CITY OF NORTH OAKS

Regular Planning Commission Meeting
Thursday, March 28, 2024
7:00 PM, Community Meeting Room, 100 Village Center Drive

MEETING AGENDA

Remote Access - *Planning Commission members will participate in person in Council Chambers (Community Room, 100 Village Center Drive, Suite 150, North Oaks, MN) during the meeting. Members of the public are welcome to attend. Any person wishing to monitor the meeting electronically from a remote location may do so by calling the following Zoom meeting videoconference number: 1-312-626-6799, Webinar ID: 859 6829 4092 or by joining the meeting via the following link: https://us02web.zoom.us/j/85968294092.*

1. **Call To Order**

2. **Roll Call**

3. **Pledge**

4. **Citizen Comments** - *Members of the public are invited to make comments to the Planning Commission during the public comments section. Up to four minutes shall be allowed for each speaker. No action will be taken by the Commission on items raised during the public comment period unless the item appears as an agenda item for action.*

5. **Approval of Agenda**

6. **Approval of Previous Month's Minutes**

6a. Approval of Planning Commission Minutes of 2.29.2024
Planning Commission Minutes 2.29.24.pdf

7. **Business Action Items**

7a. Consider septic variance for 6 Badger Lane
2024-03-28 PC packet_6 Badger lane.pdf

Variance PC 6 Badger Lane.pdf

7b. Public Hearing - Consider Conditional Use Permit for building height in excess of 35 feet for property located at 8 Sherwood Trail. Consider driveway setback variance.
2024-03-28 PC Packet_8 Sherwood Trail.pdf

7c.Consider resolution in opposition of the Missing Middle Housing Bill

Memo re Zoning Preemption Ordinance.pdf

House Committee Advances Amended Multifamily Housing Development Bill - League of Minnesota Cities.pdf

HF4010 3.25.2024.pdf

NO Resolution re Local Zoning Control 3.25.2024.pdf

8. Commissioner Report(s)

9. Adjourn

North Oaks Planning Commission
Meeting Minutes
City of North Oaks Community Meeting Room
February 29, 2024

1. CALL TO ORDER

Chair Cremons called the meeting to order at 7:00 p.m. He welcomed returning Commissioner Joyce Yoshimura-Rank who has accepted a new term of service, as well as new Commissioner David Loegering.

2. ROLL CALL

Present: Chair David Cremons, Commissioners Stig Hauge, David Loegering, Bob Ostlund, Nick Sandell, Grover Sayre III, Joyce Yoshimura-Rank, Councilor Mark Azman
Staff Present: Administrator Kevin Kress, City Planner Kendra Lindahl, City Septic Inspector Brian Humpal
Present Via Electronic Means: City Attorney Bridget Nason via Zoom
Others Present: Videographer Sam Wagner
A quorum was declared present

3. PLEDGE OF ALLEGIANCE

Chair Cremons led the Council in the Pledge of Allegiance.

4. CITIZEN COMMENTS

There were no comments at this time.

5. APPROVAL OF AGENDA

City Administrator Kress requested to move items 7d. and 7e. to the top of the agenda.

MOTION by Cremons, seconded by Hauge, to approve the agenda as amended. Motion carried unanimously.

6. APPROVAL OF PREVIOUS MONTH'S MINUTES

a. Approval of November 30th, 2023 Minutes

MOTION by Sayre, seconded by Yoshimura-Rank, to approve the Planning Commission Meeting Minutes of November 30th, 2023. Motion carried unanimously.

7. BUSINESS ACTION ITEMS

a. Public Hearing – Consider Conditional Use Permit for garage size in excess of 1,500 square feet and building addition for property located at 70 W. Pleasant Lake Road

Chair Cremons noted that the applicant had submitted a similar application to the Planning Commission one year prior, and that application was approved. This new application is a minor amendment that increases the size of the garage.

City Planner Lindahl noted that the CUP is a 1,296 square foot garage addition and a smaller 306 square foot detached accessory structure. This property is in the shoreland overlay district for Pleasant Lake, but below any restrictions related to setbacks. Very little has changed since the prior application. Staff included conditions in their report to address the combined garage square footage of 2,446 that is proposed by the applicant. One item in their conditions noted that the Floor Area Ratio is very close to the 12% limit, and they have included a condition that the applicant needs to confirm compliance at the time a building permit is submitted.

MOTION by Hauge, seconded by Sayre, to open the public hearing at 7:06 p.m. Motion carried unanimously.

A neighbor of the property, Larry Wipf from 66 West Pleasant Lake Road spoke in support of the request.

Chair Cremons stated that the garage is three feet longer than the prior application. The applicant, Mark Udager, commented that he had made a calculation error in his prior application, and apologized to the Commission for not catching it before.

MOTION by Yoshimura-Rank seconded by Sandell, to close the public hearing at 7:10 p.m. Motion carried unanimously.

Commissioner Ostlund noted his concern that the upper floor of the garage should not be constructed with rough-ins for plumbing, electrical, etc. and asked that the Building Official keep an eye out to make sure that the unit could not be turned into an Accessory Dwelling Unit.

MOTION by Sandell, seconded by Sayre, to approve the application with conditions as outlined in the staff report. Motion carried unanimously.

b. Consider septic variance for property located at 4 Dove Lane

Chair Cremons stated that this variance is an application to replace a failing cesspool system. City Planner Lindahl summarized the staff report. Because this is an existing home, it is not considered a redevelopment so the only thing that the applicant needs a variance for is the setback for the system itself. This is a single-family home on a relatively small lot. The only viable location for a septic site is up against the street. The applicant is proposing a zero-foot setback. Staff believe that the variance standards have been met, and the application solves a potential public health issue by allowing the construction of a new, functional septic system and eliminating the noncompliant septic system.

City Septic Inspector Brian Humpal noted that there is still a five-foot buffer to the setbacks because the setbacks are measured from the absorption area and rockbeds of the system, however there will be berms that will extend to the property line. By nature, those are allowed to extend to the setback, they just need to remain on the property. It would not be encroaching on an adjoining property, but the easement to Edgewater Lane.

Chair Cremons asked about an open area to the southeast and if this area was looked at as a possible location for the system. Humpal explained that other setbacks prevented this area from being viable. The setback is applicable to the tanks as well as the drainfield.

The applicant, Jim Christiansen, explained that the issue came to light because he had purchased the home with the intention of renovating it. He wanted to add an additional bathroom but was unable to do so unless the system was updated.

Chair Cremons asked how the existing cesspools would be closed. Humpal explained that a cesspool system is a tank that has been constructed without a bottom and made out of blocks without mortar joints. By design, they leak into the ground. To close the tanks, the existing tanks would be pumped out, collapsed and filled-in. Long-term, if a new system were to fail in a spot where there are no other alternative septic sites, they would need to completely haul out the system and replace it. A typical lifespan of a Type III system would be about 50 years.

Commissioner Ostlund asked for clarification on whether the property was planning to be rented, and how many bedrooms it will have. The applicant stated the intention is to sell it, and that there will be six bedrooms. Humpal confirmed that the new system has been designed to meet the size of a six-bedroom home.

MOTION by Hauge, seconded by Sayre, to approve the application with conditions as outlined in the staff report. Motion carried unanimously.

c. Public Hearing – Consider Conditional Use Permit for building height in excess of 35 feet for property located at 8 Sherwood Trail

City Planner Lindahl asked that this item be continued to the March 28th Planning Commission meeting. After reviewing the application, staff realized that the applicant would also need a variance for wetland setbacks. Lindahl has spoken to the applicant and they have asked to move their CUP application to March so that both applications can be reviewed together. Chair Cremons decided to open the public hearing since it had been noticed to the public.

MOTION by Yoshimura-Rank, seconded by Sandell, to open the public hearing at 7:36 p.m. Motion carried unanimously.

Based on the conversation, Chair Cremons stated they would continue the public hearing at the March 28th Planning Commission Meeting.

