

# CITY OF HAM LAKE

15544 Central Avenue NE  
Ham Lake, Minnesota 55304  
(763) 434-9555  
Fax (763) 434-9599

## **CITY OF HAM LAKE PLANNING COMMISSION AGENDA MONDAY, JUNE 28, 2021**

**CALL TO ORDER:** 6:00 p.m.

**PLEDGE OF ALLEGIANCE**

**APPROVAL OF MINUTES:** June 14, 2021

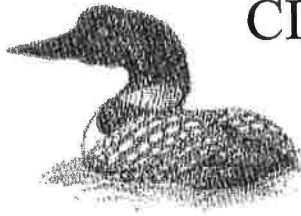
### **PUBLIC HEARINGS:**

- 6:01 p.m.** Jeff Stalberger, HFN Properties, LLC., requesting Preliminary Plat approval and rezoning for Hidden Forest East Park Addition (2 Single Family Residential lots) in Section 25.
- 6:01 p.m.** Jeff Stalberger, HFN Properties, LLC., requesting Preliminary Plat approval and rezoning for Hidden Forest East 3rd Addition (38 Single Family Residential lots) in Section 25.
- 6:01 p.m.** Don and Lisa Bickford requesting a Special Home Occupation Permit to operate Bickford's BBQ, LLC at 14745 Baltimore Street NE.

**NEW BUSINESS:** None

### **COMMISSION BUSINESS:**

1. City Council Update



# CITY OF HAM LAKE

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Ham Lake, Minnesota 55304  
(763) 434-9555  
Fax (763) 434-9599

## CITY OF HAM LAKE PLANNING COMMISSION MINUTES MONDAY, JUNE 14, 2021

The Ham Lake Planning Commission met for its regular meeting on Monday, June 14, 2021 in the Council Chambers at Ham Lake City Hall located at 15544 Central Avenue NE in Ham Lake, Minnesota.

**MEMBERS PRESENT:** Commissioners Brian Pogalz, Kyle Lejonvarn, Erin Dixon, Scott Heaton, Jonathan Fisher and Jeff Entsminger

**MEMBERS ABSENT:** Commissioner Dave Ringler

**OTHERS PRESENT:** City Engineer Tom Collins and Building and Zoning Clerk Jennifer Bohr

**CALL TO ORDER:** Chair Pogalz called the meeting to order at 6:00 p.m.

**PLEDGE OF ALLEGIANCE:**

The pledge of allegiance was recited by all in attendance.

**APPROVAL OF MINUTES:**

**Motion by Lejonvarn, seconded by Dixon, to approve the minutes of the May 24, 2021 Planning Commission meeting as written. All present in favor, motion carried.**

**PUBLIC HEARINGS:**

Roger and Sue Haugen, S & R Developers LLC, requesting Preliminary Plat approval for Enchanted Estates 3<sup>rd</sup> Addition (8 Single Family Residential lots) in Section 14.

Roger and Sue Haugen were present. Mr. Jason Rud, of E.G. Rud & Sons, Inc. land surveying company, spoke on the Haugen's behalf. Mr. Rud stated the Enchanted Estates plat received preliminary plat approval in 2005. Mr. Rud stated the grading and the infrastructure (drainage features, streets, etc.) for the overall plat was done at that time. Mr. Rud stated the developers then decided to construct the plat in phases. Mr. Rud stated the initial preliminary plat approval expired in 2011 so a new preliminary plat approval request was submitted for the third phase of development. Chair Pogalz asked Engineer Collins to comment on the plat. Engineer Collins stated the project conforms to the Enchanted Estates Preliminary Plat (which included rezoning the property to R-1, Single Family Residential) approved by the City Council on October 18, 2004; construction of the streets adjacent to the preliminary plat was completed in 2007. Engineer Collins stated the Coon Creek Watershed District conditionally approved the development and noted there is a conservation easement over a wetland mitigation area on portions of Lots 3, 4 and 5 of Block 1; the easement is governed by a Declaration of Restrictions and Covenants from the Board of Water and Soil Resources and approvals are needed, prior to final plat approval, for adding fill or modifying the conservation

easement. Engineer Collins stated a license agreement will be needed for Lot 1, Block 2 due to the septic line crossing the drainage and utility easement. Engineer Collins stated each lot will be assessed a parkland dedication fee per section 7A of the Development Agreement signed on September 2, 2005. Commissioner Entsminger completed the inspection, a copy which is on file. Commissioner Entsminger stated the area is a good location for residential development; the streets have been constructed and the area of the proposed development has a park, ponds and tree cover.

**Chair Pogalz opened the public hearing at 6:08 p.m. and asked for public comment; with there being none, he closed the public hearing at 6:09 p.m.**

**Motion by Entsminger, seconded by Lejonvarn, to recommend approval of the Preliminary Plat of Enchanted Estates 3<sup>rd</sup> Addition in Section 14, as presented by Roger and Sue Haugen of S & R Developers LLC, subject to obtaining approval from the Coon Creek Watershed District, obtaining approval from the Board of Water and Soil Resources to modify the current Conservation Easement that is over portions of Lots 3, 4 and 5 of Block 1, obtaining a License Agreement for the septic line crossing the drainage and utility easement on Lot 1, Block 2, meeting all requirements of the City Engineer and meeting all City, State and County requirements. All present in favor, motion carried. *This application will be placed on the City Council's Monday, June 21, 2021 agenda.***

Coco March, Greens World Inc., requesting a Conditional Use Permit to operate a nutritional supplement business at 14200 Lincoln Street NE, Suites 200, 300 and 500.

Teng Thao, Office Manager, was present. Mr. Thao stated the company is leasing space in the building and they have renovated the space to store the nutritional goods they sell. Mr. Thao stated they receive a delivery, via semi-truck, of nutritional goods once to twice a week and have daily outgoing UPS small package pick-up. Commissioner Lejonvarn completed the inspection, a copy which is on file. Commissioner Lejonvarn asked Mr. Thao if the business operated from any other suite(s) in addition to suite 500. Mr. Thao stated the company operates from suites 200, 300 and 500. Commissioner Lejonvarn stated the site plan identifies office space within the building; it appears suite 200 may be a business center and suite 300 may be used for packaging and shipping of product but overall what he saw was a warehouse operation. Commissioner Lejonvarn stated the location appears to have adequate parking space, there is a handicap parking space with a sign, however, there is no striping left on the concrete in the parking lot.

**Chair Pogalz opened the public hearing at 6:16 p.m. and asked for public comment; with there being none, he closed the public hearing at 6:16 p.m.**

**Motion by Lejonvarn, seconded by Fisher, to recommend approval of a Conditional Use Permit, as requested by Coco March, to operate Greens World Inc. at 14200 Lincoln Street NE, suites 200, 300 & 500, subject to operating hours of 6:00 a.m. to 5:00 p.m., no outside storage, striping the parking lot and meeting all City, State and County requirements. All present in favor, motion carried. *This application will be placed on the City Council's Monday, June 21, 2021 agenda.***

**NEW BUSINESS:**

Jason and Kari Lund requesting a Home Occupation Permit to operate Plaid Anvil Consulting, LLC at 14948 Madison Street NE.

Mr. Jason Lund, owner, was present. Mr. Lund stated his company is a technology services company providing consulting services to commercial furniture dealerships and manufacturers across the United States. Mr. Lund stated there is no retail or in-home service provided to his clients; all client engagements are performed at the client's office or via online conferencing platforms. Commissioner Fisher completed the inspection, a copy which is on file. Commissioner Fisher stated he drove by Mr. Lund's home, he did not request to go inside the home to inspect his home office, and spoke with Mr. Lund via telephone; the work he is doing within his home office is similar to the work many other residents are currently doing in their homes. **Motion by Fisher, seconded by Entsminger, to recommend approval of the Home Occupation Permit, requested by Jason and Kari Lund, to operate Plaid Anvil Consulting, LLC at 14948 Madison Street NE, subject to the following conditions: complying with criteria outlined in Article 9-350.1 of the City Code, all activities being carried on indoors, no customer meetings at the residence and meeting all City, State and County requirements. All present in favor, motion carried.** *This item will be placed on the June 21, 2021 City Council agenda.*

**COMMISSION BUSINESS:**

Chair Pogalz recognized a special guest at the meeting, Ms. Natalie Lund. Ms. Lund, Senior Patrol Leader of Troop 5509, attended the meeting to observe topics of discussion where multiple points of view are given on issues; she is working to earn a communication merit badge.

City Council Update

Commissioner Dixson attended the City Council's June 7, 2021 meeting. Commissioner Dixson stated the City Council discussed the recommendations suggested for Article 9-220; the City Council has tasked the Code Review Committee and the City Attorney to refine the recommendations and create amendments to Article 9. Commissioner Heaton will attend the June 21, 2021 City Council meeting.

**ADJOURNMENT:**

**Motion by Heaton, seconded by Fisher, to adjourn the Planning Commission meeting at 6:27 p.m. All present in favor, motion carried.**

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Jennifer Bohr  
Zoning and Building Clerk



**CITY OF HAM LAKE  
PLANNING COMMISSION REQUEST APPLICATION  
INSPECTION REPORT**

**MTG DATE: 06/28/2021**

**INSPECTION ISSUED TO: Erin Dixson**

**APPLICANT/CONTACT: Jeff Stalberger**

**TELEPHONE NUMBER: 612-799-1471 or stally68@msn.com**

**BUSINESS/PLAT NAME: HFN Properties LLC/Hidden Forest East Park Add.**

**ADDRESS/LOCATION OF INSPECTION: East of Lexington Ave NE/143<sup>rd</sup> Ave ME**

**APPLICATION FOR: Preliminary Plat Approval and Rezoning**

**RECOMMENDATION:** \_\_\_\_\_  
\_\_\_\_\_  
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\_\_\_\_\_

**DATE:** \_\_\_\_\_

**PLANNING COMMISSIONER SIGNATURE:** \_\_\_\_\_

**CITY OF HAM LAKE  
PLANNING COMMISSION REQUEST APPLICATION  
INSPECTION REPORT**

**MTG DATE: 06/28/2021**

**INSPECTION ISSUED TO: Erin Dixson**

**APPLICANT/CONTACT: Jeff Stalberger**

**TELEPHONE NUMBER: 612-799-1471 or stally68@msn.com**

**BUSINESS/PLAT NAME: HFN Properties LLC/Hidden Forest East 3rd Add.**

**ADDRESS/LOCATION OF INSPECTION: West of Carlos Avery/North-NE of Hidden Forest East  
2<sup>nd</sup> Add.**

**APPLICATION FOR: Preliminary Plat Approval and Rezoning**

**RECOMMENDATION:** \_\_\_\_\_  
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**CITY OF HAM LAKE  
PLANNING COMMISSION REQUEST APPLICATION  
INSPECTION REPORT**

**MTG DATE: 06/28/2021**

**INSPECTION ISSUED TO: Brian Pogalz**

**APPLICANT/CONTACT: Don or Lisa Bickford**

**TELEPHONE NUMBER: 612-859-6773 (Don) or 612-867-5115 (Lisa) or lisab@highlightprinting.com**

**BUSINESS/PLAT NAME: Bickford BBQ, LLC**

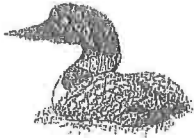
**ADDRESS/LOCATION OF INSPECTION: 14745 Baltimore St NE**

**APPLICATION FOR: Special Home Occupation Permit**

**RECOMMENDATION:** \_\_\_\_\_  
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\_\_\_\_\_  
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\_\_\_\_\_

**DATE:** \_\_\_\_\_

**PLANNING COMMISSIONER SIGNATURE:** \_\_\_\_\_



# CITY OF HAM LAKE

## PLANNING REQUEST

15544 Central Avenue NE

Ham Lake, MN 55304

Phone (763) 434-9555 Fax (763) 235-1697

Date of Application 5/13/2021

Date of Receipt \_\_\_\_\_

Receipt # \_\_\_\_\_

### Meeting Appearance Dates:

Planning Commission 6-28-2021

City Council \_\_\_\_\_

### Please check request(s):

Metes & Bounds Conveyance

Commercial Building Permit

Sketch Plan

Certificate of Occupancy

Preliminary Plat Approval\*

Home Occupation Permit

Final Plat Approval

Conditional Use Permit (New)\*

Rezoning\*

Conditional Use Permit (Renewal)

Multiple Dog License\*

Other \_\_\_\_\_

*\*NOTE: Advisory Signage is required for land use alterations and future road connections. This application also requires a Public Hearing. Such fees shall be deducted from deposit.*

Development/Business Name: HFN Properties, LLC

Address/Location of property: 143<sup>rd</sup> EAST OF LEXINGTON

Legal Description of property: Tract C RLS 274/outlot C

PIN # 25-32-23-31-0004 Current Zoning R-A Proposed Zoning R-X

Notes: FOL: Hidden Forest east - Park Addition - (PARK Plus 2 LOTS)

Applicant's Name: JEFF A. STAIBUGER

Business Name: HFN Properties LLC

Address 17404- WARD LK. Dr. NW

City Andover State Mn. Zip Code 55304

Phone 612-799-1471 Cell Phone      Fax     

Email address STALLY68@MSN.COM

*You are advised that the 60-day review period required by Minnesota Statutes Chapter 15.99 does not begin to run until all of the required items have been received by the City of Ham Lake.*

SIGNATURE Jeff A. Stalby DATE 5/13/2021

\*\*\*\*\*

- FOR STAFF USE ONLY -

ACTION BY: Planning Commission \_\_\_\_\_

City Council \_\_\_\_\_

PROPERTY TAXES CURRENT YES NO



# CITY OF HAM LAKE

15544 Central Avenue NE  
Ham Lake, Minnesota 55304  
(763) 434-9555  
Fax: (763) 434-9599

NOTICE OF PUBLIC HEARING  
CITY OF HAM LAKE  
COUNTY OF ANOKA  
STATE OF MINNESOTA

TAKE NOTICE, that pursuant to the requirements of Minnesota Law, a public hearing shall be held before the Ham Lake Planning Commission on Monday, June 28, 2021 at 6:01 p.m. at the City Hall located at 15544 Central Avenue NE for the purpose of considering the application of Jeff Stalberger, HFN Properties, LLC, requesting preliminary plat approval and rezoning to R-1 (single family residential) the development of Hidden Forest East Park Addition (2 residential single family lots) located in Section 25, a parcel of certain land situated in the City of Ham Lake, Anoka County, Minnesota and which is described as follows to wit:

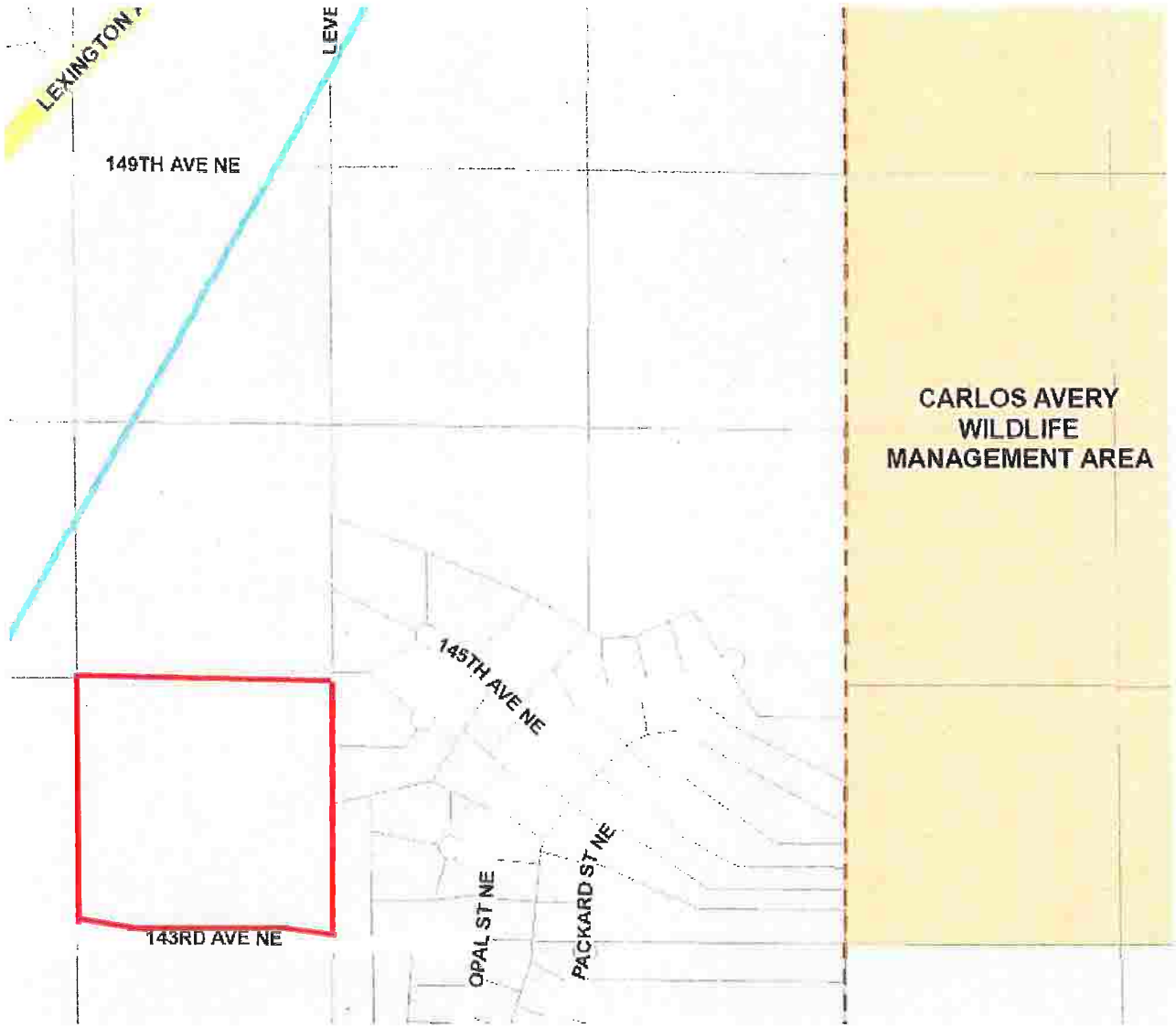
Parcel ID#            25-32-23-31-0004 (Formerly 25-32-23-31-0002 and 25-32-23-31-0003)

TRACT C REG LAND SURVEY NO 274, TOGW OUTLOT C HIDDEN FOREST EAST,  
SUBJ TO EASE OF REC

At such hearing both written and oral comments will be heard.

DATED: June 18, 2021

Jennifer Bohr  
Zoning & Building Clerk  
City of Ham Lake



**Hidden Forest East Park Addition**



## Memorandum

Date: June 21, 2021  
To: Planning Commissioners  
From: Tom Collins, City Engineer *TPC*  
Subject: Hidden Forest East Park Addition

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**Introduction:**

The proposed 2 lot residential development is located on 38.98 acres, which is Tract C of the attached 2017 Registered Land Survey No. 274 (<https://gis.anokacountymn.gov/propertysearch/?find=25-32-23-31-0004>). The Preliminary Plat, Grading, Erosion Control Plan and Tree Protection Plan, Livability Plan and Site Drainage Narrative received June 17<sup>th</sup> and the Stormwater Pollution Prevention Plan and Stormwater Drainage Report received June 2<sup>nd</sup> address prior review comments. The current zoning is Rural Single Family Residential (R-A) and the post development zoning will be Single Family Residential (R-1). A 600-scale zoning map is attached. The project conforms to the Sketch Plan that was approved at the November 16, 2020 City Council meeting.

**Discussion:**

The development dedicates 27.12 acres of parkland. The parkland is 16.48 acres of upland and 10.64 acres of wetland, per the attached Revised Figure 2 – Existing Conditions exhibit. The parkland dedication was coordinated with the adjacent developments of Hidden Forest East, Hidden Forest East 2<sup>nd</sup> Addition and proposed Hidden Forest East 3<sup>rd</sup> Addition. The City Council concurred with the Park and Tree Commission recommendation that the next phase include parkland dedication. The September 19, 2018 Park and Tree meeting minutes are attached. The northerly portion of the parkland is planted in sod, and the farmer has requested that they have until the end of 2023 for removal. The area is approximately 16.5 acres. A 200-scale 2020 aerial photo is attached. The timing for sod removal and City being able to utilize the entire parkland will be addressed in the Development Agreement. Custom grading of building pads is proposed, which will also be addressed in the Development Agreement.

The Lot 2 driveway crosses a drainage and utility easement. A License Agreement will be required, especially when considering that the City's maintenance access easement is partially over the proposed driveway. The Plans were approved at the June 14<sup>th</sup> Coon Creek Watershed District Board of Managers meeting, per the attached. The attached June 7<sup>th</sup> Tradewell septic certification certifies that the lots will support two standard septic systems in accordance with Minnesota Rules 7080. There are no rare plants or animals within the plat boundary, per the attached Rare Plant Survey Report.

**Recommendations:**

It is recommended that the Preliminary Plat of Hidden Forest East Park Addition be recommended for approval to the City Council.





# PRELIMINARY PLAT

~of~ HIDDEN FOREST EAST PARK ADDITION  
 ~for~ HFN PROPERTIES, LLC.  
 17404 WARD LAKE DRIVE NW  
 ANDOVER, MN 55304  
 (612) 799-1471

## VICINITY MAP

PART OF SEC. 25, TWP. 32, RNG. 23



ANOKA COUNTY, MINNESOTA  
(NO SCALE)

## LEGEND

- DENOTES IRON MONUMENT FOUND AS LABELED
- DENOTES IRON MONUMENT SET, MARKED RLS# 41578
- DENOTES EXISTING CONTOURS
- ▭ DENOTES AREA 1' ABOVE MOTTLES
- DENOTES APPROXIMATE FEMA FLOOD ZONE A LINE FROM FEMA FLOOD INSURANCE RATE MAP NO. 27003C0335E PANEL NO. 0355 SUFFIX E, EFFECTIVE DATE DECEMBER 16TH, 2015.

## PROPERTY DESCRIPTION

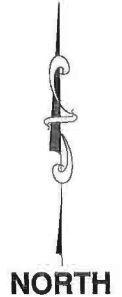
TRACT C, REGISTERED LAND SURVEY NO. 274, Anoka County, Minnesota  
 AND  
 OUTLOT C, HIDDEN FOREST EAST, Anoka County, Minnesota

## NOTES

- Bearings shown are on Anoka County datum.
- This survey was prepared without the benefit of title work. Additional easements, restrictions and/or encumbrances may exist other than those shown hereon. Survey subject to revision upon receipt of a current title commitment or an attorney's title opinion.
- Wetlands delineated by Kjolhaug Environmental Services, Inc.

Parcel ID # 25-32-23-31-0004

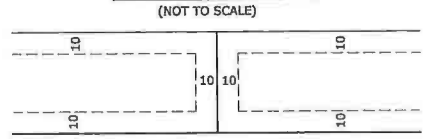
OWNER: KNOLL FAMILY LIMITED PARTNERSHIP



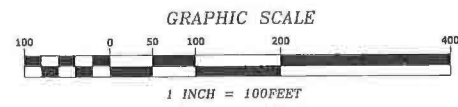
## DEVELOPMENT DATA

- TOTAL SITE AREA = 38.98± ACRES
- 2 PROPOSED SINGLE FAMILY LOTS
- PARK AREA TO BE DEDICATED = 27.12± ACRES
- PARK UPLAND AREA = 16.48± ACRES
- PARK WETLAND AREA = 10.64± ACRES
- AVERAGE LOT SIZE = 5.93± ACRES
- MINIMUM STREET FRONTAGE = 200 FEET
- MINIMUM LOT SIZE = 1.00 ACRES
- PROPOSED ZONING = R-1
- BUILDING SETBACKS: FRONT = 30 FEET, SIDE = 10 FEET, REAR = 50 FEET

## TYPICAL EASEMENTS



BEING 10 FEET IN WIDTH ADJOINING RIGHT OF WAY LINES AND 10 FEET IN WIDTH ADJOINING LOT LINES UNLESS OTHERWISE SHOWN.



I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

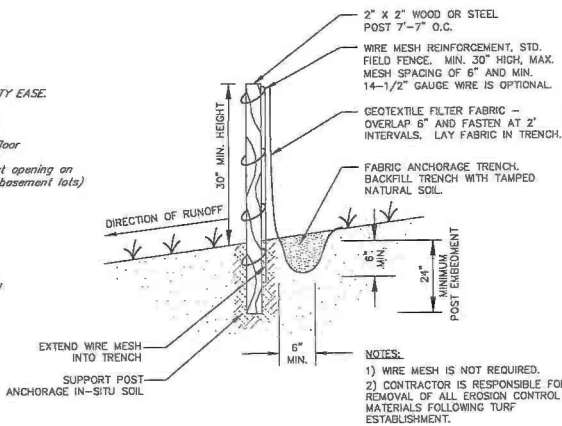
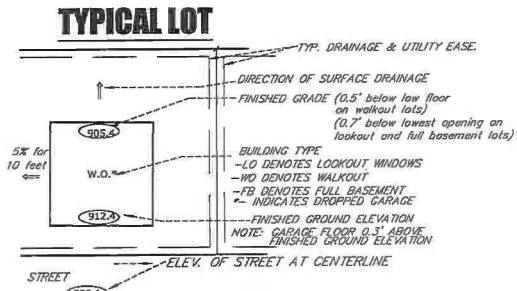
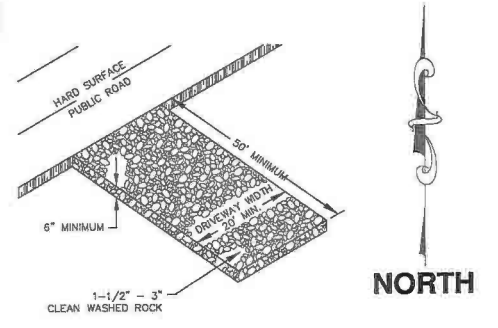
JASON S. RUD  
 Date: 06/17/2021 License No. 41578

**E.G. RUD & SONS, INC.**  
 EST. 1977  
 Professional Land Surveyors  
 6776 Lake Drive NE, Suite 110  
 Lino Lakes, MN 55014  
 Tel. (651) 361-8200 Fax (651) 361-8701  
 www.egrud.com

DRAWN BY:	MMD	JOB NO:	200949	DATE:	05/12/21
CHECK BY:	JER	FIELD CREW:	DT / CT		
1	06/02/21	CITY / WATERSHED COMMENTS	MMD		
2	06/07/21	REVISED WETLAND 7 / AREA CALCS	MMD		
3	06/17/21	CITY COMMENTS	MMD		
NO.	DATE	DESCRIPTION	BY		

# GRADING, EROSION CONTROL AND TREE PROTECTION PLAN

~of~ HIDDEN FOREST EAST PARK ADDITION  
 ~for~ HFN PROPERTIES, LLC.  
 17404 WARD LAKE DRIVE NW  
 ANDOVER, MN 55304  
 (612) 799-1471

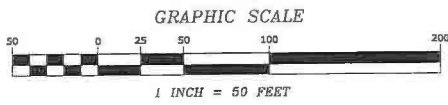


## LEGEND

- ⊙ DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
- ⊙ DENOTES EMERGENCY OVERFLOW ELEVATION
- x 992.36 DENOTES EXISTING SPOT ELEVATION
- WET DENOTES WET LAND
- DENOTES EXISTING 2 FOOT CONTOUR
- DENOTES PROPOSED 2 FOOT CONTOURS
- WET DENOTES WETLAND DELINEATED BY KOLHAG ENVIRONMENTAL SERVICES COMPANY.
- DENOTES EASEMENT LINE
- DENOTES SETBACK LINE
- DENOTES PROPOSED STORM SEWER
- DENOTES PROPOSED SILT / TREE PROTECTION FENCE
- DENOTES RIP ROLL TO BE INSTALLED INSIDE SILT FENCE ADJACENT TO WETLAND
- DENOTES DIRECTION OF DRAINAGE
- ⊙ DENOTES DIRECTION OF DRAINAGE
- ⊙ DENOTES PROPOSED CENTERLINE ELEVATION
- ⊙ DENOTES PROPOSED WELL LOCATION
- DENOTES AREA 1' ABOVE MOTTLES
- DENOTES WETLAND / VEGETATIVE BUFFER
- DENOTES WETLAND / VEGETATIVE BUFFER SIGN
- DENOTES RIPRAP (RIPRAP TO BE VEGETATED IN WETLAND BUFFER)
- DENOTES APPROXIMATE FEMA FLOOD ZONE A LINE FROM FEMA FLOOD INSURANCE RATE MAP NO. 27003C0335E PANEL NO. 0355 SUFFIX E, EFFECTIVE DATE DECEMBER 16TH, 2015.
- DENOTES TREE PRESERVATION AREA
- DENOTES 12' POND ACCESS

## NOTES

- BEARINGS SHOWN ARE ON ANOKA COUNTY DATUM.
- TOTAL LOT AREAS ARE CALCULATED TO STREET CENTERLINE PER ORDINANCE.
- 2 FOOT CONTOUR INTERVAL (NAVD 88)
- CONTOURS SHOWN ARE PER KINGO LIDAR DISTRIBUTION AND FIELD VERIFICATION.
- ALL MATCH POINTS AND PAVEMENT PATCHES TO BE SAWCUT AT FULL DEPTH.
- TURF AREA TO BE SEED WITHIN 7 DAYS AFTER COMPLETION OF ROUGH GRADING OR INACTIVITY.
- SEE PRELIMINARY UTILITY PLAN FOR STORM SEWER RINGS, INVERTS, AND SIZES.
- TRADEWELL SOIL TESTING COMPLETED SEPTIC SOIL BORINGS ON SITE.
- ALL PIPE APRONS PROVIDED WITH TRASH GUARDS
- PROVIDE GLASS III RIPRAP WITH FILTER FABRIC FOR ALL PIPE OUTLETS. INSTALL 6" OF TOPSOIL ON RIPRAP IN WETLAND BUFFERS AND SEED WITH SEED MIX MNDOT 33-261.
- IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL APPLY FOR A MN DNR DEWATERING PERMIT AND WILL PROVIDE WELL-FIELD LOCATIONS, RATES, DISCHARGE LOCATION, SCHEDULE AND QUANTITIES TO COWD 7 DAYS PRIOR TO ANY DEWATERING OPERATIONS.
- CONTRACTORS MUST BE PROVIDED WITH DNR FLYERS/ FACT SHEETS ON BLANDING'S TURTLES.



## EROSION CONTROL / REVEGETATION SPECS.

1. PRIOR TO ROUGH GRADING, INSTALL SILT STOP FENCE IN LOCATIONS SHOWN. ADDITIONAL SILT STOP FENCE WILL BE REQUIRED WHERE LOCAL CONDITIONS REQUIRE. INSTALL TREE PROTECTION AS DEEMED NECESSARY BY THE CITY FORESTER PRIOR TO ANY GRADING.
2. ANY GRADING SHALL PROCEED ON AN AREA BY AREA BASIS TO MINIMIZE UNCOMPLETED AREAS.
3. AS EACH AREA OUTSIDE THE STREET IS GRADED, PROVIDE NATIVE TOPSOIL, SEED, AND MULCH ANCHORED WITH A STRAIGHT SET DISC WITHIN SEVEN DAYS AFTER ROUGH GRADING.
4. MAINTAIN AND REPAIR SILT STOP FENCES (INCLUDING REMOVAL OF ACCUMULATED SILT) UNTIL VEGETATION IS ESTABLISHED.
5. SEE "STORM WATER POLLUTION PREVENTION PLAN" FOR ADDITIONAL EROSION CONTROL NOTES AND SITE SEQUENCING.

## LOT GRADING NOTES

- PAD CONTOURS SHOWN ARE FOR DEMONSTRATION PURPOSES.
- HOUSE TYPES AND GRADING THAT VARY FROM WHAT IS PROPOSED ON THE GRADING PLAN REQUIRE A PLAN REVIEW BY THE CITY OF VAN LAKE.
- SILT FENCE TO BE INSTALLED BY BUILDER PRIOR TO HOUSE CONSTRUCTION.
- THERE IS TO BE NO GRADING WITHIN 15TS AREAS

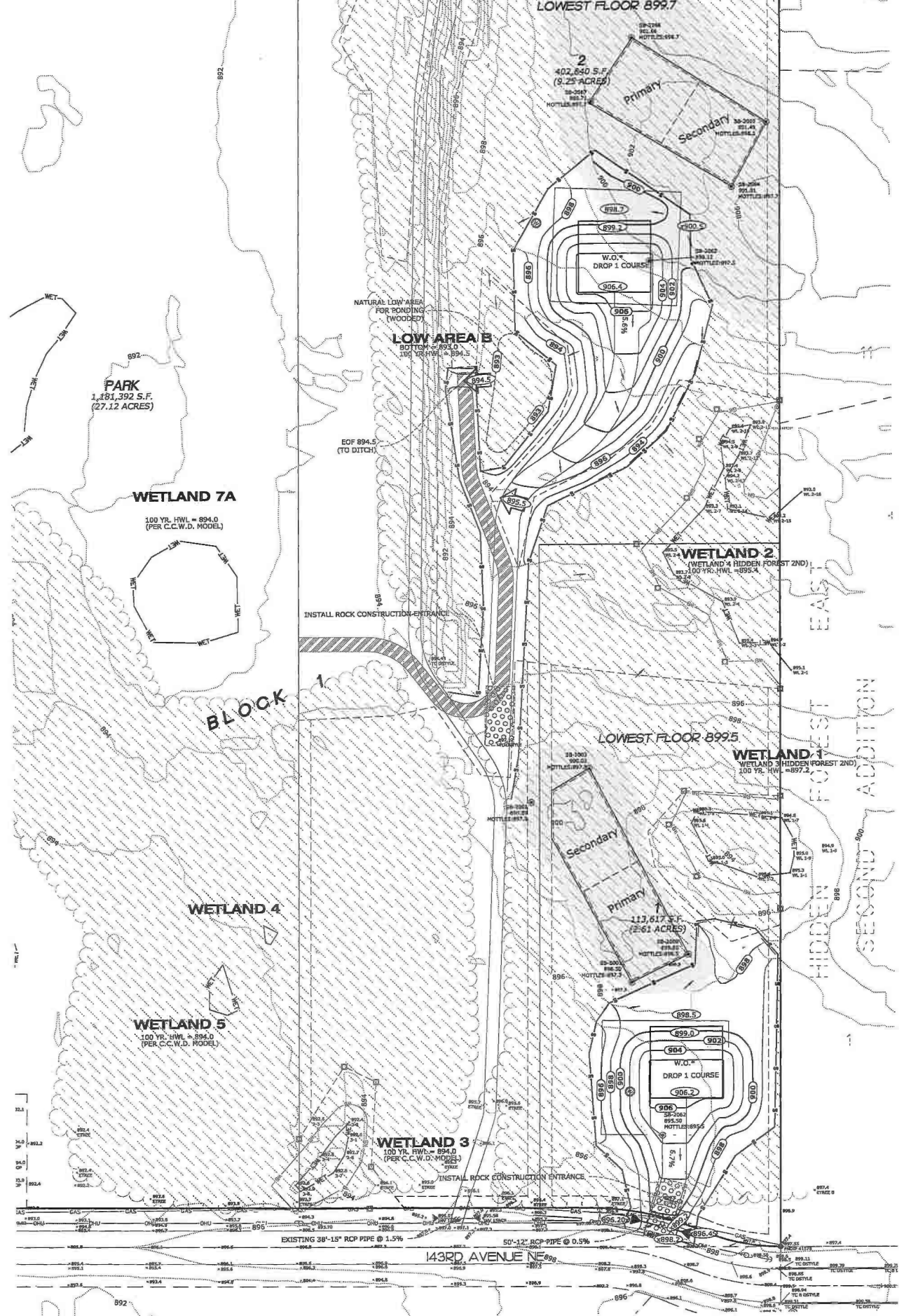
PONDING CALCULATIONS AND STORM SEWER DESIGN BY  
**PLOWE ENGINEERING, INC.**  
 6776 LAKE DRIVE SUITE 110 LINO LAKES, MN 55014  
 PHONE: (651) 361-8210 FAX: (651) 361-8701

I HEREBY CERTIFY THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

*Charles W. Plowe*  
 CHARLES W. PLOWE  
 DATE: 06.17.2021 LIC. NO. 18227

## SILT FENCE

NOT TO SCALE  
 APPROXIMATE CENTERLINE OF PRIVATE DITCH (FROM AERIAL PHOTOGRAPHY)



## TREE PROTECTION NOTES

- TREE PROTECTION LIMITS TO BE MARKED IN FIELD PRIOR TO ANY TREE CLEARING ACTIVITY.
- SILT / TREE PROTECTION FENCE TO BE INSTALLED AT CONSTRUCTION LIMIT LINE.
- CARE IS TO BE TAKEN TO AVOID CONSTRUCTION ACTIVITY OR CONSTRUCTION VEHICLE TRAFFIC WITHIN THE DRIP LINE OF TREES IN THE TREE PROTECTION ZONE.
- FIELD DECISIONS WILL BE MADE ON LOCATION OF TREE PROTECTION LIMITS TO PRESERVE SIGNIFICANT TREES.
- SOME TREES AND DEAD FALL ARE TO BE CLEARED. THIS MAY BE DONE PRIOR TO INSTALLATION OF SILT / TREE PROTECTION FENCE. GRUBBING OF STUMPS WILL OCCUR AFTER EROSION CONTROL MEASURE ARE INSTALLED.

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

*Jason E. Rud*  
 JASON E. RUD  
 Date: 06/17/2021 License No. 41578

DRAWN BY: MMD	JOB NO: 200949PP	DATE: 05/12/21
CHECK BY: JER	FIELD CREW: DT, CT	
1	06/02/21	CITY / WATERSHED COMMENTS MMD
2	06/17/21	CITY COMMENTS MMD
3		
NO.	DATE	DESCRIPTION



# LIVABILITY PLAN

~of~ HIDDEN FOREST EAST PARK ADDITION  
 ~for~ HFN PROPERTIES, LLC.  
 17404 WARD LAKE DRIVE NW  
 ANDOVER, MN 55304  
 (612) 799-1471

## LEGEND

- ⊙ DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
- ⊕ DENOTES PIEZOMETER OR PENETRATION BORING BY BRAUN INTERTEC, INC.
- X 932.36 DENOTES EXISTING SPOT ELEVATION
- ≡ DENOTES WET LAND
- DENOTES EXISTING 2 FOOT CONTOUR
- - - DENOTES PROPOSED 2 FOOT CONTOURS
- WET DENOTES WETLAND DELINEATED BY KOOLHAUS ENVIRONMENTAL SERVICES COMPANY.
- - - DENOTES EASEMENT LINE
- - - DENOTES SETBACK LINE
- - - DENOTES PROPOSED STORM SEWER
- - - DENOTES PROPOSED SILT / TREE PROTECTION FENCE
- - - DENOTES DIRECTION OF DRAINAGE
- ⊙ DENOTES PROPOSED WELL LOCATION
- DENOTES WETLAND / VEGETATIVE BUFFER
- DENOTES WETLAND / VEGETATIVE BUFFER SIGN
- ▨ DENOTES PROPOSED BUILDING PAD AREA
- ▨ DENOTES PROPOSED YARD AREA
- ▨ DENOTES PROPOSED SEPTIC AREA
- ▨ DENOTES 12' POND ACCESS

### Livability Standards

All residential lots shall contain at least 29,500 square feet of land which lies above the 100 year flood contour. Of this 29,500 square feet, the following additional requirements must be present:

A. **ISTS Area** Each lot must contain at least 7,500 square feet of contiguous area which is reserved for both the ISTS originally constructed and a future ISTS. The ISTS Area need not be contiguous to the Eligible Building Area or the Yard Area, but the entire ISTS Area must exist at an elevation at least one foot above Unsuitable Soils, and must contain Undisturbed Soils or soils which meet the requirements of Rule 7080 of the Minnesota Pollution Control Agency for ISTS construction standards. The ISTS Area may be irregular in shape, provided they do not encroach into areas reserved by easement or otherwise for roadway, drainage or utility purposes, and provided that all of the area can be reasonably used for ISTS construction without the need for variances.

B. **Eligible Building Area** Each lot shall contain at least 10,000 square feet of contiguous land which lies at an elevation at least four feet above Unsuitable Soils. The Eligible Building Area may not be irregular in shape, and should be generally rectangular or oval, with no peninsulas, narrow necks or peninsulas. Eligible Building Areas may not encroach into any areas reserved by easement or otherwise for roadway, drainage or utility purposes. Fill may be used to create Eligible Building Area.

C. **Yard Area** Each lot shall contain at least 12,000 contiguous square feet which:

- i) Lies above the 100 year flood contour, and
- ii) Lies at least one foot above soils unsuitable for the intended usage of the Yard Area, and
- iii) Is contiguous to the Eligible Building Area for a distance of at least fifty percent of the linear perimeter of the Eligible Building Area.

Yard Areas may encroach into the dedicated easement area which lies at a distance of ten feet from the perimeter of the lot, and may encroach into areas reserved by easement or otherwise for other public utility purposes, but may not encroach into any other area reserved by dedication or otherwise for road or drainage purposes, any may not encroach into any areas within the 100 year flood contour or into designated wetlands. Yard Areas may be irregular in shape except within thirty feet of the locations where the Yard Area is contiguous to the Eligible Building Area, at which locations the Yard Areas shall be a logical extension or expansion of the generally rectangular or oval shape of the Eligible Building Area. Fill may be used to create Yard Area.

D. **Building Pad Areas** The entire Building Pad must lie within the Eligible Building Area, and shall meet the separation requirements for the Eligible Building Area.

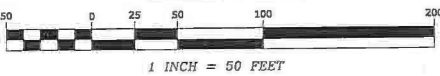
E. **Low Floor Elevations**

- i) For walkout designs, the low floor elevation shall be at least one foot above the 100 year flood contour, but, notwithstanding the 100 year flood contour, not less than one foot above unsuitable soils, as determined by the City's engineer.
- ii) For other designs, the low floor elevation shall be at least one foot above the 100 year flood contour, but, notwithstanding the 100 year flood contour, not less than one foot above unsuitable soils, as determined by the City's engineer.

## NOTES

- BEARINGS SHOWN ARE ON ANOKA COUNTY DATUM.
- TOTAL LOT AREAS ARE CALCULATED TO STREET CENTERLINE PER ORDINANCE.
- 2 FOOT CONTOUR INTERVAL (NAVD 88)
- CONTOURS SHOWN ARE PER MNGEO LIDAR DISTRIBUTION AND FIELD VERIFICATION
- ALL MATCH POINTS AND PAVEMENT PATCHES TO BE SAWCUT AT FULL DEPTH.
- TURF AREA TO BE SEED WITH 7 DAYS AFTER COMPLETION OF ROUGH GRADING OR INACTIVITY.
- SEE PRELIMINARY UTILITY PLAN FOR STORM SEWER RIMS, INVERTS, AND SIZES.
- TRADEWELL SOIL TESTING COMPLETED SEPTIC SOIL BORINGS ON SITE.
- ALL PIPE AREAS PROVIDED WITH TRASH GUARDS.
- PROVIDE CLASS III RIPRAP WITH FILTER FABRIC FOR ALL PIPE OUTLETS. INSTALL 6" OF TOPSOIL ON RIPRAP IN WETLAND BUFFERS AND SEED WITH SEED MIX MNDOT 33-261.
- IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL APPLY FOR A MN DNR DEWATERING PERMIT AND WILL PROVIDE WELL-FIELD LOCATIONS, RATES, DISCHARGE LOCATION, SCHEDULE AND QUANTITIES TO CCWO 7 DAYS PRIOR TO ANY DEWATERING OPERATIONS.
- CONTRACTORS MUST BE PROVIDED WITH DNR FLYERS/ FACT SHEETS ON BLANDING'S TURTLES.

### GRAPHIC SCALE



I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

JASON E. RUD  
 Date: 06/17/2021 License No. 41578

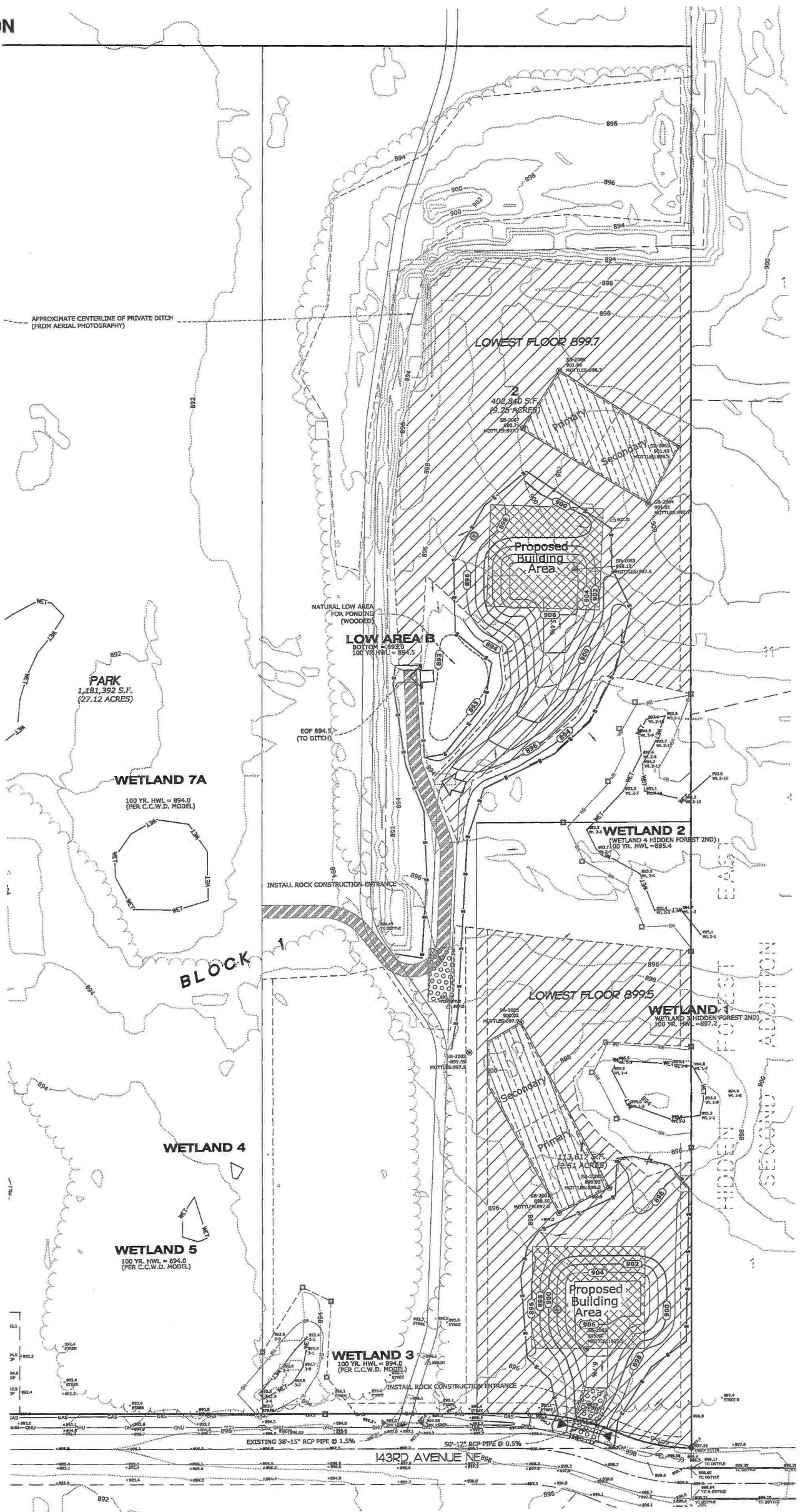
NO.	DATE	DESCRIPTION	BY
1	06/02/21	CITY / WATERSHED COMMENTS	MMD
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3			MMD

PONDING CALCULATIONS AND STORM SEWER DESIGN BY PLOWE ENGINEERING, INC.

**PLOWE ENGINEERING, INC.**  
 6778 LAKE DRIVE  
 SUITE 110  
 LINO LAKES, MN 56014  
 PHONE: (651) 361-8210  
 FAX: (651) 361-8701

I HEREBY CERTIFY THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

CHARLES W. PLOWE  
 DATE: 08.17.2021 LIC. NO. 18227



## LIVABILITY CHART

Lot	Block	Total Lot Area (sq. ft.)	Yard Area (sq. ft.)	Septic Area (sq. ft.)	Building Pad Area (sq. ft.)	Proposed Building Pad 4' Above Unsuitable (sq. ft.)	Garage Floor Elevation	Proposed Low Floor Elev	Proposed Low Opening	Lowest Floor Elevation	Low Floor Determining Factor	Boring #	Boring Elevation	Mottles Elevation	Building Type	Custom Graded	
1	1	113,617	61,599	9,096	10,046	5,692	906.5	899.5	899.5	899.5	MOTTLES	2000#	899.95	898.5	W.O.*	YES	
											PER	2001	898.50	897.3	DROP		
											BORING	2002	899.59	897.9	1 COURSE		
												2003	900.20	897.9			
												2062	895.50	895.5			
2	1	402,840	88,683	8,907	10,046	4,604	906.7	899.7	899.7	899.7	MOTTLES	2063	898.12	897.5	W.O.*	YES	
											PER	2064	901.01	897.7	DROP		
											BORING	2065	901.49	898.5	1 COURSE		
												2066	2066#	901.69	898.7		
												2067	900.71	897.7			
PARK	1	1,181,392	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				N/A	N/A	

NOTES: \* INDICATES DROPPED GARAGE ELEVATIONS BASED UPON 12 COURSE BASEMENT # INDICATES BORING USED TO DETERMINE LOW FLOOR

**E. G. RUD & SONS, INC.**  
 EST. 1977 Professional Land Surveyors  
 6776 Lake Drive NE, Suite 110  
 Lino Lakes, MN 55014  
 Tel. (651) 361-8200 Fax (651) 361-8701



**4.1 TERMINATION OF COVERAGE [MINN. R. 7090]**

- 4.2 PERMITTEES MUST SUBMIT A NOT WITHIN 30 DAYS AFTER ALL TERMINATION CONDITIONS LISTED IN SECTION 13 ARE COMPLETE. [MINN. R. 7090]
4.3 PERMITTEES MUST SUBMIT A NOT WITHIN 30 DAYS AFTER SELLING OR OTHERWISE LEGALLY TRANSFERRING THE ENTIRE SITE, INCLUDING PERMIT RESPONSIBILITY FOR ROADS (E.G., STREET SWEEPING) AND STORMWATER INFRASTRUCTURE FINAL CLEAN OUT, OR TRANSFERRING PORTIONS OF A SITE TO ANOTHER PARTY. THE PERMITTEES COVERAGE UNDER THIS PERMIT TERMINATES AT MIDNIGHT ON THE SUBMISSION DATE OF THE NOT. [MINN. R. 7090]
4.4 PERMITTEES MAY TERMINATE PERMIT COVERAGE PRIOR TO COMPLETION OF ALL CONSTRUCTION ACTIVITY IF THEY MEET ALL OF THE FOLLOWING CONDITIONS:
A. CONSTRUCTION ACTIVITY HAS CEASED FOR AT LEAST 90 DAYS; AND
B. AT LEAST 90 PERCENT (BY AREA) OF ALL ORIGINALLY PROPOSED CONSTRUCTION ACTIVITY HAS BEEN COMPLETED AND PERMANENT COVER HAS BEEN ESTABLISHED ON THOSE AREAS; AND
C. ON AREAS WHERE CONSTRUCTION ACTIVITY IS NOT COMPLETE, PERMANENT COVER HAS BEEN ESTABLISHED; AND
D. THE SITE COMPLIES WITH ITEM 13.3 THROUGH 13.7.

AFTER PERMIT COVERAGE IS TERMINATED UNDER THIS ITEM, ANY SUBSEQUENT DEVELOPMENT ON THE REMAINING PORTIONS OF THE SITE WILL REQUIRE PERMIT COVERAGE. IF THE SUBSEQUENT DEVELOPMENT ITEMS OR AS PART OF THE REMAINING COMMON PLAN OF DEVELOPMENT OR SALE WILL RESULT IN LAND DISTURBING ACTIVITIES OF ONE (1) OR MORE ACRES IN SIZE. [MINN. R. 7090]

4.5 PERMITTEES MAY TERMINATE COVERAGE UNDER MPCA APPROVAL AFTER SUBMITTING INFORMATION DOCUMENTING THE OWNER CANCELED THE PROJECT. [MINN. R. 7090]

**5.1 STORMWATER POLLUTION PREVENTION PLAN (SWPPP) CONTENT [MINN. R. 7090]**

- 5.3 THE SWPPP MUST INCORPORATE SPECIFIC BEST MANAGEMENT PRACTICES (BMP) USED TO COMPLY WITH THE REQUIREMENTS OF THIS PERMIT. [MINN. R. 7090]
5.4 THE SWPPP MUST INCLUDE A NARRATIVE DESCRIBING THE TIMING FOR INSTALLATION OF ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPs AND A DESCRIPTION OF THE PERMANENT STORMWATER TREATMENT SYSTEMS. [MINN. R. 7090]
5.5 THE SWPPP MUST INCLUDE THE LOCATION AND TYPE OF ALL TEMPORARY AND PERMANENT EROSION PREVENTION AND SEDIMENT CONTROL BMPs ALONG WITH PROCEDURES USED TO ESTABLISH ADDITIONAL TEMPORARY BMPs AS NECESSARY FOR THE SITE CONDITIONS DURING CONSTRUCTION. STANDARD DETAILS AND/OR SPECIFICATIONS FOR BMPs MUST BE INCLUDED IN THE FINAL PLANS AND SPECIFICATIONS FOR THE PROJECT. [MINN. R. 7090]
5.8 THE SWPPP MUST INCLUDE THE CALCULATIONS AND OTHER INFORMATION USED FOR THE DESIGN OF PERMANENT SEDIMENT BASINS AND ANY OF THE PERMANENT STORMWATER TREATMENT SYSTEMS REQUIRED IN SECTION 15. [MINN. R. 7090]

- 5.7 THE SWPPP MUST INCLUDE ESTIMATED QUANTITIES ANTICIPATED AT THE START OF THE PROJECT FOR THE LIFE OF THE PROJECT FOR ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPs (E.G., LINEAR FEET OF SILT FENCE OR SQUARE FEET OF EROSION CONTROL BLANKET). [MINN. R. 7090]
5.8 THE SWPPP MUST INCLUDE THE NUMBER OF ACRES OF IMPERVIOUS SURFACE FOR BOTH PRE- AND POST-CONSTRUCTION. [MINN. R. 7090]
5.9 THE SWPPP MUST INCLUDE A SITE MAP WITH EXISTING AND FINAL GRADES, INCLUDING DRAINAGE AREA BOUNDARIES, DIRECTIONS OF FLOW AND ALL DISCHARGE POINTS WHERE STORMWATER IS LEAVING THE SITE OR ENTERING A SURFACE WATER. THE SITE MAP MUST INDICATE THE AREAS OF STEEP SLOPES. THE SITE MAP MUST ALSO INCLUDE IMPERVIOUS SURFACES, SOIL TYPES AND LOCATIONS OF POTENTIAL POLLUTANT GENERATING ACTIVITIES AS IDENTIFIED IN SECTION 12. [MINN. R. 7090]
5.10 THE SWPPP MUST INCLUDE A MAP OF ALL SURFACE WATERS, EXISTING WETLANDS, AND STORMWATER PONDS OR BASINS THAT CAN BE IDENTIFIED ON THE UNITED STATES GEOLOGICAL SURVEY 7.5 MINUTE QUADRANGLE MAPS, THE NATIONAL WETLAND INVENTORY MAP OR EQUIVALENT MAPS AND ARE WITHIN ONE MILE (AERIAL RADIUS MEASUREMENT) FROM THE PROJECT BOUNDARIES THAT WILL RECEIVE STORMWATER FROM THE CONSTRUCTION SITE, DURING OR AFTER CONSTRUCTION. THE SWPPP MUST IDENTIFY IF THE SURFACE WATERS ARE SPECIAL OR IMPAIRED WATERS. [MINN. R. 7090]

- 5.11 THE SWPPP MUST INCLUDE A SITE MAP SHOWING CONSTRUCTION ACTIVITY AREAS THAT ARE ADJACENT TO AND DRAIN TO PUBLIC WATERS FOR WHICH THE DNR HAS PROMULGATED "WORK IN WATER RESTRICTIONS" DURING SPECIFIED FISH SPAWNING TIME FRAMES. [MINN. R. 7090]
5.12 PERMITTEES MUST IDENTIFY LOCATIONS OF 80' BUFFER ZONES AS REQUIRED IN ITEM 9.17 AND 100' PERMANENT BUFFER ZONES AS REQUIRED IN ITEM 23.11, ON PLAN SHEETS IN THE SWPPP. [MINN. R. 7090]
5.13 IF PERMITTEES DETERMINE COMPLIANCE WITH THE FOLLOWING REQUIREMENTS IS INFEASIBLE, THEY MUST DOCUMENT THE DETERMINATION IN THE SWPPP:
a. TEMPORARY SEDIMENT BASIN AS DESCRIBED IN SECTION 14; AND
b. FOR LINEAR PROJECTS, IF THE PERMANENT STORMWATER TREATMENT SYSTEM CANNOT BE CONSTRUCTED WITHIN THE RIGHT-OF-WAY, A REASONABLE ATTEMPT MUST BE MADE TO OBTAIN ADDITIONAL RIGHT-OF-WAY (ITEM 15.9); AND
c. BUFFER ZONES AS DESCRIBED IN ITEM 9.17 AND ITEM 23.11. [MINN. R. 7090]

- 5.14 IF PERMITTEES DETERMINE THAT A TEMPORARY SEDIMENT BASIN IS INFEASIBLE AS DESCRIBED IN ITEM 14.10, THE SWPPP MUST DESCRIBE THE ALTERNATIVE BMP USED. [MINN. R. 7090]
5.15 WHERE SYSTEMS CANNOT MEET THE FULL VOLUME REDUCTION REQUIREMENT ON SITE, (E.G., THE SITE HAS INFILTRATION PROHIBITIONS, SEE ITEM 16.14 THROUGH ITEM 16.21) THE PERMITTEE MUST DOCUMENT THE REASONS IN THE SWPPP. [MINN. R. 7090]
5.16 THE SWPPP MUST INCLUDE ANY STORMWATER MITIGATION MEASURES PROPOSED TO BE PART OF THE FINAL PROJECT IN ANY ENVIRONMENTAL REVIEW DOCUMENT, ENDANGERED SPECIES REVIEW, ARCHEOLOGICAL OR OTHER REQUIRED LOCAL, STATE OR FEDERAL REVIEW CONDUCTED FOR THE PROJECT. FOR PURPOSES OF THIS PERMIT, MITIGATION MEASURES MEANS ACTIONS NECESSARY TO AVOID, MINIMIZE, OR MITIGATE FOR IMPACTS RELATED TO EROSION PREVENTION, SEDIMENT CONTROL, THE PERMANENT STORMWATER TREATMENT SYSTEM, POLLUTION PREVENTION MANAGEMENT MEASURES AND DISCHARGES ASSOCIATED WITH THE PROJECT'S CONSTRUCTION ACTIVITY. [MINN. R. 7090]

- 5.17 THE SWPPP MUST DESCRIBE THE METHODS USED FOR PERMANENT COVER OF ALL EXPOSED SOIL AREAS. [MINN. R. 7090]
5.18 PERMITTEES MUST IDENTIFY THE LOCATIONS OF AREAS WHERE CONSTRUCTION WILL BE PHASED TO MINIMIZE THE DURATION OF EXPOSED SOIL AREAS IN THE SWPPP. [MINN. R. 7090]
5.19 FOR PROJECTS WITH A DISCHARGE POINT ON THE PROJECT WITHIN ONE (1) MILE (AERIAL RADIUS MEASUREMENT) OF AND WHICH FLOWS TO AN IMPAIRED WATER, PERMITTEES MUST IDENTIFY THE IMPAIRED WATERS, AND ANY UNITED STATES ENVIRONMENTAL PROTECTION AGENCY USEPA-APPROVED TOTAL MAXIMUM DAILY LOAD (TMDL) FOR THE POLLUTANT(S) OR STRESSOR(S) DESCRIBED IN ITEM 23.7. PERMITTEES IDENTIFICATION MUST INCLUDE THOSE TMDLs APPROVED AT ANY TIME PRIOR TO PERMIT APPLICATION SUBMITTAL AND ARE STILL IN EFFECT. [MINN. R. 7090]
5.20 PERMITTEES MUST DOCUMENT IN THE SWPPP, ALL TRAINED INDIVIDUALS IDENTIFIED IN ITEM 21.2. DOCUMENTATION MUST INCLUDE:
a. NAMES OF PERSONNEL REQUIRED TO BE TRAINED; AND
b. TEMPORARY TRAINING AND NAME OF INSTRUCTOR(S) AND ENTITY PROVIDING TRAINING; AND
c. CONTENT OF TRAINING COURSE.

