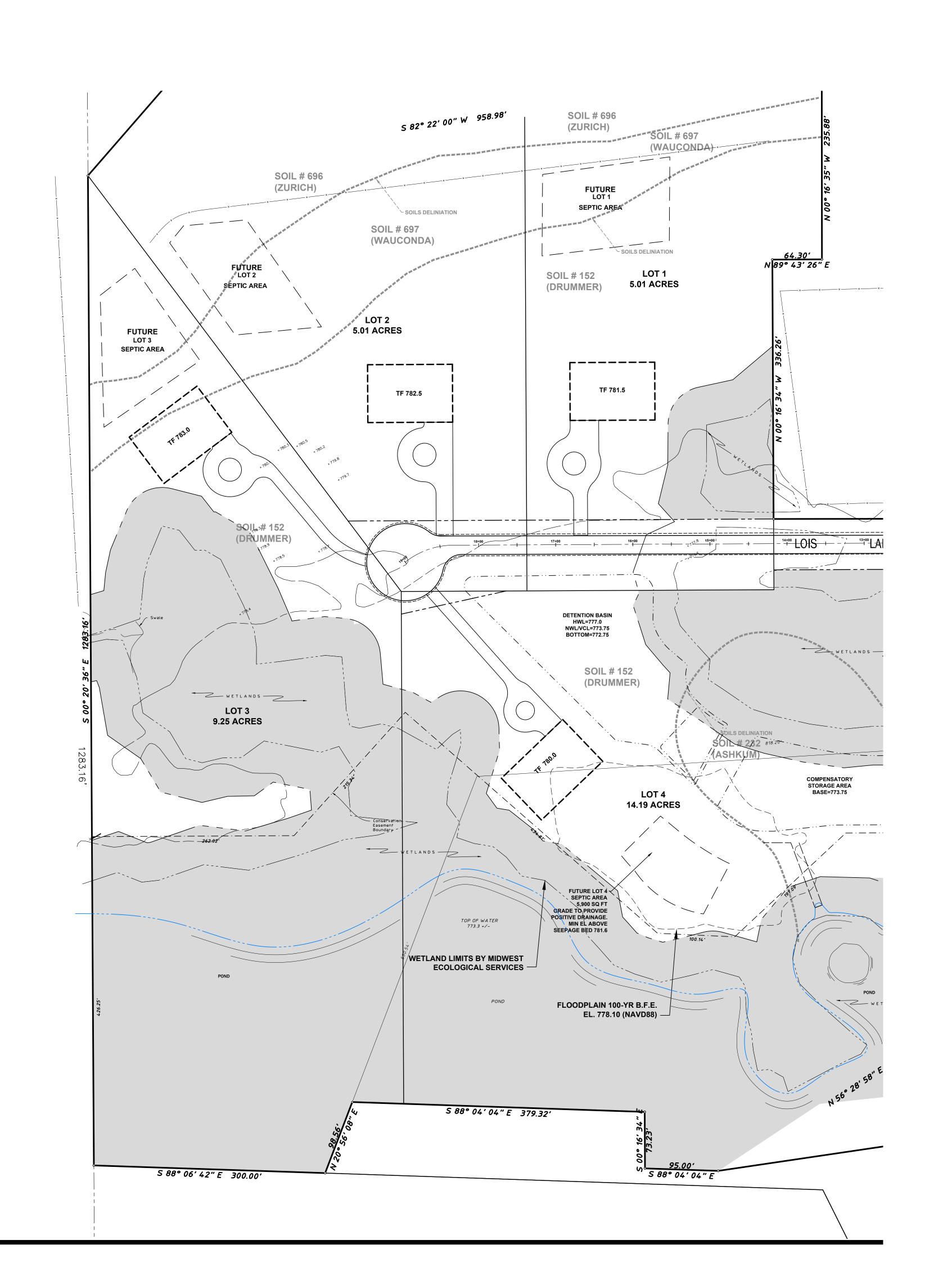
Brushline

| HAEGER ENGINEER Consulting engineers • land surveyor land stary Schaumburg, IL 60173 Fel: 847.394.6600 Fax: 847.394.660

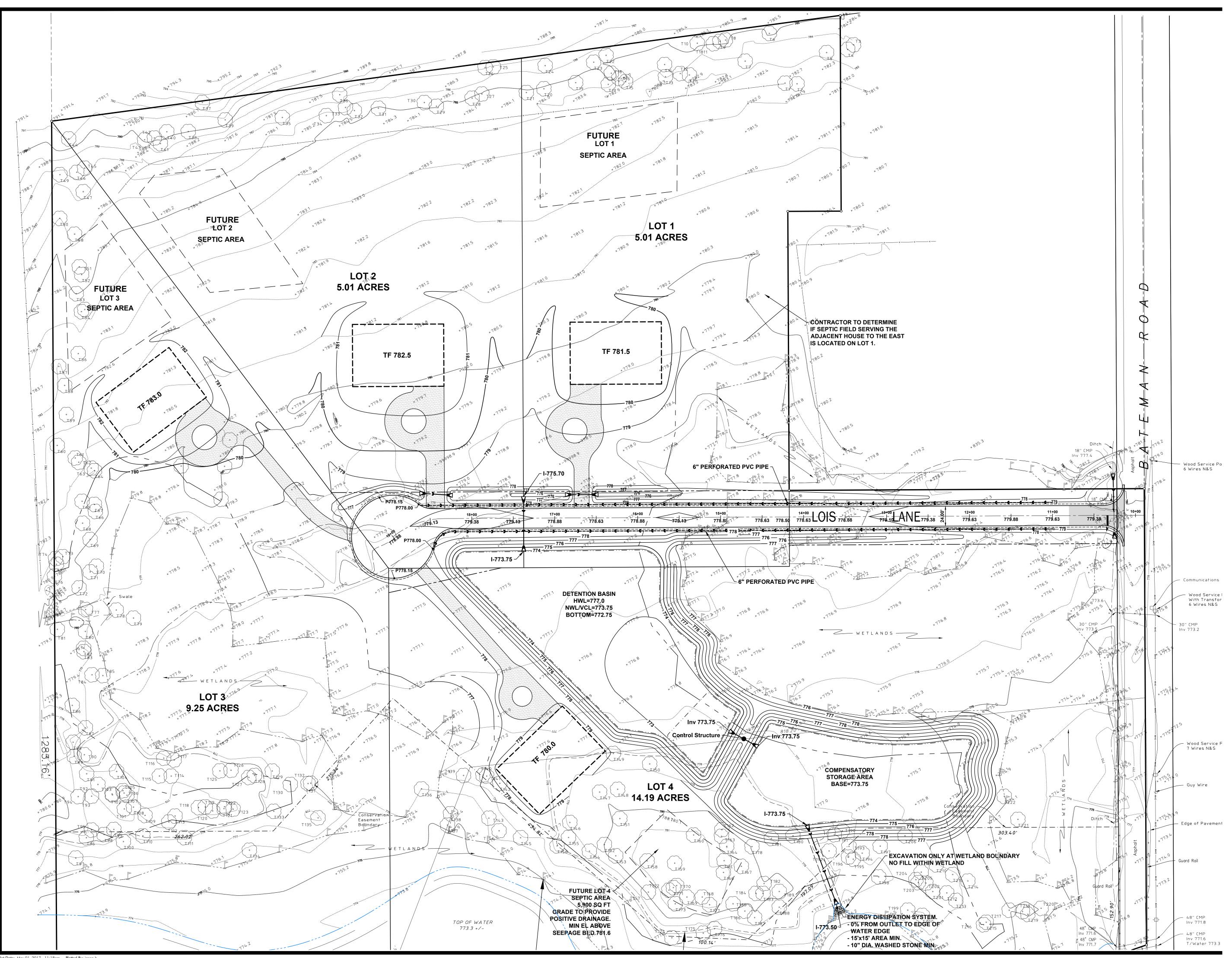
ATEMAN MEADOWS
AARY ENGINEERING PLANS

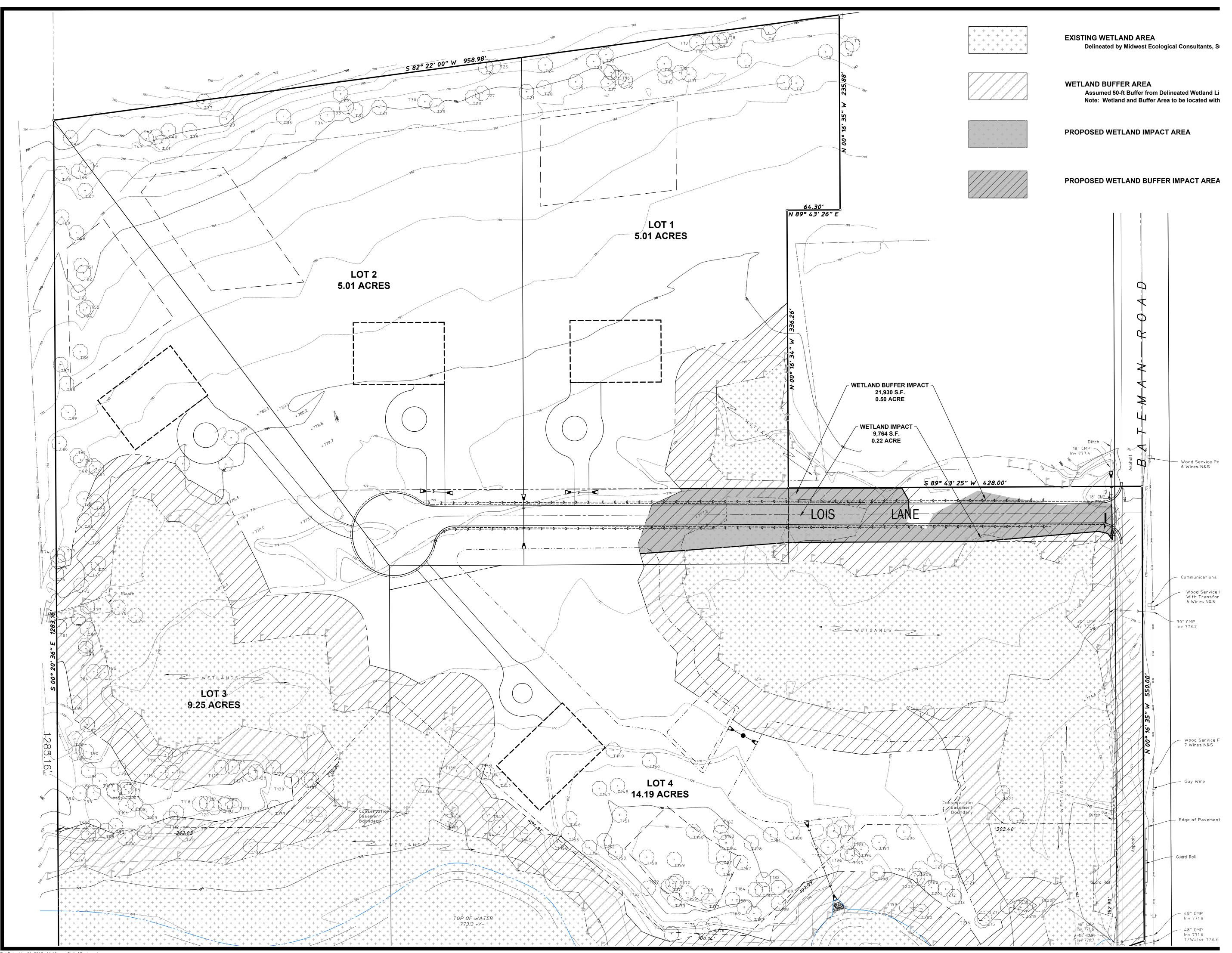
Project Manager: MLA
Engineer: PAC
Date: 04/27/2017
Project No. 16-188
Sheet C1.0

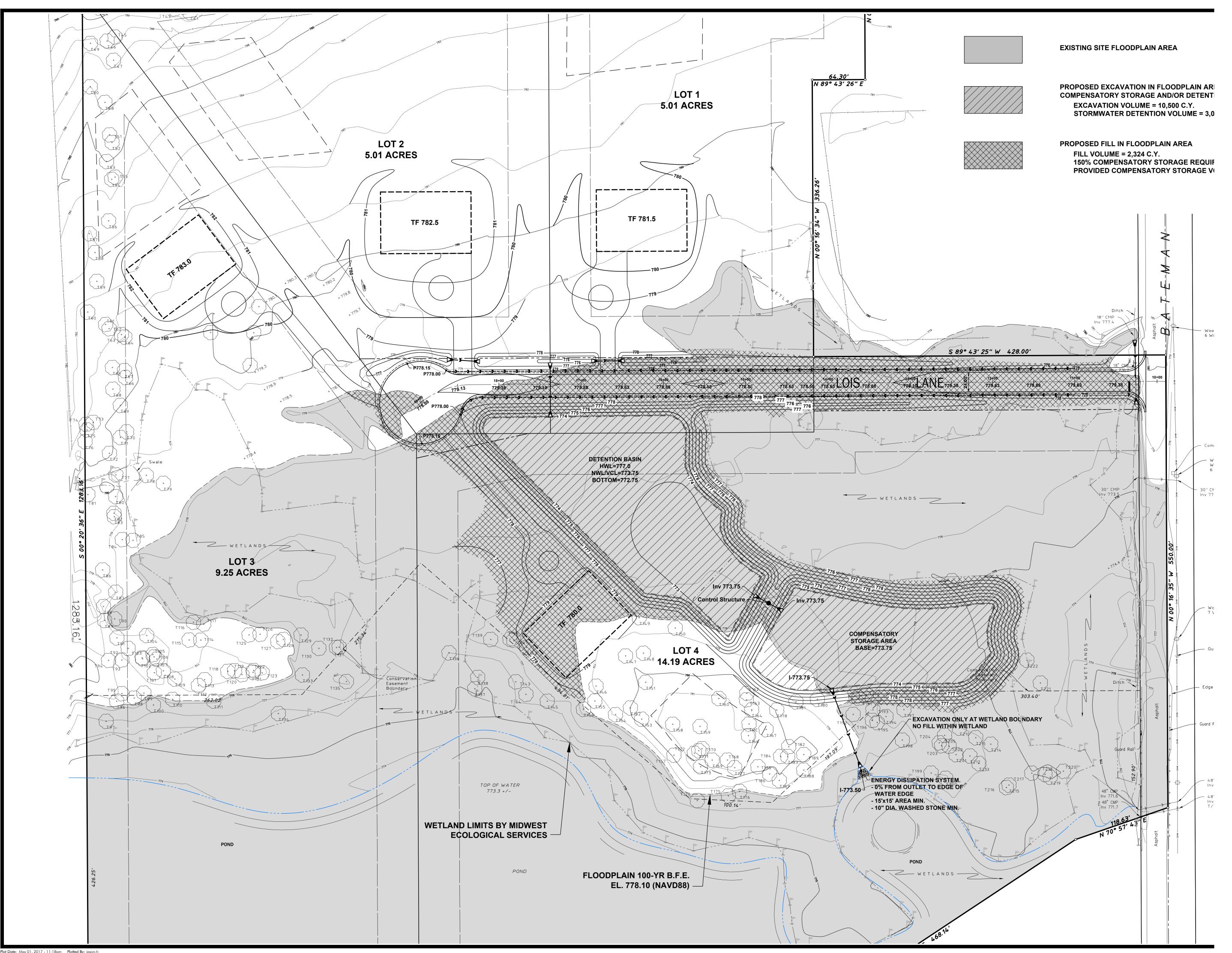


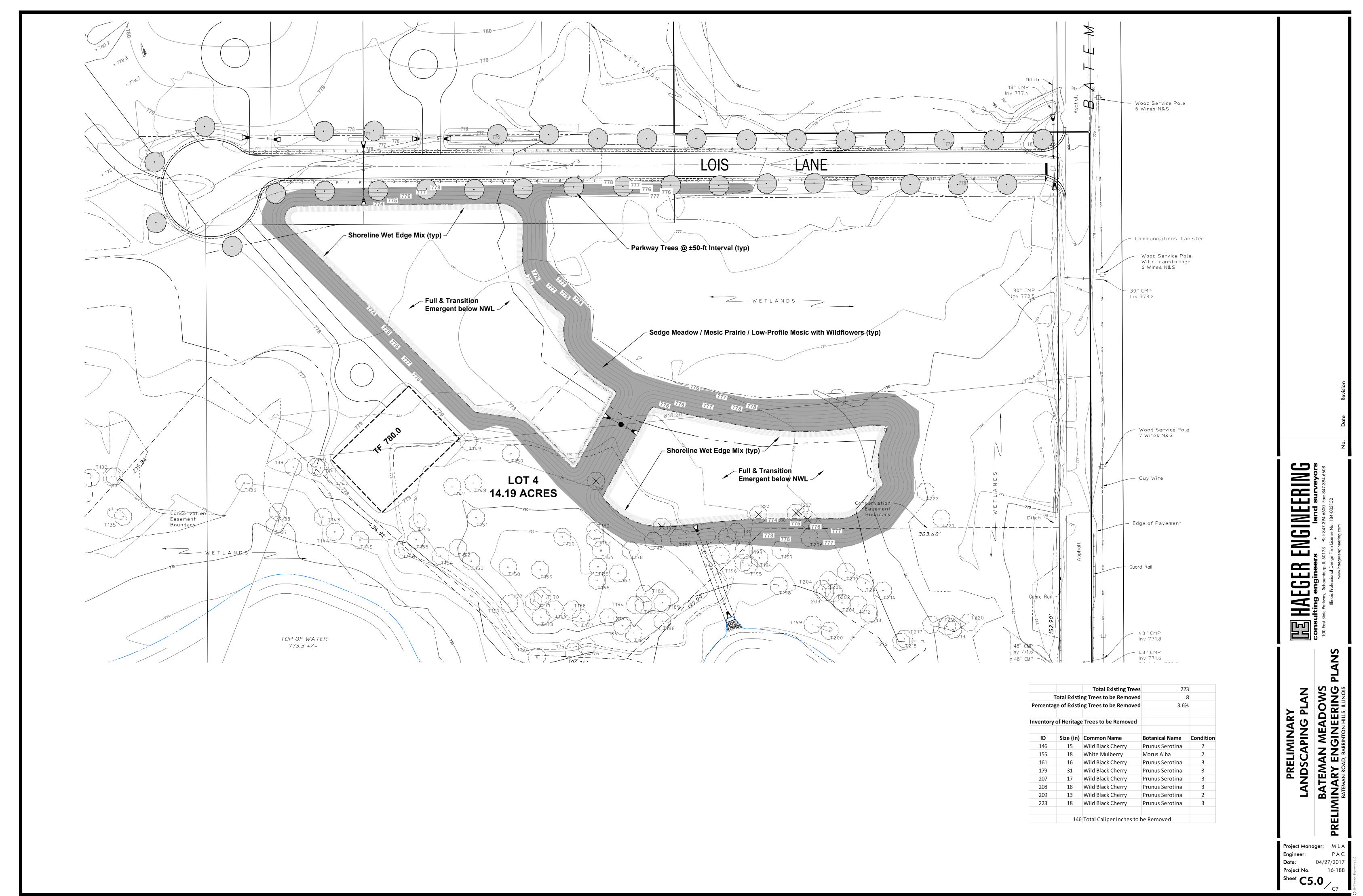


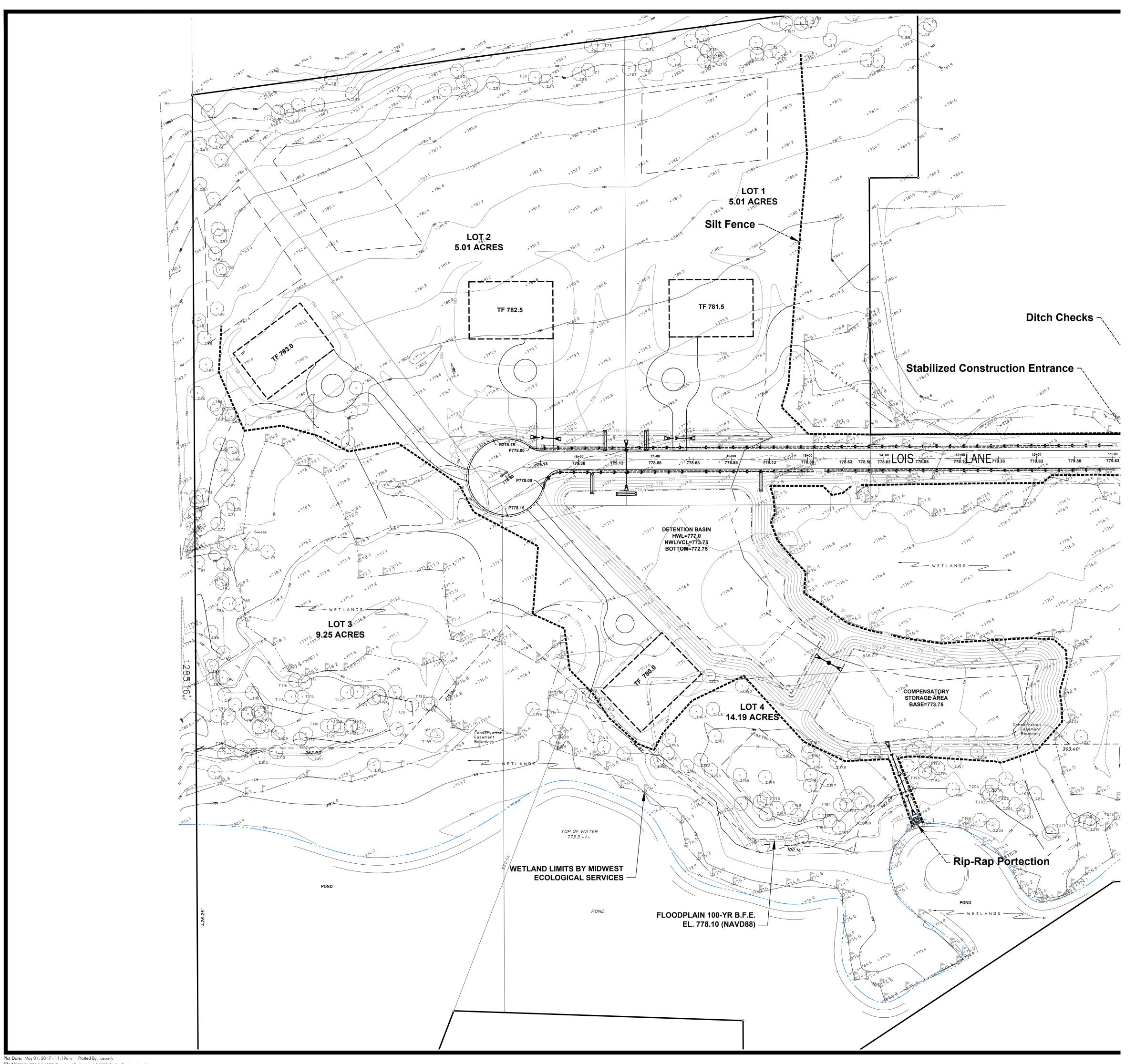
Plot Date: May 01, 2017 - 11:18am Plotted By: jason-h
File Name: P:\2016\16188\Drawings\Preliminary\16188-Prelim Engineering.dwg

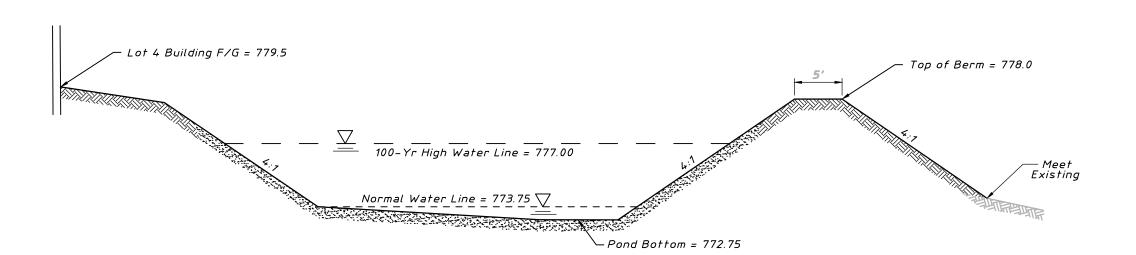




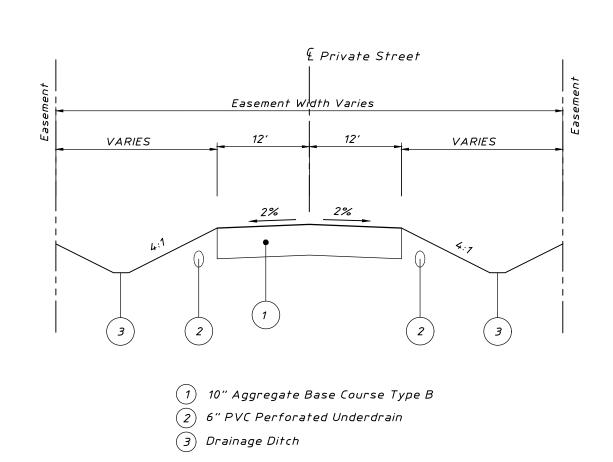






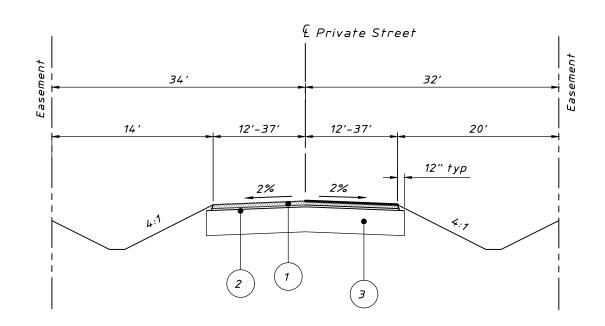


POND CROSS SECTION
NOT TO SCALE



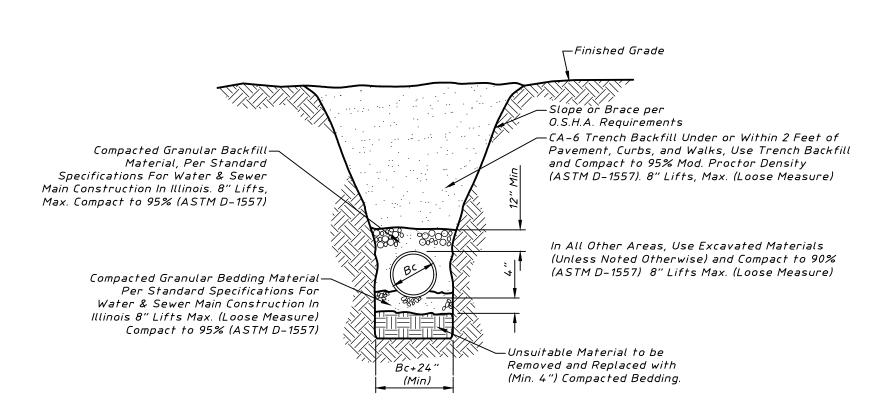
PRIVATE STREET CROSS-SECTION

NOT TO SCALE

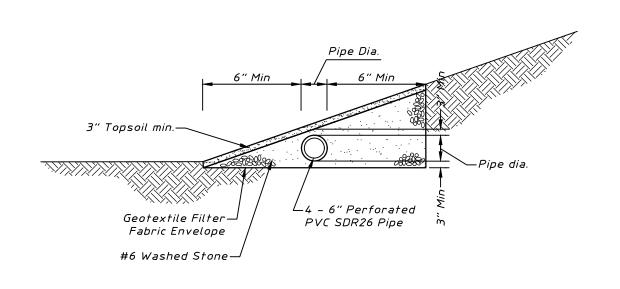


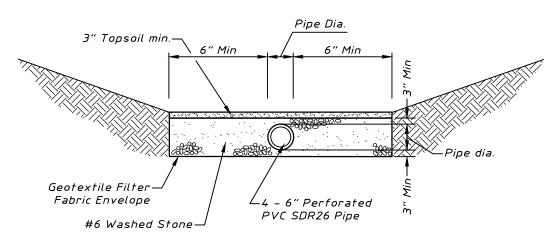
- 1) 2-1/4" HMA Surface Course, Mix "D", IL-9.5, N70
- 2 3/4" HMA Leveling Binder, Machine Method, IL-9.5, N50
- 3 10" Aggregate Base Course, Type "b"

PAVED PRIVATE STREET AT ENTRANCE CROSS-SECTION
NOT TO SCALE



TRENCH SECTION - STORM SEWER





UNDER DRAIN DETAIL

HAEGER ENGINEERING

consulting engineers • land surveyors

100 East State Parkway, Schaumburg, IL 60173 • Fel: 847.394.6600 Fax: 847.394.6608

Illinois Professional Design Firm License No. 184-003152

TEMAN MEADOWS ARY ENGINEERING PLANS

Project Manager: MLA
Engineer: PAC
Date: 04/27/2017
Project No. 16-188
Sheet 7

WETLAND DELINEATION REPORT

PREPARED FOR:



SUBJECT SITE:

Bateman Meadows 95 Bateman Road Barrington Hills, Cook County Illinois (Latitude 42.151049 Longitude -88.226097)

May 3, 2017



TABLE OF CONTENTS

	Page
EXECUTIVE SUMMARY	1
PURPOSE OF VISIT	1
DEFINITION OF A WETLAND	1
METHODOLOGY	2
LOCATION	3
NATIONAL WETLAND INVENTORY MAP	4
COOK COUNTY SOILS SURVEY MAP	4
UNITED STATES GEOLOGICAL SURVEY MAPS	4
FLOOD INSURANCE RATE MAP (F.I.R.M.)	4
WETLAND FIELD DELINATION	
CONCLUSIONS	
FEDERAL REGULATIONS	8
APPENDIX A WETLAND AERIAL PHOTOGRAPH	
WETLAND SURVEY MAP PREPARED BY HAEGER ENGINEERING.	
LOCATION MAP	3
NATIONAL WETLAND INVENTORY MAP	4
COOK COUNTY SOIL SURVEY MAP	5
COOK COUNTY DRAINAGE CLASS MAP	6
UNITED STATES GEOLOGICAL SURVEY MAP	
HYDROLOGICAL ATLAS MAP	8
FLOOD INSURANCE RATE MAP (F.I.R.M.)	9
APPENDIX B	
DATA SHEETS1A-2A, 1B-	-9B & DP 1
APPENDIX C	
PHOTOGRAPHS	1-3
APPENDIX D	
HABITAT EVALUATION	1

WETLAND DELINEATION REPORT

EXECUTIVE SUMMARY

In response to the request of Haeger Engineering, (MEI) has performed and wetland delineation of the approximate 34 acre study area. The study area has a common address of 93 and 95 Bateman Road, Barrington Hills, Cook County Illinois. Geographically the site is located within Section 6, Township 42 North, Range 9 East of the Third Principal Meridian within Cook County, Illinois. Utilizing the methods and criteria established by the U.S. Army Corps of Engineers (COE) in their Corps of Engineers Wetlands Delineation Manual (1987) & Midwest Regional Supplement (2008) a wetland investigation of the property was preformed. Based on the on-site investigation using the information obtained from the field samples Midwest Ecological, Inc. (MEI) identified two (2) wetland areas totaling 11.91 acres in size.