Leanne Savereide from 4 Red Maple Lane stated that she would like to welcome the neighbors to the neighborhood, but she is also concerned about the placement of the house near the wetland. She would appreciate the Commission's attention to this matter at the next meeting.

MOTION by Cremons, seconded by Hauge, to continue the public hearing at the March 28th Planning Commission Meeting. Motion carried unanimously.

d. Public Hearing – Consider Conditional Use Permit for building height in excess of 35 feet for property located at 1 Sherwood Trail

City Planner Lindahl stated that this application is for a new home to be constructed 40 feet 7 inches high where the code allows a 35-foot building height. The application complies with the setback requirements. The front elevation is 60 feet from the roadway and the side and rear elevations are more than 100 feet from the adjacent properties. The east side elevation is the side that exceeds 35 feet in height. The Floor Area Ratio worksheet has been provided and shows compliance with the 12% max requirement. Staff believe the applicant has complied with the conditions for a CUP.

Chair Cremons asked the status of trees on this lot. The applicant, Scott Hockert from Hanson Builders stated he was not prepared to answer that question pertaining to the CUP and he would have to get back to them on that.

City Planner Lindahl and the applicant stated that this home is a lookout rather than a walkout, which minimizes the amount of dirt being moved and the impact on the topography of the land. The lookout would be on the East side of the home.

MOTION by Yoshimura-Rank, seconded by Sayre, to open the public hearing at 7:43 p.m. Motion carried unanimously.

There were no members of the public in the Community Room or on Zoom who made comments.

MOTION by Yoshimura-Rank seconded by Hauge, to close the public hearing at 7:44 p.m. Motion carried unanimously.

Commissioner Sayre asked if much excavation would be needed at the lookout site. The applicant and City Administrator Kress noted that it would be about two feet of excavation.

Chair Cremons stated that he would like to discuss the current state of trees on the property and what the plan is for removal or preservation. City Administrator Kress noted that the northern portion is pretty heavily covered with diseased Ash trees, most of which were marked for removal. Chair Cremons stated he is interested in preserving as many trees as possible and is interested in getting reports from the builder on what their plans are for trees when considering these applications.

City Administrator Kress noted that there is not a City ordinance for tree removal. Chair Cremons stated that NOHOA has more discretion on tree removal, and he understands they have been in conversation with the applicant on the issue. He suggested that perhaps the City Forester and NOHOA provide commentary to the City Council at their meeting when considering final approval.

MOTION by Cremons, seconded by Yoshimura-Rank, to approve the application with conditions as outlined in the staff report, and a note to the Council that the Commission is

interested in having the applicant share information about tree work being done on the property at the City Council meeting. Motion carried unanimously.

e. Public Hearing – Consider Conditional Use Permit for building height in excess of 35 feet for property located at 2 Sherwood Trail

City Planner Lindahl stated this application was also submitted by Hanson Builders for a new home on a vacant lot. The proposed home has a front elevation of 33.5 feet and the side and rear elevations are setback more than 80 feet from the adjacent lot lines. The request is for a home that is 39.63 inches in height at the rear. The side facades are less than the 35-foot height limit. The Floor Area Ratio shows compliance with the 12% maximum. Staff finds that the application complies with the conditions for a CUP.

Chair Cremons asked if there was any issue with the slope and City Planner Lindahl confirmed this to be the case. The proposed home is a lookout with very little cut and fill.

MOTION by Hauge, seconded by Yoshimura-Rank, to open the public hearing at 8:10 p.m. Motion carried unanimously.

There were no members of the public in the Community Room or on Zoom who made comments.

MOTION by Yoshimura-Rank seconded by Sayre, to close the public hearing at 8:11 p.m. Motion carried unanimously.

MOTION by Sayre, seconded by Loegering, to approve the application with conditions as outlined in the staff report. Motion carried unanimously.

City Administrator Kress recommended to the applicant that they wait until the April meeting to bring the application to Council for final approval. He anticipates that there will only be three Council members at the next meeting, and it would be beneficial to have a full council look at the applications. The applicant agreed.

f. Public Hearing – Consider Ordinance amending City Code XV, Chapter 151, Regarding garage definitions and garage size standards

Chair Cremons introduced this item stating it has been an issue that the Commission has been working on since August 2023. The purpose is to allow more flexibility with respect to garage size since there has been an increase in CUPs on this issue in recent years. The goal would be to circumvent the need for CUPs for what seem to be a more routine requirement. Basic changes include improving definitions to make things clearer and increasing the baseline garage from 1,500 square feet to 2,000 square feet.

City Planner Lindahl noted that the draft includes updates to the definition section of the ordinance and new conditions in the staff report will reduce the number of CUPs that the Commission reviews for garage size.

Commissioner Hauge suggested it might be beneficial to increase the square footage to 2,500 to reduce the number of CUPs even more. The commission discussed this issue and what threshold would reduce the number of CUPs without encouraging overly large garage sizes. Some Commissioners were open to increasing the number to 2,500 or 3,000. City Administrator Kress stated his personal preference for the number to be on the high end because applications are likely to get approved since it is almost impossible for applicants not to meet the conditions for a CUP unless they are over the Floor Area Ratio. Commissioner Sandell spoke in favor of a 3,000 square foot size limitation.

MOTION by Sayre, seconded by Hauge, to open the public hearing at 8:28 p.m. Motion carried unanimously.

Leanne Savereide of 4 Red Maple Lane stated she admired the Commissioners for going into such depth on this issue, and that she likes the 2,000 square foot limitation.

MOTION by Hauge seconded by Yoshimura-Rank, to close the public hearing at 8:30 p.m. Motion carried unanimously.

The Commission took a straw poll to get a sense of what number each member preferred for a garage square foot limitation. Most members were open to a number over the suggested 2,000 square foot limit.

MOTION by Cremons, seconded by Hauge, to approve the proposed ordinance amending City Code XV, Chapter 151, regarding garage definitions and garage size standards, with a note to the Council that the majority of the Commissioners were not opposed to increasing the garage size limitation to 2,500 square feet. Motion carried 6-1, with Sandell against.

g. Public Hearing – Consider Ordinance amending City Code Title XV, Chapter 151, Regarding building height and setback standards in the RSL – Residential Single Family Low Density District

City Planner Lindahl outlined the proposed changes, including cleaning up and clarifying the language around how height is measured, what counts toward building height, and defining "naturally suited" with measurable allowances. Chair Cremons noted that the working group determined that height would be measured by the tallest portion of the building as opposed to the tallest portion of any particular wall facing a property line.

MOTION by Cremons, seconded by Sayre, to open the public hearing at 8:36 p.m. Motion carried unanimously.

There were no members of the public in the Community Room or on Zoom who made comments

MOTION by Hauge seconded by Yoshimura-Rank, to close the public hearing at 8:37 p.m. Motion carried unanimously.

Commissioners discussed the changes. Commissioner Sayre clarified that unlike the previous amendment, this amendment is not intended to reduce the number of CUPs. Rather, it is meant to help the Commission more clearly evaluate an application and whether it preserves the topography of the land. City Administrator Kress noted that the original intention of the ordinance was to slow down movement of dirt and trees in the RSL district where the development was not mass-graded. The goal was to encourage building to fit the lot, not adjusting the lot to fit the build.

Commissioner Sandell said he not in favor of limiting artificial topographical grade change at six feet because it is too restrictive. He would support eight feet instead. A straw vote was taken, and most commissioners preferred six feet.

h. MOTION by Cremons, seconded by Hauge, to approve the ordinance amending City Code Title XV, Chapter 151, Regarding building height and setback standards in the RSL – Residential Single Family Low Density District. Motion carried 6-1, with Sandell against.

Planning Commission requested that a note be made to Council that both Sandell and Sayre preferred eight feet instead of six feet for the limit on artificial topographical grade change.

i. Consider Ordinance amending City Code Title XIII, Chapter 130, regarding unnecessary noise

Commissioners discussed a draft ordinance amendment that would provide time limitations to activities such as loud outdoor music, domestic power equipment, landscaping equipment, etc. with some exceptions for public safety vehicles, snowplows, etc.