IF PERMITTEES DO NOT KNOW THE NAMES OF THE INDIVIDUALS AT THE TIME OF APPLICATION, THE PERMITTEES MUST ENSURE THEY DOCUMENT TRAINING BEFORE CONSTRUCTION ACTIVITY COMMENCES. [MINN. R. 7090]

- 5.21 THE SWPPP MUST IDENTIFY A PERSON KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BMPs WHO WILL COORDINATE WITH ALL CONTRACTORS, SUBCONTRACTORS, AND OPERATORS ON-SITE TO OVERSEE THE IMPLEMENTATION OF THE SWPPP. [MINN. R. 7090]
5.22 THE SWPPP MUST DESCRIBE ANY SPECIFIC CHEMICALS AND CHEMICAL TREATMENT SYSTEMS USED FOR ENHANCING THE SEDIMENTATION PROCESS AND HOW IT ACHIEVES COMPLIANCE WITH ITEM 6.18. [MINN. R. 7090]
5.23 THE SWPPP MUST IDENTIFY THE PERSON(S), ORGANIZATIONS, OR ENTITIES RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF PERMANENT STORMWATER TREATMENT SYSTEMS. [MINN. R. 7090]
5.24 THE SWPPP MUST DESCRIBE METHODS TO MINIMIZE SOIL COMPACTION AND PRESERVE TOPSOIL, MINIMIZING SOIL COMPACTION IS NOT REQUIRED WHERE THE FUNCTION OF A SPECIFIC AREA DICTATES COMPACTION. [MINN. R. 7090]
5.25 THE SWPPP MUST INCLUDE ANY SITE ASSESSMENTS FOR GROUNDWATER OR SOIL CONTAMINATION REQUIRED IN ITEM 16.15. [MINN. R. 7090]
5.28 THE SWPPP MUST ACCOUNT FOR THE FOLLOWING FACTORS IN DESIGNING TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL BMPs:
a. THE EXPECTED ANNUAL FREQUENCY, INTENSITY, AND DURATION OF PRECIPITATION; AND
b. THE NATURE OF STORMWATER RUNOFF AND RUN-ON AT THE SITE, INCLUDING FACTORS SUCH AS EXPECTED FLOW FROM IMPERVIOUS SURFACES, SLOPES, AND SITE DRAINAGE FEATURES; AND
c. THE STORMWATER VOLUME, VELOCITY, AND PEAK FLOW RATES TO MINIMIZE DISCHARGE OF POLLUTANTS IN STORMWATER AND TO MINIMIZE CHANNEL AND STREAMBANK EROSION AND SOUR IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS; AND
d. THE RANGE OF SOIL PARTICLES SIZES EXPECTED TO BE PRESENT. [MINN. R. 7090]

**6.1 SWPPP AMENDMENTS [MINN. R. 7090]**

- 6.2 ONE OF THE INDIVIDUALS DESCRIBED IN ITEM 21.2.A OR ITEM 21.2.B OR ANOTHER QUALIFIED INDIVIDUAL, MUST COMPLETE ALL SWPPP CHANGES. CHANGES INVOLVING THE USE OF A LESS STRINGENT BMP MUST INCLUDE A JUSTIFICATION DESCRIBING HOW THE REPLACEMENT BMP IS EFFECTIVE FOR THE SITE CHARACTERISTICS. [MINN. R. 7090]
6.3 PERMITTEES MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMPs AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, MAINTENANCE, WEATHER OR SEASONAL CONDITIONS HAVING A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER. [MINN. R. 7090]
6.4 PERMITTEES MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMPs AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS WHENEVER INSPECTIONS OR INVESTIGATIONS BY THE SITE OWNER OR OPERATOR, USEPA OR MPCA OFFICIALS INDICATE THE SWPPP IS NOT EFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER OR THE DISCHARGES ARE CAUSING WATER QUALITY STANDARD EXCEEDANCES (E.G., NUISANCE CONDITIONS AS DERIVED IN MINN. R. 7050.0210, SUSP. 2) OR THE SWPPP IS NOT CONSISTENT WITH THE OBJECTIVES OF A USEPA APPROVED TMDL. [MINN. R. 7050.0210]

**7.1 BMP SELECTION AND INSTALLATION. [MINN. R. 7090]**

7.2 PERMITTEES MUST SELECT, INSTALL, AND MAINTAIN THE BMPs IDENTIFIED IN THE SWPPP AND IN THIS PERMIT IN AN APPROPRIATE AND ACCEPTABLE MANNER AND IN ACCORDANCE WITH RELEVANT MANUFACTURER SPECIFICATIONS AND ACCEPTED ENGINEERING PRACTICES. [MINN. R. 7090]

**9.1 EROSION PREVENTION PRACTICES. [MINN. R. 7090]**

- 9.2 BEFORE WORK BEGINS, PERMITTEES MUST DELINEATE THE LOCATION OF AREAS NOT TO BE DISTURBED. [MINN. R. 7090]
9.3 PERMITTEES MUST MINIMIZE THE NEED FOR DISTURBANCE OF PORTIONS OF THE PROJECT WITH STEEP SLOPES. WHEN STEEP SLOPES MUST BE DISTURBED, PERMITTEES MUST USE TECHNIQUES SUCH AS PHASING AND STABILIZATION PRACTICES DESIGNED FOR STEEP SLOPES (E.G., SLOPE DRAINING AND TERRACING). [MINN. R. 7090]
9.4 PERMITTEES MUST STABILIZE ALL EXPOSED SOIL AREAS, INCLUDING STOCKPILES. STABILIZATION MUST BE INITIATED IMMEDIATELY TO LIMIT SOIL EROSION WHEN CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 7 CALENDAR DAYS. STABILIZATION MUST BE COMPLETED NO LATER THAN 7 CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY HAS CEASED. STABILIZATION IS NOT REQUIRED ON CONSTRUCTED BASE COMPONENTS OF ROADS, PARKING LOTS AND SIMILAR SURFACES. STABILIZATION IS NOT REQUIRED ON TEMPORARY STOCKPILES WITHOUT SIGNIFICANT SILT, CLAY OR ORGANIC COMPONENTS (E.G., CLEAN AGGREGATE STOCKPILES, DEMOLITION CONCRETE STOCKPILES, SAND STOCKPILES) BUT PERMITTEES MUST PROVIDE SEDIMENT CONTROLS AT THE BASE OF THE STOCKPILE. [MINN. R. 7090]
9.5 FOR PUBLIC WATERS THAT THE MINNESOTA DNR HAS PROMULGATED "WORK IN WATER RESTRICTIONS" DURING SPECIFIED FISH SPAWNING TIME FRAMES, PERMITTEES MUST COMPLETE STABILIZATION OF ALL EXPOSED SOIL AREAS WITHIN 200 FEET OF THE WATER'S EDGE, AND THAT DRAIN TO THESE WATERS, WITHIN 24 HOURS DURING THE RESTRICTION PERIOD. [MINN. R. 7090]
9.8 PERMITTEES MUST STABILIZE THE NORMAL WETTED PERIMETER OF THE LAST 200 LINEAR FEET OF TEMPORARY OR PERMANENT DRAINAGE DITCHES OR SWALES FROM THE SITE WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE. PERMITTEES MUST COMPLETE STABILIZATION OF REMAINING PORTIONS OF TEMPORARY OR PERMANENT DITCHES OR SWALES WITHIN 7 CALENDAR DAYS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE AND CONSTRUCTION IN THAT PORTION OF THE DITCH TEMPORARILY OR PERMANENTLY CEASES. [MINN. R. 7090]

- 9.7 TEMPORARY OR PERMANENT DITCHES OR SWALES BEING USED AS A SEDIMENT CONTAINMENT SYSTEM DURING CONSTRUCTION (WITH PROPERLY DESIGNED ROCK-DITCH CHECKS, BIO ROLLS, SILT PILES, ETC.) DO NOT NEED TO BE STABILIZED. PERMITTEES MUST STABILIZE THESE AREAS WITHIN 24 HOURS AFTER THEIR USE AS A SEDIMENT CONTAINMENT SYSTEM CEASES. [MINN. R. 7090]
9.8 PERMITTEES MUST NOT USE MULCH, HYDROMULCH, TACKIFIER, POLYACRYLAMIDE OR SIMILAR EROSION PREVENTION PRACTICES WITHIN ANY PORTION OF THE NORMAL WETTED PERIMETER OF A TEMPORARY OR PERMANENT DRAINAGE DITCH OR SWALE SECTION WITH A CONTINUOUS SLOPE OF GREATER THAN 2 PERCENT. [MINN. R. 7090]
9.9 PERMITTEES MUST PROVIDE TEMPORARY OR PERMANENT ENERGY DISSIPATION AT ALL PIPE OUTLETS WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER OR PERMANENT STORMWATER TREATMENT SYSTEM. [MINN. R. 7090]
9.10 PERMITTEES MUST NOT DISTURB MOSES, AND (I.E., PHASING) THAN CAN BE EFFECTIVELY INSPECTED AND MAINTAINED IN ACCORDANCE WITH SECTION 11. [MINN. R. 7090]

**9.1 SEDIMENT CONTROL PRACTICES. [MINN. R. 7090]**

- 9.2 PERMITTEES MUST ESTABLISH SEDIMENT CONTROL BMPs ON ALL DOWNGRADIENT PERIMETERS OF THE SITE AND DOWNGRADIENT AREAS OF THE SITE THAT DRAIN TO ANY SURFACE WATER, INCLUDING CURB AND GUTTER SYSTEMS. PERMITTEES MUST LOCATE SEDIMENT CONTROL PRACTICES UPGRADIENT OF ANY BUFFER ZONES. PERMITTEES MUST INSTALL SEDIMENT CONTROL PRACTICES BEFORE ANY UPGRADIENT LAND-DISTURBING ACTIVITIES BEGIN AND MUST KEEP THE SEDIMENT CONTROL PRACTICES IN PLACE UNTIL THEY ESTABLISH PERMANENT COVER. [MINN. R. 7090]
9.3 IF DOWNGRADIENT SEDIMENT CONTROLS ARE OVERLOADED, BASED ON FREQUENT FAILURE OR EXCESSIVE MAINTENANCE REQUIREMENTS, PERMITTEES MUST INSTALL ADDITIONAL UPGRADIENT SEDIMENT CONTROL PRACTICES OR REDUNDANT BMPs TO ELIMINATE THE OVERLOADING AND AMEND THE SWPPP TO IDENTIFY THESE ADDITIONAL PRACTICES AS REQUIRED IN ITEM 6.3. [MINN. R. 7090]
9.4 TEMPORARY OR PERMANENT DRAINAGE DITCHES AND SEDIMENT BASINS DESIGNED AS PART OF A SEDIMENT CONTAINMENT SYSTEM (E.G., DITCHES WITH ROCK-CHECK DAMS) REQUIRE SEDIMENT CONTROL PRACTICES ONLY AS APPROPRIATE FOR SITE CONDITIONS. [MINN. R. 7090]

- 9.5 A FLOATING SILT CURTAIN PLACED IN THE WATER IS NOT A SEDIMENT CONTROL BMP TO SATISFY ITEM 9.2 EXCEPT WHEN WORKING ON A SHORELINE OR BELOW THE WATERLINE. IMMEDIATELY AFTER THE SHORT TERM CONSTRUCTION ACTIVITY CEASES, INSTALLATION OF RIP RAP OR OTHER SHORELINE STABILIZATION IN THAT AREA IS COMPLETE, PERMITTEES MUST INSTALL AN UPLAND PERIMETER CONTROL PRACTICE IF EXPOSED SOILS STILL DRAIN TO A SURFACE WATER. [MINN. R. 7090]
9.6 PERMITTEES MUST RE-INSTALL ALL SEDIMENT CONTROL PRACTICES ADJUSTED OR REMOVED TO ACCOMMODATE SHORT-TERM ACTIVITIES SUCH AS CLEARING OR GRUBBING, OR PASSAGE OF VEHICLES, IMMEDIATELY AFTER THE SHORT-TERM ACTIVITIES INSTALLED AS PART OF A SEDIMENT CONTAINMENT SYSTEM CEASE. PERMITTEES MUST INSTALL PRECIPITATION EVENT EVENS IF THE SHORT-TERM ACTIVITY IS NOT COMPLETE. [MINN. R. 7090]
9.7 PERMITTEES MUST PROTECT ALL STORM DRAIN INLETS USING APPROPRIATE BMPs DURING CONSTRUCTION UNTIL THEY ESTABLISH PERMANENT COVER ON ALL AREAS WITH POTENTIAL FOR DISCHARGING TO THE INLET. [MINN. R. 7090]
9.8 PERMITTEES MAY REMOVE INLET PROTECTION FOR A PARTICULAR INLET IF A SPECIFIC SAFETY CONCERN (E.G., STREET FLOODING/PREZEEING) IS IDENTIFIED BY THE JURISDICTIONAL AUTHORITY (E.G., CITY ENGINEER, MINNESOTA DEPARTMENT OF TRANSPORTATION ENGINEER). PERMITTEES MUST DOCUMENT THE NEED FOR REMOVAL IN THE SWPPP. [MINN. R. 7090]

- 9.9 PERMITTEES MUST PROVIDE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS AT THE BASE OF STOCKPILES ON THE DOWNGRADIENT PERIMETER. [MINN. R. 7090]
9.10 PERMITTEES MUST LOCATE STOCKPILES OUTSIDE OF NATURAL BUFFERS OR SURFACE WATERS, INCLUDING STORMWATER CONVEYANCE CHANNELS SUCH AS CURBS AND GUTTER SYSTEMS UNLESS THERE IS A BYPASS IN PLACE FOR THE STORMWATER. [MINN. R. 7090]
9.11 PERMITTEES MUST INSTALL A VEHICLE TRACKING BMP TO MINIMIZE THE TRACK OUT OF SEDIMENT FROM THE CONSTRUCTION SITE OR ONTO PAVED ROADS WITHIN THE SITE. [MINN. R. 7090]
9.12 PERMITTEES MUST USE STREET SWEEPING IF VEHICLE TRACKING BMPs ARE NOT ADEQUATE TO PREVENT SEDIMENT TRACKING ONTO THE STREET. [MINN. R. 7090]
9.13 PERMITTEES MUST INSTALL TEMPORARY SEDIMENT BASINS AS REQUIRED IN SECTION 14. [MINN. R. 7090]
9.14 IN ANY AREAS OF THE SITE WHERE FINAL VEGETATIVE STABILIZATION WILL OCCUR, PERMITTEES MUST RESTRICT VEHICLE AND EQUIPMENT USE TO MINIMIZE SOIL COMPACTION. [MINN. R. 7090]
9.15 PERMITTEES MUST PRESERVE TOPSOIL ON THE SITE, UNLESS INFEASIBLE. [MINN. R. 7090]
9.16 PERMITTEES MUST DIRECT DISCHARGES FROM BMPs TO VEGETATED AREAS UNLESS INFEASIBLE. [MINN. R. 7090]
9.17 PERMITTEES MUST PRESERVE A 50 FOOT NATURAL BUFFER OR, IF A BUFFER IS INFEASIBLE ON THE SITE, PROVIDE REDUNDANT (DOUBLE) PERIMETER SEDIMENT CONTROLS WHEN A SURFACE WATER IS LOCATED WITHIN 50 FEET OF THE PROJECT'S EARTH DISTURBANCES AND STORMWATER FLOWS TO THE SURFACE WATER. PERMITTEES MUST INSTALL PERIMETER SEDIMENT CONTROL PRACTICES AT THE LATER OF THE END OF AVAILABLE SPACE, NATURAL BUFFERS ARE NOT REQUIRED ADJACENT TO ROAD DITCHES, JUDICIAL DITCHES, COUNTY DITCHES, STORMWATER CONVEYANCE CHANNELS, STORM DRAIN INLETS, AND SEDIMENT BASINS. IF PRESERVING THE BUFFER IS INFEASIBLE, PERMITTEES MUST DOCUMENT THE REASON. PERIMETER PILING IS A REDUNDANT PERIMETER CONTROL. IF INSTALLED IN A MANNER THAT RETAINS ALL STORMWATER. [MINN. R. 7090]
9.18 PERMITTEES MUST USE POLYMERS, FLOCCULANTS, OR OTHER SEDIMENTATION TREATMENT CHEMICALS IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICES, DOSING SPECIFICATIONS AND SEDIMENT REMOVAL DESIGN SPECIFICATIONS PROVIDED BY THE MANUFACTURER OR SUPPLIER. THE PERMITTEES MUST USE CONVENTIONAL EROSION AND SEDIMENT CONTROLS PRIOR TO CHEMICAL ADDITION. TREAT DIRECT TREATED STORMWATER TO A SEDIMENT CONTROL SYSTEM FOR FILTRATION OR SETTLEMENT OF THE FLOC PRIOR TO DISCHARGE. [MINN. R. 7090]

**10.1 DEWATERING AND BASIN DRAINING. [MINN. R. 7090]**

- 10.2 PERMITTEES MUST DISCHARGE TURBID OR SEDIMENT-LADEN WATERS RELATED TO DEWATERING OR BASIN DRAINING (E.G., PUMPED DISCHARGES, TRENCH-DITCH CUTS FOR DRAINAGE) TO A TEMPORARY OR PERMANENT SEDIMENT BASIN ON THE PROJECT SITE UNLESS INFEASIBLE. PERMITTEES MAY DEWATER TO SURFACE WATERS IF THEY VISUALLY CHECK TO ENSURE ADEQUATE TREATMENT HAS BEEN OBTAINED AND NUISANCE CONDITIONS (SEE MINN. R. 7050.0210, SUSP. 2) WILL NOT RESULT FROM THE DISCHARGE. IF PERMITTEES CANNOT DISCHARGE THE WATER TO A SEDIMENTATION BASIN PRIOR TO ENTERING A SURFACE WATER, PERMITTEES MUST TREAT IT WITH APPROPRIATE BMPs SUCH THAT THE DISCHARGE DOES NOT ADVERSELY AFFECT THE SURFACE WATER OR DOWNSTREAM PROPERTIES. [MINN. R. 7050.0210]
10.3 IF PERMITTEES MUST DISCHARGE WATER CONTAINING OIL OR GREASE, THEY MUST USE AN OIL-WATER SEPARATOR OR SUITABLE FILTRATION DEVICE (E.G., CARTRIDGE FILTERS, ADSORBENT MEDIA) PRIOR TO DISCHARGE. [MINN. R. 7090]
10.4 PERMITTEES MUST DISCHARGE ALL WATER FROM DEWATERING OR BASIN-DRAINING ACTIVITIES IN A MANNER THAT DOES NOT CAUSE EROSION OR SCOUR IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS OR INUNDATION OF WETLANDS IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS THAT CAUSES SIGNIFICANT ADVERSE IMPACT TO THE WETLAND. [MINN. R. 7090]
10.5 IF PERMITTEES USE FILTERS WITH BACKWASH WATER, THEY MUST Haul THE BACKWASH WATER AWAY FOR DISPOSAL, RETURN THE BACKWASH WATER TO THE BEGINNING OF THE TREATMENT PROCESS, OR INCORPORATE THE BACKWASH WATER INTO THE SITE IN A MANNER THAT DOES NOT CAUSE EROSION. [MINN. R. 7090]

**11.1 INSPECTIONS AND MAINTENANCE. [MINN. R. 7090]**

- 11.2 PERMITTEES MUST ENSURE A TRAINED PERSON, AS IDENTIFIED IN ITEM 21.2.B, WILL INSPECT THE ENTIRE CONSTRUCTION SITE AT LEAST ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 1/2 INCH IN 24 HOURS. [MINN. R. 7090]
11.3 PERMITTEES MUST INSPECT AND MAINTAIN ALL PERMANENT STORMWATER TREATMENT BMPs. [MINN. R. 7090]
11.4 PERMITTEES MUST INSPECT ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPs REPAIR, REPLACE OR SUPPLEMENT ALL NONFUNCTIONAL BMPs WITH FUNCTIONAL BMPs BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY UNLESS ANOTHER TIME FRAME IS SPECIFIED IN ITEM 11.5 OR 11.6. PERMITTEES MAY TAKE ADDITIONAL TIME IF FIELD CONDITIONS PREVENT ACCESS TO THE AREA. [MINN. R. 7090]
11.5 DURING EACH INSPECTION, PERMITTEES MUST INSPECT SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS BUT NOT CURBS AND GUTTER SYSTEMS, FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION. PERMITTEES MUST REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS, INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS AND RESTABILIZE THE AREAS WHERE SEDIMENT REMOVAL RESULTS IN DISCOVERY UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS. PERMITTEES MUST USE ALL REASONABLE EFFORTS TO OBTAIN ACCESS, IF PRECLUDED, REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN SEVEN (7) DAYS OF OBTAINING ACCESS. PERMITTEES ARE RESPONSIBLE FOR CONTACTING ALL LOCAL, REGIONAL, STATE AND FEDERAL AUTHORITIES AND RECEIVING ANY APPLICABLE PERMITS, PRIOR TO CONDUCTING ANY WORK IN SURFACE WATERS. [MINN. R. 7090]
11.6 PERMITTEES MUST INSPECT CONSTRUCTION SITE VEHICLE EXIT LOCATIONS, STREETS AND CURBS AND GUTTER SYSTEMS WITHIN AND ADJACENT TO THE PROJECT FOR OR SEDIMENTATION FROM EROSION OR FROM CONSTRUCTION OF VEHICLES. PERMITTEES MUST REMOVE SEDIMENT FROM ALL PAVED SURFACES WITHIN ONE (1) CALENDAR DAY OF DISCOVERY OR, IF APPLICABLE, WITHIN A SHORTER TIME TO AVOID A SAFETY HAZARD TO USERS OF PUBLIC STREETS. [MINN. R. 7090]

- 11.7 PERMITTEES MUST REPAIR, REPLACE OR SUPPLEMENT ALL PERIMETER CONTROL DEVICES WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/2 OF THE HEIGHT OF THE DEVICE. [MINN. R. 7090]
11.8 PERMITTEES MUST DRAIN TEMPORARY AND PERMANENT SEDIMENTATION BASINS AND REMOVE THE SEDIMENT WHEN THE DEPTH OF SEDIMENT ACCUMULATED IN THE BASIN REACHES 1/2 THE STORAGE VOLUME. [MINN. R. 7090]
11.9 PERMITTEES MUST ENSURE THAT AT LEAST ONE INDIVIDUAL PRESENT ON THE SITE OR AVAILABLE TO THE PROJECT SITE IN THREE (3) CALENDAR DAYS IS TRAINED IN THE JOB DUTIES DESCRIBED IN ITEM 21.2.B. [MINN. R. 7090]
11.10 PERMITTEES MAY ADJUST THE INSPECTION SCHEDULE DESCRIBED IN ITEM 11.2 AS FOLLOWS:
A. INSPECTIONS OF AREAS WITH PERMANENT COVER CAN BE REDUCED TO ONCE PER MONTH, EVEN IF CONSTRUCTION ACTIVITY CONTINUES ON OTHER PORTIONS OF THE SITE; OR
B. WHERE SITES HAVE PERMANENT COVER ON ALL EXPOSED SOIL AND NO CONSTRUCTION ACTIVITY IS OCCURRING ANYWHERE ON THE SITE, INSPECTIONS CAN BE REDUCED TO ONCE PER MONTH AND, AFTER 12 MONTHS, MAY ONCE BE SUSPENDED COMPLETELY UNTIL CONSTRUCTION ACTIVITY RESUMES. THE MPCA MAY REQUIRE INSPECTIONS TO RESUME IF CONDITIONS WARRANT; OR
C. WHERE CONSTRUCTION ACTIVITY HAS BEEN SUSPENDED DUE TO FROZEN GROUND CONDITIONS, INSPECTIONS MAY BE SUSPENDED, INSPECTIONS MUST RESUME WITHIN 24 HOURS OF RUNOFF OCCURRING, OR UPON RESUMING CONSTRUCTION. WHEN SITES ARE NOT REQUIRED TO COVER OR PROTECT PRODUCTS WHICH ARE EITHER NOT A SOURCE OF CONTAMINATION TO STORMWATER OR ARE DESIGNED TO BE EXPOSED TO STORMWATER. [MINN. R. 7090]
11.11 PERMITTEES MUST RECORD ALL INSPECTIONS AND MAINTENANCE ACTIVITIES WITHIN 24 HOURS OF BEING CONDUCTED AND THESE RECORDS MUST BE RETAINED WITH THE SWPPP. THESE RECORDS MUST INCLUDE:
A. DATE AND TIME OF INSPECTIONS; AND
B. NAME OF PERSONS CONDUCTING INSPECTIONS; AND
C. ACCURATE FINDINGS OF INSPECTIONS, INCLUDING THE SPECIFIC LOCATION WHERE CORRECTIVE ACTIONS ARE NEEDED; AND
D. CORRECTIVE ACTIONS TAKEN (INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES); AND
E. DATE OF ALL RAINFALL EVENTS GREATER THAN 1/2 INCHES IN 24 HOURS, AND THE AMOUNT OF RAINFALL FOR EACH EVENT. PERMITTEES MUST OBTAIN RAINFALL MEASUREMENTS BY EITHER A PROPERLY MAINTAINED RAIN GAGE AT THE SITE, A WEATHER STATION THAT IS WITHIN ONE (1) MILE OF YOUR LOCATION, OR A WEATHER REPORTING SYSTEM THAT PROVIDES SITE SPECIFIC RAINFALL DATA FROM RADAR SUMMARIES; AND
F. IF PERMITTEES OBSERVE A DISCHARGE DURING THE INSPECTION, THEY MUST RECORD AND SHOULD PHOTOGRAPH AND DESCRIBE THE LOCATION OF THE DISCHARGE (I.E., COLOR, ODOR, SETTLED OR SUSPENDED SOLIDS, OIL SHEEN, AND OTHER OBVIOUS INDICATORS OF POLLUTANTS); AND
G. ANY AMENDMENTS TO THE SWPPP PROPOSED AS A RESULT OF THE INSPECTION MUST BE DOCUMENTED AS REQUIRED IN SECTION 6.1. [MINN. R. 7090]

**12.1 POLLUTION PREVENTION MANAGEMENT MEASURES. [MINN. R. 7090]**

- 12.2 PERMITTEES MUST PLACE BUILDING PRODUCTS AND LANDSCAPE MATERIALS UNDER COVER (E.G., PLASTIC SHEETING OR TEMPORARY ROOFS) OR PROTECT THEM BY SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORMWATER. PERMITTEES ARE NOT REQUIRED TO COVER OR PROTECT PRODUCTS WHICH ARE EITHER NOT A SOURCE OF CONTAMINATION TO STORMWATER OR ARE DESIGNED TO BE EXPOSED TO STORMWATER. [MINN. R. 7090]
12.3 PERMITTEES MUST PLACE PESTICIDES, FERTILIZERS AND TREATMENT CHEMICALS UNDER COVER (E.G., PLASTIC SHEETING OR TEMPORARY ROOFS) OR PROTECT THEM BY SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORMWATER. [MINN. R. 7090]
12.4 PERMITTEES MUST STORE HAZARDOUS MATERIALS AND TOXIC WASTE, (INCLUDING OIL, DIESEL FUEL, GASOLINE, HYDRAULIC FLUIDS, PAINT SOLVENTS, PETROLEUM-BASED PRODUCTS, WOOD PRESERVATIVES, ADDITIVES, CURING COMPOUNDS, AND ACIDS) IN SEALED CONTAINERS TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. STORAGE AND DISPOSAL OF HAZARDOUS WASTE MATERIALS MUST BE IN COMPLIANCE WITH MINN. R. CH. 7045 INCLUDING SECTORIAL REGULATIONS AS APPLICABLE. [MINN. R. 7090]
12.5 PERMITTEES MUST PROPERLY STORE, COLLECT AND DISPOSE SOLID WASTE IN COMPLIANCE WITH MINN. R. CH. 7035. [MINN. R. 7035]
12.6 PERMITTEES MUST POSITION PORTABLE TOILETS SO THEY ARE SECURE AND WILL NOT TIP OR BE KNOCKED OVER. PERMITTEES MUST PROPERLY DISPOSE SANITARY WASTE IN ACCORDANCE WITH MINN. R. CH. 7041. [MINN. R. 7041]
12.7 PERMITTEES MUST TAKE REASONABLE STEPS TO PREVENT THE DISCHARGE OF SPILLED OR LEAKED CHEMICALS, INCLUDING FUEL FROM ANY AREA WHERE CHEMICALS OR FUEL WILL BE LOADED OR UNLOADED INCLUDING THE USE OF DRIP PANS OR ABSORBENTS UNLESS INFEASIBLE. PERMITTEES MUST ENSURE ADEQUATE SUPPLIES ARE AVAILABLE AT ALL TIMES TO CLEAN UP DISCHARGED MATERIALS AND THAT AN APPROPRIATE DISPOSAL METHOD IS AVAILABLE FOR RECOVERED SPILLS/LEAKS. PERMITTEES MUST CLEAN UP AND CLEAN UP SPILLS IMMEDIATELY AS REQUIRED BY MINN. STAT. 116.051, USING DRY CLEAN UP MEASURES WHERE POSSIBLE. [MINN. STAT. 116.051]
12.8 PERMITTEES MUST LIMIT VEHICLE EXTERIOR WASHING AND EQUIPMENT TO A DEFINED AREA OF THE SITE. PERMITTEES MUST CONTAIN RUNOFF FROM THE WASHING AREA IN A SEDIMENT BASIN OR OTHER SIMILARLY EFFECTIVE CONTROLS AND MUST DISPOSE WASTE FROM THE WASHING ACTIVITY PROPERLY. PERMITTEES MUST PROPERLY USE AND STORE SOAPS, DETERGENTS, OR SOLVENTS. [MINN. R. 7090]

- 12.9 PERMITTEES MUST PROVIDE EFFECTIVE CONTAINMENT FOR ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OPERATIONS (E.G., CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS) RELATED TO THE CONSTRUCTION ACTIVITY. PERMITTEES MUST PREVENT LIQUID AND SOLID WASHOUT WASTES FROM CONTACTING THE GROUND OR THE CONTAINMENT SO IT DOES NOT RESULT IN RUNOFF FROM THE WASHOUT OPERATIONS OR AREAS. PERMITTEES MUST PROPERLY DISPOSE LIQUID AND SOLID WASTES IN COMPLIANCE WITH MPCA RULES. PERMITTEES MUST INSTALL A SIGN INDICATING THE LOCATION OF THE WASHOUT FACILITY. [MINN. R. 7035, MINN. R. 7090]
12.10 PERMITTEES MUST PROPERLY STORE, COLLECT AND DISPOSE SOLID WASTE IN COMPLIANCE WITH MINN. R. CH. 7035. [MINN. R. 7035]
12.11 PERMITTEES MUST POSITION PORTABLE TOILETS SO THEY ARE SECURE AND WILL NOT TIP OR BE KNOCKED OVER. PERMITTEES MUST PROPERLY DISPOSE SANITARY WASTE IN ACCORDANCE WITH MINN. R. CH. 7041. [MINN. R. 7041]
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- 12.14 PERMITTEES MUST STORE HAZARDOUS MATERIALS AND TOXIC WASTE, (INCLUDING OIL, DIESEL FUEL, GASOLINE, HYDRAULIC FLUIDS, PAINT SOLVENTS, PETROLEUM-BASED PRODUCTS, WOOD PRESERVATIVES, ADDITIVES, CURING COMPOUNDS, AND ACIDS) IN SEALED CONTAINERS TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. STORAGE AND DISPOSAL OF HAZARDOUS WASTE MATERIALS MUST BE IN COMPLIANCE WITH MINN. R. CH. 7045 INCLUDING SECTORIAL REGULATIONS AS APPLICABLE. [MINN. R. 7090]
12.15 PERMITTEES MUST PROPERLY STORE, COLLECT AND DISPOSE SOLID WASTE IN COMPLIANCE WITH MINN. R. CH. 7035. [MINN. R. 7035]
12.16 PERMITTEES MUST POSITION PORTABLE TOILETS SO THEY ARE SECURE AND WILL NOT TIP OR BE KNOCKED OVER. PERMITTEES MUST PROPERLY DISPOSE SANITARY WASTE IN ACCORDANCE WITH MINN. R. CH. 7041. [MINN. R. 7041]
12.17 PERMITTEES MUST TAKE REASONABLE STEPS TO PREVENT THE DISCHARGE OF SPILLED OR LEAKED CHEMICALS, INCLUDING FUEL FROM ANY AREA WHERE CHEMICALS OR FUEL WILL BE LOADED OR UNLOADED INCLUDING THE USE OF DRIP PANS OR ABSORBENTS UNLESS INFEASIBLE. PERMITTEES MUST ENSURE ADEQUATE SUPPLIES ARE AVAILABLE AT ALL TIMES TO CLEAN UP DISCHARGED MATERIALS AND THAT AN APPROPRIATE DISPOSAL METHOD IS AVAILABLE FOR RECOVERED SPILLS/LEAKS. PERMITTEES MUST CLEAN UP AND CLEAN UP SPILLS IMMEDIATELY AS REQUIRED BY MINN. STAT. 116.051, USING DRY CLEAN UP MEASURES WHERE POSSIBLE. [MINN. STAT. 116.051]
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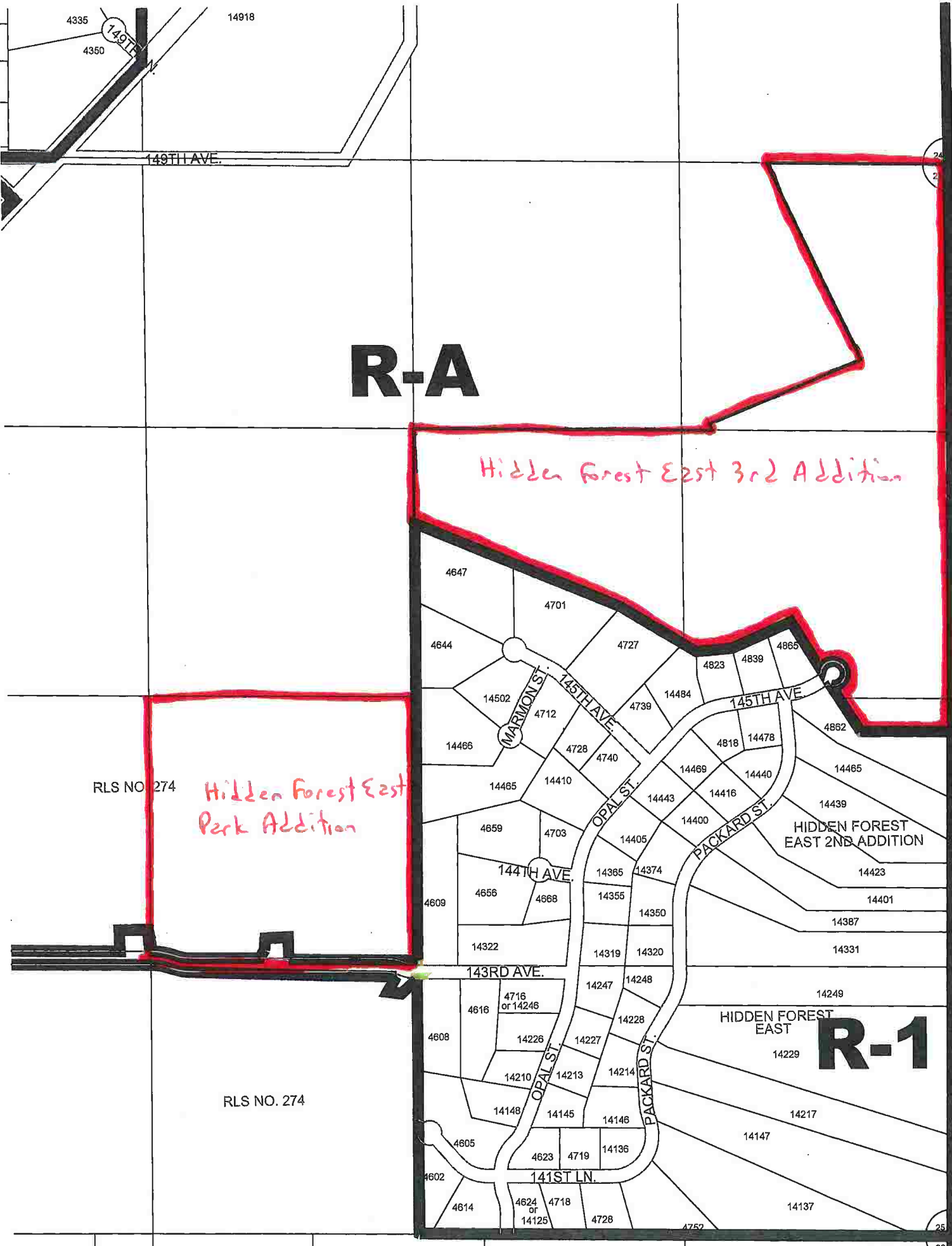
**13.1 PERMIT TERMINATION CONDITIONS. [MINN. R. 7090]**

- 13.2 PERMITTEES MUST COMPLETE ALL CONSTRUCTION ACTIVITY AND MUST INSTALL PERMANENT COVER OVER ALL AREAS PRIOR TO SUBMITTING THE NOT. VEGETATIVE COVER MUST CONSIST OF A UNIFORM PERENNIAL VEGETATION WITH A DENSITY OF 70 PERCENT OF ITS EXPECTED FINAL GROWTH. VEGETATION IS NOT REQUIRED WHERE THE FUNCTION OF A SPECIFIC AREA DICTATES NO VEGETATION, SUCH AS IMPERVIOUS SURFACES OR THE BASE OF A SAND FILTER. [MINN. R. 7090]
13.3 PERMITTEES MUST CLEAN THE PERMANENT STORMWATER TREATMENT SYSTEM OF ANY ACCUMULATED SEDIMENT AND MUST ENSURE THE SYSTEM MEETS ALL APPLICABLE REQUIREMENTS IN SECTION 15 THROUGH 19 AND IS OPERATING AS DESIGNED. [MINN. R. 7090]
13.4 PERMITTEES MUST REMOVE ALL SEDIMENT FROM CONVEYANCE SYSTEMS PRIOR TO SUBMITTING THE NOT. [MINN. R. 7090]
13.5 PERMITTEES MUST REMOVE ALL TEMPORARY SYNTHETIC EROSION PREVENTION AND SEDIMENT CONTROL BMPs PRIOR TO SUBMITTING THE NOT. PERMITTEES MUST REMOVE ALL BMPs DESIGNED TO DISPOSE ON-SITE IN PLACE. [MINN. R. 7090]
13.6 FOR RESIDENTIAL CONSTRUCTION ONLY, PERMIT COVERAGE TERMINATES ON INDIVIDUAL LOTS IF THE STRUCTURES ARE FINISHED AND TEMPORARY EROSION PREVENTION AND DOWNGRADIENT PERIMETER CONTROL IS COMPLETE, THE RESIDENCE SELLS TO THE HOMEOWNER, AND THE PERMITTEE DISTRIBUTES THE MPCA'S "HOMEOWNER FACT SHEET" TO THE HOMEOWNER. [MINN. R. 7090]
13.7 FOR CONSTRUCTION PROJECTS ON AGRICULTURAL LAND (E.G., PIPELINES ACROSS CROPLAND), PERMITTEES MUST RETURN THE DISTURBED AREAS TO ITS PRECONSTRUCTION AGRICULTURAL USE PRI









**R-A**

*Hidden Forest East 3rd Addition*

RLS NO. 274

*Hidden Forest East Park Addition*

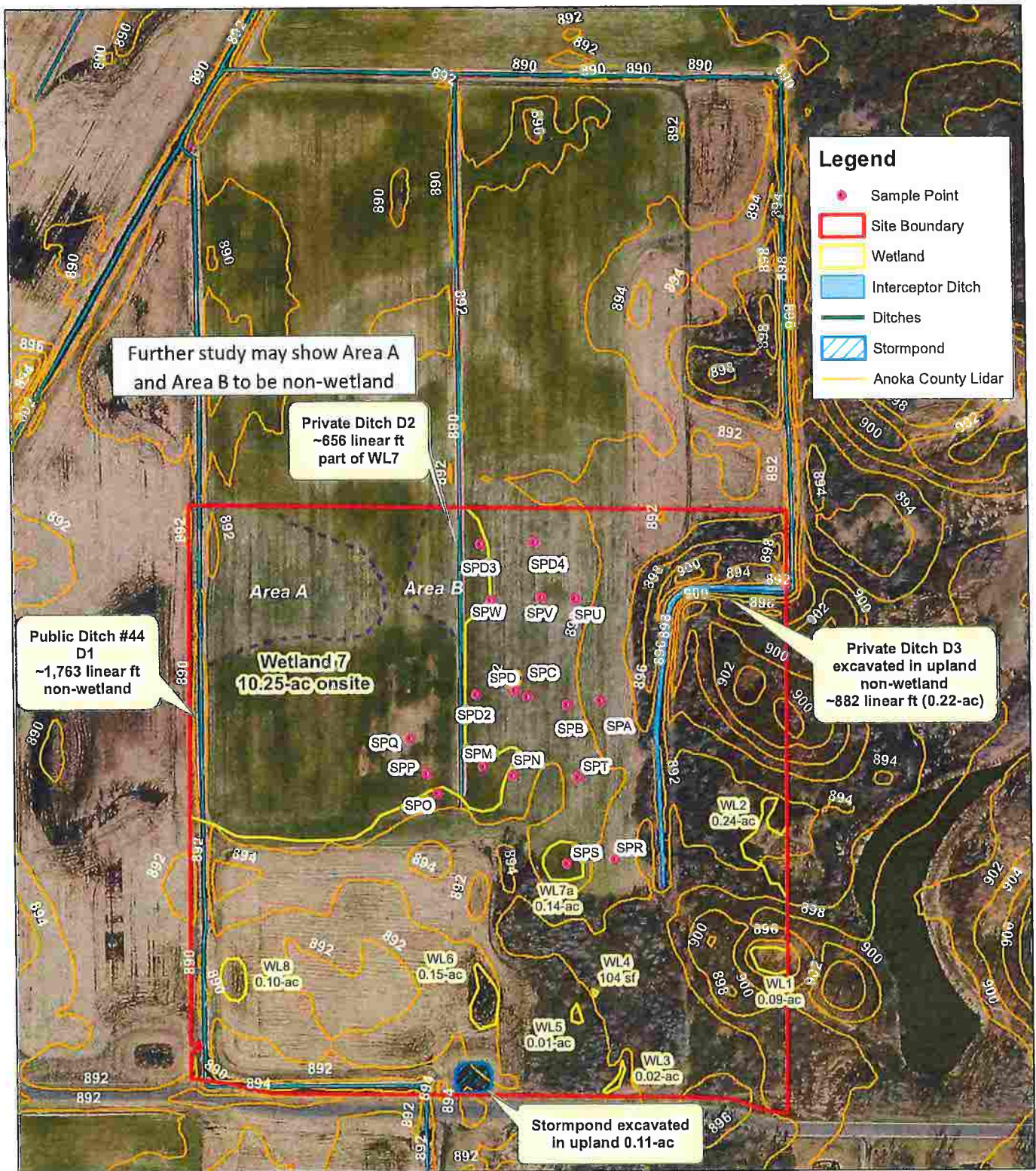
HIDDEN FOREST EAST 2ND ADDITION

HIDDEN FOREST EAST


**R-1**

RLS NO. 274

*1" = 600'*




6/4/2021 Revised Figure 2 - Existing Conditions (2020 Metro Photo)




N

0 500



Feet

**143rd Ave NE (KES 2020-178)**  
**Ham Lake, Minnesota**

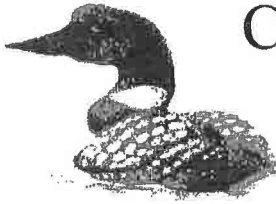


**KJØLHAUG** ENVIRONMENTAL SERVICES COMPANY

Source: MNGEO Spatial Commons

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





# CITY OF HAM LAKE

15544 Central Avenue NE  
Ham Lake, Minnesota 55304  
(763) 434-9555  
Fax: (763) 434-9599

## CITY OF HAM LAKE PARK AND TREE COMMISSION MINUTES WEDNESDAY, SEPTEMBER 19, 2018

The Ham Lake Park and Tree Commission met for its regularly scheduled meeting on Wednesday, September 19, 2018 at 6:00 p.m. at the Ham Lake City Hall, 15544 Central Avenue NE, Ham Lake, Minnesota.

**MEMBERS PRESENT:** Vice Chair Tim Donnay and Commissioners, Al Stauffacher, Tara Lanigan and Doug Miller

**MEMBERS ABSENT:** Patrick Wolfgram

**OTHERS PRESENT:** Public Works Superintendent, Tom Reiner and Deputy City Clerk, Jennifer Bohr

### CALL TO ORDER:

Vice Chair Donnay called the meeting to order at 6:00 p.m. and the Pledge of Allegiance was recited by all in attendance.

### APPROVAL OF MINUTES:

**Motion by Stauffacher, seconded by Miller, to approve the minutes of the July 18, 2018 Park and Tree Commission meeting as written. All present in favor. Motion carried.**

**CITY COUNCIL UPDATE:** None

### 1.0 APPEARANCES:

- \* 1.1 Jeff Stalberger, HFN Properties, LLC, consideration of Parkland Dedication for Sketch Plan of Hidden Forest East 2nd Addition (42 Single Family Residential Lots) in Section 25.

Jeff Stalberger of HFN Properties, LLC was present. Mr. Stalberger stated he developed the plat of Hidden Forest East last spring and Hidden Forest East 2<sup>nd</sup> Addition will be to the north of that plat. Vice Chair Donnay asked Mr. Stalberger if he has plans to develop additional land in this area and would those developments include a park. Superintendent Reiner stated that the Comprehensive Plan identifies an area north of the Hidden Forest East 2<sup>nd</sup> Addition as a potential future park location. Mr. Stalberger stated he prefers to offer the City money in lieu of parkland but he would be willing to work with the Knolls, current owners of the adjacent property, and the City to negotiate a purchase of land for a park, perhaps in a section to the southwest of Hidden Forest East 2<sup>nd</sup> Addition. Superintendent Reiner suggested that Mr. Stalberger purchase land in the next phase of development that could be parkland. Discussion followed regarding dedication of future parkland bordering Carlos Avery Wildlife



Management Area (WMA); there was concern that hunters would utilize any parkland bordering Carlos Avery WMA as an entrance to the WMA for hunting and cause parking issues. Commissioner Miller voiced his concern with the limited amount of parkland the City has obtained in the past two years and that tonight's discussion is only speculative; there is no guarantee the City will obtain parkland in future phases of development in this area. Vice Chair Donnay asked Mr. Stalberger when he would develop the next phase in the Hidden Forest East development. Mr. Stalberger stated it could possibly be eighteen months from now. Vice Chair Donnay asked if Mr. Stalberger would be willing to plan a park in the next phase. Mr. Stalberger stated he would be willing to plan a park in the next phase. Commissioner Stauffacher stated that if money is accepted in lieu of parkland for this development a park needs to be required in the next phase. Commissioner Miller stated the maximum amount of parkland needs to be obtained in the next phase. **Motion by Donnay, seconded by Lanigan, to recommend to City Council to accept monies in lieu of parkland for the Sketch Plan of Hidden Forest East 2<sup>nd</sup> Addition (42 Single Family Residential Lots) in Section 25. Commissioners Donnay and Lanigan voted yes, Commissioners Stauffacher and Miller voted no.** Commissioner Stauffacher said he would like a stipulation included in the motion to require parkland in the next phase of the Hidden Forest East development. **Donnay moved to amend the motion by adding the following to the motion on the table: with the understanding parkland will be required in the next phase of the Hidden Forest East development. Seconded by Stauffacher. Commissioners Donnay, Lanigan and Stauffacher voted yes, Commissioner Miller voted no. Motion carried.** *(This item will be placed on the October 1, 2018 City Council Agenda.)*

## 2.0 PARK & TREE COMMISSION BUSINESS:

### 2.1 Discussion of recommending a feasibility study for construction of a 1.75 mile bike trail on the west side of Radisson Road NE from 139<sup>th</sup> Avenue NE to 153<sup>rd</sup> Avenue NE

Superintendent Reiner stated extending the pedestrian trail on the west side of Radisson Road NE was discussed at the April 4, 2018 workshop meeting and the July 18, 2018 Park and Tree Commission meeting. Superintendent Reiner stated a recommendation was made to City Council for Engineer Collins to contact Anoka County to ask if the County would allow the City to purchase and construct a trail in the county right-of-way; Engineer Collins has contacted Anoka County and they are open to the trail extension. Superintendent Reiner stated the trail would connect to the current bike lane on 149<sup>th</sup> Avenue NE, which connects to a trail going into Blaine. Superintendent Reiner stated the next step in this process would be to conduct a feasibility study. **Motion by Stauffacher, seconded by Miller, to recommend to City Council that Engineer Tom Collins conduct a feasibility study for the 1.75 mile bike trail along the west side of Radisson Road NE between 139<sup>th</sup> Lane NE and 153<sup>rd</sup> Avenue NE. All present in favor. Motion carried.** *(This item will be placed on the October 1, 2018 City Council Agenda.)*

## 3.0 TREE UPDATE:

### 3.1 Oak Wilt Tree Inspections

Superintendent Reiner stated tree inspectors have completed road side inspections for oak wilt; 159 notices were sent to residents to inform them that their oak trees have symptoms of



143RD AVE.

1" = 200'



**NOTICE OF PERMIT APPLICATION STATUS**

**Project:** Hidden Forest East Park Addition

**Date:** June 15, 2021

**Applicant:** Jeff Stalberger  
17404 Ward Lake Dr. NW  
Andover, MN 55304

**Permit Application#:** 20-169

**Purpose:** Development of 2 single family home lots with parkland

**Location:** 143<sup>rd</sup> Ave NE, East of Lexington Ave, Ham Lake

At their meeting on June 14, 2021, the Board of Managers of the Coon Creek Watershed District **conditionally approved** the above referenced project with 2 conditions and 0 stipulations: **This is NOT a permit.**

**ISSUES/CONCERNS:**

<b>ISSUE</b>	<b>NEED</b>
<b>Escrows:</b> \$2,000 + (XX ac * \$500/ac = \$2875.00	1. Receipt of escrows.
<b>Stormwater &amp; Hydraulics:</b> Rate control is not met for the discharge point to 143 <sup>rd</sup> Ave ditch. No adverse impacts are expected due to the increase in rates.	No action required.
<b>Wetlands:</b> Wetlands are located on site. The TEP is currently reviewing recently submitted information.	2. Provide TEP approval of wetland delineation.

To secure Board review and obtain your permit, the District must receive:

**Conditions:**

1. Receipt of escrows.
2. Provide TEP approval of wetland delineation.

After issuance, the permit will include the following stipulations that need to be fulfilled before permit closeout:

**Stipulations:**

None.

Please be advised that **this is NOT a permit**, and that work without a permit is a violation of the terms of the Coon Creek Watershed District Rule 5.1. If you have any

questions, please call 763-755-0975.

Sincerely,



Erin Edison  
Water Resource Regulation Coordinator

cc: File 20-169  
Ed Matthiesen, Stantec  
Eileen Weigel, Stantec  
Tom Collins, Ham Lake

***Note:*** Please respond to each of these items in writing when resubmitting the revised plans to the District. Resubmittals must include two hard copies and an electronic version sent to [permitsubmittals@cooncreekwd.org](mailto:permitsubmittals@cooncreekwd.org). ***Please submit written responses below the original typed comments, using extra sheets as necessary, addressing comments from the District.*** If you have any questions, feel free to contact Erin Edison at (763) 755-0975. Pursuant to Coon Creek rule 7.3 deficiencies must be addressed and resubmitted within 60 days. Failure to do so shall be deemed a withdrawal of the permit application.

**Tradewell Soil Testing  
18330 Dahlia Street NW  
Cedar, MN 55011**

June 7<sup>th</sup>, 2021

RFC Engineering  
13635 Johnson Street NE  
Ham Lake, MN 55304  
Attention: Tom Collins

Dear Mr. Collins:

As a licensed site evaluator who conducted the soil borings in Hidden Forest Park Addition for Jeff Stalberger, I found the following: Each boring has at least 12" of natural, undisturbed and unmottled soil. In order to design and install a standard soil treatment system according to MN Chapter 7080 Code, at least 12" of natural soil with no signs of mottling is required. Therefore, each of the proposed lots will support 2 "standard" septic systems within the 7,500 square feet septic area as shown on the Grading Plan.

Sincerely,

A handwritten signature in black ink that reads "Mark Tradewell". The signature is written in a cursive, flowing style.

Mark Tradewell  
MPCA #307



# 143RD AVENUE NE - HAM LAKE, MN - RARE PLANT SURVEY REPORT

Prepared for:

Mr. Jeffrey Stalberger  
HFN Properties, LLC  
17404 Ward Lake Dr. NW  
Andover, MN 55304



MAY 20, 2021



Prepared by:  
Midwest Natural Resources, Inc.  
1032 West 7th Street, Suite 150  
St. Paul, Minnesota 55102  
[www.mnrinc.us](http://www.mnrinc.us)



Mr. Jeffrey Stalberger  
HFN Properties, LLC  
17404 Ward Lake Dr. NW  
Andover, MN 55304

May 20, 2021

Mr. Stalberger,

Midwest Natural Resources, Inc. (MNR) is pleased to provide the following report for botanical surveys of the Ham Lake property located north of 143<sup>rd</sup> Avenue NE, east of Lexington Avenue in Anoka County, Minnesota. (**Figure 1**).

### **Project Limits and Existing Background Data**

The project area, which is approximately 38.7 acres, is located in Township 32 North, Range 23 West in the NESW and NWSW quarter-quarter sections of Section 25 (**Figure 2**). Background data evaluated includes digital soil data, the Minnesota Biological Survey (MBS) sites of biodiversity significance data layer, and the Minnesota Department of Natural Resources (DNR) Native Plant Community (NPC) data layer. According to the Anoka County Soil Survey (**Figure 3**), the site includes four different soil series: Isanti fine sandy loam (Iw), Lino loamy fine sand (LnA), Markey muck (Ma), and Rifle mucky peat (Rf). All of these soil series, with the exception of Zimmerman fine sand, are very poorly drained to somewhat poorly drained and are often associated with rare plant species occurrences. The MBS sites of biodiversity significance data layer identifies the eastern portion of the project area as a site of outstanding biodiversity significance (**Figure 4**). The majority of the area identified with this designation, the Carlos Avery Natural Area, continues well outside of the project area. This designation indicates locations that include occurrences of the rarest species, the best examples of the rarest native plant communities, and/or the largest, most ecologically intact or functional landscapes. However, no NPCs are mapped within the project site, and the landscape itself is not considered unique. Therefore, it is assumed that a rare species occurrence, either animal or plant, was previously documented somewhere within the mapped site of biodiversity significance.

### **Methods**

Prior to conducting field surveys, MNR submitted a rare plant survey protocol to the DNR Endangered Species Coordinator (**Appendix A**). This survey protocol identified 39 state-listed vascular plant species to target during survey efforts.

Field efforts were conducted on May 13, 2021 by Otto Gockman, Jake Walden, and the undersigned. Meander surveys were conducted throughout the site and a general species list for all species observed was recorded (**Appendix B**). Due to the time of year, certain species were identified only to genus.

### **Results**



The majority of the site serves as an operational sod farm that includes two north-south lateral drainage ditches. The lower southern third of the property is under active agricultural row-crop production, but was not planted at the time of the survey. This area additionally includes an excavated basin on south end of site, which was inundated at the time of the field review and dominated by cattails (*Typha* sp.) with bald spikerush (*Eleocharis* cf. *erythropoda*) along perimeter.

The site also includes an oak forest in the eastern half of the site which includes a number of depressional wetlands. The forest has an interrupted canopy that includes white oak (*Quercus alba*), northern pin oak (*Q. ellipsoidalis*), red oak (*Q. rubra*), and black cherry (*Prunus serotina*). Box elder (*Acer negundo*) and common buckthorn (*Rhamnus cathartica*) are prevalent throughout the shrub layer along with beaked hazel (*Corylus cornuta*). The ground layer has varying diversity and is wormed throughout. Common ground layer species include Pennsylvania sedge (*Carex pensylvanica*), common enchanter's nightshade (*Circaea lutetiana* var. *canadensis*), wild geranium (*Geranium maculatum*), Canada mayflower (*Maianthemum canadense*), interrupted fern (*Osmunda claytoniana*), common buckthorn, and common blue violet (*Viola sororia*). This feature includes a north-south ditch near the edge of the forest as well. The wetland basins within the forest are generally open, species-depauperate depressional basins that are dominated by reed canary grass (*Phalaris arundinacea*). Much of the site was documented with representative photos; these photos are provided in **Appendix C**, and photo locations are displayed in **Figure 5**.

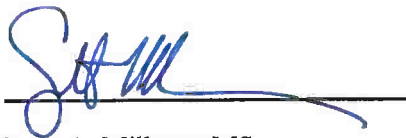
## Conclusion

Nearby projects have resulted in the detection of the state-threatened black huckleberry (*Gaylussacia baccata*). However, this species was not observed within the project area nor were any other state-listed plant species. Furthermore, based on the conditions observed onsite, we are not recommending follow-up surveys later this year.

For recordkeeping purposes, we will provide this report to the DNR with your approval. We can also directly send this report to the Coon Creek Watershed District upon request.

Please feel free to contact us with any questions.

Respectfully submitted,



Scott A. Milburn, MS  
Principal Botanist/President  
Midwest Natural Resources, Inc.





Anoka County



Lat: 45.229443  
Long: -93.157902

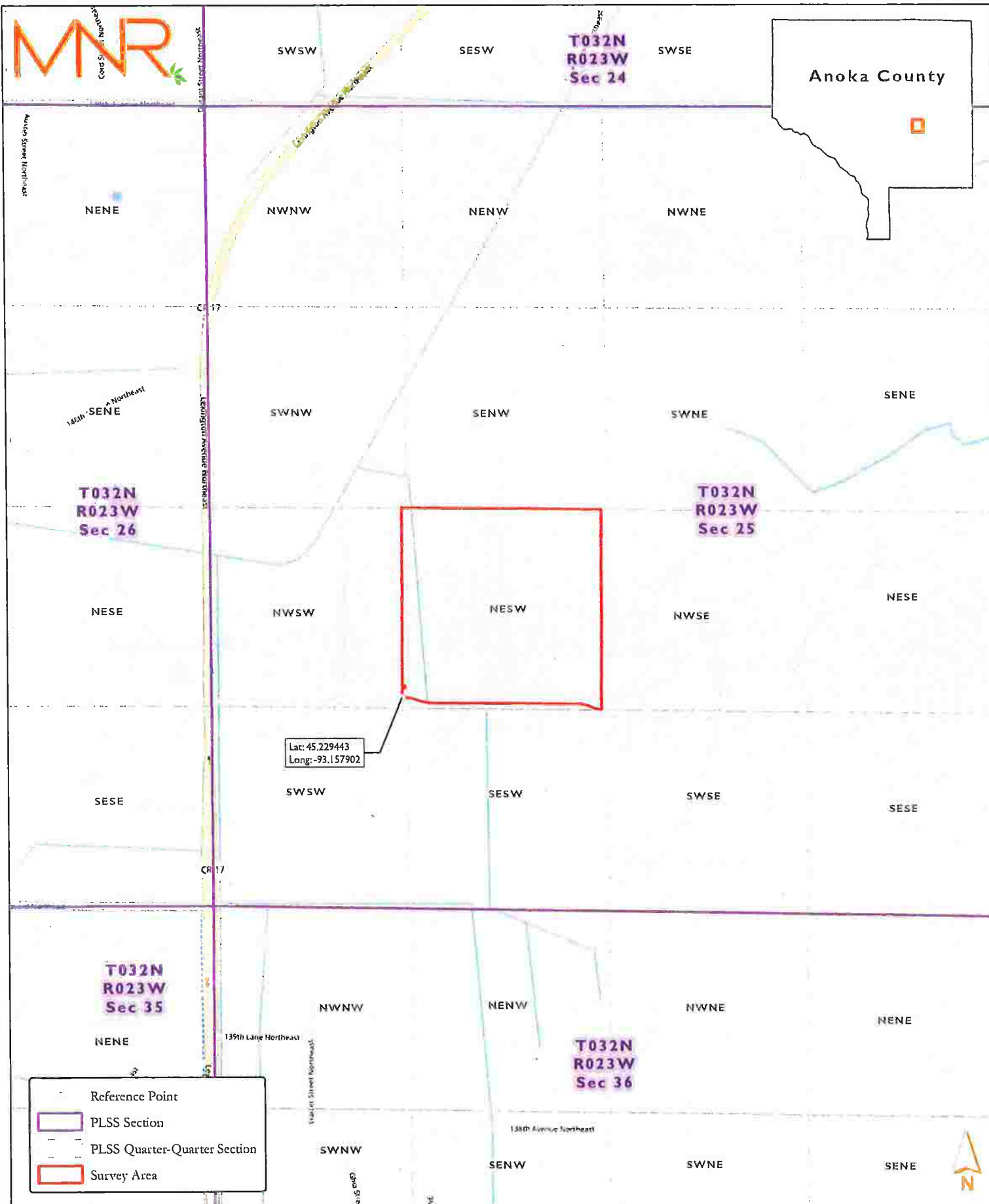
○ Reference Point  
 □ Survey Area

Source: OpenStreetMap, US Census Bureau, Date: 5/20/2021

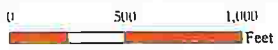


**Project Location**  
**Rare Plant Survey**  
**143rd Ave NE Site**  
**Ham Lake, Anoka County, Minnesota**

Figure 1



Source: OpenStreetMap, US Bureau of Land Management, US Census Bureau, Date: 5/20/2021



PLSS Survey Divisions  
 Rare Plant Survey  
 143rd Ave NE Site  
 Ham Lake, Anoka County, Minnesota

Figure 2



Source: MnGeo, MN Department of Natural Resources, USDA Natural Resources Conservation Service, US Census Bureau, Date: 5/20/2021

0 200 400  
Feet

**Anoka County Soil Survey**  
**Rare Plant Survey**  
**143rd Ave NE Site**  
**Ham Lake, Anoka County, Minnesota**

**Figure 3**



MNR

Anoka County



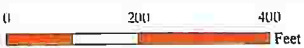
Lat: 45.229443  
Long: -93.157902

CARLOSAVERY NATURAL AREA

- Reference Point
- Outstanding Significance
- Survey Area



Source: MriGeo, MN Department of Natural Resources, US Census Bureau, Date: 5/20/2021

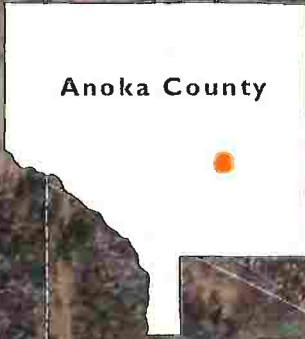


Sites of Biodiversity Significance  
Rare Plant Survey  
143rd Ave NE Site  
Ham Lake, Anoka County, Minnesota

Figure 4



MNR



Photo\_pt\_0010

Photo\_pt\_0013

Photo\_pt\_0012

Lat: 45.229443  
Long: -93.157902

Photo\_pt\_0014

Photo\_pt\_0015

Photo\_pt\_0006

Photo\_pt\_0007

Photo\_pt\_0005

Photo\_pt\_0004

Photo\_pt\_0003

Photo\_pt\_0009

- Reference Point
- Photo Location
- Land Parcel
- Survey Area

0 200 400 Feet

Photo Locations  
Rare Plant Survey  
143rd Ave NE Site  
Ham Lake, Anoka County, Minnesota

Figure 5

Source: MnGeo, MN Department of Natural Resources, US Census Bureau, Date: 5/20/2021

# Appendix A – Survey Protocol





Ms. Lisa Joyal  
Endangered Species Review Coordinator  
Minnesota Department of Natural Resources  
Ecological & Water Resources  
500 Lafayette Road  
St. Paul, MN 55155

April 2, 2021

Ms. Joyal,

Midwest Natural Resources, Inc. (MNR) is proposing to conduct an early season rare plant survey within the 38-acre Ham Lake property located north of 143<sup>rd</sup> Ave NE, east of Lexington Ave, Anoka County, Minnesota (**Figure 1**).

We are unaware if a formal request of the Natural Heritage Information System (NHIS) has been made. Regardless, we are intending to conduct an early season rare plant survey in mid- to late-May.

Survey efforts will involve documenting all vascular plant species observed during this visit. Rare plant species, if encountered, will be documented spatially using sub-meter GPS units (Trimble GeoXT 6000). Rare plant species documentation will include notes on habitat, associate species, number of individuals observed within each population documented, and representative photos. Voucher collections will be made following the DNR's collection guidance procedure should the population allow for collecting. We will also evaluate the site at this time to determine the potential need for additional surveys later in the growing season. Species on the attached list will be considered as we determine the need for follow-up surveys.

A summary report will be produced at the conclusion of field efforts. This document will include information pertaining to survey methods, survey results, report figures/graphics, and appendices (species lists and representative photos). The report along with the GIS shapefile, associated spreadsheet, and an email from Welby Smith verifying specimen identification will be submitted to the designated NHIS email address should we have positive results.

Please let us know if you have any questions.

Scott A. Milburn, MS  
Principal Botanist/President  
Midwest Natural Resources, Inc.



MNR

Anoka County

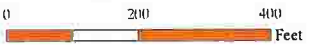


143rd Ave NE

Lat: 45.229221  
Long: -93.152778

- Reference Point
- ▭ Project Area
- ▭ Land Parcel

Source: MnGeo, MN Department of Natural Resources, US Census Bureau, Date: 1/4/2021



**Project Area**  
143rd Ave NE Site  
Ham Lake, Anoka County, Minnesota

Figure 1



Target Species List		
Common name	Scientific name	State status
Slimspike Three-awn	<i>Aristida longespica</i> var. <i>geniculata</i>	endangered
Seaside Three-awn	<i>Aristida tuberculosa</i>	threatened
White Wild Indigo	<i>Baptisia lactea</i> var. <i>lactea</i>	special concern
Yellow Bartonias	<i>Bartonia virginica</i>	endangered
Blunt-lobed Grapefern	<i>Botrychium oneidense</i>	threatened
St. Lawrence Grapefern	<i>Botrychium rugulosum</i>	special concern
Least Moonwort	<i>Botrychium simplex</i>	special concern
Gray's Sedge	<i>Carex grayi</i>	special concern
Ram's Head Orchid	<i>Cypripedium arietinum</i>	threatened
Water-willow	<i>Decodon verticillatus</i> var. <i>laevigatus</i>	special concern
Autumn Fimbray	<i>Fimbristylis autumnalis</i>	special concern
Black Huckleberry	<i>Gaylussacia baccata</i>	threatened
Beach Heather	<i>Hudsonia tomentosa</i>	threatened
Butternut	<i>Juglans cinerea</i>	endangered
Marginated Rush	<i>Juncus marginatus</i>	endangered
Rock Sandwort	<i>Minuartia dawsonensis</i>	threatened
Slender Naiad	<i>Najas gracillima</i>	special concern
Olive-colored Southern Naiad	<i>Najas guadalupensis</i> ssp. <i>olivacea</i>	special concern
Old Field Toadflax	<i>Nuttallanthus canadensis</i>	special concern
Rhombic Evening Primrose	<i>Oenothera rhombipetala</i>	special concern
One-flowered Broomrape	<i>Orobanche uniflora</i>	threatened
American Ginseng	<i>Panax quinquefolius</i>	special concern
Small Green Wood Orchid	<i>Platanthera clavellata</i>	special concern
Tuberclad Rein Orchid	<i>Platanthera flava</i> var. <i>herbiola</i>	threatened
Cross-leaved Milkwort	<i>Polygala cruciata</i>	endangered
Snailseed Pondweed	<i>Potamogeton bicupulatus</i>	endangered
Diverse-leaved Pondweed	<i>Potamogeton diversifolius</i>	endangered
Toothcup	<i>Rotala ramosior</i>	threatened
a bristle-berry	<i>Rubus fulleri</i>	threatened
Missouri Bristle-berry	<i>Rubus missouricus</i>	endangered
Kinnickinnick Dewberry	<i>Rubus multiflorus</i>	special concern
Swamp Blackberry	<i>Rubus semisetosus</i>	threatened
A Bristle-berry	<i>Rubus stipulatus</i>	endangered
Vermont Bristle-berry	<i>Rubus vermontanus</i>	special concern
Tall Nutrush	<i>Scleria triglomerata</i>	endangered
Clinton's Bulrush	<i>Trichophorum clintonii</i>	threatened
Purple Sandgrass	<i>Triplasis purpurea</i> var. <i>purpurea</i>	special concern
Lance-leaf Violet	<i>Viola lanceolata</i> var. <i>lanceolata</i>	threatened
Twisted Yellow-eyed Grass	<i>Xyris torta</i>	endangered

## Appendix B – Species Lists



Species List		
<i>Acer negundo</i>	<i>Lathyrus sp.</i>	<i>Urtica dioica</i> subsp. <i>gracilis</i>
<i>Acer rubrum</i>	<i>Lemna sp.</i>	<i>Uvularia sessilifolia</i>
<i>Ageratina altissima</i> var. <i>altissima</i>	<i>Lilium philadelphicum</i>	<i>Vaccinium angustifolium</i>
<i>Alliaria petiolata</i>	<i>Lonicera dioica</i>	<i>Verbascum thapsus</i>
<i>Amelanchier sp.</i>	<i>Lycopus americanus</i>	<i>Veronicastrum virginicum</i>
<i>Amphicarpaea bracteata</i>	<i>Maianthemum canadense</i>	<i>Viburnum opulus</i>
<i>Anemone quinquefolia</i>	<i>Maianthemum racemosum</i>	<i>Viola pubescens</i>
<i>Arctium minus</i>	<i>Matteuccia struthiopteris</i>	<i>Viola sororia</i>
<i>Arisaema triphyllum</i>	<i>Monarda fistulosa</i>	<i>Vitis riparia</i>
<i>Athyrium filix-femina</i> var. <i>angustum</i>	<i>Myosoton aquaticum</i>	
<i>Betula papyrifera</i>	<i>Onoclea sensibilis</i>	
<i>Calamagrostis canadensis</i>	<i>Oryzopsis asperifolia</i>	
<i>Capsella bursa-pastoris</i>	<i>Osmorhiza sp.</i>	
<i>Carex blanda</i>	<i>Osmunda claytoniana</i>	
<i>Carex deweyana</i> var. <i>deweyana</i>	<i>Ostrya virginiana</i>	
<i>Carex gracillima</i>	<i>Parthenocissus vitacea</i>	
<i>Carex lacustris</i>	<i>Phalaris arundinacea</i>	
<i>Carex pennsylvanica</i>	<i>Plantago rugelii</i>	
<i>Celtis occidentalis</i>	<i>Poa cf. compressa</i>	
<i>Circaea lutetiana</i> var. <i>canadensis</i>	<i>Poa pratensis</i>	
<i>Cirsium arvense</i>	<i>Populus tremuloides</i>	
<i>Comandra umbellata</i>	<i>Potentilla simplex</i>	
<i>Cornus racemosa</i>	<i>Prunus serotina</i>	
<i>Corylus americana</i>	<i>Prunus virginiana</i>	
<i>Cryptotaenia canadensis</i>	<i>Pteridium aquilinum</i>	
<i>Diervilla lonicera</i>	<i>Quercus alba</i>	
<i>Doellingeria umbellata</i>	<i>Quercus ellipsoidalis</i>	
<i>Dryopteris carthusiana</i>	<i>Quercus rubra</i>	
<i>Echinocystis lobata</i>	<i>Ranunculus sceleratus</i>	
<i>Eleocharis cf. erythropoda</i>	<i>Rhamnus cathartica</i>	
<i>Equisetum hyemale</i> subsp. <i>affine</i>	<i>Rubus cf. allegheniensis</i>	
<i>Erigeron annuus</i>	<i>Rubus idaeus</i> var. <i>strigosus</i>	
<i>Eurybia macrophylla</i>	<i>Rubus sp. 1</i>	
<i>Fallopia sp.</i>	<i>Salix interior</i>	
<i>Fragaria virginiana</i>	<i>Sambucus sp.</i>	
<i>Fraxinus pennsylvanica</i>	<i>Schoenoplectus tabernaemontani</i>	
<i>Galium aparine</i>	<i>Scirpus cyperinus</i>	
<i>Galium boreale</i>	<i>Solanum dulcamara</i>	
<i>Galium triflorum</i> var. <i>triflorum</i>	<i>Solidago gigantea</i>	
<i>Geranium maculatum</i>	<i>Symphotrichum sp.</i>	
<i>Geum canadense</i>	<i>Taraxacum officinale</i>	
<i>Glechoma hederacea</i>	<i>Thlaspi arvense</i>	
<i>Hackelia virginiana</i>	<i>Toxicodendron rydbergii</i>	
<i>Helianthus sp.</i>	<i>Trientalis borealis</i>	
<i>Ilex verticillata</i> var. <i>verticillata</i>	<i>Typha sp.</i>	
<i>Impatiens capensis</i>	<i>Ulmus americana</i>	

## Appendix C – Representative Photos





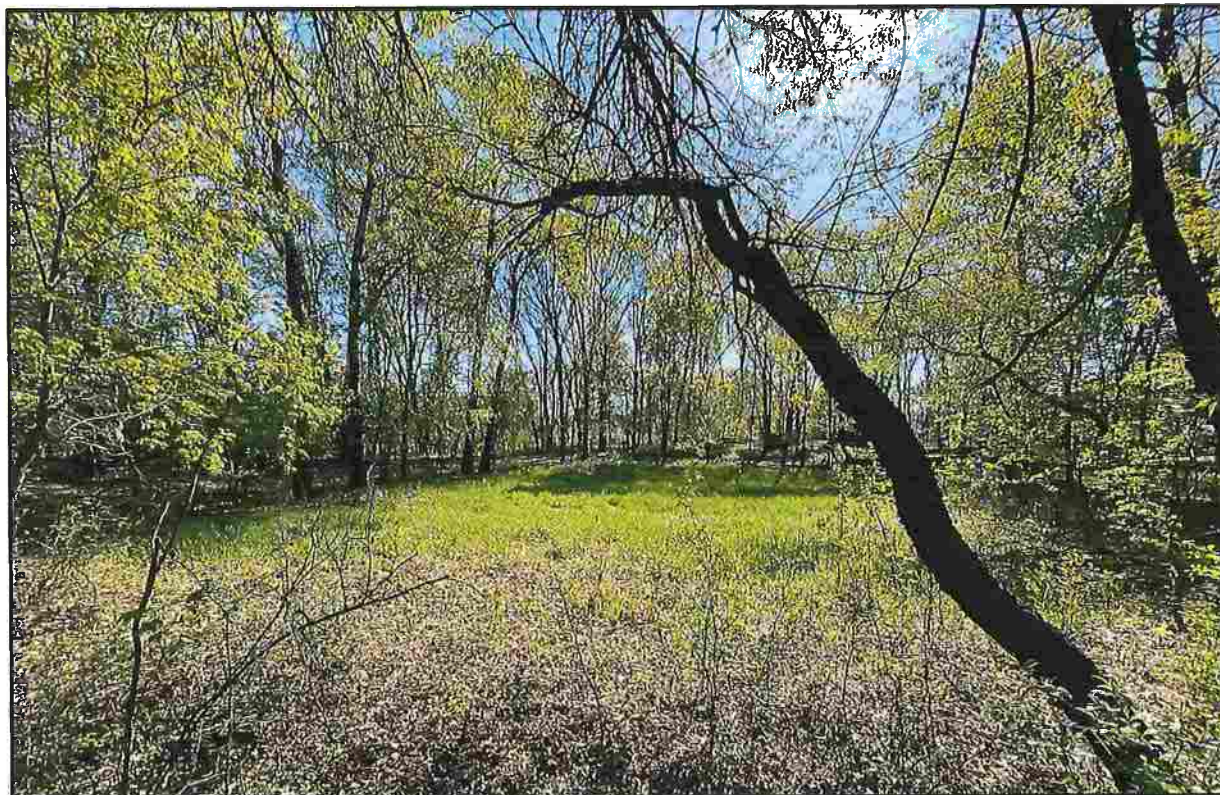


Photo pt 0003: Wetland basin dominated by reed canary grass (facing east)

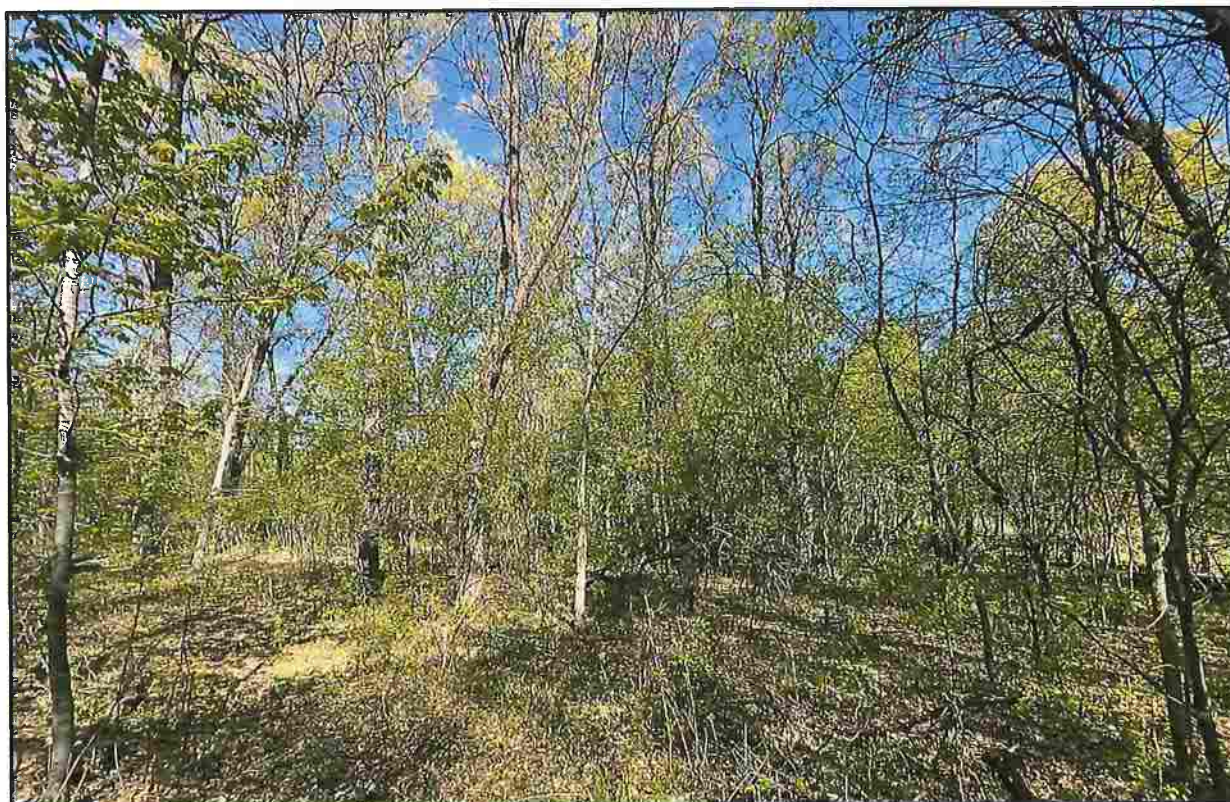


Photo pt 0004: Oak forest with interrupted canopy (facing northwest)





Photo pt 0005: Wetland basin dominated by reed canary grass (facing northwest)

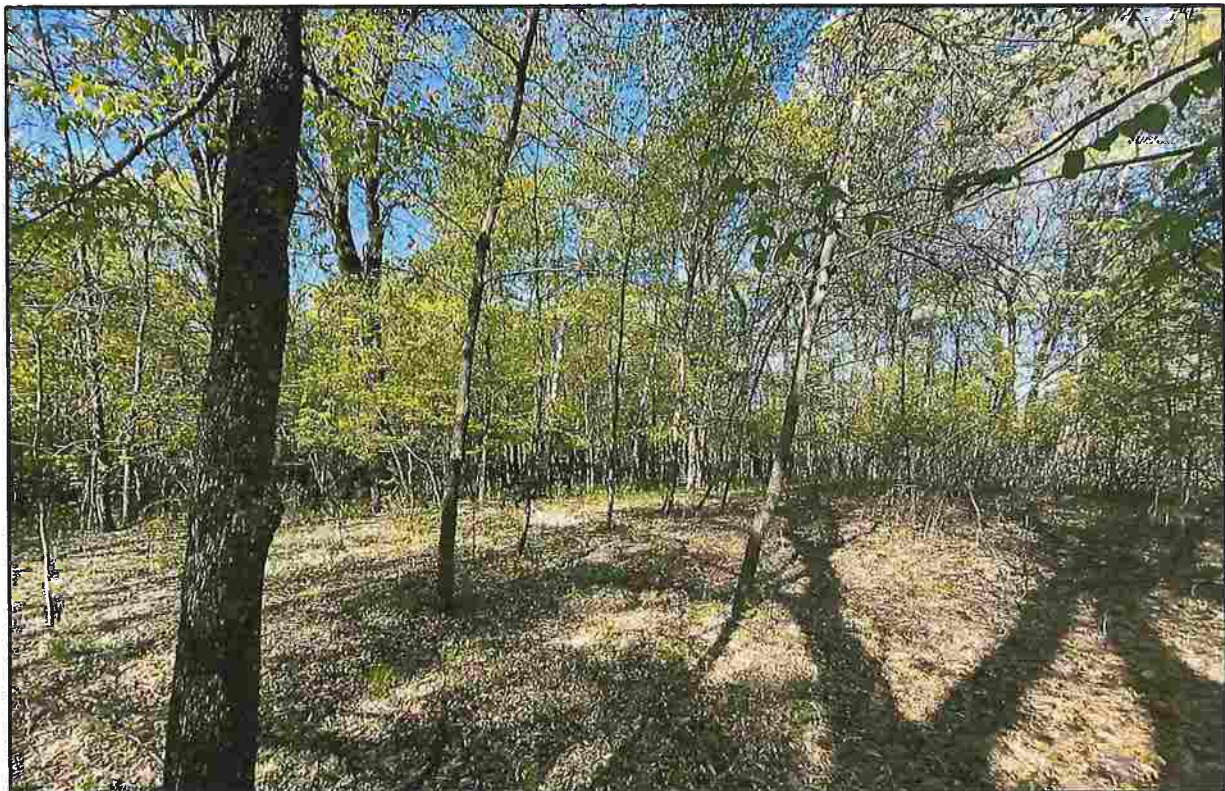


Photo pt 0006: Oak forest (facing west)





Photo pt 0007: North-south ditch near edge of oak forest community (facing north)



Photo pt 0009: Sod field (facing north)





Photo pt 0010: North-south ditch within sod field (facing north)



Photo pt 0012: North-south ditch on west end of survey area (facing north)





Photo pt 0013: Sod field (facing east)



Photo pt 0014: East-west lateral ditch along 143<sup>rd</sup> St. NE (facing east)



Photo pt 0015: Excavated basin adjacent to 143<sup>rd</sup> St. NE (facing west)





# CITY OF HAM LAKE

## PLANNING REQUEST

15544 Central Avenue NE

Ham Lake, MN 55304

Phone (763) 434-9555 Fax (763) 235-1697

Date of Application 3/3/2021

Date of Receipt \_\_\_\_\_  
Receipt # \_\_\_\_\_

Meeting Appearance Dates:  
Planning Commission 6-28-2021

City Council \_\_\_\_\_

Please check request(s):

- Metes & Bounds Conveyance
- Sketch Plan
- Preliminary Plat Approval\*
- Final Plat Approval
- Rezoning\*
- Multiple Dog License\*

- Commercial Building Permit
- Certificate of Occupancy
- Home Occupation Permit
- Conditional Use Permit (New)\*
- Conditional Use Permit (Renewal)
- Other \_\_\_\_\_

**\*NOTE: Advisory Signage is required for land use alterations and future road connections. This application also requires a Public Hearing. Such fees shall be deducted from deposit.**

Development/Business Name: HFN Properties LLC

Address/Location of property: 244 - Packard St. NE

Legal Description of property: Phase III Hidden Forest East

PIN # 25-32-23-12-0001 Current Zoning R-A Proposed Zoning R-1

Notes: Parts of 25-32-23-13-0002 & 14-0002, Tract B+C RLS 281

Applicant's Name: JEFF STALBUDER

Business Name: HFN Properties, LLC

Address 17404 - WARD LK. DR. NW

City Andover State MN Zip Code 55304

Phone 612-799-1471 Cell Phone \_\_\_\_\_ Fax \_\_\_\_\_

Email address STALLY68@MSN.COM

**You are advised that the 60-day review period required by Minnesota Statutes Chapter 15.99 does not begin to run until all of the required items have been received by the City of Ham Lake.**

SIGNATURE [Signature] DATE 3/3/2021

\*\*\*\*\*

**- FOR STAFF USE ONLY -**

ACTION BY: Planning Commission \_\_\_\_\_  
City Council \_\_\_\_\_

PROPERTY TAXES CURRENT YES NO



# CITY OF HAM LAKE

15544 Central Avenue NE  
Ham Lake, Minnesota 55304  
(763) 434-9555  
Fax: (763) 434-9599

NOTICE OF PUBLIC HEARING  
CITY OF HAM LAKE  
COUNTY OF ANOKA  
STATE OF MINNESOTA

TAKE NOTICE, that pursuant to the requirements of Minnesota Law, a public hearing shall be held before the Ham Lake Planning Commission on Monday, June 28, 2021 at 6:01 p.m. at the City Hall located at 15544 Central Avenue NE for the purpose of considering the application of Jeff Stalberger, HFN Properties, LLC, requesting preliminary plat approval and rezoning to R-1 (single family residential) the development of Hidden Forest East 3rd Addition (38 residential single family lots) located in Section 25, a parcel of certain land situated in the City of Ham Lake, Anoka County, Minnesota and which is described as follows to wit:

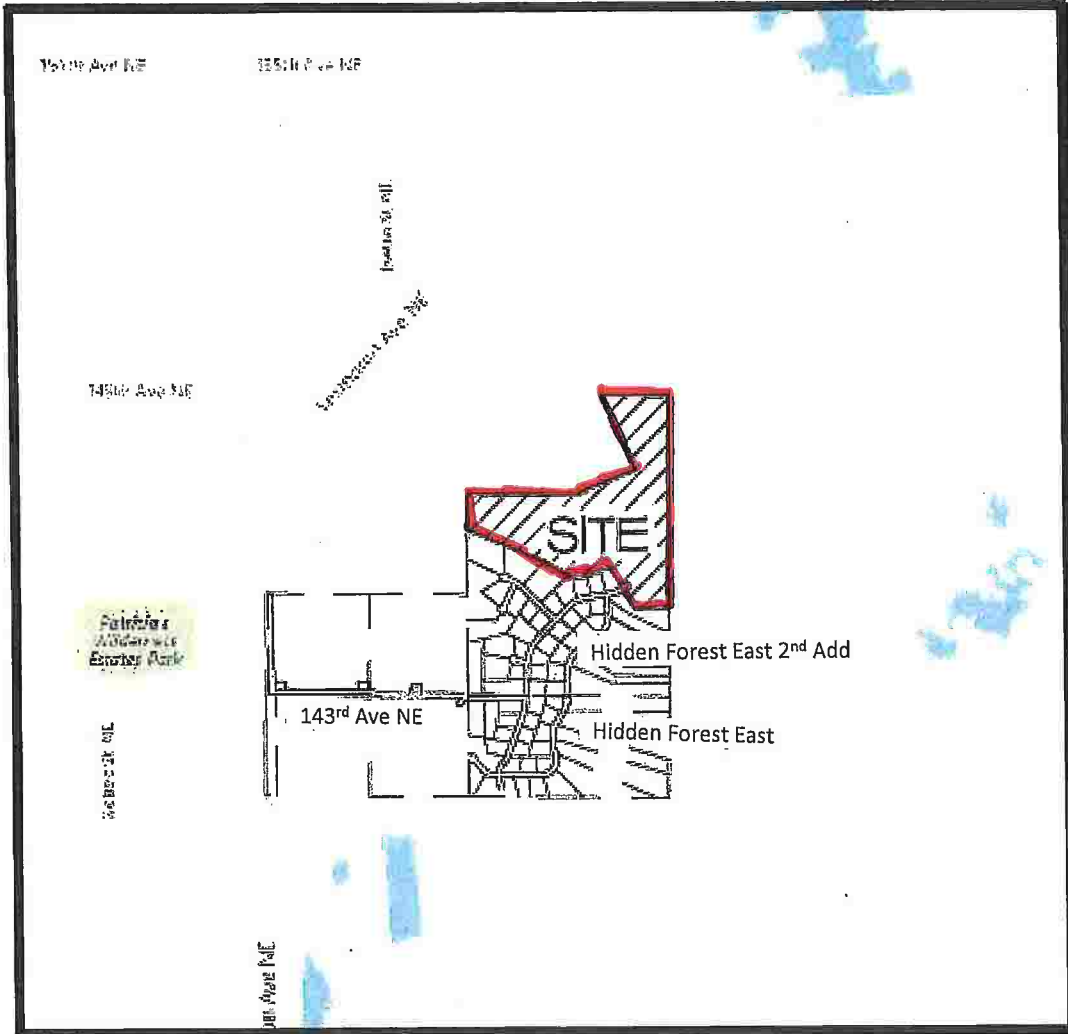
Parcel ID#'s	25-32-23-12-0001
	25-32-23-11-0001
Parts of	25-32-23-13-0002
	25-32-23-14-0002

Tract B and Tract C, Registered Land Survey 281, Anoka County, Minnesota and Part of the Northeast Quarter of the Northeast Quarter of Section 25, Township 32, Range 23, Anoka County, Minnesota.