Site	Size in Acres	Mean C	FQI	Anticipated Regulatory Agency
Wetland A	0.24	1.80	4.02	Corps
Wetland B	11.67	2.76	19.55	Corps

Please Note: The floristic quality assessment was taken early in the growing season and may not represent a full vegetative inventory.

It should be noted that under the current guidelines, any disturbance of a wetland area requires a permit through the US Army Corps of Engineers, Cook County Metropolitan Water Reclamation District (MWRD) or the Village of Barrington Hills. However, mitigation may or may not be required, depending on the overall impact (> 0.10) to the wetland, Waters of the United States or Isolated Wetland of Cook County. This jurisdiction of the identified wetland is at the discretion of the ACOE.

PURPOSE OF VISIT

The purpose of the site visit is to determine if any Wetlands (various types), Open water pockets, Creeks or Rivers exist on-site and to determine their approximate size, location, quality and jurisdiction. Wetlands encountered were delineated using standard methods sanctioned by the United States Army Corps of Engineers in their Corps of Engineers Wetlands Delineation Manual (1987), Regional Supplement (2008) and Wetland Mapping Conventions – NRCS, Illinois (1998).

DEFINITION OF A WETLAND

The U.S. Army Corps of Engineers (ACOE) and the U.S. Environmental Protections Agency (EPA) define wetlands as:

"areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do

support, a prevalence of vegetation typically adapted for life in saturated soil conditions..." (33 CFR 328.3[b], 1977).

Although not defined by regulation, "normal circumstances" are interpreted by both the ACOE and the Natural Resources Conservation Service to be "the soil and hydrologic conditions that are normally present, without regard to whether the vegetation has been removed" (7 CFR 12.31[b][2][i]).

METHODOLOGY

Prior to visiting the site, Midwest Ecological, Inc. (MEI) performed a review of the aforementioned National Wetland Inventory map, Cook County Soil Survey map, United States Geological Survey Maps and aerial photographs in order to determine existing site conditions. Site visits were then conducted by an Environmental Wetland Specialist from MEI on February 14, April 26, May 2, 2017. The ACOE 1987 Wetlands Delineation Manual Technical Report Y-87-1 & 2008 Midwest Regional Supplement identifies the mandatory technical criteria for wetland identification. The three essential characteristics of a wetland are: 1) hydrophytic vegetation; 2) hydric soils; and 3) wetland hydrology. These characteristics are described below:

<u>Hydrophytic Vegetation</u>: The hydrophytic vegetation criterion is based on a separation of plants into five basic groups:

- 1) Obligate wetland plants (OBL) almost always occur (estimated probability >99%) in wetlands under natural conditions;
- 2) Facultative wetland plants (FACW) usually occur in wetlands (estimated probability 67-99%), but occasionally are found in non-wetlands;
- 3) Facultative plants (FAC) are equally likely to occur in wetland or non-wetlands (estimated probability 34-66%);
- 4) Facultative upland plants (FACU) usually occur in non-wetlands (estimated probability 67-99%), but occasionally are found in wetlands (estimated probability 1-33%); and
- 5) Obligate upland plants (UPL) almost always occur (estimated probability >99%) in non-wetlands under natural conditions.

Within each data point, vegetation is sampled in plots of varying size based on the type of vegetation being sampled. The following plot sizes are recommended by the 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual for the Midwest Region:

Trees - 30-ft radius
Saplings/Shrubs - 15-ft radius
Herbaceous Plants - 1 m2 plot
Woody vines - 30-ft radius

If greater than 50% of the plants present in each stratum or layer of the plant community are FAC (with the exception of FAC-), FACW, or OBL the subject area is considered a wetland in terms of vegetation (Dominance Test). If the vegetation does not meet the requirements of the Dominance Test, the Prevalence Index (PI) should be utilized.

The PI evaluates the coverage, on a weighted basis of coverage over all strata, of the vegetation within the plot. The PI ranges between 1.0 and 5.0, with a 3.0 or less indicating hydrophytic vegetation is present. If the PI is greater than 3.0, the dominance test is failed, but there are still hydric soil and wetland hydrology presence, the observation of morphological adaptations by vegetation can be used to indicate that the hydrophytic vegetation criteria is met.

Morphological adaptations are changes in the structure of vegetation in response to conditions outside the normal character of the plant. These adaptations include adventitious roots, multistemmed trunks, shallow root systems developed at or near the surface, and buttressing in tree species. To meet this indicator, more than 50% of the individuals of FACU species must exhibit the morphological adaptations. Care must be given that the adaptations observed are due wetter conditions that the species is used to as opposed to other factors such as shallow roots present because of erosion of the surface.

Hydric Soils: Hydric soils are defined in the manual as "soils that are saturated, flooded or ponded long enough during the growing season to develop anaerobic conditions in the upper part." Hydric soil indicators are distinctive characteristics that persist in the soil during both wet and dry periods, and are used to identify hydric soils in the field. Field indicators include color, mottling, gleying, and sulfidic odor. A specific set of indicators has been developed by the USDA Natural Resource Conservation Service (Field Indicators of Hydric Soils in the United States) which provides a detailed description of how to identify the indicators in during a site visit. A soil meets the definition of a hydric soil if it exhibits at least one of these indicators.

Wetland Hydrology: Indicators of hydric soil and hydrophytic vegetation typically reflect the middle and long-term conditions of a site, but not the short term conditions. The wetland hydrology criterion is often the most difficult to determine because of climatological variation. Typically, the presence of water for a week or more during the growing season creates anaerobic conditions indicative of wetland hydrology. Anaerobic conditions lead to the prevalence of wetland plants. The 2010 USACE Regional Supplement for the Midwest Region provides specific indicators in four different groups for wetland hydrology: Observation of Surface Water or Saturated Soils, Evidence of Recent Inundation, Evidence of Current or Recent Soil Saturation, and Evidence from Other Site Conditions or Data. If a site exhibits 1 primary indicator or 2 secondary indicators, then it meets the hydrology criteria for a wetland.

REFERENCE MATERIALS

The following materials were reviewed and utilized to assist in the field reconnaissance and completion of this report. See Appendix A for the Reference Materials (Exhibits 1 through 7).

LOCATION

The 34 acre study area is located at common address 93 and 95 Bateman Road, Barrington Hills, Cook County Illinois. Geographically the site is located within Section 6, Township 42 North, Range 9 East of the Third Principal Meridian within Cook County, Illinois (Latitude 42.151049 Longitude -88.226097).

Midwest Ecological, Inc. - 3 - May 3, 2017

NATIONAL WETLAND INVENTORY (NWI) MAP

The National Wetland Inventory (NWI) Map for the Barrington Quadrangle was reviewed to determine the location of wetland areas on the subject site. It should be noted that these maps are only large scale guides, actual wetland locations and types may vary. Ultimate qualification occurs during field reconnaissance.

Per our review of the NWI map, the study area does contain a wetland area:

PEMC: Palustrine, Emergent, Seasonal POWH: Palustrine, Open Water, Permanent

Based on our onsite investigation, the site contains two wetland areas. Wetland A appears to have been separated from Wetland B due to the installation of a gravel roadway. Wetland B is jurisdictionally connected to Spring Creek. Spring Creek is hydrologically connected to the Fox River.

COOK COUNTY SOIL SURVEY MAP

<u>The Soil Survey of Cook County, Illinois</u> was investigated to determine the location of hydric soils on the subject site. Mapped hydric soils can indicate wetland areas. The following soil were found to be present on the subject site during our investigation.

152 A – Ashkum silty clay loam, 0-2% slopes (poorly drained, hydric)

361 C2 - Kidder loam, 4-6% slopes (well drained)

442 A – Mundelein silt loam, 0-2% slopes (somewhat poorly drained)

1903 A – Muskego and Houghton mucks, undrained, 0-2% slopes (very poorly drained)

W - Water

UNITED STATES GEOLOGICAL SURVEY & HYDROLOGICAL ATLAS MAPS

The <u>Hydrological Atlas for Barrington Hills</u> (2015 and 1965), as illustrated on the Barrington quad, U.S.G.S. Map and Hydrological Atlas. These maps were reviewed to determine the historical local drainage patterns. Upon review of this drainage pattern, it appears that the site drains to Spring Creek which is tributary to the Fox River.

FLOOD INSURANCE RATE MAP (F.I.R.M.)

The Flood Insurance Rate Maps (F.I.R.M.), for Cook County, Illinois, Community Panel No. 17031C0015 J effective date August 19, 2008 were reviewed to determine the location of regulatory floodplains and floodways within the subject site. Mapped floodplains can be indicative of wetland hydrology.

Based on the F.I.R.M. Map, the study area contains a Zone A flood plain associated with the delineated Wetland A.

WETLAND FIELD DELINEATION

An on-site wetland delineation of the property was conducted on February 14, April 26, May 2, 2017. Wetland boundaries were determined using the ACOE guidelines and the United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) guidelines, as stated previously. The routine method of wetland delineation was used, incorporating information on vegetation, hydrology and soils. The full width of the property was traversed and when a suspected wetland was encountered, the plant species present were determined by making several random passes through the area. If wetland plant species were found to be comprised of 50% or more of plant cover (i.e., wetland vegetation was dominant), the suspected wetland was further examined for the necessary field indicators of hydric soil and hydrology. The wetland boundaries were then defined and all observed plant species were recorded.

The plant taxonomic nomenclature and the Natural Area Index (NAI) used in this report follow's the Swink and Wilhelm Manual (1994). A more detailed survey would be necessary for a more complete plant list and while more species might be obtained from additional surveys, this would not change the areas delineated as wetlands.

Study Area: The 34 acre parcel is currently vacant. One brick barn and gravel drive way is noted on the property. It appears that the site is a historical horse farm. Old horse paddocks are noted within the property.

Wetland A: Wetland A is a depressional reed canary grass wetland that receives surface flow from adjacent areas. The wetland was historically part of the larger wetland to the south (wetland B) but was separated due to the construction of the gravel driveway. Wetland A is characterized by data point 1A and was determined to be **0.24 acres.** Wetland A is a depressional wetland that does not have a regulated outfall. A culvert or surface conveyance was not noted drainaing the wetland area. The dominant vegetation found was determined to be Reed Canary Grass (*Phalaris arundinacea*) and Sandbar Willow (*Salix interior*).

During our investigation positive wetland hydrology is met with the primary indicators of Saturation (A3). Mapped soil is identified as Ashkum silty clay loam (232 A) which is a poorly drained soil. Primary soil indicators of thick dark surface (A12) was noted within the flagged boundary.

Said vegetation soils and hydrology information noted above can be found in the datasheets section of this report. Please note data sheets 1A-2A reference wetland A.

Study Information

Site:

Bateman Meadows

Locale:

Wetland A

By:

Robert Vanni

Con	servatism-Based Metrics		8	Additio	onal Metrics				
Mea	n C (native species)	1.80		Species	Richness (al	1)	9.00		
Mea	n C (all species)	1.00		Species	Richness (na	ative)	5.00		
Mea	n C (native trees)	1.00		% Non-		200 100 n M	0.44		
	in C (native shrubs)	1.00		Wet Inc	dicator (all)		-0.22		
	m C (native herbaceous)	2.33			dicator (nativ	e)	-0.60		
	AI (native species)	4.02			ophyte (Midy	-50	0.67		
	Al (all species)	3.00			e perennial	, (31)	0.56		
	isted FQAI	13.42			e annual		0.00		
	value 0	0.44		% annu			0.00		
	Value 1-3	0.44		% pere			1.00		
1000	value 4-6	0.11		o pere			1.00		
	value 7-10	0.00							
Species Acronym	Species Name (NWPL/Mohlenbrock)	Common Name	(C Value	Midwest WET	WET indicator (numeric)	Habit	Duration	Nativity
cirary	Cirsium arvense	Canadian Thistle		0	FACU	1	Forb	Perennial	Adventive
frapen	Fraxinus pennsylvanica	Green Ash		1	FACW	-1	Tree	Perennial	Native
phaaru	Phalaris arundinacea	Reed Canary Grass		0	FACW	-1	Grass	Perennial	Adventive
poapra	Poa pratensis	Kentucky Blue Grass		0	FAC	0	Grass	Perennial	Adventive
salint	Salix interior	Sandbar Willow		Ł	FACW	+1	Shrub	Perennial	Native
fesela	Schedonorus pratensis	Meadow Fescue		0	FACU	1	Grass	Perennial	Adventive
solalt	Solidago altissima	Tall Goldenrod		1	FACU	1	Forb	Perennial	Native
solgig	Solidago gigantea	Late Goldenrod		4	FACW	-1	Forb	Perennial	Native
urtpro	Urtica dioica ssp. gracilis	Tall Nettle		2	FACW	-1	Forb	Perennial	Native

Wetland A Jurisdictional Determination Opinion: Wetland A appears to be an isolated wetland of Cook County due to a lack of a surface connection to Wetland B. A jurisdictional request to the Army Corps of Engineers should be submitted to identify the governing agency.

Wetland B: Wetland B can be located on the south portion of the property, and extends off-site to the southwest and southeast. Wetland B is tributary to the Spring Creek ecosystem. The delineated boundary is characterized by data point 2B, 7B and 9B and has been determined to be 11.67 acres in size. The delineated wetland consists of wet meadow, degraded wet meadow, scrub/shrub, wooded, marsh and open water wetland area. The wetland is primarily hydrated by an off-site stream but areas of ground water upwelling was noted within property boundary. Wetland B exhibits moderate to high quality plant life.

Dominant vegetation identified within this area was determined to be Common Cattails (*Typha latifolia*), Reed Canary Grass (*Phalaris arundinacea*), Boxelder (*Acer negundo*), Sandbar Willow (*Salix interior*), Tall Scouring-Rush (*Equisetum hyemale*), Common Buckthorn (*Rhamnus cathartica*) and Eastern Cottonwood (*Populus deltoids*).

During our investigation positive wetland hydrology is met with the primary indicators of Surface Water (A1), Saturation (A3), Water Marks (B1) and Inundation visible on aerial imagery (B7). Mapped soil is identified as Ashkum silty clay loam (232 A) which is a poorly drained hydric soil and Muskego and Houghton Mucks (1903A) which is a very poorly drained hydric soil. Primary soil indicators of thick dark surface (A12), loamy mucky material (F1) & Depleted Dark Surface (F7) was noted within the flagged boundary.

Said vegetation, soils, and hydrology information noted above can be found in the data sheets section of this report (reference Exhibit G). Please note data sheets 1-9B represent Wetland B.

Study Information

Site: Bateman Meadows

Locale: Wetland B

By: Robert Vanni

Conservatism-Based Metrics

Additional Metrics

Mean C (native species)	2.76	Species Richness (all)	69.00
Mean C (all species)	2.04	Species Richness (native)	50.00
Mean C (native trees)	2.00	% Non-native	0.28
Mean C (native shrubs)	2.75	Wet Indicator (all)	-0.55
Mean C (native herbaceous)	2.95	Wet Indicator (native)	-0.82
FQAI (native species)	19.55	% hydrophyte (Midwest)	0.78
FQAI (all species)	16.97	% native perennial	0.64
Adjusted FQAI	23.53	% native annual	0.09
% C value 0	0.32	% annual	0.09
% C Value 1-3	0.36	% perennial	0.83
% C value 4-6	0.29		
% C value 7-10	0.01		

Species Acronym	Species Name (NWPL/Mohlenbrock)	Common Name	C Value	Midwest WET indicator	WET indicator (numeric)	Habit	Duration	Nativity
aceneg	Acer negundo	Ash-Leaf Maple	0	FAC	0	Tree	Perennial	Native
agralb	Agrostis gigantea	Black Bent	0	FACW	-1	Grass	Perennial	Adventive
alisub	Alisma subcordatum	American Water-Plantain	4	OBL.	-2	Forb	Perennial	Native
allpet	Alliaria petiolata	Garlie-Mustard	0	FAC	0	Forb	Biennial	Adventive
angatr	Angelica atropurpurea	Purple-Stem Angelica	7	OBL	-2	Forb	Perennial	Native
apocan	Apocymum cannabimum	Indian-Hemp	2	FAC	0	Forb	Perennial	Native
ascsyr	Asclepias syriaca	Common Milkweed	0	FACU	1	Forb	Perennial	Native
barvul	Barbarea vulgaris	Garden Yellow-Rocket	0	FAC	0	Forb	Biennial	Adventive
bidfro	Bidens frondosa	Devil's-Pitchfork	1	FACW	-1	Forb	Annual	Native
broine	Bromus inermis	Smooth Brome	0	FACU	1	Grass	Perennial	Adventive
consep	Calystegia sepinm	Hedge False Bindweed	1	FAC	0	Forb	Perennial	Native
exgran	Carex gramilaris	Limestone-Meadow Sedge	4	FACW	-1	Sedge	Perennial	Native
exstip	Carex stipata	Stalk-Grain Sedge	3	OBL	-2	Sedge	Perennial	Native
exstri	Carex stricta	Uptight Sedge	5	OBL	-2	Sedge	Perennial	Native
exvulp	Carex vulpinoidea	Common Fox Sedge	2	FACW	-1	Sedge	Perennial	Native
corsto	Cornus alba	Red Osier	6	FACW	-1	Shrub	Perennial	Native
corrac	Cormis racemosa	Gray Dogwood	1	FAC	0	Shrub	Perennial	Native
daucar	Dancus carota	Queen Anne's Lace	0	UPL	2	Forb	Biennial	Adventive
eleery	Eleocharis palustris	Common Spike-Rush	2	OBL.	-2	Sedge	Perennial	Native
epicol	Epilobium coloratum	Purple-Leaf Willowherb	3	OBL	-2	Forb	Perennial	Native
equary	Equisetum arvense	Field Horsetail	0	FAC	0	Fern	Perennial	Native
equhy e	Equisetum hyemale	Tall Scouring-Rush	3	FACW	-1	Fern	Perennial	Native
eriann	Erigeron annuus	Eastern Daisy Fleabane	0	FACU	1	Forb	Biennial	Native
eup mac	Eutrochium maculatum	Spotted Trumpetweed	4	OBL	-2	Forb	Perennial	Native
frapen	Fraximis pennsylvanica	Green Ash	1	FACW	-1	Tree	Perennial	Native
galapa	Galium aparine	Sticky-Willy	1	FACU	t	Forb	Annual	Native
geucan	Genm canadense	White Avens	1	FAC	0	Forb	Perennial	Native
glehed	Glechoma hederacea	Groundivy	0	FACU	1	Forb	Perennial	Adventive
glystr	Glyceria striata	Fowl Manna Grass	4	OBL	-2	Grass	Perennial	Native -
helgro	Helianthus grosseserratus	Saw-Tooth Sunflower	2	FACW	-1	Forb	Perennial	Native
impcap	Impatiens capensis	Spotted Touch-Me-Not	3	FACW	-1	Forb	Annual	Native
jundud	Juncus dudleyi	Dudley's Rush	4	FACW	-41	Forb	Perennial	Native
juntor	Juncus torreyi	Torrey's Rush	4	FACW	-1	Forb	Perennial	Native
leeory	Leersia oryzoides	Rice Cut Grass	4	OBL	-2	Grass	Perennial	Native
lemmio	Lemna minor	Common Duckweed	5	OBL	-2	Forb	Annual	Native
lontat	Lonicera tatarica	Twinsisters	0	FACU	1	Shrub	Perennial	Adventive

ly came	Lycopus americanus	Cut-Leaf Water-Horehound	5	OBL	-2	Forb	Perennial	Native
lytsal	Lythrum salicaria	Purple Loosestrife	0	OBL	-2	Forb	Perennial	Adventive
pancap	Panicum capillare	Common Panic Grass	1	FAC	0	Grass	Annual	Native
panvir	Panicum virgatum	Wand Panic Grass	5	FAC	0	Grass	Perennial	Native
passat	Pastinaca sativa	Parsnip	0	UPL	2	Forb	Biennial	Adventive
poacom	Poa compressa	Flat-Stem Blue Grass	0	FACU	1	Grass	Perennial	Adventive
poapra	Poa pratensis	Kentucky Blue Grass	0	FAC	0	Grass	Perennial	Adventive
popdel	Populus deltoides	Eastern Cottonwood	2	FAC	0	Tree	Perennial	Native
pruvir	Prunus virginiana	Choke Cherry	3	FACU	1.	Shrub	Perennial	Native
pycvir	Pycuanthemum virginianum	Virginia Mountain-Mint	5	FACW	-1	Forb	Perennial	Native
ransep	Rammeulus hispidus var. miidus	Bristly Buttercup	5	FAC	0	Forb	Perennial	Native
rhacat	Rhammis cathartica	European Buckthorn	0	FAC	0	Shrub	Perennial	Adventive
rudhir	Rudbeckia hiria	Black-Ey ed-Susan	1	FACU	1	Forb	Perennial	Native
rumeri	Rumex crispus	Curly Dock	0	FAC	0	Forb	Perennial	Adventive
salint	Salix interior	Sandbar Willow	1	FACW	-1	Shrub	Perennial	Native
salnig	Salix nigra	Black Willow	4	OBL	-2	Tree	Perennial	Native
fesela	Schedonorus pratensis	Meadow Fescue	0	FACU	1	Grass	Perennial	Adventive
sciflu	Schoenoplectus fluviatilis	River Club-Rush	4	OBL	-2	Sedge	Perennial	Native
sciaty	Scirpus atrovirens	Dark-Green Bulrush	4	OBL	-2	Sedge	Perennial	Native
scipen	Scirpus pendulus	Rufous Bulrush	4	OBL.	-2	Sedge	Perennial	Native
soldul	Solanum dulcamara	Climbing Nightshade	0	FAC	0	Vine	Perennial	Adventive
solalt	Solidago altissima	Tall Goldenrod	1	FACU	1	Forb	Perennial	Native
solgig	Solidago gigantea	Late Goldenrod	4	FACW	-1	Forb	Perennial	Native
astsim	Symphyotrichum lanceolatum	White Panicled American-Aster	3	FAC	0	Forb	Perennial	Native
typang	Typha angustifolia	Narrow-Leaf Cat-Tail	0	OBL	-2	Forb	Perennial	Adventive
typlat	Typha latifolia	Broad-Leaf Cat-Tail	1	OBL	-2	Forb	Perennial	Native
ulmame	Ulmus americana	American Elm	3	FACW	(-1)	Tree	Perennial	Native
urtpro	Urtica dioica ssp. gracilis	Tall Nettle	2	FACW	-1	Forb	Perennial	Native
verbla	Verbascum blattaria	White Moth Mullein	0	FACU	T	Forb	Biennial	Adventive
verhas	Verbena hastata	Simpler's-Joy	4	FACW	-1	Forb	Perennial	Native
vitrip	Vitis riparia	River-Bank Grape	2	FACW	-1	Vine	Perennial	Native

Wetland B Jurisdictional Determination Opinion: Wetland B is hydrologically connected to Spring Creek which is Army Corps of Engineers Jurisdiction. A jurisdictional request to the Army Corps of Engineers should be submitted to identify the governing agency.

CONCLUSIONS

The site was evaluated using U.S. Army Corps of Engineers and USDA guidelines for identifying wetlands. After evaluation of all data obtained, the site does contain one Waters of the United States totaling 11.91 acres in size. Jurisdictional delineation data forms containing information of dominant vegetation, soils and hydrology information of the wetland areas can be found within this package.

FEDERAL REGULATIONS

Jurisdictional Waters of the United States will be regulated under Section 404 of the Clean Water Act and the Section 401 Water Quality Certification requirements. Under Section 404, the United States Army Corps of Engineers regulates the discharge of dredged or fill material into jurisdictional Wetlands or Waters of the United States (WOUS).