Commissioner Ostlund stated that he believes lawn mowers should not be an exception. Commissioner Sayre felt that leaf blowers should be added as an exception. He felt not being able to mow after 6 p.m., as the draft currently states, is too restrictive for homeowners that are working regular hours. Commissioner Sandell said he would not support the draft ordinance because he felt it was too restrictive for busy working families. Commissioner Loegering asked if quieter electric lawn mowers or equipment would be allowed after the time limitations. Chair Cremons clarified that the intention would be to limit the noise level, not the activity itself.

Chair Cremons read a letter from Bill McNee, a resident at 11 Sunset Lane. Mr. McNee does not believe there is a noise problem in North Oaks, and feels that lawn and power equipment use is necessary to maintain properties. He feels the time limitations are too restrictive for working people. He also feels the C5 exemptions item is confusing.

Chair Cremons stated that he feels it is important before making any decisions to get the public's opinion on whether noise is indeed an issue for North Oaks. He also noted that it would be challenging to enforce a noise ordinance. City Attorney Nason stated that violation of the ordinance would be a criminal violation.

Councilor Azman felt it is reasonable for the community to have some limitations on noise, and that there is room for discussion on timing and what items are allowed. The draft ordinance was developed after looking at ordinances from other communities. City Administrator Kress stated that the current ordinance is unenforceable since it is based on decibel level, and the City does not have a way to measure this. Commissioner Sayre brought up the issue of whether the Golf Course would also be subject to this ordinance, and that it might be unreasonable for their operations.

No decision was made on the ordinance amendment. Commissioners will provide further feedback to City Administrator Kress over the next month and continue the discussion at the next meeting. Councilor Azman will ask the Council for more specificity on their interests related to this amendment.

8. COMMISSIONER REPORT(S)

City Administrator Kress gave an update on a proposed berm in the Gate Hill/Spring Farm Road area to separate the homes on Spring Farm Road from Centerville Road. He believes the current proposal looks very nice and does not require any approvals from the Planning Commission.

9. ADJOURN

Chair Cremons stated the next Planning Commission meeting would be March 28th, 2024. He will be absent for that meeting, so Commissioner Sandell will serve as Chairman.

MOTION by Hauge, seconded by Yoshimura-Rank, to adjourn the Planning Commission meeting at 9:19 p.m. Motion carried unanimously by roll call.

_____ _____

Kevin Kress, City Administrator David Cremons, Chair

Date approved_____

CITY OF NorthOaks
Building on a tradition of innovation

PLANNING REPORT

TO: North Oaks Planning Commission

FROM: Kendra Lindahl, City Planner
Kevin Kress, City Administrator
Bridget McCauley Nason, City Attorney
Michael Nielson, City Engineer

DATE: March 28, 2024

RE: Septic Variance at 6 Badger Lane (city file 24-3/Landform file 24-004)

Date Application Submitted	February 2, 2024
Date Application Determined Complete:	March 6, 2024
Planning Commission Meeting Date:	March 28, 2024
City Council Meeting Date:	April 11, 2024
60-day Review Date:	May 5, 2024

REQUEST

Thomas Romanko has requested approval of a subsurface sewage treatment system (SSTS) variance to the septic system to cross the lot line and be partially located on the adjacent golf course property. The ordinance requires all tanks and treatment areas to be at least 30 feet from all property lines, wetlands and roads. The rock bed is approximately 15 feet from the property line and the mound would cross the property line. The variance would allow a replacement of the SSTS at 4 Dove Lane, which is classified as non-compliant under MPCA Rule 7080.1500, Subp.4(B).

BACKGROUND

The site is currently developed with a single family home. The home is surrounded by the golf course on the east and west and single family homes on the north and south.

Figure 1 - Subject Parcel

Zoning and Land Use

The property is guided Low Density residential and is zoned Residential Single Family – Low Density (RSL). The 1.01-acre property is located in the northeast portion of the golf course.

PLANNING ANALYSIS

Chapter 51 of the City Code establishes standards for SSTS. Section 51.03(3) requires a minimum setback of 30 feet from all property lines, wetlands and the nearest edge of any roadway easement. The applicant's plan does not show the exact setback dimension, but the rock bed would be approximately 15 feet from the east lot line where 30 feet is required. Additionally, the grading for the mound will extend into the golf course property. The applicant has been working with the golf course to obtain an easement for this encroachment. The easement document included in the packet must be reviewed by the City Attorney and recorded at the County.

Variance Standards

Section 51.02(11) of the Code says "Where conditions prevent the construction, alteration, and/or repair of a sewage treatment system in strict compliance with the requirements of this chapter, the property owner may apply for a variance following the procedures outlined in North Oaks City Code Sections 151.078 & 151.079."

Section 151.078 of the Zoning Code requires that the following criteria be considered and a variance only be granted when it is demonstrated that following standards have all been met:

(1)(a) Their strict enforcement would cause practical difficulties because of circumstances unique to the individual land under consideration, and the variances shall be granted only when it is demonstrated that the actions will be in keeping with the spirit and intent of this chapter.

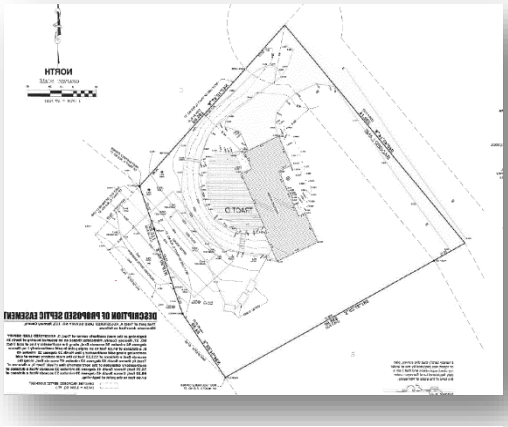


Figure 2-Site Plan

The size and shape of the existing 1.01-acre lot of record precludes another location for a new septic on this site and creates a practical difficulty. The location of the well, water supply lines, structures, street and the existing cesspools leave only this location for a new septic system.

b) PRACTICAL DIFFICULTIES means the land in question cannot be put to a reasonable use if used under conditions allowed by the official controls, the plight of the land owner is due to circumstances unique to the land in question which were not created by the land owner, and the variance, if granted, will not alter the essential character of the locality.

The size and shape of the existing lot of record does not have another location for a new septic on this site and creates a practical difficulty. The location of water supply lines, structures, and the existing cesspools leave only this location for a new septic system. Approving the variance will allow construction of a new septic system and abandonment of the non-compliant system. It would not alter the essential character of the locality.

(c) Economic considerations alone shall not constitute an undue hardship if reasonable use for the land exists under the terms of this chapter.

The variance requested is to replace a failing system. The variance is not based on economic considerations alone.

(d) A variance may not be granted for any use that is not permitted under this chapter for land in the zone where the affected person's land is located.

The variance would allow a new septic system. It would not allow a use that is not permitted by City Code.

(2) Subject to the above, a variance may be granted only in the event that all of the following circumstances exist:

(a) Unique circumstances apply to the which do not generally apply to other land in the same zone or vicinity, and result from lot size or shape, topography, or other circumstances over which the owners of the land have no control;

The circumstances of this site do not apply to other properties in same zone and are the result of the small lot size, topography and existing conditions on this lot.

(b) The proposed uses is reasonable;

The proposed use is reasonable. It will allow replacement of the failing system with a new septic system.

(c) That the unique circumstances do not result from the actions of the applicant;

The circumstances do not result from the action of the applicant. The existing septic system has failed and must be replaced.

(d) That granting the variance requested will not confer on the applicant any special privilege that is denied by this chapter to other lands, structures, or buildings in the same district;

Granting the variance will not confer upon the applicant any special privilege. It will simply allow them to replace their failing system.

(e) That the Variance requested is the minimum variance which would alleviate the practical difficulties;

The variance is the minimum action needed to alleviate the practical difficulties on site.