At such hearing both written and oral comments will be heard.

DATED: June 18, 2021

Jennifer Bohr  
Zoning & Building Clerk  
City of Ham Lake



### Hidden Forest East 3<sup>rd</sup> Addition





## Memorandum

Date: June 23, 2021

To: Planning Commissioners

From: Tom Collins, City Engineer *TPC*

Subject: Hidden Forest East 3<sup>rd</sup> Addition

---

### Introduction:

The Title Sheet, Preliminary Plat, Grading, Erosion Control and Tree Protection Plan, Livability Plan, Livability Chart were received June 17<sup>th</sup>, the Utility Plan – Storm Sewer, Details and Stormwater Pollution Prevention Plan were received May 13<sup>th</sup> and the Stormwater Drainage Report was received May 13<sup>th</sup> for the proposed 38 lot residential development located on the 80.91 combined acres of parcels 25-32-23-13-0002 (Tract B of RLS 281) and 25-32-23-14-0002 (Tract C of RLS 281) and a portion of parcel 25-32-23-11-0001. The parcels are currently zoned Rural Single Family Residential (R-A) and will be zoned R-1. A 600-scale zoning map is attached. The project conforms to the Sketch Plan that was approved at the September 21, 2020 City Council meeting. All of the prior review comments have been addressed.

### Discussion:

In addition to the standard preliminary plat, this development requires a Registered Land Survey (RLS) in order to split off the parcel from the parent parcels, due to the overall property being registered with Anoka County as Torrens property. Since this land is registered (versus abstract), it cannot be conveyed utilizing a simple “metes and bounds” description. Tracts A and B of the RLS will remain under the current ownership, and Tract C is being incorporated into the Plat.

Parkland dedication is being proposed within the Hidden Forest East Park Addition, which is located on the 143<sup>rd</sup> Avenue access to the proposed 3<sup>rd</sup> Addition. The City Council concurred with the Park and Tree Commission recommendation that the next phase after Hidden Forest East 2<sup>nd</sup> Addition include parkland dedication. The September 19, 2018 Park and Tree meeting minutes are attached.

Minnesota Rule 4410.4300 (<https://www.revisor.mn.gov/rules/4410.4300>) specifies mandatory Environmental Assessment Worksheet (EAW) categories. Per this Rule, if the proposed project is an expansion or additional stage of an existing project, the cumulative total of the proposed project and any existing stages or components of the existing project must be included when determining if a threshold is met or exceeded if construction began within three years before the date of application for a permit or approval from a governmental unit for the expansion or additional stage. The cumulative total includes Hidden Forest 2<sup>nd</sup> Addition, since construction commencement was within the last three years. The project was reviewed for whether it triggered an EAW for subpart 19 (Residential Development) or subpart 36 (Land use conversion, including golf courses).

The threshold for the preparation of an EAW per subpart 19 is 250 unattached units, per Part D. The combined units for the 2<sup>nd</sup> Addition (43 lots) and the 3<sup>rd</sup> Addition (38 lots) is well under the 250-unit threshold. The subpart 36 threshold is land use conversion where the lot size is less than five acres, and other projects resulting in the permanent conversion of 80 or more acres of agricultural, native prairie, forest, or naturally vegetated land. The combined land use conversion, which excludes the ponding areas and the proposed borrow pit, is 64.2 acres (33.9 acres for the 2<sup>nd</sup> Addition and 30.3 acres for the 3<sup>rd</sup> Addition) so the acreage requirement is also under the threshold for the preparation of an EAW.

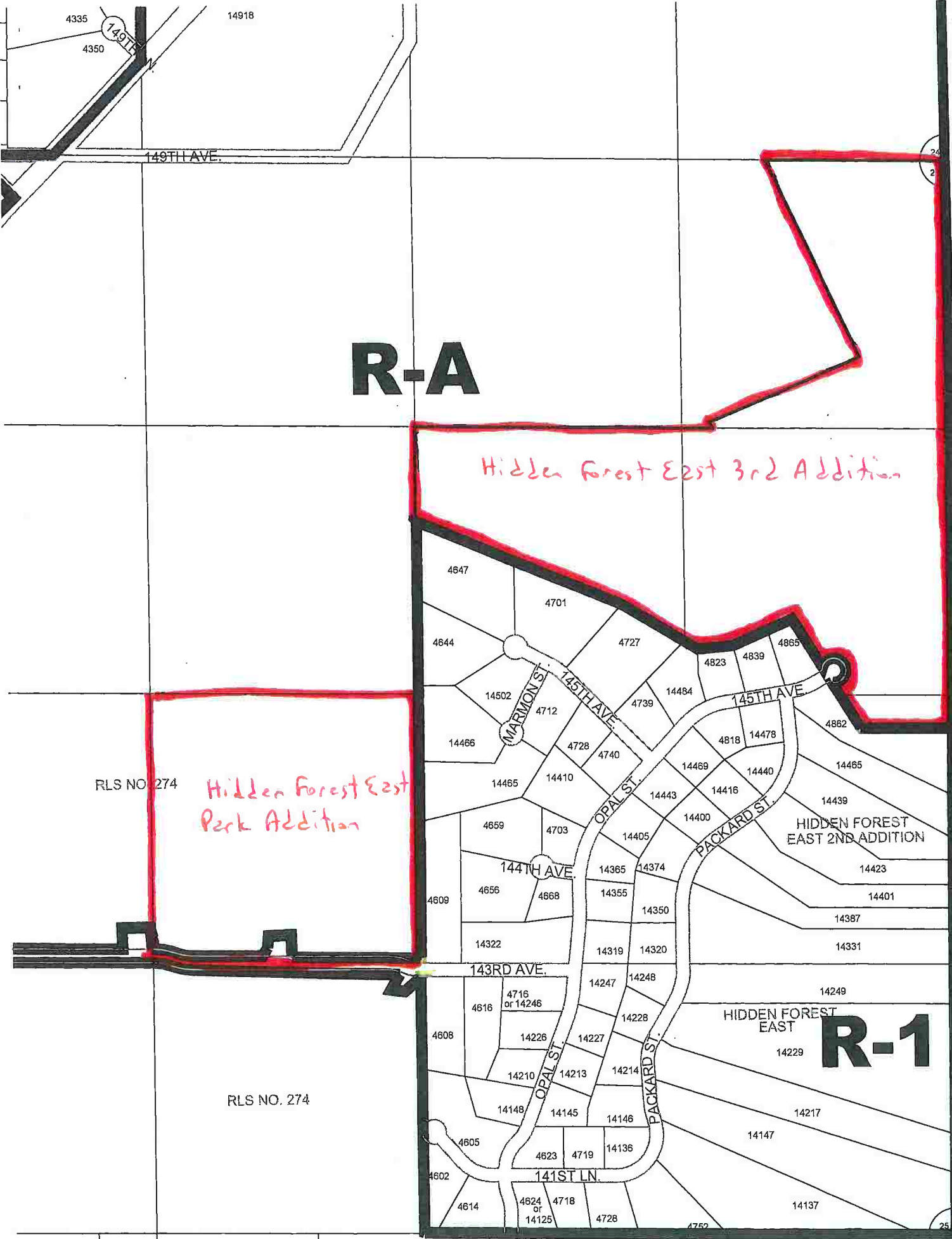
A proposed Hidden Forest East monument is proposed in the northeast corner of Lexington Avenue and 143<sup>rd</sup> Avenue. The monument is proposed within a drainage and utility easement, that was dedicated in conjunction with the 143<sup>rd</sup> Avenue upgrade associated with the Hidden Forest East plat. Per the attached Monument Exhibit, Public Works access for access and maintenance of the stormwater treatment outlet within the easement will not be compromised by the monument. A License Agreement will be required, which will be covered in the Development Agreement.

FEMA Letter of Map Amendments will be needed for Lots 3 thru 5 and Lots 8 thru 11 of Block 1 and Lots 1 and 2 of Block 2. The preliminary plat was granted contingent approval at the April 26<sup>th</sup> Coon Creek Watershed District (CCWD) Board of Managers meeting, per the attached. The April 5<sup>th</sup> Tradewell Soil Testing septic certification certifies that the lots will support two standard septic systems in accordance with Minnesota Rules 7080.

The September 11, 2020 Rare Plant Survey Report documented the presence of black huckleberry within the properties, which the DNR has classified as threatened. Per the attached Rare Species Avoidance Plan, no black huckleberry plants are to be disturbed. Blanding's turtles have been reported in the vicinity of the proposed project and may be encountered on site. If during construction Blanding's turtles are encountered they are to be moved by hand out of harm's way, otherwise they are to be left undisturbed.

**Recommendations:**

It is recommended that the Preliminary Plat of Hidden Forest East 3<sup>rd</sup> Addition, and the accompanying Registered Land Survey, be recommended for approval to the City Council.



**R-A**

*Hidden Forest East 3rd Addition*

RLS NO. 274

*Hidden Forest East Park Addition*

HIDDEN FOREST EAST 2ND ADDITION

HIDDEN FOREST EAST

**R-1**

RLS NO. 274

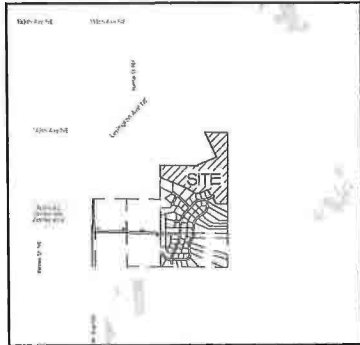
*1" = 600'*

# TITLE SHEET

~of~ HIDDEN FOREST EAST 3RD ADDITION  
 ~for~ HFN PROPERTIES, LLC.  
 17404 WARD LAKE DRIVE NW  
 ANDOVER, MN 55304  
 (612) 799-1471

## VICINITY MAP

PART OF SEC. 25, TWP. 32, RNG. 23




ANOKA COUNTY, MINNESOTA  
 (NO SCALE)

## SHEET INDEX

T1	TITLE SHEET
2-3	PRELIMINARY PLAT
4-8	GRADING PLAN
9-13	LIVABILITY PLAN
14-16	LIVABILITY CHART
C1.01 - C1.03	UTILITY PLAN
C2.01 - C2.04	DETAILS
C3.01 - C3.02	STORMWATER POLLUTION PREVENTION PLAN


PONDING CALCULATIONS AND STORM SEWER DESIGN BY  
 PLOWE ENGINEERING, INC.



**PLOWE**  
 ENGINEERING, INC.  
 8776 LAKE DRIVE  
 SUITE 110  
 LINO LAKES, MN 55014


SITE PLANNING & ENGINEERING      PHONE: (651) 361-8210  
 FAX: (651) 361-8701

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.



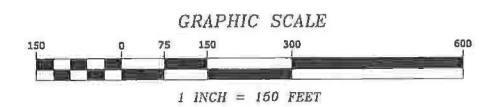
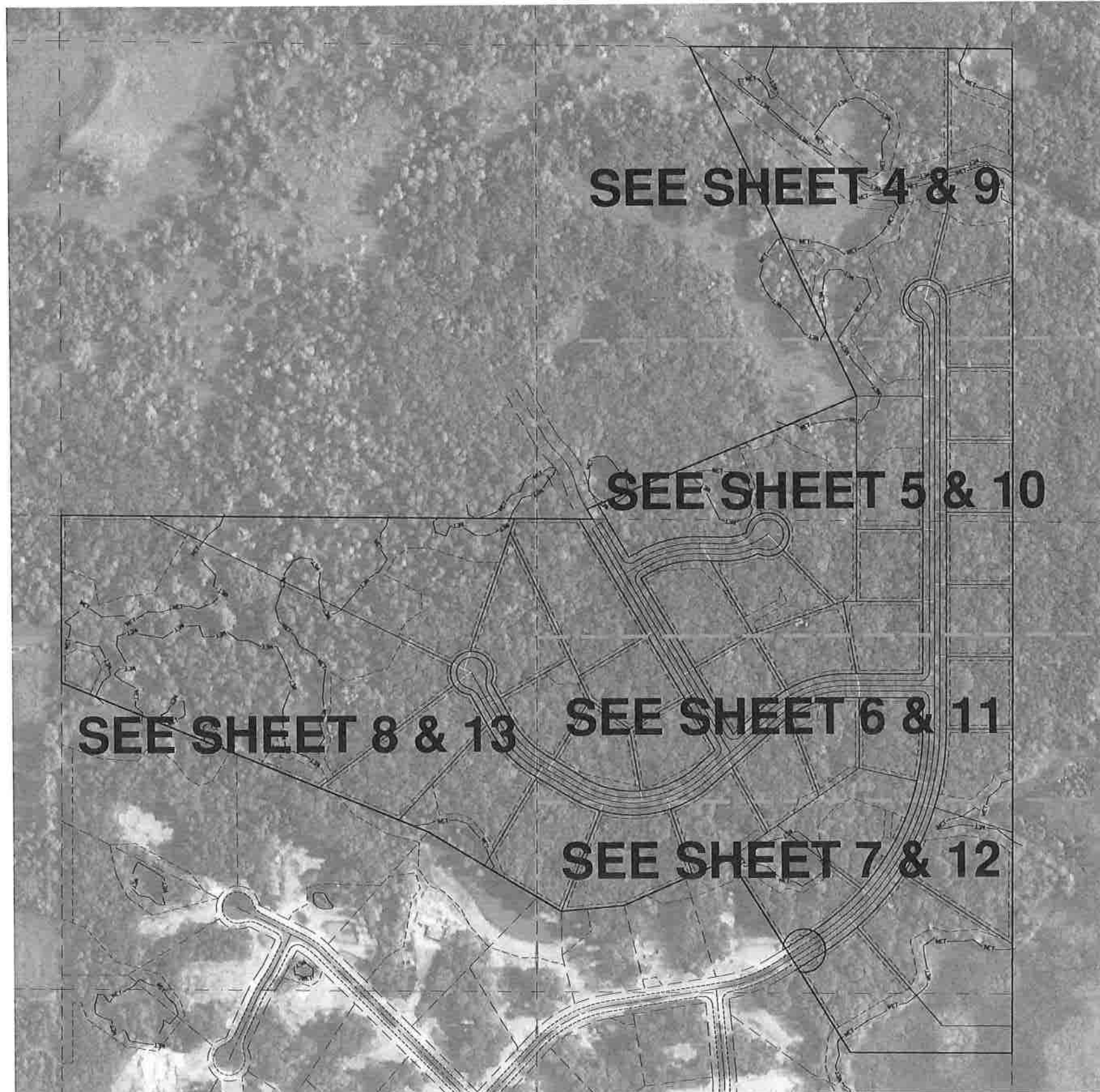
ADAM GINKEL  
 DATE: 06.17.21      LIC. NO. 43883

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

  
 JASON E. RUB  
 Date: 06/17/2021      License No. 41578



**E. G. RUD & SONS, INC.**  
 EST. 1877  
 Professional Land Surveyors  
 6776 Lake Drive NE, Suite 110  
 Lino Lakes, MN 55014  
 Tel. (651) 361-8200 Fax (651) 361-8701



DRAWN BY: HMD	JOB NO: 200949PP	DATE: 02/24/21	
CHECK BY: JER	FIELD CREW: DT / CT		
1	02/23/21	CITY / WATERSHED COMMENTS	HMD
2	04/14/21	CITY / WATERSHED COMMENTS	HMD
3	04/22/21	CITY / WATERSHED COMMENTS	HMD
NO.	DATE	DESCRIPTION	BY



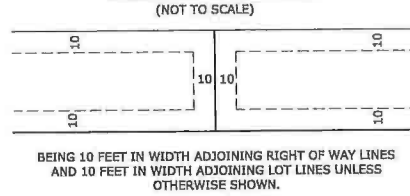
# PRELIMINARY PLAT

~of~ HIDDEN FOREST EAST 3RD ADDITION  
 ~for~ HFN PROPERTIES, LLC.  
 17404 WARD LAKE DRIVE NW  
 ANDOVER, MN 55304

## DEVELOPMENT DATA

TOTAL SITE AREA = 80.91± ACRES  
 38 PROPOSED SINGLE FAMILY LOTS  
 AVERAGE LOT SIZE = 2.13± ACRES  
 MINIMUM STREET FRONTAGE = 200 FEET  
 MINIMUM LOT SIZE = 1.00 ACRES (INCLUDING HALF OF STREET ROW)  
 PROPOSED ZONING = R-1  
 BUILDING SETBACKS FRONT = 30 FEET  
 SIDE = 10 FEET  
 REAR = 50 FEET  
 COUNTY ROAD = 50 FEET

## TYPICAL EASEMENTS



## LEGEND

- DENOTES IRON MONUMENT FOUND AS LABELED
- DENOTES IRON MONUMENT SET, MARKED RL5# 41578
- DENOTES EXISTING CONTOURS
- DENOTES AREA 1' ABOVE MOTTLES
- DENOTES APPROXIMATE FEMA FLOOD ZONE A LINE FROM FEMA FLOOD INSURANCE RATE MAP NO. 27003C0335E PANEL NO. 0355 SUFFIX E, EFFECTIVE DATE DECEMBER 16TH, 2015.

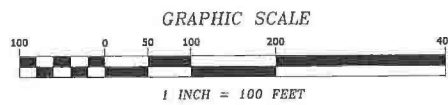
## PROPERTY DESCRIPTION

TRACT B AND TRACT C, REGISTERED LAND SURVEY NO. 281, Anoka County, Minnesota

and

Part of the Northeast Quarter of the Northeast Quarter of Section 25, Township 32, Range 23, Anoka County, Minnesota.

NORTH



## NOTES

- Bearings shown are on Anoka County datum.
- This survey was prepared without the benefit of title work. Additional easements, restrictions and/or encumbrances may exist other than those shown hereon. Survey subject to revision upon receipt of a current title commitment or an attorney's title opinion.
- Total lot areas are calculated to street centerline per ordinance.
- Wetlands delineated by Kjolhaug Environmental Services, Inc.
- Parcel ID #'s  
 25-32-23-12-0001  
 25-32-23-11-0001  
 Parts of  
 25-32-23-13-0002  
 25-32-23-14-0002

OWNER: KNOLL FAMILY LIMITED PARTNERSHIP

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

JASON E. RUD

Date: 06/17/2021 License No. 41578

NO.	DATE	DESCRIPTION	BY
1	03/31/21	CITY / WATERSHED COMMENTS	MMD
2	04/14/21	CITY / WATERSHED COMMENTS	MMD
3	04/27/21	CITY / WATERSHED COMMENTS	MMD

**E. G. RUD & SONS, INC.**  
 Professional Land Surveyors  
 6776 Lake Drive NE, Suite 110  
 Lino Lakes, MN 55014  
 Tel. (651) 361-8200 Fax (651) 361-8701

MATCHLINE SEE SHEET 3



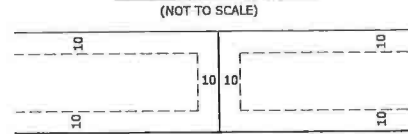
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 ~for~ HFN PROPERTIES, LLC.  
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 ANDOVER, MN 55304

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 BUILDING SETBACKS  
 FRONT = 30 FEET  
 SIDE = 10 FEET  
 REAR = 50 FEET  
 COUNTY ROAD = 50 FEET

## TYPICAL EASEMENTS



BEING 10 FEET IN WIDTH ADJOINING RIGHT OF WAY LINES  
 AND 10 FEET IN WIDTH ADJOINING LOT LINES UNLESS  
 OTHERWISE SHOWN.

## LEGEND

- DENOTES IRON MONUMENT FOUND AS Labeled
- DENOTES IRON MONUMENT SET, MARKED RLS# 41578
- DENOTES EXISTING CONTOURS
- DENOTES AREA 1' ABOVE MOTTLES
- DENOTES APPROXIMATE FEMA FLOOD ZONE A LINE FROM FEMA FLOOD INSURANCE RATE MAP NO. 27003C0335E PANEL NO. 0355 SUFFIX E, EFFECTIVE DATE DECEMBER 16TH, 2015.

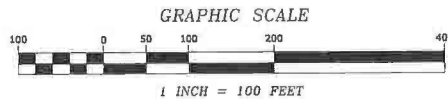
## PROPERTY DESCRIPTION

TRACT B AND TRACT C, REGISTERED LAND SURVEY NO. 281, Anoka County, Minnesota and

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NORTH



## NOTES

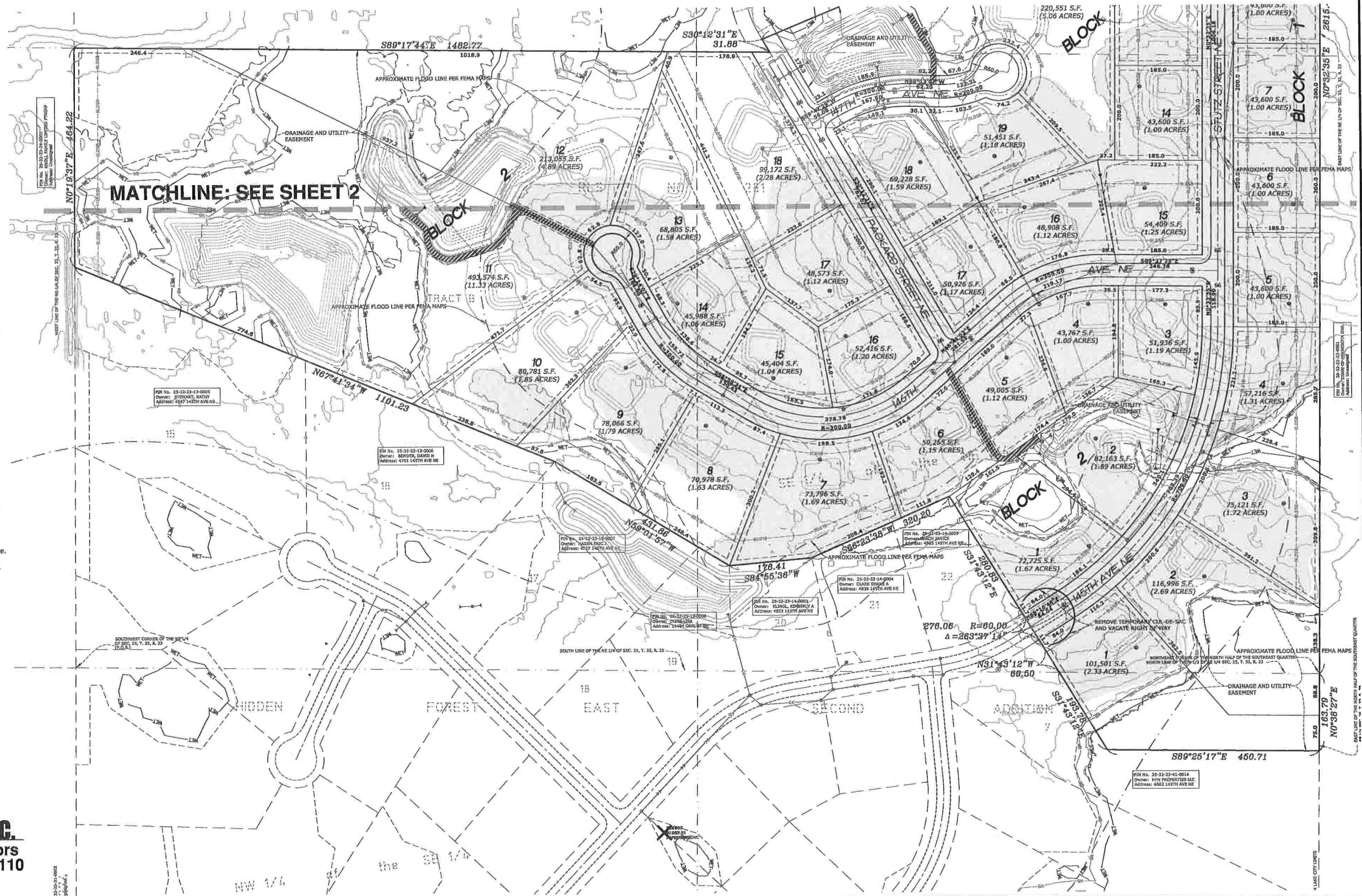
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- Wetlands delineated by Kjolhaug Environmental Services, Inc.
- Parcel ID #'s  
 25-32-23-12-0001  
 25-32-23-11-0001  
 25-32-23-13-0002  
 25-32-23-14-0002
- OWNER: KNOLL FAMILY LIMITED PARTNERSHIP

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

JASON E. RUD  
 Date: 06/17/2021 License No. 41578

NO.	DATE	DESCRIPTION	BY
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3	04/27/21	CITY / WATERSHED COMMENTS	MMD
4	05/13/21	CITY COMMENTS	MMD

**E. G. RUD & SONS, INC.**  
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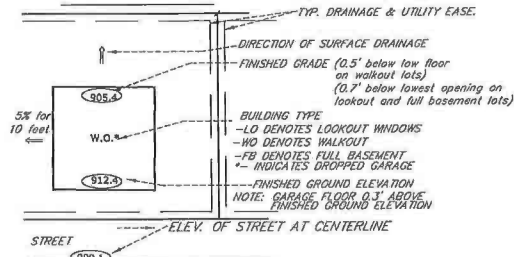




# GRADING, EROSION CONTROL AND TREE PROTECTION PLAN

~of~ HIDDEN FOREST EAST 3RD ADDITION  
 ~for~ HFN PROPERTIES, LLC.  
 17404 WARD LAKE DRIVE NW  
 ANDOVER, MN 55304  
 (612) 799-1471

## TYPICAL LOT

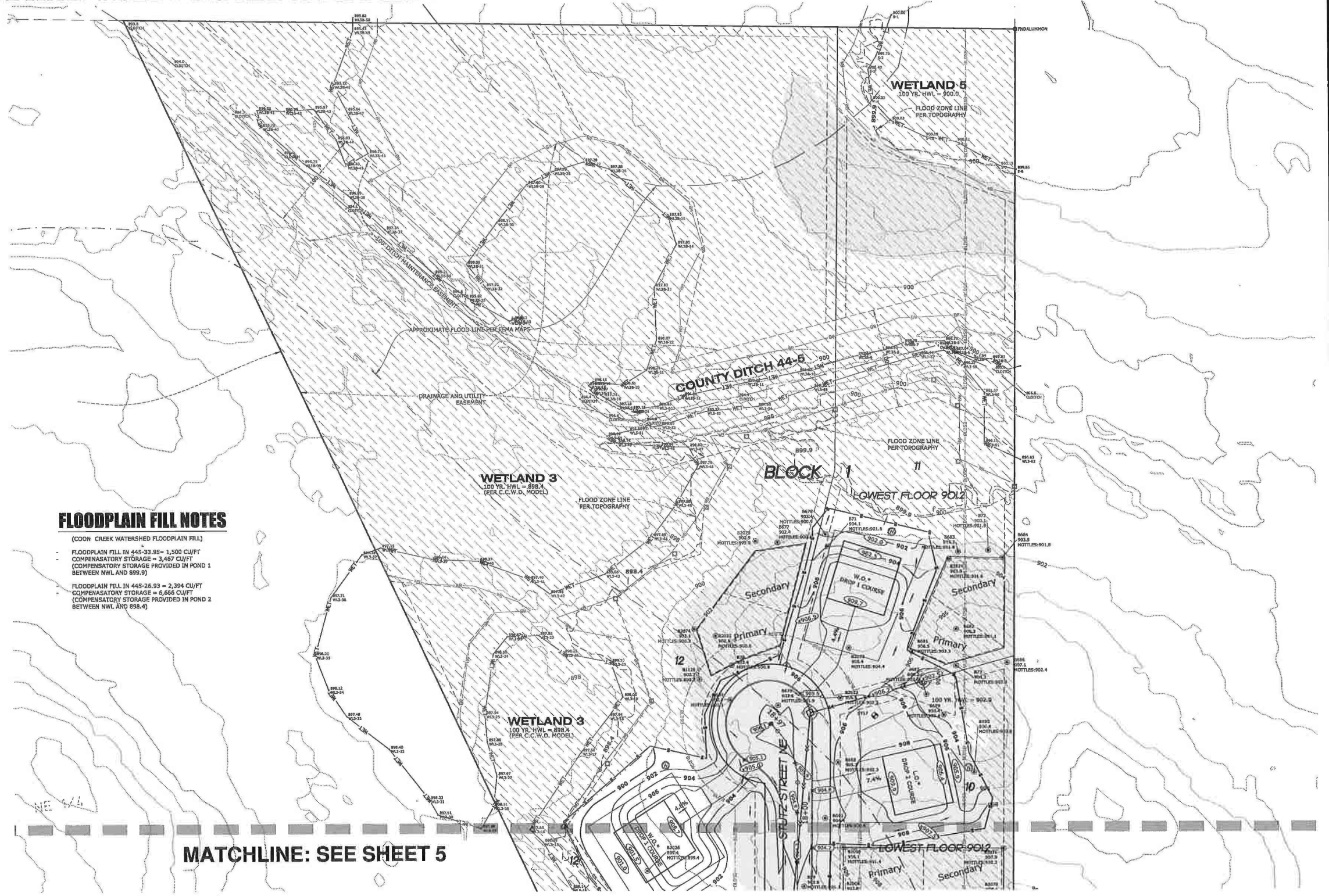


## LEGEND

- DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
- DENOTES PIEZOMETER OR PENETRATION BORING BY BRAUN INTERTEC, INC.
- DENOTES EMERGENCY OVERFLOW ELEVATION
- X 992.36 DENOTES EXISTING SPOT ELEVATION
- DENOTES WET LAND
- DENOTES EXISTING 2 FOOT CONTOUR
- DENOTES PROPOSED 2 FOOT CONTOURS
- DENOTES WETLAND DELINEATED BY KOOLHAUS ENVIRONMENTAL SERVICES COMPANY.
- DENOTES EASEMENT LINE
- DENOTES SETBACK LINE
- DENOTES PROPOSED STORM SEWER
- DENOTES PROPOSED SILT / TREE PROTECTION FENCE
- DENOTES BIO ROLL TO BE INSTALLED INSIDE SILT FENCE ADJACENT TO WETLAND
- DENOTES DIRECTION OF DRAINAGE
- DENOTES PROPOSED SPOT ELEVATION
- DENOTES PROPOSED CENTERLINE ELEVATION
- DENOTES PROPOSED WELL LOCATION
- DENOTES AREA 1' ABOVE MOTTLES
- DENOTES WETLAND/ VEGETATIVE BUFFER
- DENOTES WETLAND/ VEGETATIVE BUFFER SIGN
- DENOTES RIPRAP (RIPRAP TO BE VEGETATED IN WETLAND BUFFER)
- DENOTES PROPOSED STORM SEWER INLET PROTECTION
- DENOTES PLANT SPECIES LOCATED BY MIDWEST NATURAL RESOURCES
- DENOTES APPROXIMATE FEMA FLOOD ZONE A LINE FROM FEMA FLOOD INSURANCE RATE MAP NO. 27003C0335E PANEL NO. 0355 SUFFIX 6, EFFECTIVE DATE DECEMBER 16TH, 2015.
- DENOTES TREE PRESERVATION AREA
- DENOTES 12' POND ACCESS
- DENOTES FLOODPLAIN FILL

## FLOODPLAIN FILL NOTES

(COON CREEK WATERSHED FLOODPLAIN FILL)  
 FLOODPLAIN FILL IN 445-33.95 = 1,500 CU/FT  
 COMPENSATORY STORAGE = 3,467 CU/FT  
 (COMPENSATORY STORAGE PROVIDED IN POND 1 BETWEEN NWL AND 899.9)  
 FLOODPLAIN FILL IN 445-26.93 = 2,394 CU/FT  
 COMPENSATORY STORAGE = 6,666 CU/FT  
 (COMPENSATORY STORAGE PROVIDED IN POND 2 BETWEEN NWL AND 898.4)



MATCHLINE: SEE SHEET 5

## EROSION CONTROL / REVEGETATION SPECS.

1. PRIOR TO ROUGH GRADING, INSTALL SILT STOP FENCE IN LOCATIONS SHOWN. ADDITIONAL SILT STOP FENCE WILL BE REQUIRED WHERE LOCAL CONDITIONS REQUIRE. INSTALL TREE PROTECTION AS DEEMED NECESSARY BY THE CITY FORESTER PRIOR TO ANY GRADING.
2. ANY GRADING SHALL PROCEED ON AN AREA BY AREA BASIS TO MINIMIZE UNCOMPLETED AREAS.
3. AS EACH AREA OUTSIDE THE STREET IS GRADED, PROVIDE NATIVE TOPSOIL, SEED, AND MULCH ANCHORED WITH A STRAIGHT SET DISC WITHIN SEVEN DAYS AFTER ROUGH GRADING.
4. MAINTAIN AND REPAIR SILT STOP FENCES (INCLUDING REMOVAL OF ACCUMULATED SILT) UNTIL VEGETATION IS ESTABLISHED.
5. SEE "STORM WATER POLLUTION PREVENTION PLAN" FOR ADDITIONAL EROSION CONTROL NOTES AND SITE SEQUENCING.

## LOT GRADING NOTES

- PAD CONTOURS SHOWN ARE FOR DEMONSTRATION PURPOSES.
- HOUSE TYPES AND GRADING THAT VARY FROM WHAT IS PROPOSED ON THE GRADING PLAN REQUIRE A PLAN REVIEW BY THE CITY OF HAM LAKE.
- SILT FENCE TO BE INSTALLED BY BUILDER PRIOR TO HOUSE CONSTRUCTION.
- THERE IS TO BE NO GRADING WITHIN ISTS AREAS

## TREE PROTECTION NOTES

- TREE PROTECTION LIMITS TO BE MARKED IN FIELD PRIOR TO ANY TREE CLEARING ACTIVITY.
- SILT / TREE PROTECTION FENCE TO BE INSTALLED AT CONSTRUCTION LIMIT LINE.
- CARE IS TO BE TAKEN TO AVOID CONSTRUCTION ACTIVITY OR CONSTRUCTION VEHICLE TRAFFIC WITHIN THE DRIP LINE OF TREES IN THE TREE PROTECTION ZONE.
- FIELD DECISIONS WILL BE MADE ON LOCATION OF TREE PROTECTION LIMITS TO PRESERVE SIGNIFICANT TREES.
- SOME TREES AND DEAD FALL ARE TO BE CLEARED. THIS MAY BE DONE PRIOR TO INSTALLATION OF SILT / TREE PROTECTION FENCE. GRUBBING OF STUMPS WILL OCCUR AFTER EROSION CONTROL MEASURES ARE INSTALLED.

## NOTES

- BEARINGS SHOWN ARE ON ANOKA COUNTY DATUM.
- TOTAL LOT AREAS ARE CALCULATED TO STREET CENTERLINE PER ORDINANCE.
- 2 FOOT CONTOUR INTERVAL (NAVD 88)
- CONTOURS SHOWN ARE PER MINGO LIDAR DISTRIBUTION AND FIELD VERIFICATION.
- ALL MATCH POINTS AND PAVEMENT PATCHES TO BE SAWCUT AT FULL DEPTH.
- SEE PRELIMINARY UTILITY PLAN FOR STORM SEWER RIMS, INVERTS, AND SIZES.
- TRADEWELL PERFORMED ADDITIONAL SEPTIC BORINGS THAT WERE FIELD LOCATED BY E.G. RUD AND SONS, INC.
- BRAUN INTERTEC COMPLETED PENETRATION BORINGS AND SET PIEZOMETERS ON AND ADJACENT TO THE SITE IN 2003, AND READ THE PIEZOMETERS ON 06/03 AND 08/03. PIEZOMETERS WERE FIELD LOCATED AND ADDITIONAL READINGS WERE TAKEN ON 10/16. PENETRATION BORING LOCATIONS AND ELEVATIONS SHOWN ARE TAKEN FROM THE PRELIMINARY GRADING DRAINAGE AND EROSION CONTROL PLANS OF WILDERNESS PRESERVE DATED 04/07/05. IN DECEMBER OF 2020 TRADEWELL PERFORMED ADDITIONAL SEPTIC BORINGS THAT WERE FIELD LOCATED BY E.G. RUD AND SONS, INC.
- ALL PIPE APRONS PROVIDED WITH TRASH GUARDS
- PROVIDE CLASS III RIPRAP WITH FILTER FABRIC FOR ALL PIPE OUTLETS. INSTALL 6" OF TOPSOIL ON RIPRAP IN WETLAND BUFFERS AND SEED WITH SEED MIX (MIXOT 33-26)
- IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL APPLY FOR A MN DNR DEWATERING PERMIT AND WILL PROVIDE WELL-FIELD LOCATIONS, RATES, DISCHARGE LOCATION, SCHEDULE AND QUANTITIES TO CCW 7 DAYS PRIOR TO ANY DEWATERING OPERATIONS.
- CONTRACTORS MUST BE PROVIDED WITH DNR FLYERS/ FACT SHEETS ON BLANDING'S TURTLES.

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

*Jason E. Rud*  
 JASON E. RUD

Date: 06/17/2021 License No. 41578

NO.	DATE	DESCRIPTION	BY
1	03/31/21	CITY / WATERSHED COMMENTS	MMD
2	04/14/21	CITY / WATERSHED COMMENTS	MMD
3	04/27/21	CITY / WATERSHED COMMENTS	MMD

NORTH

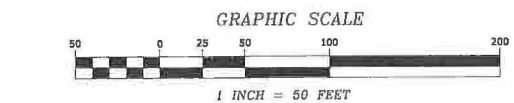
FONDING CALCULATIONS AND STORM SEWER DESIGN BY FLOME ENGINEERING, INC.

**PLOWE ENGINEERING, INC.**  
 6776 LAKE DRIVE SUITE 110 LINO LAKES, MN 55014  
 PHONE: (651) 361-8210 FAX: (651) 361-8701

SITE PLANNING & ENGINEERING

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

*Adam Ginkel*  
 ADAM GINKEL  
 DATE: 06.17.2021 LIC. NO. 43963



**E.G. RUD & SONS, INC.**  
 EST. 1977  
 Professional Land Surveyors  
 6776 Lake Drive NE, Suite 110  
 Lino Lakes, MN 55014  
 Tel. (651) 361-8200 Fax (651) 361-8701

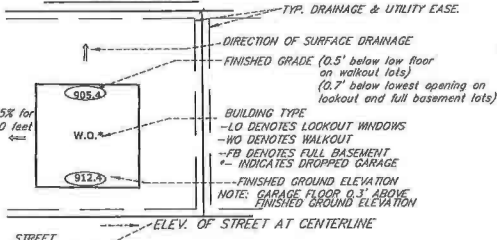


# GRADING, EROSION CONTROL AND TREE PROTECTION PLAN

~of~ HIDDEN FOREST EAST 3RD ADDITION  
 ~for~ HFN PROPERTIES, LLC.  
 17404 WARD LAKE DRIVE NW  
 ANDOVER, MN 55304  
 (612) 799-1471

MATCHLINE: SEE SHEET 4

## TYPICAL LOT



## LEGEND

- ⊙ DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
- ⊕ DENOTES PIEZOMETER OR PENETRATION BORING BY BRAUN INTERTEC, INC.
- ⊕ DENOTES EMERGENCY OVERFLOW ELEVATION
- ⊕ DENOTES EXISTING SPOT ELEVATION
- WET DENOTES WETLAND
- DENOTES EXISTING 2 FOOT CONTOUR
- DENOTES PROPOSED 2 FOOT CONTOURS
- WET DENOTES WETLAND DELINEATED BY KOHLHAUG ENVIRONMENTAL SERVICES COMPANY.
- DENOTES EASEMENT LINE
- DENOTES SETBACK LINE
- DENOTES PROPOSED STORM SEWER
- DENOTES PROPOSED SILT / TREE PROTECTION FENCE
- DENOTES BIO ROLL TO BE INSTALLED INSIDE SILT FENCE ADJACENT TO WETLAND
- DENOTES DIRECTION OF DRAINAGE
- ⊕ DENOTES PROPOSED SPOT ELEVATION
- ⊕ DENOTES PROPOSED CENTERLINE ELEVATION
- ⊕ DENOTES PROPOSED WELL LOCATION
- DENOTES AREA 1' ABOVE MOTTLES
- DENOTES WETLAND / VEGETATIVE BUFFER
- DENOTES WETLAND / VEGETATIVE BUFFER SIGN
- DENOTES RIPRAP (RIPRAP TO BE VEGETATED IN WETLAND BUFFER)
- DENOTES PROPOSED STORM SEWER INLET PRETECTION
- DENOTES PLANT SPECIES LOCATED BY MIDWEST NATURAL RESOURCES
- DENOTES APPROXIMATE FEMA FLOOD ZONE A LINE FROM FEMA FLOOD INSURANCE RATE MAP NO. 22002C0335E PANEL NO. 0355 SUFFIX E, EFFECTIVE DATE DECEMBER 16TH, 2015.
- DENOTES TREE PRESERVATION AREA
- DENOTES 12' POND ACCESS
- DENOTES FLOODPLAIN FILL

## FLOODPLAIN FILL NOTES

(COON CREEK WATERSHED FLOODPLAIN FILL)  
 FLOODPLAIN FILL IN 445-33.95 = 1,500 CU/FT  
 COMPENSATORY STORAGE = 3,467 CU/FT  
 (COMPENSATORY STORAGE PROVIDED IN POND 1 BETWEEN NWL AND 899.9)  
 FLOODPLAIN FILL IN 445-26.93 = 2,394 CU/FT  
 COMPENSATORY STORAGE = 5,666 CU/FT  
 (COMPENSATORY STORAGE PROVIDED IN POND 2 BETWEEN NWL AND 898.4)

MATCHLINE: SEE SHEET 8

MATCHLINE: SEE SHEET 6

## EROSION CONTROL / REVEGETATION SPECS.

1. PRIOR TO ROUGH GRADING, INSTALL SILT STOP FENCE IN LOCATIONS SHOWN. ADDITIONAL SILT STOP FENCE WILL BE REQUIRED WHERE LOCAL CONDITIONS REQUIRE. INSTALL TREE PROTECTION AS DEEMED NECESSARY BY THE CITY FORESTER PRIOR TO ANY GRADING.
2. ANY GRADING SHALL PROCEED ON AN AREA BY AREA BASIS TO MINIMIZE UNCOMPLETED AREAS.
3. AS EACH AREA OUTSIDE THE STREET IS GRADED, PROVIDE NATIVE TOPSOIL, SEED, AND MULCH ANCHORED WITH A STRAIGHT SET DISC WITHIN SEVEN DAYS AFTER ROUGH GRADING.
4. MAINTAIN AND REPAIR SILT STOP FENCES (INCLUDING REMOVAL OF ACCUMULATED SILT) UNTIL VEGETATION IS ESTABLISHED.
5. SEE "STORM WATER POLLUTION PREVENTION PLAN" FOR ADDITIONAL EROSION CONTROL NOTES AND SITE SEQUENCING.

## LOT GRADING NOTES

- PAD CONTOURS SHOWN ARE FOR DEMONSTRATION PURPOSES.
- HOUSE TYPES AND GRADING THAT VARY FROM WHAT IS PROPOSED ON THE GRADING PLAN REQUIRE A PLAN REVIEW BY THE CITY OF HAIN LAKE.
- SILT FENCE TO BE INSTALLED BY BUILDER PRIOR TO HOUSE CONSTRUCTION.
- THERE IS TO BE NO GRADING WITHIN THESE AREAS

## TREE PROTECTION NOTES

- TREE PROTECTION LIMITS TO BE MARKED IN FIELD PRIOR TO ANY TREE CLEARING ACTIVITY.
- SILT / TREE PROTECTION FENCE TO BE INSTALLED AT CONSTRUCTION LIMIT LINE.
- CARE IS TO BE TAKEN TO AVOID CONSTRUCTION ACTIVITY OR CONSTRUCTION VEHICLE TRAFFIC WITHIN THE DROP LINE OF TREES IN THE TREE PROTECTION ZONE.
- FIELD DECISIONS WILL BE MADE ON LOCATION OF TREE PROTECTION LIMITS TO PRESERVE SIGNIFICANT TREES.
- SOME TREES AND DEAD FALL ARE TO BE CLEARED. THIS MAY BE DONE PRIOR TO INSTALLATION OF SILT / TREE PROTECTION FENCE. GRUBBING OF STUMPS WILL OCCUR AFTER EROSION CONTROL MEASURE ARE INSTALLED.

## NOTES

- BEARINGS SHOWN ARE ON ANOKA COUNTY DATUM.
- TOTAL LOT AREAS ARE CALCULATED TO STREET CENTERLINE PER ORDINANCE.
- 2 FOOT CONTOUR INTERVAL (NAVD 85)
- CONTOURS SHOWN ARE PER MINGO LIDAR DISTRIBUTION AND FIELD VERIFICATION.
- ALL MATCH POINTS AND PAVEMENT PATCHES TO BE SAWCUT AT FULL DEPTH.
- TURF AREA TO BE SEED WITHIN 7 DAYS AFTER COMPLETION OF ROUGH GRADING OR INACTIVITY.
- SEE PRELIMINARY UTILITY PLAN FOR STORM SEWER RIMS, INVERTS, AND SIZES.
- TRADEWELL SOIL TESTING COMPLETED SEPTIC SOIL BORINGS ON AND ADJACENT TO THE SITE IN 2003. THESE BORING LOCATIONS AND ELEVATIONS SHOWN ARE TAKEN FROM THE PRELIMINARY GRADING DRAINAGE AND EROSION CONTROL PLANS OF WILDERNESS PRESERVE DATED 04/07/05. IN DECEMBER OF 2020 TRADEWELL PERFORMED ADDITIONAL SEPTIC BORINGS THAT WERE FIELD LOCATED BY E.G. RUD AND SONS, INC.
- BRAUN INTERTEC COMPLETED PENETRATION BORINGS AND SET PIEZOMETERS ON AND ADJACENT TO THE SITE IN 2003, AND READ THE PIEZOMETERS ON 06/03 AND 08/05. PIEZOMETERS WERE FIELD LOCATED AND ADDITIONAL READINGS WERE TAKEN ON 10/15. PENETRATION BORING LOCATIONS AND ELEVATIONS SHOWN ARE TAKEN FROM THE PRELIMINARY GRADING DRAINAGE AND EROSION CONTROL PLANS OF WILDERNESS PRESERVE DATED 04/07/05.
- ALL PIPE APRONS PROVIDED WITH TRASH GUARDS
- PROVIDE CLASS III RIPRAP WITH FILTER FABRIC FOR ALL PIPE OUTLETS. INSTALL 6" OF TOPSOIL ON RIPRAP IN WETLAND BUFFERS AND SEED WITH SEED MIX MH007 33-261.
- IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL APPLY FOR A MN DNR DEWATERING PERMIT AND WILL PROVIDE WELL-FIELD LOCATIONS, RATES, DISCHARGE LOCATION, SCHEDULE AND QUANTITIES TO CVOID 7 DAYS PRIOR TO ANY DEWATERING OPERATIONS.
- CONTRACTORS MUST BE PROVIDED WITH DNR FLYERS/ FACT SHEETS ON BLINDING'S TURTLES.

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

Jason E. Rud  
 Date: 06/17/2021 License No. 41578

NO.	DATE	DESCRIPTION	BY
1	03/31/21	CITY / WATERSHED COMMENTS	MMD
2	04/14/21	CITY / WATERSHED COMMENTS	MMD
3	04/27/21	CITY / WATERSHED COMMENTS	MMD

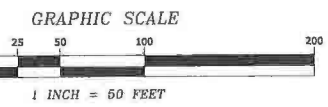
PONDING CALCULATIONS AND STORM SEWER DESIGN BY FLOWE ENGINEERING, INC.

**FLOWE ENGINEERING, INC.**  
 6778 LAKE DRIVE  
 SUITE 110  
 LINO LAKES, MN 55014

PHONE: (861) 361-8210  
 FAX: (861) 361-8701

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Adam Gunkel  
 ADAM GUNKEL  
 DATE: 06.17.2021 LIC. NO. 43963



**E.G. RUD & SONS, INC.**  
 Professional Land Surveyors  
 6776 Lake Drive NE, Suite 110  
 Lino Lakes, MN 55014  
 Tel. (651) 361-8200 Fax (651) 361-8701

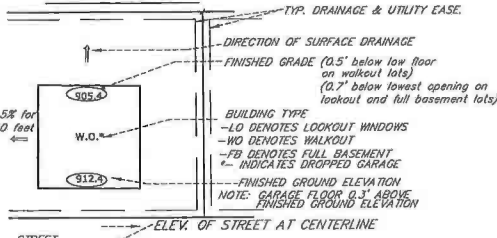
NORTH



# GRADING, EROSION CONTROL AND TREE PROTECTION PLAN

~of~ HIDDEN FOREST EAST 3RD ADDITION  
 ~for~ HFN PROPERTIES, LLC.  
 17404 WARD LAKE DRIVE NW  
 ANDOVER, MN 55304  
 (612) 799-1471

## TYPICAL LOT

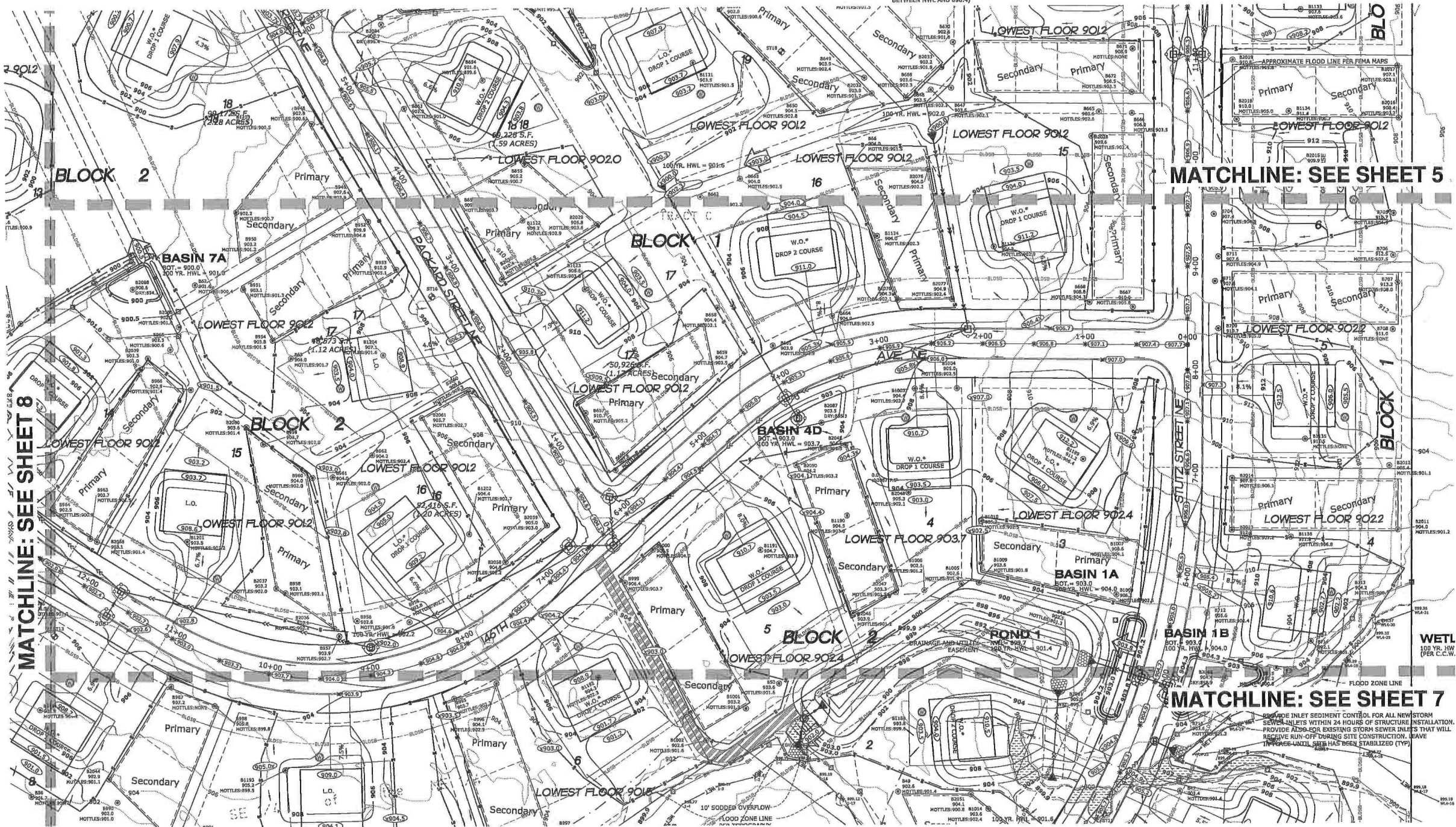


## LEGEND

- Denotes Soil Boring by Tradewell Soil Testing
- Denotes Piezometer or Penetration Boring by Braun Intertec, Inc.
- Denotes Emergency Overflow Elevation
- Denotes Existing Spot Elevation
- Denotes Wet Land
- Denotes Existing 2 Foot Contour
- Denotes Proposed 2 Foot Contours
- Denotes Wetland Delineated by KJOLHAUG ENVIRONMENTAL SERVICES COMPANY.
- Denotes Easement Line
- Denotes Setback Line
- Denotes Proposed Storm Sewer
- Denotes Proposed Silt / Tree Protection Fence
- Denotes No Roll to be Installed Inside Silt Fence Adjacent to Wetland
- Denotes Direction of Drainage
- Denotes Proposed Spot Elevation
- Denotes Proposed Centerline Elevation
- Denotes Proposed Well Location
- Denotes Area 1' Above Mottles
- Denotes Wetland / Vegetative Buffer
- Denotes Wetland / Vegetative Buffer Sign
- Denotes Riprap (Riprap to be Vegetated in Wetland Buffer)
- Denotes Proposed Storm Sewer Inlet Protection
- Denotes Plant Species Located by Midwest Natural Resources
- Denotes Approximate FEMA Flood Zone A Line from FEMA Flood Insurance Rate Map No. 270803333E Panel No. 0355 Suffix E, Effective Date December 16th, 2015.
- Denotes Tree Preservation Area
- Denotes 12' Pond Access
- Denotes Floodplain Fill

## FLOODPLAIN FILL NOTES

- (COON CREEK WATERSHED FLOODPLAIN FILL)
- FLOODPLAIN FILL IN 445-33.95 = 1,500 CUFT  
 COMPENSATORY STORAGE = 3,457 CUFT  
 (COMPENSATORY STORAGE PROVIDED IN POND 1 BETWEEN NWL AND 899.9)
- FLOODPLAIN FILL IN 445-26.93 = 2,394 CUFT  
 COMPENSATORY STORAGE = 6,666 CUFT  
 (COMPENSATORY STORAGE PROVIDED IN POND 2 BETWEEN NWL AND 898.4)



MATCHLINE: SEE SHEET 5

MATCHLINE: SEE SHEET 7

PONDING CALCULATIONS AND STORM SEWER DESIGN BY PLOWE ENGINEERING, INC.

**PLOWE ENGINEERING, INC.**  
 6776 LAKE DRIVE SUITE 110 LINO LAKES, MN 55014

PHONE: (651) 361-8210  
 FAX: (651) 361-8701

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

ADAM GUNKEL  
 DATE: 06.17.2021 LIC. NO. 43983

## LOT GRADING NOTES

- PAD CONTOURS SHOWN ARE FOR DEMONSTRATION PURPOSES.
- HOUSE TYPES AND GRADING THAT VARY FROM WHAT IS PROPOSED ON THE GRADING PLAN REQUIRE A PLAN REVIEW BY THE CITY OF HAM LAKE.
- SILT FENCE TO BE INSTALLED BY BUILDER PRIOR TO HOUSE CONSTRUCTION.
- THERE IS TO BE NO GRADING WITHIN ISTS AREAS

## TREE PROTECTION NOTES

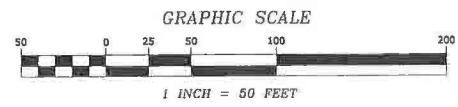
- TREE PROTECTION LIMITS TO BE MARKED IN FIELD PRIOR TO ANY TREE CLEARING ACTIVITY.
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## NOTES

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- SEE PRELIMINARY UTILITY PLAN FOR STORM SEWER RIMS, INVERTS, AND SIZES.
- TRADWELL SOIL TESTING COMPLETED SEPTIC SOIL BORINGS ON AND ADJACENT TO THE SITE IN 2003. THESE BORING LOCATIONS AND ELEVATIONS SHOWN ARE TAKEN FROM THE PRELIMINARY GRADING DRAINAGE AND EROSION CONTROL PLANS OF WILDERNESS PRESERVE DATED 04/07/05.
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- CONTRACTORS MUST BE PROVIDED WITH DNR FLYERS/ FACT SHEETS ON BLANDING'S TURTLES.

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

JASON E. RUD  
 Date: 06/17/2021 License No. 41578



**E.G. RUD & SONS, INC.**  
 EST. 1977  
 Professional Land Surveyors  
 6776 Lake Drive NE, Suite 110  
 Lino Lakes, MN 55014  
 Tel. (651) 361-8200 Fax (651) 361-8701

NO.	DATE	DESCRIPTION	BY
1	03/31/21	CITY / WATERSHED COMMENTS	MND
2	04/14/21	CITY / WATERSHED COMMENTS	MND
3	04/27/21	CITY / WATERSHED COMMENTS	MND
4	05/13/21	CITY COMMENTS	MND
5	06/17/21	BASIN 4D LABEL	MND

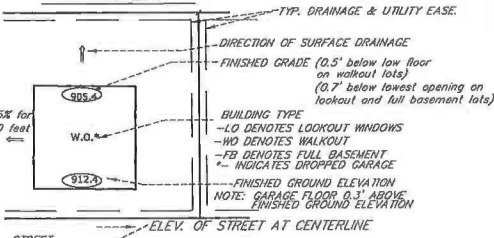
NORTH



# GRADING, EROSION CONTROL AND TREE PROTECTION PLAN

~of~ HIDDEN FOREST EAST 3RD ADDITION  
 ~for~ HFN PROPERTIES, LLC.  
 17404 WARD LAKE DRIVE NW  
 ANDOVER, MN 55304  
 (612) 799-1471

## TYPICAL LOT



## LEGEND

- ⊙ DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
- ⊕ DENOTES PIEZOMETER OR PENETRATION BORING BY BRAUN INTERTEC, INC.
- ⊕ DENOTES EMERGENCY OVERFLOW ELEVATION
- ⊕ DENOTES EXISTING SPOT ELEVATION
- WET DENOTES WET LAND
- DENOTES EXISTING 2 FOOT CONTOUR
- DENOTES PROPOSED 2 FOOT CONTOURS
- WET DENOTES WETLAND DELINEATED BY KIDHAUG ENVIRONMENTAL SERVICES COMPANY.
- DENOTES EASEMENT LINE
- DENOTES SETBACK LINE
- DENOTES PROPOSED STORM SEWER
- DENOTES PROPOSED SILT / TREE PROTECTION FENCE
- DENOTES RIG ROLL TO BE INSTALLED INSIDE SILT FENCE ADJACENT TO WETLAND
- DENOTES DIRECTION OF DRAINAGE
- ⊕ DENOTES PROPOSED SPOT ELEVATION
- ⊕ DENOTES PROPOSED CENTERLINE ELEVATION
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- DENOTES PLANT SPECIES LOCATED BY MIDWEST NATURAL RESOURCES
- DENOTES APPROXIMATE FEMA FLOOD ZONE A LINE FROM FEMA FLOOD INSURANCE RATE MAP NO. 22003C0335E PANEL NO. 0395 SUFFIX E, EFFECTIVE DATE DECEMBER 16TH, 2015.
- DENOTES TREE PRESERVATION AREA
- DENOTES 12' POND ACCESS
- DENOTES FLOODPLAIN FILL

PONDING CALCULATIONS AND STORM SEWER DESIGN BY FLOWE ENGINEERING, INC.