Regional Permit 1 (RP1) authorizes the construction of residential, commercial and institutional developments and associated infrastructure, such as roads, utilities, detention areas, and recreation areas. Authorization under RP1 is subject to the following requirements which shall be addressed in writing and submitted with the notification:

a. The impact to waters of the U.S. shall not exceed 1.0 acre. For projects that impact over 0.10 acres of waters of the U.S., the permittee is required to provide compensatory

The permittee shall establish and/or enhance an upland buffer of native plants (or other appropriate vegetation approved by the District) adjacent to all created, restored, enhanced or preserved waters of the U.S., including wetlands. Created buffers should be established on 6:1 (horizontal: vertical) or gentler slopes. The following buffer widths are required:

- 1) For any waters of the U.S. determined to be a high-quality aquatic resource, the buffer shall be a minimum of 100 feet.
- 2) For any waters of the U.S. that do not qualify as wetland (e.g. lakes, rivers, ponds, etc.), the buffer shall be a minimum of 50 feet from the Ordinary High Water Mark (OHWM).
- 3) For any jurisdictional wetland from 0.25 acres up to 0.50 acres in size, the buffer shall be a minimum of 30 feet.
- 4) For any jurisdictional wetland over 0.50 acres in size, the buffer shall be a minimum of 50 feet.

The District may allow buffer widths below the above-required minimums on a case by case basis. However, it is the responsibility of the applicant to provide supporting documentation as to why the buffer requirement could not be met. Stormwater retention/detention facilities and nature trails may be located within the outer 50% of the buffer. The District may allow Best Management Practices, small boat launches and piers/docks to be located in buffers.

Activities to be covered under the RPP will fall under one of two categories:

<u>Category I</u>: Activities with minimal impacts (under 0.50 acre) requiring review by the District. Authorization may include special conditions to ensure compliance with the RPP. The District has the discretion to process a Category I activity under Category II when it has concerns for aquatic resources under the Section 404(b)(1) Guidelines or for any factor of the public interest.

<u>Category II</u>: Activities with minimal impacts (over 0.50 acre up to 1.0 acre) requiring more rigorous review by the District and coordination with resource agencies. Authorization may include special conditions to ensure compliance with the RPP.

Activities that do not fall into one of the above categories, by definition, have more than minimal impacts and are therefore subject to the Individual Permit review process.

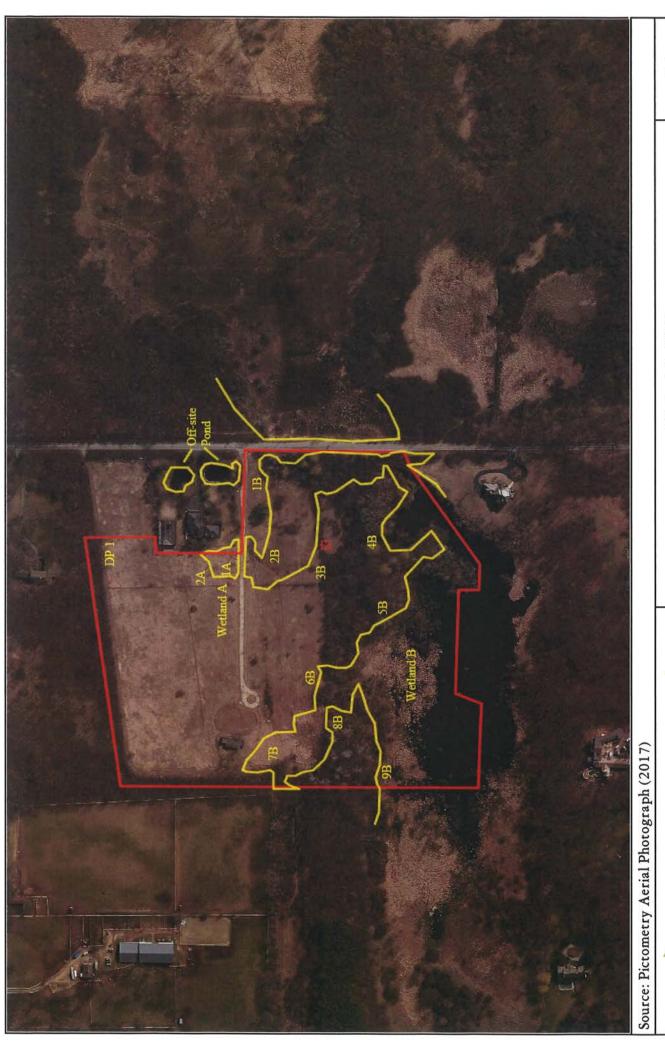
Should you have any questions, please do not hesitate to contact our office. Sincerely,

Midwest Ecological, Inc. (MEI)

Robert L. Vanni Wetland Specialist

APPENDIX A

Exhibits



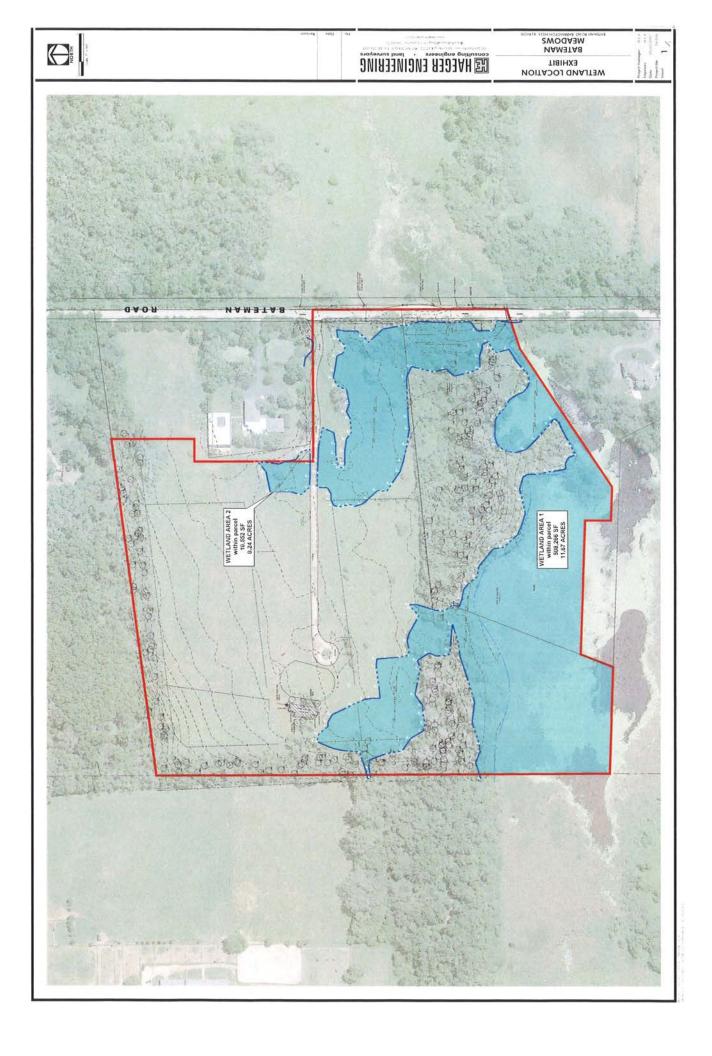
Wetland Aerial Map

Client: Mr. Ross Berman, Bridgeview Bank Group

4753 N. Broadway

Chicago Illinois 60640







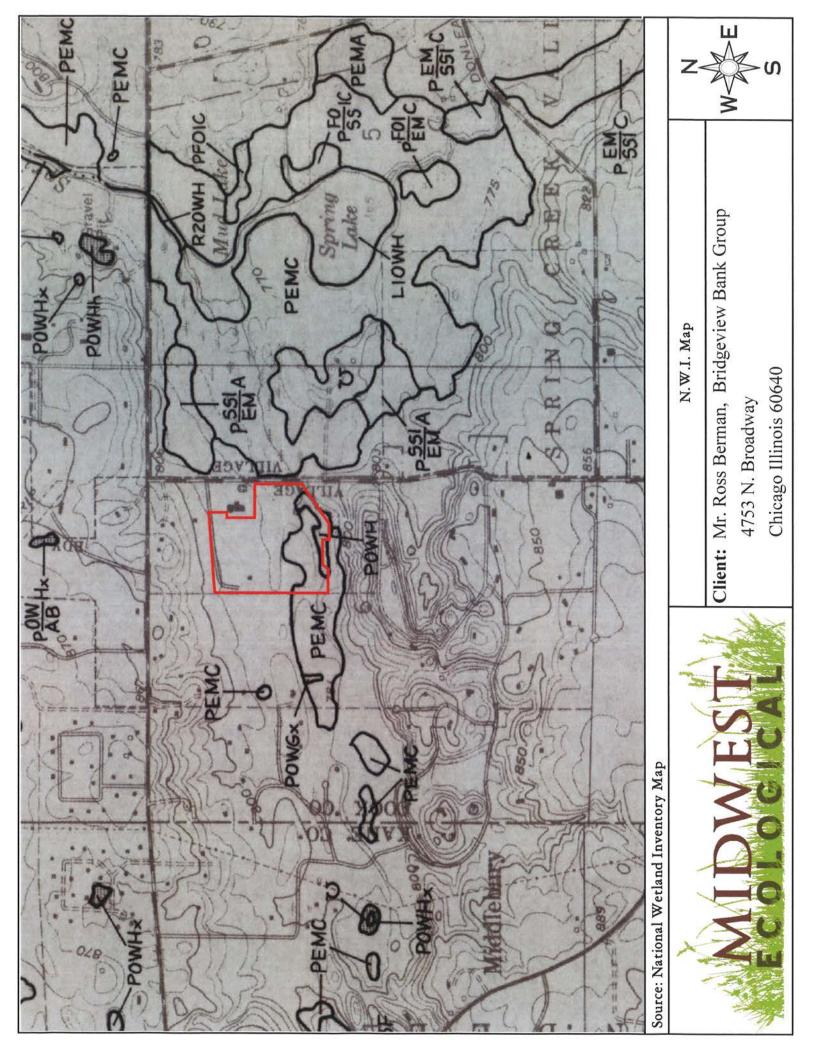


Client: Mr. Ross Berman, Bridgeview Bank Group

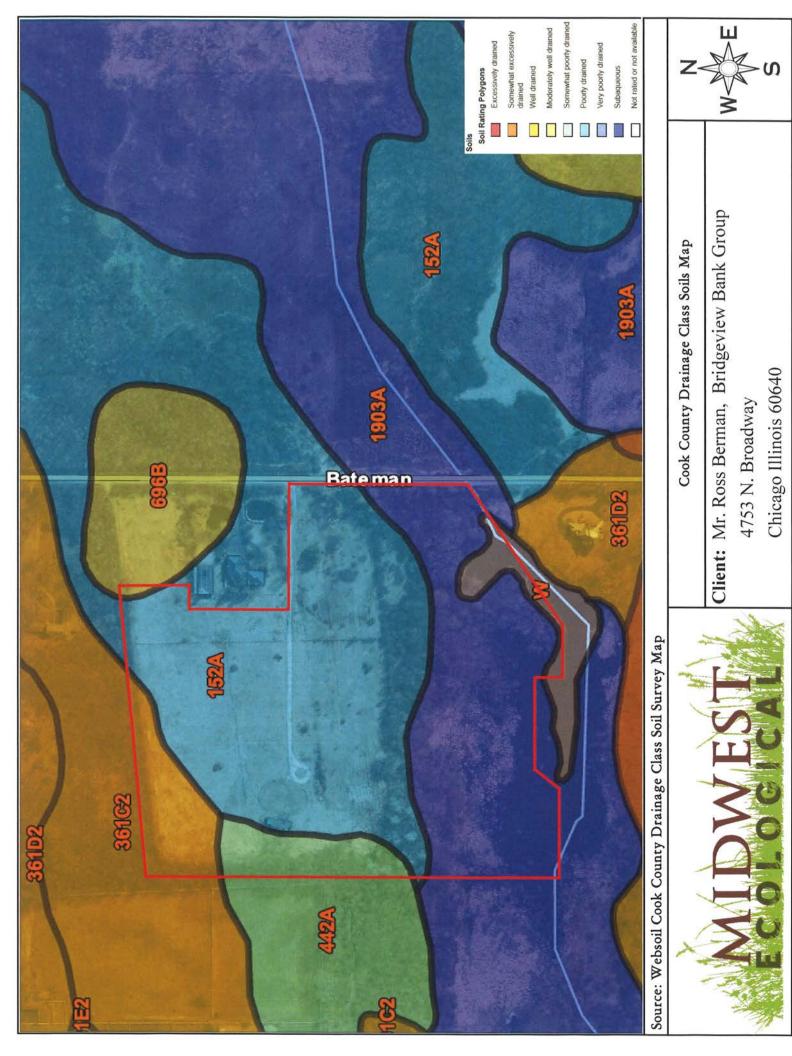
4753 N. Broadway

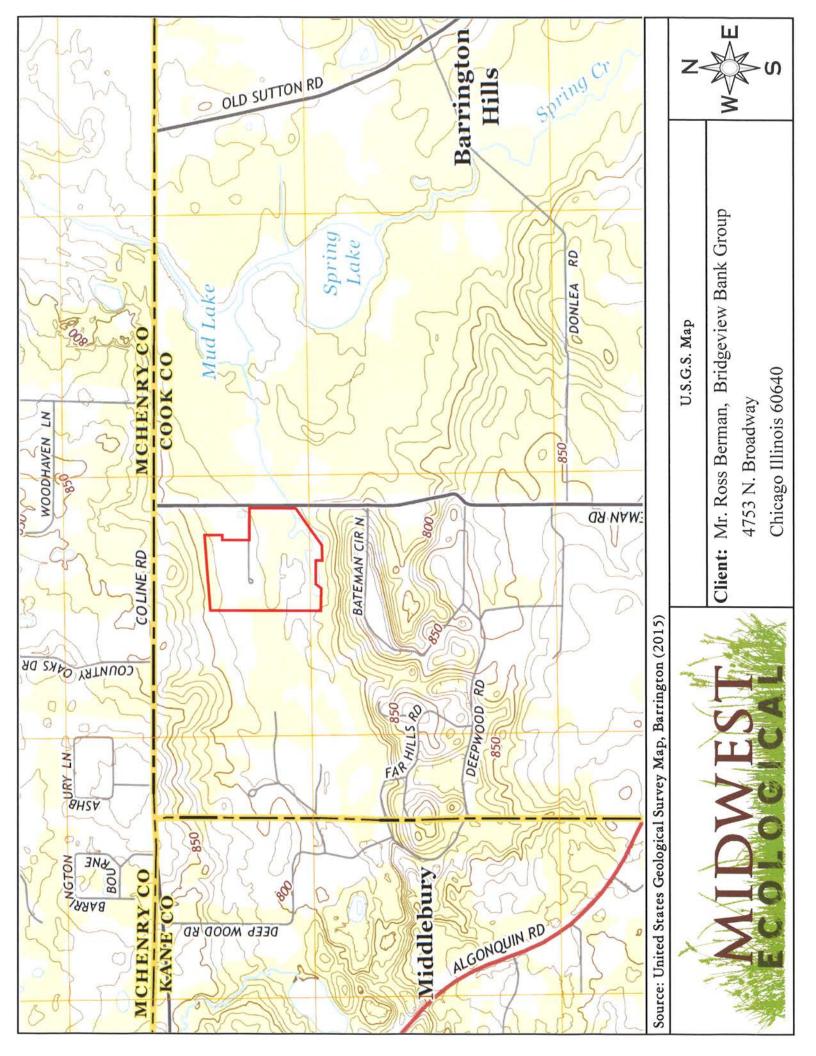
Chicago Illinois 60640

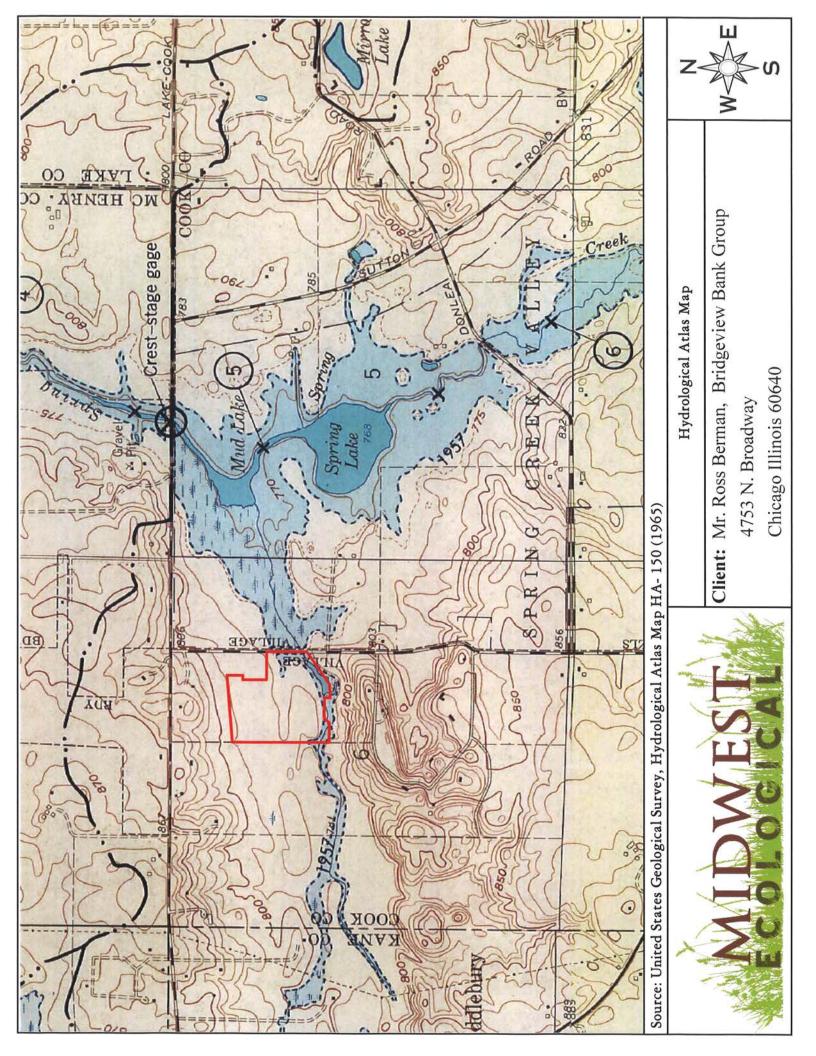


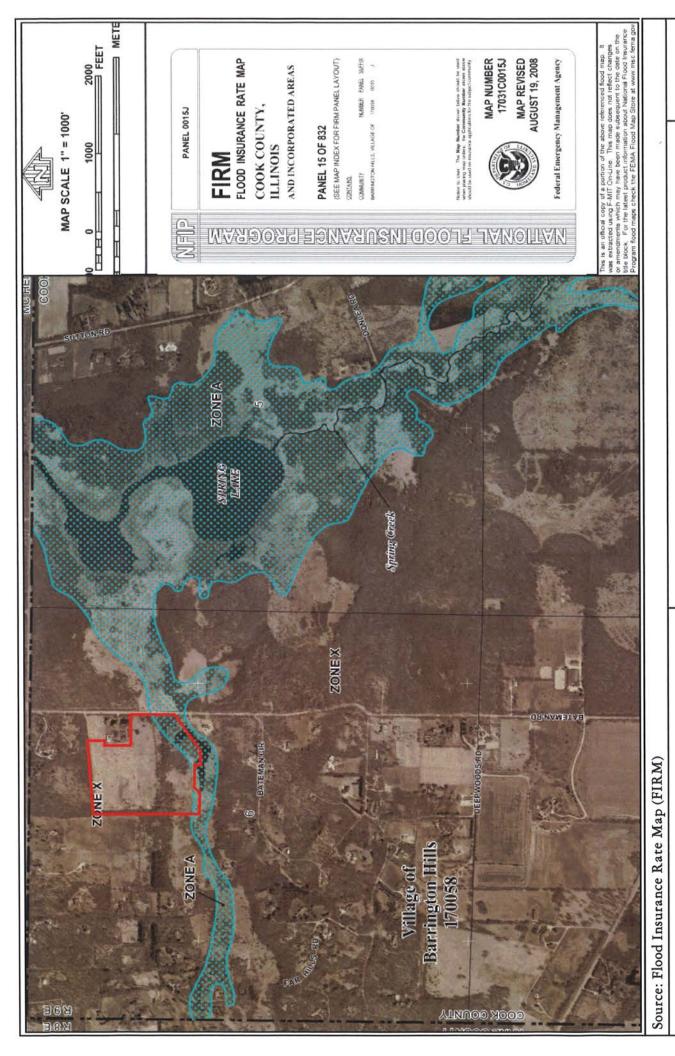










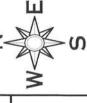


F.I.R.M. Map

Client: Mr. Ross Berman, Bridgeview Bank Group

4753 N. Broadway

Chicago Illinois 60640



APPENDIX B

Data Sheets

orm

Project/Site: Bateman Meadows			City/County:	Barrington	n Hills, Cook County	Sampling Da	ite: 5/1/201	17
Applicant/Owner: Haeger Engineering				AVA			100/71	
Investigator(s): Rob Vanni						- 15 MEN		
Landform (hillslope, terrace, etc.):								
Slope (%): Lat: 42.15101								
Soil Map Unit Name: Drummers silty cla								
Are climatic / hydrologic conditions on th								
Are Vegetation, Soil, or I					Normal Circumstances"	(7)	. × N	lo
Are Vegetation, Soil, or I					eded, explain any answ			1
SUMMARY OF FINDINGS - A				18001.030				s, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X	No No	50000	e Sampled in a Wetlar		< No		
Remarks:	res	NO						
VEGETATION – Use scientific n	names of plar	nts.						
		Absolute	Dominant	Indicator	Dominance Test wor	ksheet:		
Tree Stratum (Plot size:1			Species?	Status	Number of Dominant S That Are OBL, FACW		1	(A)
2			7		Total Number of Domi Species Across All Str		1	(B)
4					Percent of Dominant S			
5					That Are OBL, FACW		100	(A/B)
Sapling/Shrub Stratum (Plot size:	i q	0	= Total Cov	rer	Prevalence Index wo	rkehoot:		
1					Total % Cover of:		ultiply by:	
2					OBL species			
3					FACW species			
4					FAC species			
5					FACU species	10 x 4 =	40	
			= Total Cov	rer	UPL species	0 x 5 =	0	_
Herb Stratum (Plot size:)	00	V	FACIM	Column Totals:1	00(A)	220	(B)
Phalaris arundinacea Solidago altissima		90	Yes No	FACU FACU	Prevalence Inde	y = Β/Δ =	2.20	
3.					Hydrophytic Vegetat	SM AMERICAN TAN	ACCEPT.	_
4					X Dominance Test i			
5					X Prevalence Index			
6					Morphological Ad		vide suppo	rtina
7					data in Remar	ks or on a sepa	rate sheet)	
8.				-	Problematic Hydr	ophytic Vegeta	tion¹ (Expla	in)
9				-	100			
10			3		¹ Indicators of hydric so be present, unless dis			must
			= Total Cov	er	be present, unless dis	turbed or probl	emanc.	
Woody Vine Stratum (Plot size:				are Sulfi				
1					Hydrophytic Vegetation			
2						es X N	o	
			= Total Cov	rer				
Remarks: (Include photo numbers her	e or on a separa	ite sheet.)						
Hyrdophytic vegetation was present wit	thin the sample p	point.						

SOIL Sampling Point: 1A

VII 2000 10 10 10 10 10 10 10 10 10 10 10 10		to the depth n	eeded to document the indicator	or confirm	the absence o	f indicators.)
Depth (inches)	Matrix Color (moist)	% (Redox Features Color (moist) % Type	_Loc ² _	Texture	Remarks
0-21"	10 YR 2/1	100	70 1790		SiL	Kemarks
	10 11(2/1			-		
		<u> </u>				
¹ Type: C=Co	ncentration, D=De	pletion, RM=Red	luced Matrix, CS=Covered or Coate	ed Sand Gra	ains. ² Loca	tion: PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators:					or Problematic Hydric Soils ³ :
Histosol	(A1)		Sandy Gleyed Matrix (S4)		Coast Pi	rairie Redox (A16)
	ipedon (A2)		Sandy Redox (S5)		Iron-Mar	nganese Masses (F12)
Black His			Stripped Matrix (S6)		Other (E	xplain in Remarks)
A STATE OF THE PARTY OF THE PAR	n Sulfide (A4)		X Loamy Mucky Mineral (F1)			
	Layers (A5)		Loamy Gleyed Matrix (F2)			
2 cm Mu			Depleted Matrix (F3)			
	Below Dark Surface	ce (A11)	Redox Dark Surface (F6)		3	
15000 10000	rk Surface (A12)		Depleted Dark Surface (F7))		of hydrophytic vegetation and
	ucky Mineral (S1)	201	Redox Depressions (F8)			hydrology must be present,
A STATE OF THE PARTY OF THE PAR	cky Peat or Peat (S	3.735			uniess a	isturbed or problematic.
SEEV	ayer (ii observed)					
Type:	rhethousens		60			
Depth (inc	hes):		24		Hydric Soil P	resent? Yes X No
HYDROLO						
	Irology Indicators					
		one is required;	check all that apply)		Secondary	Indicators (minimum of two required)
A	Water (A1)		Water-Stained Leaves (B9)		Surfa	ce Soil Cracks (B6)
1 ST	ter Table (A2)		Aquatic Fauna (B13)		Draina	age Patterns (B10)
X Saturatio			True Aquatic Plants (B14)		Dry-S	eason Water Table (C2)
Water Ma			Hydrogen Sulfide Odor (C1)			sh Burrows (C8)
	t Deposits (B2)				C3) Satura	ation Visible on Aerial Imagery (C9)
	osits (B3)		Presence of Reduced Iron (C4	4)	Stunte	ed or Stressed Plants (D1)
	t or Crust (B4)		Recent Iron Reduction in Tille	d Soils (C6)) Geom	norphic Position (D2)
Iron Dep	THE STATE OF THE SECOND		Thin Muck Surface (C7)		FAC-I	Neutral Test (D5)
222	n Visible on Aerial		Gauge or Well Data (D9)			
	Vegetated Concav	re Surface (B8)	Other (Explain in Remarks)			
Field Observ			SE			
Surface Water			X Depth (inches):			
Water Table I			Depth (inches): 10"	<u> </u>		
Saturation Pro (includes cap	illary fringe)		Depth (inches): 4"			Present? Yes X No
Describe Rec	orded Data (stream	n gauge, monito	ring well, aerial photos, previous ins	spections), i	it available:	
Remarks:						
Watland but	ology was need a	ducina	la la castication			
vvetiand nydr	ology was present	auring our on-si	e investigation.			
<u></u>	6					

Reset Form	Print Form
Keset Fulli	FIIILFOIII

Project/Site: Bateman Meadows			City/County	Barringto	n Hills, Cook County Sampling Date: 5/1/2017
Applicant/Owner: Haeger Engineering					State: Illinois Sampling Point: 2A
Investigator(s): Rob Vanni					inge: Sec 33, T43 N, R 10E
					(concave, convex, none):
					Datum:
Soil Map Unit Name: Drummers silty c					NWI or WWI classification: Yes
Are climatic / hydrologic conditions on	732 29 39				57 100 0 Co. 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Are Vegetation, Soil, or					
		지 위 정			"Normal Circumstances" present? Yes X No No
Are Vegetation, Soil, or SUMMARY OF FINDINGS – A					eeded, explain any answers in Remarks.) ocations, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes			5250	
Hydric Soil Present?	Yes			e Sampled	
Wetland Hydrology Present?	Yes		with	in a Wetlaı	nd? Yes NoX
Remarks:			**		
VEGETATION – Use scientific	names of plant	S.			
Tree Stratum (Plot size:			Dominant Species?	Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)
2.					
3					Total Number of Dominant Species Across All Strata: 2 (B)
4					1000 CL (\$4000 No. 10000) St.
5					Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)
Sanling/Shrub Stratum / Blot size	v	0	= Total Cov	/er	Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:					Total % Cover of: Multiply by:
2					OBL species 0 x 1 = 0
3					FACW species 25 x 2 = 50
4.					FAC species 15 x 3 = 45
5.					FACU species60 x 4 =240
			= Total Cov	/er	UPL species0 x 5 =0
Herb Stratum (Plot size:)	98004			Column Totals:100 (A)335 (B)
Phalaris arundinacea			Yes	-	D
Solidago altissima Solidago artispida		15	No	FACU	Prevalence Index = B/A =3.35 Hydrophytic Vegetation Indicators:
Schedonorus pratensis Asclepias syriaca			YesNo	FACU FACU	Dominance Test is >50%
5. Verbascum blattaria			No	FACU	Prevalence Index is ≤3.0¹
c. Pag protongie		45	No	FAC	Morphological Adaptations¹ (Provide supporting
7					data in Remarks or on a separate sheet)
8.					Problematic Hydrophytic Vegetation¹ (Explain)
9.					4
10					Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
			= Total Cov	/er	20 p. 30011, unitodo diotarboa di problematio.
Woody Vine Stratum (Plot size:					
1					Hydrophytic Vegetation
2				100	Present? Yes No _X_
		***	= Total Cov	/ег	
Remarks: (Include photo numbers he	ere or on a separate	e sheet.)			
Hyrdophytic vegetation was not prese	nt within the sample	e point.			