(f) The proposed variance will not impair an adequate supply of light and air to adjacent land, or substantially increase the congestion of the roads and streets, or increase the danger of fire, or endanger the public safety, or substantially diminish or impair property values within the neighborhood; and

The proposed variance will not impair an adequate supply of light and air to adjacent land, or substantially increase the congestion of the roads and streets, or increase the danger of fire, or endanger the public safety, or substantially diminish or impair property values within the neighborhood.

(g) At no time after the land became nonconforming was the property under common ownership with contiguous land, the combination of which could have been used to reduce or avoid the nonconformity of the land.

At no time after the land became nonconforming was the property under common ownership with contiguous land, the combination of which could have been used to reduce or avoid the nonconformity of the land.

Attached for reference:

Exhibit A: Location Map

Exhibit B: Application Narrative dated February 12, 2024

Exhibit C: Site Survey dated December 15, 2023

Exhibit D: SP Testing Inc. Design Report dated September 11, 2023 and Exhibit

Exhibit E: Declaration of Grant of Easement

STAFF RECOMMENDATION

Based on the preceding review, Staff recommends approval of the variance based on the finding that the variance standards are met and that the new system will result in improvements to the local ground and surface waters by eliminating a non-compliant cesspool.

PLANNING COMMISSION OPTIONS

In consideration of the variance application, the Planning Commission has the following options:

A) **Recommend approval** of the application with conditions, based on the applicant's submission, the contents of this report, public testimony and other evidence available to the Planning Commission.

- This option should be utilized if the Planning Commission finds the proposal adheres to all City Code requirements or will do so with conditions.

B) **Recommend denial** of the application with findings for denial clearly articulated.

C) **Recommend continuance** of the application review based on the need for more information in which to process the request.


11
6
9
7
8
54
2
4
3
8
6
4
2
17
0

Thomas Romanko

6 Badger Lane
North Oaks, MN 55127
651-261-9120

February 12, 2024

To: Kevin Kress, City of North Oaks

Subject: Variance Request for the installation of a new septic system

The original septic system (circa 1968) at 6 Badger Lane is no longer functioning properly and needs to be replaced. Due to the property soil makeup, uneven ground/slopes, setbacks and large area needed for new septic system designs, there were very limited locations for the new system. With the proposed location (east side of the property), the above ground septic system drain mound slope goes onto the North Oaks Golf Course property. I have been informed a variance from the City of North Oaks and an easement from the golf course are required.

People and companies involved in determining the location include:

- Steve Schirmer – Septic Testing Inc. (Septic Design)
- Mike Capra - Capra's Utilities Inc. (Septic installation)
- Chris from Midwest Sewer (representing North Oaks Inspection)

Other parties involved:

- Pat Markley - North Oaks Golf Course
- E. G. Rud Surveyors
- Wynn Curtiss – Chestnut Cambronne (attorney)
- Kevin Kress – City of North Oaks
- Brian Humpal - (representing North Oaks Inspection)

The site plan for the septic system is defined in the included surveyor documents:

- CERT OF SURVEY Romanko 6 Badger Lane
- DESCRIPTION SEPTIC EASEMENT Romanko 6 Badger Lane

A DECLARATION OF GRANT OF EASEMENT with North Oaks Golf Course has been approved and signed by the President of N.O. Golf Club and the Notary Public on January 25, 2024.

CERTIFICATE OF SURVEY

~for~ TOM AND KIM ROMANKO
~of~ 6 BADGER LANE
NORTH OAKS, MN 55127

PROPERTY DESCRIPTION

Tract D, REGISTERED LAND SURVEY NO. 57, Ramsey County, Minnesota.

NOTES

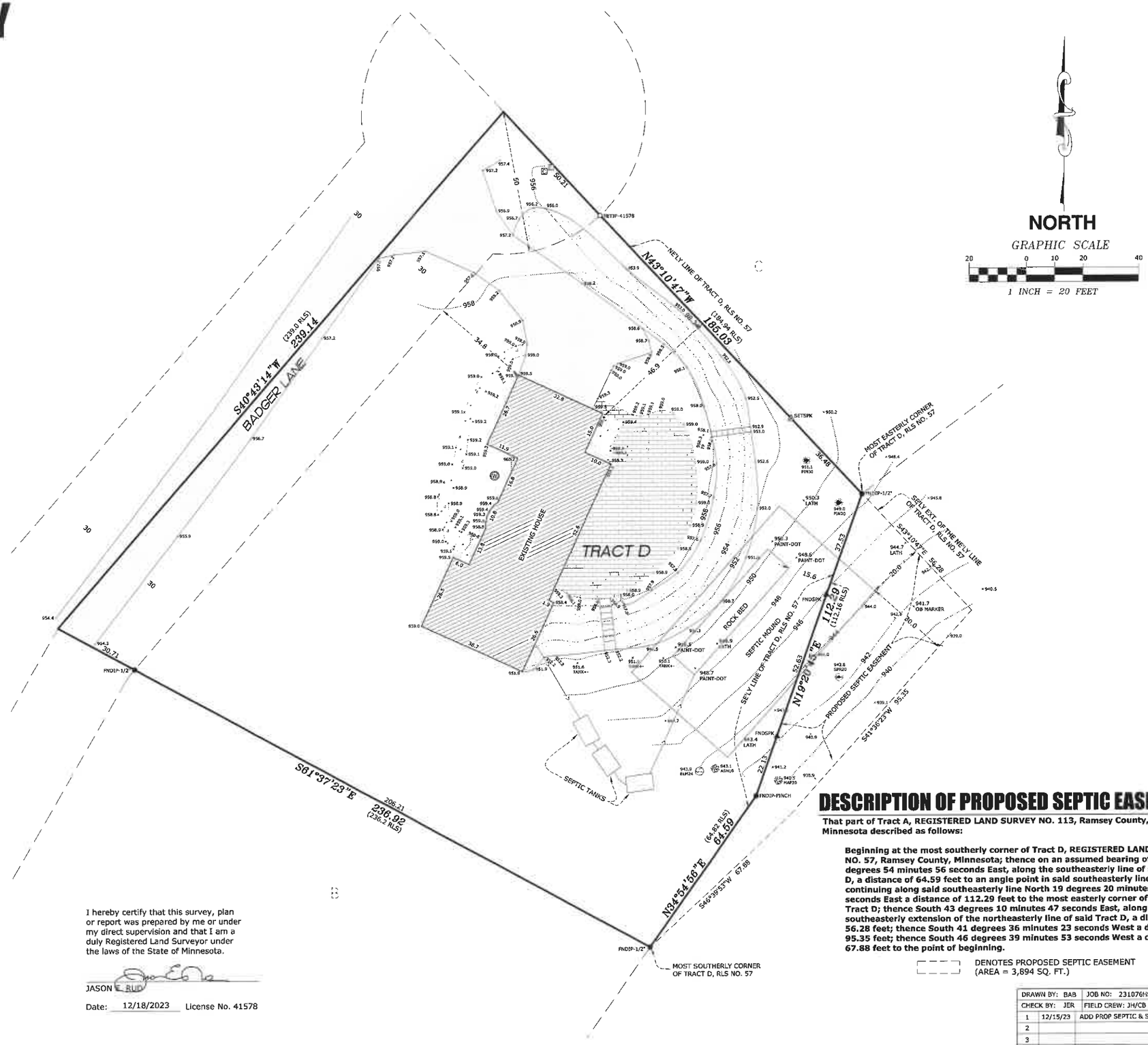
- Field survey was completed by E.G. Rud and Sons, Inc. on 10/25/2023 and 11/13/2023.
- Bearings shown are on Ramsey County datum.
- Parcel ID Number: 18-30-22-14-0013.
- This survey was prepared without the benefit of title work. Additional easements, restrictions and/or encumbrances may exist other than those shown hereon. Survey subject to revision upon receipt of a current title commitment or an attorney's title opinion.
- Septic shown per design sketch by S-P Testing, Inc. dated 12/1/2023.