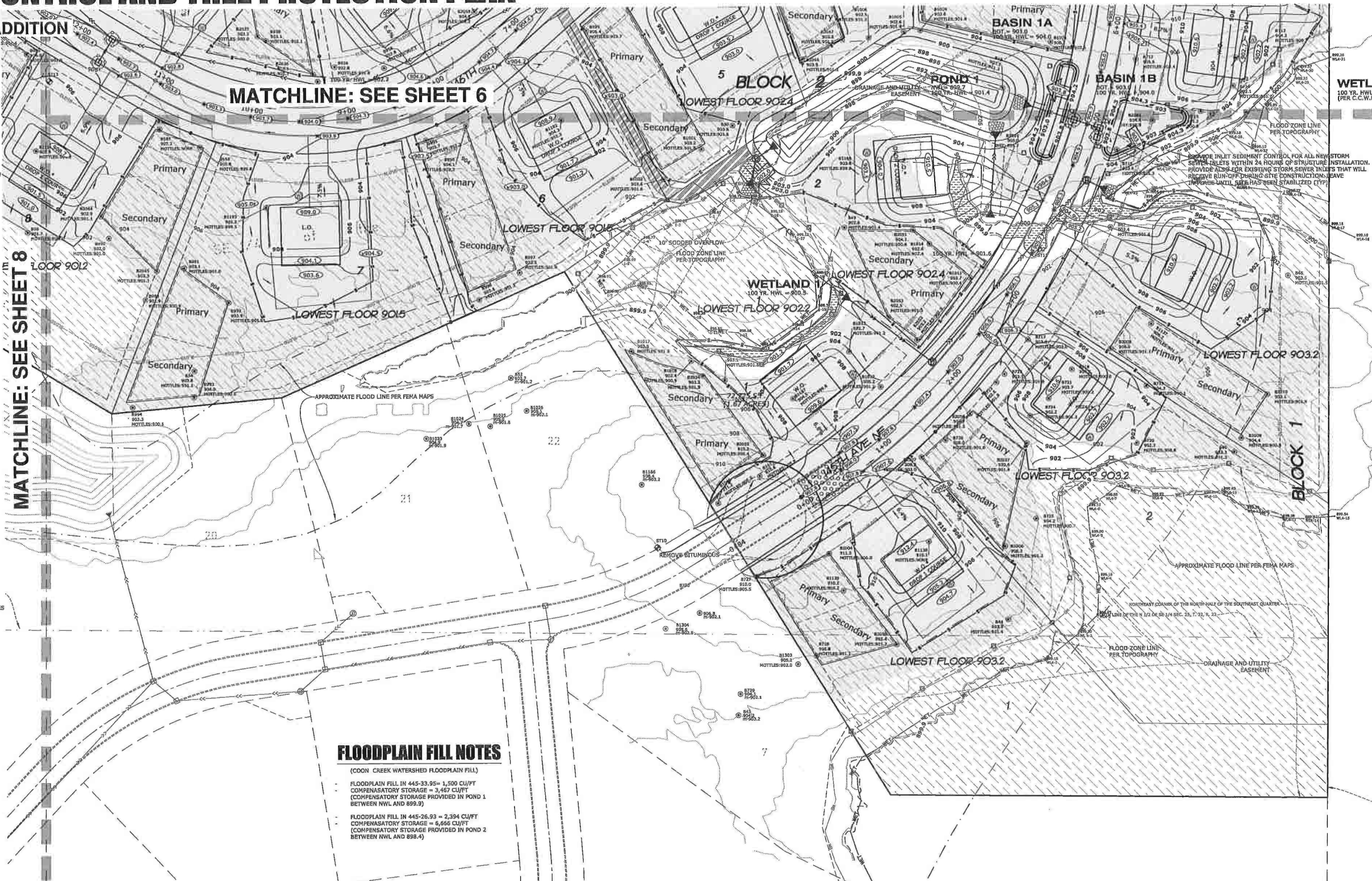
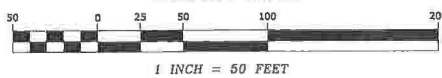
**FLOWE ENGINEERING, INC.**  
 8776 LAKE DRIVE  
 SUITE 110  
 LINO LAKES, MN 55014

SITE PLANNING & ENGINEERING  
 PHONE: (651) 361-8210  
 FAX: (651) 361-8701

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

*Adam Ginkel*  
 ADAM GINKEL  
 DATE: 06.17.2021 LIC. NO. 43963

## GRAPHIC SCALE



## FLOODPLAIN FILL NOTES

- (COON CREEK WATERSHED FLOODPLAIN FILL)
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## NOTES

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## EROSION CONTROL / REVEGETATION SPECS.

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I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

*Jason E. Rud*  
 JASON E. RUD  
 Date: 06/17/2021 License No. 41578

NO.	DATE	DESCRIPTION	BY
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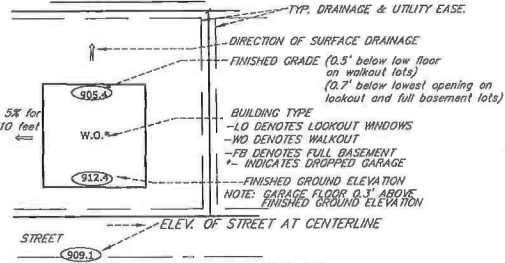
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# GRADING, EROSION CONTROL AND TREE PROTECTION PLAN

~of~ HIDDEN FOREST EAST 3RD ADDITION  
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 17404 WARD LAKE DRIVE NW  
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 (612) 799-1471

## TYPICAL LOT



## LEGEND

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- DENOTES WET LAND
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- DENOTES SETBACK LINE
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**ADAM QINKEL**  
 DATE: 06.17.2021 LIC. NO. 43963

## EROSION CONTROL / REVEGETATION SPECS.

1. PRIOR TO ROUGH GRADING, INSTALL SILT STOP FENCE IN LOCATIONS SHOWN. ADDITIONAL SILT STOP FENCE WILL BE REQUIRED WHERE LOCAL CONDITIONS REQUIRE. INSTALL TREE PROTECTION AS DEEMED NECESSARY BY THE CITY FORESTER PRIOR TO ANY GRADING.
2. ANY GRADING SHALL PROCEED ON AN AREA BY AREA BASIS TO MINIMIZE UNCOMPLETED AREAS.
3. AS EACH AREA OUTSIDE THE STREET IS GRADED, PROVIDE NATIVE TOPSOIL, SEED, AND MULCH ANCHORED WITH A STRAIGHT SET DISC WITHIN SEVEN DAYS AFTER ROUGH GRADING.
4. MAINTAIN AND REPAIR SILT STOP FENCES (INCLUDING REMOVAL OF ACCUMULATED SILT) UNTIL VEGETATION IS ESTABLISHED.
5. SEE "STORM WATER POLLUTION PREVENTION PLAN" FOR ADDITIONAL EROSION CONTROL NOTES AND SITE SEQUENCING.

## LOT GRADING NOTES

- PAD CONTOURS SHOWN ARE FOR DEMONSTRATION PURPOSES.
- HOUSE TYPES AND GRADING THAT VARY FROM WHAT IS PROPOSED ON THE GRADING PLAN REQUIRE A PLAN REVIEW BY THE CITY OF HAN LAKE.
- SILT FENCE TO BE INSTALLED BY BUILDER PRIOR TO HOUSE CONSTRUCTION.
- THERE IS TO BE NO GRADING WITHIN 15' AREAS

## TREE PROTECTION NOTES

- TREE PROTECTION LIMITS TO BE MARKED IN FIELD PRIOR TO ANY TREE CLEARING ACTIVITY.
- SILT / TREE PROTECTION FENCE TO BE INSTALLED AT CONSTRUCTION LIMIT LINE.
- CARE IS TO BE TAKEN TO AVOID CONSTRUCTION ACTIVITY OR CONSTRUCTION VEHICLE TRAFFIC WITHIN THE DROP LINE OF TREES IN THE TREE PROTECTION ZONE.
- FIELD DECISIONS WILL BE MADE ON LOCATION OF TREE PROTECTION LIMITS TO PRESERVE SIGNIFICANT TREES.
- SOME TREES AND DEAD FALL ARE TO BE CLEARED. THIS MAY BE DONE PRIOR TO INSTALLATION OF SILT / TREE PROTECTION FENCE. GRUBBING OF STUMPS WILL OCCUR AFTER EROSION CONTROL MEASURE ARE INSTALLED.

## FLOODPLAIN FILL NOTES

- (COON CREEK WATERSHED FLOODPLAIN FILL)
- FLOODPLAIN FILL IN 445-33.95 = 1,500 CU/FT COMPENSATORY STORAGE = 3,467 CU/FT (COMPENSATORY STORAGE PROVIDED IN POND 1 BETWEEN NWL AND 899.9)
  - FLOODPLAIN FILL IN 445-26.93 = 2,394 CU/FT COMPENSATORY STORAGE = 5,666 CU/FT (COMPENSATORY STORAGE PROVIDED IN POND 2 BETWEEN NWL AND 898.4)

## NOTES

- BEARINGS SHOWN ARE ON ANOKA COUNTY DATUM.
- TOTAL LOT AREAS ARE CALCULATED TO STREET CENTERLINE PER ORDINANCE.
- 2 FOOT CONTOUR INTERVAL (NAD 83)
- CONTOURS SHOWN ARE PER INGENEO LIDAR DISTRIBUTION AND FIELD VERIFICATION.
- ALL MATCH POINTS AND PAVEMENT PATCHES TO BE SAWCUT AT FULL DEPTH.
- "TURF" AREA TO BE SEEDS WITHIN 7 DAYS AFTER COMPLETION OF ROUGH GRADING OR INACTIVITY.
- SEE PRELIMINARY UTILITY PLAN FOR STORM SEWER RIMS, INVERTS, AND SIZES.
- TRADEWELL SOIL TESTING COMPLETED SEPTIC SOIL BORINGS ON AND ADJACENT TO THE SITE IN 2003. THESE BORING LOCATIONS AND ELEVATIONS SHOWN ARE TAKEN FROM THE PRELIMINARY GRADING DRAINAGE AND EROSION CONTROL PLANS OF WILDERNESS PRESERVE DATED 04/07/05. IN DECEMBER OF 2020 TRADEWELL PERFORMED ADDITIONAL SEPTIC BORINGS THAT WERE FIELD LOCATED BY E.G. RUD AND SONS, INC.
- BRAUN INTERTEC COMPLETED PENETRATION BORINGS AND SET PIEZOMETERS ON AND ADJACENT TO THE SITE IN 2003, AND READ THE PIEZOMETERS ON 06/03 AND 08/03. PIEZOMETERS WERE FIELD LOCATED AND ADDITIONAL READINGS WERE TAKEN ON 10/16. PENETRATION BORING LOCATIONS AND ELEVATIONS SHOWN ARE TAKEN FROM THE PRELIMINARY GRADING DRAINAGE AND EROSION CONTROL PLANS OF WILDERNESS PRESERVE DATED 04/07/05.
- ALL PIPE APRONS PROVIDED WITH TRASH GUARDS
- PROVIDE CLASS III RIPRAP WITH FILTER FABRIC FOR ALL PIPE OUTLETS. INSTALL 6" OF TOPSOIL ON RIPRAP IN WETLAND BUFFERS AND SEED WITH SEED MIX MNDOT 33-261.
- IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL APPLY FOR A MN DNR DEWATERING PERMIT AND WILL PROVIDE WELL-FIELD LOCATIONS, RATES, DISCHARGE LOCATION, SCHEDULE AND QUANTITIES TO CWD 7 DAYS PRIOR TO ANY DEWATERING OPERATIONS.
- CONTRACTORS MUST BE PROVIDED WITH DNR FLYERS/ FACT SHEETS ON BLANDING'S TURTLES.

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

**JASON E. RUD**  
 Date: 06/17/2021 License No. 41578

NO.	DATE	DESCRIPTION	BY
1	03/31/21	CITY / WATERSHED COMMENTS	MMD
2	04/14/21	CITY / WATERSHED COMMENTS	MMD
3	04/22/21	CITY / WATERSHED COMMENTS	MMD

MATCHLINE: SEE SHEET 5

MATCHLINE: SEE SHEET 6

MATCHLINE: SEE SHEET 7

**E.G. RUD & SONS, INC.**  
 Professional Land Surveyors  
 6776 Lake Drive NE, Suite 110 Lino Lakes, MN 55014  
 Tel. (651) 361-8200 Fax (651) 361-8701

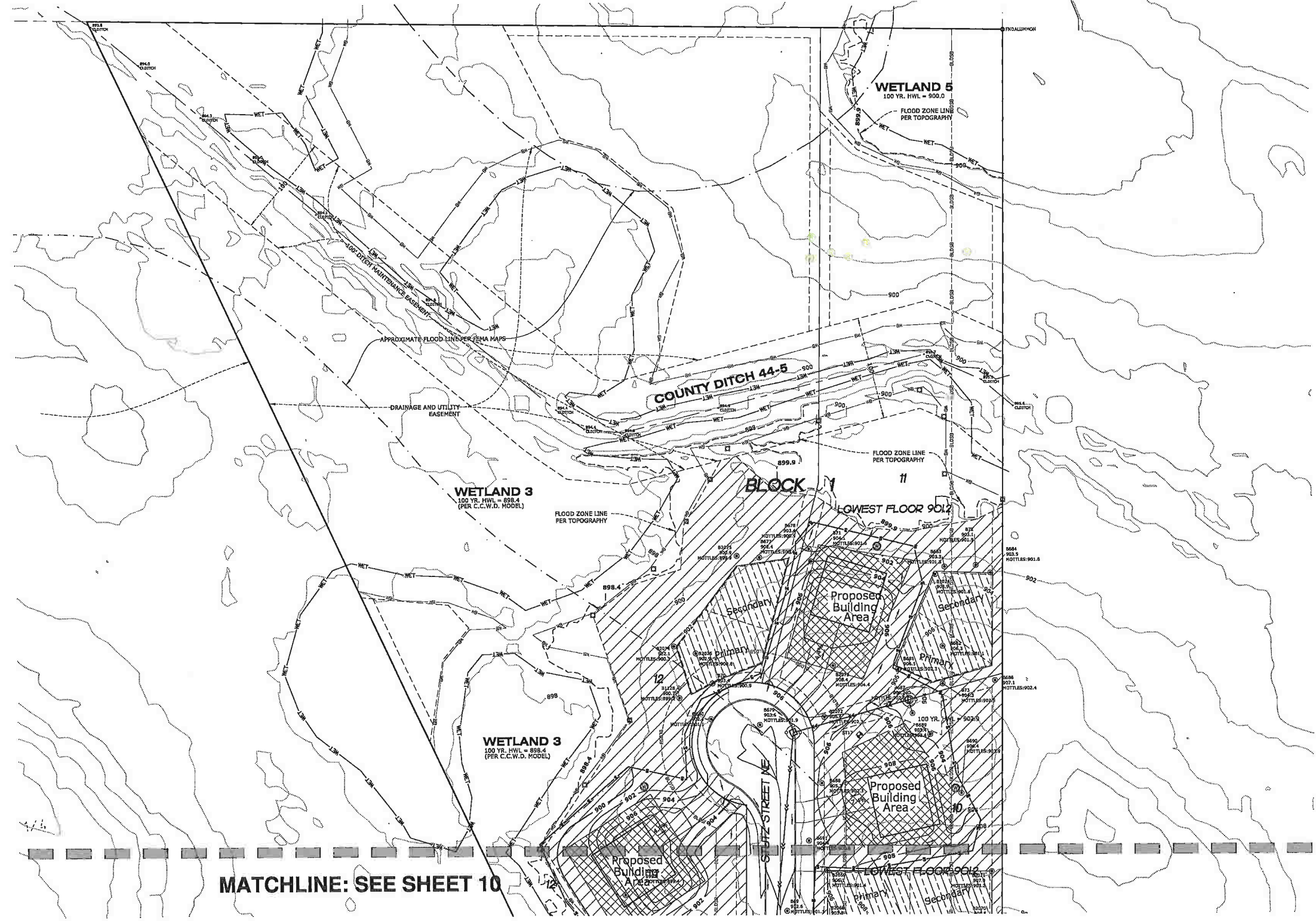


# LIVABILITY PLAN

~of~ HIDDEN FOREST EAST 3RD ADDITION  
 ~for~ HFN PROPERTIES, LLC.  
 17404 WARD LAKE DRIVE NW  
 ANDOVER, MN 55304  
 (612) 799-1471

## LEGEND

- ⊙ DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
- ⊕ DENOTES PIEZOMETER OR PENETRATION BORING BY BRAUN INTERTEC, INC.
- X 952.36 DENOTES EXISTING SPOT ELEVATION
- WET DENOTES WET LAND
- DENOTES EXISTING 2 FOOT CONTOUR
- - - DENOTES PROPOSED 2 FOOT CONTOURS
- WET DENOTES WETLAND DELINEATED BY KJOLHAUG ENVIRONMENTAL SERVICES COMPANY.
- DENOTES EASEMENT LINE
- DENOTES SETBACK LINE
- DENOTES PROPOSED STORM SEWER
- DENOTES PROPOSED SILT / TREE PROTECTION FENCE
- DENOTES DIRECTION OF DRAINAGE
- ⊙ DENOTES PROPOSED WELL LOCATION
- WET DENOTES WETLAND/ VEGETATIVE BUFFER
- ⊙ DENOTES WETLAND/ VEGETATIVE BUFFER SIGN
- ⊙ DENOTES PLANT SPECIES LOCATED BY MIDWEST NATURAL RESOURCES
- ▨ DENOTES PROPOSED BUILDING PAD AREA
- ▨ DENOTES PROPOSED YARD AREA
- ▨ DENOTES PROPOSED SEPTIC AREA
- ▨ DENOTES 12' POND ACCESS



MATCHLINE: SEE SHEET 10

## NOTES

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JASON E. RUD  
 Date: 06/17/2021 License No. 41578

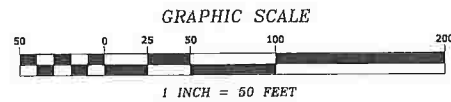
PONDING CALCULATIONS AND STORM SEWER DESIGN BY  
 PLOWE ENGINEERING, INC.

**PLOWE ENGINEERING, INC.**  
 8776 LAKE DRIVE  
 SUITE 110  
 LINO LAKES, MN 55014

SITE PLANNING & ENGINEERING PHONE: (851) 361-8210 FAX: (851) 361-8701

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

*Adam Ginkel*  
 ADAM GINKEL  
 DATE: 06.17.2021 LIC. NO. 43963



**E.G. RUD & SONS, INC.**  
 EST. 1977  
 Professional Land Surveyors  
 6776 Lake Drive NE, Suite 110  
 Lino Lakes, MN 55014  
 Tel. (651) 361-8200 Fax (651) 361-8701

DRAWN BY: MMD	JOB NO: 200949PP	DATE: 02/24/21
CHECK BY: JER	FIELD CREW: DT / CT	
1	03/31/21	CITY / WATERSHED COMMENTS MMD
2	04/14/21	CITY / WATERSHED COMMENTS MMD
3	04/27/21	CITY / WATERSHED COMMENTS MMD
NO.	DATE	DESCRIPTION BY



NORTH



# LIVABILITY PLAN

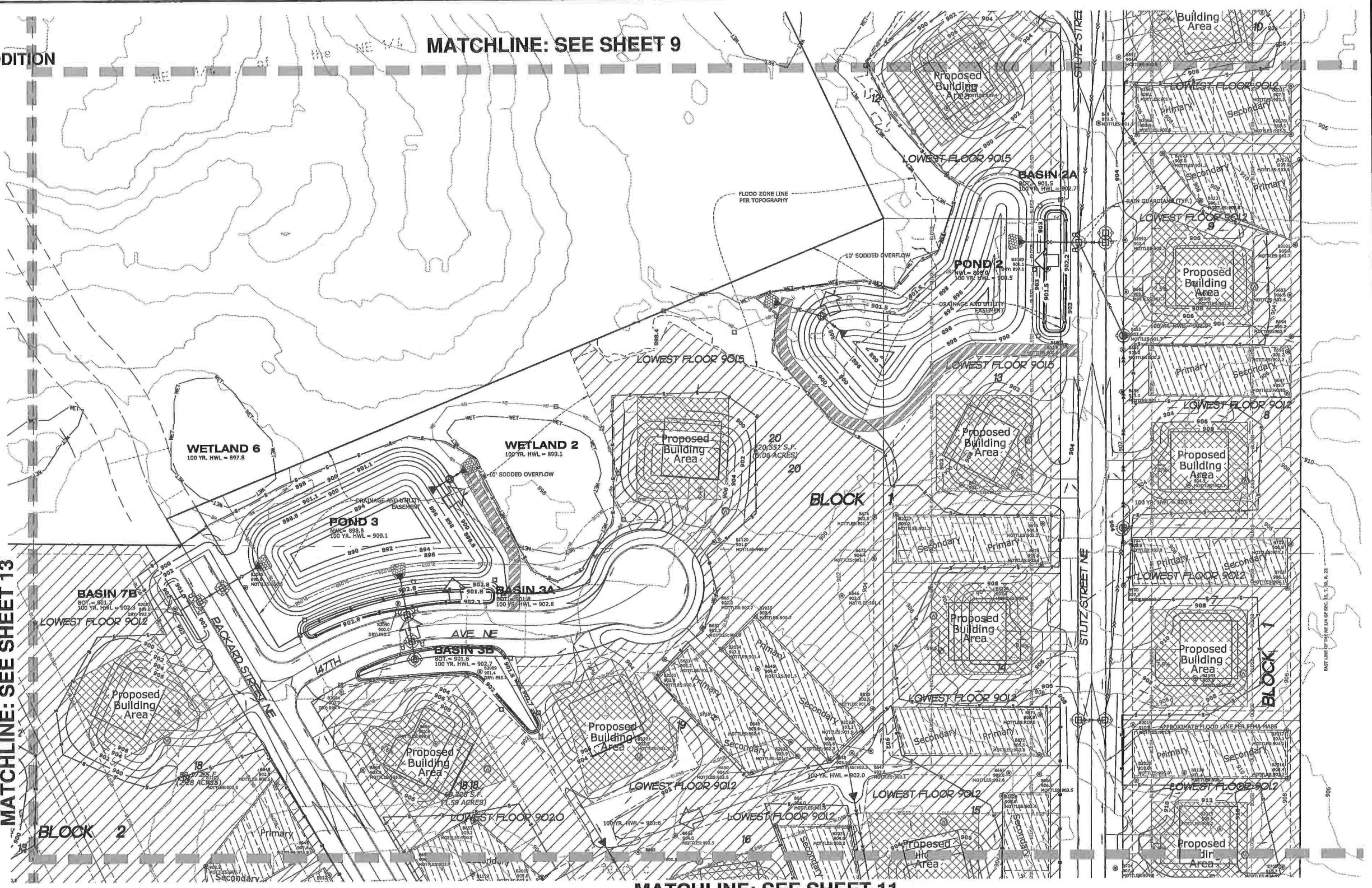
~of~ HIDDEN FOREST EAST 3RD ADDITION  
 ~for~ HFN PROPERTIES, LLC.  
 17404 WARD LAKE DRIVE NW  
 ANDOVER, MN 55304  
 (612) 799-1471

MATCHLINE: SEE SHEET 9

## LEGEND

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- ⊕ DENOTES PIEZOMETER OR PENETRATION BORING BY BRAUN INTERTEC, INC.
- X 933.34 DENOTES EXISTING SPOT ELEVATION
- WET DENOTES WET LAND
- DENOTES EXISTING 2 FOOT CONTOUR
- - - DENOTES PROPOSED 2 FOOT CONTOURS
- WET DENOTES WETLAND DELINEATED BY KIOUHAIG ENVIRONMENTAL SERVICES COMPANY.
- DENOTES EASEMENT LINE
- DENOTES SETBACK LINE
- DENOTES PROPOSED STORM SEWER
- DENOTES PROPOSED SILT / TREE PROTECTION FENCE
- DENOTES DIRECTION OF DRAINAGE
- ⊙ DENOTES PROPOSED WELL LOCATION
- DENOTES WETLAND/ VEGETATIVE BUFFER
- DENOTES WETLAND/ VEGETATIVE BUFFER SIGN
- DENOTES PROPOSED BUILDING PAD AREA
- DENOTES PROPOSED YARD AREA
- DENOTES PROPOSED SEPTIC AREA
- DENOTES 12' POND ACCESS

MATCHLINE: SEE SHEET 13



MATCHLINE: SEE SHEET 11

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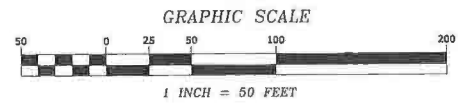
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PONDING CALCULATIONS AND STORM SEWER DESIGN BY FLOWE ENGINEERING, INC.

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 6776 LAKE DRIVE SUITE 110 LINO LAKES, MN 55014  
 SITE PLANNING & ENGINEERING PHONE: (651) 361-8210 FAX: (651) 361-8701

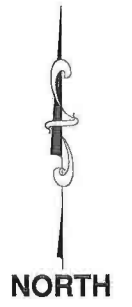
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*Adam Gynkel*  
 ADAM GYNKEL  
 DATE: 06.17.2021 LIC. NO. 43983



EST. 1977 **E. G. RUD & SONS, INC.**  
 Professional Land Surveyors  
 6776 Lake Drive NE, Suite 110 Lino Lakes, MN 55014  
 Tel. (651) 361-8200 Fax (651) 361-8701

DRAWN BY: MMD	JOB NO: 200949PP	DATE: 02/24/21
CHECK BY: JER	FIELD CREW: DT / CT	
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NO.	DATE	DESCRIPTION BY



NORTH

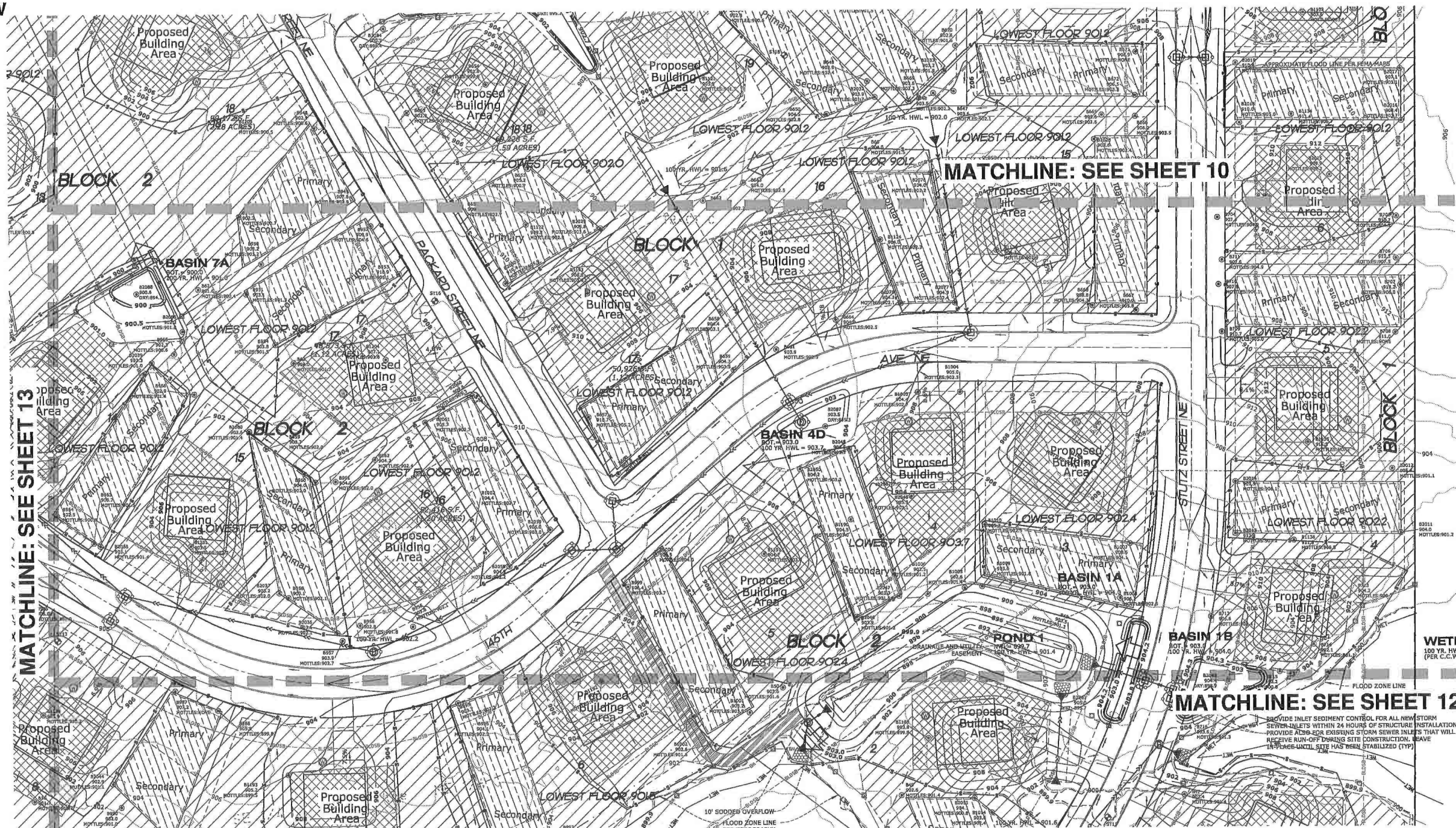


# LIVABILITY PLAN

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 17404 WARD LAKE DRIVE NW  
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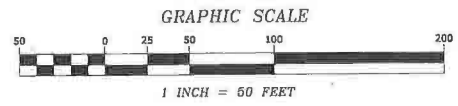
PONDING CALCULATIONS AND STORM SEWER DESIGN BY FLOWE ENGINEERING, INC.

**FLOWE ENGINEERING, INC.**  
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 SUITE 110  
 LINO LAKES, MN 55014

SITE PLANNING & ENGINEERING      PHONE: (651) 361-8210  
 FAX: (651) 361-8701

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

*Adam Ginkel*  
 ADAM GINKEL  
 DATE: 06.17.2021      LIC. NO. 43883



## NOTES

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- TOTAL LOT AREAS ARE CALCULATED TO STREET CENTERLINE PER ORDINANCE.
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*JASON E. RUD*  
 JASON E. RUD  
 Date: 06/17/2021      License No. 41578

NO.	DATE	DESCRIPTION	BY
1	03/31/21	CITY / WATERSHED COMMENTS	MMD
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3	04/27/21	CITY / WATERSHED COMMENTS	MMD
4	05/13/21	CITY COMMENTS	MMD
5	06/17/21	BASIN 4D LABEL	MMD

**E.G. RUD & SONS, INC.**  
 EST. 1977  
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# LIVABILITY PLAN

~of~ HIDDEN FOREST EAST 3RD ADDITION  
 ~for~ HFN PROPERTIES, LLC.  
 17404 WARD LAKE DRIVE NW  
 ANDOVER, MN 55304  
 (612) 799-1471


MATCHLINE: SEE SHEET 11

MATCHLINE: SEE SHEET 13

## LEGEND

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FLOODING CALCULATIONS  
AND STORM SEWER DESIGN BY  
PLOWE ENGINEERING, INC.



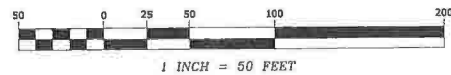
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**SITE PLANNING & ENGINEERING**    PHONE: (651) 361-8210  
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*Adam Qinkel*  
 ADAM QINKEL  
 DATE: 06.17.2021    LIC. NO. 43863

### GRAPHIC SCALE



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*Jason E. Rud*  
 JASON E. RUD  
 Date: 06/17/2021    License No. 41578

DRAWN BY:	MMD	JOB NO.:	20094999	DATE:	02/24/21
CHECK BY:	JER	FIELD CREW:	DT, LCT		
NO.	DATE	DESCRIPTION	BY		
1	03/31/21	CITY / WATERSHED COMMENTS	MMD		
2	04/14/21	CITY / WATERSHED COMMENTS	MMD		
3	04/27/21	CITY / WATERSHED COMMENTS	MMD		

**E.G. RUD & SONS, INC.**  
 EST. 1977  
 Professional Land Surveyors  
 6776 Lake Drive NE, Suite 110  
 Lino Lakes, MN 55014  
 Tel. (651) 361-8200 Fax (651) 361-8701

WETL  
 100 YR. HWL  
 PER C.C.W.I.

NORTH

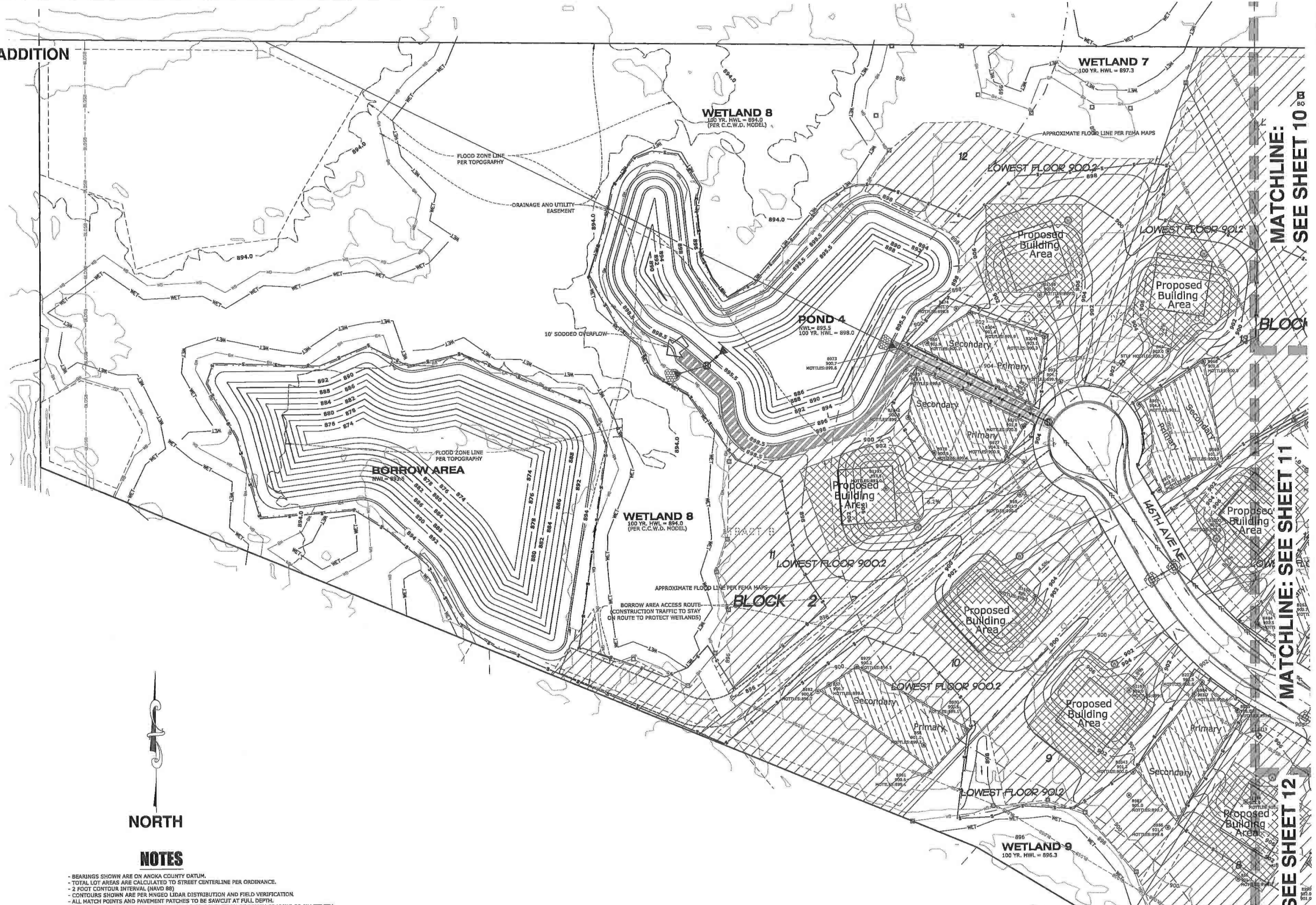


# LIVABILITY PLAN

~of~ HIDDEN FOREST EAST 3RD ADDITION  
 ~for~ HFN PROPERTIES, LLC.  
 17404 WARD LAKE DRIVE NW  
 ANDOVER, MN 55304  
 (612) 799-1471

## LEGEND

- DENOTES SOIL BORING BY TRADEWELL SOIL TESTING
- DENOTES PIEZOMETER OR PENETRATION BORING BY BRAUN INTERTEC, INC.
- DENOTES EXISTING SPOT ELEVATION
- DENOTES WET LAND
- DENOTES EXISTING 2 FOOT CONTOUR
- DENOTES PROPOSED 2 FOOT CONTOURS
- DENOTES WETLAND DELINEATED BY KJOLHAUG ENVIRONMENTAL SERVICES COMPANY.
- DENOTES EASEMENT LINE
- DENOTES SETBACK LINE
- DENOTES PROPOSED STORM SEWER
- DENOTES PROPOSED SILT / TREE PROTECTION FENCE
- DENOTES DIRECTION OF DRAINAGE
- DENOTES PROPOSED WELL LOCATION
- DENOTES WETLAND/ VEGETATIVE BUFFER
- DENOTES WETLAND/ VEGETATIVE BUFFER SIGN
- DENOTES PROPOSED BUILDING PAD AREA
- DENOTES PROPOSED YARD AREA
- DENOTES PROPOSED SEPTIC AREA
- DENOTES 12' POND ACCESS



MATCHLINE: SEE SHEET 10  
 MATCHLINE: SEE SHEET 11  
 MATCHLINE: SEE SHEET 12

NORTH

## NOTES

- BEARINGS SHOWN ARE ON ANOKA COUNTY DATUM.
- TOTAL LOT AREAS ARE CALCULATED TO STREET CENTERLINE PER ORDINANCE.
- 2 FOOT CONTOUR INTERVAL (NAVD 88)
- CONTOURS SHOWN ARE PER MANGO LIDAR DISTRIBUTION AND FIELD VERIFICATION
- ALL MATCH POINTS AND PAVEMENT PATCHES TO BE SAWCUT AT FULL DEPTH.
- SEE PRELIMINARY UTILITY PLAN FOR STORM SEWER RINGS, INVERTS, AND SIZES.
- TRADEWELL SOIL TESTING COMPLETED SEPTIC SOIL BORINGS ON AND ADJACENT TO THE SITE IN 2003.
- THESE BORING LOCATIONS AND ELEVATIONS SHOWN ARE TAKEN FROM THE PRELIMINARY GRADING DRAINAGE AND EROSION CONTROL PLANS OF WILDERNESS PRESERVE DATED 04/07/05. IN DECEMBER OF 2020 TRADEWELL PERFORMED ADDITIONAL SEPTIC BORINGS THAT WERE FIELD LOCATED BY E.G. RUD AND SONS, INC.
- BRAUN INTERTEC COMPLETED PENETRATION BORINGS AND SET PIEZOMETERS ON AND ADJACENT TO THE SITE IN 2003, AND READ THE PIEZOMETERS ON 06/03 AND 08/03. PIEZOMETERS WERE FIELD LOCATED AND ADDITIONAL READINGS WERE TAKEN ON 10/16. PENETRATION BORING LOCATIONS AND ELEVATIONS SHOWN ARE TAKEN FROM THE PRELIMINARY GRADING DRAINAGE AND EROSION CONTROL PLANS OF WILDERNESS PRESERVE DATED 04/07/05.
- ALL PIPE APRONS PROVIDED WITH TRASH GUARDS
- PROVIDE CLASS III RIPRAP WITH FILTER FABRIC FOR ALL PIPE OUTLETS. INSTALL 6" OF TOPSOIL ON RIPRAP IN WETLAND BUFFERS AND SEED WITH SEED MIX WHOOT 33-261.
- IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL APPLY FOR A MN DNR DEWATERING PERMIT AND WILL PROVIDE WELL-FIELD LOCATIONS, RATES, DISCHARGE LOCATION, SCHEDULE AND QUANTITIES TO CDWC 7 DAYS PRIOR TO ANY DEWATERING OPERATIONS.
- CONTRACTORS MUST BE PROVIDED WITH DNR FLYERS/ FACT SHEETS ON BLANDING'S TURTLES.

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

JASON E. RUD  
 Date: 06/17/2021 License No. 41578

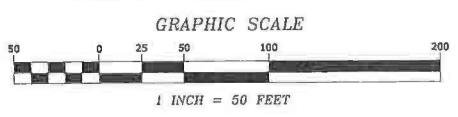
PONDING CALCULATIONS AND STORM SEWER DESIGN BY  
 FLOWE ENGINEERING, INC.

**FLOWE ENGINEERING, INC.**  
 8776 LAKE DRIVE  
 SUITE 110  
 LINO LAKES, MN 55014

SITE PLANNING & ENGINEERING    PHONE: (651) 361-8210  
 FAX: (651) 361-8701

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

*Adam Ginkel*  
 ADAM GINKEL  
 DATE: 06.17.2021    LIC. NO. 43883



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# LIVABILITY CHART

~of~ HIDDEN FOREST EAST 3RD ADDITION  
 ~for~ HFN PROPERTIES, LLC.  
 17404 WARD LAKE DRIVE NW  
 ANDOVER, MN 55304  
 (612) 799-1471

**Livability Standards**  
 All residential lots shall contain at least 29,500 square feet of land which lies above the 100 year flood contour. Of this 29,500 square feet, the following additional requirements must be present:

**A. ISTS Area** Each lot must contain at least 7,500 square feet of contiguous area which is reserved for both the ISTS originally constructed and a future ISTS. The ISTS Area need not be contiguous to the Eligible Building Area or the Yard Area, but the entire ISTS Area must exist at an elevation at least one foot above Unsuitable Soils, and must contain Undisturbed Soils or soils which meet the requirements of Rule 7099 of the Minnesota Pollution Control Agency for ISTS construction standards. The ISTS Area may be irregular in shape, provided they do not encroach into areas reserved by easement or otherwise for roadway, drainage or utility purposes, and provided that all of the area can be reasonably used for ISTS construction without the need for variances.

**B. Eligible Building Area** Each lot shall contain at least 10,000 square feet of contiguous land which lies at an elevation at least four feet above Unsuitable Soils. The Eligible Building Area may not be irregular in shape, and should be generally rectangular or oval, with no panhandles, narrow necks or peninsulas. Eligible Building Areas may not encroach into any areas reserved by easement or otherwise for roadway, drainage or utility purposes. Fill may be used to create Eligible Building Area.

**C. Yard Area** Each lot shall contain at least 12,000 contiguous square feet which:

- i) Lies above the 100 year flood contour, and
- ii) Lies at least one foot above soils unsuitable for the intended usage of the Yard Area, and
- iii) Is contiguous to the Eligible Building Area for a distance of at least fifty percent of the linear perimeter of the Eligible Building Area.

Yard Areas may encroach into the dedicated easement area which lies at a distance of ten feet from the perimeter of the lot, and may encroach into areas reserved by easement or otherwise for other public utility purposes, but may not encroach into any other area reserved by dedication or otherwise for road or drainage purposes, any may not encroach into any areas within the 100 year flood contour or into designated wetlands. Yard Areas may be irregular in shape except within thirty feet of the locations where the Yard Area is contiguous to the Eligible Building Area, at which locations the Yard Areas shall be a logical extension or expansion of the generally rectangular or oval shape of the Eligible Building Area. Fill may be used to create Yard Area.

**D. Building Pad Areas** The entire Building Pad must lie within the Eligible Building Area, and shall meet the separation requirements for the Eligible Building Area.

**E. Low Floor Elevations**

- i) For walkout designs, the low floor elevation shall be at least one foot above the 100 year flood contour, but, notwithstanding the 100 year flood contour, not less than one foot above unsuitable soils, as determined by the City's engineer.
- ii) For other designs, the low floor elevation shall be at least one foot above the 100 year flood contour, but, notwithstanding the 100 year flood contour, not less than one foot above unsuitable soils, as determined by the City's engineer.

Lot	Block	Total Lot Area (sq. ft.)	Yard Area (sq. ft.)	Septic Area (sq. ft.)	Building Pad Area (sq. ft.)	Proposed Building Pad 4' Above Unsuitable (sq. ft.)	Garage Floor Elevation	Proposed Low Floor Elev.	Proposed Low Opening	Lowest Floor Elevation	Highest Anticipated Groundwater Elevation	Low Floor	Boring #	Boring Elevation	Mottles Elevation	Building Type	Custom Graded
1	1	101,501	26,451	7,805	10,000	6,250	912.7	905.7	905.7	903.2	900.2	Anticipated Groundwater	44	903.9	901.4	W.O.*	NO
													727	910.0	905.5	DROP	
													728	905.8	901.1	1 COURSE	
													1138	910.1	NONE		
													1139	910.2	905.2		
													1303	905.2	902.0		
													2004	911.5	908.0		
													2005	905.4	901.7		
2	1	116,996	24,605	7,791	10,558	5,945	910.9	903.2	903.2	903.2	900.2	Anticipated Groundwater	45	903.3	901.3	W.O.	NO
													717	903.8	902.0		
													718	904.5	900.0		
													719	904.3	900.1		
													720	902.3	900.8		
													721	903.7	902.2		
													722	903.5	901.8		
													723	903.6	901.8		
													724	902.2	901.2		
													725	904.2	900.7		
													726	908.0	901.0		
													2006	906.2	901.2		
													2007	908.2	903.0		
													2058	904.7	901.5		
													2057	902.8	901.4		
3	1	75,121	38,288	8,117	10,650	5,177	910.9	903.2	903.2	903.2	900.2	Anticipated Groundwater	48	903.5	901.5	W.O.	NO
													47	902.4	901.4		
													ST 11	900.7	896.7(W)		
													716	903.6	901.3		
													1137	906.2	901.7		
													2008	906.0	901.7		
													2009	904.4	900.9		
													2010	903.1	901.9		
4	1	57,216	12,963	8,117	10,039	7,296	910.9	903.2	903.2	902.2	899.2	Anticipated Groundwater	712	905.6	902.4	W.O.	NO
													713	904.2	900.7		
													714	902.1	901.1		
													715	902.2	900.8		
													1138	911.8	906.8		
													2011	904.0	901.2		
													2012	905.4	901.1		
													2013	912.2	907.2		
													2014	907.9	908.1		
													2082	904.4	898.9	DRY	
5	1	43,600	18,883	8,117	10,000	5,282	912.8	908.5	908.5	902.2	899.2	Anticipated Groundwater	707	913.2	908.0	W.O.*	NO
													708	911.0	NONE	DROP	
													709	910.7	905.0	2 COURSE	
													710	907.8	904.1		
													1135	911.5	NONE		
6	1	43,800	18,883	8,117	10,000	6,868	913.8	907.5	910.7	901.2	898.2	Anticipated Groundwater	704	907.4	904.9	L.O.*	NO
													705	910.7	904.9	DROP	
													706	912.5	907.5	2 COURSE	
													711	907.8	904.9		
													1134	911.4	906.7		
													2015	909.9	905.2		
													2016	908.4	903.7		
													2017	907.1	903.1		
													2018	910.0	905.0		
													2019	910.8	905.8		
7	1	43,600	18,883	8,117	10,000	6,637	912.2	905.9	909.1	901.2	898.2	Anticipated Groundwater	700	907.5	902.2	L.O.*	NO
													701	905.9	901.9	DROP	
													702	906.8	903.1	2 COURSE	
													703	906.1	904.1		
													1133	907.6	903.6		
8	1	43,800	19,134	7,866	10,000	6,805	908.0	901.3	908.4	901.2	898.2	Anticipated Groundwater	698	906.2	902.6	F.B.	NO
													697	908.7	NONE		
													698	903.3	901.1		
													699	903.2	900.5		
													1132	904.9	902.7		
9	1	43,600	18,774	7,846	10,380	7,939	908.9	901.2	909.3	901.2	898.2	Anticipated Groundwater	692	903.4	901.7	F.B.	NO
													693	903.4	901.7		
													694	905.2	902.7		
													695	904.8	902.8		
													1131	906.1	902.8		
													2020	903.8	901.8		
													2021	905.2	902.7		
													2022	909.9	903.9		
													2023	905.0	901.3		
													2092	902.4	900.7		
10	1	49,067	22,370	8,117	10,153	8,450	910.2	903.9	907.1	901.2	898.2	Anticipated Groundwater	69	902.6	901.1	L.O.*	NO
													ST 17	907.3	894.2(W)	DROP	
													688	907.1	902.4	2 COURSE	
													687	904.2	902.5		
													688	905.3	902.3		
													689	903.4	902.4		
													690	906.4	903.9		
													691	904.4	900.6		
													2088	903.8	900.6		
													2089	906.1	901.4		
													2070	908.5	903.5		
													2071	907.9	903.2		
11	1																





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4	2	43,767	17,032	7,769	10,008	5,382	911.0	904.0	904.0	903.7	899.2	PER INFIL CALCS	1003 1004 1005 1006 1190 2048 2047 2048 2049 2050	904.4 905.0 902.8 902.5 904.5 901.2 903.3 905.3 904.5 904.2	902.7 902.5 901.4 901.2 903.0 901.2 901.5 902.1 902.3 903.2	DROP 1 COURSE	NO	
5	2	49,005	21,341	8,754	10,101	4,771	911.0	904.0	904.0	902.4	899.2	PER POND 1 HWL	50 999 1000 1001 1002 1181 2087	903.6 906.4 906.5 903.2 902.6 904.7 903.5	901.6 903.7 904.0 901.9 901.6 903.0 895.3	901.6 903.7 904.0 901.9 901.6 903.0 902.3	W.O.* DROP 1 COURSE	NO
6	2	50,265	22,779	8,431	10,576	4,750	909.2	902.2	902.2	901.6	898.2	PER WETLAND 1 HWL	955 958 957 958 1192	903.7 904.1 903.5 903.4 904.3	902.2 902.3 901.0 901.2 902.3	902.2 902.3 901.0 901.2 902.3	W.O.* DROP 1 COURSE	NO
7	2	73,796	48,901	8,149	10,576	7,922	809.3	901.6	904.8	901.6	898.2	PER WETLAND 1 HWL	54 991 992 993 994 1193	903.8 903.1 903.8 904.0 903.3 905.2	901.1 901.0 901.6 900.5 900.1 899.5	901.1 901.0 901.6 900.5 900.1 899.5	L.O.	NO
8	2	70,978	44,353	7,811	10,576	5,762	909.0	902.0	902.0	901.2	898.2	Anticipated Groundwater	56 ST 13 887 888 889 890 891 1194 2044 2045	901.7 907.8 907.2 905.8 901.9 902.0 905.8 902.8 902.3	900.7 895.2 (W) NONE 899.8 900.9 901.0 901.2 901.1	900.7 895.2 (W) NONE 899.8 900.9 901.0 901.2 901.1	W.O.* DROP 1 COURSE	NO
9	2	78,066	32,304	7,851	10,046	6,772	908.2	901.2	901.2	901.2	898.2	Anticipated Groundwater	983 954 985 986 1195 2043 2079	901.0 903.7 906.0 901.1 902.0 901.3 902.5	899.7 901.4 901.0 899.6 899.5 900.0 900.8	899.7 901.4 901.0 899.6 899.5 900.0 900.8	W.O.* DROP 1 COURSE	NO
10	2	80,781	57,850	7,541	10,046	6,361	907.9	900.2	900.2	900.2	897.2	Anticipated Groundwater	57 58 59 979 980 981 982 1196	900.7 901.0 901.7 900.2 900.8 900.6 900.5 899.7	899.0 899.2 900.0 899.5 899.1 899.1 898.7	899.0 899.2 900.0 899.5 899.1 899.1 899.2	W.O.	NO
11	2	493,574	56,874	8,032	10,046	6,554	907.9	900.2	900.2	900.2	897.2	Anticipated Groundwater	975 976 977 978 1197 2042	901.1 905.8 904.2 900.9 897.8 900.8	899.6 900.6 900.9 899.4 897.0 899.1	899.6 900.6 900.9 899.4 897.0 899.1	W.O.	NO
12	2	213,055	43,321	7,860	10,046	4,983	908.2	901.2	901.2	900.2	897.2	Anticipated Groundwater	60 971 972 973 974 1198 2040 2041	901.9 904.7 905.9 900.7 901.0 899.7 903.1 901.6	900.1 899.9 900.2 899.6 898.8 899.2 900.3 899.9	900.1 899.9 900.2 899.6 898.8 899.2 900.3 899.9	W.O.* DROP 1 COURSE	NO
13	2	68,805	42,994	7,998	10,129	6,660	908.2	901.2	901.2	901.2	898.2	Anticipated Groundwater	61 ST 14 967 968 969 970	903.0 904.2 904.4 902.6 901.7 902.0	900.3 893.2 (W) 901.1 900.9 900.2 902.2	900.3 893.2 (W) 901.1 900.9 900.2 902.2	W.O.* DROP 1 COURSE	NO
14	2	45,988	14,527	8,557	10,800	6,612	908.6	902.3	902.3	901.2	898.2	Anticipated Groundwater	983 984 985 986 1200 2038 2039 2088	903.7 902.5 902.3 902.9 901.6 903.1 902.3 900.8	901.5 900.8 900.6 901.4 899.9 901.4 901.0 891.1	901.5 900.8 900.6 901.4 899.9 901.4 901.0 891.1	W.O.* DROP 2 COURSE	NO
15	2	45,404	15,261	7,679	10,112	5,217	908.9	901.2	904.4	901.2	898.2	Anticipated Groundwater	957 958 959 960 1201 2036 2037 2080	903.9 903.1 903.7 904.0 903.5 903.1 903.2 903.6	902.7 902.1 902.0 902.0 902.2 902.1 902.0 901.4	902.7 902.1 902.0 902.0 902.2 902.1 902.0 901.4	L.O.	NO
16	2	52,416	17,188	8,124	10,128	4,874	909.5	902.5	905.7	901.2	898.2	Anticipated Groundwater	955 958 961 962 1202 2058 2059 2060 2081	903.8 902.8 904.0 904.2 904.4 904.9 905.0 906.8 905.7	902.1 901.8 902.0 902.4 902.7 902.2 903.0 905.3 902.7	902.1 901.8 902.0 902.4 902.7 902.2 903.0 905.3 902.7	L.O.* DROP 1 COURSE	NO
17	2	46,573	22,865	8,691	10,212	4,898	909.2	901.5	904.7	901.2	898.2	Anticipated Groundwater	63 ST 18 951 952 953 954 2086 1204	904.0 907.4 903.1 906.9 910.9 903.8 905.7 907.1	894.2 901.3 904.6 905.1 901.5 901.0 901.6	894.2 901.3 904.6 905.1 901.5 901.0 901.6	L.O.	NO
18	2	99,172	68,054	7,537	10,046	6,178	908.2	901.2	901.2	901.2	898.2	Anticipated Groundwater	62 947 948 949 950 1203 2091	901.6 902.2 902.9 907.6 903.2 901.3 899.0	900.4 900.7 900.6 902.9 901.2 900.5 895.5	900.4 900.7 900.6 902.9 901.2 900.5 895.5	W.O.* DROP 1 COURSE	NO

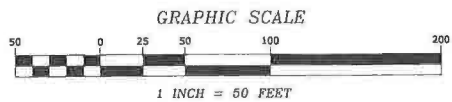
PONDING CALCULATIONS AND STORM SEWER DESIGN BY PLOWE ENGINEERING, INC.



**PLOWE ENGINEERING, INC.**  
 6776 LAKE DRIVE SUITE 110 LINO LAKES, MN 55014  
 SITE PLANNING & ENGINEERING PHONE: (651) 361-8210 FAX: (651) 361-8701

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

*Adam Ginkel*  
 ADAM GINKEL  
 DATE: 06.17.2021 LIC. NO. 43983



**E. G. RUD & SONS, INC.**  
 EST. 1917 Professional Land Surveyors  
 6776 Lake Drive NE, Suite 110 Lino Lakes, MN 55014  
 Tel. (651) 361-8200 Fax (651) 361-8701

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

*Jason E. Rud*  
 JASON E. RUD  
 Date: 06/17/2021 License No. 41578

NOTES: \* INDICATES DROPPED GARAGE ELEVATIONS BASED UPON 12 COURSE BASEMENT  
 (W) INDICATES STATIC GROUNDWATER ELEVATION  
 LOW OPENINGS LISTED ARE REFLECTING THE REAR YARD LOW OPENING  
 WET - INDICATES ENCOUNTERED MOISTURE ELEVATION IN INFILTRATION AREA BORING.  
 WAT - INDICATES WATER ELEVATION FOUND IN INFILTRATION BORING.  
 DRY - INDICATES NO GROUNDWATER FOUND IN INFILTRATION BORING.

DRAWN BY: NMD	JOB NO: 200949PP	DATE: 02/24/21
CHECK BY: JER	FIELD CREW: DT, CT	
1	03/31/21	CITY / WATERSHED COMMENTS MMD
2	04/14/21	CITY / WATERSHED COMMENTS MMD
3	04/27/21	CITY / WATERSHED COMMENTS MMD
NO.	DATE	DESCRIPTION BY



**GENERAL NOTES**

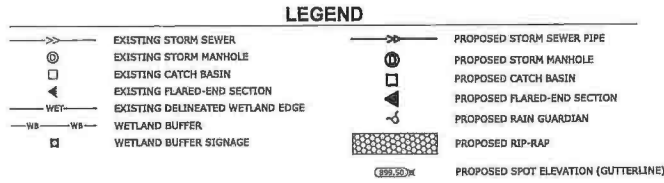
1. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF EXISTING UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UTILITIES AS NECESSARY TO AVOID DAMAGE TO THESE UTILITIES.
2. CALL "811" FOR EXISTING UTILITIES LOCATIONS PRIOR TO ANY EXCAVATIONS.
3. THE CONTRACTOR SHALL FIELD VERIFY SIZE, ELEVATION, AND LOCATION OF EXISTING UTILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO THE START OF INSTALLATIONS.
4. INSTALLATIONS SHALL CONFORM TO THE CITY STANDARD SPECIFICATIONS AND DETAIL PLATES.
5. STORAGE OF MATERIALS OR EQUIPMENT SHALL NOT BE ALLOWED ON PUBLIC STREETS OR WITHIN PUBLIC RIGHT-OF-WAY.
6. NOTIFY CITY AND COON CREEK WATERSHED DISTRICT (CCWD) A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
7. ALL ELECTRIC, TELEPHONE, AND GAS EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTIONS SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY.

**STORM SEWER NOTES**

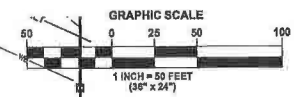
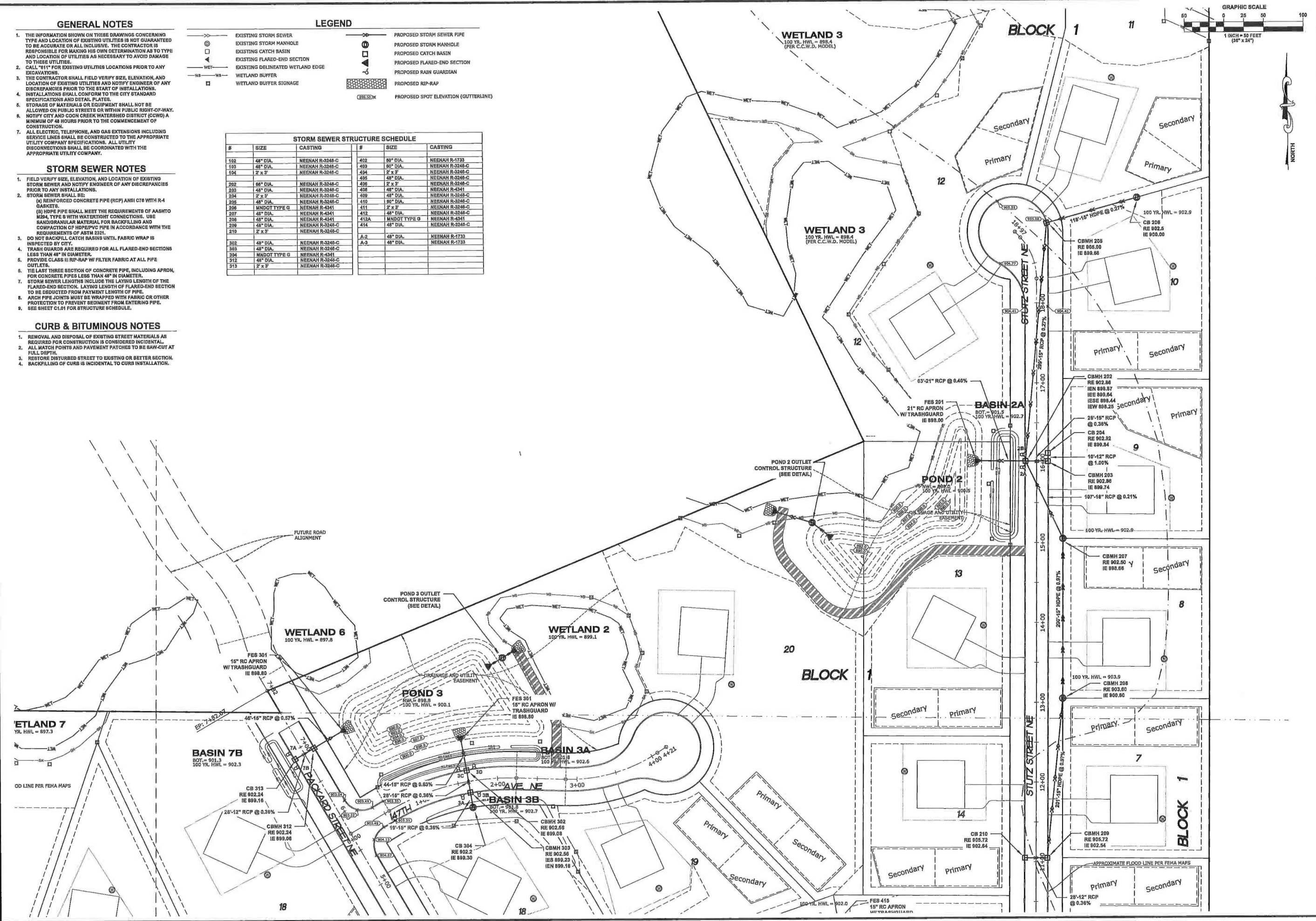
1. FIELD VERIFY SIZE, ELEVATION, AND LOCATION OF EXISTING STORM SEWER AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY INSTALLATIONS.
2. STORM SEWER SHALL BE:
  - (A) REINFORCED CONCRETE PIPE (RCP) ANSI C78 WITH R-4 GASKETS.
  - (B) HDPE PIPE SHALL MEET THE REQUIREMENTS OF AASHTO M254, TYPE S WITH WATER TIGHT CONNECTIONS. USE SAND/GRANULAR MATERIAL FOR BACKFILLING AND COMPACTION OF HDPE PIPE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM 2321.
3. DO NOT BACKFILL CATCH BASINS UNTIL FABRIC WRAP IS INSPECTED BY CITY.
4. TRASH GUARDS ARE REQUIRED FOR ALL FLARED-END SECTIONS LESS THAN 48" IN DIAMETER.
5. PROVIDE CLASS III RCP-W/ FILTER FABRIC AT ALL PIPE OUTLETS.
6. THE LAST THREE SECTION OF CONCRETE PIPE, INCLUDING APRON, FOR CONCRETE PIPES LESS THAN 48" IN DIAMETER.
7. STORM SEWER LENGTHS INCLUDE THE LAYING LENGTH OF THE FLARED-END SECTION. LAYING LENGTH OF FLARED-END SECTION TO BE DEDUCTED FROM PAYMENT LENGTH OF PIPE.
8. ARCH PIPE JOINTS MUST BE WRAPPED WITH FABRIC OR OTHER PROTECTION TO PREVENT SEDIMENT FROM ENTERING PIPE.
9. SEE SHEET C1.01 FOR STRUCTURE SCHEDULE.

**CURB & BITUMINOUS NOTES**

1. REMOVAL AND DISPOSAL OF EXISTING STREET MATERIALS AS REQUIRED FOR CONSTRUCTION IS CONSIDERED INCIDENTAL.
2. ALL MATCH POINTS AND PAVEMENT PATCHES TO BE SAW-CUT AT FULL DEPTH.
3. RESTORE DISTURBED STREET TO EXISTING OR BETTER SECTION.
4. BACKFILLING OF CURBS IS INCIDENTAL TO CURB INSTALLATION.



STORM SEWER STRUCTURE SCHEDULE					
#	SIZE	CASTING	#	SIZE	CASTING
102	48" DIA.	NEENAH R-3248-C	402	60" DIA.	NEENAH R-1733
103	48" DIA.	NEENAH R-3248-C	403	60" DIA.	NEENAH R-3248-C
104	2' x 3'	NEENAH R-3248-C	404	2' x 3'	NEENAH R-3248-C
202	60" DIA.	NEENAH R-3248-C	405	48" DIA.	NEENAH R-3248-C
203	48" DIA.	NEENAH R-3248-C	406	2' x 3'	NEENAH R-3248-C
204	2' x 3'	NEENAH R-3248-C	407	48" DIA.	NEENAH R-3248-C
205	48" DIA.	NEENAH R-3248-C	408	48" DIA.	NEENAH R-3248-C
206	MNDOT TYPE G	NEENAH R-4341	409	60" DIA.	NEENAH R-3248-C
207	48" DIA.	NEENAH R-4341	410	2' x 3'	NEENAH R-3248-C
208	48" DIA.	NEENAH R-4341	411	2' x 3'	NEENAH R-3248-C
209	48" DIA.	NEENAH R-3248-C	412	48" DIA.	NEENAH R-3248-C
210	2' x 3'	NEENAH R-3248-C	413	MNDOT TYPE G	NEENAH R-4341
			414	48" DIA.	NEENAH R-3248-C
302	48" DIA.	NEENAH R-3248-C	A-2	48" DIA.	NEENAH R-1733
303	48" DIA.	NEENAH R-3248-C	A-3	48" DIA.	NEENAH R-1733
304	MNDOT TYPE G	NEENAH R-4341			
312	48" DIA.	NEENAH R-3248-C			
313	2' x 3'	NEENAH R-3248-C			



8778 LAKE DRIVE  
SUITE 110  
LINO LAKES, MN 55014  
PHONE: (651) 361-8210  
FAX: (651) 361-8701

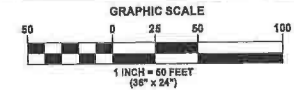
DRAWN BY: AG  
CHECK BY: CWP  
JOB NO: 23-1934  
DATE: 02/24/21

NO.	DATE	DESCRIPTION
1	04.12.21	RCC & CCWD COMMENTS
2	04.27.21	RCC & CCWD COMMENTS
3		
4		
5		
6		
7		

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
ADAM CRIVEL  
Date: 05.13.2021 License No. 43683

**HIDDEN FOREST EAST 3RD ADDITION  
CITY OF HAM LAKE, MINNESOTA  
UTILITY PLAN - STORM SEWER**

SHEET  
**C1.01**



6778 LAKE DRIVE  
SUITE 110  
LINO LAKES, MN 55014

PHONE: (651) 361-8210  
FAX: (651) 361-8701

DRAWN BY: AG  
CHECK BY: CWP

JOB NO: 20-1934  
DATE: 02/24/21

NO.	DATE	DESCRIPTION
1	04.12.21	RFC & CWD COMMENTS
2	04.27.21	RFC & CWD COMMENTS
3	05.13.21	AS BLD
4		
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7		
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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

ADAM GRANEL  
Date: 05.13.2021 License No. 49863

**HIDDEN FOREST EAST 3RD ADDITION**  
CITY OF HAM LAKE, MINNESOTA  
**UTILITY PLAN - STORM SEWER**

SHEET  
**C1.02**

**GENERAL NOTES**

1. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF EXISTING UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UTILITIES AS NECESSARY TO AVOID DAMAGE TO THESE UTILITIES.
2. CALL "811" FOR EXISTING UTILITIES LOCATIONS PRIOR TO ANY EXCAVATIONS.
3. THE CONTRACTOR SHALL FIELD VERIFY SIZE, ELEVATION, AND LOCATION OF EXISTING UTILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO THE START OF INSTALLATIONS. INSTALLATIONS SHALL CONFORM TO THE CITY STANDARD SPECIFICATIONS AND DETAIL PLATES.
4. STORAGE OF MATERIALS OR EQUIPMENT SHALL NOT BE ALLOWED ON PUBLIC STREETS OR WITHIN PUBLIC RIGHT-OF-WAY.
5. NOTIFY CITY AND COON CREEK WATERSHED DISTRICT (CCWD) A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
6. ALL ELECTRIC, TELEPHONE, AND GAS EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTIONS SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY.

**STORM SEWER NOTES**

1. FIELD VERIFY SIZE, ELEVATION, AND LOCATION OF EXISTING STORM SEWER AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY INSTALLATIONS.
2. STORM SEWER SHALL BE:
  - (a) REINFORCED CONCRETE PIPE (RCP) ANSI C78 WITH R-4 GASKETS
  - (b) HOPE PIPE SHALL MEET THE REQUIREMENTS OF AASHTO M284, TYPE 8 WITH WATERTIGHT CONNECTIONS. USE SAND/GRANULAR MATERIAL FOR BACKFILLING AND COMPACTION OF HOPE PIPE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM 2321.
3. DO NOT BACKFILL CATCH BASINS UNTIL FABRIC WRAP IS INSPECTED BY CITY.
4. TRASH GUARDS ARE REQUIRED FOR ALL FLARED-END SECTIONS LESS THAN 48" IN DIAMETER.
5. PROVIDE CLASS II RIP-RAP W/ FILTER FABRIC AT ALL PIPE OUTLETS.
6. THE LAST THREE SECTIONS OF CONCRETE PIPE, INCLUDING APRON, FOR CONCRETE PIPES LESS THAN 48" IN DIAMETER.
7. STORM SEWER LENGTHS INCLUDE THE LAYING LENGTH OF THE FLARED-END SECTION. LAYING LENGTH OF FLARED-END SECTION TO BE DEDUCTED FROM PAYMENT LENGTH OF PIPE.
8. ARCH PIPE JOINTS MUST BE WRAPPED WITH FABRIC OR OTHER PROTECTION TO PREVENT SEDIMENT FROM ENTERING PIPE.
9. SEE SHEET C1.01 FOR STRUCTURE SCHEDULE.

**CURB & BITUMINOUS NOTES**

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3. RESTORE DISTURBED STREET TO EXISTING OR BETTER SECTION.
4. BACKFILLING OF CURB IS INCIDENTAL TO CURB INSTALLATION.