Depth	Matrix			ox Features		- 1		
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-6"	10 YR 2/2	100			c_	M	SiCL	:
6-16"	10 YR 2/1	90	10 YR 4/2	10	C	M	SiCL	· ·
16-21"	10 YR 4/3	100			C	M	SiCL	
Type: C=Co	ncentration, D=Dep	letion, RM=I	Reduced Matrix, C	S=Covered	d or Coate	d Sand Gr		ocation: PL=Pore Lining, M=Matrix.
_ Histosol (A1)		Sandy	Gleyed Ma	itrix (S4)			t Prairie Redox (A16)
Histic Epi	pedon (A2)			Redox (S5	STATE OF THE PROPERTY OF THE PARTY.		The state of the s	Manganese Masses (F12)
Black His	tic (A3)			d Matrix (S				r (Explain in Remarks)
Hydroger	Sulfide (A4)		20 Total	Mucky Min			100 OA	
Stratified	Layers (A5)			Gleyed Ma				
2 cm Mud	ck (A10)			ed Matrix (F				
Depleted	Below Dark Surface	e (A11)		Dark Surfa	A CONTRACTOR OF THE PARTY OF TH			
Thick Da	k Surface (A12)	10 50		ed Dark Su	9:17:18:18:18:18:		3Indicato	rs of hydrophytic vegetation and
Sandy M	ucky Mineral (S1)			Depression	100			nd hydrology must be present,
5 cm Mud	ky Peat or Peat (S	3)						ss disturbed or problematic.
estrictive L	ayer (if observed):	8						an 19-19-19-20 (19-19-19-19-19-19-19-19-19-19-19-19-19-1
Туре:								
Depth (inc	CONTRACT.						ACCOUNTS NOT THE OWNER.	11 D 10 V 11 V
	nes):						Hydric So	il Present? Yes No X
Remarks:	s not noted within the						Hydric So	II Present? Yes No _X_
Remarks: lydric soil wa	s not noted within t						Hydric So	II Present? Yes No _X
Remarks: lydric soil wa	s not noted within t	he sample p					Hydric So	Il Present? Yes No _X
emarks: ydric soil wa	s not noted within th	he sample p	oint.	pply)				
emarks: ydric soil wa /DROLOG /etland Hyd rimary Indica	s not noted within the	he sample p	oint. ed; check all that a	pply) ained Leave	es (B9)		Second	
emarks: ydric soil wa /DROLOG /etland Hyd rimary Indica _ Surface V	s not noted within the solution of our of our of our or of our or of our or of our of	he sample p	oint. ed; check all that a	ained Leave			<u>Second</u> Su	dary Indicators (minimum of two required
emarks: ydric soil wa /DROLOG /etland Hyd rimary Indica _ Surface V	s not noted within the state of	he sample p	oint. ed; check all that a Water-Sta	ained Leave auna (B13))		<u>Second</u> Su Dr	dary Indicators (minimum of two required
ydric soil wa /DROLOC /etland Hyd rimary Indica _ Surface \(\bar{v}\) _ High Wat	s not noted within the state of	he sample p	ed; check all that a Water-Sta — Aquatic F — True Aqua	ained Leave auna (B13)) (B14)		<u>Second</u> Su Dr Dr	dary Indicators (minimum of two required irface Soil Cracks (B6) ainage Patterns (B10)
ydric soil wa /DROLOC /etland Hyd rimary Indica _ Surface V _ High Wat _ Saturation _ Water Ma	s not noted within the state of	he sample p	ed; check all that a Water-Sta Aquatic F True Aqua	ained Leave auna (B13) atic Plants Sulfide Oc) (B14) dor (C1)	ng Roots	Second Su Dr Dr Cr	dary Indicators (minimum of two required Irface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8)
ydric soil wa /DROLOC /etland Hyd rimary Indica _ Surface V _ High Wat _ Saturation _ Water Ma	s not noted within the state of	he sample p	ed; check all that a Water-Sta Aquatic F True Aqua Hydrogen Oxidized	ained Leave auna (B13) atic Plants i Sulfide Oc Rhizosphe) (B14) dor (C1) res on Liv		Second Su Dr Dr Cr (C3) Sa	dary Indicators (minimum of two required or an arrange of the required or arrange of the required or arrange of the required or arrange or arrange of the required or arrange of the required or arrange o
ydric soil wa /DROLOG /etland Hyd rimary Indica _ Surface V _ High Wat _ Saturation _ Water Ma _ Sediment _ Drift Depo	s not noted within the state of	he sample p	ed; check all that a Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence	ained Leave auna (B13) atic Plants Sulfide Oo Rhizosphel of Reduce) (B14) dor (C1) res on Liv ed Iron (C4)	Second Su Dr Dr Cr (C3) Sa Sti	dary Indicators (minimum of two required or a soli Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1)
ydric soil wa YDROLOG Yetland Hyd rimary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo	s not noted within the state of	he sample p	ed; check all that a Water-Sta Aquatic F True Aquatic Hydrogen Oxidized Presence Recent Iro	ained Leave auna (B13) atic Plants I Sulfide Oc Rhizospher of Reduce on Reduction) (B14) dor (C1) res on Liv ed Iron (C4 on in Tilled)	Second Su Dr Cr Cr (C3) Sa Sti G6) G6	dary Indicators (minimum of two required inface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) attraction Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) ecomorphic Position (D2)
ydric soil wa /DROLOG /etland Hyd rimary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depu	s not noted within the state of	ne sample p	ed; check all that a Water-Sta Aquatic F True Aquatic Hydrogen Oxidized Presence Recent Ird	ained Leave auna (B13) atic Plants Sulfide Oc Rhizospher of Reduce on Reductie k Surface () (B14) dor (C1) res on Lived Iron (C4 on in Tilled C7))	Second Su Dr Cr Cr (C3) Sa Sti G6) G6	dary Indicators (minimum of two required or a solid Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1)
ydric soil wa /DROLOC /etland Hyd rimary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundation	s not noted within the state of	ne is require	ed; check all that a Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence Recent Ind Thin Mucl	ained Leave auna (B13) atic Plants Sulfide Oc Rhizospher of Reduce on Reduction k Surface (Well Data	(B14) dor (C1) res on Lived Iron (C4 on in Tilled C7) (D9))	Second Su Dr Cr Cr (C3) Sa Sto G6) G6	dary Indicators (minimum of two required particles of the control of two required particles of the control of two required particles of the control of two required particles
ydric soil wa /DROLOC /etland Hyd rimary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatio Sparsely	s not noted within the state of	ne is require	ed; check all that a Water-Sta Aquatic F True Aquatic Hydrogen Oxidized Presence Recent Ird Thin Mucl	ained Leave auna (B13) atic Plants Sulfide Oc Rhizospher of Reduce on Reduction k Surface (Well Data	(B14) dor (C1) res on Lived Iron (C4 on in Tilled C7) (D9))	Second Su Dr Cr Cr (C3) Sa Sto G6) G6	dary Indicators (minimum of two required inface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) attraction Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) ecomorphic Position (D2)
YDROLOC Vetland Hyd Immary Indica Surface W High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatio Sparsely	s not noted within the state of	ne is require magery (B7)	ed; check all that a Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence Recent Ind Thin Mucl Gauge or Other (Ex	ained Leave auna (B13) atic Plants a Sulfide Oc Rhizospher of Reduce on Reductic k Surface (Well Data	(B14) (B14) dor (C1) res on Liv d Iron (C4 on in Tilled (C7) (D9) emarks)) I Soils (C6	Second Su Dr Cr Cr (C3) Sa Sto G6) G6	dary Indicators (minimum of two required inface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) attraction Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) ecomorphic Position (D2)
YDROLOC Vetland Hyd Primary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatio Sparsely Surface Wate	s not noted within the state of	magery (B7)	ed; check all that a Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence Recent Ind Thin Mucl	ained Leave auna (B13) atic Plants i Sulfide Oc Rhizospher of Reduce on Reduction k Surface (i Well Data eplain in Re	(B14) (B14) dor (C1) res on Lived Iron (C4 on in Tilled C7) (D9) emarks)) I Soils (C6	Second Su Dr Cr Cr (C3) Sa Sto G6) G6	dary Indicators (minimum of two required inface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) attraction Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) ecomorphic Position (D2)
YDROLOC Vetland Hyd Primary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatio Sparsely Sield Observ Surface Water Vater Table Featuration Pre-	s not noted within the state of	magery (B7) e Surface (B	oint. ed; check all that a Water-Sta Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Iru Thin Mucl Gauge or Other (Ex	ained Leave auna (B13) atic Plants i Sulfide Oc Rhizospher of Reduce on Reduction k Surface (i Well Data eplain in Re) (B14) dor (C1) res on Liv d Iron (C4 on in Tilled C7) (D9) marks)) d Soils (C6	Second Su Dr Cr Cr (C3) Sa Sti FA	dary Indicators (minimum of two required urface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) attraction Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) ecomorphic Position (D2)
YDROLOC Vetland Hyd Primary Indica Surface W High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatio Sparsely Vetland Observ Surface Water Vater Table For	s not noted within the state of	magery (B7) e Surface (B es N es N	ed; check all that a Water-Sta Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Int Gauge or Other (Ex	ained Leave auna (B13) atic Plants i Sulfide Oc Rhizospher of Reduce on Reductic k Surface (Well Data replain in Re	(B14) (B14) dor (C1) res on Liv d Iron (C4 on in Tilled C7) (D9) emarks)) d Soils (Ce	Second Su Dr Dr Cr (C3) Sa Sti FA	dary Indicators (minimum of two required inface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) atturation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) comorphic Position (D2) AC-Neutral Test (D5)
YDROLOC Vetland Hyd Primary Indica Surface V High Wat Saturation Water Ma Sediment Orift Depo Inundatio Sparsely Gurface Water Vater Table F Saturation Pre Includes capi	s not noted within the state of	magery (B7) e Surface (B es N es N	ed; check all that a Water-Sta Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Int Gauge or Other (Ex	ained Leave auna (B13) atic Plants i Sulfide Oc Rhizospher of Reduce on Reductic k Surface (Well Data replain in Re	(B14) (B14) dor (C1) res on Liv d Iron (C4 on in Tilled C7) (D9) emarks)) d Soils (Ce	Second Su Dr Dr Cr (C3) Sa Sti FA	dary Indicators (minimum of two required inface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) atturation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) comorphic Position (D2) AC-Neutral Test (D5)
YDROLOC Vetland Hyd Primary Indica Surface W High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatio Sparsely Vetland Observ Surface Water Vater Table For	s not noted within the state of	magery (B7) e Surface (B es N es N	ed; check all that a Water-Sta Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Int Gauge or Other (Ex	ained Leave auna (B13) atic Plants i Sulfide Oc Rhizospher of Reduce on Reductic k Surface (Well Data replain in Re	(B14) (B14) dor (C1) res on Liv d Iron (C4 on in Tilled C7) (D9) emarks)) d Soils (Ce	Second Su Dr Dr Cr (C3) Sa Sti FA	dary Indicators (minimum of two required inface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) atturation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) comorphic Position (D2) AC-Neutral Test (D5)
YDROLOC Vetland Hyd Vetland Hy	s not noted within the state of	magery (B7) e Surface (B es N es N	ed; check all that a Water-Sta Aquatic F. True Aqua Hydrogen Oxidized Presence Recent Int Gauge or Other (Ex	ained Leave auna (B13) atic Plants i Sulfide Oc Rhizospher of Reduce on Reductic k Surface (Well Data replain in Re	(B14) (B14) dor (C1) res on Liv d Iron (C4 on in Tilled C7) (D9) emarks)) d Soils (Ce	Second Su Dr Dr Cr (C3) Sa Sti FA	dary Indicators (minimum of two required of the property of the property of two required of the property of th

THE TANK THE RESIDENCE THAT THE TANK THE	THE SEASON CONTRACTOR AND ADDRESS OF
Reset Form	Print Form

Project/Site: Bateman Meadows		City/County:	Barrington	n Hills, Cook County	Sampling Date: <u>5/1/2017</u>
Applicant/Owner: Haeger Engineering		000000000000000000000000000000000000000		State: Illinois	Sampling Point: 1B
Investigator(s): Rob Vanni		Section, To	wnship, Ra	nge: Sec 33, T43 N, R 1	0E
Landform (hillslope, terrace, etc.):					
					Datum:
Soil Map Unit Name: Drummers silty clay loam (152A)				NWI or WWI	
Are climatic / hydrologic conditions on the site typical for t					
Are Vegetation, Soil, or Hydrology					present? Yes X No
Are Vegetation, Soil, or Hydrology				eded, explain any answ	
SUMMARY OF FINDINGS – Attach site ma			*******		a di pengan ang di muda de tuga u pulau in dunta paya # la
Hydrophytic Vegetation Present? Yes	No X		. 0	P# 222	
Hydric Soil Present? Yes X		1000	e Sampled in a Wetlar		No X_
Wetland Hydrology Present? Yes	No X	WILL	ili a vvetiai	iur les	
Remarks:					
VEGETATION – Use scientific names of plant	'S				
Table 1 plant	Absolute	Dominant	Indicator	Dominance Test wor	ksheet:
<u>Tree Stratum</u> (Plot size:) 1)		Species?		Number of Dominant S That Are OBL, FACW	Species
2.				ANNUAL MUNICIPAL ANNUAL	2 20
3				Total Number of Domi Species Across All Str	0000000
4				Percent of Dominant S	Proging
5				That Are OBL, FACW	
Sapling/Shrub Stratum (Plot size:)	0	= Total Cov	ver .	Prevalence Index wo	rkehoot.
1				Total % Cover of:	500E005FED
2.					0 x 1 = 0
3				FACW species	
4.				18 cm	45 x 3 = 135
5				FACU species	45 x 4 =180
NOS NY SURE NA SERVICIO ES SA		= Total Cov	ver	UPL species	10 x 5 =50
Herb Stratum (Plot size:)	00		540	Column Totals:1	00 (A) <u>365</u> (B)
Poa pratensis Solidago altissima		No You	FACU	Prevalence Inde	x = B/A = 3.65
3. Schoenoplectus fluviatilis	10	Yes No	FACU FACU	Hydrophytic Vegetat	131 1511010 - 111101 - 1
4. Daucus carota	10	No	UPL	Dominance Test	AND THE SATISFACTOR AND ADDRESS OF PROPERTY.
5. Asclepias syriaca	10	No	FACU	Prevalence Index	A1 - 2.153 (1725)
6. Apocynum cannabinum	10	No	FAC	Comment of the Commen	aptations ¹ (Provide supporting
7. Alliaria petiolata	15	No	FAC	data in Remar	ks or on a separate sheet)
8.				Problematic Hydr	ophytic Vegetation ¹ (Explain)
9.				9	
10					oil and wetland hydrology must sturbed or problematic.
	100	= Total Cov	ver	Do processi, amond and	terson or production
Woody Vine Stratum (Plot size:)					
1		-		Hydrophytic Vegetation	31.700
2		= Total Cov			es No _X
Domarka: (Inglisida abata assabasa basa		_ 10.01		<u> </u>	
Remarks: (Include photo numbers here or on a separat	e sneet.)				
Hyrdophytic vegetation was not present within the samp	le point.				

SOIL Sampling Point: 1B

(inches)	0-1	0/		ox Feature		. 5		■ 0.00 to 200 to 7. ★ 00 to
	Color (moist)	%	Color (moist)	%	Type ¹	_Loc ²	Texture	Remarks
0-12"	10 YR 2/1	100		-	-		SiCL	
12-18"	10 YR 4/1	95	10 YR 5/3	5		M	SiCL	
	<u> </u>	·						
-	-			-				
·		· — · ·						
IT 0 . 0				-			. 2.	w
Hydric Soil	oncentration, D=Dep	letion, RM=Re	educed Matrix, C	S=Covered	d or Coate	d Sand Gr		ation: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol			Sandy	Gleyed Ma	triv (SA)			Prairie Redox (A16)
	pipedon (A2)			Redox (S5				anganese Masses (F12)
	istic (A3)			d Matrix (S				Explain in Remarks)
	en Sulfide (A4)		71	Mucky Mir				
	d Layers (A5)		Loamy	Gleyed Ma	atrix (F2)			
	uck (A10)	D. 3.7750 0007		ed Matrix (
	d Below Dark Surfac	e (A11)	11-30 L. DESTRUCT	Dark Surfa			3	
	ark Surface (A12) Mucky Mineral (S1)		70.00	ed Dark Su	1076			of hydrophytic vegetation and
The second secon	ucky Peat or Peat (S	3)	Redox	Depressio	ns (Fo)			l hydrology must be present, disturbed or problematic.
	Layer (if observed):	2.60					T	disturbed of problematic.
Type:	, , , , , , , , , , , , , , , , , , , ,							
	ches):						Hydric Soil	Present? Yes X No
Remarks:			- 6				- i y u i i o o ii	. 1000mi. 100 <u>-11</u> mo
		sample point.						
704								
HYDROLO	GY							
	GY drology Indicators:							
Wetland Hy			; check all that a	pply)			<u>Seconda</u>	ry Indicators (minimum of two required)
Wetland Hyderimary India Surface	drology Indicators: cators (minimum of o Water (A1)		Water-Sta	ined Leav			26.25	ry Indicators (minimum of two required) ace Soil Cracks (B6)
Wetland Hyder Primary India Surface High Wa	drology Indicators: cators (minimum of o Water (A1) ater Table (A2)		Water-Sta	ained Leav auna (B13)		Surfa	ace Soil Cracks (B6) nage Patterns (B10)
Wetland Hyder Primary India Surface High Wat Saturation	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3)		Water-Sta Aquatic F True Aqua	ained Leav auna (B13 atic Plants) (B14)		Surfa Drain Dry-	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2)
Wetland Hy Primary India Surface High Wa Saturatia Water M	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) farks (B1)		Water-Sta Aquatic F True Aquament Hydrogen	ained Leav auna (B13 atic Plants Sulfide O) (B14) dor (C1)		Surfa Drain Dry-3 Cray	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8)
Wetland Hy Primary India Surface High Wa Saturatia Water M Sedimen	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2)		Water-Sta Aquatic F True Aqua Hydrogen Oxidized	ained Leav auna (B13 atic Plants Sulfide Oo Rhizosphe) (B14) dor (C1) res on Liv		Surfa Drain Dry-t Cray (C3) Satu	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) ration Visible on Aerial Imagery (C9)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3)		Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence	ained Leav auna (B13 atic Plants Sulfide Oo Rhizosphe of Reduce) (B14) dor (C1) res on Liv ed Iron (C4	4)	Surfa Drain Dry-t Cray (C3) Satu Stun	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1)
Primary India Surface High Wa Saturati Water M Sedimer Drift Dep Algal Ma	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence Recent Iru	ained Leav auna (B13 atic Plants Sulfide Oo Rhizosphe of Reduce on Reducti	(B14) (B14) dor (C1) res on Liv d Iron (C4 on in Tille	4)	Surfa Drain Cray Cray Satu Stun George	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2)
Wetland Hyder Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	one is required	Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence Recent Iro Thin Muci	ained Leav auna (B13 atic Plants Sulfide Oo Rhizosphe of Reduce on Reducti & Surface () (B14) dor (C1) res on Liv d Iron (C4 on in Tille C7)	4)	Surfa Drain Cray Cray Satu Stun George	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1)
Wetland Hy Primary India Surface High Wa Saturatia Water M Sedimer Drift Dep Algal Ma Iron Dep Inundati	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial I	ne is required	Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence Recent Iro Thin Mucl	ained Leav auna (B13 atic Plants Sulfide Oo Rhizosphe of Reduce on Reducti & Surface (Well Data	(B14) (B14) dor (C1) res on Liv d Iron (C4 on in Tille C7) (D9)	4)	Surfa Drain Cray Cray Satu Stun George	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundati Sparsely	drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I y Vegetated Concave	ne is required	Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence Recent Iro Thin Mucl	ained Leav auna (B13 atic Plants Sulfide Oo Rhizosphe of Reduce on Reducti & Surface (Well Data	(B14) (B14) dor (C1) res on Liv d Iron (C4 on in Tille C7) (D9)	4)	Surfa Drain Cray Cray Satu Stun George	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundati Sparsely	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I by Vegetated Concave vations:	one is required Imagery (B7) e Surface (B8)	Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence Recent Iru Thin Mucl Gauge or Other (Ex	ained Leav auna (B13 atic Plants Sulfide Oo Rhizosphe of Reduce on Reducti x Surface (Well Data plain in Re	(B14) (B14) dor (C1) res on Lived Iron (C4 on in Tille (C7) (D9) emarks)	t) d Soils (C6	Surfa Drain Cray Cray Satu Stun George	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2)
Wetland Hydelian Primary India Surface High Water Magnetic Sedimen Drift Dep Algal Magnetic Iron Dep Inundati Sparsely Field Obsert	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I by Vegetated Concave vations: er Present?	one is required Imagery (B7) e Surface (B8)	Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence Recent Ird Thin Mucl Gauge or Other (Ex	ained Leav auna (B13 atic Plants Sulfide Oo Rhizosphe of Reduce on Reducti x Surface (Well Data plain in Re	(B14) (B14) dor (C1) res on Liv d Iron (C4 on in Tille C7) (D9) emarks)	t) d Soils (C6	Surfa Drain Cray Cray Satu Stun George	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2)
Wetland Hyderimary India Surface High Wa Saturation Water M Sedimer Drift Dep Algal Ma Iron Dep Inundation Sparsely Field Obser Surface Water	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I y Vegetated Concave vations: er Present? Y	imagery (B7) e Surface (B8) es No es No	Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence Recent Ird Thin Mucl Gauge or Other (Ex X Depth (ir	ained Leav auna (B13 atic Plants Sulfide Oo Rhizosphe of Reduce on Reducti o Surface (Well Data plain in Re	(B14) (B14) dor (C1) res on Liv d Iron (C4 on in Tille C7) (D9) marks)	t) d Soils (C6	Surfa Drain Cray Cray (C3) Satu Stun Geor FAC	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)
Wetland Hyderimary India Surface High Water Mage Saturation Sedimen Drift Dep Algal Mage Iron Dep Inundati Sparsely Field Obser Surface Water Water Table Saturation Pe (includes cap	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I y Vegetated Concave vations: er Present? Present? Y resent? Y resent? Y	imagery (B7) e Surface (B8) es No es No es No	Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence Recent Ird Thin Mucl Gauge or Other (Ex X Depth (ir X Depth (ir	ained Leav auna (B13 atic Plants Sulfide Oo Rhizosphe of Reduce on Reducti ox Surface (Well Data plain in Re aches): aches):	(B14) (B14) dor (C1) res on Liv d Iron (C4 on in Tille C7) (D9) emarks)	t) d Soils (C6	Surfa Drain Dry-i Cray (C3) Satu Stun FAC	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2)
Wetland Hyderimary India Surface High Water Mage Saturation Sedimen Drift Dep Algal Mage Iron Dep Inundati Sparsely Field Obser Surface Water Water Table Saturation Pe (includes cap	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I y Vegetated Concave vations: er Present? Y resent? Y resent? Y	imagery (B7) e Surface (B8) es No es No es No	Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence Recent Ird Thin Mucl Gauge or Other (Ex X Depth (ir X Depth (ir	ained Leav auna (B13 atic Plants Sulfide Oo Rhizosphe of Reduce on Reducti ox Surface (Well Data plain in Re aches): aches):	(B14) (B14) dor (C1) res on Liv d Iron (C4 on in Tille C7) (D9) emarks)	t) d Soils (C6	Cray (C3) Satu Stun Si) Geor	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)
Wetland Hyderimary India Surface High Water Mage Saturation Sedimen Drift Dep Algal Mage Iron Dep Inundati Sparsely Field Obser Surface Water Water Table Saturation Pe (includes cap	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I y Vegetated Concave vations: er Present? Present? Y resent? Y resent? Y	imagery (B7) e Surface (B8) es No es No es No	Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence Recent Ird Thin Mucl Gauge or Other (Ex X Depth (ir X Depth (ir	ained Leav auna (B13 atic Plants Sulfide Oo Rhizosphe of Reduce on Reducti ox Surface (Well Data plain in Re aches): aches):	(B14) (B14) dor (C1) res on Liv d Iron (C4 on in Tille C7) (D9) emarks)	t) d Soils (C6	Cray (C3) Satu Stun Si) Geor	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)
Wetland Hy Primary India Surface High Wa Saturatia Water M Sedimer Drift Dep Algal Ma Iron Dep Inundati Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap Describe Re	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I y Vegetated Concave vations: er Present? Present? Y resent? Y resent? Y	imagery (B7) e Surface (B8) es No es No es No	Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence Recent Ird Thin Mucl Gauge or Other (Ex X Depth (ir X Depth (ir	ained Leav auna (B13 atic Plants Sulfide Oo Rhizosphe of Reduce on Reducti ox Surface (Well Data plain in Re aches): aches):	(B14) (B14) dor (C1) res on Liv d Iron (C4 on in Tille C7) (D9) emarks)	t) d Soils (C6	Cray (C3) Satu Stun Si) Geor	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)
Wetland Hyderimary India Surface High Water Mater Table Saturation Per (includes cap Describe Research	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I y Vegetated Concave vations: er Present? Present? Y resent? Y resent? Y	imagery (B7) e Surface (B8) es No es No es No gauge, monite	Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence Recent Ird Thin Mucl Gauge or Other (Ex X Depth (ir X Depth (ir X Depth (ir	ained Leav auna (B13 atic Plants Sulfide Oo Rhizosphe of Reduce on Reducti o Surface (Well Data plain in Re aches): aches): photos, pr	(B14) (B14) dor (C1) res on Liv d Iron (C4 on in Tille C7) (D9) emarks)	t) d Soils (C6	Cray (C3) Satu Stun Si) Geor	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)