LEGEND

- DENOTES IRON MONUMENT FOUND AS LABELED
- DENOTES IRON MONUMENT SET, MARKED RLS# 41578
- DENOTES FOUND SPIKE
- DENOTES SET SPIKE
- DENOTES CABLE PEDESTAL
- DENOTES ELECTRICAL BOX
- X 952.36 DENOTES EXISTING SPOT ELEVATION
- DENOTES EXISTING CONTOURS
- DENOTES WELL
- DENOTES BITUMINOUS SURFACE
- DENOTES CONCRETE SURFACE
- DENOTES ROCK AREA
- DENOTES PAVER SURFACE

TREE DETAIL

- DENOTES ELEVATION
- DENOTES TREE QUANTITY
- DENOTES TREE SIZE IN INCHES
- DENOTES TREE TYPE



DESCRIPTION OF PROPOSED SEPTIC EASEMENT

That part of Tract A, REGISTERED LAND SURVEY NO. 113, Ramsey County, Minnesota described as follows:

Beginning at the most southerly corner of Tract D, REGISTERED LAND SURVEY NO. 57, Ramsey County, Minnesota; thence on an assumed bearing of North 34 degrees 54 minutes 56 seconds East, along the southeasterly line of said Tract D, a distance of 64.59 feet to an angle point in said southeasterly line; thence continuing along said southeasterly line North 19 degrees 20 minutes 45 seconds East a distance of 112.29 feet to the most easterly corner of said Tract D; thence South 43 degrees 10 minutes 47 seconds East, along the southeasterly extension of the northeasterly line of said Tract D, a distance of 56.28 feet; thence South 41 degrees 36 minutes 23 seconds West a distance of 95.35 feet; thence South 46 degrees 39 minutes 53 seconds West a distance of 67.88 feet to the point of beginning.

DENOTES PROPOSED SEPTIC EASEMENT
(AREA = 3,894 SQ. FT.)

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: 12/18/2023 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: BAB	JOB NO: 231076HS	DATE: 11/14/2023	
CHECK BY: JER	FIELD CREW: JH/CB		
1	12/15/23	ADD PROP SEPTIC & SEPTIC ESMT	BAB
2			
3			
NO.	DATE	DESCRIPTION	BY

C:\USERS\BBYER.EGRUD\DESKTOP\REMOTE JOBS\231076 ROMANKO\231076HS (COUNTY-COORDS).DWG

23.1076HS

SP TESTING INC.

Steven B. Schirmers – 951 Katydid Lane NE – St. Michael, MN 55376
Cert. No 627 – State License #394 – Phone 763-497-3566 – Fax 763-497-5011
www.sptesting.wastewater@comcast.net – schirmerswastewater.com

September 11, 2023

Tom & Kim Romanko
6 Badger Lane
North Oaks, MN

This site has an existing on-site wastewater treatment system consisting of a cesspool & 2 seepage pits (tanks with no bottoms). These tanks are classified as non-compliant under Minnesota Chapter 7080 rules. The tanks will need to be abandoned, pumped & filled with soil. A tank abandonment report will need to be completed by a licensed contractor.

This onsite sewage treatment system is designed for a Type 1, system, Type 1, 4 bedroom home in accordance with the Minnesota Pollution Control Agency chapter 7080 & local ordinances.

An Easement agreement will be needed with North Oaks Golf Course which includes 30' east of the down slope toe of the mound. The absorption area (5' downslope of the rock bed) & the rock bed at the north end of the system is 15' from the East property line.

The soils on this site are a sandy loam. The seasonally saturated soils (mottled soil were present a depth of 30" to 48". A pressurized mound system will be installed. The bottom of the treatment area must be located at least 3' above mottled soil.

A pumping chamber will need to be installed to lift the effluent to the treatment area. The power supply & switches must be located outside the manhole & pumping chamber in a weather proof enclosure. A warning device must be installed with a light & sound device, this is in case of a pump failure.

The manifold & supply line must have back drainage to the pumping chamber. Be sure the rock & sand fill material are clean. The sod layer below the entire mounded area must be turned over, just break up the sod.

All property lines must be located prior to installation.

If the tanks have less than 2' of cover, the lids, risers & maintenance hole covers must be insulated to a value of R10.

Cleanouts for each lateral with a sweep must be insulated & be accessible from finished grade in an irrigation box with a ball valve.

All neighboring wells are located greater than 100' away from the proposed treatment area.

Keep all heavy equipment off of the proposed treatment area before and after construction. New construction sites must be fenced off prior to starting construction of the home. The treatment area should be marked off before construction. This design is not valid & the system will need to be relocated if failure to protect the sites for new on-site sewage systems.

Install inspection pipes, one to the bottom of the rock & 1 to the bottom of the sand.

MANAGEMENT PLAN:

The tanks need to be maintained at a minimum of 1 time every 2 years, check with your pumper to set up a schedule.

System inspected for areas of wetness by owner & or Inspector as determined by the local unit of Government.

Any other requirements as determined by the local unit of Government.

With proper installation & maintenance, this system should have no problem in treating septic effluent effectively. Nothing other than human waste, toilet tissue, laundry, showers, water softners etc. should be disposed of into the system. Garbage disposals are not recommended. Excessive amounts of soaps, antibacterial soaps, cleaning agents, shower cleaners used every shower & chlorine agents may kill the bacteria needed to treat septic effluent. Additives are not recommended. PAINTS, STAINS, ET.C MUST NOT GO DOWN THE DRAINS. Recommend laundering be limited to 3 to 4 loads per day. IRON FILTERS MUST NOT DISCHARGE INTO THE SYSTEM.

Steven B. Schirmers

CERTIFICATE OF SURVEY

~for~ TOM AND KIM ROMANKO
~of~ 6 BADGER LANE
NORTH OAKS, MN 55127

PROPERTY DESCRIPTION

Tract D, REGISTERED LAND SURVEY NO. 57, Ramsey County, Minnesota.

NOTES

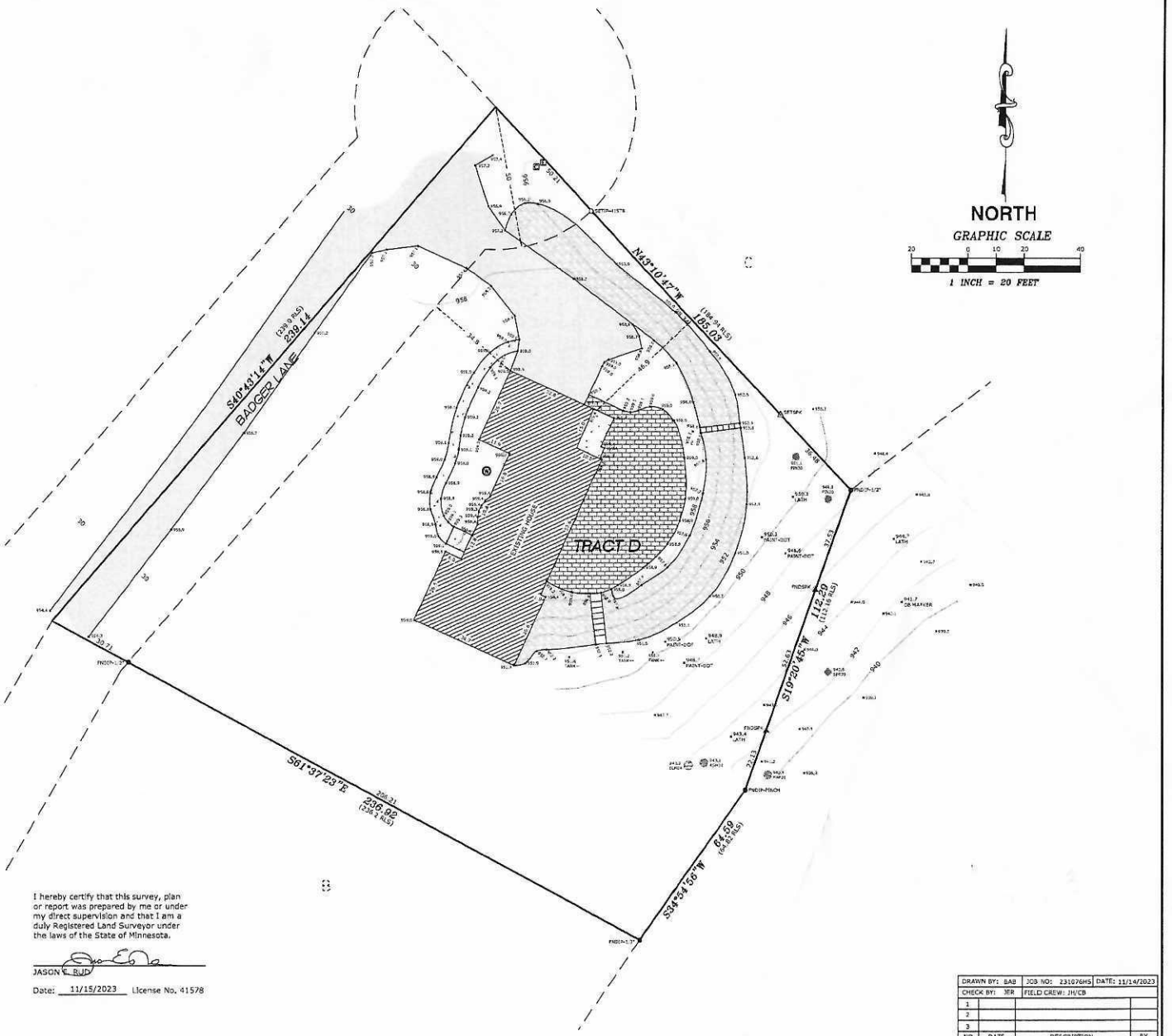
- Field survey was completed by E.G. Rud and Sons, Inc. on 10/25/2023 and 11/13/2023.
- Bearings shown are on Ramsey County datum.
- Parcel ID Number: 18-30-22-14-0013.
- This survey was prepared without the benefit of title work. Additional easements, restrictions and/or encumbrances may exist other than those shown hereon. Survey subject to revision upon receipt of a current title commitment or an attorney's title opinion.