**LEGEND**

- |  |                                  |  |                                       |
|--|----------------------------------|--|---------------------------------------|
|  | EXISTING STORM SEWER             |  | PROPOSED STORM SEWER PIPE             |
|  | EXISTING STORM MANHOLE           |  | PROPOSED STORM MANHOLE                |
|  | EXISTING CATCH BASIN             |  | PROPOSED CATCH BASIN                  |
|  | EXISTING FLARED-END SECTION      |  | PROPOSED FLARED-END SECTION           |
|  | EXISTING DELINEATED WETLAND EDGE |  | PROPOSED RAIN GUARDIAN                |
|  | WETLAND BUFFER                   |  | PROPOSED RIP-RAP                      |
|  | WETLAND BUFFER SIGNAGE           |  | PROPOSED SPOT ELEVATION (OUTLET LINE) |



**GENERAL NOTES**

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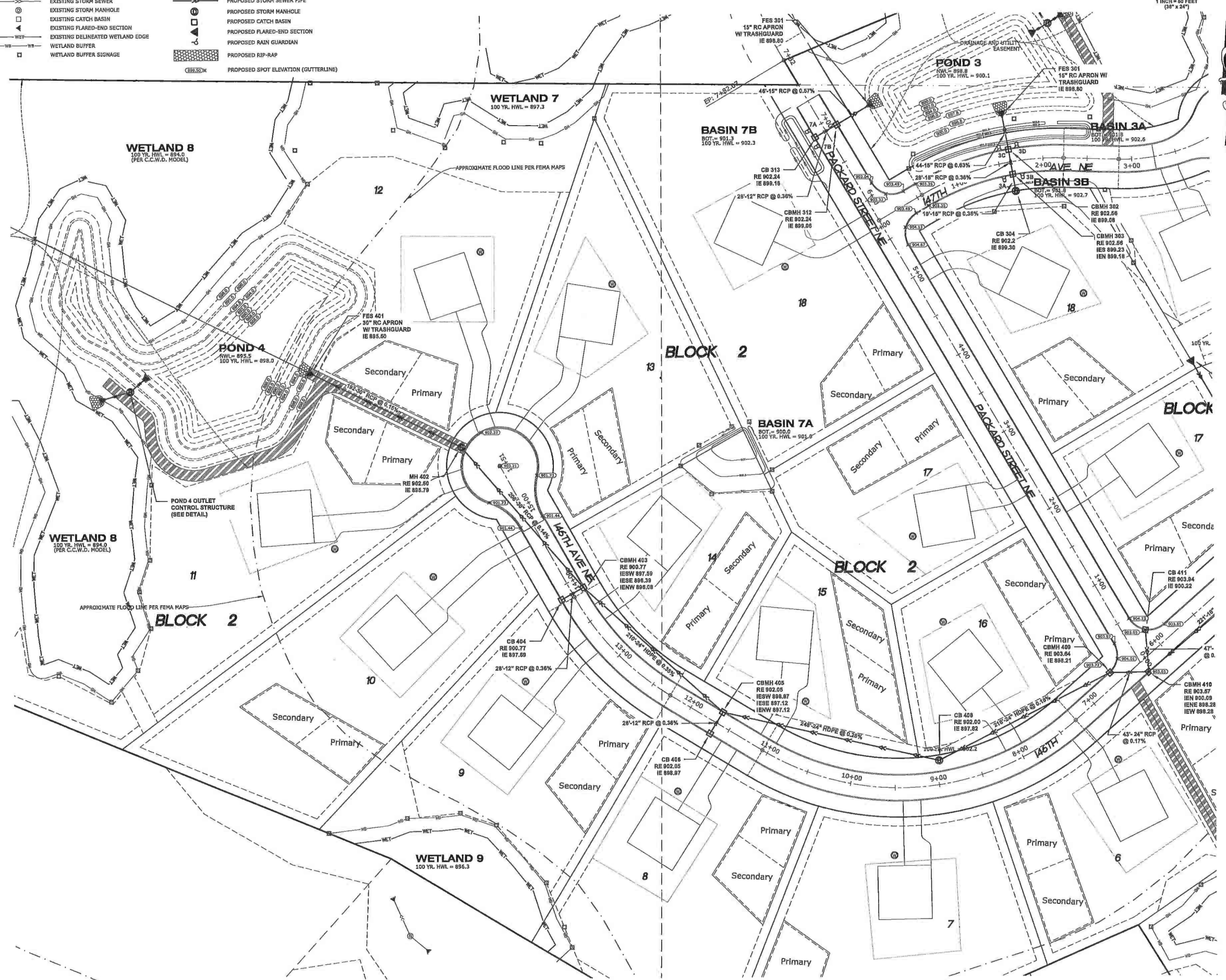
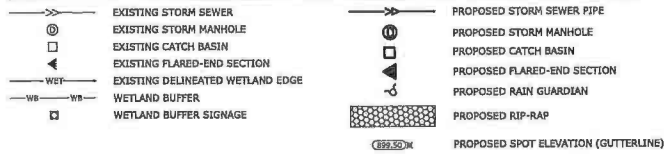
**STORM SEWER NOTES**

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4. BACKFILLING OF CURB IS INCIDENTAL TO CURB INSTALLATION.

**LEGEND**



5778 LAKE DRIVE  
SUITE 110  
LINO LAKES, MN 55044  
PHONE: (651) 351-8210  
FAX: (651) 351-8701

DRAWN BY: CWP  
CHECK BY: AG  
JOB NO: 20-1034  
DATE: 02/24/21

NO.	DATE	DESCRIPTION
1	04.12.21	RFC & CCWD COMMENTS
2	04.27.21	RFC & CCWD COMMENTS
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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
ADAM GRUNDEL  
Date: 05.13.2021 License No. 43983

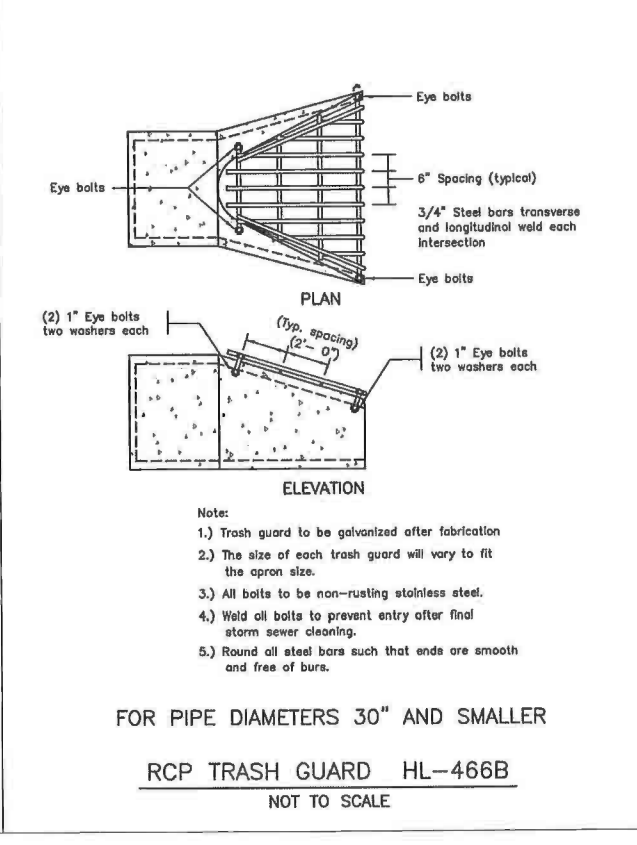
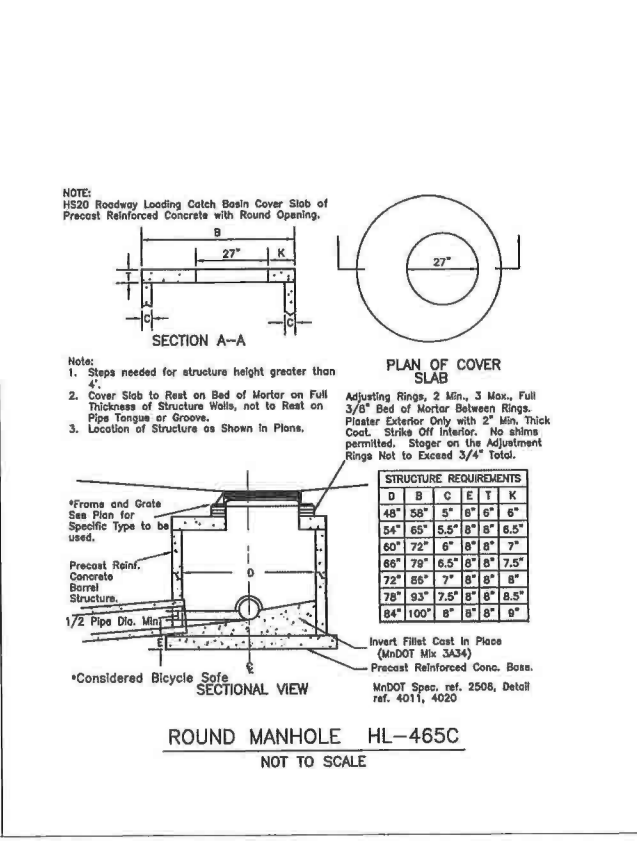
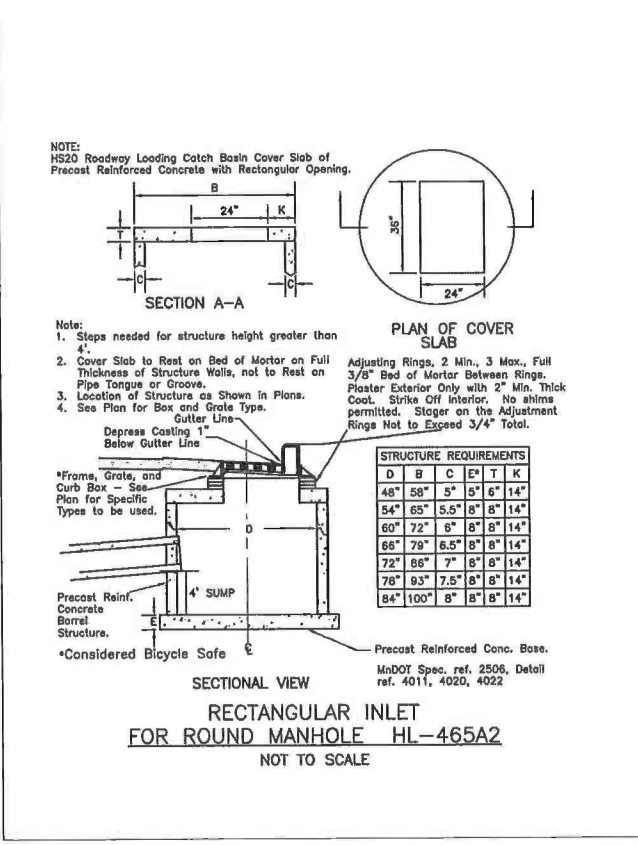
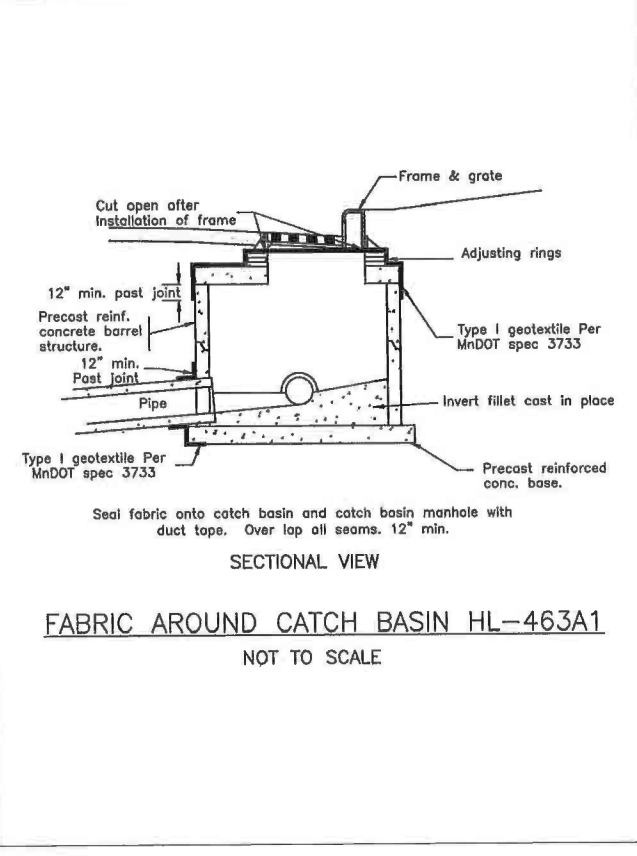
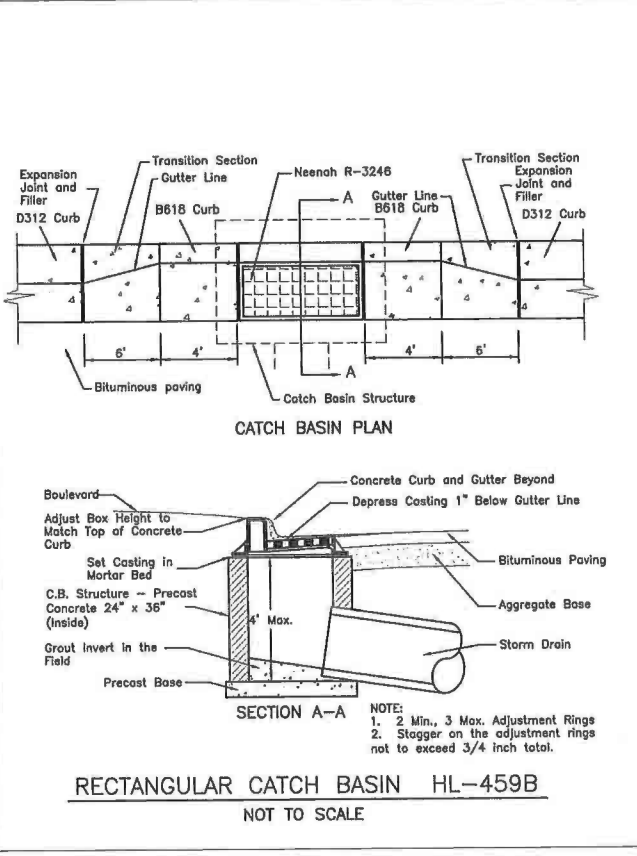
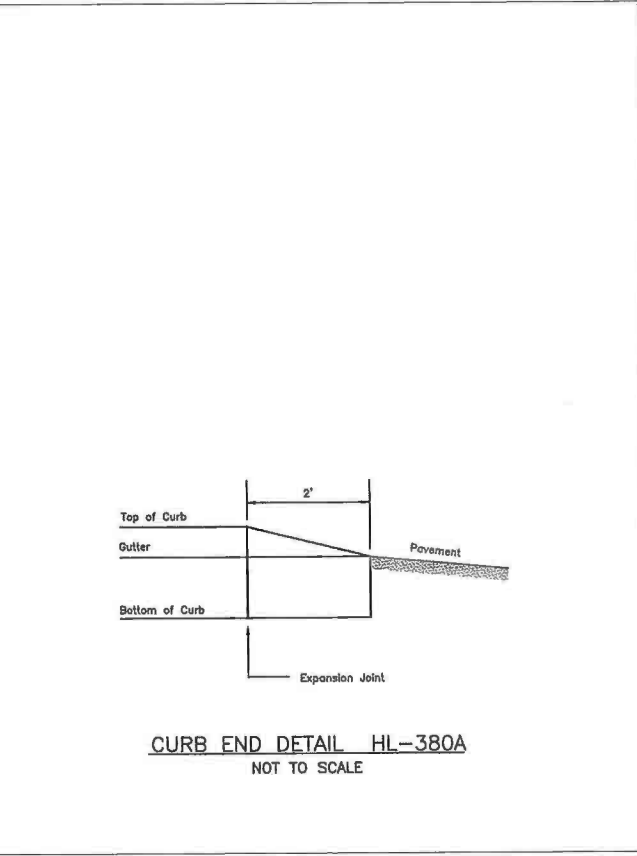
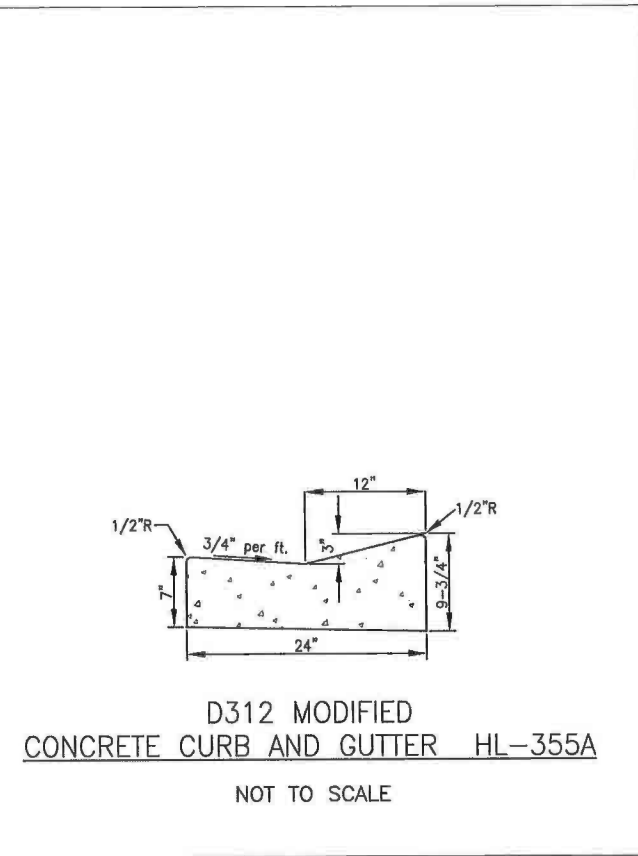
**HIDDEN FOREST EAST 3RD ADDITION  
CITY OF HAM LAKE, MINNESOTA  
UTILITY PLAN - STORM SEWER**

SHEET  
**C1.03**

NO.	DATE	DESCRIPTION
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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
 ADAM GRINDEL  
 License No. 43963  
 Date: 05/13/2021

**HIDDEN FOREST EAST 3RD ADDITION**  
 CITY OF HAM LAKE, MINNESOTA  
**DETAILS**  
 PREPARED FOR: JEFF STALLINGER



**TABLE OF QUANTITIES Riprap at RCP Outlets**

Dia. Pipe (in.)	L (ft.)	Class of Riprap		
		Class I D <sub>50</sub> = 6"	Class III D <sub>50</sub> = 9"	Class IV D <sub>50</sub> = 12"
12	8	3.0	4.4	5.9
15	8	3.2	4.8	6.4
18	10	4.3	6.4	8.5
21	10	4.7	7.1	9.4
24	12	6.2	9.2	12.3
27	12	6.6	9.9	13.2
30	14	8.2	12.3	16.4
36	16	10.6	15.8	21.1
42	18	12.5	18.7	24.9
48	20	14.8	22.2	29.6

**RIPRAP AT RCPA OUTLETS**

Span Pipe Arch (in.)	L (ft.)	Class of Riprap		
		Class I D <sub>50</sub> = 6"	Class III D <sub>50</sub> = 9"	Class IV D <sub>50</sub> = 12"
22	10	4.1	6.1	8.1
28	12	5.7	8.5	11.3
36	14	7.5	11.2	14.9
43	18	9.5	14.3	19.0
51	18	11.3	16.9	22.5
58	20	13.2	19.8	26.4

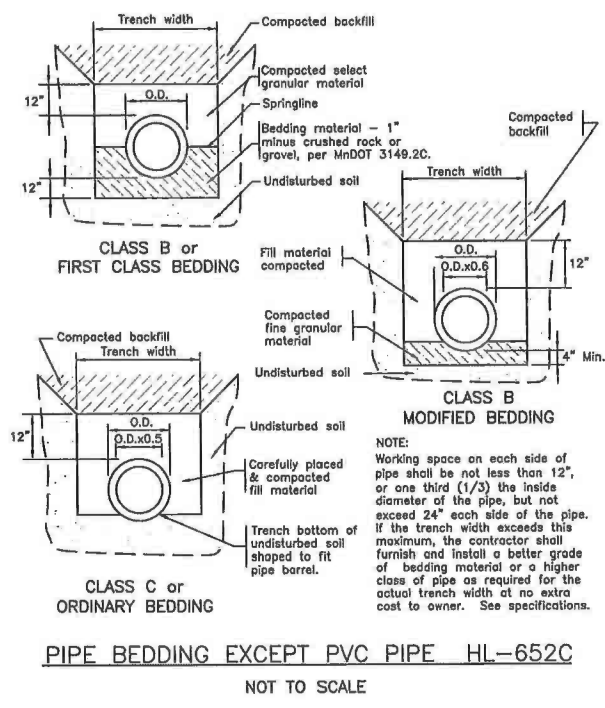


NO.	DATE	DESCRIPTION
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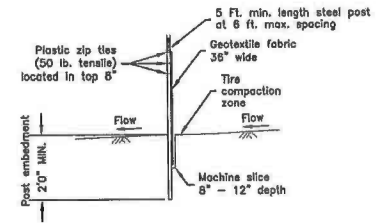
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
   

  
 ADAM ORSKEL
   
 License No. 43983
   
 Date: 05.13.2021

**HIDDEN FOREST EAST 3RD ADDITION**
  
 CITY OF HAM LAKE, MINNESOTA
   
**DETAILS**
  
 PREPARED FOR: JEFF STALLBERGER



**NOTE:**
  
 Working space on each side of pipe shall be not less than 12", or one third (1/3) the inside diameter of the pipe, but not exceed 24" each side of the pipe. If the trench width exceeds this maximum, the contractor shall furnish and install a better grade of bedding material or a higher class of pipe as required for the actual trench width at no extra cost to owner. See specifications.



**GENERAL SILT FENCE NOTES:**

Refer to MnDOT specs. 2573 & 3886
   
 Silt fence shall be installed along the contour (on a level horizontal plane)
   
 Curve the end of the silt fence up-gradient so that it contains the muddy water.
   
 Maximum contributing area shall be one acre.
   
 No single fencing unit should exceed 330 feet.

Follow slope grade/length guidelines:

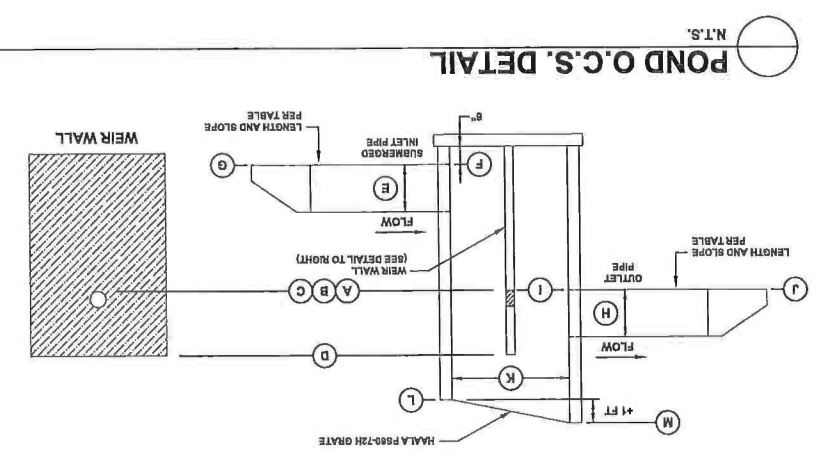
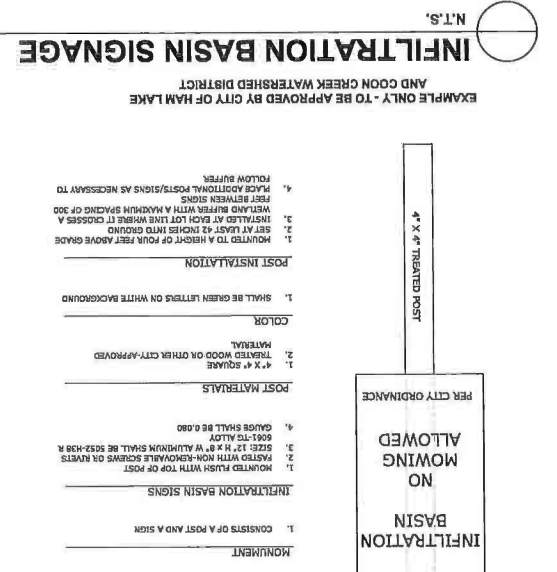
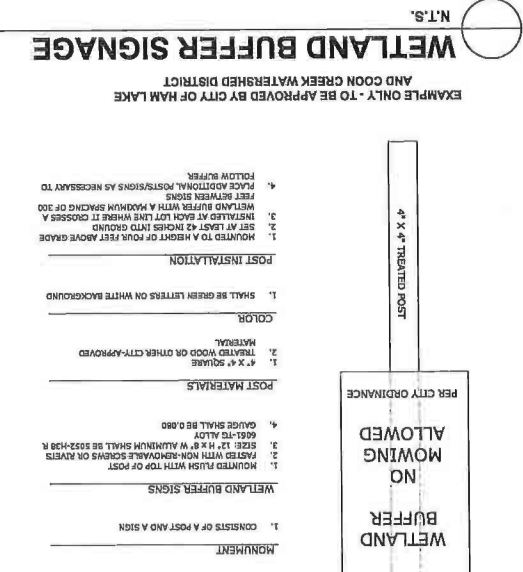
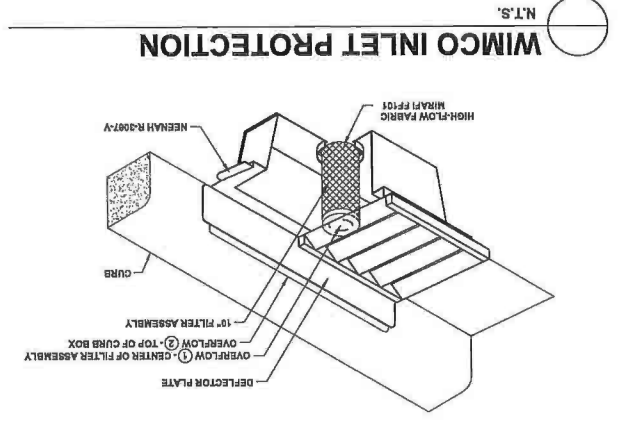
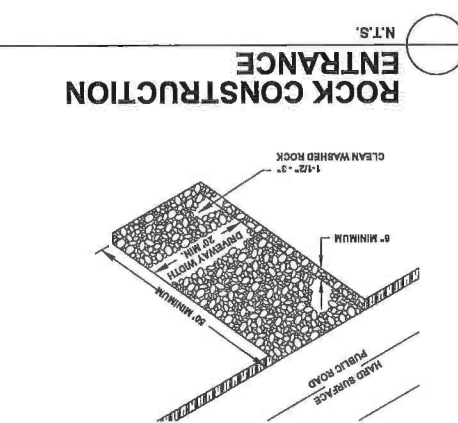
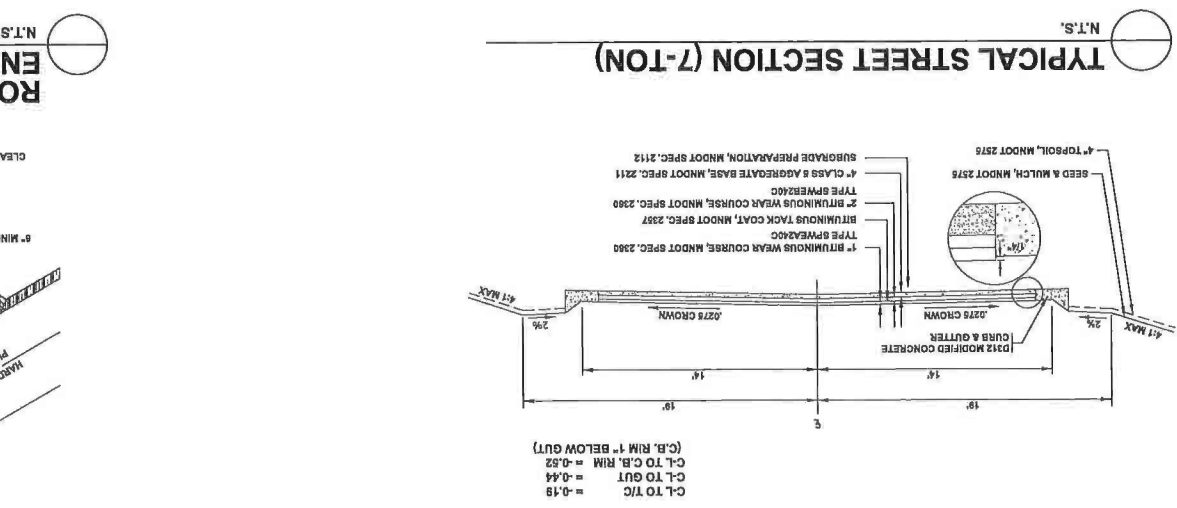
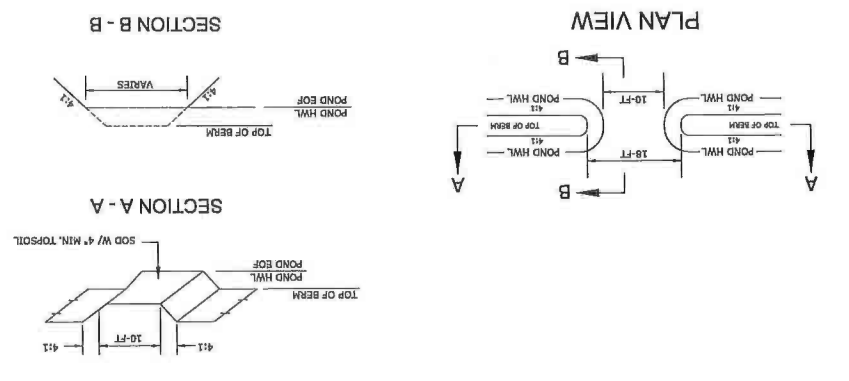
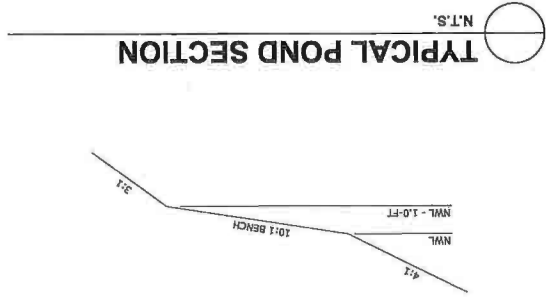
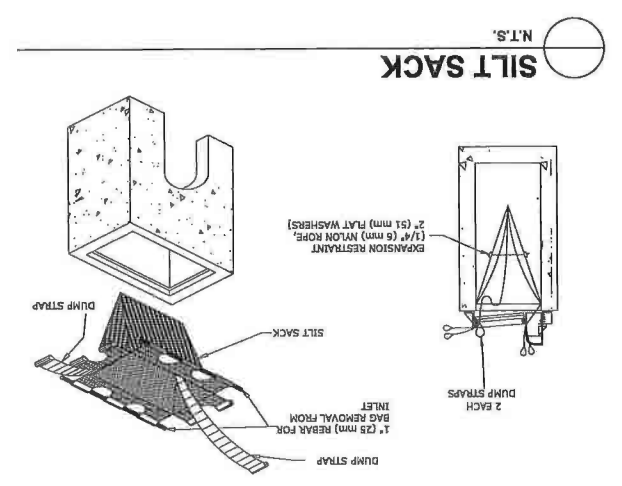
SLOPE GRADE	MAX. LENGTH
LESS THAN 2%	100 FT.
2 - 5%	75 FT.
6 - 10%	50 FT.
10 - 20%	25 FT.
GREATER THAN 20%	15 FT.

**SILT FENCE; MACHINE SLICED HL-760A**
  
 NOT TO SCALE

**HIDDEN FOREST EAST 3RD ADDITION**  
**CITY OF HAML LAKE, MINNESOTA**  
**DETAILS**  
 PREPARED FOR: JEFF STALLINGER

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
 JEFF STALLINGER  
 Date: 05.13.2021 License No. 43983

NO.	DATE	DESCRIPTION
1	04.12.21	IFC & COND COMMENTS
2		
3		
4		
5		
6		
7		
8		



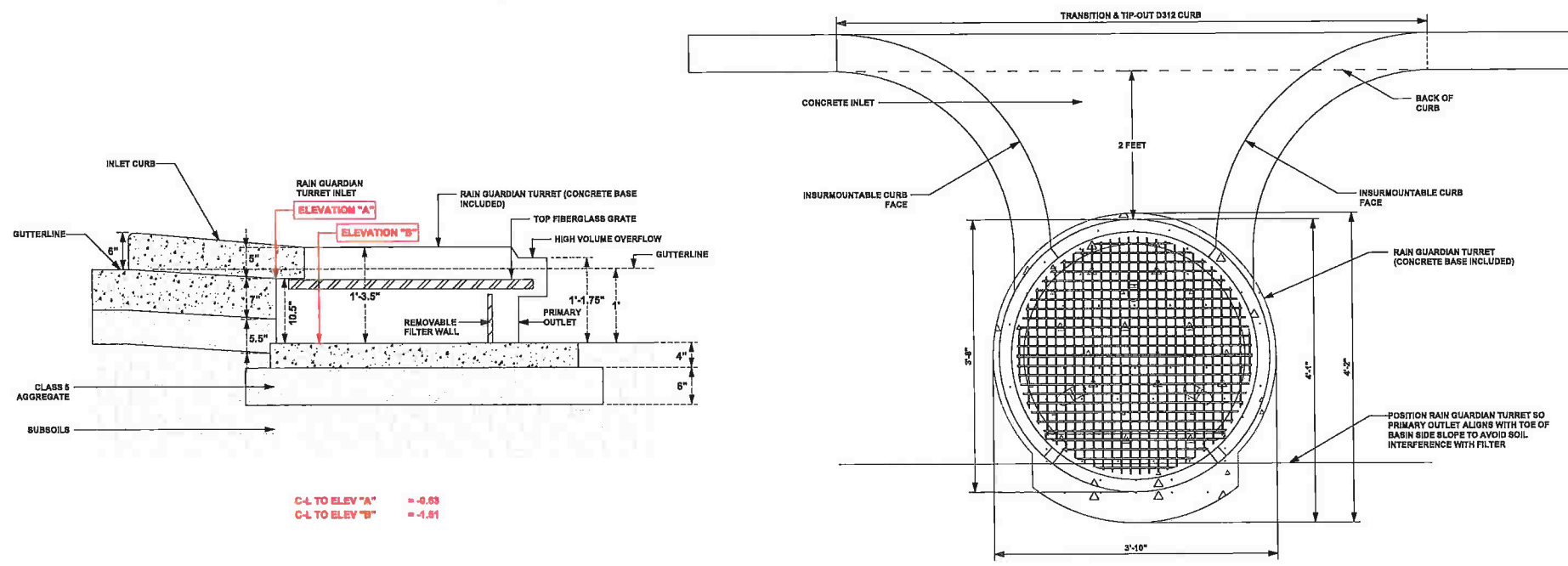
ITEM	QTY	UNIT	PRICE	TOTAL
1	1	CONCRETE	100.00	100.00
2	1	MANHOLE	50.00	50.00
3	1	WEIR WALL	150.00	150.00
4	1	GRATE	20.00	20.00
5	1	PIPE	10.00	10.00
6	1	VALVE	30.00	30.00
7	1	CONCRETE	100.00	100.00
8	1	MANHOLE	50.00	50.00
9	1	WEIR WALL	150.00	150.00
10	1	GRATE	20.00	20.00
11	1	PIPE	10.00	10.00
12	1	VALVE	30.00	30.00
13	1	CONCRETE	100.00	100.00
14	1	MANHOLE	50.00	50.00
15	1	WEIR WALL	150.00	150.00
16	1	GRATE	20.00	20.00
17	1	PIPE	10.00	10.00
18	1	VALVE	30.00	30.00
19	1	CONCRETE	100.00	100.00
20	1	MANHOLE	50.00	50.00
21	1	WEIR WALL	150.00	150.00
22	1	GRATE	20.00	20.00
23	1	PIPE	10.00	10.00
24	1	VALVE	30.00	30.00
25	1	CONCRETE	100.00	100.00
26	1	MANHOLE	50.00	50.00
27	1	WEIR WALL	150.00	150.00
28	1	GRATE	20.00	20.00
29	1	PIPE	10.00	10.00
30	1	VALVE	30.00	30.00



NO.	DATE	DESCRIPTION
1	04-12-21	REC & CWD COMMENTS
2	04-27-21	REC & CWD COMMENTS
3		
4		
5		
6		
7		
8		

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
   
 ADAM CRONKEL
   
 License No. 43983
   
 Date: 05/13/2021

**HIDDEN FOREST EAST 3RD ADDITION**
  
 CITY OF HAM LAKE, MINNESOTA
   
**DETAILS**
  
 PREPARED FOR: JEFF STALLBERGER

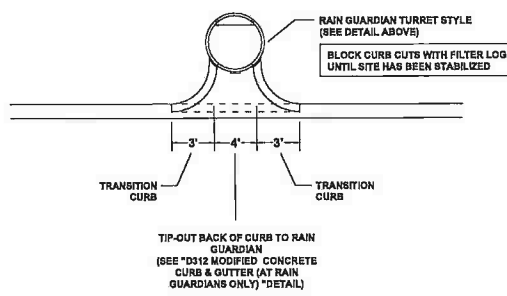


RAIN GUARDIAN #	STREET	C-L STA	C-L ELEV	RG RIM	RG BOT	BASIN BOTTOM
1A	STUTZ	503	904.71	904.08	903.21	903.0
1B	STUTZ	487	904.71	904.08	903.21	903.0
1C	STUTZ	503	904.71	904.08	903.21	903.0
1D	STUTZ	477	904.74	904.11	903.24	903.0
2A	STUTZ	1594	903.39	902.76	901.89	901.5
2B	STUTZ	1610	903.39	902.76	901.89	901.5
3A	147TH	152	903.09	902.46	901.59	901.8
3B	147TH	175	903.10	902.47	901.60	901.8
3C	147TH	154	903.08	902.45	901.58	901.8
3D	147TH	173	903.10	902.47	901.60	901.8
4A	146TH	395	905.34	904.71	903.84	903.0
7A	PACK	700	902.77	902.14	901.27	901.3
7B	PACK	680	902.77	902.14	901.27	901.3

C-L STA = CENTERLINE STATION AT RAIN GUARDIAN
   
 C-L ELEV = CENTERLINE ELEVATION AT RAIN GUARDIAN
   
 RG RIM = ELEVATION 'A'
   
 RG BOTTOM = ELEVATION 'B'
   
 BASIN BOTTOM = BOTTOM OF INFILTRATION BASIN

C-L TO ELEV "A" = -0.63
   
 C-L TO ELEV "B" = -1.61

**RAIN GARDEN - TURRET STYLE**
  
 N.T.S.



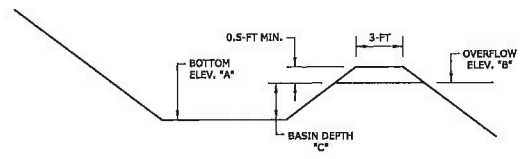
**CURB CUTS @ RAIN GUARDIAN**
  
 N.T.S.

POST-CONSTRUCTION INFILTRATION TESTING IS REQUIRED; PERFORM TEST BY FILLING BASIN WITH SIX (6) INCHES OF WATER AND MONITORING DRAW-DOWN TIMES
   
 CONTACT COON CREEK WATERSHED DISTRICT AT LEAST 24 HOUR PRIOR TO WITNESS TEST

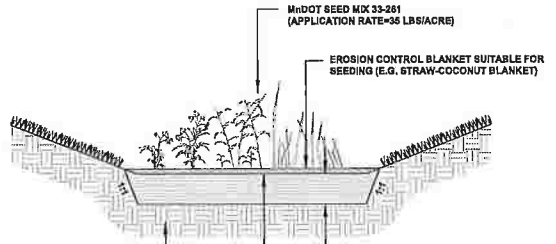
DO NOT EXCAVATE BASIN TO FINAL GRADE, OR WITHIN THREE (3) FEET OF FINAL GRADE, UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND FULLY STABILIZED UNLESS THEY PROVIDE RIGOROUS EROSION PREVENTION AND SEDIMENT CONTROLS (E.G., DIVERSION BERMS) TO KEEP SEDIMENT AND RUNOFF COMPLETELY AWAY FROM THE INFILTRATION AREA.

- NOTES
- CONTRACTOR TO MARK-OFF INFILTRATION BASIN AREA WITH BILT FENCE OR OTHER VISIBLE MARKER.
  - USE LOW-IMPACT, EARTH MOVING EQUIPMENT SUCH AS WIDE TRACK OR MARSH TRACK EQUIPMENT, OR OTHER LIGHT-EQUIPMENT WITH TURF-TYPE TIRES, IN INFILTRATION BASIN AREA.
  - NO MINING OR OVER-EXCAVATION IN INFILTRATION BASIN.
  - NO BURYING OF MATERIALS IN INFILTRATION BASIN.
  - FINAL GRADE ONLY UPON STABILIZATION OF UPSTREAM AREAS.
  - BASIN BOTTOM TO BE GRADED FLAT.
  - ALLEVIATE ANY COMPACTED SOILS PRIOR TO SEEDING.
  - INFILTRATION BASIN TO REMAIN UNLINED.
  - PROTECT INFILTRATION BASIN FROM RUN-OFF DURING CONSTRUCTION ACTIVITIES. EXCAVATE TO FINAL GRADE ONLY UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREAS.

**INFILTRATION BASIN OVERFLOW DETAIL**



	INFILTRATION BASIN NUMBER							
	1A	1B	2A	3A	3B	4D	7A	7B
BASIN BOTTOM ELEV. "A"	903.00	903.00	901.50	901.80	901.80	903.00	900.00	901.30
OUTLET ELEV. "B"	903.75	903.60	902.30	902.30	902.20	903.40	900.50	902.00
DEPTH (FT) "C"	0.75	0.60	0.80	0.50	0.40	0.40	0.50	0.70

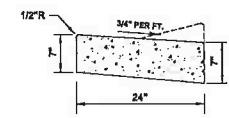


\*\* ALLEVIATE ANY COMPACTED SOILS (BY USING A PRIMARY TILLING OPERATION SUCH AS A CHISEL PLOW, RIPPER OR SUBSOILER) TO A DEPTH NECESSARY TO REMOVE COMPACTION

- REMOVE ANY EXISTING TOPSOIL OR FILL DEEMED UNSUITABLE FOR INFILTRATION (GEOTECHNICAL ENGINEER TO REVIEW ON-SITE SOILS)
- IN AREAS OF FILL, PLACE SALVAGED ON-SITE SANDY SOILS SUITABLE FOR INFILTRATION WITH <math>49\%</math> FINES (AS DETERMINED BY GEOTECHNICAL ENGINEER)

NOTE: MIX IN SALVAGED ON-SITE TOPSOIL INTO TOP 6" (MAX.) OF INFILTRATION AREA

**INFILTRATION BASINS**
  
 N.T.S.



**D312 MODIFIED CONCRETE CURB & GUTTER (AT RAIN GUARDIANS ONLY)**
  
 N.T.S.

**4.1 TERMINATION OF COVERAGE. [MINN. R. 7090]**  
**4.2 PERMITTEES MUST SUBMIT A NOT WITHIN 30 DAYS AFTER ALL TERMINATION CONDITIONS LISTED IN SECTION 13 ARE COMPLETE. [MINN. R. 7090]**  
**4.3 PERMITTEES MUST SUBMIT A NOT WITHIN 30 DAYS AFTER SELLING OR OTHERWISE LEGALLY TRANSFERRING THE ENTIRE SITE, INCLUDING PERMIT RESPONSIBILITY FOR ROADS (E.G., STREET SWEEPING) AND STORMWATER INFRASTRUCTURE FINAL CLEAN OUT, OR TRANSFERRING PORTIONS OF A SITE TO ANOTHER PARTY. THE PERMITTEES' COVERAGE UNDER THIS PERMIT TERMINATES AT MIDNIGHT THE SUBMISSION DATE OF THE NOT. [MINN. R. 7090]**  
**4.4 PERMITTEES MAY TERMINATE PERMIT COVERAGE PRIOR TO COMPLETION OF ALL CONSTRUCTION ACTIVITY IF THEY MEET ALL OF THE FOLLOWING CONDITIONS:**  
 A. CONSTRUCTION ACTIVITY HAS CEASED FOR AT LEAST 90 DAYS; AND  
 B. AT LEAST 90 PERCENT (BY AREA) OF ALL ORIGINALLY PROPOSED CONSTRUCTION ACTIVITY HAS BEEN COMPLETED AND PERMANENT COVER HAS BEEN ESTABLISHED ON THOSE AREAS; AND  
 C. ON AREAS WHERE CONSTRUCTION ACTIVITY IS NOT COMPLETE, PERMANENT COVER HAS BEEN ESTABLISHED; AND  
 D. THE SITE COMPLES WITH ITEM 13.3 THROUGH 13.7.  
**4.5 PERMITTEES MAY TERMINATE DEVELOPMENT OF THE SITE, ANY SUBSEQUENT DEVELOPMENT ON THE REMAINING PORTIONS OF THE SITE WILL REQUIRE PERMIT COVERAGE IF THE SUBSEQUENT DEVELOPMENT ITSELF OR AS PART OF THE REMAINING COMMON PLAN OF DEVELOPMENT OR SALE WILL RESULT IN LAND DISTURBING ACTIVITIES OF ONE (1) OR MORE ACRES IN SIZE. [MINN. R. 7090]**  
**4.6 PERMITTEES MAY TERMINATE COVERAGE UPON MPCA APPROVAL AFTER SUBMITTING INFORMATION DOCUMENTING THE OWNER CANCELED THE PROJECT. [MINN. R. 7090]**

**6.1 SWPPP AMENDMENTS. [MINN. R. 7090]**  
**6.2 ONE OF THE INDIVIDUALS DESCRIBED IN ITEM 21.2.A OR ITEM 21.2.B OR ANOTHER QUALIFIED INDIVIDUAL MUST COMPLETE ALL SWPPP CHANGES. CHANGES INVOLVING THE USE OF A LESS STRINGENT BMP MUST INCLUDE A JUSTIFICATION DESCRIBING HOW THE CHARACTERISTICS OF THE SITE, [MINN. R. 7090]**  
**6.3 PERMITTEES MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMPS AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, MAINTENANCE, WEATHER OR SEASONAL CONDITIONS HAVING A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS. [MINN. R. 7090]**  
**6.4 PERMITTEES MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMPS AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS WHENEVER INSPECTIONS OR INVESTIGATIONS BY THE SITE OWNER OR OPERATOR, USEPA OR MPCA OFFICIALS INDICATE THE SWPPP IS NOT EFFECTIVE IN ELIMINATING OR SIGNIFICANTLY REDUCING THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR THE DISCHARGES ARE CAUSING WATER QUALITY STANDARD EXCEEDANCES (E.G., NUISANCE CONDITIONS AS DEFINED IN MINN. R. 7050.021, SUBP. 2) OR THE SWPPP IS NOT CONSISTENT WITH THE OBJECTIVES OF A USEPA APPROVED TMDL. [MINN. R. 7050.021]**

**7.1 BMP SELECTION AND INSTALLATION. [MINN. R. 7090]**  
**7.2 PERMITTEES MUST SELECT, INSTALL, AND MAINTAIN THE BMPS IDENTIFIED IN THE SWPPP AND IN THIS PERMIT IN AN APPROPRIATE AND FUNCTIONAL MANNER AND IN ACCORDANCE WITH RELEVANT MANUFACTURER SPECIFICATIONS AND ACCEPTED ENGINEERING PRACTICES. [MINN. R. 7090]**

**8.1 EROSION PREVENTION PRACTICES. [MINN. R. 7090]**  
**8.2 BEFORE WORK BEGINS, PERMITTEES MUST DELINEATE THE LOCATION OF AREAS NOT TO BE DISTURBED. [MINN. R. 7090]**  
**8.3 PERMITTEES MUST MINIMIZE THE NEED FOR DISTURBANCE OF PORTIONS OF THE PROJECT WITH STEEP SLOPES. WHEN STEEP SLOPES MUST BE DISTURBED, PERMITTEES MUST USE TECHNIQUES SUCH AS PHASING AND STABILIZATION PRACTICES DESIGNED FOR STEEP SLOPES (E.G., SLOPE DRAINAGE AND TERRACING). [MINN. R. 7090]**  
**8.4 PERMITTEES MUST STABILIZE ALL EXPOSED SOIL AREAS, INCLUDING STOCKPILES. STABILIZATION MUST BE INITIATED IMMEDIATELY TO LIMIT SOIL EROSION WHEN CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE DURING A CALENDAR DAY. STABILIZATION MUST BE COMPLETED WITHIN SEVEN (7) CALENDAR DAYS OF COMPLETION NO LATER THAN 7 CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY HAS CEASED. STABILIZATION IS NOT REQUIRED ON CONSTRUCTED BASE COMPONENTS OF ROADS, PARKING LOTS AND SIMILAR SURFACES. STABILIZATION IS NOT REQUIRED ON TEMPORARY STOCKPILES WITHOUT SIGNIFICANT SILT, CLAY OR ORGANIC COMPONENTS (E.G., CLEAN AGGREGATE STOCKPILES, DEMOLITION CONCRETE STOCKPILES, SAND STOCKPILES) BUT PERMITTEES MUST PROVIDE SEDIMENT CONTROLS AT THE BASE OF THE STOCKPILE. [MINN. R. 7090]**  
**8.5 FOR PUBLIC WORKS THAT THE MINNESOTA DNR HAS PROMULGATED "WORK IN WATER RESTRICTIONS" DURING SPECIFIED FISH SPAWNING TIME FRAMES, PERMITTEES MUST COMPLETE STABILIZATION OF ALL EXPOSED SOIL AREAS WITHIN 20 FEET OF THE WATER'S EDGE, AND THAT DRAIN TO THESE WATERS, WITHIN 24 HOURS DURING THE RESTRICTION PERIOD. [MINN. R. 7090]**  
**8.6 PERMITTEES MUST STABILIZE THE NORMAL WETTED PERIMETER OF THE LAST 200 LINEAR FEET OF TEMPORARY OR PERMANENT DRAINAGE DITCHES OR SWALES THAT DRAIN WATER FROM THE SITE WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE. PERMITTEES MUST COMPLETE STABILIZATION OF REMAINING PORTIONS OF TEMPORARY OR PERMANENT DITCHES OR SWALES WITHIN 7 CALENDAR DAYS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE AND CONSTRUCTION IN THAT PORTION OF THE DITCH TEMPORARILY OR PERMANENTLY CEASES. [MINN. R. 7090]**  
**8.7 TEMPORARY OR PERMANENT DITCHES OR SWALES BEING USED AS A SEDIMENT CONTAINMENT SYSTEM DURING CONSTRUCTION (WITH PROPERLY DESIGNED ROCK-DITCH CHECKS, BIO RILLS, SILT DIKES, ETC.) DO NOT NEED TO BE STABILIZED. PERMITTEES MUST STABILIZE THESE AREAS WITHIN 24 HOURS AFTER THEIR USE AS A SEDIMENT CONTAINMENT SYSTEM CEASES. [MINN. R. 7090]**  
**8.8 PERMITTEES MUST NOT USE MULCH, HYDROMULCH, TACKIFIER, POLYACRYLAMIDE OR SIMILAR EROSION PREVENTION PRACTICES WITHIN ANY PORTION OF THE NORMAL WETTED PERIMETER OF A TEMPORARY OR PERMANENT DRAINAGE DITCH OR SWALE SECTION WITH A CONTINUOUS SLOPE OF GREATER THAN 2 PERCENT. [MINN. R. 7090]**  
**8.9 PERMITTEES MUST PROVIDE TEMPORARY OR PERMANENT ENERGY DISSIPATION AT ALL PIPE OUTLETS WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER OR PERMANENT STORMWATER TREATMENT SYSTEM. [MINN. R. 7090]**  
**8.10 PERMITTEES MUST NOT DISTURB MORE LAND (I.E., PHASING) THAN CAN BE EFFECTIVELY INSPECTED AND MAINTAINED IN ACCORDANCE WITH SECTION 11. [MINN. R. 7090]**

**9.1 SEDIMENT CONTROL PRACTICES. [MINN. R. 7090]**  
**9.2 PERMITTEES MUST ESTABLISH SEDIMENT CONTROL BMPS ON ALL DOWNGRADIENT PERIMETERS OF THE SITE AND DOWNGRADIENT AREAS OF THE SITE THAT DRAIN TO ANY SURFACE WATER, INCLUDING CURBS AND GUTTER SYSTEMS. PERMITTEES MUST LOCATE SEDIMENT CONTROL PRACTICES UPGRADIENT OF ANY BUFFER ZONES. PERMITTEES MUST INSTALL SEDIMENT CONTROL PRACTICES BEFORE ANY UPGRADIENT LAND-DISTURBING ACTIVITIES BEGIN AND MUST KEEP THE SEDIMENT CONTROL PRACTICES IN PLACE UNTIL THEY ESTABLISH PERMANENT COVER. [MINN. R. 7090]**  
**9.3 IF DOWNGRADIENT SEDIMENT CONTROLS ARE OVERLOADED, BASED ON FREQUENT FAILURE OR EXCESSIVE MAINTENANCE REQUIREMENTS, PERMITTEES MUST INSTALL ADDITIONAL UPGRADIENT SEDIMENT CONTROL PRACTICES OR DOWNGRADIENT BMPS TO ELIMINATE THE OVERLOADING AND AMEND THE SWPPP TO IDENTIFY THESE ADDITIONAL PRACTICES AS REQUIRED IN ITEM 8.3. [MINN. R. 7090]**  
**9.4 TEMPORARY OR PERMANENT DRAINAGE DITCHES AND SEDIMENT BASINS DESIGNED AS PART OF A SEDIMENT CONTAINMENT SYSTEM (E.G., DITCHES WITH ROCK-CHECK DAMS) REQUIRE SEDIMENT CONTROL PRACTICES ONLY AS APPROPRIATE FOR THE CONSTRUCTION. [MINN. R. 7090]**  
**9.5 A FLOATING SILT CURTAIN PLACED IN THE WATER IS NOT A SEDIMENT CONTROL BMP TO SATISFY ITEM 9.2 EXCEPT WHEN WORKING ON A SHORELINE OR BELOW THE WATERLINE. IMMEDIATELY AFTER THE SHORT TERM CONSTRUCTION ACTIVITY (E.G., INSTALLATION OF RIP RAP ALONG THE SHORELINE) IN THAT AREA IS COMPLETE, PERMITTEES MUST INSTALL AN UP AND PERIMETER CONTROL PRACTICE IF EXPOSED SOILS SILT DRAIN TO A SURFACE WATER. [MINN. R. 7090]**  
**9.6 PERMITTEES MUST RE-INSTALL ALL SEDIMENT CONTROL PRACTICES ADJUSTED OR REMOVED TO ACCOMMODATE SHORT-TERM ACTIVITIES SUCH AS CLEARING OR GRUBBING, OR PASSAGE OF VEHICLES, IMMEDIATELY AFTER THE SHORT-TERM ACTIVITY IS COMPLETED. PERMITTEES MUST RE-INSTALL SEDIMENT CONTROL PRACTICES BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE SHORT-TERM ACTIVITY IS NOT COMPLETE. [MINN. R. 7090]**  
**9.7 PERMITTEES MUST PROTECT ALL STORM DRAIN INLETS USING APPROPRIATE BMPS DURING CONSTRUCTION UNTIL THEY ESTABLISH PERMANENT COVER ON ALL AREAS WITH POTENTIAL FOR DISCHARGING TO THE INLET. [MINN. R. 7090]**  
**9.8 PERMITTEES MAY REMOVE IDENTIFIED PROTECTION FOR A PARTICULAR INLET IF A SPECIFIC SAFETY CONCERN (E.G. STREET FLOODING/FREEZING) IS IDENTIFIED BY THE PERMITTEES OR THE JURISDICTIONAL AUTHORITY (E.G. CITY/COUNTY/TOWNSHIP/MINNESOTA DEPARTMENT OF TRANSPORTATION ENGINEER). PERMITTEES MUST DOCUMENT THE NEED FOR REMOVAL IN THE SWPPP. [MINN. R. 7090]**  
**9.9 PERMITTEES MUST PROVIDE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS AT THE BASE OF STOCKPILES ON THE DOWNGRADIENT PERIMETER. [MINN. R. 7090]**  
**9.10 PERMITTEES MUST LOCATE STOCKPILES OUTSIDE OF NATURAL BUFFERS OR SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURBS AND GUTTER SYSTEMS UNLESS THERE IS A BYPASS IN PLACE FOR THE STORMWATER. [MINN. R. 7090]**  
**9.11 PERMITTEES MUST INSTALL A VEHICLE TRACKING BMP TO MINIMIZE THE TRACK OUT OF SEDIMENT FROM THE CONSTRUCTION SITE OR ONTO PAVED ROADS WITHIN THE SITE. [MINN. R. 7090]**  
**9.12 PERMITTEES MUST USE STREET SWEEPING IF VEHICLE TRACKING BMPS ARE NOT ADEQUATE TO PREVENT SEDIMENT TRACKING ONTO THE STREET. [MINN. R. 7090]**  
**9.13 PERMITTEES MUST INSTALL TEMPORARY SEDIMENT BASINS AS REQUIRED IN SECTION 14. [MINN. R. 7090]**  
**9.14 IN ANY AREAS OF THE SITE WHERE FINAL VEGETATIVE STABILIZATION WILL OCCUR, PERMITTEES MUST RESTRICT VEHICLE AND EQUIPMENT USE TO MINIMIZE SOIL COMPACTION. [MINN. R. 7090]**  
**9.15 PERMITTEES MUST PRESERVE TOPSOIL ON THE SITE, UNLESS INFEASIBLE. [MINN. R. 7090]**  
**9.16 PERMITTEES MUST DIRECT DISCHARGES FROM BMPS TO VEGETATED AREAS UNLESS INFEASIBLE. [MINN. R. 7090]**  
**9.17 PERMITTEES MUST PRESERVE A 50 FOOT NATURAL BUFFER OR, IF A BUFFER IS INFEASIBLE ON THE SITE, PROVIDE REDUNDANT DOUBLE PERIMETER SEDIMENT CONTROLS WHEN A SURFACE WATER IS LOCATED WITHIN 50 FEET OF THE PROJECT'S EARTH DISTURBANCES AND STORMWATER FLOWS TO THE SURFACE WATER. PERMITTEES MUST INSTALL PERIMETER SEDIMENT CONTROLS AT LEAST 5 FEET APART UNLESS LIMITED BY LACK OF AVAILABLE SPACE. NATURAL BUFFERS ARE NOT REQUIRED ADJACENT TO ROAD DITCHES, UTILITY DITCHES, COUL DITCHES, STORMWATER CONVEYANCE CHANNELS, STORM DRAIN INLETS, AND SEDIMENT BASINS. IF PRESERVING THE BUFFER IS INFEASIBLE, PERMITTEES MUST DOCUMENT THE REASONS IN THE SWPPP. SHEET PILING IS A REDUNDANT PERIMETER CONTROL IF INSTALLED IN A MANNER THAT RETAINS ALL STORMWATER. [MINN. R. 7090]**  
**9.18 PERMITTEES MUST USE POLYMERS, LOCALATORS, OR OTHER SEDIMENTATION TREATMENT CHEMICALS IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICES, DOSING SPECIFICATIONS AND SEDIMENT REMOVAL DESIGN SPECIFICATIONS PROVIDED BY THE MANUFACTURER OR SUPPLIER. THE PERMITTEES MUST USE CONVENTIONAL EROSION AND SEDIMENT CONTROLS PRIOR TO CHEMICAL ADDITION AND MUST DIRECT TREATED STORMWATER TO A SEDIMENT CONTROL SYSTEM FOR FILTRATION OR SETTLEMENT OF THE FLOC PRIOR TO DISCHARGE. [MINN. R. 7090]**

**10.1 DEWATERING AND BASIN DRAINING. [MINN. R. 7090]**  
**10.2 PERMITTEES MUST DISCHARGE TURBID OR SEDIMENT-LADEN WATERS RELATED TO DEWATERING OR BASIN DRAINING (E.G., PUMPED DISCHARGES, TRENCHDITCH CUTS FOR DRAINAGE) TO A TEMPORARY OR PERMANENT SEDIMENT BASIN ON THE PROJECT SITE UNLESS INFEASIBLE. PERMITTEES MAY DEWATER TO SURFACE WATERS IF THEY VISUALLY CHECK TO ENSURE ADEQUATE WATER QUALITY HAS BEEN MAINTAINED AND THE DEWATERING DOES NOT CAUSE EROSION OR ADVERSE AFFECT THE ACREAGE OF DISTURBED SOIL TO LESS THAN TEN (10) ACRES DRAINING TO A COMMON LOCATION. [MINN. R. 7090]**  
**10.3 THE TEMPORARY BASIN MUST PROVIDE LIVE STORAGE FOR A CALCULATED VOLUME OF RUNOFF FROM A TWO (2)-YEAR, 24-HOUR STORM FROM EACH ACRE DRAINED TO THE BASIN OR 1,800 CUBIC FEET OF LIVE STORAGE PER ACRE DRAINED, WHICHEVER IS GREATER. [MINN. R. 7090]**  
**10.4 WHERE PERMITTEES HAVE NOT CALCULATED THE TWO (2)-YEAR, 24-HOUR STORM RUNOFF AMOUNT, THE TEMPORARY BASIN MUST PROVIDE 3,000 CUBIC FEET OF LIVE STORAGE PER ACRE OF THE BASIN'S DRAINAGE AREA. [MINN. R. 7090]**  
**10.5 PERMITTEES MUST DESIGN BASIN OUTLETS TO PREVENT SHORT-CIRCUITING AND THE DISCHARGE OF FLOATING DEBRIS. [MINN. R. 7090]**  
**10.6 IF PERMITTEES MUST DISCHARGE WATERS WITH BACKWASH WATER, THEY MUST HAIL, THE BACKWASH WATER AWAY FOR DISPOSAL, RETURN THE BACKWASH WATER TO THE BEGINNING OF THE TREATMENT PROCESS, OR INCORPORATE THE BACKWASH WATER INTO THE SITE IN A MANNER THAT DOES NOT CAUSE EROSION. [MINN. R. 7090]**

**11.1 INSPECTIONS AND MAINTENANCE. [MINN. R. 7090]**  
**11.2 PERMITTEES MUST ENSURE A TRAINED PERSON, AS IDENTIFIED IN ITEM 21.2.B, WILL INSPECT THE ENTIRE CONSTRUCTION SITE AT LEAST ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 1/2 INCH IN 24 HOURS. [MINN. R. 7090]**  
**11.3 PERMITTEES MUST INSPECT AND MAINTAIN ALL PERMANENT STORMWATER TREATMENT BMPS. [MINN. R. 7090]**  
**11.4 PERMITTEES MUST INSPECT ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPS AND POLLUTION PREVENTION MANAGEMENT MEASURES TO ENSURE INTEGRITY AND EFFECTIVENESS. PERMITTEES MUST REPAIR, REPLACE OR SUPPLEMENT ALL NONFUNCTIONAL BMPS WITH FUNCTIONAL BMPS BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY UNLESS ANOTHER TIME FRAME IS SPECIFIED IN ITEM 11.6 OR 11.A. PERMITTEES MAY TAKE ADDITIONAL TIME IF FIELD CONDITIONS PREVENT ACCESS TO THE AREA. [MINN. R. 7090]**  
**11.5 DURING EACH INSPECTION, PERMITTEES MUST INSPECT SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS, FOR EROSION, POLLUTION AND SEDIMENT DEPOSITION. PERMITTEES MUST REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS, INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS AND REESTABLISH THE AREAS WHERE SEDIMENT REMOVED. RESULTS IN EXPOSED SOIL. PERMITTEES MUST COMPLETE REMOVAL AND STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS OF DISCOVERY UNLESS PRECLUDED BY LOCAL REGULATORY OR PHYSICAL ACCESS CONSTRAINTS. PERMITTEES MUST USE ALL REASONABLE EFFORTS TO OBTAIN ACCESS. IF PRECLUDED, REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN SEVEN (7) DAYS OF OBTAINING ACCESS. PERMITTEES ARE RESPONSIBLE FOR CONTACTING ALL LOCAL, REGIONAL, STATE AND FEDERAL AGENCIES AND RECEIVING ANY APPLICABLE PERMITS, PRIOR TO CONDUCTING ANY WORK IN SURFACE WATERS. [MINN. R. 7090]**  
**11.6 PERMITTEES MUST INSPECT CONSTRUCTION SITE VEHICLE EXIT LOCATIONS, STREETS AND CURBS AND GUTTER SYSTEMS WITHIN AND ADJACENT TO THE PROJECT FOR SEDIMENTATION FROM EROSION OR TRACKED SEDIMENT FROM VEHICLES. PERMITTEES MUST REMOVE SEDIMENT FROM ALL PAVED SURFACES WITHIN ONE (1) CALENDAR DAY OF DISCOVERY OR, IF APPLICABLE, WITHIN A SHORTER TIME TO AVOID A SAFETY HAZARD TO USERS OF PUBLIC STREETS. [MINN. R. 7090]**  
**11.7 PERMITTEES MUST REPAIR, REPLACE OR SUPPLEMENT ALL PERIMETER CONTROL DEVICES WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/2 OF THE HEIGHT OF THE DEVICE. [MINN. R. 7090]**  
**11.8 PERMITTEES MUST DRAIN TEMPORARY AND PERMANENT SEDIMENTATION BASINS AND REMOVE THE SEDIMENT WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES 1/2 THE STORAGE VOLUME. [MINN. R. 7090]**  
**11.9 PERMITTEES MUST ENSURE THAT AT LEAST ONE INDIVIDUAL PRESENT ON THE SITE (OR AVAILABLE TO THE PROJECT SITE IN THREE (3) CALENDAR DAYS) IS TRAINED IN THE JOB DUTIES DESCRIBED IN ITEM 21.2.B. [MINN. R. 7090]**  
**11.10 PERMITTEES MAY ADJUST THE INSPECTION SCHEDULE DESCRIBED IN ITEM 11.2 AS FOLLOWS:**

- A. INSPECTIONS OF AREAS WITH PERMANENT COVER CAN BE REDUCED TO ONCE PER MONTH, EVEN IF CONSTRUCTION ACTIVITY CONTINUES ON OTHER PORTIONS OF THE SITE; OR
  - B. WHERE SITES HAVE PERMANENT COVER AND NO CONSTRUCTION ACTIVITY IS OCCURRING ANYWHERE ON THE SITE, INSPECTIONS CAN BE REDUCED TO ONCE PER MONTH AND, AFTER 12 MONTHS, MAY BE SUSPENDED COMPLETELY UNTIL CONSTRUCTION ACTIVITY RESUMES. THE MPCA MAY REQUIRE INSPECTIONS TO RESUME IF CONDITIONS WARRANT; OR
  - C. WHERE CONSTRUCTION ACTIVITY HAS BEEN SUSPENDED DUE TO FROZEN GROUND CONDITIONS, INSPECTIONS MAY BE SUSPENDED. INSPECTIONS MUST RESUME WITHIN 24 HOURS OF RUNOFF OCCURRING, OR UPON RESUMING CONSTRUCTION, WHICHEVER COMES FIRST. [MINN. R. 7090]
- 11.11 PERMITTEES MUST RECORD ALL INSPECTIONS AND MAINTENANCE ACTIVITIES WITHIN 24 HOURS OF BEING CONDUCTED AND THESE RECORDS MUST BE RETAINED WITH THE SWPPP. THESE RECORDS MUST INCLUDE:**

- A. DATE AND TIME OF INSPECTIONS; AND
- B. NAME OF PERSONS CONDUCTING INSPECTIONS; AND
- C. ACCURATE FINDINGS OF INSPECTIONS, INCLUDING THE SPECIFIC LOCATION WHERE CORRECTIVE ACTIONS ARE NEEDED; AND
- D. CORRECTIVE ACTIONS TAKEN (INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES); AND
- E. DATE OF ALL RAINFALL EVENTS GREATER THAN 1/2 INCHES IN 24 HOURS, AND THE AMOUNT OF RAINFALL FOR EACH EVENT. PERMITTEES MUST OBTAIN RAINFALL AMOUNTS BY EITHER A PROPERLY MAINTAINED RAIN GAUGE INSTALLED ONSITE, A WEATHER STATION THAT IS WITHIN ONE (1) MILE OF YOUR LOCATION, OR A WEATHER REPORTING SYSTEM THAT PROVIDES SITE SPECIFIC RAINFALL DATA FROM RADAR SUMMARIES; AND
- F. IF PERMITTEES OBSERVE A DISCHARGE DURING THE INSPECTION, THEY MUST RECORD AND SHOULD PHOTOGRAPH AND DESCRIBE THE LOCATION OF THE DISCHARGE (I.E., COLOR, ODOR, SETTLED OR SUSPENDED SOLIDS, OIL SHEEN, AND OTHER ENVIRONMENTAL FACTORS); AND
- G. ANY AMENDMENTS TO THE SWPPP PROPOSED AS A RESULT OF THE INSPECTION MUST BE DOCUMENTED AS REQUIRED IN SECTION 6 WITHIN SEVEN (7) CALENDAR DAYS. [MINN. R. 7090]

**12.1 POLLUTION PREVENTION MANAGEMENT MEASURES. [MINN. R. 7090]**  
**12.2 PERMITTEES MUST PLACE BUILDING PRODUCTS AND LANDSCAPE MATERIALS UNDER COVER (E.G., PLASTIC SHEETING OR TEMPORARY ROOFS) OR PROTECT THEM BY SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORMWATER. PERMITTEES ARE NOT REQUIRED TO COVER OR PROTECT PRODUCTS WHICH ARE EITHER NOT A SOURCE OF CONTAMINATION TO STORMWATER OR ARE DESIGNED TO BE EXPOSED TO STORMWATER. [MINN. R. 7090]**  
**12.3 PERMITTEES MUST PLACE PESTICIDES, FERTILIZERS AND TREATMENT CHEMICALS UNDER COVER (E.G., PLASTIC SHEETING OR TEMPORARY ROOFS) OR PROTECT THEM BY SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORMWATER. [MINN. R. 7090]**  
**12.4 PERMITTEES MUST STORE HAZARDOUS MATERIALS AND TOXIC WASTE, (INCLUDING OIL, DIESEL FUEL, GASOLINE, HYDRAULIC FLUIDS, PAINT SOLVENTS, PETROLEUM-BASED PRODUCTS, WOOD PRESERVATIVES, ADDITIVES, CURING COMPOUNDS, AND ACIDS) IN SEALED CONTAINERS TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGES. STORAGE AND CONTAINMENT OF HAZARDOUS WASTE MATERIALS MUST BE IN COMPLIANCE WITH MINN. R. CH. 7045 INCLUDING SECONDARY CONTAINMENT AS APPLICABLE. [MINN. R. 7090]**  
**12.5 PERMITTEES MUST PROPERLY STORE, COLLECT AND DISPOSE SOLID WASTE IN COMPLIANCE WITH MINN. R. CH. 7035. [MINN. R. 7090]**  
**12.6 PERMITTEES MUST POSITION PORTABLE TOILETS SO THEY ARE SECURE AND WILL NOT TIP OR BE KNOCKED OVER. PERMITTEES MUST PROPERLY DISPOSE SANITARY WASTE IN ACCORDANCE WITH MINN. R. CH. 7041. [MINN. R. 7041]**  
**12.7 PERMITTEES MUST TAKE REASONABLE STEPS TO PREVENT THE DISCHARGE OF SPILLED OR LEAKED CHEMICALS, INCLUDING FUEL, FROM ANY AREA WHERE CHEMICALS OR FUEL WILL BE LOADED OR UNLOADED INCLUDING THE USE OF DRIP PANS OR ABSORBENTS UNLESS INFEASIBLE. PERMITTEES MUST ENSURE ADEQUATE SUPPLIES ARE AVAILABLE AT ALL TIMES TO CLEAN UP DISCHARGED MATERIALS AND THAT AN APPROPRIATE DISPOSAL METHOD IS AVAILABLE FOR RECOVERED SPILLED MATERIALS. PERMITTEES MUST REPORT AND CLEAN UP SPILLS IMMEDIATELY AS REQUIRED BY MINN. STAT. 115.051, USING DRY CLEAN UP MEASURES WHERE POSSIBLE. [MINN. STAT. 115.051]**  
**12.8 PERMITTEES MUST LIMIT VEHICLE EXTERIOR WASHING AND EQUIPMENT TO A DEFINED AREA OF THE SITE. PERMITTEES MUST CONTAIN RUNOFF FROM THE WASHING ACTIVITY PROPERLY. PERMITTEES MUST PROPERLY USE AND STORE SOAPS, DETERGENTS, OR SOLVENTS. [MINN. R. 7090]**  
**12.9 PERMITTEES MUST PROVIDE EFFECTIVE CONTAINMENT FOR ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OPERATIONS (E.G., CONCRETE, PAINT, POLYMERS, RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS) RELATED TO THE CONSTRUCTION ACTIVITY. PERMITTEES MUST PREVENT LIQUID AND SOLID WASHOUT WASTES FROM CONTACTING THE GROUND AND MUST DESIGN THE CONTAINMENT SO IT DOES NOT RESULT IN RUNOFF FROM THE WASHOUT OPERATIONS OR AREAS. PERMITTEES MUST PROPERLY DISPOSE LIQUID AND SOLID WASTES IN COMPLIANCE WITH MPCA RULES. PERMITTEES MUST INSTALL A SIGN INDICATING THE LOCATION OF THE WASHOUT FACILITY. [MINN. R. 7035, MINN. R. 7090]**