THE REPORT OF THE PARTY OF THE	2 22 Cold Cold Cold Cold Cold Cold Cold Cold
Reset Form	Print Form

Project/Site: Bateman Meadows		(City/County:	Barrington	Hills, Cook County	Sampling Date	e: 5/1/201	17		
Applicant/Owner: Haeger Engineering					State: Illinois	T1				
Investigator(s): Rob Vanni				Section, Township, Range: Sec 33, T43 N, R 10E						
Landform (hillslope, terrace, etc.):										
Slope (%): Lat: <u>42.1506</u>										
Soil Map Unit Name: Drummrs silty cla					NWI or WWI o					
Are climatic / hydrologic conditions on										
Are Vegetation, Soil, or					Normal Circumstances"		X N	0		
Are Vegetation, Soil, or					eded, explain any answe					
SUMMARY OF FINDINGS – A								s, etc.		
Hydrophytic Vegetation Present?	Yes X N			e Sampled						
Hydric Soil Present?	Yes X	10	25,257	in a Wetlar		< No				
Wetland Hydrology Present? Remarks:	Yes X	10	With	u Fretial	163/					
VEGETATION – Use scientific	names of plants	i.								
		Absolute	Dominant	Indicator	Dominance Test wor	ksheet:				
Tree Stratum (Plot size:	5-7,11	. Commence and the contract of	Species?		Number of Dominant S That Are OBL, FACW,		3	(A)		
2					Total Number of Domin		3	(B)		
4								(5)		
5					Percent of Dominant S That Are OBL, FACW,		100	(A/B)		
Capling/Charle Ctasture (District	· ·	0	= Total Cov	rer	Prevalence Index wo	rkahaat.				
Sapling/Shrub Stratum (Plot size:		35	Yes	OBL	Total % Cover of:		tinly by			
2.					OBL species4			_		
3.					FACW species 2					
4					3/4 /	0 x 3 = _		_		
5					FACU species1	5 x 4 = _	60			
		35	= Total Cov	er	UPL species) x 5 = _	0			
Herb Stratum (Plot size:)	12121	22	72/1/25	Column Totals:1	<u>00</u> (A) _	210	(B)		
Equisetum hyemale Selidaga altissima			Yes	FAC	Prevalence Index	- D/A -	2 10			
Solidago altissima Phalaris arundinacea			No Yes	FACW	Hydrophytic Vegetati	2 2004000 0 1				
4. Carex stipata			No	OBL	X Dominance Test is					
0.1.1.				FACU	X Prevalence Index					
6.					Morphological Ada					
7					Problematic Hydro	20				
8							eser whose aroun	enst ii		
9					¹ Indicators of hydric so be present, unless dist			must		
			= Total Cov	er	23 processit districts dist	a. Jou of proble				
Woody Vine Stratum (Plot size:					11:1:2					
1					Hydrophytic Vegetation					
2			= Total Cov			es <u>X</u> No				
Remarks: (Include photo numbers he	ere or on a senarato	sheet \			No					
Hyrdophytic vegetation was present v										

SOIL Sampling Point: 2B

Depth Mat		needed to document the indica Redox Features	ator or confirm	the absence of ii	ndicators.)
(inches) Color (mois		Color (moist) % Ty	pe¹Loc²_	Texture	Remarks
0-16" 10 YR 2/1	100		СМ	SiCL	
16-22" 10 YR 4/2	100			SiCL	
				334	
Type: C=Concentration, D=	Depletion, RM=Re	educed Matrix, CS=Covered or C	Coated Sand Gr	ains. ² Locatio	n: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:					Problematic Hydric Soils ³ :
Histosol (A1)		Sandy Gleyed Matrix (S4)	Coast Prair	rie Redox (A16)
Histic Epipedon (A2)		Sandy Redox (S5)			anese Masses (F12)
Black Histic (A3)		Stripped Matrix (S6)		Other (Exp	lain in Remarks)
Hydrogen Sulfide (A4)		Loamy Mucky Mineral			
Stratified Layers (A5)		Loamy Gleyed Matrix (F2)		
2 cm Muck (A10)	referen (A11)	Depleted Matrix (F3)	.0)		
Depleted Below Dark St. X Thick Dark Surface (A12)		Redox Dark Surface (FDepleted Dark Surface		3Indicators of h	nydrophytic vegetation and
Sandy Mucky Mineral (S		Redox Depressions (F			drology must be present,
5 cm Mucky Peat or Pea		Nedex Depressions (0,		urbed or problematic.
Restrictive Layer (if observ					
Type:		_			
Depth (inches):				Hydric Soil Pre	sent? Yes X No
Remarks:					
HYDROLOGY					
Wetland Hydrology Indicat	ors:				
Primary Indicators (minimum		: check all that apply)		Secondary Ir	ndicators (minimum of two required
Surface Water (A1)		Water-Stained Leaves (B	9)		Soil Cracks (B6)
X High Water Table (A2)		Aquatic Fauna (B13)	0,		e Patterns (B10)
X Saturation (A3)		True Aquatic Plants (B14)		son Water Table (C2)
Water Marks (B1)		Hydrogen Sulfide Odor (0			Burrows (C8)
Sediment Deposits (B2)		n			on Visible on Aerial Imagery (C9)
Drift Deposits (B3)		Presence of Reduced Iro			or Stressed Plants (D1)
Algal Mat or Crust (B4)		Recent Iron Reduction in			phic Position (D2)
Iron Deposits (B5)		Thin Muck Surface (C7)	A TAX		utral Test (D5)
Inundation Visible on Ae	erial Imagery (B7)	Gauge or Well Data (D9)			and the second s
Sparsely Vegetated Cor	ncave Surface (B8		ss)		
Field Observations:	•				
Surface Water Present?	Yes No	_X Depth (inches):			
Water Table Present?		Depth (inches): 12	2"		
Saturation Present?		Depth (inches):4'	' Wetla	and Hydrology Pr	esent? Yes X No
(includes capillary fringe) Describe Recorded Data (str	eam gauge, monil	toring well, aerial photos, previou	s inspections),	if available:	25
Remarks:					
Wetland budrology was need	ont during our o-	eita investigation			
Wetland hydrology was pres	ent during our on-	site investigation.			

THE PROPERTY AND IN THE	THE WEST STORY OF THE WAY OF THE PARTY OF TH
Reset Form	I Print Form

Applicant/Owner Haeger Engineering	Project/Site: Bateman Meadows		(City/County	Barringtor	Hills, Cook County	Sampling Dat	e: 5/1/20	17
	.0								
Local relief (concave, convex, none):							Ţ HF - HER	A	
Siope (%)									
Soil Map Unit Name: Drummers silly clay loam (152A) NW or WWI classification: Yes Yes Climatic / hydrologic conditions on the site trylical for this time of year? Yes X No (If no, explain in Remarks.) Are Vegetation Soil or Hydrology naturally problematic? (If nededed, explain any answers in Remarks.)									
Are climatic / hydrologic conditions on the site typical for this time of year? Yes									
Are Vegetation									
Summary Soil								× 1	lo
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No X Wetland Hydrology Present? Yes No X Wetland Hydrology Present? Yes No X Wetland Hydrology Present? Yes No X Wetland Present? Yes No X Wetland Present? Yes No X Wetland? Yes No X Within a Wetland? Yes No X Within a Wetland? Yes No X Within a Wetland? Yes No X No X Within a Wetland? Yes No X No X Within a Wetland? Yes No X No X No X No X Within a Wetland? Yes No X No X No X No X No X No X Wetland Present Pr									
Hydric Soil Present? Yes No X No X Within a Wetland? Yes No X Within a Wetland hydrology must be present? Yes No X Within a Wetland hydrology must be present? Yes No X Within a Wetland hydrology must be present? Yes No X Within a Wetland hydrology must be present? Yes No X Within a Wetland hydrology must be present? Yes No X Within a Wetland hydrology must be present? Yes No X Within a Wetland hydrology must be present? Yes No X Within a Wetland hydrology must be present? Yes No X Within a Wetland hydrology must be present? Yes No X Within a Wetland hydrology must be present? Yes No X Within a Wetland hydrology must be present? Yes No X Within a Wetland hydrology must be present? Yes No X Within a Wetland hydrology must be present? Yes No X Within a Wetland hydrology must be present? Yes No X Within a Wetland hydrology must be present? Yes No X		20 per 60 menter 1 m 2000 de 1 00 m 200			1.400.0000				es, etc
Hydric Soil Present? Yes No X Within a Wetland? Yes No X Within a Wetland hydrology must be present? Yes No X Within a Wetland hydrology must be present? Yes No X Within a Wetland hydrology must be present? Yes No X Within a Wetland hydrology must be present? Yes No X Within a Wetland hydrology must be present? Yes No X Within a Wetland hydrology must be present? Yes No X Within a Wetland hydrology must be present? Yes No X Within a Wetland hydrology must be present? Yes No X Within a Wetland hydrology must be present? Yes No X Within a Wetland hydrology must be present? Yes No X Within a Wetland hydrology must be present? Yes No X Within a Wetland hydrology must be present? Yes No X Within a Wetland hydrology must be present? Yes No X Within a Wetland hydrology must be present? Yes No X Within a Wetland hydrology must	Hydrophytic Vegetation Present?	Yes	No X				roden etmo rt e observationes	*	
VEGETATION - Use scientific names of plants. Absolute Dominant Indicator Species? Status Statum (Plot size:) Absolute Dominant Indicator Species? Status Species Status Species Common Species Status Species Common Species Status Species Across All Strata Species Across All Strata Species				94000				,	
Absolute Dominant Indicator Species? Status Sta	Wetland Hydrology Present?			with	ın a Wetian	d? Yes	No/	_	
Absolute	Remarks:								
Number of Dominant Species	VEGETATION – Use scientific	names of plar	nts.						
1			Absolute	Dominant	Indicator	Dominance Test wor	ksheet:		
Species Across All Stratum Species 1	And the state of t							0	(A)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)					(1	(B)
Sapling/Shrub Stratum (Plot size:)									. (0)
Sapling/Shrub Stratum (Plot size:				·				0	(A/B)
Total % Cover of: Multiply by:	Cheed III did 1000000 HALPERTY IN THE RESIDENCE AND THE		0	= Total Co	ver				- (
2.						G001 2080 AS 700		Males been	
3						100 100 100 100 100 100 100 100 100 100			77.
4									
5					-				
Herb Stratum (Plot size:) 1. Chrysanthemum pinnatifidum 10						Country of the Countr			
Herb Stratum (Plot size:)	J			= Total Co	/er	The source of th			
1. Chrysanthemum pinnatifidum 2. Solidago altissima 3. Schedonorus pratensis 60 Yes FACU 4. Daucus carota 6. Cirsium arvense 6. Cirsium arvense 6. Cirsium arvense 7. Cirsium arvense 7. Cirsium arvense 7. Cirsium arvense 8. Cirsium arvense 10. No FACU 8. Cirsium arvense 10. Chrysanthemum pinnatifidum 10 No FACU 10 No UPL 10 Dominance Test is >50% 10 Prevalence Index is ≤3.0¹ 10 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 10 Provide supporting data in Remarks or on a separate sheet) 10 Provide supporting data in Remarks or on a separate sheet) 10 Provide supporting data in Remarks or on a separate sheet) 10 Provide supporting data in Remarks or on a separate sheet) 10 Provide supporting data in Remarks or on a separate sheet) 10 Provide supporting data in Remarks or on a separate sheet) 11 Provide supporting data in Remarks or on a separate sheet) 12 Provide supporting data in Remarks or on a separate sheet) 13 Problematic Hydrophytic Vegetation¹ (Explain) 14 Provide supporting data in Remarks or on a separate sheet) 15 Problematic Hydrophytic vegetation problematic. 16 Provide supporting data in Remarks or on a separate sheet) 17 Provide supporting data in Remarks or on a separate sheet) 18 Problematic Hydrophytic Vegetation problematic.	Herb Stratum (Plot size:)		1010100	701				— (B)
3. Schedonorus pratensis 4. Daucus carota 5. Cirsium arvense 6.	Chrysanthemum pinnatifidum		10	No	UPL	200			- 0.7
4. Daucus carota 5. Cirsium arvense 10. No FACU 5. Cirsium arvense 10. No FACU 6.				No	_FACU_	27.00.000 (0.00.	St. Strawbill Pa		_
5. Cirsium arvense 10 No FACU — Prevalence Index is ≤3.0¹ — Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) — Problematic Hydrophytic Vegetation¹ (Explain) 9	3. Schedonorus pratensis		60	Yes		, , ,			
6	33)					1			
7	PARTIE - CONTRACTOR OF THE PARTIES O				_FACU_	Section 1 that the collection of the collection		•	
Problematic Hydrophytic Vegetation (Explain)									
9									
10								(-) (-)	
Moody Vine Stratum (Plot size:)						¹ Indicators of hydric so	oil and wetland	hydrology	must
Woody Vine Stratum (Plot size:) 1	10								
1 Hydrophytic 2 Yes No _X_	Woody Vine Stratum (Plot size:		100	= Total Co	ver				
2 Vegetation Present? Yes No _X_						Hydrophytic			
Present: 1es NoX_					***************************************	Vegetation			
	2000				ver	Present? Y	es No		
Remarks: (Include photo numbers here or on a separate sheet.)	Pomarke: (Include abote sumbers to	150 OF OR 2 227	ate chect \						

The state of the s	atrix		Redox Feature			-	4
nches) Color (mo	1.000	Color (moi	st) %	Type ¹	_Loc ² _	Texture	Remarks
0-14" 10 YR 3	/2 100	<u> </u>		_ <u>_ c</u>	M	SiCL	0
14-22" 10 YR 4	/3 100				M	SiCL	
				-			
				-			
ype: C=Concentration,	D=Depletion, F	RM=Reduced Mat	rix, CS=Covere	ed or Coate	d Sand Gr		cation: PL=Pore Lining, M=Matrix.
dric Soil Indicators:						Indicators	for Problematic Hydric Soils ³ :
_ Histosol (A1)			andy Gleyed M			Coast	Prairie Redox (A16)
_ Histic Epipedon (A2)			andy Redox (S			Iron-M	anganese Masses (F12)
Black Histic (A3)			tripped Matrix (Other	(Explain in Remarks)
 Hydrogen Sulfide (A4 			oamy Mucky Mi				
_ Stratified Layers (A5)			oamy Gleyed M				
_ 2 cm Muck (A10)			epleted Matrix (1000 O			
Depleted Below Dark		R	edox Dark Surf	ace (F6)		550	
Thick Dark Surface (A			epleted Dark S				of hydrophytic vegetation and
Sandy Mucky Mineral		R	edox Depression	ons (F8)			d hydrology must be present,
5 cm Mucky Peat or F						unless	disturbed or problematic.
strictive Layer (if obs	erved):						
Type:							
Lionth (inchae)						Hydric Soil	Present? Yes No X
						Tryanic con	
emarks: /dric soil was not noted						Tryuno com	
emarks: ydric soil was not noted y	vithin the sam					Tryano con	
emarks: rdric soil was not noted of the soil was not	vithin the samp	ple point.	hat apply)				ary Indicators (minimum of two require
emarks: rdric soil was not noted of the soil was not	vithin the samp	ple point.	hat apply) er-Stained Leav	ves (B9)		Seconda	ary Indicators (minimum of two require
emarks: odric soil was not noted of the soil was not noted or noted of the soil was not noted of the soil was not	vithin the samp ators: um of one is re	ple point. quired; check all t	er-Stained Leav	V-111 - 12 ()		Seconda	A CONTRACTOR MANAGEMENT OF THE WARRANCE
production of the contract of	vithin the samp ators: um of one is re	ple point. equired; check all t — Wat — Aqu	er-Stained Leav atic Fauna (B13	3)		Seconda Surl Drai	face Soil Cracks (B6) mage Patterns (B10)
procession was not noted to the procession of th	vithin the samp ators: um of one is re	oquired; check all t Wat Aqu True	er-Stained Leav atic Fauna (B13 Aquatic Plants	3) s (B14)		Seconda Surl Drai Dry·	face Soil Cracks (B6) mage Patterns (B10) Season Water Table (C2)
PROLOGY etland Hydrology Indicimary Indicators (minimum High Water Table (A2 Saturation (A3) Water Marks (B1)	within the samp ators: am of one is re	ple point. quired; check all t Wat Aqu True Hyd	er-Stained Leav atic Fauna (B13 Aquatic Plants rogen Sulfide C	3) s (B14) Odor (C1)	na Roots (Seconda Surf Drai Dry- Cray	face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8)
DROLOGY etland Hydrology Indic imary Indicators (minimum Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B	within the samp ators: am of one is re	equired; check all l — Wate — Aque — True — Hyde — Oxio	er-Stained Leav atic Fauna (B13 Aquatic Plants rogen Sulfide C lized Rhizosphe	3) s (B14) Odor (C1) eres on Liv		Seconda Surl Drai Dry Cra C3) Satu	face Soil Cracks (B6) mage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9)
DROLOGY etland Hydrology Indic imary Indicators (minimum) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3)	ators: am of one is re	equired; check all l — Wate — Aque — True — Hyde — Pres	er-Stained Leav atic Fauna (B13 Aquatic Plants rogen Sulfide C dized Rhizosphe sence of Reduc	3) s (B14) Odor (C1) eres on Livi ed Iron (C4)	Seconda Surl Drai Dry. Cra: Cra: C3) Satu Stur	face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1)
PROLOGY Setland Hydrology Indictimary Indicators (minimal High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4)	ators: am of one is re	equired; check all to the control of	er-Stained Leav atic Fauna (B13 Aquatic Plants rogen Sulfide C dized Rhizosphe sence of Reduc ent Iron Reduct	3) s (B14) Odor (C1) eres on Liv ed Iron (C4 tion in Tilled)	Seconda Surf Drai Dry Cra C3) Satu Stur	face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
PROLOGY etland Hydrology Indic imary Indicators (minimal) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	ators: um of one is re	equired; check all to the control of	er-Stained Leav atic Fauna (B13 Aquatic Plants rogen Sulfide C dized Rhizosphe sence of Reduct ent Iron Reduct Muck Surface	B) S (B14) Odor (C1) Heres on Livited Iron (C4) Stion in Tilled (C7))	Seconda Surf Drai Dry Cra C3) Satu Stur	face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1)
DROLOGY etland Hydrology Indic imary Indicators (minimal) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on	ators: um of one is re 2) Aerial Imagery	equired; check all I — Wat — Aqu — True — Hyd — Oxic — Pres — Rec — Thin r (B7) — Gau	er-Stained Leav atic Fauna (B13 Aquatic Plants rogen Sulfide C lized Rhizosphe sence of Reduct ent Iron Reduct Muck Surface ge or Well Data	3) s (B14) Odor (C1) eres on Livi ed Iron (C4 tion in Tilled (C7) a (D9))	Seconda Surf Drai Dry Cra C3) Satu Stur	face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
DROLOGY etland Hydrology Indic imary Indicators (minimal) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Sparsely Vegetated C	ators: um of one is re 2) Aerial Imagery	equired; check all I — Wat — Aqu — True — Hyd — Oxic — Pres — Rec — Thin r (B7) — Gau	er-Stained Leav atic Fauna (B13 Aquatic Plants rogen Sulfide C dized Rhizosphe sence of Reduct ent Iron Reduct Muck Surface	3) s (B14) Odor (C1) eres on Livi ed Iron (C4 tion in Tilled (C7) a (D9))	Seconda Surf Drai Dry Cra C3) Satu Stur	face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
DROLOGY etland Hydrology Indic imary Indicators (minimal) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Sparsely Vegetated Celd Observations:	ators: am of one is re Aerial Imagery oncave Surface	equired; check all to a second to the control of th	er-Stained Leav atic Fauna (B13 Aquatic Plants rogen Sulfide C dized Rhizosphe sence of Reduct ent Iron Reduct Muck Surface ge or Well Data er (Explain in Re	B) S (B14) Odor (C1) Beres on Living the little (C4) Bit (C7) Bit (D9) Bit (B14) Bit (d Soils (C6	Seconda Surf Drai Dry Cra C3) Satu Stur	face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
PROLOGY etland Hydrology Indictimary Indicators (minimum of Marks (Marks)) High Water Table (A2) Saturation (A3) Water Marks (Marks (Marks)) Sediment Deposits (Marks) Algal Mat or Crust (Marks) Iron Deposits (Marks) Inundation Visible on of Sparsely Vegetated Coeld Observations:	ators: am of one is re Aerial Imagery oncave Surfac		er-Stained Leav atic Fauna (B13 Aquatic Plants rogen Sulfide C dized Rhizosphe sence of Reduct ent Iron Reduct Muck Surface ge or Well Data er (Explain in Re	3) s (B14) Odor (C1) eres on Livi ed Iron (C4 tion in Tilled (C7) a (D9) emarks)	d Soils (C6	Seconda Surf Drai Dry Cra C3) Satu Stur	face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
PROLOGY Torric soil was not noted to the soil was not	ators: Im of one is re 2) Aerial Imagery oncave Surface Yes Yes	Quired; check all I	er-Stained Leavatic Fauna (B13) Aquatic Plants rogen Sulfide Collized Rhizosphesence of Reduct ent Iron Reduct Muck Surface ge or Well Data er (Explain in Reduct oth (inches):	3) s (B14) Odor (C1) eres on Livi ed Iron (C4 tion in Tilled (C7) a (D9) emarks)	d Soils (C6	Seconda Surl Drai Dry Cra C3) Satu Stur FAC	face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2) C-Neutral Test (D5)
PROLOGY Toronto Soil was not noted of the soil was not	ators: am of one is re 2) Aerial Imagery oncave Surface Yes Yes Yes	Quired; check all I	er-Stained Leavatic Fauna (B13) Aquatic Plants rogen Sulfide Collized Rhizosphe sence of Reduct ent Iron Reduct Muck Surface ge or Well Data er (Explain in Reduct oth (inches): oth (inches): oth (inches):	3) s (B14) Odor (C1) eres on Livi ed Iron (C4 tion in Tilled (C7) a (D9) emarks)	d Soils (C6	Seconda Surf Drai Drai Cray Cray Stur FAC	face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2) C-Neutral Test (D5)
rimary Indicators (minimary Indicators (Marks) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on	ators: am of one is re 2) Aerial Imagery oncave Surface Yes Yes Yes	Quired; check all I	er-Stained Leavatic Fauna (B13) Aquatic Plants rogen Sulfide Collized Rhizosphe sence of Reduct ent Iron Reduct Muck Surface ge or Well Data er (Explain in Reduct oth (inches): oth (inches): oth (inches):	3) s (B14) Odor (C1) eres on Livi ed Iron (C4 tion in Tilled (C7) a (D9) emarks)	d Soils (C6	Seconda Surf Drai Drai Cray Cray Stur FAC	face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2) C-Neutral Test (D5)
PROLOGY Petland Hydrology Indictionary Indicators (minimumany Indic	ators: am of one is re 2) Aerial Imagery oncave Surface Yes Yes Yes	Quired; check all I	er-Stained Leavatic Fauna (B13) Aquatic Plants rogen Sulfide Collized Rhizosphe sence of Reduct ent Iron Reduct Muck Surface ge or Well Data er (Explain in Reduct oth (inches): oth (inches): oth (inches):	3) s (B14) Odor (C1) eres on Livi ed Iron (C4 tion in Tilled (C7) a (D9) emarks)	d Soils (C6	Seconda Surf Drai Drai Cray Cray Stur FAC	nage Patterns (B10) Season Water Table (C2) In the Season Wate
rimary Indicators (minimum of the Marks (Marks) Water Marks (Marks (Marks) Water Marks (Marks (Marks) Water Marks (Marks) Water Mar	ators: am of one is re 2) Aerial Imagery oncave Surface Yes Yes Yes	Quired; check all I	er-Stained Leavatic Fauna (B13) Aquatic Plants rogen Sulfide Collized Rhizosphe sence of Reduct ent Iron Reduct Muck Surface ge or Well Data er (Explain in Reduct oth (inches): oth (inches): oth (inches):	3) s (B14) Odor (C1) eres on Livi ed Iron (C4 tion in Tilled (C7) a (D9) emarks)	d Soils (C6	Seconda Surf Drai Drai Cray Cray Stur FAC	face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2) C-Neutral Test (D5)

Reset Form	Print Form
Legel I OIIII	FIIII FOIIII

Project/Site: Bateman Meadows			City/County	Barringto	in Hills, Cook County Sampling Date: 5/1/2017
Applicant/Owner: Haeger Engineering					State: Illinois Sampling Point: 4B
Investigator(s): Rob Vanni					
					(concave, convex, none):
					Datum:
Soil Map Unit Name: Drummers silty c					NWI or WWI classification: Yes
Are climatic / hydrologic conditions on	150.				
Are Vegetation, Soil, or					"Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or					eeded, explain any answers in Remarks.)
					ocations, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes	No X			
Hydric Soil Present?	Yes		1000	e Sampled	
Wetland Hydrology Present?	Yes		with	in a Wetla	nd? Yes NoX
Remarks:					
VEGETATION – Use scientific	names of plant	S.			
Trans Christian (District	4	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:			Species?		Number of Dominant Species
				FACW	That Are OBL, FACW, or FAC:0 (A)
2					Total Number of Dominant
3 4					Species Across All Strata:1 (B)
5					Percent of Dominant Species
			= Total Cov	/er	That Are OBL, FACW, or FAC:0 (A/B)
Sapling/Shrub Stratum (Plot size:)		10101 001		Prevalence Index worksheet:
Lonicera tatarica				FACU	Total % Cover of: Multiply by:
				FAC	OBL species0 x 1 =0
3					FACW species10 x 2 =20
4					FAC species30 x 3 =90
5					FACU species 60 x 4 = 240
Herb Stratum (Plot size:)	65	= Total Cov	er er	UPL species0 x 5 =0
1. Geum canadense		10	No	FAC	Column Totals:100 (A)350 (B)
2. Glechoma hederacea		10	No	FACU	Prevalence Index = B/A =3.50
3. Alliaria petiolata		5	No	FAC	Hydrophytic Vegetation Indicators:
4					Dominance Test is >50%
5					Prevalence Index is ≤3.0¹
6					Morphological Adaptations¹ (Provide supporting
7			-		data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain)
8					Froblematic Hydrophytic Vegetation (Explain)
9				3 5 3	¹ Indicators of hydric soil and wetland hydrology must
10					be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:	V	25	= Total Cov	er er	The second secon
1					Hydrophytic
2.					Vegetation
5082 5			= Total Cov	/er	Present? Yes No _X
Domarka: (Include abot a section					
Remarks: (Include photo numbers he	re or on a separate	e sheet.)			
Hyrdophytic vegetation was not prese	nt within the sample	e point.			