LEGEND

- DENOTES IRON MONUMENT FOUND AS LABELED
- DENOTES IRON MONUMENT SET, MARKED RLS# 41578
- DENOTES FOUND SPIKE
- DENOTES SET SPIKE
- DENOTES CABLE PEDESTAL
- DENOTES ELECTRICAL BOX
- DENOTES EXISTING SPOT ELEVATION
- DENOTES EXISTING CONTOURS
- DENOTES WELL
- DENOTES BITUMINOUS SURFACE
- DENOTES CONCRETE SURFACE
- DENOTES ROCK AREA
- DENOTES PAVER SURFACE

TREE DETAIL

- DENOTES ELEVATION
- DENOTES TREE QUANTITY
- DENOTES TREE SIZE IN INCHES
- DENOTES TREE TYPE



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: 11/15/2023 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: BAB	JOB NO: 231076HS	DATE: 11/14/2023
CHECK BY: JER	FIELD CREW: JH/CB	

NO.	DATE	DESCRIPTION	BY
1			
2			
3			

23.1076HS

ONSITE SEWAGE TREATMENT PROGRAM

Preliminary Evaluation Worksheet

MINNESOTA POLLUTION CONTROL AGENCY

1. Contact Information

v 03.15.2023

Property Owner/Client: Tom & Kim Romanko | Date Completed: 8/29/2023

Site Address: 6 Badger Lane, North Oaks | Project ID:

Email: | Phone:

Mailing Address: | Alt Phone:

Legal Description:

Parcel ID: | SEC: | TWP: | RNG:

2. Flow and General System Information

A. Client-Provided Information

Project Type: ☐ New Construction ☑ Replacement ☐ Expansion ☐ Repair

Project Use: ☒ Residential ☐ Other Establishment:

Residential use: # Bedrooms: 4 | Dwelling sq.ft.: | Unfinished sq.ft.:

Adults: 2 | # Children: | # Teenagers:

In-home business (Y/N): | If yes, describe:

Water-using devices: *(check all that apply)*

- ☐ Garbage Disposal/Grinder
- ☑ Dishwasher
- ☐ Hot Tub*
- ☐ Sewage pump in basement
- ☐ Water Softener*
- ☐ Sump Pump*
- ☑ Large Bathtub >40 gallons
- ☐ Iron Filter*
- ☐ Self-Cleaning Humidifier*
- ☑ Clothes Washing Machine
- ☑ High Eff. Furnace*
- ☐ Other:

* Clear water source - should not go into system

Additional current or future uses:

Anticipated non-domestic waste:

The above is complete & accurate: *Client signature & date*

B. Designer-determined Flow and Anticipated Waste Strength Information

Attach additional information as necessary.

Design Flow: 600 GPD | Anticipated Waste Type: Residential

Maximum Concentration BOD: 170 mg/L | TSS 60 mg/L | Oil & Grease 25 mg/L

3. Preliminary Site Information

A. Water Supply Wells

#	Description	Mn. ID#	Well Depth (ft.)	Casing Depth (ft.)	Confining Layer	STA Setback	Source
1							
2							
3							
4							

Additional Well Information:

ONSITE SEWAGE TREATMENT PROGRAM

Preliminary Evaluation Worksheet

MINNESOTA POLLUTION CONTROL AGENCY

Site within 200' of noncommunity transient well (Y/N)	No	Yes, source:	
Site within a drinking water supply management area (Y/N)	No	Yes, source:	
Site in Well Head Protection inner wellhead management zone (Y/N)	No	Yes, source:	
Buried water supply pipes within 50 ft of proposed system (Y/N)	No		
B. Site located in a shoreland district/area?	No	Yes, name:	N/A
Elevation of ordinary high water level:	N/A ft	Source:	N/A
Classification: N/A	Tank Setback: N/A ft.	STA Setback: N/A ft.	
C. Site located in a floodplain?	No	Yes, Type(s):	N/A
Floodplain designation/elevation (10 Year):	N/A ft	Source:	N/A
Floodplain designation/elevation (100 Year):	N/A ft	Source:	N/A

D. Property Line Id / Source: ☑ Owner ☐ Survey ☐ County GIS ☐ Plat Map ☐ Other:

E. ID distance of relevant setbacks on map: ☐ Water ☐ Easements ☑ Well(s) ☑ Building(s) ☑ Property Lines ☐ OHWL ☐ Other:

4. Preliminary Soil Profile Information From Web Soil Survey (attach map & description)

Map Units: 169C Slope Range: 16 %

List landforms: hilly

Landform position(s): Back/ Side Slope

Parent materials: Till

Depth to Bedrock/Restrictive Feature: 30 in Depth to Watertable: 30 in

Map Unit Ratings

Septic Tank Absorption Field- At-grade:	
Septic Tank Absorption Field- Mound:	Not Limited
Septic Tank Absorption Field- Trench:	

5. Local Government Unit Information

Name of LGU:	North Oaks
LGU Contact:	Brian Humpal
LGU-specific setbacks:	
LGU-specific design requirements:	
LGU-specific installation requirements:	

Notes:

ONSITE SEWAGE TREATMENT PROGRAM

Field Evaluation Worksheet

MINNESOTA POLLUTION CONTROL AGENCY

1. Project Information

v 03.15.2023

Property Owner/Client: Tom & Kim Romanko | Project ID:

Site Address: 6 Badger Lane, North Oaks | Date Completed: 8/29/2023

2. Utility and Structure Information

Utility Locations Identified ☑ Gopher State One Call # ☐ Any Private Utilities:

Locate and Verify (*see Site Evaluation map*) ☑ Existing Buildings ☐ Improvements ☐ Easements ☑ Setbacks

3. Site Information

Vegetation type(s): Grass | Landscape position: Back/ Side Slope

Percent slope: 16 % | Slope shape: Linear, Linear | Slope direction: east

Describe the flooding or run-on potential of site: none

Describe the need for Type III or Type IV system: none

Note:

Proposed soil treatment area protected? (Y/N): No | If yes, describe:

4. General Soils Information

Filled, Compacted, Disturbed areas (Y/N):

If yes, describe:

Soil observations were conducted in the proposed system location (Y/N): Yes

A soil observation in the most limiting area of the proposed system (Y/N): Yes

Number of soil observations: 4 | Soil observation logs attached (Y/N): Yes

Percolation tests performed & attached (Y/N): No

5. Phase I. Reporting Information

	Depth		Elevation		
Limiting Condition*:	30	in	**947.8**	ft	**Most Restrictive Depth Identified from List Below*
Periodically saturated soil:	30	in	947.8	ft	Soil Texture: Medium Loamy Sand
Standing water:	none	in		ft	Percolation Rate: min/inch
Bedrock:	none	in		ft	Soil Hyd Loading Rate: 0.78 gpd/sq.ft
Benchmark Elevation:	949.4	ft			Elevations and Benchmark on map? (Y/N): Yes

Benchmark Elevation Location: Basement slab

Differences between soil survey and field evaluation:

Site evaluation issues / comments:

Anticipated construction issues:

University of Minnesota Onsite Sewage Treatment Program

Design Summary Page

MINNESOTA POLLUTION CONTROL AGENCY

1. PROJECT INFORMATION

v 03.15.2023

Property Owner/Client:	Tom & Kim Romanko	Project ID:	
Site Address:	6 Badger Lane, North Oaks	Date:	08/29/23
Email Address:		Phone:	

2. DESIGN FLOW & WASTE STRENGTH

Attach waste strength data/estimated strength for Other Establishments

Design Flow: 600 GPD Anticipated Waste Type: Residential

BOD: 170 mg/L TSS: 60 mg/L Oil & Grease: 25 mg/L

Treatment Level: C *Select Treatment Level C for residential septic tank effluent*

3. HOLDING TANK SIZING

Minimum Capacity: Residential =1000 gal or 400 gal/bedroom, Other Establishment = Design Flow x 5.0, Minimum size 1000 gallons

Code Minimum **Holding Tank** Capacity: _____ Gallons with _____ Tanks or Compartments

Recommended **Holding Tank** Capacity: _____ Gallons with _____ Tanks or Compartments

Type of High Level Alarm: _____ (Set @ 75% tank capacity)

Comments: _____

4. SEPTIC TANK SIZING

A. Residential dwellings:

Number of Bedrooms (Residential): 4

Code Minimum **Septic Tank** Capacity: 2500 Gallons with 2 Tanks or Compartments

Recommended **Septic Tank** Capacity: 2500 Gallons with 2 Tanks or Compartments

Effluent Screen & Alarm (Y/N): No Model/Type: _____

B. Other Establishments:

Waste received by: _____ _____ GPD x _____ Days Hyd. Retention Time

Code Minimum **Septic Tank** Capacity: _____ Gallons with _____ Tanks or Compartments

Recommended **Septic Tank** Capacity: _____ Gallons with _____ Tanks or Compartments

Effluent Screen & Alarm (Y/N): _____ Model/Type: _____

* Other Establishments Require Department of Labor and Industry Approval and Inspection for Building Sewer *

5. PUMP TANK SIZING

Soil Treatment Dosing Tank		Other Component Dosing Tank:	
Pump Tank Capacity (Minimum):	1000 Gal	Pump Tank Capacity (Minimum):	Gal
Pump Tank Capacity (Recommended):	1000 Gal	Pump Tank Capacity (Recommended):	Gal
Pump Req:	38.0 GPM	Total Head	12.8 ft	Pump Req:	GPM	Total Head	ft
Supply Pipe Dia.	2.00 in	Dose Vol:	149.0 gal	Supply Pipe Dia.	in	Dose Vol:	Gal

* Flow measurement device must be incorporated for any system with a pump; Elapsed Time Meter and/or Event Counter *

University of Minnesota Onsite Sewage Treatment Program

Design Summary Page

MINNESOTA POLLUTION CONTROL AGENCY

6. SYSTEM AND DISTRIBUTION TYPE

Project ID:

Soil Treatment Type:	Mound	Distribution Type:	Pressure Distribution-Level
Elevation Benchmark:	949.4 ft	Benchmark Location:	Basement slab
MPCA System Type:	Type I	Distribution Media:	Rock
Type III/IV/V Details:	none		

7. SITE EVALUATION SUMMARY:

Describe Limiting Condition: Redoximorphic Features/Saturated Soils

Layers with >35% Rock Fragments? (yes/no) No If yes, describe below: % rock and layer thickness, amount of soil credit and any additional information for addressing the rock fragments in this design.

Note:

	Depth		Depth		Elevation of Limiting Condition		
Limiting Condition:	30	inches	2.5	ft	947.80	ft	***Critical for system compliance***
Minimum Req'd Separation:	36	inches	3.0	ft			*Distribution Elevation >Code Max Depth*
					Elevation		
Code Max System Depth*:	Mound	inches	-0.5	ft	950.30	ft	Elevation OK

*This is the maximum depth to the bottom of the distribution media for required separation. Negative Depth (ft) requires a mound.

Designed Distribution Elevation: 951.3 ft Minimum Sand Depth: 12.0 inches

A. Soil Texture:	Medium Loamy Sand	B. Organic Loading Rate (optional):		lbs/sq.ft/day	0
C. Soil Hyd. Loading Rate:	0.78 GPD/ft^2	D: Percolation Rate:		MPI	
E. Contour Loading Rate:		Note:			
F. Measured Land Slope:	16.0 %	Note:			
Comments:					

8. SOIL TREATMENT AREA DESIGN SUMMARY

Trench:

Dispersal Area		sq.ft	Sidewall Depth		in	Trench Width	ft
Total Lineal Feet		ft	No. of Trenches			Code Max. Trench Depth	in
Contour Loading Rate		ft	Minimum Length		ft	Designed Trench Depth	in

Bed:

Dispersal Area		sq.ft	Sidewall Depth		in	Maximum Bed Depth	in
Bed Width		ft	Bed Length		ft	Designed Bed Depth	in

Mound:

Dispersal Area	500.0	sq.ft	Bed Length	50.0	ft	Bed Width	10.0 ft
Absorption Width	15.0	ft	Clean Sand Lift	1.0	ft	Berm Width (0-1%)	ft
Upslope Berm Width	7.4	ft	Downslope Berm	27.5	ft	Endslope Berm Width	14.0 ft
Total System Length	78.1	ft	System Width	44.9	ft	Contour Loading Rate	12.0 gal/ft

University of Minnesota Onsite Sewage Treatment Program

Design Summary Page

MINNESOTA POLLUTION CONTROL AGENCY

Project ID:

At-Grade:

Dispersal Area		sq.ft	Bed Length		ft	Bed Width		ft
Upslope Berm		ft	Downslope Berm		ft	Finished Height		ft
System Length		ft	Endslope Berm		ft	System Width		ft

Level & Equal Pressure Distribution Soil Treatment Area

No. of Laterals	3		Lateral Diameter	2.00	in	Lateral Spacing	3	ft
Perforation Spacing	3	ft	Perforation Diameter	1/4	in	Drainback Volume	7	gal
Min Dose Volume	98	gal	Max Dose Volume	150	gal	Total Dosing Volume	156	gal

Non-Level and Unequal Pressure Distribution Soil Treatment Area

	Elevation (ft)	Pipe Size (in)	Pipe Volume (gal/ft)	Pipe Length (ft)	Perf Size (in)	Spacing (ft)	Spacing (in)
Lateral 1							
Lateral 2							
Lateral 3							
Lateral 4							
Lateral 5							
Lateral 6							