**13.1 PERMIT TERMINATION CONDITIONS. [MINN. R. 7090]**  
**13.2 PERMITTEES MUST COMPLETE ALL CONSTRUCTION ACTIVITY AND MUST INSTALL PERMANENT COVER OVER ALL AREAS PRIOR TO SUBMITTING THE NOT. VEGETATIVE COVER MUST CONSIST OF A UNIFORM PERENNIAL VEGETATION WITH A DENSITY OF 70 PERCENT OF ITS EXPECTED FINAL GROWTH. VEGETATION IS NOT REQUIRED WHERE THE FUNCTION OF A SPECIFIC AREA IS TO PROVIDE NO VEGETATION. [MINN. R. 7090]**  
**13.3 PERMITTEES MUST CLEAN THE PERMANENT STORMWATER TREATMENT SYSTEM OF ANY ACCUMULATED SEDIMENT AND MUST ENSURE THE SYSTEM MEETS ALL APPLICABLE REQUIREMENTS IN SECTION 15 THROUGH 19 AND IS OPERATING AS DESIGNED. [MINN. R. 7090]**  
**13.4 PERMITTEES MUST REMOVE ALL SEDIMENT AND CONVEYANCE SYSTEMS PRIOR TO SUBMITTING THE NOT. [MINN. R. 7090]**  
**13.5 PERMITTEES MUST REMOVE ALL TEMPORARY SYNTHETIC EROSION PREVENTION AND SEDIMENT CONTROL BMPS PRIOR TO SUBMITTING THE NOT. PERMITTEES MAY LEAVE PERMANENTLY ESTABLISHED VEGETATION TO DECOMPOSE ON-SITE IN PLACE. [MINN. R. 7090]**  
**13.6 FOR RESIDENTIAL CONSTRUCTION ONLY, PERMIT COVERAGE TERMINATES ON INDIVIDUAL LOTS IF THE STRUCTURES ARE FINISHED AND TEMPORARY EROSION PREVENTION AND DOWNGRADIENT PERIMETER CONTROL IS COMPLETE, THE RESIDENCE SELLS TO THE HOMEOWNER, AND THE PERMITTEE DISTRIBUTES THE MPCA'S "HOMEOWNER FACT SHEET" TO THE HOMEOWNER. [MINN. R. 7090]**  
**13.7 FOR CONSTRUCTION PROJECTS ON AGRICULTURAL LAND (E.G., PIPELINES ACROSS CROPLAND), PERMITTEES MUST RETURN THE DISTURBED LAND TO ITS PRECONSTRUCTION AGRICULTURAL USE PRIOR TO SUBMITTING THE NOT. [MINN. R. 7090]**

**14.1 TEMPORARY SEDIMENT BASINS. [MINN. R. 7090]**  
**14.2 WHERE TEN (10) OR MORE ACRES OF DISTURBED SOIL DRAIN TO A COMMON LOCATION, PERMITTEES MUST PROVIDE A TEMPORARY SEDIMENT BASIN TO PROVIDE TREATMENT OF THE RUNOFF BEFORE IT LEAVES THE CONSTRUCTION SITE OR ENTERS SURFACE WATERS. PERMITTEES MAY CONVERT A TEMPORARY SEDIMENT BASIN TO A PERMANENT BASIN AFTER CONSTRUCTION IS COMPLETE. THE TEMPORARY BASIN IS NO LONGER REQUIRED WHEN PERMANENT COVER HAS REDUCED THE ACREAGE OF DISTURBED SOIL TO LESS THAN TEN (10) ACRES DRAINING TO A COMMON LOCATION. [MINN. R. 7090]**  
**14.3 THE TEMPORARY BASIN MUST PROVIDE LIVE STORAGE FOR A CALCULATED VOLUME OF RUNOFF FROM A TWO (2)-YEAR, 24-HOUR STORM FROM EACH ACRE DRAINED TO THE BASIN OR 1,800 CUBIC FEET OF LIVE STORAGE PER ACRE DRAINED, WHICHEVER IS GREATER. [MINN. R. 7090]**  
**14.4 WHERE PERMITTEES HAVE NOT CALCULATED THE TWO (2)-YEAR, 24-HOUR STORM RUNOFF AMOUNT, THE TEMPORARY BASIN MUST PROVIDE 3,000 CUBIC FEET OF LIVE STORAGE PER ACRE OF THE BASIN'S DRAINAGE AREA. [MINN. R. 7090]**  
**14.5 PERMITTEES MUST DESIGN BASIN OUTLETS TO PREVENT SHORT-CIRCUITING AND THE DISCHARGE OF FLOATING DEBRIS. [MINN. R. 7090]**  
**14.6 PERMITTEES MUST DESIGN THE OUTLET STRUCTURE TO WITHDRAW WATER FROM THE SURFACE TO MINIMIZE THE DISCHARGE OF POLLUTANTS. PERMITTEES TEMPORARILY SUSPEND THE USE OF A SURFACE WITHDRAWAL MECHANISM DURING FROZEN CONDITIONS. THE BASIN MUST INCLUDE A STABILIZED EMERGENCY OVERTFLOW TO PREVENT FAILURE OF POND INTEGRITY. [MINN. R. 7090]**  
**14.7 PERMITTEES MUST PROVIDE ENERGY DISSIPATION FOR THE BASIN OUTLET WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER. [MINN. R. 7090]**  
**14.8 PERMITTEES MUST LOCATE TEMPORARY BASINS OUTSIDE OF SURFACE WATERS AND ANY BUFFER ZONE REQUIRED IN ITEM 23.11. [MINN. R. 7090]**  
**14.9 PERMITTEES MUST CONSTRUCT THE TEMPORARY BASINS PRIOR TO DISTURBING 10 OR MORE ACRES OF SOIL DRAINING TO A COMMON LOCATION. [MINN. R. 7090]**  
**14.10 WHERE A TEMPORARY SEDIMENT BASIN MEETS THE REQUIREMENTS OF ITEM 14.3 THROUGH 14.5 IS INFEASIBLE, PERMITTEES MUST INSTALL EFFECTIVE SEDIMENT CONTROLS SUCH AS SMALLER SEDIMENT BASINS AND/OR SEDIMENT TRAPS, SILT FENCES, VEGETATIVE BUFFER STRIPS OR AN APPROPRIATE COMBINATION OF MEASURES AS DICTATED BY INDIVIDUAL SITE CONDITIONS. IN DETERMINING WHETHER INSTALLING A SEDIMENT BASIN IS INFEASIBLE, PERMITTEES MUST CONSIDER PUBLIC SAFETY AND MAY CONSIDER FACTORS SUCH AS SITE SOILS, SLOPE, AND AVAILABLE AREA ON-SITE. PERMITTEES MUST DOCUMENT THIS DETERMINATION OF INFEASIBILITY IN THE SWPPP. [MINN. R. 7090]**

**15.1 PERMANENT STORMWATER TREATMENT SYSTEM. [MINN. R. 7090]**  
**15.2 PERMITTEES MUST DESIGN THE PROJECT SO ALL STORMWATER DISCHARGED FROM THE PROJECT DURING AND AFTER CONSTRUCTION ACTIVITIES DOES NOT CAUSE A VIOLATION OF STATE WATER QUALITY STANDARDS, INCLUDING NUISANCE CONDITIONS, EROSION IN RECEIVING CHANNELS OR ON DOWNSLOPE PROPERTIES, OR A SIGNIFICANT ADVERSE IMPACT TO WETLANDS CAUSED BY NUNADATION OR DECREASE OF FLOW. [MINN. R. 7090]**  
**15.3 PERMITTEES MUST DESIGN AND CONSTRUCT A PERMANENT STORMWATER TREATMENT SYSTEM TO TREAT THE WATER QUALITY VOLUME IF THE PROJECT'S ULTIMATE DEVELOPMENT REPLACES VEGETATION AND/OR OTHER PERSISTENT SURFACES CREATING A NET INCREASE OF ONE (1) OR MORE ACRES OF CUMULATIVE IMPERVIOUS SURFACE. [MINN. R. 7090]**  
**15.4 PERMITTEES MUST CALCULATE THE WATER QUALITY VOLUME AS ONE (1) INCH TIMES THE NET INCREASE OF IMPERVIOUS SURFACES CREATED BY THE PROJECT. [MINN. R. 7090]**  
**15.5 PERMITTEES MUST FIRST CONSIDER VOLUME REDUCTION PRACTICES ON-SITE (E.G., INFILTRATION OR OTHER) WHEN DESIGNING THE PERMANENT TREATMENT SYSTEM. IF THIS PERMIT PROHIBITS INFILTRATION AS DESCRIBED IN ITEM 16.14 THROUGH ITEM 16.21, PERMITTEES MAY CONSIDER A WET SEDIMENTATION BASIN, FILTRATION BASIN OR REGIONAL POND. THIS PERMIT DOES NOT CONSIDER WET SEDIMENTATION BASINS AND FILTRATION SYSTEMS TO BE VOLUME REDUCTION PRACTICES. [MINN. R. 7090]**  
**15.6 FOR PROJECTS WHERE THE FULL VOLUME REDUCTION REQUIREMENT CANNOT BE MET ON-SITE (E.G., THE SITE HAS INFILTRATION PROHIBITIONS), PERMITTEES MUST DOCUMENT THE REASONS IN THE SWPPP. [MINN. R. 7090]**  
**15.7 PERMITTEES MUST DISCHARGE THE WATER QUALITY VOLUME TO A PERMANENT STORMWATER TREATMENT SYSTEM PRIOR TO DISCHARGE TO A SURFACE WATER. FOR PURPOSES OF THIS ITEM, SURFACE WATERS DO NOT INCLUDE MAN-MADE DRAINAGE SYSTEMS THAT CONVEY STORMWATER TO A PERMANENT STORMWATER TREATMENT SYSTEM. [MINN. R. 7090]**  
**15.8 WHERE THE PROXIMITY TO BEDROCK PRECLUDES THE INSTALLATION OF ANY OF THE PERMANENT STORMWATER TREATMENT PRACTICES REQUIRED BY SECTIONS 15 THROUGH 19, PERMITTEES MUST INSTALL OTHER TREATMENT SUCH AS GRASSED SWALES, SMALLER PONDS, OR GRIT CHAMBERS, PRIOR TO THE DISCHARGE OF STORMWATER TO SURFACE WATERS. [MINN. R. 7090]**  
**15.9 FOR LINEAR PROJECTS WHERE PERMITTEES CANNOT TREAT THE ENTIRE WATER QUALITY VOLUME WITHIN THE EXISTING RIGHT-OF-WAY, PERMITTEES MUST MAKE A REASONABLE ATTEMPT TO OBTAIN ADDITIONAL RIGHT-OF-WAY, EASEMENT OR OTHER PERMISSION FOR STORMWATER TREATMENT DURING THE PROJECT PLANNING PROCESS. DOCUMENTATION OF THESE ATTEMPTS MUST BE IN THE SWPPP. PERMITTEES MUST STILL CONSIDER VOLUME REDUCTION PRACTICES FIRST AS DESCRIBED IN ITEM 15.6. IF PERMITTEES CANNOT OBTAIN ADDITIONAL RIGHT-OF-WAY, EASEMENT OR OTHER PERMISSION, THEY MUST MAXIMIZE THE TREATMENT OF THE WATER QUALITY VOLUME PRIOR TO DISCHARGE TO SURFACE WATERS. [MINN. R. 7090]**

**16.1 INFILTRATION SYSTEMS. [MINN. R. 7090]**  
**16.2 INFILTRATION OPTIONS INCLUDE, BUT ARE NOT LIMITED TO: INFILTRATION BASINS, INFILTRATION TRENCHES, RAINWATER GARDENS, BIORETENTION AREAS WITHOUT UNDERDRAINS, SWALES WITH IMPERMEABLE CHECK DAMS, AND NATURAL DEPRESSIONS. IF PERMITTEES UTILIZE AN INFILTRATION SYSTEM TO MEET THE REQUIREMENTS OF THIS PERMIT, THEY MUST INCORPORATE THE DESIGN PARAMETERS IN ITEM 16.3 THROUGH 16.10 INTO THE DESIGN. THE INFILTRATION PROHIBITION IN ITEM 16.14 ANYTIME AN INFILTRATION SYSTEM IS DESIGNED, INCLUDING THOSE NOT REQUIRED BY THIS PERMIT. [MINN. R. 7090]**  
**16.3 PERMITTEES MUST DESIGN INFILTRATION SYSTEMS SUCH THAT PRE-EXISTING HYDROLOGIC CONDITIONS OF WETLANDS IN THE VICINITY ARE NOT IMPACTED (E.G., NUNADATION OR BREACHING A PERCHED WATER TABLE SUPPORTING A WETLAND). [MINN. R. 7090]**

**16.4 PERMITTEES MUST NOT EXCAVATE INFILTRATION SYSTEMS TO FINAL GRADE, OR WITHIN THREE (3) FEET OF FINAL GRADE, UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND FULLY STABILIZED UNLESS THEY PROVIDE RIGOROUS EROSION PREVENTION AND SEDIMENTATION MEASURES TO KEEP SEDIMENT AND RUNOFF COMPLETELY AWAY FROM THE INFILTRATION AREA. [MINN. R. 7090]**  
**16.5 WHEN EXCAVATING AN INFILTRATION SYSTEM TO WITHIN THREE (3) FEET OF FINAL GRADE, PERMITTEES MUST STAKE OFF AND MARK THE AREA SO HEAVY CONSTRUCTION VEHICLES OR EQUIPMENT DO NOT COMPACT THE SOIL IN THE INFILTRATION AREA. [MINN. R. 7090]**  
**16.6 PERMITTEES MUST USE A PRE-TREATMENT DEVICE SUCH AS A VEGETATED FILTER STRIP, FOREBAY, OR WATER QUALITY INLET (E.G., GRIT CHAMBER) TO REMOVE SOLIDS, FLOATING MATERIALS, AND OIL AND GREASE FROM THE RUNOFF, TO THE MAXIMUM EXTENT PRACTICABLE, BEFORE THE SYSTEM ROUTES STORMWATER TO THE INFILTRATION SYSTEM. [MINN. R. 7090]**  
**16.7 PERMITTEES MUST DESIGN INFILTRATION SYSTEMS TO PROVIDE A WATER QUALITY VOLUME (CALCULATED AS AN INSTANTANEOUS VOLUME OF ONE (1) INCH OF RUNOFF, OR ONE (1) INCH TIMES THE VOLUME OF STORMWATER TREATED BY ANOTHER SYSTEM ON THE SITE, FROM THE NET INCREASE OF IMPERVIOUS SURFACES CREATED BY THE PROJECT. [MINN. R. 7090]**  
**16.8 PERMITTEES MUST DESIGN THE INFILTRATION SYSTEM TO DISCHARGE ALL STORMWATER (INCLUDING STORMWATER IN EXCESS OF THE WATER QUALITY VOLUME) ROUTED TO THE SYSTEM THROUGH THE UPPERMOST SOIL SURFACE OR ENGINEERED MEDIA SURFACE WITHIN 48 HOURS. PERMITTEES MUST ROUTE ADDITIONAL FLOWS THAT CANNOT INFILTRATE WITHIN 48 HOURS TO BYPASS THE SYSTEM THROUGH A STABILIZED DISCHARGE POINT. [MINN. R. 7090]**  
**16.9 PERMITTEES MUST PROVIDE A MEANS TO VISUALLY VERIFY THE INFILTRATION SYSTEM IS DISCHARGING THROUGH THE SOIL SURFACE OR FILTER MEDIA SURFACE WITHIN 16 HOURS. [MINN. R. 7090]**  
**16.10 PERMITTEES MUST PROVIDE AT LEAST ONE SOIL BORING, TEST PIT OR INFILTRATOR TEST IN THE LOCATION OF THE INFILTRATION PRACTICE FOR DETERMINING INFILTRATION. [MINN. R. 7090]**

**16.11 FOR DESIGN PURPOSES, PERMITTEES MUST DIVIDE FIELD MEASURED INFILTRATION RATES BY 2 AS A SAFETY FACTOR OR PERMITTEES CAN USE SOIL-BORING RESULTS WITH THE INFILTRATION RATE CHART IN THE MINNESOTA STORMWATER MANUAL TO DETERMINE DESIGN INFILTRATION RATES. PERMITTEES MUST MEASURE INFILTRATION RATES AND SHOULD PERFORM FIELD MEASUREMENTS TO VERIFY THE RATE IS NOT ABOVE 8.3 INCHES PER HOUR. THIS PERMIT PROHIBITS INFILTRATION IF THE FIELD MEASURED INFILTRATION RATE IS ABOVE 8.3 INCHES PER HOUR. [MINN. R. 7090]**  
**16.12 PERMITTEES MUST EMPLOY APPROPRIATE ON-SITE TESTING TO ENSURE A MINIMUM OF THREE (3) FEET OF SEPARATION FROM THE SEASONALLY SATURATED SOILS (OR FROM BEDROCK) AND THE BOTTOM OF THE PROPOSED INFILTRATION SYSTEM. [MINN. R. 7090]**  
**16.13 PERMITTEES MUST DESIGN A MAINTENANCE ACCESS, TYPICALLY EIGHT (8) FEET WIDE, FOR THE INFILTRATION SYSTEM. [MINN. R. 7090]**  
**16.14 THIS PERMIT PROHIBITS PERMITTEES FROM CONSTRUCTING INFILTRATION SYSTEMS THAT RECEIVE RUNOFF FROM VEHICLE FUELING AND MAINTENANCE AREAS INCLUDING CONSTRUCTION OF INFILTRATION SYSTEMS NOT REQUIRED BY THIS PERMIT. [MINN. R. 7090]**  
**16.15 THIS PERMIT PROHIBITS PERMITTEES FROM CONSTRUCTING INFILTRATION SYSTEMS WHERE INFILTRATING STORMWATER MAY MOBILIZE HIGH LEVELS OF CONTAMINANTS IN SOIL OR GROUNDWATER. PERMITTEES MUST EITHER COMPLETE THE MPCA'S CONTAMINATION SCREENING CHECKLIST OR CONDUCT THEIR OWN ASSESSMENT TO DETERMINE THE REASONABLY SATURATED SOILS OR THE TOP OF BEDROCK. [MINN. R. 7090]**  
**16.16 THIS PERMIT PROHIBITS PERMITTEES FROM CONSTRUCTING INFILTRATION SYSTEMS IN AREAS WHERE SOIL INFILTRATION RATES ARE FIELD MEASURED AT MORE THAN 8.3 INCHES PER HOUR UNLESS THEY AMEND SOILS TO SLOW THE INFILTRATION RATE BELOW 8.3 INCHES PER HOUR. [MINN. R. 7090]**  
**16.17 THIS PERMIT PROHIBITS PERMITTEES FROM CONSTRUCTING INFILTRATION SYSTEMS IN AREAS WITH LESS THAN THREE (3) FEET OF SEPARATION DISTANCE FROM THE BOTTOM OF THE INFILTRATION SYSTEM TO THE ELEVATION OF THE SEASONALLY SATURATED SOILS OR THE TOP OF BEDROCK. [MINN. R. 7090]**  
**16.18 THIS PERMIT PROHIBITS PERMITTEES FROM CONSTRUCTING INFILTRATION SYSTEMS IN AREAS OF PREDOMINANTLY INFILTRATIVE SOIL GROUP TYPE D SOILS (CLAY). [MINN. R. 7090]**  
**16.19 THIS PERMIT PROHIBITS PERMITTEES FROM CONSTRUCTING INFILTRATION SYSTEMS WITHIN A DRINKING WATER SUPPLY MANAGEMENT AREA (DWMA) AS DEFINED IN MINN. R. 4720.5100, SUBP. 13, IF THE SYSTEM WILL BE LOCATED**

- A. IN AN ERA WITHIN A DWMA CLASSIFIED AS HAVING HIGH OR VERY HIGH VULNERABILITY AS DEFINED BY THE MINNESOTA DEPARTMENT OF HEALTH; OR
  - B. IN AN ERA WITHIN A DWMA CLASSIFIED AS MODERATE VULNERABILITY UNLESS A REGULATED MSA FUNCTIONING PERFORMED OR APPROVED A HIGHER LEVEL OF ENGINEERING REVIEW SUFFICIENT TO PROVIDE A FUNCTIONING TREATMENT SYSTEM AND TO PREVENT ADVERSE IMPACTS TO GROUNDWATER;
  - C. OUTSIDE OF AN ERA WITHIN A DWMA CLASSIFIED AS HAVING HIGH OR VERY HIGH VULNERABILITY, UNLESS A REGULATED MSA PERFORMED OR APPROVED A HIGHER LEVEL OF ENGINEERING REVIEW SUFFICIENT TO PROVIDE A FUNCTIONING TREATMENT SYSTEM AND TO PREVENT ADVERSE IMPACTS TO GROUNDWATER.
- SEE "HIGHER LEVEL OF ENGINEERING REVIEW" IN THE MINNESOTA STORMWATER MANUAL FOR MORE INFORMATION. [MINN. R. 7090]

**16.20 THIS PERMIT PROHIBITS PERMITTEES FROM CONSTRUCTING INFILTRATION SYSTEMS IN AREAS WITHIN 1,000 FEET UPGRADENT OR 100 FEET DOWNGRADENT OF ACTIVE KARST FEATURES. [MINN. R. 7090]**  
**16.21 THIS PERMIT PROHIBITS PERMITTEES FROM CONSTRUCTING INFILTRATION SYSTEMS IN AREAS THAT RECEIVE RUNOFF FROM THE FOLLOWING INDUSTRIAL FACILITIES NOT AUTHORIZED TO INFILTRATE STORMWATER UNDER THE NPDES STORMWATER PERMIT FOR INDUSTRIAL ACTIVITIES: AUTOMOBILE SALES YARDS; SCRAP RECYCLING AND WASTE RECYCLING FACILITIES; HAZARDOUS WASTE TREATMENT, STORAGE, OR DISPOSAL FACILITIES; OR AIR TRANSPORTATION FACILITIES THAT CONDUCT DEICING ACTIVITIES. [MINN. R. 7090]**

**17.1 FILTR**





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DRAWN BY: CHECK BY:  
AG CWP

JOB NO: 20-1934 DATE: 02/24/21

1 04.12.21 R/C & CWD COMMENTS

2 3 4 5 6 7 8

NO. DATE DESCRIPTION

ADAM GINKEL License No. 43983

Date: 05.13.2021

LIBRARY CREDIT: THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

HIDDEN FOREST EAST 3RD ADDITION  
CITY OF HAM LAKE, MINNESOTA  
SWPPP

PREPARED FOR: JEFF STALLBERGER

SHEET  
C3.02

20-1934

NPDES DEFINITIONS

"BEST MANAGEMENT PRACTICES (BMPs)" MEANS THE MOST EFFECTIVE AND PRACTICABLE MEANS OF EROSION PREVENTION AND SEDIMENT CONTROL, AND WATER QUALITY MANAGEMENT PRACTICES THAT ARE THE MOST EFFECTIVE AND PRACTICABLE MEANS OF TO CONTROL, PREVENT, AND MINIMIZE DEGRADATION OF SURFACE WATER, INCLUDING AVOIDANCE OF IMPACTS, CONSTRUCTION-PHASING, MINIMIZING THE LENGTH OF THE SOIL AREAS EXPOSED, PROHIBITIONS, POLLUTION PREVENTION THROUGH GOOD HOUSEKEEPING, AND OTHER MANAGEMENT PRACTICES PUBLISHED BY STATE OR DESIGNATED AREA-WIDE PLANNING AGENCIES. [MINN. R. 7090]

"OPERATOR" MEANS THE PERSON (USUALLY THE GENERAL CONTRACTOR), FIRM, GOVERNMENTAL AGENCY, OR OTHER ENTITY DESIGNATED BY THE OWNER WHO HAS DAY TO DAY OPERATIONAL CONTROL AND/OR THE ABILITY TO MODIFY PROJECT PLANS AND SPECIFICATIONS RELATED TO THE SWPPP. THE PERMIT APPLICATION MUST LIST THE OPERATOR AS A PERMITTEE. SUBCONTRACTORS HIRED BY AND UNDER SUPERVISION OF THE GENERAL CONTRACTOR ARE NOT OPERATORS. [MINN. R. 7090]

"CONSTRUCTION ACTIVITY" MEANS ACTIVITIES INCLUDING CLEARING, GRADING, AND EXCAVATING, THAT RESULT IN LAND DISTURBANCE OF EQUAL TO OR GREATER THAN ONE ACRE, INCLUDING THE DISTURBANCE OF LESS THAN ONE ACRE OF TOTAL LAND AREA THAT IS PART OF A LARGER COMMON PLAN OF DEVELOPMENT OR SALE IF THE LARGER COMMON PLAN WILL ULTIMATELY DISTURB EQUAL TO OR GREATER THAN ONE ACRE. THIS INCLUDES A DISTURBANCE TO THE LAND THAT RESULTS IN A CHANGE IN THE TOPOGRAPHY, EXISTING SOIL COVER, BOTH VEGETATIVE AND NONVEGETATIVE, OR THE EXISTING SOIL TOPOGRAPHY THAT MAY RESULT IN ACCELERATED STORMWATER RUNOFF THAT MAY LEAD TO SOIL EROSION AND MOVEMENT OF SEDIMENT. CONSTRUCTION ACTIVITY DOES NOT INCLUDE A DISTURBANCE TO THE LAND OF LESS THAN FIVE ACRES FOR THE PURPOSE OF ROUTINE MAINTENANCE PERFORMED TO MAINTAIN THE ORIGINAL LINE AND GRADE, HYDRAULIC CAPACITY, AND ORIGINAL PURPOSE OF THE FACILITY. ROUTINE MAINTENANCE DOES NOT INCLUDE ACTIVITIES SUCH AS REPAIRS, REPLACEMENT AND OTHER TYPES OF NON-ROUTINE MAINTENANCE, PAVEMENT REHABILITATION THAT DOES NOT DISTURB THE UNDERLYING SOILS (E.G., MILL AND OVERLAY PROJECTS) IS NOT CONSTRUCTION ACTIVITY. [MINN. R. 7090]

"OWNER" MEANS THE PERSON, FIRM, GOVERNMENTAL AGENCY, OR OTHER ENTITY POSSESSING THE TITLE OF THE LAND ON WHICH THE CONSTRUCTION ACTIVITIES WILL OCCUR OR, IF THE CONSTRUCTION ACTIVITY IS FOR A LEASE, EASEMENT, OR MINERAL RIGHTS LICENSE HOLDER, THE PARTY OR INDIVIDUAL IDENTIFIED AS THE LEASE, EASEMENT OR MINERAL RIGHTS LICENSE HOLDER, OR THE CONTRACTING GOVERNMENT AGENCY RESPONSIBLE FOR THE CONSTRUCTION ACTIVITY. [MINN. R. 7090]

"DEWATERING" MEANS THE REMOVAL OF SURFACE OR GROUND WATER TO DRY AND/OR SOLIDIFY A CONSTRUCTION SITE TO ENABLE CONSTRUCTION ACTIVITY. DEWATERING MAY REQUIRE A MINNESOTA DEPARTMENT OF NATURAL RESOURCES WATER APPROPRIATION PERMIT AND, IF DEWATERING WATER IS CONTAMINATED, DISCHARGE OF SUCH WATER MAY REQUIRE AN INDIVIDUAL MPCA NPDES/SDS PERMIT. [MINN. R. 7090]

"PERMANENT COVER" MEANS SURFACE TYPES THAT WILL PREVENT SOIL FAILURE UNDER EROSION CONDITIONS. EXAMPLES INCLUDE: GRAVEL, CONCRETE, PERENNIAL COVER, OR OTHER LANDSCAPED MATERIAL THAT WILL PERMANENTLY ARREST SOIL EROSION. PERMITTEES MUST ESTABLISH A UNIFORM PERENNIAL VEGETATIVE COVER (E.G., EVENLY DISTRIBUTED, WITHOUT LARGE BARE AREAS) WITH A DENSITY OF 70 PERCENT OF THE NATIVE BACKGROUND VEGETATIVE COVER ON ALL AREAS NOT COVERED BY PERMANENT STRUCTURES, OR EQUIVALENT PERMANENT STABILIZATION MEASURES. PERMANENT COVER DOES NOT INCLUDE TEMPORARY BMPs SUCH AS WOOD FIBER BLANKET, MULCH, AND ROLLED EROSION CONTROL PRODUCTS. [MINN. R. 7090]

"EROSION PREVENTION" MEANS MEASURES EMPLOYED TO PREVENT EROSION SUCH AS SOIL STABILIZATION PRACTICES, PERMANENT COVER OR CONSTRUCTION PHASING. [MINN. R. 7090]

"PERMITTEES" MEANS THE PERSONS, FIRM, GOVERNMENTAL AGENCY, OR OTHER ENTITY IDENTIFIED AS THE OWNER AND OPERATOR ON THE APPLICATION SUBMITTED TO THE MPCA AND ARE RESPONSIBLE FOR COMPLIANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT. [MINN. R. 7090]

"GENERAL CONTRACTOR" MEANS THE PARTY WHO SIGNS THE CONSTRUCTION CONTRACT WITH THE OWNER TO CONSTRUCT THE ENTIRE PROJECT DESCRIBED IN THE FINAL PLANS AND SPECIFICATIONS, WHERE THE CONSTRUCTION PROJECT INVOLVES MORE THAN ONE CONTRACTOR, THE GENERAL CONTRACTOR IS THE PARTY RESPONSIBLE FOR MANAGING THE ENTIRE PROJECT ON BEHALF OF THE OWNER, IN SOME CASES, THE OWNER IS THE GENERAL CONTRACTOR. IN THESE CASES, THE OWNER SIGNS THE PERMIT APPLICATION AS THE OPERATOR AND RECEIVES THE SOLE PERMITTEE. [MINN. R. 7090]

"PROJECTS" MEANS ALL CONSTRUCTION ACTIVITY PLANNED AND/OR CONDUCTED UNDER A PARTICULAR PERMIT. THE PROJECT OCCURS ON THE SITE OR SITE# DESCRIBED IN THE PERMIT APPLICATION, THE SWPPP AND IN THE ASSOCIATED PLANS, SPECIFICATIONS AND CONTRACT DOCUMENTS. [MINN. R. 7090]

"GROUNDWATER" MEANS THE WATER CONTAINED BELOW THE SURFACE OF THE EARTH IN THE SATURATED ZONE INCLUDING, WITHOUT LIMITATION, ALL WATERS WHETHER UNDER CONFINED, UNCONFINED, OR PERCHED CONDITIONS, IN NEAR SURFACE UNCONSOLIDATED SEDIMENT OR REGOLITH, OR IN ROCK FORMATIONS DEEPER UNDERGROUND. [MINN. R. 7090]

"SEDIMENT CONTROL" MEANS METHODS EMPLOYED TO PREVENT SUSPENDED SEDIMENT IN STORMWATER FROM LEAVING THE SITE (E.G. SILT FENCES, COMPOST LOGS AND STORM DRAIN INLET PROTECTION). [MINN. R. 7090]

"HOMEOWNER FACT SHEET" MEANS AN MPCA FACT SHEET AVAILABLE ON THE MPCA CONSTRUCTION STORMWATER WEBSITE FOR PERMITTEES TO GIVE TO HOMEOWNERS AT THE TIME OF SALE. [MINN. R. 7090]

"STEEL SLOPES" MEANS SLOPES THAT ARE 1:3 (V:H) (33.3 PERCENT) OR STEEPER IN GRADE. [MINN. R. 7090]

"INFEASIBLE" MEANS NOT TECHNOLOGICALLY POSSIBLE OR NOT ECONOMICALLY PRACTICABLE AND ACHIEVABLE IN LIGHT OF THE BEST INDUSTRY PRACTICES. [MINN. R. 7090]

"STABILIZED" MEANS "STABILIZED," "STABILIZATION" MEANS THE EXPOSED GROUND SURFACE HAS BEEN COVERED BY APPROPRIATE MATERIALS SUCH AS MULCH, STAKED SOIL, RIP-RAP, EROSION CONTROL BLANKET, MATS OR OTHER MATERIAL THAT PREVENTS EROSION FROM OCCURRING ON THE SOIL PERMITTEES. [MINN. R. 7090]

"INITIATED IMMEDIATELY" MEANS TAKING AN ACTION TO COMMENCE SOIL STABILIZATION AS SOON AS PRACTICABLE, BUT NO LATER THAN THE END OF THE WORK DAY, FOLLOWING THE DAY WHEN THE LAND-DISTURBING ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE, IF THE PERMITTEES KNOW THAT CONSTRUCTION WORK ON THAT PORTION OF THE SITE WILL BE TEMPORARILY CEASED FOR 14 OR MORE ADDITIONAL CALENDAR DAYS OR 7 CALENDAR DAYS WHERE ITEM 23.9 APPLIES, PERMITTEES CAN INITIATE STABILIZATION BY:

"SURFACE WATER OR WATERS" MEANS ALL STREAMS, LAKES, PONDS, MARSHES, WETLANDS, RESERVOIRS, SPRINGS, RIVERS, DRAINAGE SYSTEMS, WATERWAYS, WATERCOURSES, AND IRRIGATION SYSTEMS WHETHER NATURAL OR ARTIFICIAL, PUBLIC OR PRIVATE, EXCEPT THAT SURFACE WATERS DO NOT INCLUDE STORMWATER TREATMENT SYSTEMS CONSTRUCTED FROM UPLAND. THIS PERMIT DOES NOT CONSIDER STORMWATER TREATMENT SYSTEMS CONSTRUCTED IN WETLANDS AND MITIGATED IN ACCORDANCE WITH SECTION 22 AS SURFACE WATERS. [MINN. R. 7090]

A. PREPPING THE SOIL FOR VEGETATIVE OR NON-VEGETATIVE STABILIZATION; OR  
B. APPLYING MULCH OR OTHER NON-VEGETATIVE PRODUCT TO THE EXPOSED SOIL AREA; OR  
C. SEEDING OR PLANTING THE EXPOSED AREA; OR  
D. STARTING ANY OF THE ACTIVITIES IN A - C ON A PORTION OF THE AREA TO BE STABILIZED, BUT NOT ON THE ENTIRE AREA; OR  
E. FINALIZING ARRANGEMENTS TO HAVE STABILIZATION PRODUCT FULLY INSTALLED IN COMPLIANCE WITH THE APPLICABLE DEADLINE FOR COMPLETING STABILIZATION. [MINN. R. 7090]

"WATERS OF THE STATE" (AS DEFINED IN MINN. STAT. SECT. 115.01, SUBP. 22) MEANS ALL STREAMS, LAKES, PONDS, MARSHES, WATERCOURSES, WATERWAYS, WELLS, SPRINGS, RESERVOIRS, AQUIFERS, DRAINAGE SYSTEMS, DRAINAGE CANALS AND ALL OTHER BODIES OR ACCUMULATIONS OF WATER, SURFACE OR UNDERGROUND, NATURAL OR ARTIFICIAL, PUBLIC OR PRIVATE, WHICH ARE CONTAINED WITHIN, FLOW THROUGH, OR BORDER UPON THE STATE OR ANY PORTION THEREOF. [MINN. STAT. 115.01, SUBP. 22]

"NOTICE OF TERMINATION (NOT)" MEANS THE FORM (ELECTRONIC OR PAPER) REQUIRED FOR TERMINATING COVERAGE UNDER THE CONSTRUCTION GENERAL PERMIT. [MINN. R. 7090]

"WETLANDS" (AS DEFINED IN MINN. R. 7050.0186, SUBP. 1A.B) MEANS THOSE AREAS THAT ARE INUNDATED OR SATURATED BY SURFACE WATER OR GROUNDWATER AT A FREQUENCY AND DURATION SUFFICIENT TO SUPPORT, AND UNDER NORMAL CIRCUMSTANCES DO SUPPORT, A PREVALENCE OF VEGETATION TYPICALLY ADAPTED FOR LIFE IN SATURATED SOIL CONDITIONS. WETLANDS GENERALLY INCLUDE SWAMPS, MARSHES, BOGS, AND SIMILAR AREAS. CONSTRUCTED WETLANDS DESIGNED FOR WASTEWATER TREATMENT ARE NOT WATERS OF THE STATE. WETLANDS MUST HAVE THE FOLLOWING ATTRIBUTES:

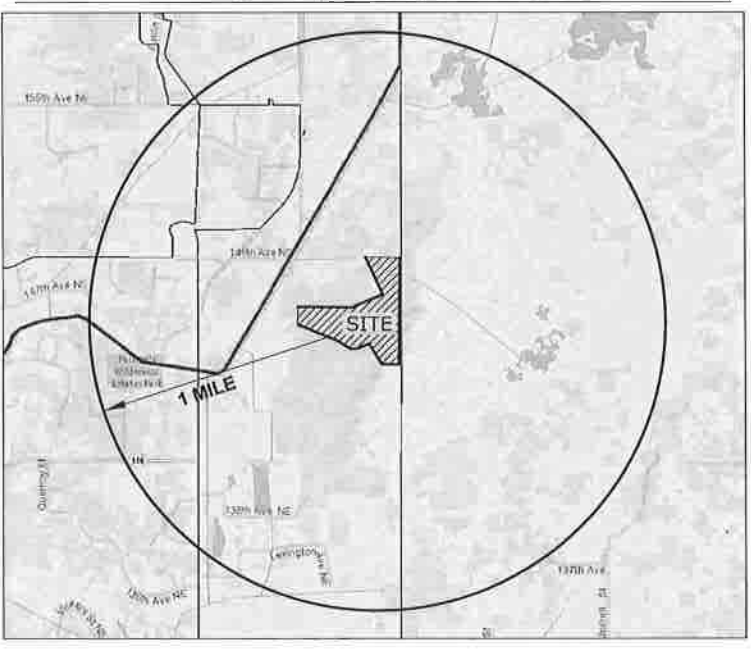
- 1. A PREDOMINANCE OF HYDRIC SOILS; AND
- 2. INUNDATED OR SATURATED BY SURFACE WATER OR GROUNDWATER AT A FREQUENCY AND DURATION SUFFICIENT TO SUPPORT A PREVALENCE OF HYDROPHYTIC VEGETATION TYPICALLY ADAPTED FOR LIFE IN A SATURATED SOIL CONDITION; AND
- 3. UNDER NORMAL CIRCUMSTANCES SUPPORT A PREVALENCE OF SUCH VEGETATION. [MINN. R. 7050.0186, SUBP. 1A.B]

"WATERS OF THE STATE" (AS DEFINED IN MINN. STAT. SECT. 115.01, SUBP. 22) MEANS ALL STREAMS, LAKES, PONDS, MARSHES, WATERCOURSES, WATERWAYS, WELLS, SPRINGS, RESERVOIRS, AQUIFERS, DRAINAGE SYSTEMS, DRAINAGE CANALS AND ALL OTHER BODIES OR ACCUMULATIONS OF WATER, SURFACE OR UNDERGROUND, NATURAL OR ARTIFICIAL, PUBLIC OR PRIVATE, WHICH ARE CONTAINED WITHIN, FLOW THROUGH, OR BORDER UPON THE STATE OR ANY PORTION THEREOF. [MINN. STAT. 115.01, SUBP. 22]

23.9: PERMITTEES MUST IMMEDIATELY INITIATE STABILIZATION OF EXPOSED SOIL AREAS, AS DESCRIBED IN ITEM 8.4, AND COMPLETE THE STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE TEMPORARILY OR PERMANENTLY CEASES.

23.10: PERMITTEES MUST PROVIDE A TEMPORARY SEDIMENT BASIN AS DESCRIBED IN SECTION 14 FOR COMMON DRAINAGE LOCATIONS THAT SERVE AN AREA WITH FIVE (5) OR MORE ACRES DISTURBED AT ONE TIME.

MAP OF SURFACE WATERS



COON CREEK IS IDENTIFIED AS AN IMPAIRED WATER AND HAS AN EPA APPROVED IMPAIRMENT OF BENTHIC MACROINVERTEBRATE BIOASSESSMENTS AND E. COLI. BECAUSE OF THIS, ADDITIONAL BMP REQUIREMENTS ARE REQUIRED:

PERMITTEES MUST IMMEDIATELY INITIATE STABILIZATION OF EXPOSED SOIL AREAS, AS DESCRIBED IN ITEM 8.4, AND COMPLETE THE STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE TEMPORARILY OR PERMANENTLY CEASES.

23.10: PERMITTEES MUST PROVIDE A TEMPORARY SEDIMENT BASIN AS DESCRIBED IN SECTION 14 FOR COMMON DRAINAGE LOCATIONS THAT SERVE AN AREA WITH FIVE (5) OR MORE ACRES DISTURBED AT ONE TIME.

DOCUMENTATION OF TRAINED INDIVIDUALS

A. INDIVIDUAL WHO PREPARED THE SWPPP:  
ADAM GINKEL  
FLOWE ENGINEERING, INC.  
8778 LAKE DRIVE  
LINO LAKES MN 55014  
(651) 361-8234  
adam@plowe.com

B. INDIVIDUAL(S) OVERSEEING IMPLEMENTATION OF, REVISING AND/OR AMENDING THE SWPPP AND INDIVIDUALS PERFORMING INSPECTIONS FOR THE PROJECT, ONE OF THESE INDIVIDUALS MUST BE AVAILABLE FOR AN ON-SITE INSPECTION WITHIN 72 HOURS UPON REQUEST BY THE MPCA. [MINN. R. 7090]

C. INDIVIDUAL(S) PERFORMING OR SUPERVISING THE INSTALLATION, MAINTENANCE AND REPAIR OF BMPs. [MINN. R. 7090]

LONG TERM OPERATION AND MAINTENANCE OF PERMANENT STORMWATER FACILITIES  
THE PROPOSED STORMWATER MANAGEMENT FEATURES FOR THIS SITE INCLUDES INFILTRATION BASINS AND STORMWATER PONDS - THESE WILL BE OPERATED AND MAINTAINED BY THE CITY OF HAM LAKE.

REVEGETATION SPECIFICATIONS

Table with columns: ITEM, MNDOT SPECIFICATION, NOTES. Includes items like BOD, BEED, TURF ESTABLISHMENT, etc.

\* NOW A MINIMUM OF:  
RESIDENTIAL TURF - ONCE PER 2 WEEKS  
COMMERCIAL TURF - ONCE PER 4 WEEKS  
\*\* SEEDING AREAS SHALL BE EITHER MULCHED OR COVERED BY FIBROUS BLANKETS TO PROTECT SEEDS AND LIMIT EROSION.

QUANTITIES - ESTIMATED QUANTITIES FOR EROSION AND SEDIMENT CONTROL MEASURES

Table with columns: TYPE, QTY, UNIT. Includes items like SILT FENCE, BIO-ROLLS, RIP-RAP W. GEO-FABRIC, etc.

NARRATIVE - TIMING FOR INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES

- 1. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND SWPPP MUST BE AVAILABLE ON THE PROJECT SITE AT ALL TIMES.
- 2. CONTRACTOR SHALL INSTALL SILT FENCE AS SHOWN ON PLAN.
- 2.1. ADDITIONAL SILT FENCE MAY BE NECESSARY IF LOCAL CONDITIONS REQUIRE.
- 2.2. THE CONTRACTOR SHALL MAINTAIN SILT FENCE, INCLUDING THE REMOVAL OF ACCUMULATED SEDIMENT, THROUGH COMPLETION OF BUILDING CONSTRUCTION.
- 2.3. SILT FENCE SHALL REMAIN IN-PLACE UNTIL SITE HAS BEEN STABILIZED.
- 3. CONTRACTOR SHALL INSTALL A ROCK CONSTRUCTION ENTRANCE AT ALL LOCATIONS WHERE CONSTRUCTION TRAFFIC WILL ENTER/EXIT SITE.
- 4. CONTRACTOR TO INSTALL TREE PROTECTION FENCING AS APPLICABLE.
- 5. CONTRACTOR SHALL PERFORM SITE GRADING ON AN AREA-BY-AREA BASIS TO MINIMIZE UNSTABILIZED AREAS.
- 5.1. CONTRACTOR MUST IMMEDIATELY INITIATE STABILIZATION OF EXPOSED SOIL AREAS, AS DESCRIBED IN ITEM 8.4 OF THE PERMIT, AND COMPLETE THE STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE TEMPORARILY OR PERMANENTLY CEASES.
- 6. CONTRACTOR TO PROVIDE TEMPORARY SEDIMENTATION BASINS AS REQUIRED IN SECTION 14.1 THROUGH 14.10.
- 6. CONTRACTOR TO SHALL PAY SPECIAL ATTENTION TO ADJACENT PROPERTY LINES TO ENSURE THE EROSION CONTROL PRACTICES IN-PLACE IN THOSE AREAS PREVENT MIGRATION OF SEDIMENT ONTO ADJACENT PROPERTIES.
- 7. ALL EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS OR IMPLEMENTED IN THE FIELD SHALL BE IN ACCORDANCE WITH THE CITY AND NPDES PHASE I PERMIT REQUIREMENTS.
- 8. CONTRACTOR TO PROVIDE ADDITIONAL SILT FENCE, BIOROLLS, EROSION CONTROL BLANKET, OR OTHER APPROVED EQUAL FOR ANY SLOPES THAT APPEAR TO BE FAILING.
- 9. CONTRACTOR TO STABILIZE SOIL STOCKPILES; STABILIZATION SHALL BE INITIATED IMMEDIATELY.
- 10. CONTRACTOR SHALL FINAL GRADE SWALE AREAS UPON STABILIZATION OF UPSTREAM AREAS.
- 11. CONTRACTOR SHALL BE RESPONSIBLE TO SWEEP/SCRAPE ADJACENT STREETS WHEN MATERIALS OR DEBRIS HAVE WASHED/FLOWED ONTO ADJACENT STREETS OR AS DIRECTED BY CITY.
- 12. COORDINATE SMALL UTILITIES INSTALLATIONS (GAS, PHONE, ELECTRIC, CABLE, FIBEROPTIC, ETC) AFTER CURB & GUTTER INSTALLATION.

IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL APPLY FOR A MN DNR DEWATERING PERMIT AND PROVIDE WELL-FIELD LOCATIONS, RATES, DISCHARGE LOCATIONS, SCHEDULE AND QUANTITIES TO CCWD A MINIMUM OF SEVEN (7) DAYS PRIOR TO DEWATERING OPERATIONS.

PROJECT NAME

HIDDEN FOREST EAST THIRD ADDITION

PROJECT LOCATION

\*\* NO ASSIGNED ADDRESS \*\*  
NORTH OF 17TH AVE NE @ PACKARD ST NE  
(EAST OF EXINGTON AVE NE)  
HAM LAKE, MN 55014  
ANOKA COUNTY

LATITUDE: 45.4111  
LONGITUDE: -94.0525

DEVELOPER

HFN PROPERTIES, LLC  
17404 WARD LAKE DR NW  
ANDOVER, MN 55304

CONTACT NAME: JEFF STALLBERGER  
CONTACT PHONE: (612) 779-1471  
CONTACT E-MAIL: stallj@hfnmn.com

GENERAL CONTRACTOR

TBD

NARRATIVE - PERMANENT STORMWATER TREATMENT SYSTEMS

THERE WILL BE SEVERAL BMPs TO HANDLE STORMWATER RUN-OFF, INCLUDING INFILTRATION BASINS AND HURP PONDS. SEE "STORMWATER DRAINAGE REPORT" FOR FURTHER DISCUSSION AND INFORMATION.

SITE IMPERVIOUS AREAS

Table with columns: TOTAL SITE AREA, BEFORE CONSTRUCTION, AFTER CONSTRUCTION. Includes rows for TOTAL ESTIMATED IMPERVIOUS and TOTAL ESTIMATED PERVIOUS.

TOTAL DISTURBED AREA

~45.5 ACRES  
THE PROJECT WILL BE PHASED SO THERE WILL NOT BE GREATER THAN 50 ACRES OF DISTURBED AREA AT ANY ONE TIME.

SITE MAP W/ EXISTING AND FINAL GRADES AND DESIGN CALCULATIONS

SEE "STORMWATER DRAINAGE REPORT" FOR EXISTING AND PROPOSED AREA MAPS, DENOITING DRAINAGE AREA BOUNDARIES, DIRECTIONS OF FLOW, AND DISCHARGE POINTS WHERE STORMWATER LEAVES THE SITE.

RECEIVING WATERS WITHIN ONE MILE

Table with columns: NAME OF WATER BODY, TYPE OF WATER BODY, SPECIAL WATER, IMPAIRED WATER. Includes rows for UNNAMED WETLANDS, UNNAMED DITCH, COUNTY DITCH NO. 44, UNNAMED PVI, COON CREEK.

BUFFER TO SURFACE WATER

IF THE SITE DRAINS TO A SURFACE WATER, IS A 50-FT NATURAL BUFFER ADJACENT TO THE SURFACE WATER PRESERVED?  
YES NO N/A

NOTE: NATURAL BUFFERS ARE NOT REQUIRED ADJACENT TO ROAD DITCHES, JUDICIAL DITCHES, COUNTY DITCHES, STORMWATER CONVEYANCE CHANNELS, STORM DRAIN INLETS, AND SEDIMENT BASINS.

A) THERE ARE NUMEROUS WETLANDS ON THE SITE FROM WHICH A 50-FT NATURAL BUFFER CANNOT BE PRESERVED. REDUNDANT SEDIMENT CONTROL MEASURES ARE PROVIDED IN THOSE LOCATIONS.

TEMPORARY SEDIMENTATION BASINS

IF TEN (10) OR MORE ACRES OF DISTURBED SOIL DRAIN TO A COMMON LOCATION, IS A TEMPORARY SEDIMENT BASIN PROVIDED FOR TREATMENT OF THE RUNOFF BEFORE IT LEAVES THE CONSTRUCTION SITE OR TREATS SURFACE WATERS?  
YES NO N/A

A) BECAUSE THIS SITE IS WITHIN ONE (1) MILE OF AN IMPAIRED WATER, THE REQUIREMENT BECOMES FIVE (5) ACRES. THE CONTRACTOR WILL PROVIDE TEMPORARY SEDIMENTATION BASINS IF FIVE (5) OR MORE ACRES OF DISTURBED SOIL DRAIN TO A COMMON LOCATION.

INFILTRATION FEASIBILITY

ARE THERE ANY INFILTRATION RESTRICTIONS FOR THE SITE (SEE 16.14 THROUGH 16.21)?  
YES NO N/A

A) THE SITE HAS A HIGH SEASONAL WATER TABLE SO INFILTRATION IS NOT FEASIBLE IN ALL LOCATIONS.

ADDITIONAL STORMWATER MITIGATION MEASURES

ARE THERE ANY STORMWATER MITIGATION MEASURES PER:  
YES NO  
• ENVIRONMENTAL REVIEW DOCUMENT?  
• ENDANGERED SPECIES REVIEW?  
• ARCHAEOLOGICAL REVIEW?  
• OTHER LOCAL, STATE OR FEDERAL REVIEW?

IF YES TO ANY OF THE ABOVE, DESCRIBE THE MITIGATION MEASURES, FOR PURPOSES OF THIS PERMIT, MITIGATION MEASURES MEANS ACTIONS NECESSARY TO AVOID, MINIMIZE, OR MITIGATE FOR IMPACTS RELATED TO EROSION PREVENTION, SEDIMENT CONTROL, THE PERMANENT STORMWATER TREATMENT SYSTEM, POLLUTION PREVENTION MANAGEMENT MEASURES AND DISCHARGES ASSOCIATED WITH THE PROJECT'S CONSTRUCTION ACTIVITY. [MINN. R. 7090]

12.3 Discussion of parkland for Hidden Forest East 3<sup>rd</sup> Addition

Councilmember Kirkham, Public Works Superintendent Witkowski, Engineer Collins and Administrator Webster met with Jeff Stalberger, the developer for Hidden Forest East 3<sup>rd</sup> Addition to discuss the possibility of the City purchasing additional land from Mr. Stalberger if he negotiates the purchasing of the East 40 acres from the Knoll Family. Mr. Stalberger stated that he was able to negotiate with the Knoll Family to purchase an additional 38.673 acres of land. Mr. Stalberger is proposing to plat two residential lots on the east 400 feet of the property (11.89 acres). Parkland already dedicated includes 8.09 acres from Hidden Forest East 3<sup>rd</sup> Addition and an additional proposed 1.19 acres from the future subdivision. Parkland Dedication fees from Hidden Forest East and Hidden Forest East 2<sup>nd</sup> Additions total \$118,429.40 which will pay for purchasing the additional 26.78 acres to be used as parkland. **It was the consensus of the City Council to move forward with discussions to purchase additional land from Mr. Stalberger for a larger park with monies coming from the Park and Beach fund**

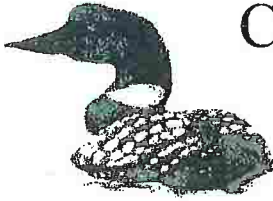
12.4 Announcements and future agenda items - None

**Motion by Kirkeide, seconded by Kirkham, to adjourn the meeting at 6:16 p.m. All in favor, motion carried.**

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Dawnette Shimek  
Deputy City Clerk





# CITY OF HAM LAKE

15544 Central Avenue NE  
Ham Lake, Minnesota 55304  
(763) 434-9555  
Fax: (763) 434-9599

## CITY OF HAM LAKE PARK AND TREE COMMISSION MINUTES WEDNESDAY, SEPTEMBER 19, 2018

The Ham Lake Park and Tree Commission met for its regularly scheduled meeting on Wednesday, September 19, 2018 at 6:00 p.m. at the Ham Lake City Hall, 15544 Central Avenue NE, Ham Lake, Minnesota.

**MEMBERS PRESENT:** Vice Chair Tim Donnay and Commissioners, Al Stauffacher, Tara Lanigan and Doug Miller

**MEMBERS ABSENT:** Patrick Wolfgram

**OTHERS PRESENT:** Public Works Superintendent, Tom Reiner and Deputy City Clerk, Jennifer Bohr

### CALL TO ORDER:

Vice Chair Donnay called the meeting to order at 6:00 p.m. and the Pledge of Allegiance was recited by all in attendance.

### APPROVAL OF MINUTES:

**Motion by Stauffacher, seconded by Miller, to approve the minutes of the July 18, 2018 Park and Tree Commission meeting as written. All present in favor. Motion carried.**

**CITY COUNCIL UPDATE:** None

### 1.0 APPEARANCES:

- 1.1 Jeff Stalberger, HFN Properties, LLC, consideration of Parkland Dedication for Sketch Plan of Hidden Forest East 2nd Addition (42 Single Family Residential Lots) in Section 25.

\*  
Jeff Stalberger of HFN Properties, LLC was present. Mr. Stalberger stated he developed the plat of Hidden Forest East last spring and Hidden Forest East 2<sup>nd</sup> Addition will be to the north of that plat. Vice Chair Donnay asked Mr. Stalberger if he has plans to develop additional land in this area and would those developments include a park. Superintendent Reiner stated that the Comprehensive Plan identifies an area north of the Hidden Forest East 2<sup>nd</sup> Addition as a potential future park location. Mr. Stalberger stated he prefers to offer the City money in lieu of parkland but he would be willing to work with the Knolls, current owners of the adjacent property, and the City to negotiate a purchase of land for a park, perhaps in a section to the southwest of Hidden Forest East 2<sup>nd</sup> Addition. Superintendent Reiner suggested that Mr. Stalberger purchase land in the next phase of development that could be parkland. Discussion followed regarding dedication of future parkland bordering Carlos Avery Wildlife

Management Area (WMA); there was concern that hunters would utilize any parkland bordering Carlos Avery WMA as an entrance to the WMA for hunting and cause parking issues. Commissioner Miller voiced his concern with the limited amount of parkland the City has obtained in the past two years and that tonight's discussion is only speculative; there is no guarantee the City will obtain parkland in future phases of development in this area. Vice Chair Donnay asked Mr. Stalberger when he would develop the next phase in the Hidden Forest East development. Mr. Stalberger stated it could possibly be eighteen months from now. Vice Chair Donnay asked if Mr. Stalberger would be willing to plan a park in the next phase. Mr. Stalberger stated he would be willing to plan a park in the next phase. Commissioner Stauffacher stated that if money is accepted in lieu of parkland for this development a park needs to be required in the next phase. Commissioner Miller stated the maximum amount of parkland needs to be obtained in the next phase. **Motion by Donnay, seconded by Lanigan, to recommend to City Council to accept monies in lieu of parkland for the Sketch Plan of Hidden Forest East 2<sup>nd</sup> Addition (42 Single Family Residential Lots) in Section 25. Commissioners Donnay and Lanigan voted yes, Commissioners Stauffacher and Miller voted no.** Commissioner Stauffacher said he would like a stipulation included in the motion to require parkland in the next phase of the Hidden Forest East development. **Donnay moved to amend the motion by adding the following to the motion on the table: with the understanding parkland will be required in the next phase of the Hidden Forest East development. Seconded by Stauffacher. Commissioners Donnay, Lanigan and Stauffacher voted yes, Commissioner Miller voted no. Motion carried.** *(This item will be placed on the October 1, 2018 City Council Agenda.)*

## 2.0 PARK & TREE COMMISSION BUSINESS:

### 2.1 Discussion of recommending a feasibility study for construction of a 1.75 mile bike trail on the west side of Radisson Road NE from 139<sup>th</sup> Avenue NE to 153<sup>rd</sup> Avenue NE

Superintendent Reiner stated extending the pedestrian trail on the west side of Radisson Road NE was discussed at the April 4, 2018 workshop meeting and the July 18, 2018 Park and Tree Commission meeting. Superintendent Reiner stated a recommendation was made to City Council for Engineer Collins to contact Anoka County to ask if the County would allow the City to purchase and construct a trail in the county right-of-way; Engineer Collins has contacted Anoka County and they are open to the trail extension. Superintendent Reiner stated the trail would connect to the current bike lane on 149<sup>th</sup> Avenue NE, which connects to a trail going into Blaine. Superintendent Reiner stated the next step in this process would be to conduct a feasibility study. **Motion by Stauffacher, seconded by Miller, to recommend to City Council that Engineer Tom Collins conduct a feasibility study for the 1.75 mile bike trail along the west side of Radisson Road NE between 139<sup>th</sup> Lane NE and 153<sup>rd</sup> Avenue NE. All present in favor. Motion carried.** *(This item will be placed on the October 1, 2018 City Council Agenda.)*

## 3.0 TREE UPDATE:

### 3.1 Oak Wilt Tree Inspections

Superintendent Reiner stated tree inspectors have completed road side inspections for oak wilt; 159 notices were sent to residents to inform them that their oak trees have symptoms of



## Tom Collins

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**From:** Joseph Murphy <joseph.murphy@carsoncs.net>  
**Sent:** Thursday, June 3, 2021 7:24 AM  
**To:** Tom Collins  
**Subject:** Hidden Forest East 3rd Addition

Hi Tom,

I have had an opportunity to research further the mandatory EAW under MN rule 4410.4300, subp. 36, in light of the suggestion that open space ponding be excluded from the calculation of acres being converted.

That rule requires a mandatory EAW for any project "resulting in the permanent conversion of 80 or more acres of agricultural, native prairie, forest, or naturally vegetated land..." The legal question is how to interpret and apply the phrase "permanent conversion" to the proposed Hidden Forest East project. The MN rules define "permanent conversion" as "a change in use of agricultural, naturally vegetated, or forest lands that impairs the ability to convert the land back to its agricultural, natural, or forest capacity in the future. It does not include changes in management practices, such as conversion to parklands, open space, or natural areas." Clearly, the proposed project will be changing natural forest/vegetation to pond. However, a very reasonable argument could be made that the pond remains an open space or natural area. The retaining ponds are a necessary part of the residential development project, but they can be distinguished from the impervious infrastructure of the remainder of the residential development and, I'm assuming, could theoretically be converted back to a more natural/vegetated space.

These provisions "permanent conversion" and "open spaces" have not been interpreted by Minnesota courts too often, and as you know, the language of the rule can be a bit unclear and open to several interpretations. But one MN Court of Appeals case from 2015 is instructive and helpful in projecting how courts may apply the language of the rule if the city decides not to require an EAW and someone brings a legal action against the city challenging that decision. In that case, a church camp was converting an 100-acre parcel to be used as a residential camp with multiple new outdoor uses and activities. The courts ultimately ruled that no EAW was required because the project only converted 15-acres from grassland/forest to camp infrastructure and despite the many activities and new uses of the land, the remainder of the project maintained the "forested, up-north character of the property."

Therefore, in my opinion, it is a reasonable interpretation of the rule to conclude that no EAW is required here as the land converted to ponding remains an "open space" if done in a way that does not impair its ability to be converted back in the future. There is, of course, no guarantee that the EQB or another environmental group may disagree with this interpretation and challenge any decision to not require an EAW.

Joseph Murphy  
Carson, Clelland & Schreder  
6300 Shingle Creek Parkway, Suite 305  
Minneapolis, MN 55430  
(763)-561-2800

**4410.4300 MANDATORY EAW CATEGORIES.**

Subpart 1. **Threshold test.** An EAW must be prepared for projects that meet or exceed the threshold of any of subparts 2 to 37, unless the project meets or exceeds any thresholds of part 4410.4400, in which case an EIS must be prepared.

If the proposed project is an expansion or additional stage of an existing project, the cumulative total of the proposed project and any existing stages or components of the existing project must be included when determining if a threshold is met or exceeded if construction was begun within three years before the date of application for a permit or approval from a governmental unit for the expansion or additional stage but after April 21, 1997, except that any existing stage or component that was reviewed under a previously completed EAW or EIS need not be included.

Multiple projects and multiple stages of a single project that are connected actions or phased actions must be considered in total when comparing the project or projects to the thresholds of this part and part 4410.4400.

Subp. 2. **Nuclear fuels and nuclear waste.** Items A to F designate the RGU for the type of project listed:

A. For construction or expansion of a facility for the storage of high level nuclear waste, other than an independent spent-fuel storage installation, the EQB is the RGU.

B. For construction or expansion of a facility for the storage of low level nuclear waste for one year or longer, the MDH is the RGU.

C. For expansion of a high level nuclear waste disposal site, the EQB is the RGU.

D. For expansion of a low level nuclear waste disposal site, the MDH is the RGU.

E. For expansion of an away-from-reactor facility for temporary storage of spent nuclear fuel, the EQB is the RGU.

F. For construction or expansion of an on-site pool for temporary storage of spent nuclear fuel, the EQB is the RGU.

Subp. 3. **Electric-generating facilities.** Items A to D designate the RGU for the type of project listed:

A. For construction of an electric power generating plant and associated facilities designed for or capable of operating at a capacity of 25 megawatts or more but less than 50 megawatts and for which an air permit from the PCA is required, the PCA is the RGU.

B. For construction of an electric power generating plant and associated facilities designed for and capable of operating at a capacity of 25 megawatts or more but less than 50 megawatts and for which an air permit from the PCA is not required, the local governmental unit is the RGU.

C. For construction of an electric power generating plant and associated facilities designed for and capable of operating at a capacity of 50 megawatts or more, the PUC is the RGU, and

environmental review must be conducted according to parts 7849.1000 to 7849.2100 and chapter 7850.

D. For construction of a wind energy conversion system, as defined in Minnesota Statutes, section 216F.01, designed for and capable of operating at a capacity of 25 megawatts or more, the PUC is the RGU, and environmental review must be conducted according to chapter 7854.

Subp. 4. **Petroleum refineries.** For expansion of an existing petroleum refinery that increases the refinery's capacity by 10,000 barrels per day or more, the PCA is the RGU.

Subp. 5. **Fuel conversion facilities.**

A. Subitems (1) and (2) designate the RGU for the type of project listed:

(1) For construction of a new fuel conversion facility for the conversion of coal, peat, or biomass sources to gaseous, liquid, or solid fuels if that facility has the capacity to utilize 25,000 dry tons or more per year of input, the PCA is the RGU.

(2) For construction of a new fuel conversion facility for the production of alcohol fuels that would have the capacity to produce 5,000,000 gallons or more per year of alcohol, the PCA is the RGU.

B. An EAW is required if an ethanol plant or biobutanol facility meets or exceeds thresholds of other categories of actions for which EAWs must be prepared.

Subp. 6. **Transmission lines.** For construction of a transmission line at a new location with a nominal capacity of between 70 kilovolts and 100 kilovolts with 20 or more miles of its length in Minnesota, the EQB is the RGU. For construction of a high-voltage transmission line and associated facilities, as defined in part 7850.1000, the PUC is the RGU. Environmental review must be conducted according to parts 7849.1000 to 7849.2100 and 7850.1000 to 7850.5600.

Subp. 7. **Pipelines.** Items A to D designate the RGU for the type of project listed:

A. For routing of a pipeline, greater than six inches in diameter and having more than 0.75 miles of its length in Minnesota, used for the transportation of coal, crude petroleum fuels, or oil or their derivatives, the EQB is the RGU.

B. For the construction of a pipeline for distribution of natural or synthetic gas under a license, permit, right, or franchise that has been granted by the municipality under authority of Minnesota Statutes, section 216B.36, designed to operate at pressures in excess of 275 pounds per square inch (gauge) with a length greater than:

(1) five miles if the pipeline will occupy streets, highways, and other public property;

or

(2) 0.75 miles if the pipeline will occupy private property;

the EQB or the municipality is the RGU.



C. For construction of a pipeline to transport natural or synthetic gas subject to regulation under the federal Natural Gas Act, United States Code, title 15, section 717, et. seq., designed to operate at pressures in excess of 275 pounds per square inch (gauge) with a length greater than:

(1) five miles if the pipeline will be constructed and operated within an existing right-of-way; or

(2) 0.75 miles if construction or operation will require new temporary or permanent right-of-way;

the EQB is the RGU. This item shall not apply to the extent that the application is expressly preempted by federal law, or under specific circumstances when an actual conflict exists with applicable federal law.

D. For construction of a pipeline to convey natural or synthetic gas that is not subject to regulation under the federal Natural Gas Act, United States Code, title 15, section 717, et seq.; or to a license, permit, right, or franchise that has been granted by a municipality under authority of Minnesota Statutes, section 216B.36; designed to operate at pressures in excess of 275 pounds per square inch (gauge) with a length greater than 0.75 miles, the EQB is the RGU.

Items A to D do not apply to repair or replacement of an existing pipeline within an existing right-of-way or to a pipeline located entirely within a refining, storage, or manufacturing facility.

Subp. 8. **Transfer facilities.** Items A to C designate the RGU for the type of project listed:

A. For construction of a new facility designed for or capable of transferring 300 tons or more of coal per hour or with an annual throughput of 500,000 tons of coal from one mode of transportation to a similar or different mode of transportation or the expansion of an existing facility by these respective amounts, the PCA is the RGU.

B. For construction of a new facility or the expansion by 50 percent or more of an existing facility for the bulk transfer of hazardous materials with the capacity of 10,000 or more gallons per transfer, if the facility is located in a shoreland area, a delineated floodplain, a state or federally designated wild and scenic rivers district, the Minnesota River Project Riverbend area, or the Mississippi headwaters area, the PCA is the RGU.

C. The PCA is the RGU for a silica sand project that:

(1) is designed to store or is capable of storing more than 7,500 tons of silica sand; or

(2) has an annual throughput of more than 200,000 tons of silica sand.

Subp. 9. **Underground storage.** Items A and B designate the RGU for the type of project listed:

A. For expansion of an underground storage facility for gases or liquids that requires a permit, pursuant to Minnesota Statutes, section 103I.681, subdivision 1, paragraph (a), the DNR is the RGU.

B. For expansion of an underground storage facility for gases or liquids, using naturally occurring rock materials, that requires a permit pursuant to Minnesota Statutes, section 103I.681, subdivision 1, paragraph (b), the DNR is the RGU.

Subp. 10. **Storage facilities.** Items A to H designate the RGU for the type of project listed:

A. For construction of a new facility designed for or capable of storing more than 7,500 tons of coal or with an annual throughput of more than 125,000 tons of coal or the expansion of an existing facility by these respective amounts, the PCA is the RGU.

B. For construction of a new major facility, as defined in part 7151.1200, that results in a designed storage capacity of 1,000,000 gallons or more of hazardous materials, the PCA is the RGU.

C. For expansion of an existing major facility, as defined in part 7151.1200, with a designed storage capacity of 1,000,000 gallons or more of hazardous materials when the expansion adds a net increase of 1,000,000 gallons or more of hazardous materials, the PCA is the RGU.

D. For expansion of an existing facility that has less than 1,000,000 gallons in total designed storage capacity of hazardous materials when the net increase in designed storage capacity results in 1,000,000 gallons or more of hazardous materials, the PCA is the RGU.

E. For construction of a new facility designed for or capable of storing on a single site 100,000 gallons or more of liquefied natural gas, as defined in Minnesota Statutes, section 299F.56, subdivision 14, or synthetic gas, as defined in Minnesota Statutes, section 216B.02, subdivision 6b, the PUC is the RGU, except as provided in item G.

F. For construction of a new facility designed for or capable of storing on a single site 100,000 gallons or more of anhydrous ammonia, the MDA is the RGU, except as provided in item G.

G. For construction of a new facility designed for or capable of storing on a single site 100,000 gallons or more of a combination of liquefied natural gas, as defined in Minnesota Statutes, section 299F.56, subdivision 14; synthetic gas, as defined in Minnesota Statutes, section 216B.02, subdivision 6b; or anhydrous ammonia, the PUC is the RGU.

H. The PCA is the RGU for a silica sand project that:

- (1) is designed to store or is capable of storing more than 7,500 tons of silica sand; or
- (2) has an annual throughput of more than 200,000 tons of silica sand.

Subp. 11. **Metallic mineral mining and processing.** Items A to C designate the RGU for the type of project listed:

A. For mineral deposit evaluation of metallic mineral deposits other than natural iron ore and taconite, the DNR is the RGU.

B. For expansion of a stockpile, tailings basin, or mine by 320 or more acres, the DNR is the RGU.

C. For expansion of a metallic mineral plant processing facility that is capable of increasing production by 25 percent per year or more, provided that increase is in excess of 1,000,000 tons per year in the case of facilities for processing natural iron ore or taconite, the DNR is the RGU.

Subp. 12. **Nonmetallic mineral mining.** Items A to D designate the RGU for the type of project listed:

A. For development of a facility for the extraction or mining of peat which will result in the excavation of 160 or more acres of land during its existence, the DNR is the RGU.

B. For development of a facility for the extraction or mining of sand, gravel, stone, or other nonmetallic minerals, other than peat, which will excavate 40 or more acres of land to a mean depth of ten feet or more during its existence, the local governmental unit is the RGU.