SOIL Sampling Point: 4B

5/96 VIII		e to the depth n	eeded to document the in	dicator or o	confirm	the absence	of indicators.)
Depth (inches)	Color (moist)	%	Redox Features Color (moist) %	Type ¹ I	_oc²	Texture	Remarks
0-10"	10 YR 3/2	100	70	C C	M	SiCL	. tolland
10-24"	10 YR 5/3	100			M	SiCL	
10-24	10 11 3/3				IVI	SICL	
	-						
	9						
	10						
							
¹Tyne: C=C	oncentration D=De	nletion RM=Re	duced Matrix, CS=Covered	or Coated S	Sand Gra	ains ² Loc	ation: PL=Pore Lining, M=Matrix.
Hydric Soil		prottori, rvivi rvo	adoca matrix, oo ooverea	or coated c	Jana Ore		for Problematic Hydric Soils ³ :
Histosol	(A1)		Sandy Gleyed Mate	rix (S4)			Prairie Redox (A16)
Histic E	pipedon (A2)		Sandy Redox (S5)				anganese Masses (F12)
F5 17	istic (A3)		Stripped Matrix (S6	5)		Other (Explain in Remarks)
	en Sulfide (A4)		Loamy Mucky Mine	20 05			
22 2705	d Layers (A5)		Loamy Gleyed Mat				
2002-015000	uck (A10) d Below Dark Surfa	oo (A11)	Depleted Matrix (Figure 2)	1000			
The state of the s	ark Surface (A12)	ice (ATT)	Depleted Dark Surial			3Indicators	of hydrophytic vegetation and
	Aucky Mineral (S1)		Redox Depressions				I hydrology must be present,
	icky Peat or Peat (S3)					disturbed or problematic.
Restrictive	Layer (if observed):					
Type:			-				
Depth (in	ches):					Hydric Soil	Present? Yes No _X_
Remarks:					3.5		
Hydric soil w	as not noted within	the sample poir	nt.				
HYDROLO	GY						
Wetland Hy	drology Indicators	3:					
Primary Indi	cators (minimum of	one is required;	check all that apply)			Seconda	ry Indicators (minimum of two required)
Surface	Water (A1)		Water-Stained Leave	s (B9)		Surfa	ace Soil Cracks (B6)
High Wa	ater Table (A2)		Aquatic Fauna (B13)			Drain	nage Patterns (B10)
Saturati	on (A3)		True Aquatic Plants (B14)		Dry-	Season Water Table (C2)
Water N	1arks (B1)		Hydrogen Sulfide Odd	or (C1)		Cray	fish Burrows (C8)
	nt Deposits (B2)				Roots (ration Visible on Aerial Imagery (C9)
	posits (B3)		Presence of Reduced				ted or Stressed Plants (D1)
	at or Crust (B4)		Recent Iron Reductio		oils (C6)		morphic Position (D2)
Iron De			Thin Muck Surface (C			_ FAC	-Neutral Test (D5)
	on Visible on Aeria		Gauge or Well Data (
	y Vegetated Conca	ve Surface (B8)	Other (Explain in Ren	narks)			
Field Obser		v	V 5 " " 1 " 1				
Surface Wat			X Depth (inches):				
Water Table			X Depth (inches):				
	pillary fringe)		X Depth (inches): pring well, aerial photos, pre				/ Present? Yes No _X
			g priotoo, pro			rondolo.	
Remarks:							
Wetland hyd	Irology was not pre	sent during our o	on-site investigation.				

	200000
Reset Form	Print Form

Project/Site: Bateman Meadows			City/County:	Barrington	n Hills, Cook County	Sampling Date	e: 5/1/201	7
Applicant/Owner: Haeger Engineering					State: Illinois	net that prese		
Investigator(s): Rob Vanni			Section, Tov	wnship, Ra	nge: Sec 33, T43 N, R 1	0E	×0.00	
Landform (hillslope, terrace, etc.):								
Slope (%): Lat: 42.1495					(concave, convex, none,			
Soil Map Unit Name: Drummers silty of	NO AN OLD CONTROLS		7.		NWI or WWI o			
50000000							23	
Are climatic / hydrologic conditions on							~	
Are Vegetation, Soil, or					'Normal Circumstances"			٥
Are Vegetation, Soil, or	· Hydrology	naturally pro	blematic?	(If ne	eded, explain any answe	ers in Remarks.))	
SUMMARY OF FINDINGS - A	Attach site ma	ap showing	samplin	g point l	ocations, transects	s, important	feature	s, etc.
Hudsonhutia Vanatatian Bassado	V	N- Y						
Hydrophytic Vegetation Present? Hydric Soil Present?		No X	Is th	e Sampled				
Wetland Hydrology Present?	Yes		with	in a Wetlar	nd? Yes	NoX	<u> </u>	
Remarks:	103							
VEGETATION – Use scientific	names of pla	nts						
Taganing to the second	Trained or plan	Absolute	Dominant	Indicator	Dominance Test work	ksheet:		
Tree Stratum (Plot size:)		Species?		Number of Dominant S			
1. Acer negundo	***	10	No	FACW	That Are OBL, FACW,		0	(A)
2. Prunus virginiana		15	No	FACU	Total Number of Domi	nant		
3				·	Species Across All Str		1	(B)
4					Percent of Dominant S	inecies		
5					That Are OBL, FACW,		0	(A/B)
Sapling/Shrub Stratum (Plot size:			= Total Cov	/er	Prevalence Index wo	rksheet:		
1. Lonicera tatarica		35	Yes	FACU	Total % Cover of:		Itiply by:	
2. Rhamnus cathartica			No	FAC		0 x 1 = _		=
3.					FACW species1			-8
4.					The state of the s	5 x 3 =		
5.						5 x 4 = _		
=34		40	= Total Cov	ver	UPL species	0 x 5 = _	0	
Herb Stratum (Plot size:)				Column Totals:1	00(A)	355	_ (B)
1. Geum canadense		10	No	FAC			2.55	
2. Glechoma hederacea		5	No_	FACU	Prevalence Index			
3. Alliaria petiolata			No_	FAC_	Hydrophytic Vegetati			
			No	_FACU_	Dominance Test is Prevalence Index			
5					Morphological Ada		ida suppoi	rtina
6						s or on a separ		
7					Problematic Hydro	ophytic Vegetati	on¹ (Expla	in)
8								
9					¹ Indicators of hydric so			must
10			= Total Cov		be present, unless dis	urbed or proble	matic.	
Woody Vine Stratum (Plot size:)		- rotar CoV	vei				
1,					Hydrophytic			
2					Vegetation Present? You	es No	· ×	
~			= Total Cov	ver	1 Tooling	~ NO		
Remarks: (Include photo numbers h	ere or on a const	rate sheet \	- secondonal control					
Tromains. (moldde photo humbers h	ore or orra separ	are silect.)						
Hyrdophytic vegetation was not prese	ent within the sam	nple point.						

Sampling Point: 5B

Depth	Matrix		Redox	NO. OF PLANE SHOWING				
(inches)	Color (moist)		Color (moist)	%	Type'	_Loc ² _	Texture	Remarks
0-12"	10 YR 3/3	100				M	SiL	
12-16"	10 YR3/2	100			C	M	SiL	->:
16-21"	2.5Y 4/3	80	10 YR 5/6	20	С	M	SiCL	
								90
	-			-				F8.
							-	· ·
				-				XX
	oncentration, D=Dep	letion, RM=Re	duced Matrix, CS	=Covered	or Coate	d Sand Gr		ocation: PL=Pore Lining, M=Matrix.
lydric Soil I			E 5 5	ii Waxa	. 21 - 425 LC			s for Problematic Hydric Soils ³ :
_ Histosol				Bleyed Mat				t Prairie Redox (A16)
HISTIC EL	oipedon (A2)			Redox (S5) I Matrix (S6				Manganese Masses (F12) r (Explain in Remarks)
7.5	en Sulfide (A4)			Mucky Min				(Explain in Remarks)
	Layers (A5)			Gleyed Ma				
2 cm Mu				d Matrix (F				
	d Below Dark Surfac	e (A11)		Dark Surfac				
	ark Surface (A12)			d Dark Sur				rs of hydrophytic vegetation and
	fucky Mineral (S1)		Redox D	Depression	is (F8)			nd hydrology must be present,
	icky Peat or Peat (S: Layer (if observed):						unles	s disturbed or problematic.
	Layer (ii observed).							
Type:	262234		-				Unadala Ca	:: D12 - V N V
Depth (inc								
	as not noted within t		- nt.				nyunc so	il Present? Yes No _X
lydric soil w	as not noted within t		nt.				nyunc so	II Present? Yes NoX
lydric soil w	as not noted within t		nt.				nyunc so	II Present? Yes NoX
lydric soil w	as not noted within to GY drology Indicators:	he sample poir		nh)				
YDROLO Vetland Hydrimary Indic	as not noted within to GY drology Indicators: cators (minimum of o	he sample poir	check all that ap		ne (PO)		Second	dary Indicators (minimum of two requi
YDROLO Vetland Hydrimary Indic Surface	GY drology Indicators: cators (minimum of o	he sample poir	check all that ap	ned Leave			Second	dary Indicators (minimum of two requi
YDROLO Vetland Hydrimary Indic Surface High Wa	as not noted within to GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2)	he sample poir	check all that ap Water-Stai Aquatic Fa	ned Leave una (B13)			Second Substitution	dary Indicators (minimum of two requintrace Soil Cracks (B6) ainage Patterns (B10)
YDROLO Vetland Hyd Surface High Wa Saturatio	GY drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3)	he sample poir	check all that ap Water-Stai Aquatic Fa True Aqua	ned Leave una (B13) tic Plants ((B14)		<u>Second</u> Su Dr. Dr	dary Indicators (minimum of two requi urface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2)
YDROLO Vetland Hyd rimary Indic Surface High Wa Saturatic Water M	GY drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) larks (B1)	he sample poir	check all that ap Water-Stai Aquatic Fa True Aqua	ned Leave luna (B13) tic Plants (Sulfide Od	(B14) or (C1)	ing Roots (Second Su Dr Dr Cr.	dary Indicators (minimum of two requi Irface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8)
YDROLO Vetland Hyd Surface High Wa Saturatic Water M Sedimer	GY drology Indicators: cators (minimum of of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2)	he sample poir	check all that ap Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R	ned Leave una (B13) tic Plants (Sulfide Od Rhizospher	B14) or (C1) es on Liv		Second Su Dr. Dr. Cr. C3) Sa	dary Indicators (minimum of two requi orface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) uturation Visible on Aerial Imagery (C9
YDROLO Yetland Hydrimary Indic Surface High Wa Saturatio Water M Sedimer Drift Dep	GY drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) larks (B1)	he sample poir	check all that ap Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R	ned Leave una (B13) tic Plants (Sulfide Od Rhizospher of Reduced	(B14) or (C1) es on Liv d Iron (C4)	Second Su Dr Dr Cr. C3) Sa Sti	dary Indicators (minimum of two requirents of two requirents (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) atturation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1)
YDROLO Vetland Hyd Surface High Wa Saturatio Water M Sedimer Drift Dep	as not noted within to GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)	he sample poir	check all that ap Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R	ned Leave una (B13) tic Plants (Sulfide Od Rhizospher of Reduced n Reduction	(B14) for (C1) es on Liv d Iron (C4 on in Tille)	Second Su Dr Dr Cr. (C3) Sa Stu	dary Indicators (minimum of two requi orface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) uturation Visible on Aerial Imagery (C9
YDROLO Vetland Hydric Surface High Water M Sedimer Drift Dep Algal Ma	as not noted within to GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)	ne sample poir	check all that ap Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R Presence o	ned Leave nuna (B13) tic Plants (Sulfide Od Rhizospher of Reduced n Reduction	(B14) or (C1) es on Liv d Iron (C4 on in Tilled C7))	Second Su Dr Dr Cr. (C3) Sa Stu	dary Indicators (minimum of two requirents of two requirents Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) attration Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) ecomorphic Position (D2)
YDROLO Yetland Hyd Surface High Wa Saturatio Water M Sedimer Drift Dep Iron Dep	as not noted within to GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	ne is required;	check all that ap Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R Presence of Recent Iro	ned Leave nuna (B13) tic Plants (Sulfide Od Rhizospher of Reduced n Reduction Surface (Well Data ((B14) or (C1) es on Liv d Iron (C4 on in Tille (C7) (D9))	Second Su Dr Dr Cr. (C3) Sa Stu	dary Indicators (minimum of two requirents of two requirents Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) attration Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) ecomorphic Position (D2)
YDROLO Vetland Hyd Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatic Sparsely	as not noted within to GY drology Indicators: cators (minimum of on Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I y Vegetated Concave	ne is required;	check all that ap Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R Presence of Recent Iro Thin Muck Gauge or N	ned Leave nuna (B13) tic Plants (Sulfide Od Rhizospher of Reduced n Reduction Surface (Well Data ((B14) or (C1) es on Liv d Iron (C4 on in Tille (C7) (D9))	Second Su Dr Dr Cr. (C3) Sa Stu	dary Indicators (minimum of two requirents of two requirents Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) attration Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) ecomorphic Position (D2)
YDROLO Vetland Hyd Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Inundation Sparsely Field Observiole	as not noted within to GY drology Indicators: cators (minimum of on Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial II y Vegetated Concaver vations:	ne is required; magery (B7) e Surface (B8)	check all that ap Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R Presence of Recent Iro Thin Muck Gauge or N	ned Leave una (B13) tic Plants (Sulfide Od Rhizospher of Reduced n Reductio Surface (C Well Data (blain in Rer	(B14) or (C1) es on Liv d Iron (C ² on in Tille (C7) (D9) marks)	d Soils (C6	Second Su Dr Dr Cr. (C3) Sa Stu	dary Indicators (minimum of two requirents of two requirents Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) attration Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) ecomorphic Position (D2)
YDROLO Netland Hyd Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep	as not noted within the GY drology Indicators: cators (minimum of of the Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial In a Vegetated Concave vations: er Present?	magery (B7) e Surface (B8)	check all that ap Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R Presence of Recent Iro Thin Muck Gauge or N	ned Leave duna (B13) tic Plants (Sulfide Od Rhizospher of Reduced n Reductio Surface (C Well Data (blain in Rer	B14) or (C1) es on Liv d Iron (C4 on in Tiller C7) (D9) marks)	d Soils (C6	Second Su Dr Dr Cr. (C3) Sa Stu	dary Indicators (minimum of two requirents of two requirents Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) attration Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) ecomorphic Position (D2)
YDROLO Vetland Hyde Primary Indice Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatic Sparsely Field Obser Surface Water	as not noted within to GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I y Vegetated Concave vations: er Present? Y Present? Y	magery (B7) e Surface (B8) es No es No	check all that ap Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R Presence of Recent Iro Thin Muck Gauge or V Other (Exp	ned Leave una (B13) tic Plants (Sulfide Od Rhizospher of Reduced n Reductio Surface ((Well Data (blain in Rer ches): ches):	B14) or (C1) es on Liv d Iron (C4 on in Tillee C7) (D9) marks)	d Soils (C6	Second Su Dr Cr Cr C3) Sa Stu FA	dary Indicators (minimum of two requirents of two requirents Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) attration Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) ecomorphic Position (D2)
YDROLO Wetland Hyde Finary Indic Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio Sparsely Field Obsert Surface Water Water Table Saturation Perincludes cap	as not noted within to GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I y Vegetated Concave vations: er Present? Present? Y resent? Y resent? Y	magery (B7) e Surface (B8) es No es No	check all that ap Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R Presence of Recent Iro Thin Muck Gauge or V Other (Exp	ned Leave una (B13) tic Plants (Sulfide Od Rhizospher of Reduced n Reductio Surface ((Well Data (blain in Rer ches): ches):	B14) or (C1) es on Liv d Iron (C4) on in Tillee (C7) (D9) marks)	d Soils (C6	Second Su Dr. Cr. C3) Sa Sti FA	dary Indicators (minimum of two requiniface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) attration Visible on Aerial Imagery (C9 unted or Stressed Plants (D1) comorphic Position (D2) AC-Neutral Test (D5)
YDROLO Wetland Hyde Finary Indic Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio Sparsely Field Obsert Surface Water Water Table Saturation Perincludes cap	as not noted within the GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I y Vegetated Concave vations: er Present? Present? Y	magery (B7) e Surface (B8) es No es No	check all that ap Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R Presence of Recent Iro Thin Muck Gauge or V Other (Exp	ned Leave una (B13) tic Plants (Sulfide Od Rhizospher of Reduced n Reductio Surface ((Well Data (blain in Rer ches): ches):	B14) or (C1) es on Liv d Iron (C4) on in Tillee (C7) (D9) marks)	d Soils (C6	Second Su Dr. Cr. C3) Sa Sti FA	dary Indicators (minimum of two requiniface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) attration Visible on Aerial Imagery (C9 unted or Stressed Plants (D1) comorphic Position (D2) AC-Neutral Test (D5)
YDROLO Vetland Hyd Primary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatic Sparsely Field Obsert Surface Water Table Saturation Princludes cap Describe Rec	as not noted within to GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I y Vegetated Concave vations: er Present? Present? Y resent? Y resent? Y	magery (B7) e Surface (B8) es No es No	check all that ap Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R Presence of Recent Iro Thin Muck Gauge or V Other (Exp	ned Leave una (B13) tic Plants (Sulfide Od Rhizospher of Reduced n Reductio Surface ((Well Data (blain in Rer ches): ches):	B14) or (C1) es on Liv d Iron (C4) on in Tillee (C7) (D9) marks)	d Soils (C6	Second Su Dr. Cr. C3) Sa Sti FA	dary Indicators (minimum of two requiniface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) attration Visible on Aerial Imagery (C9 unted or Stressed Plants (D1) comorphic Position (D2) AC-Neutral Test (D5)
YDROLO Vetland Hyd Primary Indic Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio Sparsely Field Observ Surface Water Table Saturation Perincludes cap	as not noted within to GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I y Vegetated Concave vations: er Present? Present? Y resent? Y resent? Y	magery (B7) e Surface (B8) es No es No	check all that ap Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R Presence of Recent Iro Thin Muck Gauge or V Other (Exp	ned Leave una (B13) tic Plants (Sulfide Od Rhizospher of Reduced n Reductio Surface ((Well Data (blain in Rer ches): ches):	B14) or (C1) es on Liv d Iron (C4) on in Tillee (C7) (D9) marks)	d Soils (C6	Second Su Dr. Cr. C3) Sa Sti FA	dary Indicators (minimum of two requiniface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) attration Visible on Aerial Imagery (C9 unted or Stressed Plants (D1) comorphic Position (D2) AC-Neutral Test (D5)
YDROLO Vetland Hydric Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatic Sparsely Field Obser Surface Water Table Saturation Princludes cap Describe Rec	as not noted within to GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I y Vegetated Concave vations: er Present? Present? Y resent? Y resent? Y	magery (B7) e Surface (B8) es No es No gauge, monito	check all that ap Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R Presence of Recent Iro Thin Muck Gauge or N Other (Exp	ned Leave una (B13) tic Plants (Sulfide Od Rhizospher of Reductio Surface (C Well Data (olain in Rer ches): ches): photos, pre	B14) or (C1) es on Liv d Iron (C4) on in Tillee (C7) (D9) marks)	d Soils (C6	Second Su Dr. Cr. C3) Sa Sti FA	dary Indicators (minimum of two requiniface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) attration Visible on Aerial Imagery (C9 unted or Stressed Plants (D1) comorphic Position (D2) AC-Neutral Test (D5)

100-300 F 100 F 200 F 100 F 10	Telesion Williams
Reset Form	Print Form
L'eset i Oilli	FILL FOILI

Applicant/Owner: Haeger Engineering Investigator(s): Rob Vanni			Darrington	h Hills, Cook County Sampling Date: 5/1/2017
Investigator(s): Rob Vanni				State: Illinois Sampling Point: 6B
· · · · · · · · · · · · · · · · · · ·		Section, Tov	vnship, Rai	nge: Sec 33, T43 N, R 10E
Landform (hillslope, terrace, etc.):				
5 635 8 88 88 88 88 88 88		(2)(2)(1)(2)		Datum:
7.5 St. Ph. 2011 (1.5 St. V.				NWI or WWI classification: Yes
Are climatic / hydrologic conditions on the site typical for this time of				HER BOOK AND THE CONTROL CONTR
				Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology signification				t) (2
Are Vegetation, Soil, or Hydrology naturall SUMMARY OF FINDINGS – Attach site map show				eded, explain any answers in Remarks.) ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No _X			3901 90W S	0.00
[[사업 취임자 (1) 10 10 10 10 10 10 10 10 10 10 10 10 10	.	III DANGE THE ACT	e Sampled	
Wetland Hydrology Present? Yes No _X		withi	n a Wetlar	nd? Yes NoX
Remarks:				
VEGETATION – Use scientific names of plants.				
Abso	olute	Dominant	Indicator	Dominance Test worksheet:
	over	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:0(A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4				Percent of Dominant Species
5		i a		That Are OBL, FACW, or FAC:0 (A/B)
Sapling/Shrub Stratum (Plot size:))	= Total Cov	er	Prevalence Index worksheet:
1				Total % Cover of: Multiply by:
2.				OBL species 0 x 1 = 0
3				FACW species0 x 2 =0
4.				FAC species15 x 3 =45
5				FACU species 75 x 4 = 300
	0	= Total Cov	er	UPL species10 x 5 =50
Herb Stratum (Plot size:)) E	Voc	EACH	Column Totals:100 (A)395 (B)
	10	Yes Yes	FACU FACU	Prevalence Index = B/A = 3.95
The Washington Control of Control of Control	10	No	FACU	Hydrophytic Vegetation Indicators:
	5	No	FAC	Dominance Test is >50%
1817 : maritante Rammanto montre de la constante de la constan	10	No	FAC	Prevalence Index is ≤3.0¹
March State Control of the Control o	10	No	UPL	Morphological Adaptations¹ (Provide supporting
7				data in Remarks or on a separate sheet)
8				Problematic Hydrophytic Vegetation ¹ (Explain)
9			60 - 6	1
10				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
10		= Total Cov	er	be present, divess distarbed of presidentatio.
TALL THE PROPERTY OF THE PROPE				The describation
Woody Vine Stratum (Plot size:)				Hydrophytic Vegetation
Woody Vine Stratum (Plot size:) 1				
1	_		24	Present? Yes No _X
1	=	= Total Cov	ver	Present? Yes No _X_
1		= Total Cov	er	Present? Yes No _X_

Sampling Point: 6B

epth	Matrix	- 0/		Redox Features		1 - 2	Part of Control of Control	D	
nches)	Color (moist)	%	Color (moist)) %	Type ¹	_Loc ²	Texture	Remarks	
0-16"	10 YR 2/2	100			C	M	SiCL		
16-22"	10 YR 3/2	80	10 YR 5/2	5	C	M	SiL		
			10 YR 5/6	15					
								S	
									