C. For development of a facility for the extraction or mining of sand, gravel, stone, or other nonmetallic minerals, other than peat, which will excavate 20 or more acres of forested or other naturally vegetated land in a sensitive shoreland area or 40 acres of forested or other naturally vegetated land in a nonsensitive shoreland area, the local governmental unit is the RGU.

D. For development of a silica sand project that excavates 20 or more acres of land to a mean depth of ten feet or more during the project's existence, the local governmental unit is the RGU.

Subp. 13. **Paper or pulp processing mills.** For expansion of an existing paper or pulp processing facility that will increase its production capacity by 50 percent or more, the PCA is the RGU.

Subp. 14. **Industrial, commercial, and institutional facilities.** Items A and B designate the RGU for the type of project listed, except as provided in items C and D:

A. For construction of a new or expansion of an existing warehousing or light industrial facility equal to or in excess of the following thresholds, expressed as gross floor space, the local governmental unit is the RGU:

- (1) unincorporated area, 150,000 square feet;
- (2) third or fourth class city, 300,000 square feet;
- (3) second class city, 450,000 square feet; and
- (4) first class city, 600,000 square feet.

B. For construction of a new or expansion of an existing industrial, commercial, or institutional facility, other than a warehousing or light industrial facility, equal to or in excess of the following thresholds, expressed as gross floor space, the local governmental unit is the RGU:

- (1) unincorporated area, 100,000 square feet;
- (2) third or fourth class city, 200,000 square feet;
- (3) second class city, 300,000 square feet; and



(4) first class city, 400,000 square feet.

C. This subpart applies to any industrial, commercial, or institutional project which includes multiple components, if there are mandatory categories specified in subparts 2 to 13, 16, 17, 20, 21, 23, 25, or 29, or part 4410.4400, subparts 2 to 10, 12, 13, 15, or 17, for two or more of the components, regardless of whether the project in question meets or exceeds any threshold specified in those subparts. In those cases, the entire project must be compared to the thresholds specified in items A and B to determine the need for an EAW. If the project meets or exceeds the thresholds specified in any other subpart as well as that of item A or B, the RGU must be determined as provided in part 4410.0500, subpart 1.

D. This subpart does not apply to projects for which there is a single mandatory category specified in subparts 2 to 13, 16, 17, 20, 23, 25, 29, or 34, or part 4410.4400, subparts 2 to 10, 12, 13, 17, or 22, regardless of whether the project in question meets or exceeds any threshold specified in those subparts. In those cases, the need for an EAW must be determined by comparison of the project to the threshold specified in the applicable subpart, and the RGU must be the governmental unit assigned by that subpart.

Subp. 15. **Air pollution.** Items A and B designate the RGU for the type of project listed.

A. For construction of a stationary source facility that generates 250 tons or more per year or modification of a stationary source facility that increases generation by 250 tons or more per year of any single air pollutant, other than those air pollutants described in item B, after installation of air pollution control equipment, the PCA is the RGU.

B. For construction of a stationary source facility that generates a combined 100,000 tons or more per year or modification of a stationary source facility that increases generation by a combined 100,000 tons or more per year of greenhouse gas emissions, after installation of air pollution control equipment, expressed as carbon dioxide equivalents, the PCA is the RGU. For purposes of this subpart, "greenhouse gases" include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride, and their combined carbon dioxide equivalents shall be computed by multiplying the mass amount of emissions for each of the six greenhouse gases in the pollutant GHGs by the gas's associated global warming potential published in Table A-1 to subpart A of Code of Federal Regulations, title 40, part 98, Global Warming Potentials, as amended, and summing the resultant value for each.

Subp. 16. **Hazardous waste.** Items A to D designate the RGU for the type of project listed:

A. For construction of a new or expansion of an existing hazardous waste disposal facility, the PCA is the RGU.

B. For construction of a new facility for hazardous waste storage or treatment that is generating or receiving 1,000 kilograms or more per month of hazardous waste or one kilogram or more per month of acute hazardous waste, the PCA is the RGU.

C. For expansion of an existing facility for hazardous waste storage or treatment that increases the facility's capacity by ten percent or more, the PCA is the RGU.

D. For construction or expansion of a facility that sells hazardous waste storage services to generators other than the owner and operator of the facility or construction of a facility at which a generator's own hazardous wastes will be stored for a time period in excess of 90 days, if the facility is located in a water-related land use management district, or in an area characterized by soluble bedrock, the PCA is the RGU.

Subp. 17. **Solid waste.** Items A to G designate the RGU for the type of project listed:

A. For construction of a mixed municipal solid waste land disposal facility for up to 100,000 cubic yards of waste fill per year, the PCA is the RGU.

B. For expansion by 25 percent or more of previously permitted capacity of a mixed municipal solid waste land disposal facility for up to 100,000 cubic yards of waste fill per year, the PCA is the RGU.

C. For construction or expansion of a mixed municipal solid waste transfer station for 300,000 or more cubic yards per year, the PCA is the RGU.

D. For construction or expansion of a mixed municipal solid waste energy recovery facility or incinerator or use of an existing facility for the combustion of mixed municipal solid waste or refuse-derived fuel, with a permitted capacity of 30 tons or more per day of input, the PCA is the RGU.

E. For construction or expansion of a mixed municipal solid waste compost facility or a refuse-derived fuel production facility with a permitted capacity of 50 tons or more per day of input, the PCA is the RGU.

F. For expansion by at least ten percent but less than 25 percent of previously permitted capacity of a mixed municipal solid waste land disposal facility for 100,000 cubic yards or more of waste fill per year, the PCA is the RGU.

G. For construction or expansion of a mixed municipal solid waste energy recovery facility ash landfill receiving ash from an incinerator that burns refuse-derived fuel or mixed municipal solid waste, the PCA is the RGU.

Subp. 18. **Wastewater systems.** Items A to F designate the RGU for the type of project listed:

A. For expansion, modification, or replacement of a municipal sewage collection system resulting in an increase in design average daily flow of any part of that system by 1,000,000 gallons per day or more if the discharge is to a wastewater treatment facility with a capacity less than 20,000,000 gallons per day, the PCA is the RGU.

B. For expansion, modification, or replacement of a municipal sewage collection system resulting in an increase in design average daily flow of any part of that system by 2,000,000 gallons per day or more if the discharge is to a wastewater treatment facility with the capacity of 20,000,000 gallons or greater, the PCA is the RGU.

C. For expansion or modification of an existing municipal or domestic wastewater treatment facility that results in an increase by 50 percent or more and by at least 200,000 gallons per day of the facility's average wet weather design flow capacity, the PCA is the RGU.

D. For construction of a new municipal or domestic wastewater treatment facility with an average wet weather design flow capacity of 200,000 gallons per day or more, the PCA is the RGU.

E. For expansion or modification of an existing industrial process wastewater treatment facility that increases the facility's design flow capacity by 50 percent or more and by at least 200,000 gallons per day or more, the PCA is the RGU.

F. For construction of a new industrial process wastewater treatment facility with a design flow capacity of 200,000 gallons per day or more, 5,000,000 gallons per month or more, or 20,000,000 gallons per year or more, the PCA is the RGU. This category does not apply to industrial process wastewater treatment facilities that discharge to a publicly owned treatment works or to a tailings basin reviewed according to subpart 11, item B.

\* Subp. 19. **Residential development.** An EAW is required for residential development if the total number of units that may ultimately be developed on all contiguous land owned or under an option to purchase by the proposer, except land identified by an applicable comprehensive plan, ordinance, resolution, or agreement of a local governmental unit for a future use other than residential development, equals or exceeds a threshold of this subpart. In counting the total number of ultimate units, the RGU shall include the number of units in any plans of the proposer; for land for which the proposer has not yet prepared plans, the RGU shall use as the number of units the product of the number of acres multiplied by the maximum number of units per acre allowable under the applicable zoning ordinance or, if the maximum number of units allowable per acre is not specified in an applicable zoning ordinance, by the overall average number of units per acre indicated in the plans of the proposer for those lands for which plans exist. If the total project requires review but future phases are uncertain, the RGU may review the ultimate project sequentially in accordance with part 4410.1000, subpart 4.

If a project consists of mixed unattached and attached units, an EAW must be prepared if the sum of the quotient obtained by dividing the number of unattached units by the applicable unattached unit threshold, plus the quotient obtained by dividing the number of attached units by the applicable attached unit threshold, equals or exceeds one.

The local governmental unit is the RGU for construction of a permanent or potentially permanent residential development of:

A. 50 or more unattached or 75 or more attached units in an unsewered unincorporated area or 100 unattached units or 150 attached units in a sewerred unincorporated area;

B. 100 unattached units or 150 attached units in a city that does not meet the conditions of item D;

C. 100 unattached units or 150 attached units in a city meeting the conditions of item D if the project is not consistent with the adopted comprehensive plan; or



D. 250 unattached units or 375 attached units in a city within the seven-county Twin Cities metropolitan area that has adopted a comprehensive plan under Minnesota Statutes, section 473.859, or in a city not located within the seven-county Twin Cities metropolitan area that has filed with the EQB chair a certification that it has adopted a comprehensive plan containing the following elements:

(1) a land use plan designating the existing and proposed location, intensity, and extent of use of land and water for residential, industrial, agricultural, and other public and private purposes;

(2) a transportation plan describing, designating, and scheduling the location, extent, function, and capacity of existing and proposed local public and private transportation facilities and services;

(3) a sewage collection system policy plan describing, designating, and scheduling the areas to be served by the public system, the existing and planned capacities of the public system, and the standards and conditions under which the installation of private sewage treatment systems will be permitted;

(4) a capital improvements plan for public facilities; and

(5) an implementation plan describing public programs, fiscal devices, and other actions to be undertaken to implement the comprehensive plan, and a description of official controls addressing the matters of zoning, subdivision, private sewage systems, and a schedule for the implementation of those controls. The EQB chair may specify the form to be used for making a certification under this item.

**Subp. 19a. Residential development in shoreland outside of the seven-county Twin Cities metropolitan area.**

A. The local governmental unit is the RGU for construction of a permanent or potentially permanent residential development located wholly or partially in shoreland outside the seven-county Twin Cities metropolitan area of a type listed in items B to E. For purposes of this subpart, "riparian unit" means a unit in a development that abuts a public water or, in the case of a development where units are not allowed to abut the public water, is located in the first tier of the development as provided under part 6120.3800, subpart 4, item A. If a project is located partially in a sensitive shoreland area and partially in nonsensitive shoreland areas, an EAW must be prepared if the sum of the quotient obtained by dividing the number of units in the sensitive shoreland area by the applicable sensitive shoreland area threshold, plus the quotient obtained by dividing the number of units in nonsensitive shoreland areas by the applicable nonsensitive shoreland area threshold, equals or exceeds one. If a project is located partially in shoreland and partially not in shoreland, an EAW must be prepared if the sum of the quotients obtained by dividing the number of units in each type of area by the applicable threshold for each area equals or exceeds one.

B. A development containing 15 or more unattached or attached units for a sensitive shoreland area or 25 or more unattached or attached units for a nonsensitive shoreland area, if any of the following conditions is present:

(1) less than 50 percent of the area in shoreland is common open space;

(2) the number of riparian units exceeds by at least 15 percent the number of riparian lots that would be allowable calculated according to the applicable lot area and width standards for riparian unsewered single lots under part 6120.3300, subparts 2a and 2b; or

(3) if any portion of the project is in an unincorporated area, the number of nonriparian units in shoreland exceeds by at least 15 percent the number of lots that would be allowable on the parcel calculated according to the applicable lot area standards for nonriparian unsewered single lots under part 6120.3300, subparts 2a and 2b.

C. A development containing 25 or more unattached or attached units for a sensitive shoreland area or 50 or more unattached or attached units for a nonsensitive shoreland area, if none of the conditions listed in item B is present.

D. A development in a sensitive shoreland area that provides permanent mooring space for at least one nonriparian unattached or attached unit.

E. A development containing at least one unattached or attached unit created by the conversion of a resort, motel, hotel, recreational vehicle park, or campground, if either of the following conditions is present:

(1) the number of nonriparian units in shoreland exceeds by at least 15 percent the number of lots that would be allowable on the parcel calculated according to the applicable lot area standards for nonriparian unsewered single lots under part 6120.3300, subparts 2a and 2b; or

(2) the number of riparian units exceeds by at least 15 percent the number of riparian lots that would be allowable calculated according to the applicable lot area and width standards for riparian unsewered single lots under part 6120.3300, subparts 2a and 2b.

F. An EAW is required for residential development if the total number of units that may ultimately be developed on all contiguous land owned or under an option to purchase by the proposer, except land identified by an applicable comprehensive plan, ordinance, resolution, or agreement of a local governmental unit for a future use other than residential development, equals or exceeds a threshold of this subpart. In counting the total number of ultimate units, the RGU shall include the number of units in any plans of the proposer. For land for which the proposer has not yet prepared plans, the RGU shall use as the number of units the number of acres multiplied by the maximum number of units per acre allowable under the applicable zoning ordinance or, if the maximum number of units allowable per acre is not specified in an applicable zoning ordinance, by the overall average number of units per acre indicated in the plan of the proposer for those lands for which plans exist.

Subp. 20. **Campgrounds and RV parks.** For construction of a seasonal or permanent recreational development, accessible by vehicle, consisting of 50 or more sites, or the expansion of such a facility by 50 or more sites, the local governmental unit is the RGU.

Subp. 20a. **Resorts, campgrounds, and RV parks in shorelands.** The local governmental unit is the RGU for construction or expansion of a resort or other seasonal or permanent recreational development located wholly or partially in shoreland, accessible by vehicle, of a type listed in item A or B:

A. construction or addition of 25 or more units or sites in a sensitive shoreland area or 50 units or sites in a nonsensitive shoreland area if at least 50 percent of the area in shoreland is common open space; or

B. construction or addition of 15 or more units or sites in a sensitive shoreland area or 25 or more units or sites in a nonsensitive shoreland area, if less than 50 percent of the area in shoreland is common open space.

If a project is located partially in a sensitive shoreland area and partially in nonsensitive shoreland areas, an EAW must be prepared if the sum of the quotient obtained by dividing the number of units in the sensitive shoreland area by the applicable sensitive shoreland area threshold, plus the quotient obtained by dividing the number of units in nonsensitive shoreland areas by the applicable nonsensitive shoreland area threshold, equals or exceeds one. If a project is located partially in shoreland and partially not in shoreland, an EAW must be prepared if the sum of the quotients obtained by dividing the number of units in each type of area by the applicable threshold for each area equals or exceeds one.

Subp. 21. **Airport projects.** Items A and B designate the RGU for the type of project listed:

A. For construction of a paved, new airport runway, the DOT, local governmental unit, or Metropolitan Airports Commission is the RGU.

B. For construction of a runway extension that would upgrade an existing airport runway to permit usage by aircraft over 12,500 pounds that are at least three decibels louder than aircraft currently using the runway, the DOT, local governmental unit, or Metropolitan Airports Commission is the RGU. The RGU is selected according to part 4410.0500, subpart 5.

Subp. 22. **Highway projects.** Items A to C designate the RGU for the type of project listed:

A. For construction of a road on a new location over one mile in length that will function as a collector roadway, the DOT or local governmental unit is the RGU.

B. For construction of additional through lanes or passing lanes on an existing road for a length of two or more miles, exclusive of auxiliary lanes, the DOT or local governmental unit is the RGU.

C. For the addition of one or more new interchanges to a completed limited access highway, the DOT or local governmental unit is the RGU.

Subp. 23. **Barge fleeting.** For construction of a new or expansion of an existing barge fleeting facility, the DOT or port authority is the RGU.

Subp. 24. **Water appropriation and impoundments.** Items A to C designate the RGU for the type of project listed:

A. For a new appropriation for commercial or industrial purposes of either surface water or ground water averaging 30,000,000 gallons per month; or a new appropriation of either ground water or surface water for irrigation of 540 acres or more in one continuous parcel from one source of water, the DNR is the RGU.



B. For a new permanent impoundment of water creating additional water surface of 160 or more acres or for an additional permanent impoundment of water creating additional water surface of 160 or more acres, the DNR is the RGU.

C. For construction of a dam with an upstream drainage area of 50 square miles or more, the DNR is the RGU.

Subp. 25. **Marinas.** For construction or expansion of a marina or harbor that results in a 20,000 or more square foot total or a 20,000 or more square foot increase of water surface area used temporarily or permanently for docks, docking, or maneuvering of watercraft, the local governmental unit is the RGU.

Subp. 26. **Stream diversion.** For a diversion, realignment, or channelization of any designated trout stream, or affecting greater than 500 feet of natural watercourse with a total drainage area of ten or more square miles unless exempted by part 4410.4600, subpart 14, item E, or 17, the DNR or local governmental unit is the RGU.

Subp. 27. **Public waters, public waters wetlands, and wetlands.** Items A and B designate the RGU for the type of project listed:

A. For projects that will change or diminish the course, current, or cross-section of one acre or more of any public water or public waters wetland except for those to be drained without a permit according to Minnesota Statutes, chapter 103G, the DNR or local governmental unit is the RGU.

B. For projects that will cause an impact, as defined in part 8420.0111, to a total of one acre or more of wetlands, regardless of type, excluding public waters wetlands, if any part of the wetland is within a shoreland area, a delineated floodplain, a state or federally designated wild and scenic rivers district, the Minnesota River Project Riverbend area, or the Mississippi headwaters area, the local governmental unit is the RGU. This item does not apply to projects exempted by part 4410.4600, subpart 14.

Subp. 28. **Forestry.** Items A and B designate the RGU for the type of project listed:

A. For harvesting timber for commercial purposes on public lands within a state park, a historical area, a wilderness area, a scientific and natural area, a wild and scenic rivers district, the Minnesota River Project Riverbend area, the Mississippi headwaters area, or a critical area that does not have an approved plan under Minnesota Statutes, section 86A.09 or 116G.07, the DNR is the RGU.

B. For a clear-cutting of 80 or more contiguous acres of forest, any part of which is located within a shoreland area and within 100 feet of the ordinary high water mark of the lake or river, the DNR is the RGU.

Subp. 29. **Animal feedlots.** The PCA is the RGU for the types of projects listed in items A and B unless the county will issue the feedlot permit, in which case the county is the RGU. However, the county is not the RGU prior to January 1, 2001.

A. For the construction of an animal feedlot facility with a capacity of 1,000 animal units or more or the expansion of an existing facility by 1,000 animal units or more if the facility is not in an area listed in item B.

B. For the construction of an animal feedlot facility of more than 500 animal units or expansion of an existing animal feedlot facility by more than 500 animal units if the facility is located wholly or partially in any of the following sensitive locations: shoreland; a delineated flood plain, except that in the flood plain of the Red River of the North the sensitive area includes only land within 1,000 feet of the ordinary high water mark; a state or federally designated wild and scenic river district; the Minnesota River Project Riverbend area; the Mississippi headwaters area; or an area within a drinking water supply management area delineated under chapter 4720 where the aquifer is identified in the wellhead protection plan as vulnerable to contamination; or within 1,000 feet of a known sinkhole, cave, resurgent spring, disappearing spring, Karst window, blind valley, or dry valley.

The provisions of part 4410.1000, subpart 4, regarding connected actions do not apply to animal feedlots. The provisions of part 4410.1000, subpart 4, regarding phased actions apply to feedlots.

With the agreement of the proposers, the RGU may prepare a single EAW to collectively review individual sites of a multisite feedlot proposal.

Subp. 30. **Natural areas.** For projects resulting in permanent physical encroachment on lands within a national park, a state park, a wilderness area, state lands and waters within the boundaries of the Boundary Waters Canoe Area, or a scientific and natural area when the encroachment is inconsistent with laws applicable to or the management plan prepared for the recreational unit, the DNR or local governmental unit is the RGU.

Subp. 31. **Historical places.** For the destruction, in whole or part, or the moving of a property that is listed on the National Register of Historic Places or State Register of Historic Places, the permitting state agency or local governmental unit is the RGU, except this does not apply to projects reviewed under section 106 of the National Historic Preservation Act of 1966, United States Code, title 54, section 306108, or the federal policy on lands, wildlife and waterfowl refuges, and historic sites pursuant to United States Code, title 49, section 303, or projects reviewed by a local heritage preservation commission certified by the State Historic Preservation Office pursuant to Code of Federal Regulations, title 36, sections 61.5 and 61.7. This subpart does not apply to a property located within a designated historic district if the property is listed as "noncontributing" in the official district designation or if the State Historic Preservation Office issues a determination that the property is noncontributing.

Subp. 32. **Mixed residential and industrial-commercial projects.** If a project includes both residential and industrial-commercial components, the project must have an EAW prepared if the sum of the quotient obtained by dividing the number of residential units by the applicable residential threshold of subpart 19, plus the quotient obtained by dividing the amount of industrial-commercial gross floor space by the applicable industrial-commercial threshold of subpart 14, equals or exceeds one. The local governmental unit is the RGU.

Subp. 33. **Communications towers.** For construction of a communications tower equal to or in excess of 500 feet in height, or 300 feet in height within 1,000 feet of any public water or public waters wetland or within two miles of the Mississippi, Minnesota, Red, or St. Croix rivers or Lake Superior, the local governmental unit is the RGU.

Subp. 34. **Sports or entertainment facilities.** For construction of a new sports or entertainment facility designed for or expected to accommodate a peak attendance of 5,000 or more persons, or the expansion of an existing sports or entertainment facility by this amount, the local governmental unit is the RGU.

Subp. 35. **Release of genetically engineered organisms.** For the release of a genetically engineered organism that requires a release permit from the EQB under chapter 4420, the EQB is the RGU. For all other releases of genetically engineered organisms, the RGU is the permitting state agency. This subpart does not apply to the direct medical application of genetically engineered organisms to humans or animals.

\* Subp. 36. **Land use conversion, including golf courses.** Items A and B designate the RGU for the type of project listed:

A. For golf courses, residential development where the lot size is less than five acres, and other projects resulting in the permanent conversion of 80 or more acres of agricultural, native prairie, forest, or naturally vegetated land, the local governmental unit is the RGU, except that this subpart does not apply to agricultural land inside the boundary of the Metropolitan Urban Service Area established by the Metropolitan Council.

B. For projects resulting in the conversion of 640 or more acres of forest or naturally vegetated land to a different open space land use, the local governmental unit is the RGU.

Subp. 36a. **Land conversions in shoreland.**

A. For a project proposing a permanent conversion that alters 800 feet or more of the shoreline in a sensitive shoreland area or 1,320 feet or more of shoreline in a nonsensitive shoreland area, the local governmental unit is the RGU.

B. For a project proposing a permanent conversion that alters more than 50 percent of the shore impact zone if the alteration measures at least 5,000 square feet, the local governmental unit is the RGU.

C. For a project that permanently converts 20 or more acres of forested or other naturally vegetated land in a sensitive shoreland area or 40 or more acres of forested or other naturally vegetated land in a nonsensitive shoreland area, the local governmental unit is the RGU.

Subp. 37. **Recreational trails.** If a project listed in items A to F will be built on state-owned land or funded, in whole or part, by grant-in-aid funds administered by the DNR, the DNR is the RGU. For other projects, if a governmental unit is sponsoring the project, in whole or in part, that governmental unit is the RGU. If the project is not sponsored by a unit of government, the RGU is the local governmental unit. For purposes of this subpart, "existing trail" means an established corridor in current legal use.



A. Constructing a trail at least 25 miles long on forested or other naturally vegetated land for a recreational use, unless exempted by part 4410.4600, subpart 14, item D.

B. Designating at least 25 miles of an existing trail for a new motorized recreational use other than snowmobiling. When designating an existing motorized trail or existing corridor in current legal use by motor vehicles, the designation does not contribute to the 25-mile threshold under this item. When adding a new recreational use or seasonal recreational use to an existing motorized recreational trail, the addition does not contribute to the 25-mile threshold if the treadway width is not expanded as a result of the added use. In applying items A and B, if a proposed trail will contain segments of newly constructed trail and segments that will follow an existing trail but be designated for a new motorized use, an EAW must be prepared if the total length of the newly constructed and newly designated segments is at least 25 miles.

C. Paving ten or more miles of an existing unpaved trail, unless exempted by part 4410.4600, subpart 27, item B or F. Paving an unpaved trail means to create a hard surface on the trail with a material impervious to water.

D. Constructing an off-highway vehicle recreation area of 80 or more acres, or expanding an off-highway vehicle recreation area by 80 or more acres, on agricultural land or forested or other naturally vegetated land.

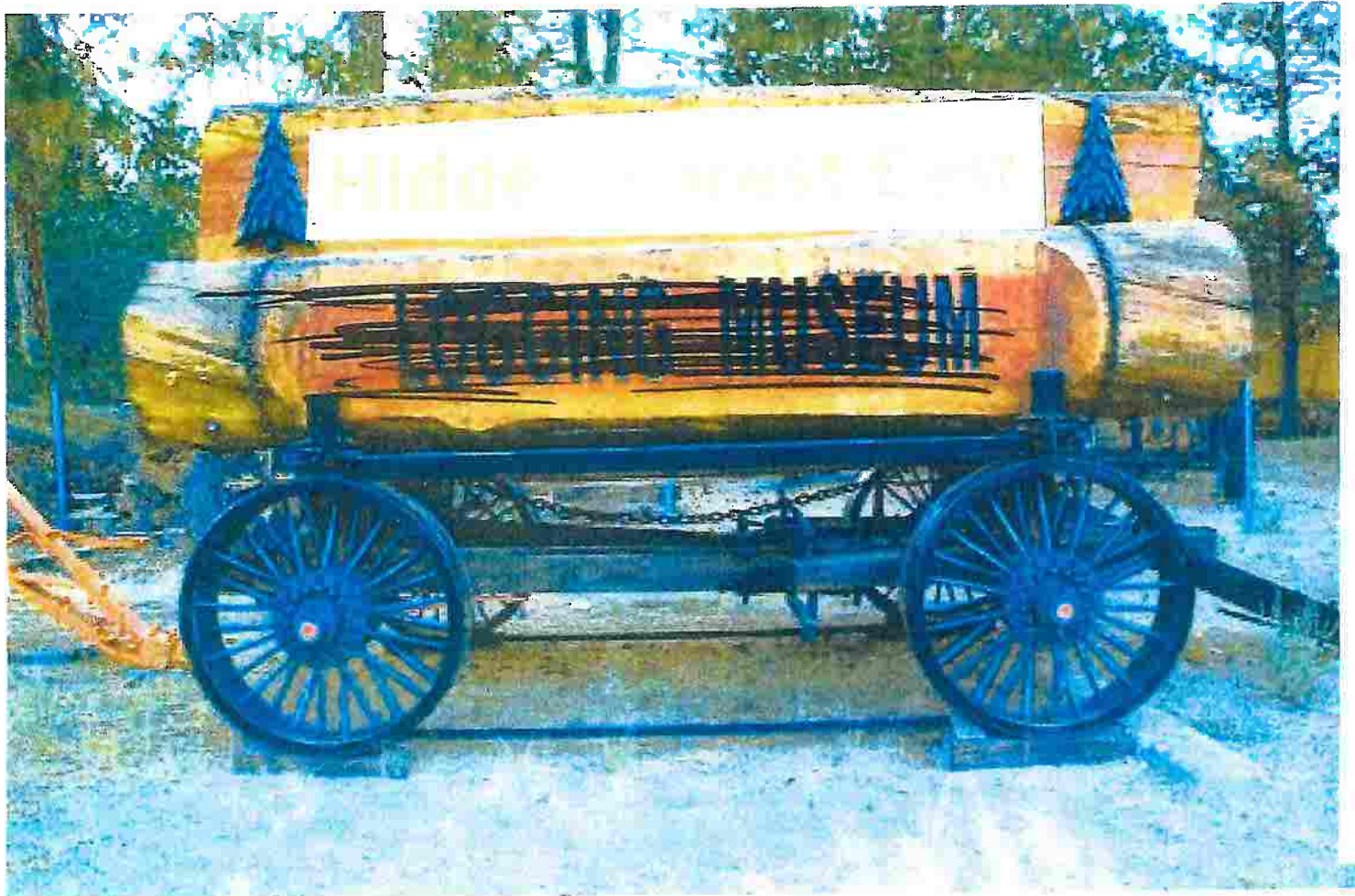
E. Constructing an off-highway vehicle recreation area of 640 or more acres, or expanding an off-highway vehicle recreation area by 640 or more acres, if the land on which the construction or expansion is carried out is not agricultural, is not forested or otherwise naturally vegetated, or has been significantly disturbed by past human activities such as mineral mining.

F. Some recreation areas for off-highway vehicles may be constructed partially on agricultural naturally vegetated land and partially on land that is not agricultural, is not forested or otherwise naturally vegetated, or has been significantly disturbed by past human activities. In that case, an EAW must be prepared if the sum of the quotients obtained by dividing the number of acres of agricultural or naturally vegetated land by 80 and the number of acres of land that is not agricultural, is not forested or otherwise naturally vegetated, or has been significantly disturbed by past human activities by 640, equals or exceeds one.

**Statutory Authority:** *MS s 116C.94; 116C.991; 116D.04; 116D.045; L 1998 c 401 s 54; L 2013 c 114 art 4 s 105; L 2015 1Sp4 art 4 s 121; art 5 s 33*

**History:** *11 SR 714; 13 SR 1437; 13 SR 2046; 17 SR 139; 21 SR 1458; 24 SR 517; 28 SR 951; 30 SR 319; 31 SR 539; 34 SR 721; 36 SR 567; 44 SR 691*

**Published Electronically:** *January 17, 2020*



Double sided sand blast or other

Sign on top

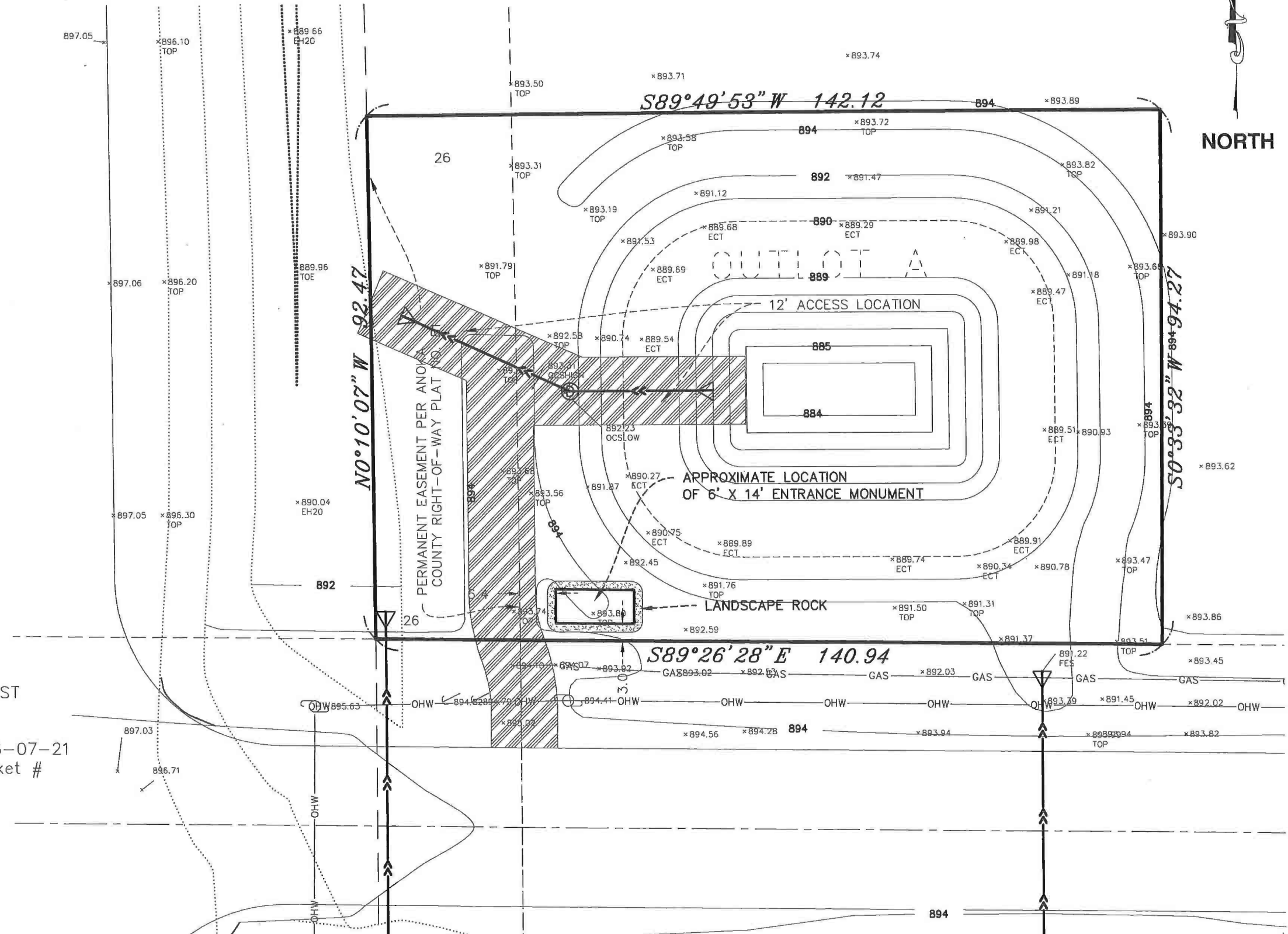
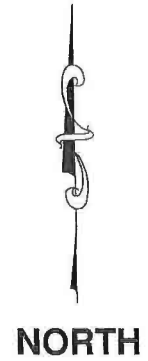
A few logs with no bark from  
the development

12' to 14' in length

Proposed Monument

# MONUMENT EXHIBIT

~for~ HFN PROPERTIES, LLC.



## NOTES

- Bearings shown are on Anoka County datum.
- Exhibit was prepared using HIDDEN FOREST EAST grading plan and field verification.
- E.G. Rud and Sons, Inc. visited the site on 06-07-21 to locate utilities marked by Gopher State One Ticket # 211522277.

Scale 1" = 20'    ● Denotes Iron Monument    Bearing Datum: Assumed    Job No. 200949    Drwg By MMD

I hereby certify that this plan, survey or report was prepared by me or under my direct supervision and that I am a duly Licensed Land Surveyor under the laws of the State of Minnesota.

**E. G. RUD & SONS, INC.**

Dated this 17th day of June 2021. Minnesota License No. 41578

By: *[Signature]*

**E. G. RUD & SONS, INC.**  
 PROFESSIONAL LAND SURVEYORS  
 6776 LAKE DRIVE NE, SUITE 110  
 LINO LAKES, MINNESOTA 55014  
 TEL. (651) 361-8200  
 FAX (651) 361-8701  
 www.egrud.com



## Tom Collins

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**From:** Mark Jones <MJones@ci.ham-lake.mn.us>  
**Sent:** Thursday, April 15, 2021 2:49 PM  
**To:** 'ricoh\_scanner@ham-lake.com'  
**Cc:** Tom Collins; Jennifer Bohr  
**Subject:** Monument sign

Jeff,

Talking it over with Joe Murphy you could simply do an amendment to the prior development agreement to HFE. You would need to show where on the plot the sign location, meet all setbacks, and show how the sign would interfere with maintaining the any ponding within that area. This would also have to be approved by Tom Collins. See code notes below.

11-340 Standards in Specific Residential Districts No signs shall be permitted in any area zoned R-1, R-M, R-AH, PUD, RS-1 or

RS-2 except for temporary signs that are no greater than six square feet in size, except that Neighborhood Monument Signs as defined in Article 11-350.4 of this code may be up to 40 square feet in size, as measured on the perimeter of the border of the message displayed (excluding structural components of the sign). Only one sign may be placed on a residential lot, except that if it is a corner lot with two road frontages, one sign may be permitted facing each road. Such signs may be in place for no more time than is necessary to accomplish the intended purpose of the sign. A single "monument" or other sign erected by a neighborhood association or land developer may be placed on private property at any road entrance to the neighborhood, provided that the sign is maintained by the property owner on whose parcel the sign is placed.

11-350.4 Neighborhood Monument Signs A "Neighborhood Monument Sign" is a sign that is erected by a residential subdivision developer or owner's association at the time of marketing and construction of the subdivision. Neighborhood Monument Signs shall be constructed of materials requiring little or no ongoing maintenance, such as masonry. No portion of any Neighborhood Monument Sign shall be located closer than ten feet from any road right-of-way. No Neighborhood Monument Sign shall be permitted unless, as a part of the development agreement for the subdivision, a reasonable system for ongoing maintenance of the sign is provided, at no cost or expense to the City. Further, the development agreement shall provide that if the sign is not properly maintained, the City may, upon reasonable notice to the residents of the neighborhood, come upon the property upon which the sign sits and remove the signage.

Mark Jones  
City of Ham Lake

## NOTICE OF PERMIT APPLICATION STATUS

**Project:** Hidden Forest East 3rd Addition

**Date:** May 28, 2021

**Applicant:** Jeff Stalberger  
17404 Ward Lake Dr. NW  
Andover, MN 55304

**Permit Application#:** 20-143

**Purpose:** 38 lot residential subdivision, associated stormwater features

**Location:** Packard St NE at 145<sup>th</sup> Ave NE, Ham Lake

At their meeting on April 26, 2021 the Board of Managers of the Coon Creek Watershed District **conditionally approved** the above referenced project with 4 conditions and 2 stipulations. **This is NOT a permit.**

Since your last submittal on 5/12/2021, the following 2 conditions remain which must be addressed before permit issuance (please see note below on how to address conditions).

1. Receipt of escrows.
2. Update Basin 1B EOF elevation to be consistent between HydroCAD model, Grading Plans, and details.

Please note that there are also 2 stipulations.

Please be advised that **this is NOT a permit**, and that work without a permit is a violation of the terms of the Coon Creek Watershed District Rule 5.1. If you have any questions, please call 763-755-0975.

Sincerely,



Erin Edison  
Water Resource Regulation Coordinator

cc: File 20-143  
Ed Matthiesen, Stantec  
Danielle Tourtillott, Stantec  
Tom Collins, City of Ham Lake

**Note:** Please respond to each of these items in writing when resubmitting the revised plans to the District. Resubmittals must include two hard copies and/or an electronic version sent to [permitsubmittals@cooncreekwd.org](mailto:permitsubmittals@cooncreekwd.org). ***Please submit written responses***

**below the original typed comments, using extra sheets as necessary, addressing comments from the District.** If you have any questions, feel free to contact Erin Edison at (763) 755-0975. Pursuant to Coon Creek rule 7.3 deficiencies must be addressed and resubmitted within 60 days. Failure to do so shall be deemed a withdrawal of the permit application.



To: Erin Edison, Tim Kelly                      From: Brady Schmitz, Stantec Consulting Services Inc.  
Coon Creek Watershed                      Copy: Ed Matthiesen, P.E., Stantec Consulting Services Inc.  
District  
PAN: 20-143                                      Date: May 20, 2021

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**Reference: Hidden Forest 3rd Update**

**Exhibits:**

1. Grading Plans (16 sheets); by Plowe, dated 04/27/2021, received 05/13/2021.
2. Civil Plans (9 sheets); by Plowe, dated 04/27/2021, received 05/13/2021.
3. Stormwater Drainage Report; by Plowe, dated 05/13/2021, received 05/13/2021.

In Response to the Coon Creek Watershed District "Notice of Permit Application Status" dated April 28, 2021:

1. Receipt of escrows. **NO**
2. Update Basin 1B EOF elevation to be consistent between HydroCAD model, Grading plans, and details. **NO**

**Findings:** Basin 1B EOF elevation is listed as 903.8 on the Grading Plans and HydroCAD model. It is shown as 903.6 in the detail table on sheet C2.04 of the Civil Plans.

**Recommendation:** Approval with 2 Condition and 3 Stipulations:

Conditions:

3. Receipt of escrows.
4. Update Basin 1B EOF elevation to be consistent between HydroCAD model, Grading Plans, and details.

Stipulations:

1. Submittal of as-builts for the following stormwater management practices, including volume and proof of installation for hydrodynamic separators:

<b>Stormwater Treatment Practices</b>	<b>Number</b>
Wet Sedimentation Pond	4
Infiltration Basin	8
RainGuardians	13
Outlet Control Structure	5

2. Completion of post construction infiltration tests on Infiltration Basins 1A, 1B, 2A, 3A, 3B, 4D, 7A and 7B by filling the basin to a minimum depth of 6 inches with water and monitoring the time necessary to drain, or multiple double ring infiltration tests to ASTM standards. The Coon Creek Watershed District shall be notified prior to the test to witness the results.
3. If dewatering, either DNR dewatering permit (if required) or well-field location, rates, discharge location, schedule and quantities must be submitted to the District 7 days prior to activity for review and approval.

**Tradewell Soil Testing  
18330 Dahlia Street NW  
Cedar, MN 55011**

April 5<sup>th</sup>, 2021

RFC Engineering  
13635 Johnson Street NE  
Ham Lake, MN 55304  
Attention: Tom Collins

Dear Mr. Collins:

As a licensed site evaluator who conducted the soil borings in Hidden Forest East 3<sup>rd</sup> Addition for Jeff Stalberger, I found the following: Each boring has at least 12" of natural, undisturbed and unmottled soil. In order to design and install a standard soil treatment system according to MN Chapter 7080 Code, at least 12" of natural soil with no signs of mottling is required. Therefore, each of the proposed lots will support 2 "standard" septic systems within the 7,500 square feet septic area as shown on the Grading Plan.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark Tradewell". The signature is fluid and cursive, with a large initial "M" and "T".

Mark Tradewell  
MPCA #307



## KJOLHAUG ENVIRONMENTAL SERVICES COMPANY

*Providing Sound, Balanced, Comprehensive Natural Resource Solutions*

### Memorandum

**Date:** April 13, 2021

**To:** Becky Horton, MN DNR

**Cc:** Erin Edison, Coon Creek Watershed District  
Jeff Stalberger, HFN Properties, LLC  
Adam Ginkel, Plowe Engineering, Inc.

**From:** Melissa Barrett, Kjolhaug Environmental Services Company (KES)

**Re:** Rare Species Avoidance Plan  
Hidden Forest East 3<sup>rd</sup> Addition, Ham Lake  
KES#2020-104

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The Hidden Forest East 3<sup>rd</sup> Addition project is located on 82.8 acres in Section 26, Township 32 North, Range 23 West, Ham Lake, Anoka County, Minnesota. The site is situated east of Lexington Avenue and north of 125<sup>th</sup> Avenue NE.

A plant survey conducted on the site by Midwest Natural Resources (MNR) on August 23, 2020 (**Attachment A**) identified 69 individuals of the state-threatened black huckleberry (*Gaylussacia baccata*) in the northeast corner of the site (**Figure 1**).

The proposed plan for the site is included as **Attachment B**. According to the plan, the nearest grading activity is more than 260 feet from the rare plant population (**Figure 2**).

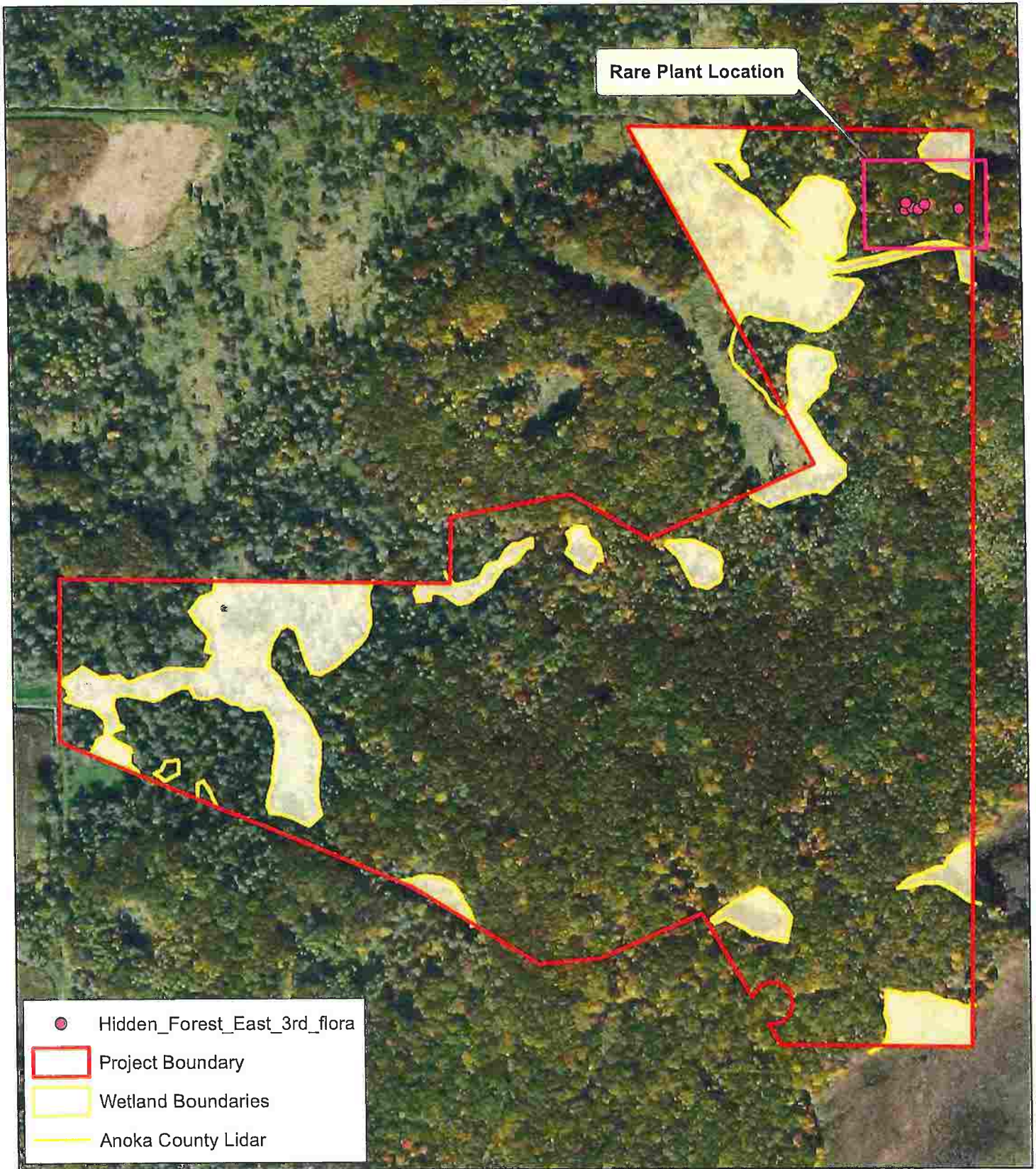
Prior to site construction, silt fence as shown on the plans will be installed along the grading limits thereby ensuring avoidance of the subject plants.

Project approval requires DNR concurrence with the Rare Plant Survey and concurrence that additional investigation is not required.


At this time, we are requesting DNR approval of this avoidance plan and the MNR plant survey. We are also requesting that DNR provides a determination to CCWD regarding whether further investigation is required for this project.

Thank you.







**Figure 1 - Rare Plant Population Location**



N



0                      500



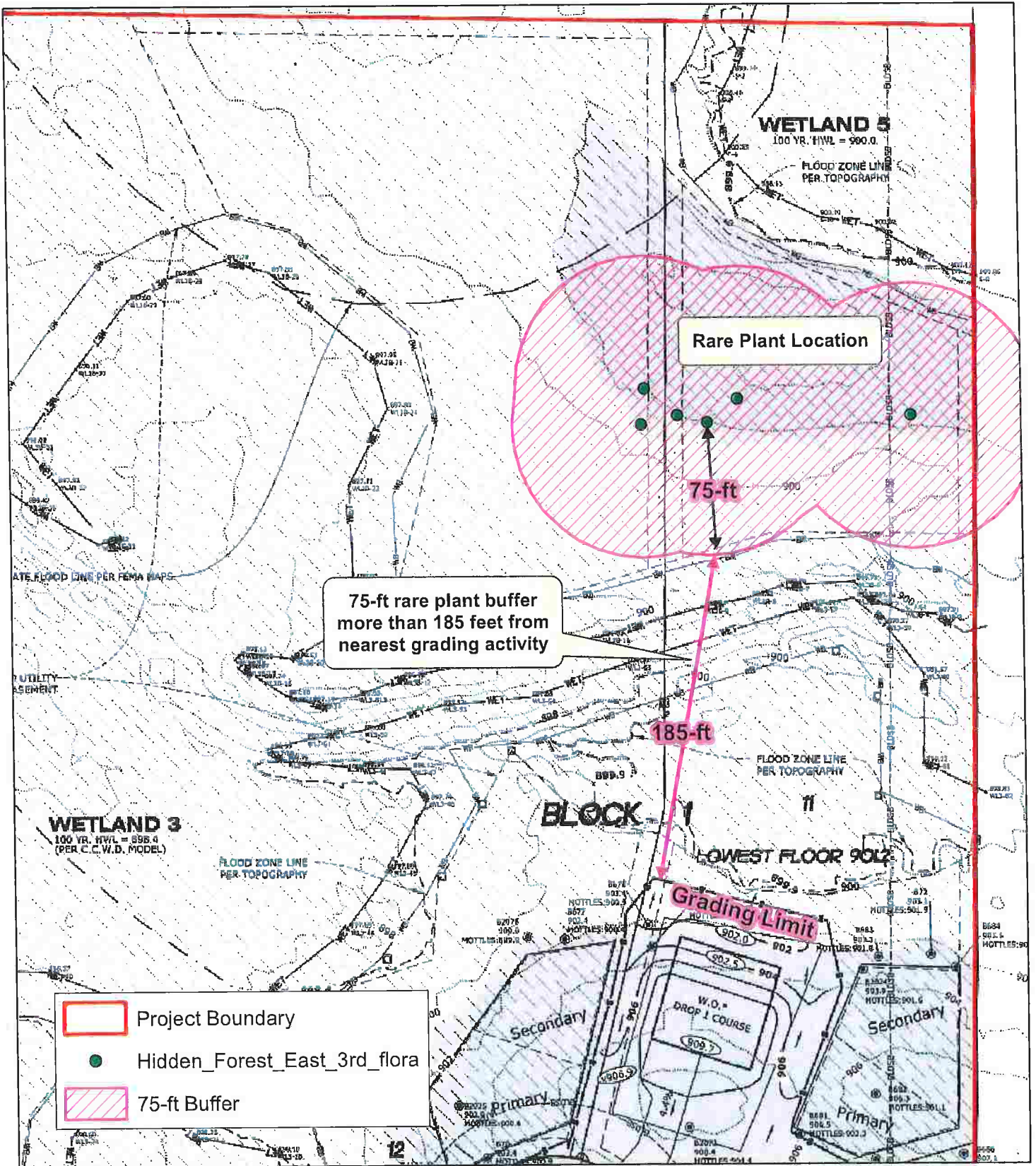
Feet

**Hidden Forest East 3rd Addition (KES 2020-104)**  
**Ham Lake, Minnesota**

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

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





**Figure 2 - Rare Plant Distance from Grading Activities**

**Hidden Forest East 3rd Addition (KES 2020-104)**  
**Ham Lake, Minnesota**

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

0 125 Feet

N

**KJOLHAUG** ENVIRONMENTAL SERVICES COMPANY

Source: MNGEO Spatial Commons

**Hidden Forest East 3<sup>rd</sup> Addition, Ham Lake**

**Rare Species Avoidance Plan**

**Attachment A**



# RARE PLANT SURVEY REPORT

## HIDDEN FOREST EAST 3<sup>RD</sup> ADDITION PROJECT

Prepared for:  
Mr. Jeffrey Stalberger  
HFN Properties, LLC  
17404 Ward Lake Dr. NW  
Andover, MN 55304



SEPTEMBER 11, 2020

Prepared by:  
Midwest Natural Resources, Inc.  
1032 West 7th Street, Suite 150  
St. Paul, Minnesota 55102





Mr. Jeffrey Stalberger  
HFN Properties, LLC  
17404 Ward Lake Dr. NW  
Andover, MN 55304

September 11, 2020

Mr. Stalberger,

The following document discusses the results of the recent rare plant survey conducted by Midwest Natural Resources, Inc. (MNR) for the proposed Hidden Forest East 3<sup>rd</sup> Addition residential development project. The proposed project is located east of Lever Street Northeast in Ham Lake, Minnesota (**Figure 1**).

#### **Project Limits and Existing Background Data**

The project area, which is approximately 82.5 acres, is located in Township 32 North, Range 23 West in the NENE, NWNE, SWNE, SENE, and NESE quarter-quarter sections of Section 25 (**Figure 2**). Available background data reviewed pertaining to the overall landscape included the USGS Topographic Map (**Figure 3**), LiDAR imagery (**Figure 4**), and the Anoka County Soil Survey digital data layer (**Figure 5**). The site includes four different soils series: Isanti fine sandy loam (Iw), Lino loamy fine sand (LnA), Markey muck (Ma), and Zimmerman fine sand (ZmB). Additionally, the Minnesota Department of Natural Resources (DNR) Native Plant Community (NPC) data layer was examined to determine if NPCs were mapped within the project site (**Figure 6**). This data layer identifies a large portion of the site as Southern Dry-Mesic Oak (Maple) Woodland, Oak – (Red Maple) Woodland type (FDs37a). The site is additionally identified as an Outstanding Site of Biological Significance (**Figure 7**).

#### **Methods**

Prior to conducting field surveys, MNR submitted a rare plant survey protocol to the DNR Endangered Species Coordinator (**Appendix A**). Field efforts, consisting of meander surveys, were conducted on August 23, 2020 by MNR botanists Otto Gockman, Jake Walden, and the undersigned. Follow-up surveys efforts were conducted on September 5, 2020. A general species list was collected during field efforts, as were representative site photographs. State-listed plant populations observed were spatially documented using a Trimble® Geo XT 6000 sub-meter GPS unit, capturing the extent of a given population or colony. Collected spatial data was then post-processed following survey efforts in order to provide sub-meter quality data.

#### **Results**

The majority of the project area is a Southern Dry-Mesic Oak (Maple) Woodland, Oak – (Red Maple) Woodland community type (FDs37a), matching the NPC data layer. The conservation status of this native plant community in the state is ranked as S4, meaning apparently secure, uncommon but not rare.

The canopy of this community is continuous with prominent species including white oak (*Quercus alba*), northern pin oak (*Q. ellipsoidalis*), northern red oak (*Q. rubra*), and red maple (*Acer rubrum*). The shrub layer ranges from sparse to patchy, and the ground layer is patchy to interrupted with hog peanut (*Amphicarpaea bracteata*), Pennsylvania sedge (*Carex pensylvanica*), large-leaved aster (*Eurybia macrophylla*), interrupted fern (*Claytosmunda claytoniana*<sup>1</sup>, formerly *Osmunda claytoniana*), and bracken fern (*Pteridium aquilinum*). The survey area additionally includes a number of open wetland features throughout. These wetlands are generally degraded and dominated by reed canary grass (*Phalaris arundinacea*) along with stinging nettle (*Urtica dioica*) and arrow-leaved tearthumb (*Persicaria sagittata*).

Overall, 138 species were noted during survey efforts (**Appendix B**), including the state-threatened black huckleberry (*Gaylussacia baccata*). Approximately 69 individuals were documented in the northeast corner of the project area (**Figure 8**) growing in the fire dependent forest growing in association with *Quercus alba*, *Q. rubra*, *Acer rubrum*, *Amphicarpaea bracteata*, *Carex pensylvanica*, *Claytosmunda claytoniana*, American hazelnut (*Corylus americana*), bush honeysuckle (*Diervilla lonicera*), woodbine (*Parthenocissus vitacea*), and lowbush blueberry (*Vaccinium angustifolium*). A portion of one individual was collected for documentation purposes and collected under Special Permit No. 22798. This voucher will be submitted to the DNR in the near future and ultimately provided to the University of Minnesota Herbarium (MIN).

Representative site photos, as well as photos of the *Gaylussacia baccata*, are provided in **Appendix C**.


## Conclusion

As noted, one state-threatened species, *Gaylussacia baccata*, was documented during survey efforts. This species is protected by state law, which prohibits the taking, importing, transporting, or selling of any part of a threatened or endangered species. A takings permit through the DNR will be required if impacts are unavoidable, and we can assist you in that case.

Please also note that we will be submitting this report to the DNR for concurrence and we will additionally submit our spatial data for incorporation into the Natural Heritage Information System database.

We appreciate the opportunity to assist you with your project and we welcome any questions or comments.

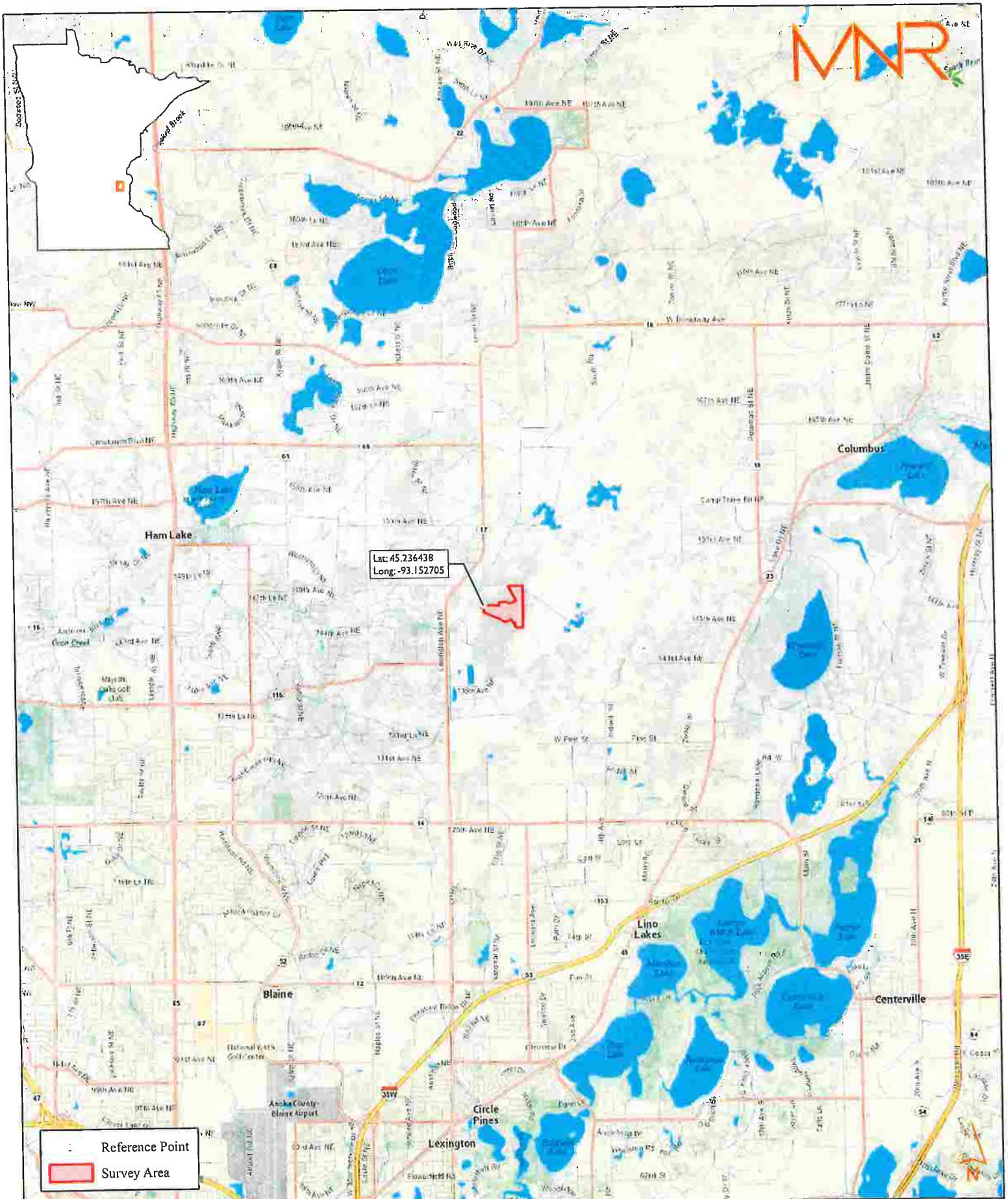
Respectfully submitted,



Scott A. Milburn, M.S.  
Principal Botanist/President  
Midwest Natural Resources, Inc.

1. *Claytosmunda claytoniana* (L.) Metzgar & Rouhan





Source: National Geographic World Map, US Census, Date: 9/11/2020



**Survey Site Location**  
**Botanical Surveys**  
**Hidden Forest East 3rd Addition**  
**Anoka County, Minnesota**

**Figure 1**



Anoka County

T032N  
R023W  
Sec 23

T032N  
R023W  
Sec 24

T032N  
R022W  
Sec 19

T032N  
R023W  
Sec 26

T032N  
R023W  
Sec 25

T032N  
R022W  
Sec 30

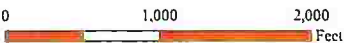
T032N  
R023W  
Sec 36

T032N  
R022W  
Sec 31

Lat: 45.236438  
Long: -93.152705

- Reference Point
- PLSS Section
- PLSS Quarter-Quarter Section
- Survey Area

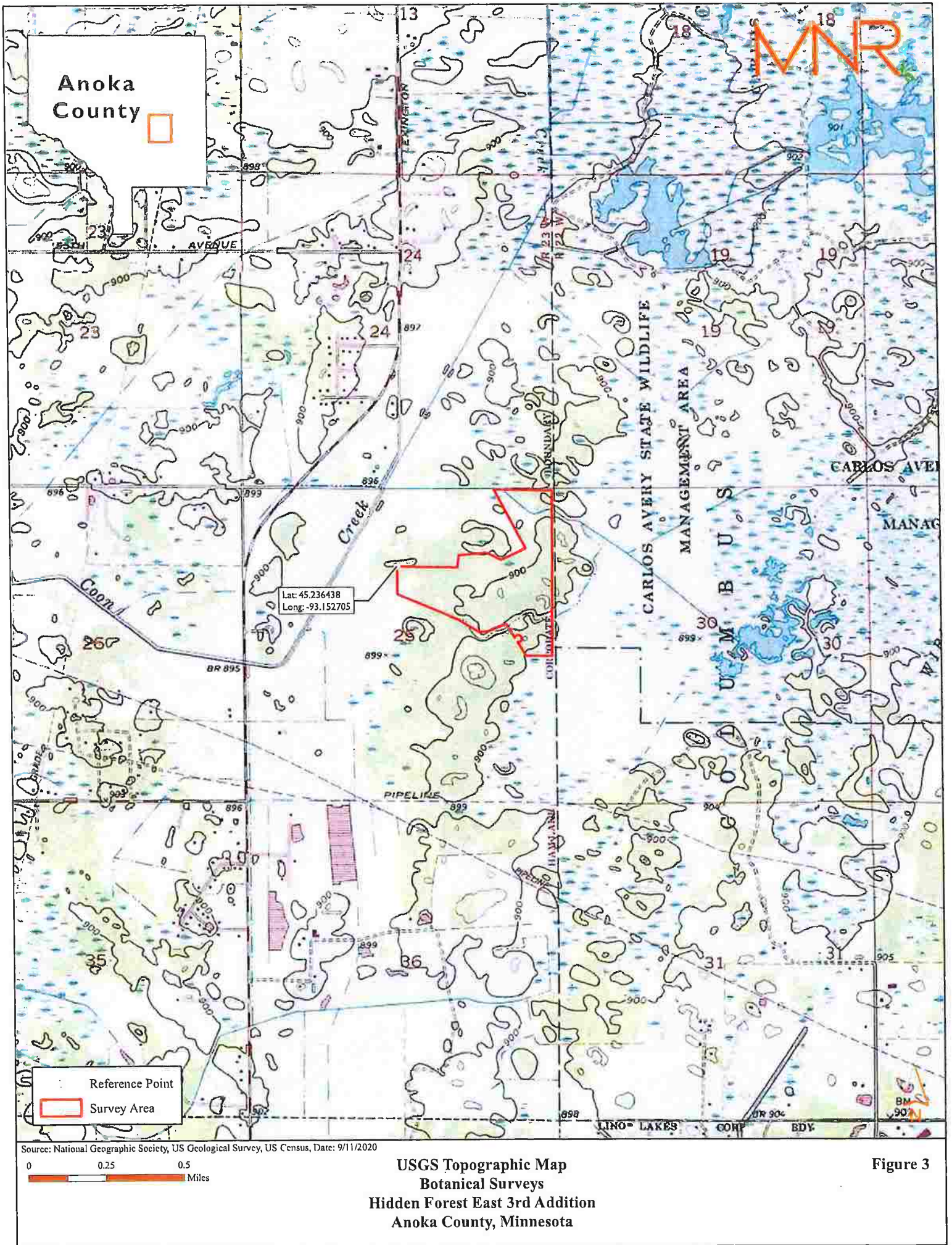
Source: OpenStreetMap, US Bureau of Land Management, US Census, Date: 9/11/2020



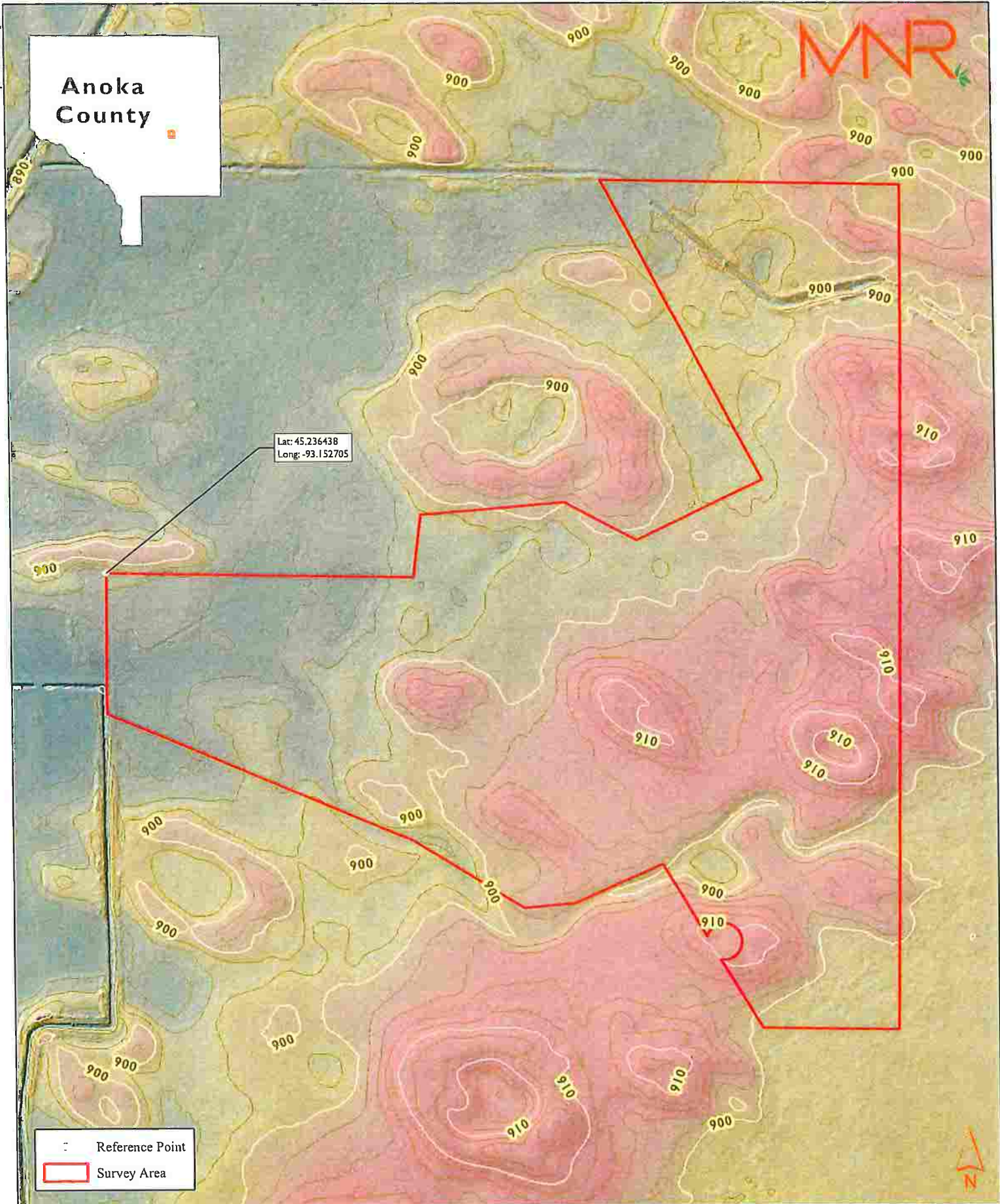
PLSS Survey Divisions  
Botanical Surveys  
Hidden Forest East 3rd Addition  
Anoka County, Minnesota

Figure 2

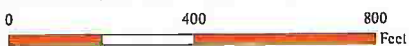








Source: MnGeo, Minnesota DNR, US Census, Date: 9/11/2020



**LiDAR Elevation Data: Hillshade / Contours**  
**Botanical Surveys**  
**Hidden Forest East 3rd Addition**  
**Anoka County, Minnesota**

**Figure 4**











MNR

Anoka  
County

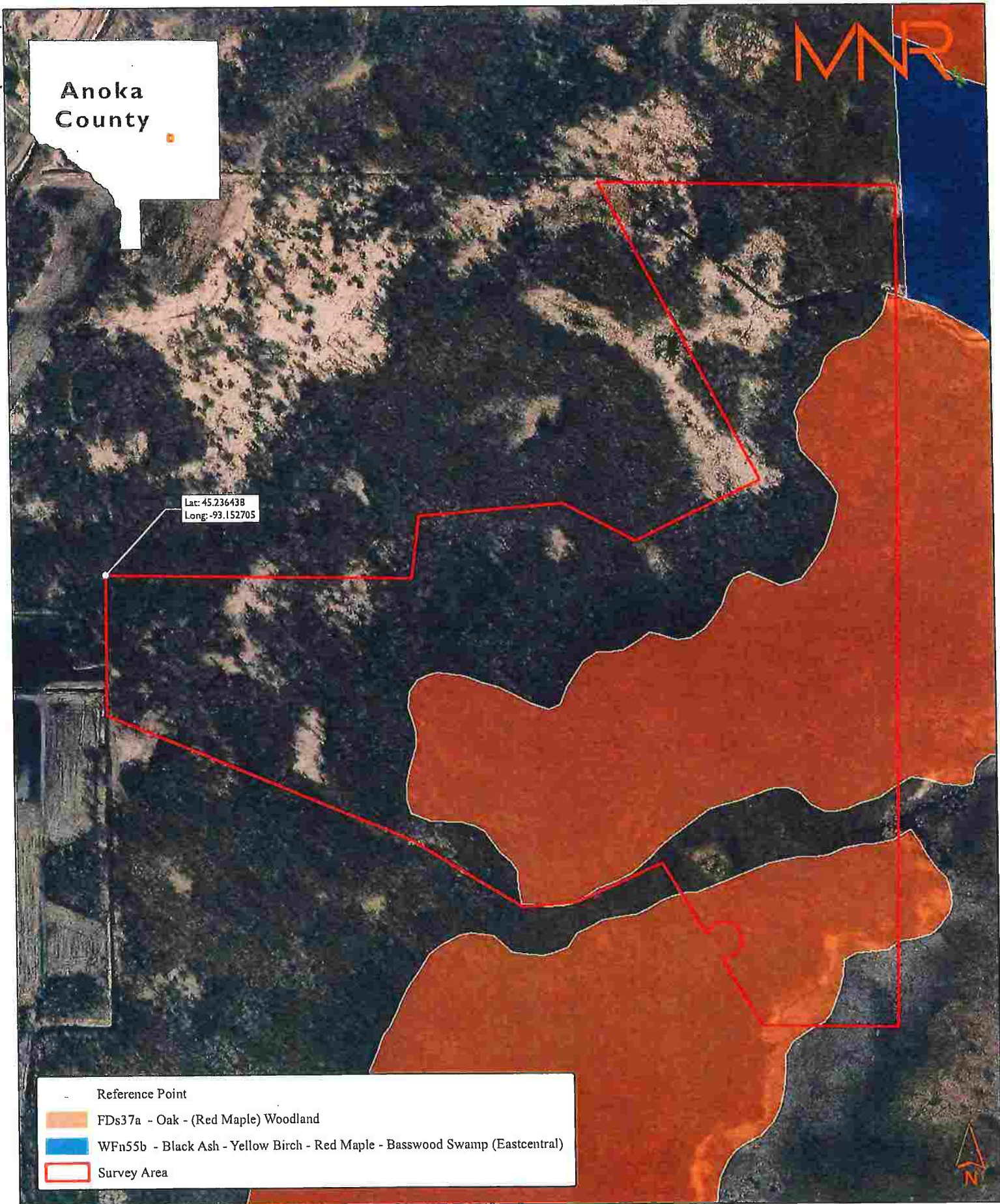
Lat: 45.236438  
Long: -93.152705

-  Reference Point
-  FDs37a - Oak - (Red Maple) Woodland
-  WFn55b - Black Ash - Yellow Birch - Red Maple - Basswood Swamp (Eastcentral)
-  Survey Area

Source: MnGeo, Minnesota DNR, US Census, Date: 9/11/2020  
0 400 800 Feet

**Native Plant Communities  
Botanical Surveys  
Hidden Forest East 3rd Addition  
Anoka County, Minnesota**

**Figure 6**





MNR

Anoka  
County

Lat: 45.236438  
Long: -93.152705

CARLOSAVERY  
NATURAL AREA

Reference Point

Survey Area

MN Biological Survey Mapped:

Outstanding

Source: MnGeo, Minnesota DNR, US Census, Date: 9/11/2020



**MBS Sites of Biological Significance**  
**Botanical Surveys**  
**Hidden Forest East 3rd Addition**  
**Anoka County, Minnesota**

Figure 7





Anoka  
County

Lat: 45.236438  
Long: -93.152705

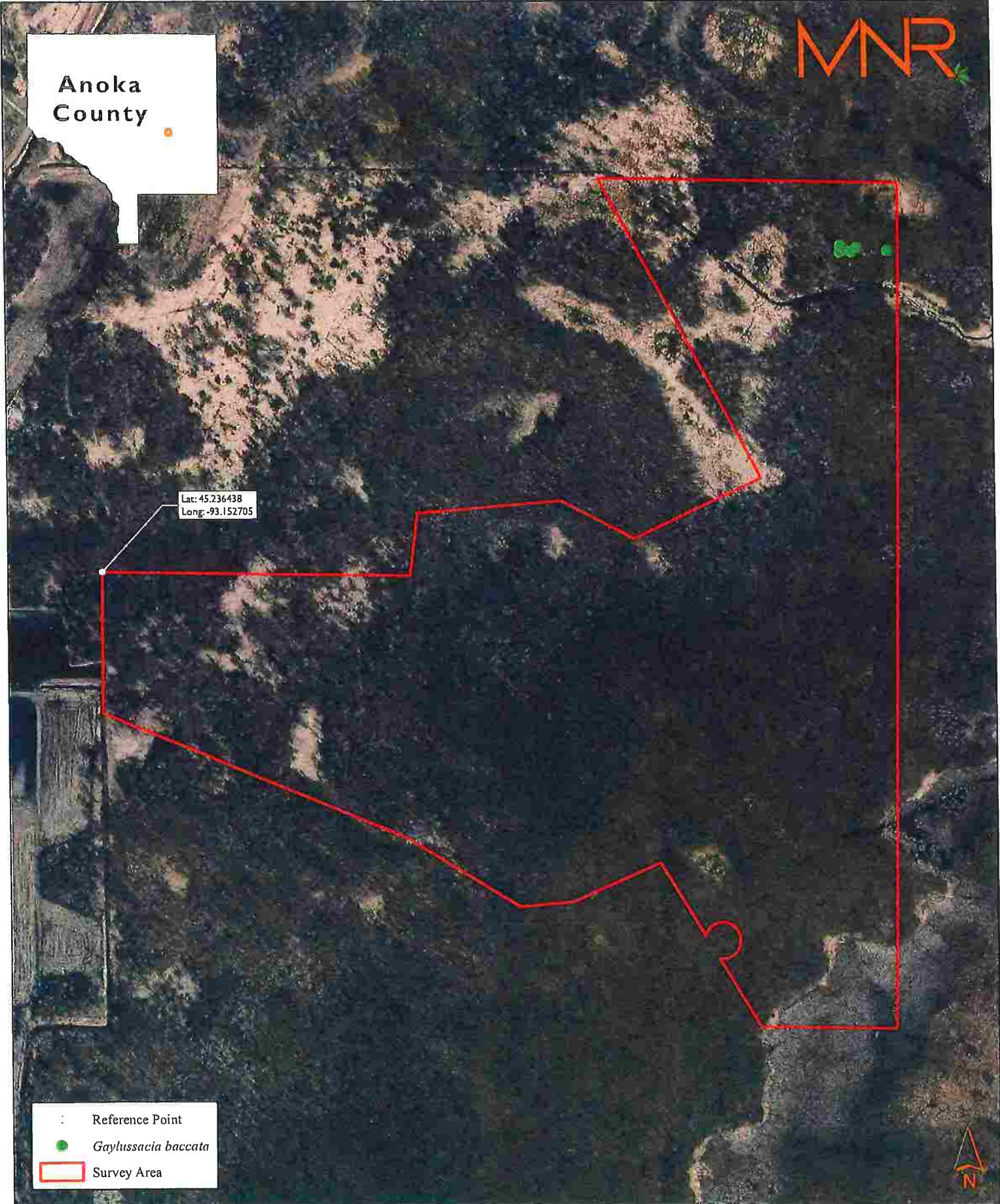
- Reference Point
- Gaylussacia baccata*
- Survey Area

Source: MnGeo, Minnesota DNR, US Census, Date: 9/11/2020



**Survey Results**  
**Botanical Surveys**  
**Hidden Forest East 3rd Addition**  
**Anoka County, Minnesota**

Figure 8



# Appendix A

## Survey Protocol Correspondence





Ms. Lisa Joyal  
Endangered Species Review Coordinator  
Minnesota Department of Natural Resources  
Ecological & Water Resources  
500 Lafayette Road  
St. Paul, MN 55155

August 20, 2020

Ms. Joyal,

Midwest Natural Resources, Inc. (MNR) is intending to conduct a rare plant survey within the 82.5-acre property located east of Lever Street Northeast in Ham Lake, Minnesota (**Figure 1**). This survey effort is being conducted for a proposed residential development project.