	. W 552 51	, 	a or the t					A RESTANDANT SALEMENTS	
	ncentration, D=De	oletion, RM=	Reduced Matrix	c, CS=Covered	d or Coate	d Sand Gr		cation: PL=Pore Lining, M=Matrix.	
dric Soil In			0	d. Oleved Me				for Problematic Hydric Soils ³ :	
_ Histosol (A CONTRACTOR OF THE PROPERTY O			ndy Gleyed Ma ndy Redox (S5				Prairie Redox (A16)	
_ Histic Epi _ Black His	pedon (A2)			pped Matrix (S				anganese Masses (F12) (Explain in Remarks)	
	Sulfide (A4)			imy Mucky Mir			Other	(Explain in Remarks)	
-0.000	Layers (A5)			imy Macky Mil imy Gleyed Ma					
_ 2 cm Muc				oleted Matrix (I					
	Below Dark Surfa	ce (A11)		dox Dark Surfa	Control of the Contro				
	k Surface (A12)			oleted Dark Su			3Indicators	of hydrophytic vegetation and	
Sandy Mu	ucky Mineral (S1)		Red	dox Depressio	ns (F8)		wetland hydrology must be present,		
5 cm Muc	ky Peat or Peat (S	33)					unless	disturbed or problematic.	
estrictive La	ayer (if observed	:							
Type:									
Depth (inch	nes):						Hydric Soil	Present? Yes No X	
	s not noted within	the sample p	ooint.						
5.		the sample p	point.						
ydric soil wa	θΥ		oint.						
ydric soil wa 'DROLOG (etland Hyd	GY rology Indicators			at apply)			Seconda	ary Indicators (minimum of two require	
ydric soil wa 'DROLOG 'etland Hyd rimary Indica	GY rology Indicators ators (minimum of		ed; check all th		es (R9)		- 1 S- 17	ary Indicators (minimum of two require	
ydric soil wa 'DROLOG 'etland Hyd rimary Indica _ Surface V	GY rology Indicators ators (minimum of Vater (A1)		ed; check all th	-Stained Leav	gan massenia		Sur	face Soil Cracks (B6)	
ydric soil wa 'DROLOG 'etland Hyd rimary Indica Surface V High Wat	rology Indicators ators (minimum of Water (A1) er Table (A2)		ed; check all th Water Aquat	-Stained Leav ic Fauna (B13)		Sur	face Soil Cracks (B6) inage Patterns (B10)	
ydric soil wa 'DROLOG 'etland Hyd rimary Indica Surface V High Wat Saturation	rology Indicators ators (minimum of Water (A1) er Table (A2) n (A3)		ed; check all th Water Aquat True A	-Stained Leav ic Fauna (B13 Aquatic Plants) (B14)		Sur Dra Dry	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2)	
ydric soil wa 'DROLOG 'etland Hyd rimary Indica Surface V High Wat Saturation Water Ma	rology Indicators ators (minimum of Vater (A1) er Table (A2) in (A3) arks (B1)		ed; check all th. Water Aquat True A	-Stained Leav ic Fauna (B13 Aquatic Plants igen Sulfide O) (B14) dor (C1)	ing Roots	Sur Dra Dry Cra	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8)	
OROLOC TOROLOC Tetland Hyd Timary Indica Surface V High Wate Saturation Water Ma	rology Indicators ators (minimum of Vater (A1) er Table (A2) in (A3) arks (B1) t Deposits (B2)		ed; check all th. Water Aquat True A Hydro	-Stained Leav ic Fauna (B13 Aquatic Plants gen Sulfide Oo zed Rhizosphe) (B14) dor (C1) res on Liv		Sur Dra Cra Cra (C3) Sat	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9)	
CDROLOC Cetland Hyd cimary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo	rology Indicators ators (minimum of Vater (A1) er Table (A2) in (A3) arks (B1) t Deposits (B2) posits (B3)		ed; check all the Water Aquat True A Hydro Oxidiz Prese	-Stained Leavic Fauna (B13 Aquatic Plants gen Sulfide Or red Rhizosphe nce of Reduce) (B14) dor (C1) eres on Lived Iron (C4	1)	Sur Dra Dry Cra Cra (C3) Sati	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)	
CDROLOG Cetland Hyd Cimary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo	rology Indicators ators (minimum of Vater (A1) er Table (A2) in (A3) arks (B1) it Deposits (B2) posits (B3) or Crust (B4)		ed; check all the Water Aquat True A Hydro Oxidiz Prese Recer	-Stained Leavic Fauna (B13 Aquatic Plants gen Sulfide Octed Rhizosphe nce of Reducent Iron Reduction	(B14) (B14) dor (C1) eres on Liv ed Iron (C4 on in Tille	1)	Sur Dra Dry Cra Sati Stul S) Geo	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)	
rdric soil wa TOROLOG Tetland Hyd Timary Indica Surface V High Wate Saturation Water Ma Sediment Drift Depo	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) posits (B3) or Crust (B4) posits (B5)	: one is requir	ed; check all the Water Aquat True A Hydro Oxidiz Prese Recer Thin M	-Stained Leavic Fauna (B13 Aquatic Plants Igen Sulfide Octed Rhizosphe Ince of Reduce It Iron Reducti	(B14) (B14) dor (C1) eres on Lived Iron (C4) don in Tille (C7)	1)	Sur Dra Dry Cra Sati Stul S) Geo	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)	
CDROLOG etland Hyd imary Indica Surface V High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatio	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) posits (B3) or Crust (B4) posits (B5) n Visible on Aerial	: one is require	ed; check all the Water Aquat True A Hydro Oxidiz Prese Recer Thin M	-Stained Leavic Fauna (B13 Aquatic Plants Igen Sulfide Octed Rhizosphe Ince of Reduce It Iron Reducti Muck Surface ((B14) (B14) dor (C1) eres on Lived Iron (C4) on in Tille (C7) (D9)	1)	Sur Dra Dry Cra Sati Stul S) Geo	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)	
CDROLOG Cetland Hyd cimary Indica Surface V High Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatio Sparsely	rology Indicators ators (minimum of Vater (A1) er Table (A2) in (A3) arks (B1) de Deposits (B2) posits (B3) or Crust (B4) posits (B5) in Visible on Aerial Vegetated Concav	: one is require	ed; check all the Water Aquat True A Hydro Oxidiz Prese Recer Thin M	-Stained Leavic Fauna (B13 Aquatic Plants Igen Sulfide Octed Rhizosphe Ince of Reduce It Iron Reducti	(B14) (B14) dor (C1) eres on Lived Iron (C4) on in Tille (C7) (D9)	1)	Sur Dra Dry Cra Sati Stul S) Geo	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)	
Property of the control of the contr	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) posits (B3) or Crust (B4) posits (B5) n Visible on Aerial Vegetated Concavations:	: one is require Imagery (B7 ve Surface (E	ed; check all the Water Aquat True A Hydro Oxidiz Prese Recer Thin M Gauge 38) Other	-Stained Leavic Fauna (B13 Aquatic Plants gen Sulfide Octed Rhizosphe nce of Reduce ht Iron Reducti Muck Surface (e or Well Data (Explain in Re	(B14) (B14) dor (C1) eres on Lived Iron (C4) don in Tille (C7) (D9) ermarks)	t) d Soils (C6	Sur Dra Dry Cra Sati Stul S) Geo	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)	
ydric soil wa "DROLOG Vetland Hyd rimary Indica Surface V High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatio Sparsely ield Observ	rology Indicators ators (minimum of Nater (A1) er Table (A2) in (A3) arks (B1) is Deposits (B2) posits (B3) or Crust (B4) posits (B5) in Visible on Aerial Vegetated Concarations:	: one is require Imagery (B7 ve Surface (E	ed; check all the Water Aquat True A Hydro Oxidiz Prese Recer Thin M Other	-Stained Leavic Fauna (B13 Aquatic Plants gen Sulfide Orted Rhizosphence of Reductifuck Surface (e or Well Data (Explain in Reh (inches):	(B14) (B14) dor (C1) eres on Lived Iron (C4) don in Tille (C7) (D9) ermarks)	t) d Soils (C6	Sur Dra Dry Cra Sati Stul S) Geo	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)	
ydric soil wa //DROLOG /etland Hyd rimary Indica _ Surface V _ High Wate _ Saturation _ Water Ma _ Sediment _ Drift Depo _ Inundatio _ Iron Depo _ Inundatio _ Sparsely ield Observ urface Wate	rology Indicators ators (minimum of Vater (A1) er Table (A2) in (A3) arks (B1) in Deposits (B2) posits (B3) are Crust (B4) posits (B5) in Visible on Aerial Vegetated Concar ations: r Present?	: one is require Imagery (B7 ve Surface (E	ed; check all the Water Aquat True A Hydro Oxidiz Prese Recer Thin M () Gauge (38) Other No X Dept	-Stained Leavic Fauna (B13 Aquatic Plants gen Sulfide Octobro Reduce nt Iron Reductifuck Surface (e or Well Data (Explain in Reth (inches):h (inches):h	(B14) (B14) dor (C1) eres on Lived Iron (C4) on in Tille (C7) (D9) emarks)	t) d Soils (C6	Sur Dra Dry Cra (C3) Satu Stur FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2) C-Neutral Test (D5)	
ydric soil wa "DROLOC Vetland Hyd rimary Indica Surface V High Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatio Sparsely vield Observ urface Water Vater Table For	rology Indicators ators (minimum of Vater (A1) er Table (A2) in (A3) arks (B1) in Deposits (B2) posits (B3) in or Crust (B4) posits (B5) in Visible on Aerial Vegetated Concavations: r Present? Present? esent?	: one is require Imagery (B7 ve Surface (E Yes N Yes N	ed; check all the — Water — Aquat — True A — Hydro — Oxidiz — Prese — Recer — Thin M () — Gauge (88) — Other No X Dept No X Dept	-Stained Leavic Fauna (B13 Aquatic Plants gen Sulfide Orted Rhizosphence of Reductifuck Surface (e or Well Data (Explain in Reh (inches):h (inches):h (inches):h	(B14) (B14) dor (C1) eres on Lived Iron (C4) don in Tille (C7) (D9) ermarks)	t) d Soils (C6	Sur Sur Dra Dry Cra (C3) Sati Stur FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2) C-Neutral Test (D5)	
CDROLOC etland Hyd imary Indica Surface V High Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundation Sparsely eld Observ urface Water facturation Predicted Scapi	rology Indicators ators (minimum of Vater (A1) er Table (A2) in (A3) arks (B1) a Deposits (B2) posits (B3) arc Crust (B4) posits (B5) in Visible on Aerial Vegetated Concavations: r Present? eresent?	: one is require Imagery (B7 ve Surface (E Yes N Yes N	ed; check all the — Water — Aquat — True A — Hydro — Oxidiz — Prese — Recer — Thin M () — Gauge (88) — Other No X Dept No X Dept	-Stained Leavic Fauna (B13 Aquatic Plants gen Sulfide Orted Rhizosphence of Reductifuck Surface (e or Well Data (Explain in Reh (inches):h (inches):h (inches):h	(B14) (B14) dor (C1) eres on Lived Iron (C4) don in Tille (C7) (D9) ermarks)	t) d Soils (C6	Sur Sur Dra Dry Cra (C3) Sati Stur FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2) C-Neutral Test (D5)	
ron Deport Inundation Sparsely ield Observurface Water Table Faturation Prencludes capilescribe Rec	rology Indicators ators (minimum of Vater (A1) er Table (A2) in (A3) arks (B1) in Deposits (B2) posits (B3) in or Crust (B4) posits (B5) in Visible on Aerial Vegetated Concavations: r Present? Present? esent?	: one is require Imagery (B7 ve Surface (E Yes N Yes N	ed; check all the — Water — Aquat — True A — Hydro — Oxidiz — Prese — Recer — Thin M () — Gauge (88) — Other No X Dept No X Dept	-Stained Leavic Fauna (B13 Aquatic Plants gen Sulfide Orted Rhizosphence of Reductifuck Surface (e or Well Data (Explain in Reh (inches):h (inches):h (inches):h	(B14) (B14) dor (C1) eres on Lived Iron (C4) don in Tille (C7) (D9) ermarks)	t) d Soils (C6	Sur Sur Dra Dry Cra (C3) Sati Stur FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)	
r/dric soil war r/DROLOC retland Hyd rimary Indica Surface V High Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundation Sparsely retld Observ vurface Water retraction Precludes capi	rology Indicators ators (minimum of Vater (A1) er Table (A2) in (A3) arks (B1) in Deposits (B2) posits (B3) in or Crust (B4) posits (B5) in Visible on Aerial Vegetated Concavations: r Present? Present? esent?	: one is require Imagery (B7 ve Surface (E Yes N Yes N	ed; check all the — Water — Aquat — True A — Hydro — Oxidiz — Prese — Recer — Thin M () — Gauge (88) — Other No X Dept No X Dept No X Dept	-Stained Leavic Fauna (B13 Aquatic Plants gen Sulfide Orted Rhizosphence of Reductifuck Surface (e or Well Data (Explain in Reh (inches):h (inches):h (inches):h	(B14) (B14) dor (C1) eres on Lived Iron (C4) don in Tille (C7) (D9) ermarks)	t) d Soils (C6	Sur Sur Dra Dry Cra (C3) Sati Stur FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2) C-Neutral Test (D5)	
PROLOCE TOROLOCE TOROLOC	rology Indicators ators (minimum of Vater (A1) er Table (A2) in (A3) arks (B1) in Deposits (B2) posits (B3) in or Crust (B4) posits (B5) in Visible on Aerial Vegetated Concavations: r Present? Present? esent?	: one is require Imagery (B7 ve Surface (E Yes N Yes N The gauge, mo	ed; check all the Water Aquat True A Hydro Oxidiz Prese Recer Thin M Gauge So X Dept No X Dept No X Dept nitoring well, accer	-Stained Leavic Fauna (B13 Aquatic Plants gen Sulfide Octobro Reduction Reduction Reduction Reduction Research (Explain in Reference):	(B14) (B14) dor (C1) eres on Lived Iron (C4) don in Tille (C7) (D9) ermarks)	t) d Soils (C6	Sur Sur Dra Dry Cra (C3) Sati Stur FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2) C-Neutral Test (D5)	

Reset Form	Print Form
I (COCL I OIIII	I IIII I OIIII

Project/Site: Bateman Meadows			City/Count	y: Barrington	n Hills, Cook County	_ Sampling Date	5/1/201	7
			State: Illinois Sampling Point: 7B					
Investigator(s): Rob Vanni			Section, To	ownship, Ra	nge: Sec 33, T43 N, R 1	0E		
Landform (hillslope, terrace, etc.):								
Slope (%): Lat: _42.15049								
Soil Map Unit Name: Drummers silty cl								
Are climatic / hydrologic conditions on t								
C. ATTENDED	90: 1				"Normal Circumstances"		× N	0
Are Vegetation, Soil, or								
Are Vegetation, Soil, or SUMMARY OF FINDINGS - A					eeded, explain any answ			e oto
				ig point i	ocations, transect	s, important	reatures	3, 610.
Hydrophytic Vegetation Present?		_ No		he Sampled	l Area			
Hydric Soil Present? Wetland Hydrology Present?		No		hin a Wetlaı	nd? Yes	X No		
Remarks:	resX	_ 140	8					
VEGETATION – Use scientific	names of pla	nto						
VEGETATION - Ose scientific	names or pia		Dominon	t Indicator	Dominance Test wor	kehoot		
Tree Stratum (Plot size:			Species?		Number of Dominant S That Are OBL, FACW	Species	1	(A)
2			-0		Total Number of Domi Species Across All Str		1	(B)
4					10 (a) (b) (3900 (c) 40 (c)	20.5		(0)
5					Percent of Dominant S That Are OBL, FACW		100	(A/B)
			_ = Total Co	over				C K C ST. K
Sapling/Shrub Stratum (Plot size:					Prevalence Index wo			
1.					Total % Cover of:			
2					OBL species			-
3					FAC species			=3
4					FACU species			
5			= Total Co	over	UPL species			
Herb Stratum (Plot size:)	7	rotar ot	J V C1	Column Totals: 1			
Phalaris arundinacea		80	Yes	FACW				
2. Solidago altissima		5	No	FACU	Security Sec	x = B/A =	2.10	_
NOSS			No_	FACW	Hydrophytic Vegetat			
4					X Dominance Test			
5					X Prevalence Index		do sumas.	etio e
6			-		Morphological Addata in Remar	ks or on a separa	ate suppor	ung
7			-87		Problematic Hydr	ophytic Vegetation	on¹ (Expla	in)
8			7/2		200 N			
9				10-	¹ Indicators of hydric s			must
10			= Total Co		be present, unless dis	turbed or probler	matic.	
Woody Vine Stratum (Plot size:1	-0.0	*		over	Hydrophytic			
2.			- 11	ACC	Vegetation	(aa V 11		
			_ = Total Co	over	Present? Y	es X No		
Remarks: (Include photo numbers he	re or on a sepa	rate sheet.)						
Hyrdophytic vegetation was present w	ithin the sample	point.						

SOIL Sampling Point: 7B

27		to the depth n	eeded to document the indicator	or confirm	n the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	% (Redox Features Color (moist) % Type ¹	Loc ²	Texture	Remarks
0-18"	10 YR 2/1	100	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		SiCL	
-						
-					8K 	
	2				617 <u></u>	V
		1050				
				-	-	
¹Type: C=C	oncentration. D=De	pletion, RM=Red	duced Matrix, CS=Covered or Coat	ed Sand G	rains. ² Loc	eation: PL=Pore Lining, M=Matrix.
Hydric Soil		- Company of the second of action (for Problematic Hydric Soils ³ :
Histosol	(A1)		Sandy Gleyed Matrix (S4)		Coast	Prairie Redox (A16)
(A)	pipedon (A2)		Sandy Redox (S5)			anganese Masses (F12)
0.00	istic (A3)		Stripped Matrix (S6)		Other ((Explain in Remarks)
	en Sulfide (A4)		X Loamy Mucky Mineral (F1)			
Stratifie	d Layers (A5)		Loamy Gleyed Matrix (F2) Depleted Matrix (F3)			
- 12 (C) - 15 (C)	d Below Dark Surfa	ce (A11)	Redox Dark Surface (F6)			
	ark Surface (A12)	· · · · · · · · · · · · · · · · · · ·	Depleted Dark Surface (F7	")	3Indicators	of hydrophytic vegetation and
	Mucky Mineral (S1)		Redox Depressions (F8)	70		d hydrology must be present,
	ucky Peat or Peat (S				unless	disturbed or problematic.
	Layer (if observed):				
Type:	0.79 (m-0.49) n/		-		TOTAL IN THE STREET SHOWS	particular ages ve
Depth (in	ches):		₹		Hydric Soil	Present? Yes X No No
Remarks:						
Hydric soil w	vas noted within the	sample point.				
HYDROLO	GY					
Wetland Hy	drology Indicators	:				
			check all that apply)		Seconda	ary Indicators (minimum of two required)
A Section 1	Water (A1)		Water-Stained Leaves (B9)			face Soil Cracks (B6)
	ater Table (A2)		Aquatic Fauna (B13)			nage Patterns (B10)
X Saturati	on (A3)		True Aquatic Plants (B14)			Season Water Table (C2)
Water N	farks (B1)		Hydrogen Sulfide Odor (C1)		Cray	yfish Burrows (C8)
Sedime	nt Deposits (B2)				(C3) Satu	uration Visible on Aerial Imagery (C9)
Drift De			Presence of Reduced Iron (C			nted or Stressed Plants (D1)
	at or Crust (B4)		Recent Iron Reduction in Tille	ed Soils (C		emorphic Position (D2)
Iron De		6 • 10 ± 10 ± 10 ± 10 ± 10 ± 10 ± 10 ± 10	Thin Muck Surface (C7)		FAC	C-Neutral Test (D5)
	ion Visible on Aerial		Gauge or Well Data (D9)			
	y Vegetated Conca	ve Surface (B8)	Other (Explain in Remarks)			
Field Obser		Vaa N	Y Dorth (look)			
STATISTICS NOTES			X Depth (inches):			
Water Table			X Depth (inches):			
Saturation F (includes ca	Present? pillary fringe)	Yes _ X No _	Depth (inches):2"	Wet	land Hydrolog	y Present? Yes X No
		n gauge, monito	ring well, aerial photos, previous in	spections),	, if available:	
Remarks:						
. tomanto.						
Wetland hu	trology was present	during our on a	ite investigation			
vveuand nyo	drology was present	uuring our on-si	ne mvesnganon.			

D 15	Ditt
Reset Form	Print Form

Project/Site: Bateman Meadows			City/County:	Barrington	n Hills, Cook County	Sampling Date:	5/1/2017	3
			State: Illinois Sampling Point: 8B					
Investigator(s): Rob Vanni								
_andform (hillslope, terrace, etc.):								
					(concave, convex, none,			
Slope (%): Lat: 42.1495			Long: <u>00.2</u>		70.00F-070V. 1-500V-0V-0V-		957	
Soil Map Unit Name: Drummers silty of					NWI or WWI		S	
Are climatic / hydrologic conditions on								
Are Vegetation, Soil, o	r Hydrology	_ significantly	disturbed?	Are '	'Normal Circumstances"	present? Yes _	X No	
Are Vegetation, Soil, o	r Hydrology	_ naturally pro	blematic?	(If ne	eded, explain any answ	ers in Remarks.)		
SUMMARY OF FINDINGS - A	Attach site ma	ap showing	samplin	g point l	ocations, transect	s, important f	eatures	, etc.
				•	**************************************	\$	Control Control Control	
Hydrophytic Vegetation Present?		No X	Is th	e Sampled	l Area			
Hydric Soil Present?	YesX_	No	with	in a Wetlar	nd? Yes	NoX		
Wetland Hydrology Present?	Yes	No X						
Remarks:								
VECETATION Line exicutific	nomes of plan							
VEGETATION – Use scientific	names of plan		5	1 0 1	I 5			
Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?		Dominance Test wor			
1. Acer negundo		5	No	FACW	Number of Dominant That Are OBL, FACW		0	(A)
2. Prunus virginiana		15	No	FACU			- G	
3			· · · · · · · · · · · · · · · · · · ·		Total Number of Dom Species Across All St		1	(B)
4.			v-		20 20 20 20 A 20 20 A	FS - 27		1-7
5					Percent of Dominant S That Are OBL, FACW		0	(A/B)
		20	= Total Cov	ver	1940 - 19			(/
Sapling/Shrub Stratum (Plot size: _)				Prevalence Index wo			
Lonicera tatarica		35	Yes	<u>FACU</u>	Total % Cover of:		3444	-
2. Rhamnus cathartica		5	No	FAC	OBL species			
3. Rubus occidentalis		15	No_	UPL	FACW species			-
nen		10	No	FACU	FAC species			-
5				(0	FACU species			48
Herb Stratum (Plot size:	Υ	05	= Total Co	ver	UPL species	anno Si mana		(B)
1. Alliaria petiolata		10	No	FAC	Column Totals.	(A) _	000	_ (D)
a Clashawa hadawaa		5	No	FACU	Prevalence Inde	ex = B/A =	3.90	
3.		137.00			Hydrophytic Vegeta	tion Indicators:		
4					Dominance Test	is >50%		
5					Prevalence Index	c is ≤3.0¹		
6					Morphological Ad			ing
7						rks or on a separa	20	Q.
8					Problematic Hydr	ophytic Vegetatio	n' (Explair	۱)
9					1			KONGER
10					¹ Indicators of hydric s be present, unless dis			iust
			= Total Co	ver				
Woody Vine Stratum (Plot size:								
1					Hydrophytic Vegetation			
2				<u> </u>		res No	X	
		-	= Total Co	ver				
Remarks: (Include photo numbers h	nere or on a separa	ate sheet.)			1			
Hyrdophytic vegetation was not pres	ent within the sam	ple point.						

SOIL Sampling Point: 8B

(inches) Color (moist)		Redox	x Features			
(inches) Color (moist)	%(Color (moist)	%Type¹	_Loc ²	Texture	Remarks
0-21" 10 YR 2/1	100		C	M	SiL	72
			N 			-
					e	÷
				-		
			W/\ <u></u>			8
T 0 0 D-5					21.0	cation: PL=Pore Lining, M=Matrix.
Type: C=Concentration, D=D Hydric Soil Indicators:	repletion, Rivi=Re	duced Matrix, CS	=Covered or Coat	ed Sand G		for Problematic Hydric Soils ³ :
Market Color Ballier of the Color Co		Sandy C	Clayed Matrix (SA)			Prairie Redox (A16)
Histosol (A1) Histic Epipedon (A2)			Gleyed Matrix (S4) Redox (S5)		- The second	anganese Masses (F12)
Black Histic (A3)			Matrix (S6)			(Explain in Remarks)
Hydrogen Sulfide (A4)			Mucky Mineral (F1)			(
Stratified Layers (A5)			Gleyed Matrix (F2)			
2 cm Muck (A10)		Depleted	d Matrix (F3)			
Depleted Below Dark Surf	face (A11)		Dark Surface (F6)			
X Thick Dark Surface (A12)		Committee of the contract of t	d Dark Surface (F7)		s of hydrophytic vegetation and
Sandy Mucky Mineral (S1		Redox D	Depressions (F8)			d hydrology must be present,
_ 5 cm Mucky Peat or Peat					unless	disturbed or problematic.
Restrictive Layer (if observe	a):					
		8			100000000000000000000000000000000000000	Carron Carron Anno Carro
Depth (inches):		- 2;			Hydric Soi	Present? Yes X No
Hydric soil was noted within th	e sample point.					
	e sample point.					
YDROLOGY						
YDROLOGY Wetland Hydrology Indicato	rs:	check all that ap	oply)		Second	ary Indicators (minimum of two required
YDROLOGY Wetland Hydrology Indicato Primary Indicators (minimum o	rs:		1000 000 000-001			
YDROLOGY Wetland Hydrology Indicato	rs:	Water-Stai	ined Leaves (B9)		Sur	ary Indicators (minimum of two required face Soil Cracks (B6) inage Patterns (B10)
YDROLOGY Wetland Hydrology Indicato Primary Indicators (minimum of the control	rs:	Water-Stai	ined Leaves (B9)		Sur	face Soil Cracks (B6)
YDROLOGY Wetland Hydrology Indicato Primary Indicators (minimum of the control	rs:	Water-Stai Aquatic Fa True Aqua	ined Leaves (B9) auna (B13)		Sur Dra Dry	face Soil Cracks (B6) inage Patterns (B10)
YDROLOGY Wetland Hydrology Indicato Primary Indicators (minimum of the control	rs:	Water-Stai Aquatic Fa True Aqua Hydrogen	ined Leaves (B9) auna (B13) itic Plants (B14) Sulfide Odor (C1)	ving Roots	Sur Dra Dry Cra	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2)
YDROLOGY Wetland Hydrology Indicato Primary Indicators (minimum of the continuous	rs:	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leaves (B9) auna (B13) itic Plants (B14) Sulfide Odor (C1)		Sur Dra Cra Cra (C3) Sat	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8)
YDROLOGY Wetland Hydrology Indicato Primary Indicators (minimum of the continuous	rs:	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leaves (B9) auna (B13) itic Plants (B14) Sulfide Odor (C1) Rhizospheres on Li	4)	Sur Dra Dry Cra (C3) Sat Stu	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9)
YDROLOGY Wetland Hydrology Indicato Primary Indicators (minimum of the continuous	rs:	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leaves (B9) auna (B13) tic Plants (B14) Sulfide Odor (C1) Rhizospheres on Li of Reduced Iron (Con Reduction in Tille	4)	Sur Dra Dry Cra (C3) Sar Stu 6) Ge	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) tyfish Burrows (C8) uration Visible on Aerial Imagery (C9) the or Stressed Plants (D1)
YDROLOGY Wetland Hydrology Indicato Primary Indicators (minimum of the continuous	rs: of one is required;	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro	ined Leaves (B9) auna (B13) atic Plants (B14) Sulfide Odor (C1) Rhizospheres on Li of Reduced Iron (C on Reduction in Tille Surface (C7)	4)	Sur Dra Dry Cra (C3) Sar Stu 6) Ge	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) tyfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2)
YDROLOGY Wetland Hydrology Indicato Primary Indicators (minimum of the continuous	rs: of one is required; al Imagery (B7)	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or	ined Leaves (B9) auna (B13) atic Plants (B14) Sulfide Odor (C1) Rhizospheres on Li of Reduced Iron (C on Reduction in Tilla a Surface (C7) Well Data (D9)	4)	Sur Dra Dry Cra (C3) Sar Stu 6) Ge	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) tyfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2)
YDROLOGY Wetland Hydrology Indicato Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeric	rs: of one is required; al Imagery (B7)	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or	ined Leaves (B9) auna (B13) atic Plants (B14) Sulfide Odor (C1) Rhizospheres on Li of Reduced Iron (C on Reduction in Tilla a Surface (C7) Well Data (D9)	4)	Sur Dra Dry Cra (C3) Sar Stu 6) Ge	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) tyfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2)
YDROLOGY Wetland Hydrology Indicato Primary Indicators (minimum of the continuous	rs: of one is required; al Imagery (B7) ave Surface (B8)	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or Other (Exp	ined Leaves (B9) auna (B13) atic Plants (B14) Sulfide Odor (C1) Rhizospheres on Li of Reduced Iron (C on Reduction in Tilla a Surface (C7) Well Data (D9)	4) ed Soils (C	Sur Dra Dry Cra (C3) Sar Stu 6) Ge	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) tyfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2)
YDROLOGY Wetland Hydrology Indicato Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeri Sparsely Vegetated Concertications: Surface Water Present?	rs: of one is required; al Imagery (B7) ave Surface (B8)	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or Other (Exp	ined Leaves (B9) auna (B13) atic Plants (B14) Sulfide Odor (C1) Rhizospheres on Li of Reduced Iron (C on Reduction in Tille a Surface (C7) Well Data (D9) plain in Remarks)	4) ed Soils (C	Sur Dra Dry Cra (C3) Sar Stu 6) Ge	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) tyfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeri	rs: of one is required; al Imagery (B7) ave Surface (B8) Yes No Yes No	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or Other (Exp X Depth (in	ined Leaves (B9) auna (B13) atic Plants (B14) Sulfide Odor (C1) Rhizospheres on Li of Reduced Iron (C on Reduction in Tille a Surface (C7) Well Data (D9) plain in Remarks) ches):	ed Soils (C	Sur Dra Dry Cra (C3) Sar Stu 6) Ge FA	inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2)
YDROLOGY Wetland Hydrology Indicato Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeric Sparsely Vegetated Concertic Sparsely Vegetated Concertic Water Table Present? Water Table Present? Saturation Present? (includes capillary fringe)	rs: of one is required; al Imagery (B7) ave Surface (B8) Yes No Yes No Yes No	Water-Stai Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or Other (Exp X Depth (in X Depth (in	ined Leaves (B9) auna (B13) autic Plants (B14) Sulfide Odor (C1) Rhizospheres on Li of Reduced Iron (C on Reduction in Tille surface (C7) Well Data (D9) polain in Remarks) ches):	4) ed Soils (C	Sur Dra Dry Cra (C3) Sat Stu 6) Ge FA	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2) C-Neutral Test (D5)
YDROLOGY Wetland Hydrology Indicato Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeric Sparsely Vegetated Concertic Sparsely Vegetated Concertic Water Table Present? Water Table Present? Saturation Present? (includes capillary fringe)	rs: of one is required; al Imagery (B7) ave Surface (B8) Yes No Yes No Yes No	Water-Stai Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or Other (Exp X Depth (in X Depth (in	ined Leaves (B9) auna (B13) autic Plants (B14) Sulfide Odor (C1) Rhizospheres on Li of Reduced Iron (C on Reduction in Tille surface (C7) Well Data (D9) polain in Remarks) ches):	4) ed Soils (C	Sur Dra Dry Cra (C3) Sat Stu 6) Ge FA	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2) C-Neutral Test (D5)
YDROLOGY Wetland Hydrology Indicato Primary Indicators (minimum of the surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeric Sparsely Vegetated Concertications: Surface Water Present? Water Table Present? Saturation Present?	rs: of one is required; al Imagery (B7) ave Surface (B8) Yes No Yes No Yes No	Water-Stai Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or Other (Exp X Depth (in X Depth (in	ined Leaves (B9) auna (B13) autic Plants (B14) Sulfide Odor (C1) Rhizospheres on Li of Reduced Iron (C on Reduction in Tille surface (C7) Well Data (D9) polain in Remarks) ches):	4) ed Soils (C	Sur Dra Dry Cra (C3) Sat Stu 6) Ge FA	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2) C-Neutral Test (D5)
YDROLOGY Wetland Hydrology Indicato Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeri Sparsely Vegetated Conce Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre	rs: of one is required; al Imagery (B7) ave Surface (B8) Yes No Yes No Yes No	Water-Stai Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or Other (Exp X Depth (in X Depth (in	ined Leaves (B9) auna (B13) autic Plants (B14) Sulfide Odor (C1) Rhizospheres on Li of Reduced Iron (C on Reduction in Tille surface (C7) Well Data (D9) polain in Remarks) ches):	4) ed Soils (C	Sur Dra Dry Cra (C3) Sat Stu 6) Ge FA	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2) C-Neutral Test (D5)

Deast Farm	Driet Farm
Reset Form	Print Form

Project/Site: Bateman Meadows			City/County:	Barrington	n Hills, Cook County	_ Sampling Dat	te: 5/1/201	7
Applicant/Owner: Haeger Engineering			State: Illinois Sampling Point: 9B					
			Section, Township, Range: Sec 33, T43 N, R 10E					
			Local relief (concave, convex, none):					
Slope (%): Lat: 42.14963								
Soil Map Unit Name: Muskego and Ho								
Are climatic / hydrologic conditions on t								
							Y N	
Are Vegetation, Soil, or					"Normal Circumstances"			·
Are Vegetation, Soil, or SUMMARY OF FINDINGS - A					eeded, explain any answ ocations, transect			s, etc.
Hydrophytic Vegetation Present?	Yes X	No	lo th	o Camples	I Area			
Hydric Soil Present?		No	N. 30 W. 10 W.	e Sampled in a Wetlar		× No		
Wetland Hydrology Present?	Yes X	No	With	iii a vvetiai	ilur Tes	<u> </u>		
Remarks:								
VEGETATION – Use scientific	names of pla	nts.						-
Tree Stratum (Plot size:		Absolute % Cover	Dominant Species?		Dominance Test wor			
A CONTRACTOR OF THE CONTRACTOR		25	Yes	FACW	Number of Dominant : That Are OBL, FACW		4	(A)
2.			772		Car Cara Cara Naco A	35		V V
3.					Total Number of Dom Species Across All Str		4	(B)
4			×		507. 1970 - MAN BOOM IN 1992	D) 971		
5.					Percent of Dominant S That Are OBL, FACW		100	(A/B)
		25	= Total Cov	/er				
Sapling/Shrub Stratum (Plot size:			1.6000	=1011	Prevalence Index wo		14. L L	
1. Lonicera tatarica		5	Yes_	FACU	Total % Cover of: OBL species		ultiply by: 40	_
2. Rhamnus cathartica		5	No	FAC	FACW species			-
3					FAC species			_
4						5 x 4 =		_
3		10	= Total Cov	/er		0 x 5 =		
Herb Stratum (Plot size:)		- Total Ool	, C.	20 mm 13	100 (A)	175	— (B)
1. Typha latifolia		40	Yes	OBL	THE PROPERTY OF THE PROPERTY O		SZNEGOS	
2. Phalaris arundinacea		25	Yes	FACW	Prevalence Inde			
3				·	Hydrophytic Vegeta		:	
4				-	X Dominance Test			
5					X Prevalence Index			0.00
6			. ——)) (Morphological Addata in Remar	ks or on a sepa	vide suppo irate sheet)	rting)
7					Problematic Hydr			
8								5
9					¹ Indicators of hydric s	oil and wetland	hydrology	must
10				engrisser	be present, unless dis	sturbed or probl	ematic.	
Woody Vine Stratum (Plot size:	1		_ = Total Co	ver				
1,					Hydrophytic			
2.					Vegetation	/ V N	20	
			= Total Co	ver	Present? Y	es X N		
Remarks: (Include photo numbers he	are or on a cons	rate sheet \	7: 					
Hyrdophytic vegetation was present v	*************************************							

SOIL Sampling Point: 9B

9680 MAN	cription: (Describ	e to the depth n			dicator o	r confirm	the absence of	indicators.)
Depth (inches)	Color (moist)	%	Redo Color (moist)	x Features %	Type ¹	Loc²	Texture	Remarks
0-12"	10 YR 2/1	100	Color (Inolst)	70	C	M	Muck	Remarks
0-12	10 11(2/1					IVI	MICK	
-) 							
						4:		
	-							
-			AC WEE OF TE					
'Type: C=C Hydric Soil	oncentration, D=De	epletion, RM=Re	duced Matrix, C	S=Covered	or Coated	d Sand Gra		ion: PL=Pore Lining, M=Matrix.
l ali sono			Candu	Claused Mate	iv (C4)			r Problematic Hydric Soils ³ :
X Histosol	pipedon (A2)			Gleyed Matr Redox (S5)	rix (S4)			airie Redox (A16) ganese Masses (F12)
	istic (A3)			d Matrix (S6	:)			kplain in Remarks)
	en Sulfide (A4)		× Loamy				0 (2)	ipidir ir remarkoj
1000	d Layers (A5)			Gleyed Mat				
2 cm Mu	uck (A10)		201	d Matrix (F3				
	d Below Dark Surfa	ice (A11)	Redox	Dark Surfac	e (F6)			
	ark Surface (A12)			d Dark Surf				f hydrophytic vegetation and
	Mucky Mineral (S1)		Redox	Depressions	s (F8)			ydrology must be present,
	icky Peat or Peat (9.5 (199)					unless di	sturbed or problematic.
Leonos Banwer-Antoni	Layer (if observed	ı):						
Type:	abas):		-				11-4-1-0-110-	
Remarks:	ches):						Hydric Soil Pr	resent? Yes X No No
362	as noted within the							
HYDROLO	GY							
Wetland Hy	drology Indicators	s:						
Primary India	cators (minimum of	one is required;	check all that ag	oply)			Secondary	Indicators (minimum of two required)
Surface	Water (A1)		Water-Sta	ined Leaves	s (B9)		Surfac	e Soil Cracks (B6)
High Wa	ater Table (A2)		Aquatic Fa	auna (B13)			Draina	ige Patterns (B10)
Saturati	on (A3)		True Aqua	itic Plants (f	B14)		Dry-Se	eason Water Table (C2)
	larks (B1)		Hydrogen	Sulfide Odd	or (C1)		Crayfis	sh Burrows (C8)
	nt Deposits (B2)							tion Visible on Aerial Imagery (C9)
	posits (B3)			of Reduced				d or Stressed Plants (D1)
	at or Crust (B4)			n Reduction		Soils (C6)		orphic Position (D2)
	posits (B5)		Thin Muck				FAC-N	leutral Test (D5)
	on Visible on Aeria		Gauge or					
	y Vegetated Conca	ve Surface (B8)	Other (Ex	olain in Rem	narks)			
Field Obser		Voc.	Y n- " "	obos):				
Surface Wat		Yes No				-:		
Water Table		Yes X No				-		
Saturation P (includes car	pillary fringe)	Yes X No	5 8 97				353 3555	Present? Yes X No
Describe Re	corded Data (strea	m gauge, monito	oring well, aerial	photos, pre-	vious ins	pections), i	if available:	
Remarks:								
Wetland hyd	rology was presen	t during our on-s	ite investigation.					

Reset Form	Print Form
I (COCCI OIIII	I THILL OTTE

Project/Site: Bateman Meadows			City/County:	Barringto	n Hills, Cook County	Sampling Date	: 5/1/2017	
Applicant/Owner: Haeger Engineering					State: Illinois			
nvestigator(s): Rob Vanni					nge: Sec 33, T43 N, R 1	37 97 979		
_andform (hillslope, terrace, etc.):								
Slope (%): Lat: _42.1520								
Soil Map Unit Name: Zurich silt loam (_NWI or WWI o			
Are climatic / hydrologic conditions on								
	1007						Y No	
Are Vegetation, Soil, o					"Normal Circumstances"		NO .	
Are Vegetation, Soil, oil, oil					eeded, explain any answe		faaturas	otc
			Samping	g point i	ocations, transects	s, important	leatures,	, etc.
Hydrophytic Vegetation Present?		No	Is th	e Sampled	l Area			
Hydric Soil Present?		No X	with	in a Wetlaı	nd? Yes	NoX		
Wetland Hydrology Present? Remarks:	Yes	NO						
remarks.								
VEGETATION – Use scientific	names of pla	nts						
PEGETATION GGC GGICHANG	names of pla	Absolute	Dominant	Indicator	Dominance Test wor	ksheet:		
Tree Stratum (Plot size:			Species?		Number of Dominant S That Are OBL, FACW,		1	(A)
2					Total Number of Domi	nant		
3					Species Across All Str		1	(B)
4				-	Percent of Dominant S	Species		
5					That Are OBL, FACW,		100	(A/B)
Sapling/Shrub Stratum (Plot size:			= Total Cov	/er	Prevalence Index wo	rksheet:		
A Describer dellecture		00	FAC	No	Total % Cover of:		iply by:	
2.					OBL species	=	municipal control	
3.					FACW species7	70 x 2 =	140	
4.					FAC species2			-0
5					FACU species1	0 x 4 =	40	40
		20	= Total Cov	/er	UPL species	0 x 5 = _	0	
Herb Stratum (Plot size:)	70		E40111	Column Totals:1	00 (A) _	240	(B)
Phalaris arundinacea Circium arundinacea			Yes_		Prevalence Inde	ν = R/Δ =	2 40	
040 1400 400 400 000 000			No No	FACU FACU	Hydrophytic Vegetat	DE EVERENCE IS	2.10	-
274.				_FACO	X Dominance Test i			
4					X Prevalence Index			
5					Morphological Ad		de supporti	ina
7			**	-		ks or on a separa		0
8.					Problematic Hydro	ophytic Vegetatio	n¹ (Explain	1)
9								
10					¹ Indicators of hydric so be present, unless dis			ust
			= Total Cov	ver	be present, unless dis	turbed of problef	nauc.	
Woody Vine Stratum (Plot size:								
1				-	Hydrophytic Vegetation			
861						es X No		
2.					Present? Y	<u> </u>		
			= Total Cov	ver	Present?	00 <u>-7</u> 110		

	trix		Features	. 2		_
(inches) Color (mois		Color (moist)	% Type ¹	_Loc ²	Texture	Remarks
0-10" 10 YR 3/2	100		<u>C</u>	M	SiL	
10-22" 10 YR 4/4	95		<u></u>	M	SiCL	
				//(E-		
				· · · · · · · · · · · · · · · · · · ·		
* *						
Type: C=Concentration, D	=Depletion, RM=F	Reduced Matrix, CS=	Covered or Coate	d Sand Gra	ins. ² Loc	ation: PL=Pore Lining, M=Matrix.
lydric Soil Indicators:						for Problematic Hydric Soils ³ :
Histosol (A1)		Sandy Gle	eyed Matrix (S4)		Coast F	Prairie Redox (A16)
Histic Epipedon (A2)		Sandy Re	edox (S5)		Iron-Ma	anganese Masses (F12)
Black Histic (A3)			Matrix (S6)		Other (Explain in Remarks)
Hydrogen Sulfide (A4)			ucky Mineral (F1)			
_ Stratified Layers (A5)			eyed Matrix (F2)			
2 cm Muck (A10)	urface (A11)		Matrix (F3)			
 Depleted Below Dark S Thick Dark Surface (A1 	\$1 50		ark Surface (F6) Dark Surface (F7)		3Indicators	of hydrophytic vegetation and
Sandy Mucky Mineral (1.5	93 -01 (5)	epressions (F8)			I hydrology must be present,
5 cm Mucky Peat or Pe	Control of the Contro	1100001 20	prossions (1 o)			disturbed or problematic.
Restrictive Layer (if obser	STOCK TO STAN				1000000000	and an
	COLORO MARIA					
Depth (inches):					Hydric Soil	Present? Yes No _X
Remarks:					my and com	
lydric soil was not noted wi	thin the sample p	oint.				
łydric soil was not noted wi	thin the sample p	oint.				
lydric soil was not noted wi		oint.				
lydric soil was not noted wi YDROLOGY Vetland Hydrology Indica	tors:		lo)		Sacanda	ny ladia tara (minimum of hua na mina
Hydric soil was not noted wi YDROLOGY Vetland Hydrology Indica Primary Indicators (minimun	tors:	ed; check all that appl	Toyota Baseson		N 92 - 1000 ac	ry Indicators (minimum of two required
Hydric soil was not noted wi YDROLOGY Vetland Hydrology Indica Primary Indicators (minimum Surface Water (A1)	tors:	ed; check all that appl	ed Leaves (B9)		Surfa	ace Soil Cracks (B6)
Aydric soil was not noted wing the soil was not noted with the soil was not noted with the soil was not	tors:	ed; check all that appl Water-Staine Aquatic Faul	ed Leaves (B9) na (B13)		Surfa	ace Soil Cracks (B6) nage Patterns (B10)
YDROLOGY Vetland Hydrology Indica Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3)	tors:	ed; check all that appl Water-Staine Aquatic Faul True Aquatic	ed Leaves (B9) na (B13) c Plants (B14)		Surfa	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2)
YDROLOGY Vetland Hydrology Indica Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	tors: n of one is require	ed; check all that appl Water-Staine Aquatic Faul True Aquatic Hydrogen St	ed Leaves (B9) na (B13) c Plants (B14) ulfide Odor (C1)	To Deals (Surfa Drain Dry- Cray	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8)
YDROLOGY Vetland Hydrology Indica Primary Indicators (minimun Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	tors: n of one is require	ed; check all that appl Water-Staine Aquatic Faul True Aquatic Hydrogen Si Oxidized Rh	ed Leaves (B9) na (B13) c Plants (B14) ulfide Odor (C1) izospheres on Liv		Surfa Draii Dry- Cray Satu	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9)
YDROLOGY Vetland Hydrology Indica Primary Indicators (minimun Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	tors: n of one is require	ed; check all that appl Water-Staine Aquatic Fau True Aquatic Hydrogen Staine Oxidized Rh Presence of	ed Leaves (B9) na (B13) c Plants (B14) ulfide Odor (C1) izospheres on Liv Reduced Iron (C4	-)	Surfa Drain Dry- Cray C3) Satu Stun	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) rted or Stressed Plants (D1)
YDROLOGY Vetland Hydrology Indica Primary Indicators (minimun Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	tors: n of one is require	ed; check all that appl Water-Staine Aquatic Fau True Aquatic Hydrogen So Oxidized Rh Presence of Recent Iron	ed Leaves (B9) na (B13) c Plants (B14) ulfide Odor (C1) izospheres on Liv Reduced Iron (C4 Reduction in Tiller	-)	Surfa Drain Cray Cray Satu Stun Geo	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) tted or Stressed Plants (D1) morphic Position (D2)
YDROLOGY Vetland Hydrology Indica Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	tors: n of one is require	ed; check all that appl Water-Staine Aquatic Fau True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck S	ed Leaves (B9) na (B13) c Plants (B14) ulfide Odor (C1) izospheres on Liv Reduced Iron (C4 Reduction in Tiller Surface (C7)	-)	Surfa Drain Cray Cray Satu Stun Geo	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) rted or Stressed Plants (D1)
YDROLOGY Vetland Hydrology Indica Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on A	tors: n of one is require	ed; check all that appl Water-Staine Aquatic Faul True Aquatic Hydrogen So Oxidized Rh Presence of Recent Iron Thin Muck So Gauge or W	ed Leaves (B9) na (B13) c Plants (B14) ulfide Odor (C1) izospheres on Liv Reduced Iron (C4 Reduction in Tilled Surface (C7) fell Data (D9)	-)	Surfa Drain Cray Cray Satu Stun Geo	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) irration Visible on Aerial Imagery (C9) ited or Stressed Plants (D1) morphic Position (D2)
YDROLOGY Vetland Hydrology Indica Primary Indicators (minimun Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ac Sparsely Vegetated Co	tors: n of one is require	ed; check all that appl Water-Staine Aquatic Faul True Aquatic Hydrogen Staine Oxidized Rh Presence of Recent Iron Thin Muck S	ed Leaves (B9) na (B13) c Plants (B14) ulfide Odor (C1) izospheres on Liv Reduced Iron (C4 Reduction in Tilled Surface (C7) fell Data (D9)	-)	Surfa Drain Cray Cray Satu Stun Geo	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) irration Visible on Aerial Imagery (C9) ited or Stressed Plants (D1) morphic Position (D2)
YDROLOGY Vetland Hydrology Indica Primary Indicators (minimun Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Action Sparsely Vegetated Co	tors: n of one is require) erial Imagery (B7) ncave Surface (B	ed; check all that appl Water-Staine Aquatic Faul True Aquatic Hydrogen St Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	ed Leaves (B9) na (B13) c Plants (B14) ulfide Odor (C1) izospheres on Liv Reduced Iron (C4 Reduction in Tiller Surface (C7) fell Data (D9) ain in Remarks)	d Soils (C6)	Surfa Drain Cray Cray Satu Stun Geo	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) tted or Stressed Plants (D1) morphic Position (D2)
Aydric soil was not noted with the property of	tors: n of one is require erial Imagery (B7) ncave Surface (B	ed; check all that appl Water-Stains Aquatic Faul True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W B) Other (Explain	ed Leaves (B9) na (B13) c Plants (B14) ulfide Odor (C1) izospheres on Liv Reduced Iron (C4 Reduction in Tiller Surface (C7) fell Data (D9) ain in Remarks)	d Soils (C6)	Surfa Drain Cray Cray Satu Stun Geo	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) tted or Stressed Plants (D1) morphic Position (D2)
YDROLOGY Vetland Hydrology Indica Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Action Sparsely Vegetated Coffield Observations: Surface Water Present?	tors: n of one is require erial Imagery (B7) ncave Surface (B Yes N Yes N	ed; check all that appl Water-Staine Aquatic Faul True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	ed Leaves (B9) na (B13) c Plants (B14) ulfide Odor (C1) izospheres on Liv Reduced Iron (C4 Reduction in Tiller Surface (C7) fell Data (D9) ain in Remarks)	d Soils (C6)	Surfa Surfa Surfa Prain Cray Cray Satura Geo FAC	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) rted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)
Aydric soil was not noted with the property of	tors: n of one is require erial Imagery (B7) ncave Surface (B Yes N Yes N	ed; check all that appl Water-Stains Aquatic Faul True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W B) Other (Explain	ed Leaves (B9) na (B13) c Plants (B14) ulfide Odor (C1) izospheres on Liv Reduced Iron (C4 Reduction in Tiller Surface (C7) fell Data (D9) ain in Remarks)	d Soils (C6)	Surfa Surfa Surfa Prain Cray Cray Satura Geo FAC	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) tted or Stressed Plants (D1) morphic Position (D2)
YDROLOGY Vetland Hydrology Indica Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Action Sparsely Vegetated Coffield Observations: Surface Water Present?	tors: n of one is require erial Imagery (B7) ncave Surface (B Yes N Yes N	ed; check all that appl Water-Staine Aquatic Faul True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck Si Gauge or William Other (Explained) Depth (inched) Depth (inched)	ed Leaves (B9) na (B13) c Plants (B14) ulfide Odor (C1) nizospheres on Liv Reduced Iron (C4 Reduction in Tiller Surface (C7) fell Data (D9) ain in Remarks) nes): nes): nes):	d Soils (C6)	Surfa Surfa Surfa Prain Cray Cray Stun Geo FAC	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) rted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)
Aydric soil was not noted with the property of	tors: n of one is require erial Imagery (B7) ncave Surface (B Yes N Yes N	ed; check all that appl Water-Staine Aquatic Faul True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck Si Gauge or William Other (Explained) Depth (inched) Depth (inched)	ed Leaves (B9) na (B13) c Plants (B14) ulfide Odor (C1) nizospheres on Liv Reduced Iron (C4 Reduction in Tiller Surface (C7) fell Data (D9) ain in Remarks) nes): nes): nes):	d Soils (C6)	Surfa Surfa Surfa Prain Cray Cray Stun Geo FAC	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) rted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)
Aydric soil was not noted with the property of	tors: n of one is require erial Imagery (B7) ncave Surface (B Yes N Yes N	ed; check all that appl Water-Staine Aquatic Faul True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck Si Gauge or William Other (Explained) Depth (inched) Depth (inched)	ed Leaves (B9) na (B13) c Plants (B14) ulfide Odor (C1) nizospheres on Liv Reduced Iron (C4 Reduction in Tiller Surface (C7) fell Data (D9) ain in Remarks) nes): nes): nes):	d Soils (C6)	Surfa Surfa Surfa Prain Cray Cray Stun Geo FAC	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) rted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)

APPENDIX C

Photographs



Wetland A is a depressional Reed Canary Grass wetland area. The wetland was historically separated from Wetland B due to the installation of a gravel driveway.



Data point 1A confirms a wetland soil condition.



An off-site pond is noted on within the residential lot located to the NE. This area is not found within the property limits.





A gravel driveway is found within the property limits. The gravel driveway provides access to a abandon barn found on the west property line.



Wetland B consists of a wet meadow, wooded, marsh and open water wetland area.



Drainage is conveyed into the wetland area from the upstream watershed and is conveyed to the South.



The main wetland complex is hydrologically connected to Spring Creek.



Data point 1B confirms an upland soil condition

Data point 2B confirms a wetland soil condition



Data point 3B confirms a upland soil condition

Data point 7B confirms a wetland soil condition



Data point 8B confirms a upland soil condition

APPENDIX D

Habitat Evaluation

OBSERVER: Rob Vanni
DATE: May 2, 2016

LOCATION: Wetland A, Bateman Meadows

WILDLIFE HABITAT/USE EVALUATION SCORE SHEET

To assess the existing and/or potential wildlife habitat use of the subject wetland, the applicant must first complete this score sheet. The attached documentation provides examples of each scoring parameter.

A separate sheet must be completed for each wetland being considered.

Applicants must document their basis for scoring decisions with field surveys, current photographs, aerial photographs, and other appropriate information.

A. Utilization by Wildlife

Wildlife Use	Score
Significant	3
Evident	2
Low	1
Occasional	0.5
Non-Existent	0

SUB-TOTAL SCORE = 0

Response: The wetland is a degraded Reed Canary Grass Wetland Area. Wildlife was not noted within the delineated boundary.

B. Interspersion of Vegetative Cover

Interspersion	Score	
High	3	
Medium	2	
Low	1	

SUB-TOTAL SCORE = 1

C. Vegetative Cover to Open Water

Cover	Score
>95% Cover	0.5
76% - 95% Cover, Peripheral	1.5
76% - 95% Cover, Various	2.5
26% - 75% Cover, Peripheral	2.0
26% - 75% Cover, Patches	3.0
5% - 25% Cover, Peripheral	1.0
<5% Cover	0.5

SUB-TOTAL SCORE = 0.5

TOTAL SCORE $(A+B+C) = \underline{1.5}$

Total score ≥ 5.00 apply Ludwig Wildlife Methodology Total score < 5.00 no further wildlife analysis is necessary OBSERVER: Rob Vanni
DATE: May 2, 2016

LOCATION: Wetland B, Bateman Meadows

WILDLIFE HABITAT/USE EVALUATION SCORE SHEET

To assess the existing and/or potential wildlife habitat use of the subject wetland, the applicant must first complete this score sheet. The attached documentation provides examples of each scoring parameter.

A separate sheet must be completed for each wetland being considered.

Applicants must document their basis for scoring decisions with field surveys, current photographs, aerial photographs, and other appropriate information.

A. Utilization by Wildlife

Wildlife Use	Score	
Significant	3	
Evident	2	
Low	1	
Occasional	0.5	
Non-Existent	0	

SUB-TOTAL SCORE = 2

Response: The South portion of the wetland consists of an emergent/open water wetland. This wetland exhibited several different wildlife habitats. Mallard Ducks, Canadian Goose, Great Egret and Blue Heron were noted.

B. Interspersion of Vegetative Cover

Interspersion	Score	
High	3	
Medium	2	
Low	1	

SUB-TOTAL SCORE = 1

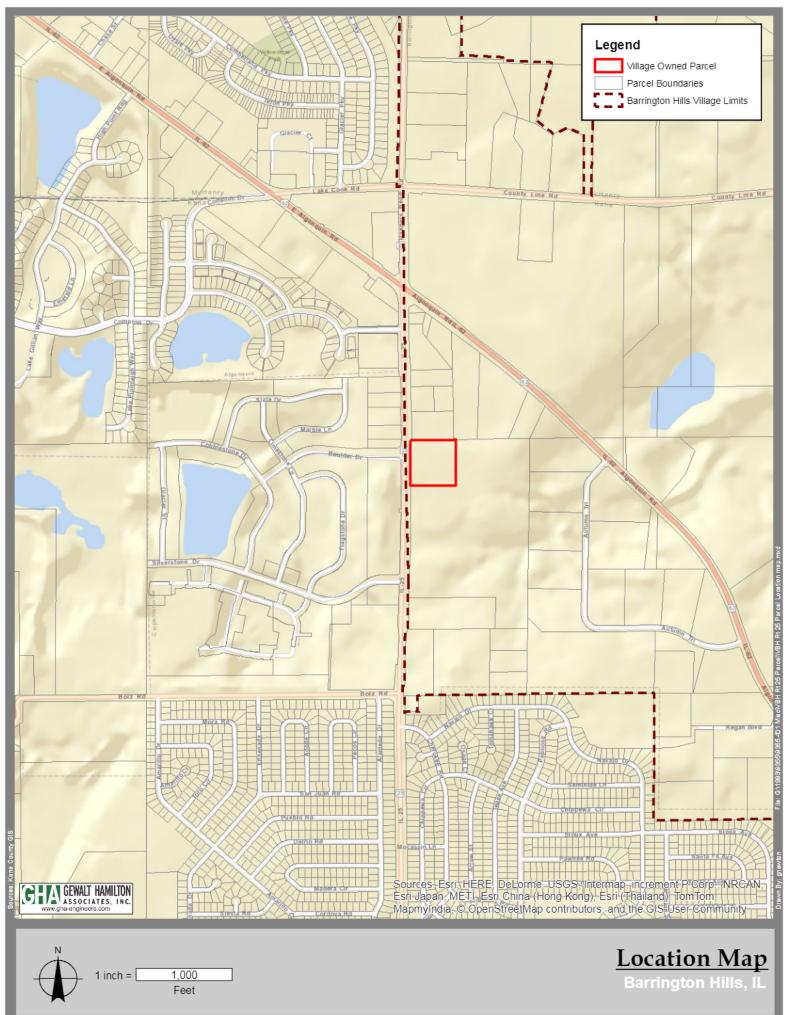
C. Vegetative Cover to Open Water

Cover	Score
>95% Cover	0.5
76% - 95% Cover, Peripheral	1.5
76% - 95% Cover, Various	2.5
26% - 75% Cover, Peripheral	2.0
26% - 75% Cover, Patches	3.0
5% - 25% Cover, Peripheral	1.0
<5% Cover	0.5

SUB-TOTAL SCORE = 1.0

TOTAL SCORE (A+B+C) = 4.0

Total score ≥ 5.00 apply Ludwig Wildlife Methodology Total score < 5.00 no further wildlife analysis is necessary



Map Center: -88.25801 42.14610

Date: 10/23/2015 Project: 9355.401