A formal request of the Natural Heritage Information System (NHIS) has not been requested at this time. However, we have been asked to conduct rare plant surveys within the project boundary. Given recent project authorization, we are looking to survey the site on this Saturday, August 22, 2020. Survey efforts will be conducted by two of our DNR approved rare plant species surveyors (Jake Walden/Scott Milburn).

Survey efforts will involve documenting all species observed during this visit. Rare species, if encountered, will be documented spatially using sub-meter GPS units (Trimble GeoXT 6000 units). Species documentation will include notes on habitat, associate species, number of individuals observed within each population documented, and representative photos. Voucher collections will be made following the DNR's collection guidance procedure.

We will also evaluate the site at this time to determine the potential need for additional surveys next spring. A recommendation for further surveys will be made should we deem it to be necessary.

A summary report will be produced at the conclusion of field efforts. This document will include survey methods, survey results, report figures/graphics, and appendices (species lists and representative photos). The report along with the GIS shapefile, associated spreadsheet, and an email from Welby Smith verifying specimen identification will be submitted to the designated NHIS email address should we have positive results.

Please let us know if you have any questions.



Scott A. Milburn, M.S.  
Principal Botanist/President  
Midwest Natural Resources, Inc.



# Appendix B

## Species List



**Species List**

<i>Acer negundo</i>	<i>Eleocharis ovata</i>	<i>Phalaris arundinacea</i>
<i>Acer rubrum</i>	<i>Elymus hystrix</i>	<i>Phragmites australis</i>
<i>Ageratina altissima</i>	<i>Epilobium coloratum</i>	<i>Phryma leptostachya</i>
<i>Alisma subcordatum</i>	<i>Epilobium leptophyllum</i>	<i>Poa palustris</i>
<i>Amelanchier sp.</i>	<i>Equisetum fluviatile</i>	<i>Polygonatum pubescens</i>
<i>Amphicarpaea bracteata</i>	<i>Equisetum sylvaticum</i>	<i>Populus grandidentata</i>
<i>Anemone quinquefolia</i>	<i>Erechtites hieraciifolius</i>	<i>Populus tremuloides</i>
<i>Apocynum androsaemifolium</i>	<i>Erigeron strigosus</i>	<i>Prunus serotina</i>
<i>Aquilegia canadensis</i>	<i>Eurybia macrophylla</i>	<i>Pteridium aquilinum</i>
<i>Aralia nudicaulis</i>	<i>Fallopia scandens</i>	<i>Quercus alba</i>
<i>Athyrium filix-femina</i>	<i>Festuca subverticillata</i>	<i>Quercus ellipsoidalis</i>
<i>Betula papyrifera</i>	<i>Fraxinus pennsylvanica</i>	<i>Quercus rubra</i>
<i>Bidens connata</i>	<i>Galeopsis tetrahit</i>	<i>Ranunculus abortivus</i>
<i>Bidens frondosa</i>	<i>Galium boreale</i>	<i>Ranunculus sceleratus</i>
<i>Boehmeria cylindrica</i>	<i>Galium triflorum</i>	<i>Rhamnus cathartica</i>
<i>Botrychium virginianum</i>	<i>Gaylussacia baccata</i>	<i>Ribes cf. hirtellum</i>
<i>Brachyelytrum aristosum</i>	<i>Geum canadense</i>	<i>Ribes missouriense</i>
<i>Bromus pubescens</i>	<i>Glyceria borealis</i>	<i>Rubus allegheniensis</i>
<i>Calamagrostis canadensis</i>	<i>Glyceria grandis</i>	<i>Rubus cf. dissensus</i>
<i>Carex cf. projecta</i>	<i>Hackelia deflexa</i>	<i>Rubus idaeus var. strigosus</i>
<i>Carex debilis var. rudgei</i>	<i>Helianthus hirsutus</i>	<i>Rubus occidentalis</i>
<i>Carex deweyana</i>	<i>Ilex verticillata</i>	<i>Rubus pubescens</i>
<i>Carex gracillima</i>	<i>Impatiens capensis</i>	<i>Sagittaria latifolia</i>
<i>Carex intumescens</i>	<i>Iris virginica</i>	<i>Salix petiolaris</i>
<i>Carex lacustris</i>	<i>Lactuca biennis</i>	<i>Scirpus cyperinus</i>
<i>Carex pennsylvanica</i>	<i>Leersia oryzoides</i>	<i>Scirpus pedicellatus</i>
<i>Carex radiata</i>	<i>Lindernia dubia</i>	<i>Scutellaria galericulata</i>
<i>Carex retrorsa</i>	<i>Liparis loeselii</i>	<i>Scutellaria lateriflora</i>
<i>Carex stricta</i>	<i>Lycopus uniflorus</i>	<i>Solidago altissima</i>
<i>Cicuta bulbifera</i>	<i>Maianthemum canadense</i>	<i>Solidago gigantea</i>
<i>Cicuta maculata</i>	<i>Matteuccia struthiopteris</i>	<i>Spiraea alba</i>
<i>Circaea lutetiana</i>	<i>Monotropa uniflora</i>	<i>Spirodela polyrrhiza</i>
<i>Cirsium arvense</i>	<i>Myosoton aquaticum</i>	<i>Stachys palustris</i>
<i>Cirsium vulgare</i>	<i>Onoclea sensibilis</i>	<i>Symphotrichum lateriflorum</i>
<i>Claytosmunda claytoniana</i>	<i>Orthilia secunda</i>	<i>Thalictrum dioicum</i>
<i>Conyza canadensis</i>	<i>Oryzopsis asperifolia</i>	<i>Thelypteris palustris</i>
<i>Cornus racemosa</i>	<i>Osmorhiza claytonii</i>	<i>Toxicodendron rydbergii</i>
<i>Cornus sericea</i>	<i>Osmunda regalis</i>	<i>Trientalis borealis</i>
<i>Corylus americana</i>	<i>Osmundastrum cinnamomeum</i>	<i>Typha x glauca</i>
<i>Corylus cornuta</i>	<i>Ostrya virginiana</i>	<i>Ulmus americana</i>
<i>Cuscuta gronovii</i>	<i>Parthenocissus vitacea</i>	<i>Urtica dioica</i>
<i>Desmodium glutinosum</i>	<i>Persicaria arifolia</i>	<i>Uvularia sessilifolia</i>
<i>Doellingeria umbellata</i>	<i>Persicaria hydropiper</i>	<i>Vaccinium angustifolium</i>
<i>Dryopteris carthusiana</i>	<i>Persicaria lapathifolia</i>	<i>Vaccinium myrtilloides</i>
<i>Dryopteris cristata</i>	<i>Persicaria minor</i>	<i>Viburnum lentago</i>
<i>Echinochloa muricata</i>	<i>Persicaria sagittata</i>	<i>Viola conspersa</i>



# Appendix C

## Representative Photos





Southern Dry-Mesic Oak (Maple) Woodland, oak – (Red maple) woodland subtype (FDs37a)



Southern Dry-Mesic Oak (Maple) Woodland, oak – (Red maple) woodland subtype (FDs37a)





Representative Wetland Photo



Representative Wetland Photo





Representative Wetland Photo



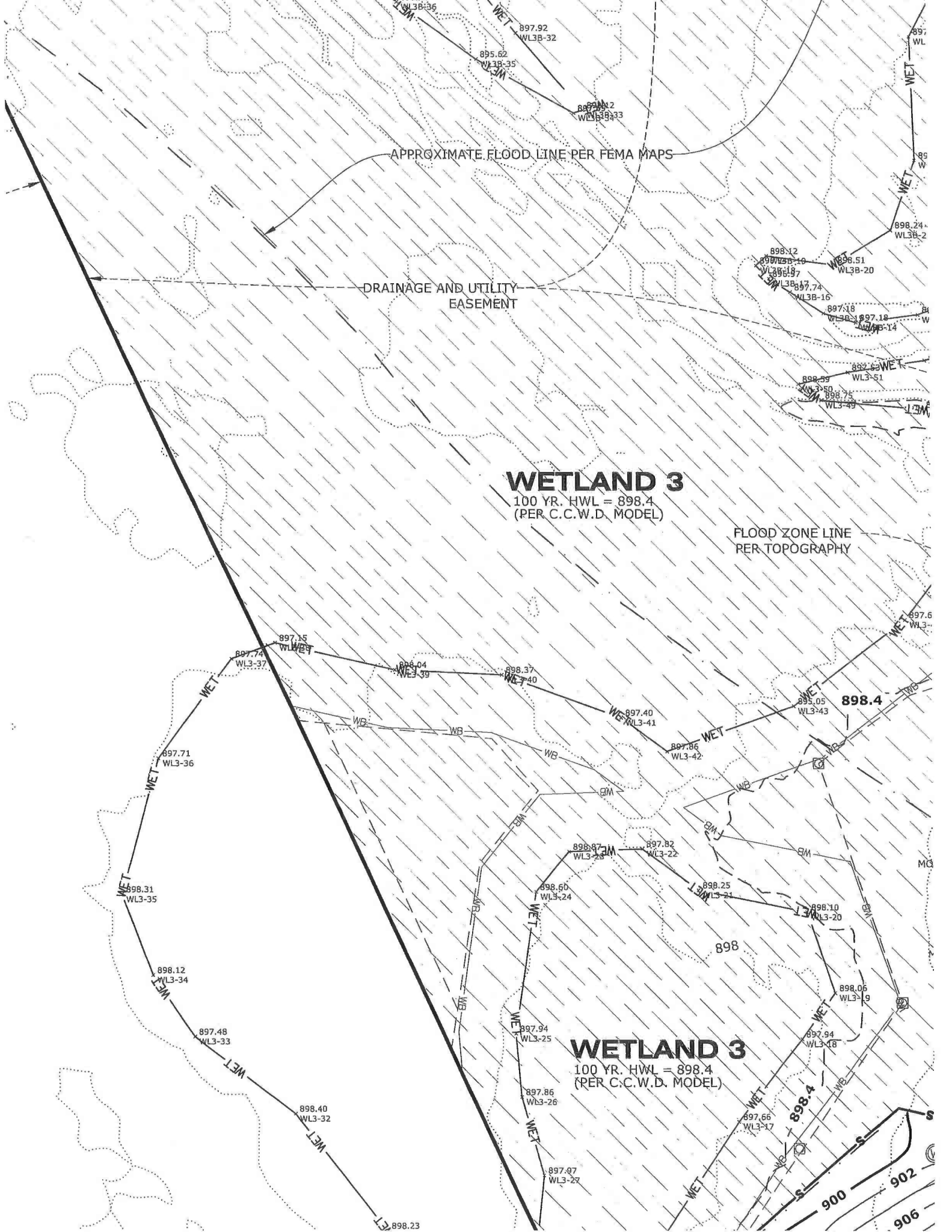
Black huckleberry (*Gaylussacia baccata*)



**Hidden Forest East 3<sup>rd</sup> Addition, Ham Lake**

**Rare Species Avoidance Plan**

**Attachment B**



APPROXIMATE FLOOD LINE PER FEMA MAPS

DRAINAGE AND UTILITY EASEMENT

### WETLAND 3

100 YR. HWL = 898.4  
(PER C.C.W.D. MODEL)

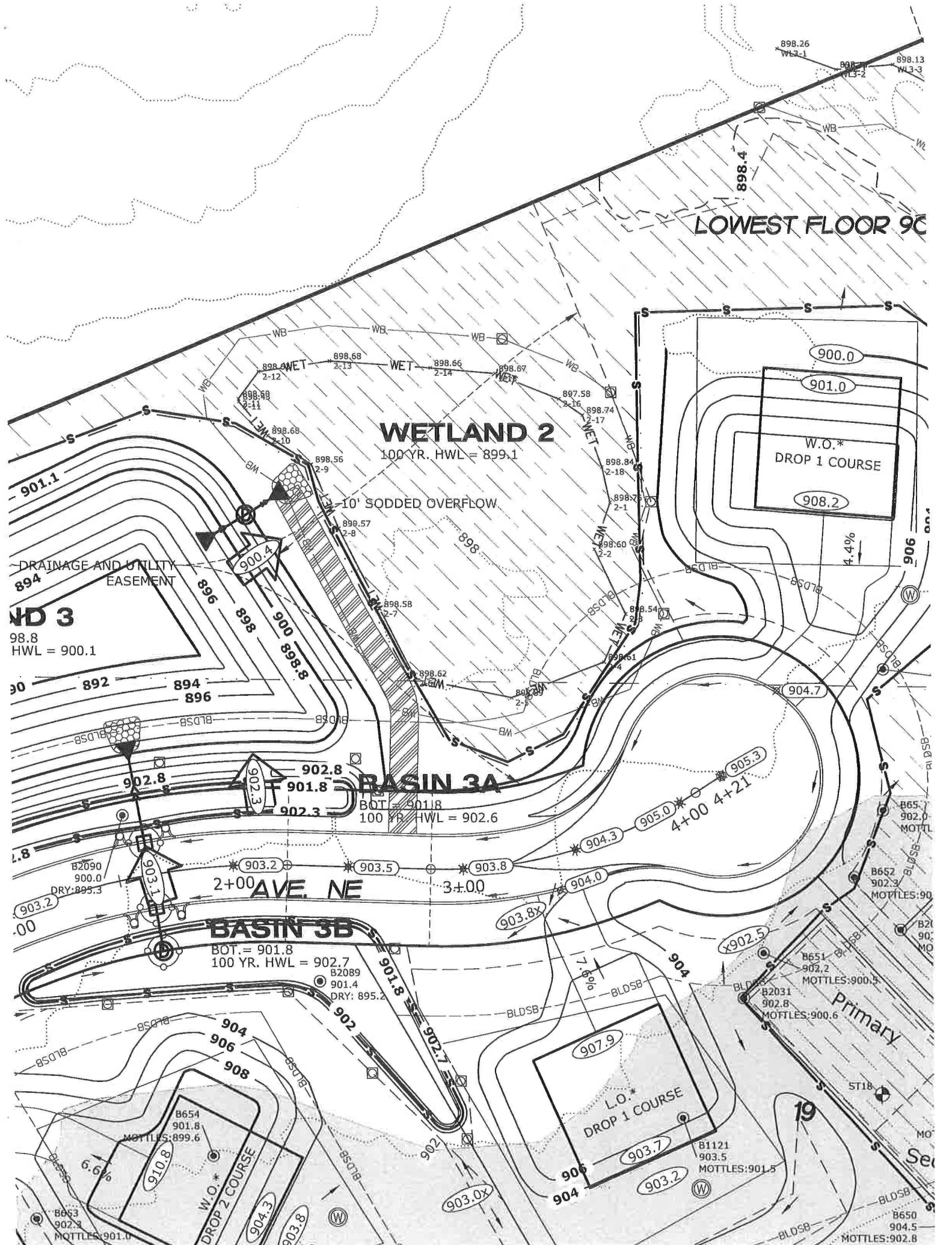
FLOOD ZONE LINE  
PER TOPOGRAPHY

### WETLAND 3

100 YR. HWL = 898.4  
(PER C.C.W.D. MODEL)

898.4

900  
902  
906



LOWEST FLOOR 90

**WETLAND 2**  
100 YR. HWL = 899.1

**WETLAND 3**  
100 YR. HWL = 900.1

**BASIN 3A**  
BOT = 901.8  
100 YR. HWL = 902.6

**BASIN 3B**  
BOT = 901.8  
100 YR. HWL = 902.7

**L.O.\* DROP 1 COURSE**  
907.9

**W.O.\* DROP 1 COURSE**  
908.2

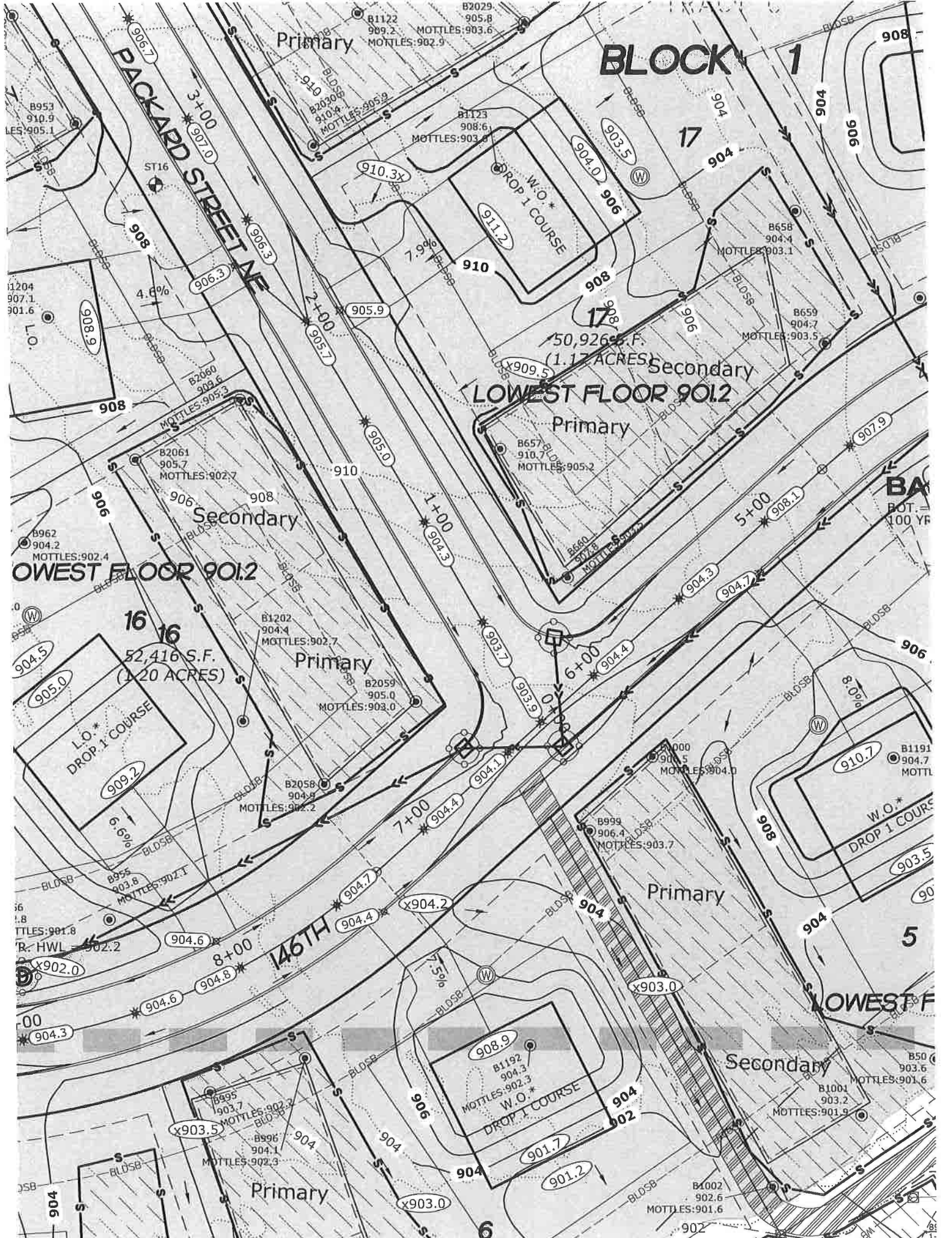
2+00 AVE. NE

**W.O.\* DROP 2 COURSE**  
904.3

Primary

Secondary





# BLOCK 1

**PACKARD STREET**

Primary

Secondary  
**LOWEST FLOOR 901.2**

Secondary

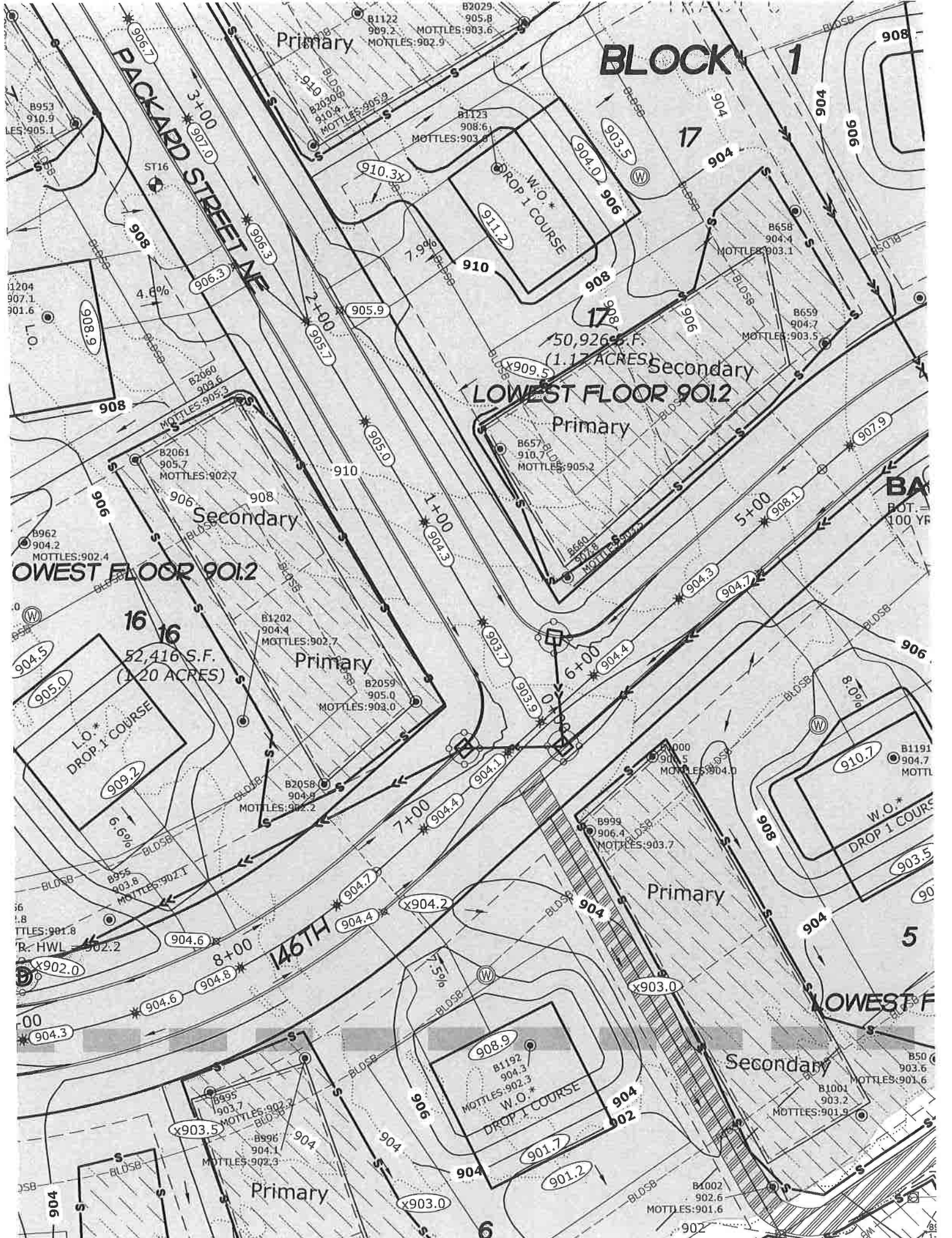
Secondary  
**LOWEST FLOOR 901.2**

Primary

Primary

Secondary

Primary



# BLOCK 1

**PACKARD STREET**

Primary

Secondary  
**LOWEST FLOOR 901.2**

Secondary

Secondary  
**LOWEST FLOOR 901.2**

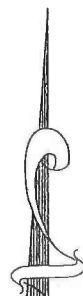
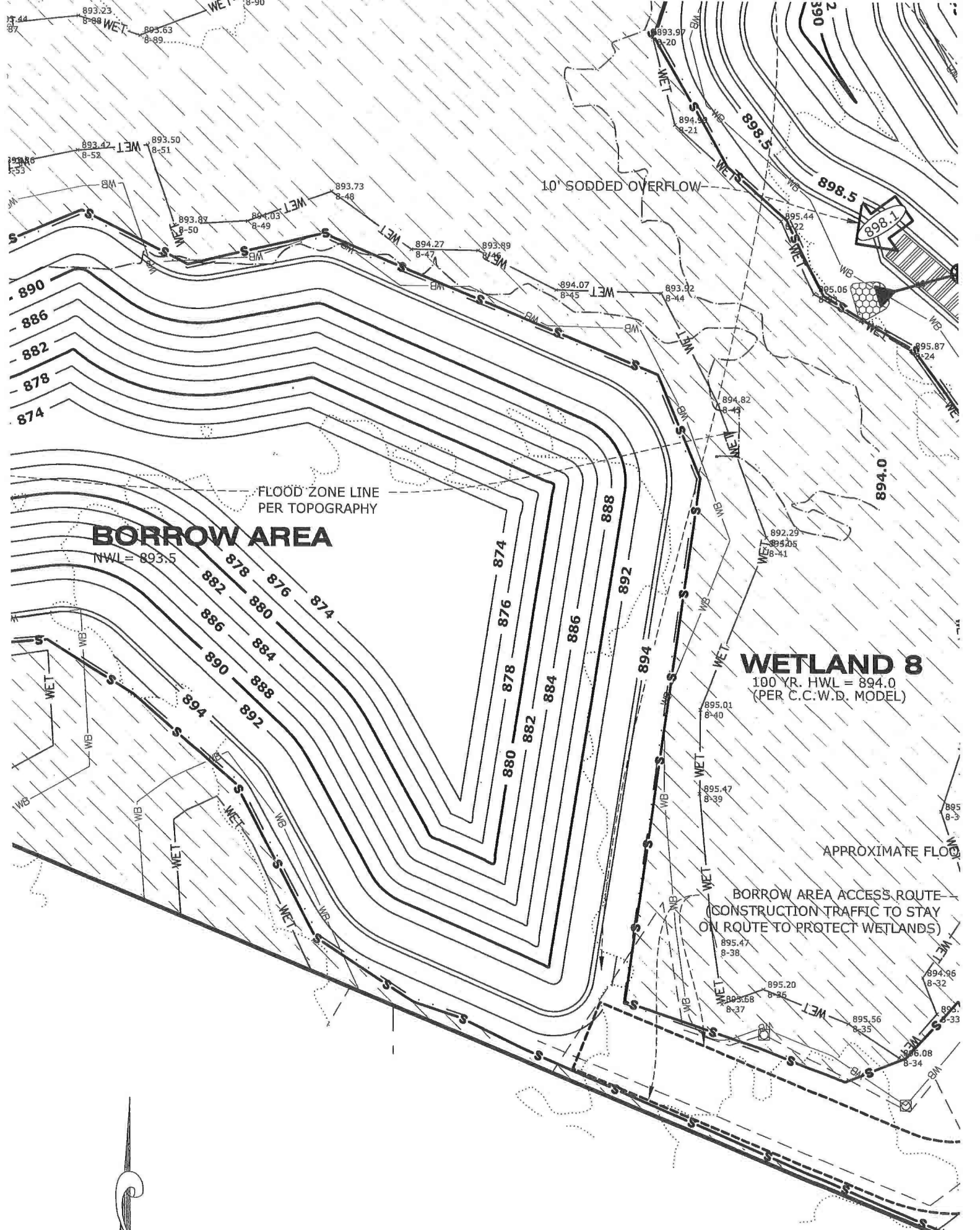
Primary

Primary

Secondary

Primary





# FLOODPLAIN FILL NOTES



## Don Krueger

---

**Subject:** District Chief Buchholz remembrance

We have planned an informal gathering for all Ham Lake Fire Department firefighters, current and retired, to remember retired District Chief Marvin Buchholz. Please join us if you can for an informal gathering in support of each other, and to share memories of Marvin.

Sunday, June 27<sup>th</sup>

6:00 PM

Fire Station #1

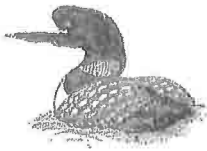
Pizza, cookies, soda and water provided

We are distributing this information to those we have contact information for. Please feel free to forward the information to other Ham Lake Fire Department retirees if you think they may not have received it.

Celebration of Life Service – no details are available as of today. Initial planning indicates something will be scheduled for the second half of July.

Don

Don Krueger  
City of Ham Lake  
15544 Central Ave NE  
Ham Lake, MN 55304  
763-235-1665



# CITY OF HAM LAKE

## PLANNING REQUEST

15544 Central Avenue NE

Ham Lake, MN 55304

Phone (763) 434-9555 Fax (763) 235-1697

Date of Application 4/5/21

Date of Receipt 4-13-21  
Receipt # 89613

### Meeting Appearance Dates:

Planning Commission 4-28-2021 City Council \_\_\_\_\_

### Please check request(s):

- |   |  |
|---|--|
| <input type="checkbox"/> Metes & Bounds Conveyance  | <input type="checkbox"/> Commercial Building Permit                  |
| <input type="checkbox"/> Sketch Plan                | <input type="checkbox"/> Certificate of Occupancy                    |
| <input type="checkbox"/> Preliminary Plat Approval* | <input checked="" type="checkbox"/> Home Occupation Permit (Special) |
| <input type="checkbox"/> Final Plat Approval        | <input type="checkbox"/> Conditional Use Permit (New)*               |
| <input type="checkbox"/> Rezoning*                  | <input type="checkbox"/> Conditional Use Permit (Renewal)            |
| <input type="checkbox"/> Private Kennel License*    | <input type="checkbox"/> Other                                       |

**\*NOTE: Advisory Signage is required for land use alterations and future road connections. This application also requires a Public Hearing. Such fees shall be deducted from deposit.**

Development/Business Name: Bickford's BBQ, LLC

Address/Location of property: 14745 Baltimore St NE Ham Lake, MN 55304  
LOT 3 BLK 1 NORTH PINES 2ND ADD TDL/W THAT PRJ OF LOT 8 SD BLK DESC AS FOL: BEG AT THE SE COR OF SD LOT 3; TH

Legal Description of property: N 0 DEG 00 MN 06 SEC E ASSMD PRG ALG THE E LINE OF SD LOT 3.480  
1.5 acres + NORTH PINES SECOND ADDITION LOT 2 BLK 1 NORTH PINES 2ND ADD (SUBJ TO EASE AS SHOWN ON PLAT)

PIN # 29-32-23-12-0005 RP Current Zoning R-1 Proposed Zoning \_\_\_\_\_

Notes: 2 LOTS <sup>totalling</sup> APPROX 15 acres

Applicant's Name: Don & Lisa Bickford

Business Name: Bickford's BBQ

Address 14745 Baltimore St NE

City Ham Lake State MN Zip Code 55304

Phone \_\_\_\_\_ Cell Phone 612.859.6773 (DON) Fax \_\_\_\_\_

Email address lisab@highlightprinting.com  
612.867.5115 (LISA)

**You are advised that the 60-day review period required by Minnesota Statutes Chapter 15.99 does not begin to run until all of the required items have been received by the City of Ham Lake.**

SIGNATURE [Signature] DATE 4/5/21

**- FOR STAFF USE ONLY -**

ACTION BY: Planning Commission \_\_\_\_\_  
City Council \_\_\_\_\_

PROPERTY TAXES CURRENT (YES) NO



# CITY OF HAM LAKE

15544 Central Avenue NE  
Ham Lake, Minnesota 55304  
(763) 434-9555  
Fax: (763) 434-9599

NOTICE OF PUBLIC HEARING  
CITY OF HAM LAKE  
COUNTY OF ANOKA  
STATE OF MINNESOTA

TAKE NOTICE, that pursuant to the requirements of Minnesota Law, a Public Hearing shall be held before the Ham Lake Planning Commission on Monday, June 28, 2021 at 6:01 p.m. at the City Hall located at 15544 Central Avenue NE for the purpose of considering the application of Don and Lisa Bickford requesting a Special Home Occupation Permit to operate Bickford's BBQ, LLC, a barbeque catering business, at 14745 Baltimore Street NE, a parcel of land situated in the City of Ham Lake, Anoka County, Minnesota and which is described as follows to wit:

PID# 29-32-23-11-0009 and 29-32-23-12-0005

LOT 3 BLK 1 NORTH PINES 2ND ADD TOGW THAT PRT OF LOT 8 SD BLK 1 DESC AS FOL: BEG AT THE SE COR OF SD LOT 3; TH N 0 DEG 00 MIN 06 SEC E ASSMD BRG ALG THE E LINE OF SD LOT 3, 480 FT; TH S 61 DEG 01 MIN 58 SEC E 270 FT; TH S 22 DEG 34 MIN 55 SEC E 157.58 FT; TH S 35 DEG 31 M IN 34 SEC E 287 FT + OR - TO THE C/L OF COON CREEK; TH SWLY ALG SD C/L TO INTER WITH A LINE THAT BEARS S 74 DEG 17 MIN 12 SEC E FROM THE POB; TH NWLY ALG SD LINE TO THE POB; SUBJ TO EASE OF REC

AND

NORTH PINES SECOND ADDITION LOT 2 BLK 1 NORTH PINES 2ND ADD(SUBJ TO EASE AS SHOWN ON PLAT)

At such hearing both written and oral comments will be heard.

DATED: June 18, 2021

Jennifer Bohr  
Building & Zoning Clerk  
City of Ham Lake



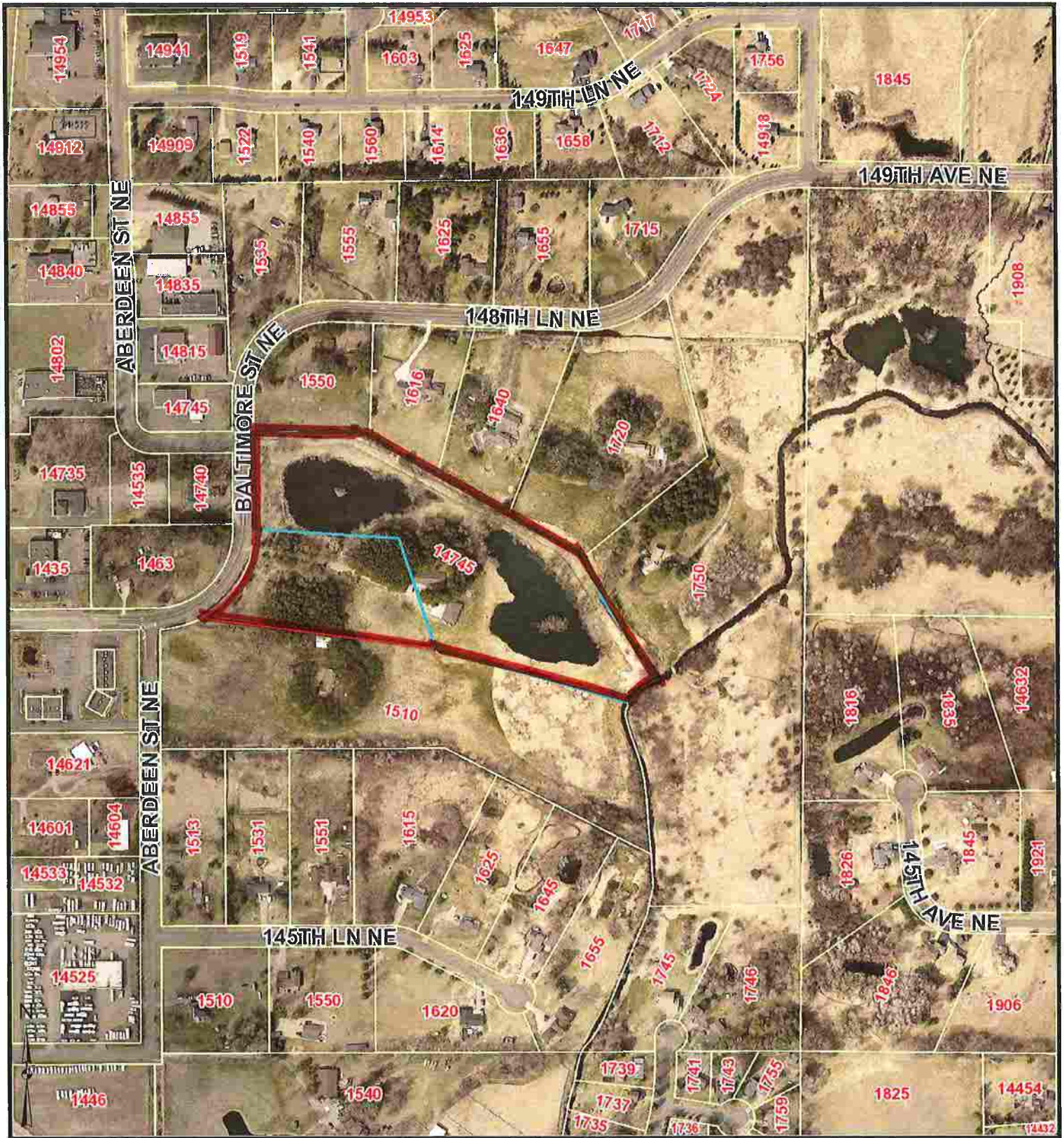


14745 Baltimore Street NE





# Anoka County Parcel Viewer



**Parcel Information:**    Approx. Acres: 10.4  
 29-32-23-11-0009    Commissioner: JULIE BRAASTAD  
 14745 BALTIMORE ST NE  
 HAM LAKE  
 MN 55304  
 Plat: NORTH PINES SECOND ADDITION

**Owner Information:**





Meeting Date: 06/28/2021

**CITY OF HAM LAKE**  
**STAFF REPORT**

**To: Planning Commission**

**From: Mark Jones, Zoning & Building Official**

**Subject: Special Home Occupation Permit for Bickford's BBQ, LLC at 14745  
Baltimore St NE**

**Introduction:**

Lisa and Don Bickford are applying for a Special Home Occupation Permit to run a BBQ catering business at their residence located at 14745 Baltimore Street NE. To meet Anoka County Environmental Health Department requirements, the catering business needs to be operated from a commercial kitchen, with commercial grade equipment. The Bickfords intend to operate this business within 700 square feet of an existing accessory building located on their property that they intend to remodel. Food preparation will be done within the commercial kitchen and any smoking process will be done outside under an approved shelter. Under Article 9-350.3 Special Home Occupation Permits, a party desiring to conduct a Home Occupation in a Garage or Accessory Building, under conditions meeting the remaining requirements of Article 9-350, may apply for a Special Home Occupation Permit.

**Recommendation:** I recommend approval of a Special Home Occupation Permit for Don and Lisa Bickford subject to meeting all city, state and county requirements prior to offering any catering services to the public, no obvious outward indicia of the activities being carried on under the Special Home Occupation Permit, no customer traffic, no noise generated which is audible to nearby properties, no odor, no outside storage which is visible from nearby properties or public ways and all trash to be disposed of as to not attract rats, mice, or vermin. Any conditions that might be placed on the delivery of catering items and the vehicle(s) used to deliver them can be discussed during the Planning Commission meeting.



## Jennifer Bohr

---

**From:** Lisa Bickford <lisab@highlightprinting.com>  
**Sent:** Wednesday, June 16, 2021 11:40 AM  
**To:** Jennifer Bohr  
**Cc:** Don Bickford  
**Subject:** BICKFORD'S BBQ - SPECIAL HOME OCCUPATION PERMIT FOR BBQ BUSINESS - 6.16.21

**Caution:** This email originated outside our organization; please use caution.

### Summary of Request:

Approval for a Special Home Occupation Permit to operate our small BBQ catering business: "BICKFORD'S BBQ".

### About us:

- Don & Lisa Bickford. Residents of Ham Lake since 2007
- Printing company owners since 1996.
- Championship-level BBQ competitors since 2006.

### Vision:

- A small, part-time, seasonal, BBQ catering "side-gig", operated out of our detached structure, with no intention to grow beyond what Don and Lisa can handle.
- No employees.
- Hours of operation: between the hours of 9-6, and no more than 20 hours per week, primarily from June-August, with some occasional activity in April, May, September, and October, and almost no activity from November thru March.
- Continue to donate BBQ to Veterans and other non-profits, along with the paid catering gigs.

### The space:

- The detached structure, along with our house, are both situated on almost 15 acres, located 1 block off of Hwy 65 and 147<sup>th</sup>. (One lot is about 3.5 acres, the other is about 11.5 acres – house and detached structure are both on the 11.5 acre lot.)
- The existing structure is well built, including concrete floors, newer roof and siding, and a large concrete pad in front.
- Work area will meet all city, county, and state requirements for a commercial kitchen, including water source, septic holding tank, venting, grease trap, floor drains, etc.
- Work area will have its own entrance (in the same place the door is now) and be certified with Anoka County as a commercial kitchen.

### Remodel:

- Remodel approximately 700 square feet to the INSIDE of the existing structure.
- Entire remodel will be completed by licensed contractors, plumbers, and electricians, and permitted and inspected as required by the city of Ham Lake, Anoka County, and the State of MN
- All Ham Lake requirements will be met:
  - Proper septic and well
  - Proper grease trap and drains
  - Proper venting
  - Etc.
- All Anoka County requirements for a commercial kitchen will be met:
  - Smooth, durable, easily cleaned walls, ceiling, and floors
  - Stainless counters, tables, shelving, etc.

- Commercial grade oven, freezers, refrigerators, blast chiller, etc.
- Triple sink, hand-wash sink, mop sink
- Appropriately positioned floor drains
- Etc.

Not disruptive to neighbors:

Sight-line:

- Structure entrance faces Baltimore Street NE, is about 200 yards from the end of the driveway, and is not visible from the road due to dense evergreen/woods
- Closest neighbor (1510 147<sup>th</sup> Ave NE, Marjorie Erickson) is 387' from the entrance door to the structure. Their home is also in dense evergreens, with additional full grown pine and other dense tree plantings that further disrupt the view between the 2 properties.
- All other neighbors are 500' – 1680' from the structure with no site-line to the structure because of treed screens and/or 200'+ berm that is abutted to, and extended beyond, the north side of our house.
- From the outside, there will be no visible difference from what it looks like now.
  - We have 1 smoker that will continue to be stored indoors when not in use, no other equipment will be outside.
- Catering deliveries will be made in our personal vehicle, between 9 and 6, in containers that keep the food at a safe temp (verbal OK from Anoka county 4.9.21).
- Food and supplies will be brought to the business in our personal vehicle, during working hours, in containers that keep the food at a safe temp (verbal OK from Anoka county 4.9.21).
- Occasional UPS deliveries for various supplies, no more than once per month.
- No food truck.
- No signage.
- No customer traffic.
- No large truck deliveries.
- No outside storage.

BBQ/smoking smell:

- Neighbors are almost 400' to almost 1700' away.
- On Saturday, April 10<sup>th</sup>, I was able to visit and connect with about half of the surrounding neighbors, all indicated that they had never smelled BBQ smells from our property and were not concerned if they happened to in the future.
- BBQ/smoking will generally be infrequent, no more than a few times per month, for no more that 6 hours at a time, and will be done between 9am and 5pm.

Vibration/Noise:

- Equipment consists of smoker, ovens, refrigerators, freezers, etc. Except for the smoker that is outside when in use, everything else is inside, has been running for years, and doesn't create vibration. I verified this with the neighbors.

Waste:

- Outdoor waste receptacle will consist of 1 residential garbage bin to reside where it is now
- Garbage is bagged before putting in outdoor receptacle.
- Weekly garbage removal service.

Rodents, flies, etc.:

- Garbage is securely bagged and tied before being put in exterior receptacle.
- There will be a cement block placed on top of the outdoor garbage receptacle at all times to make sure critters can't get it.
- There is no sign of mice/rodents in the business area presently, but mousetrap/bait-stations are in place and we will call an exterminator if it becomes necessary.
- Note: while smells, rodents, insects, etc. wouldn't bother neighbors because of the distance, they are intolerable to us and will be handled immediately.

Water/Septic/Floor Drains:

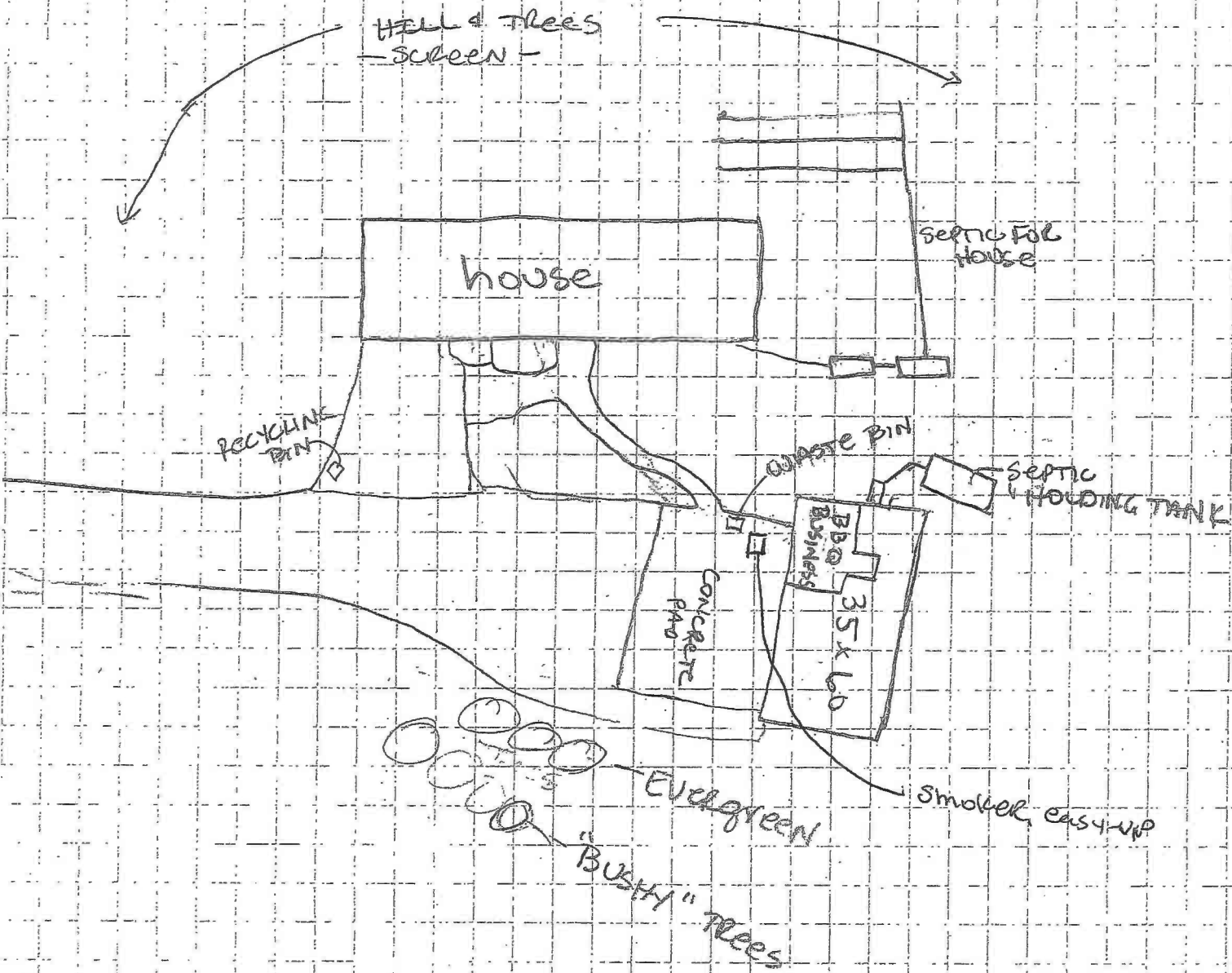
- We don't require much with regards to septic/water because all cooking is done in single-use aluminum pans.
- Septic: holding tank situated to north/west of the structure – it will be inspected to make sure it complies with MN Rule 7080. We have provided the City of Ham Lake with a Sewage Tank Compliance Certification Form.
- Well:
  - We will meet all state, county, and city requirements with regards to sealing and inspecting the shallow well that is presently in the structure (it was there when we bought the property).
  - We will bore a connection from our house well to the BBQ structure – see DOH letter dated 6.3.21.
- Some floor-drains are in place, but we are prepared to move and/or add grease traps and tell-tail drain(s) as required.

Add'l Information:

- As required by Anoka County, we will update our Food Safe Certification and get CFPM (Certified Food Protection Manager) certification prior to opening.
- Anoka County requires a dishwashing machine OR a triple sink, not both. We plan to have a triple sink.
- Exterior views, preliminary plans to the interior space, and Anoka County requirements are included with our packet of info. We will follow-up with final plans after Anoka County provides guidance with regards to "Food and Lodging" Licensing requirements. When plans are finalized we will provide a set to Anoka County and The City of Ham Lake for approval.
- On-going conversations with Mark Jones from The City of Ham Lake about venting, grease traps, and other considerations will be resolved before remodel begins.
- On-going conversations with Anoka County regarding mop sink, finishing materials, manufacturer specification sheets on all equipment, and other considerations will be resolved before remodel begins.

Thank you,  
Don and Lisa Bickford

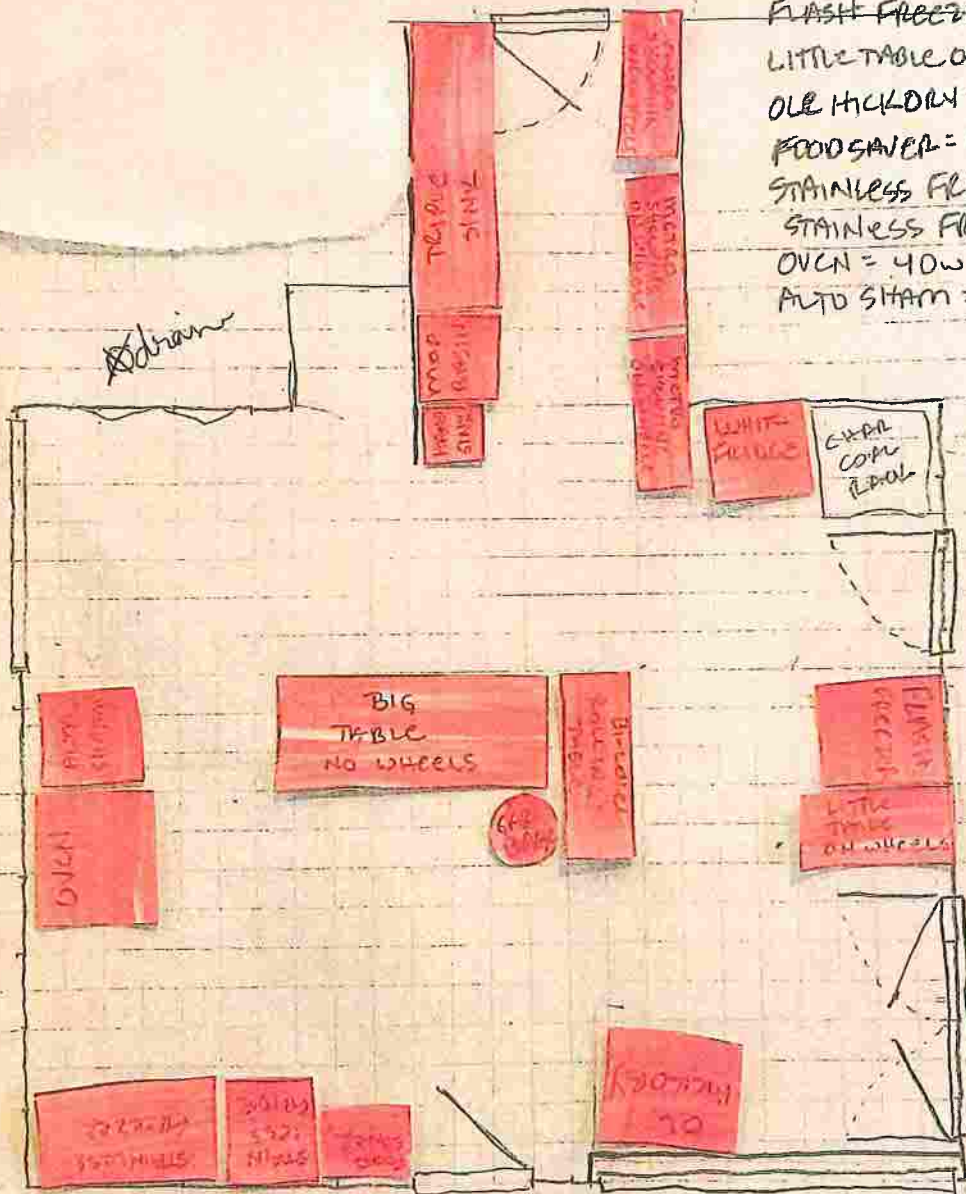




# PROPOSED/PRIM REMODEL

## INSIDE STRUCTURE

- METRO SHELVING = 18x47
- TRIPLE SINK = 87 1/2 x 25"
- MOP BASIN = 26x26
- HAND SINK = 18x18?
- WHITE FRIDGE = 32w x 29d
- FLASH FREEZER = 33w x 40d
- LITTLE TABLE ON WHEELS = 24x48
- OLE HICKORY = 42w x 35 1/2d
- FOOD SAVER = 28w x 23 1/2d
- STAINLESS FRIDGE = 26w x 33d
- STAINLESS FREEZER = 51w x 30d
- OVEN = 40w x 38 1/2d
- AUTO SHAM = 30w x 32d







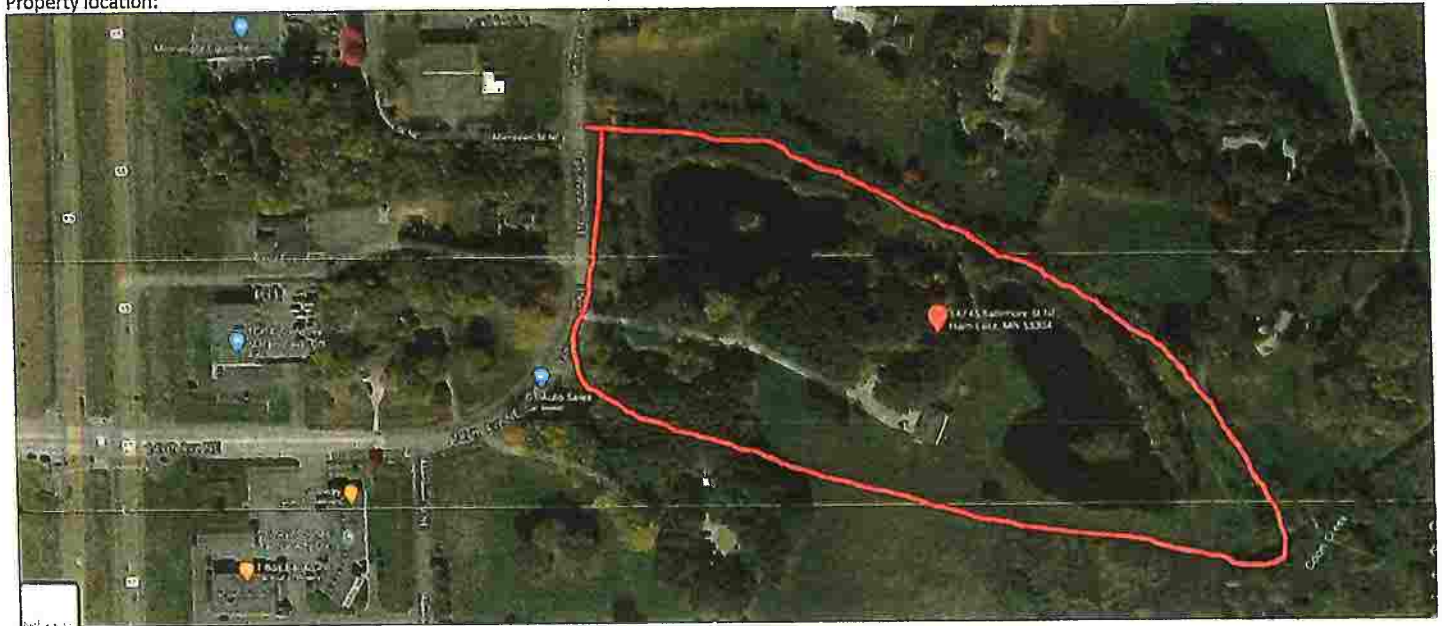
**BICKFORD'S BBQ**

Lisa Bickford <lisab@highlightprinting.com>

Mon 4/5/2021 6:54 AM

To: Lisa Bickford <lisab@highlightprinting.com>

Property location:



Business location on property:



Portion of building that will house business, and concrete pad in front of it:

PORTION OF BUILDING THAT WILL HOUSE BUSINESS  
(A CONCRETE PAD IN FRONT  
OF IT

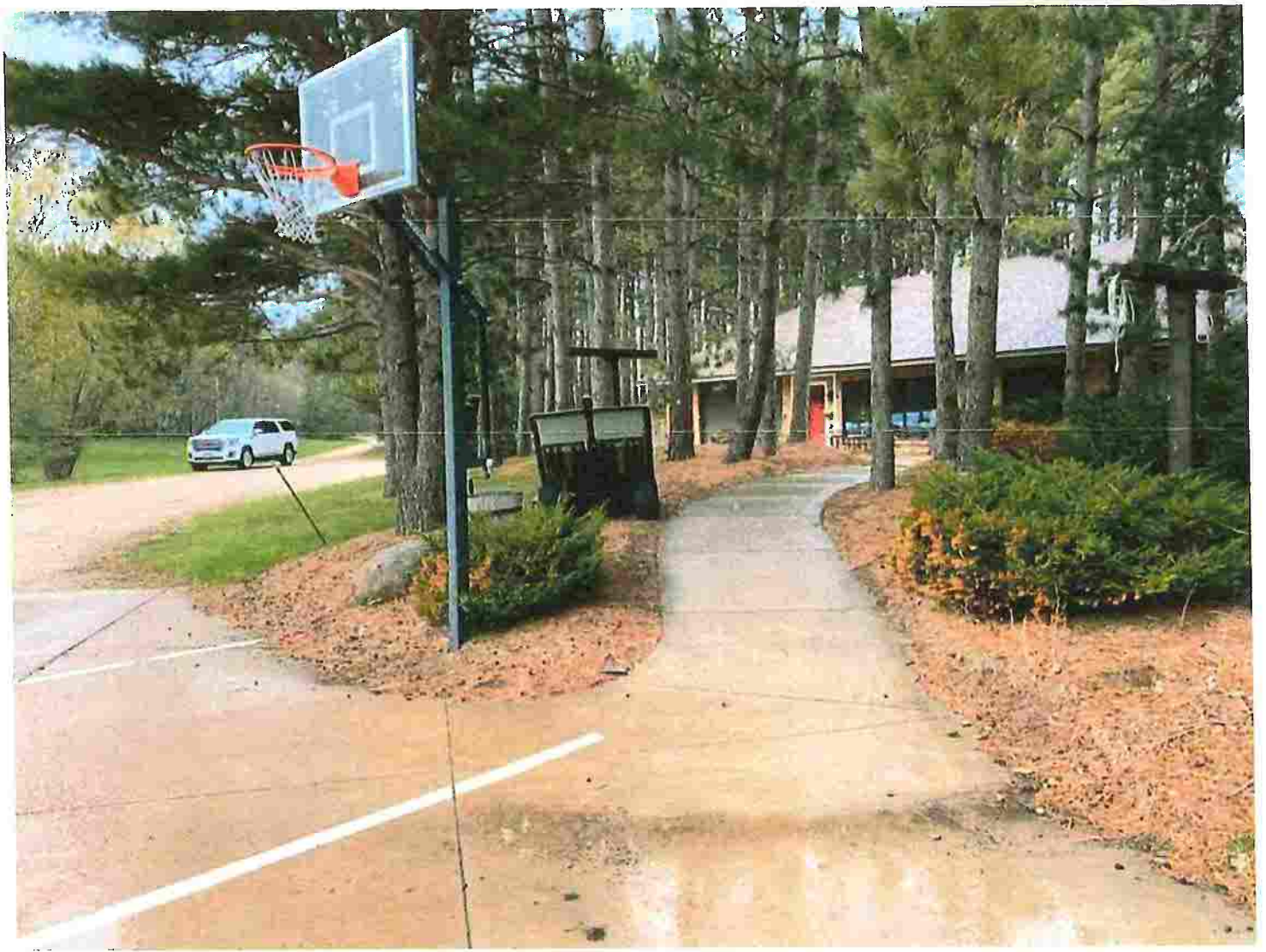






LOOKING NORTH





LOOKING ~~OFF~~  
WEST



LOOKING SOUTHWEST





LOOKING SOUTH



**9-350 Home Occupation Permits**

A *Home Occupation* is a for-profit enterprise carried on in a residential dwelling, under circumstances in which there is no outward indication of the existence of the enterprise visible or otherwise detectable from outside the premises, and which otherwise meets the criteria specified below. A *Home Occupation* permit may be issued by the City Council after review and recommendation by the *Planning Commission*, and subject to any conditions imposed by the City Council. A *Home Occupation* permit may be revoked by the City Council, after affording due process of law to the applicant, if the conditions of issuance or any other ordinance feature are violated.

**9-350.1 Criteria** The following criteria must be observed for any usage to qualify for a Home Occupation Permit.

- a) **Incidental Usage** The usage must be clearly incidental and subservient to the usage of the premises as a dwelling, and may not occupy a significant portion of the dwelling unit living space;
- b) **Indoors** All activities must be carried on indoors. No outside storage, except the parking of motor vehicles, shall be permitted;
- c) **Parking** No on-street parking shall be generated, and no more than a total of four passenger motor vehicles may be parked at the premises in conjunction with the occupation, including employee and customer parking. All parking shall be on paved surfaces;
- d) **Employees** No more than one employee who does not live at the residence shall be permitted;
- e) **Traffic** The activity may not generate any traffic in excess of that normally generated by a residential dwelling unit;
- f) **Nuisance and Compliance** The usage shall not generate any nuisance, and the landowner shall at all times be compliant with all other municipal codes, and the regulations of all other jurisdictions;

**9-350.2 Annual Review** All *Home Occupation* permits shall be reviewed annually by the City Staff, and shall automatically be renewed unless complaints have been received, in which case the permit shall be re-submitted to the *Planning Commission* for review and recommendation to the City Council.

**9-350.3 Special Home Occupation Permits** A party desiring to conduct a Home Occupation in a Garage or Accessory Building under conditions meeting the remaining requirements of Article 9-350 may apply for a Special Home Occupation Permit under the following procedure:

- a) The applicant shall submit a site plan drawn to scale showing the locations and dimensions of all buildings and driveways on the

premises, and identifying the location where the Home Occupation activity will take place.

**b)** The applicant shall submit a narrative in sufficient detail to describe all aspects of the activity to be conducted and the locations of all such activity.

**c)** The Planning Commission shall conduct a Public Hearing on the proposed application, with mailed notice to all resident whose property lines come within 750 feet of the property lines of the applicant's lot, and published notice at least ten days prior to the hearing.

**d)** Following the Public Hearing, the Planning Commission shall make recommendations to the City Council, including such conditions as are deemed appropriate.

Notwithstanding any provision in Article 9-350.1 (a) to the contrary, a Special Home Occupation shall be mainly confined to the Garage or Accessory Building. A Special Home Occupation Permit shall be subject to the same provisions for revocation as Home Occupation Permits. In addition, notwithstanding any provision in Article 9-350.1 to the contrary, a Special Home Occupation may include uses that are normally not found in residential dwellings, as long as there are no obvious outward indicia of the activities being carried on under the Special Home Occupation Permit, no noise generated which is audible to nearby properties, no odor or vibration generated that is detectable to nearby properties, no outside storage which is visible from nearby properties or public ways and no customer traffic.

Special Home Occupations may involve up to one commercial delivery/pickup by outside delivery service van (such as UPS or Federal Express) or postal vehicle per day. Deliveries of goods produced at the site may be limited in scope and frequency by the approval process, including specifying the type of delivery vehicles that can be used, and including prohibition on commercial logos being displayed on delivery vehicles.