Minimum Dose Volume: _____ gal

Maximum Dose Volume: _____ gal

Total Dosing Volume: _____ gal

9. Organic Loading and Additional Info for At-Risk, HSW or Type IV Design

Organic Loading to Soil Treatment

A. Starting BOD Concentration = Design Flow X 0.7 X Starting BOD (mg/L) X 8.35 ÷ 1,000,000

_____ gpd X _____ mg/L X 8.35 ÷ 1,000,000 = _____ lbs. BOD/day (Organic Loading Design)

B. Organic Loading to Soil Treatment Area: (enter loading value in 7B)

_____ mg/L X _____ gpd X 0.7 X 8.35 ÷ 1,000,000 ÷ _____ sq.ft = _____ lbs./day/sqft

HSW Technology Strength Reduction

A. Starting BOD Concentration = Design Flow X Starting BOD (mg/L) X 8.35 ÷ 1,000,000

_____ gpd X _____ mg/L X 8.35 ÷ 1,000,00(= _____ lbs. BOD/day (HSW Technology Design)

B. Target BOD Concentration = Design Flow X Target BOD (mg/L) X 8.35 ÷ 1,000,000

_____ gpd X _____ mg/L X 8.35 ÷ 1,000,00(= _____ lbs. BOD/day (HSW Technology Design)

Lbs. BOD To Be Removed: _____ lbs. BOD/day (HSW Technology Design)

Pretreatment Technology: _____ *Must Meet or Exceed Target

Disinfection Technology: _____ *Required for Levels A & B

10. Comments/Special Design Considerations:

I hereby certify that I have completed this work in accordance with all applicable ordinances, rules and laws.

STEVEN B. SCHIRMERS	S B Schirmers	394	6-29-23
(Designer)	(Signature)	(License #)	(Date)

University of Minnesota Onsite Sewage Treatment Program

Mound Design Worksheet
≥1% Slope

MINNESOTA POLLUTION CONTROL AGENCY

1. SYSTEM SIZING: Project ID: v 03.15.2023

A. Design Flow:	600	GPD
B. Soil Loading Rate:	0.78	GPD/sqft
C. Depth to Limiting Condition	2.5	ft
D. Percent Land Slope:	16.0	%
E. Media (Sand) Loading Rate:	1.2	GPD/sqft
F. Mound Absorption Ratio:	1.50	

Table I
MOUND CONTOUR LOADING RATES:

Measured Perc Rate	OR	Texture - derived mound absorption ratio		Contour Loading Rate:
≤ 60mpi		1.0, 1.3, 2.0, 2.4, 2.6	→	≤12
61-120 mpi	OR	5.0	→	≤12
≥ 120 mpi*		>5.0*	→	≤6*

TABLE IXa
LOADING RATES FOR DETERMINING BOTTOM ABSORPTION AREA AND ABSORPTION RATIOS USING PERCOLATION TESTS

Percolation Rate (MPI)	Treatment Level C: Absorption Area Loading Rate (gpd/ft²)	Treatment Level C: Mound Absorption Ratio	Treatment Level A, A-2, B,: Absorption Area Loading Rate (gpd/ft²)	Treatment Level A, A-2, B,: Mound Absorption Ratio
<0 1	-	1	-	1
0 1 to 5	1.2	1	1.6	1
0 1 to 5 (fine sand and loamy fine sand)	0.6	2	1	1.6
6 to 15	0.78	1.5	1	1.6
16 to 30	0.6	2	0.78	2
31 to 45	0.5	2.4	0.78	2
46 to 60	0.45	2.6	0.6	2.6
61 to 120	-	5	0.3	5.3
>120	-	-	-	-

*Systems with these values are not Type I systems. Contour Loading Rate (linear loading rate) is a recommended value.

2. DISPERSAL MEDIA SIZING

A. Hydraulic Absorption Required Bottom Area: Design Flow (1A) ÷ Design Media Loading Rate(1E)

600 GPD ÷ 1.2 GPD/sqft = 500 sq.ft

Organic Sizing (OPTIONAL)

B. Organic Absorption Bed Area = Organic Loading (Summary 9A) ÷ Organic Soil Loading Rate (Summary 7B)

[ ] lbs BOD ÷ [ ] lbs BOD/sq.ft = [ ] sq.ft

C. Required Bed Area = Greater of Hydraulic (1D) or Organic Bed Area (1E) 500 sq.ft

D. Designed Dispersal Media Area: 500 sq.ft *Optional upsizing of area to be larger than 2C*

B. Enter Dispersal Bed Width: 10.0 ft *Can not exceed 10 feet*

C. Calculate Contour Loading Rate: Bed Width(2B) X Design Media Loading Rate(1E)

10 ft X 1.2 GPD/sqft = 12.0 gal/ft *Can not exceed Table 1*

D. Calculate Minimum Dispersal Bed Length: Dispersal Bed Area(2A) ÷ Bed Width(2B)

500 sqft ÷ 10.0 ft = 50.0 ft

If a larger dispersal media Length is desired, enter size: [ ] ft

3. ABSORPTION AREA SIZING

A. Calculate Absorption Width: Bed Width(2B) X Mound Absorption Ratio(1F)

10.0 ft X 1.5 = 15.0 ft

B. For slopes >1%, the Absorption Width is measured downhill from the upslope edge of the Bed.

Calculate Downslope Absorption Width: Absorption Width(1F) - Bed Width(2B)

15.0 ft - 10.0 ft = 5.0 ft

4. DISTRIBUTION MEDIA: Project ID:

Select Dispersal Media: Rock — Enter Either 4A or 4B

A. Rock Depth Below Distribution Pipe

9 in

B. Registered Media

Registered Media Depth in

Check registered product information for specific application details and design

Specific Media Comments:

5. MOUND SIZING Project ID:

A. Clean Sand Lift: Required Separation - Depth to Limiting Condition = Clean Sand Lift (1 ft minimum)

3.0 ft - 2.5 ft = 1.0 ft Design Sand Lift (optional): ft

B. Upslope Height: Clean Sand Lift(6A) + Depth of Media(4AorB) +Depth to Cover Pipe+ Depth of Cover (1 ft)

1.0 ft + 0.75 ft + 0.33 ft + 1.0 ft = 3.1 ft

Land Slope %		0	1	2	3	4	5	6	7	8	9	10	11	12
Upslope Berm Ratio	3:1	3.00	2.91	2.83	2.75	2.68	2.61	2.54	2.48	2.42	2.36	2.31	2.26	2.21
	4:1	4.00	3.85	3.70	3.57	3.45	3.33	3.23	3.12	3.03	2.94	2.86	2.78	2.70

C. Select Upslope Berm Multiplier (based on land slope): 2.41

D. Calculate Upslope Berm Width: Multiplier (5C) X Upslope Mound Height (5B)

2.41 X 3.1 ft = 7.4 ft

E. Calculate Drop in Elevation Under Bed: Bed Width(2B) X Land Slope(1D) ÷ 100 = Drop (ft)

10.0 ft X 16.0 % ÷ 100 = 1.60 ft

F. Calculate Downslope Mound Height: Upslope Height(5B) + Drop in Elevation(5E)

3.1 ft + 1.60 ft = 4.7 ft

Land Slope %		0	1	2	3	4	5	6	7	8	9	10	11	12
Downslope Berm Ratio	3:1	3.00	3.09	3.19	3.30	3.41	3.53	3.66	3.80	3.95	4.11	4.29	4.48	4.69
	4:1	4.00	4.17	4.35	4.54	4.76	5.00	5.26	5.56	5.88	6.25	6.67	7.14	7.69

G. Select Downslope Berm Multiplier (based on land slope): 5.88

H. Calculate Downslope Berm Width: Downslope Multiplier(5G) X Downslope Height (5F)

5.88 x 4.7 ft = 27.5 ft

I. Calculate Minimum Berm to Cover Absorption Area: Downslope Absorption Width(3A) + 4 feet

5.0 ft + 4 ft = 9.0 ft

J. Design Downslope Berm = greater of 5H and 5I: 27.5 ft

K. Select Endslope Berm Multiplier: 3.00 *(usually 3.0 or 4.0)*

L. Calculate Endslope Berm Width = Endslope Berm Multiplier(5K) X Downslope Mound Height(5F)

3.00 X 4.7 ft = 14.0 ft

M. Calculate Mound Width: Upslope Berm Width(5D) + Bed Width(2B) + Downslope Berm Width(5J)

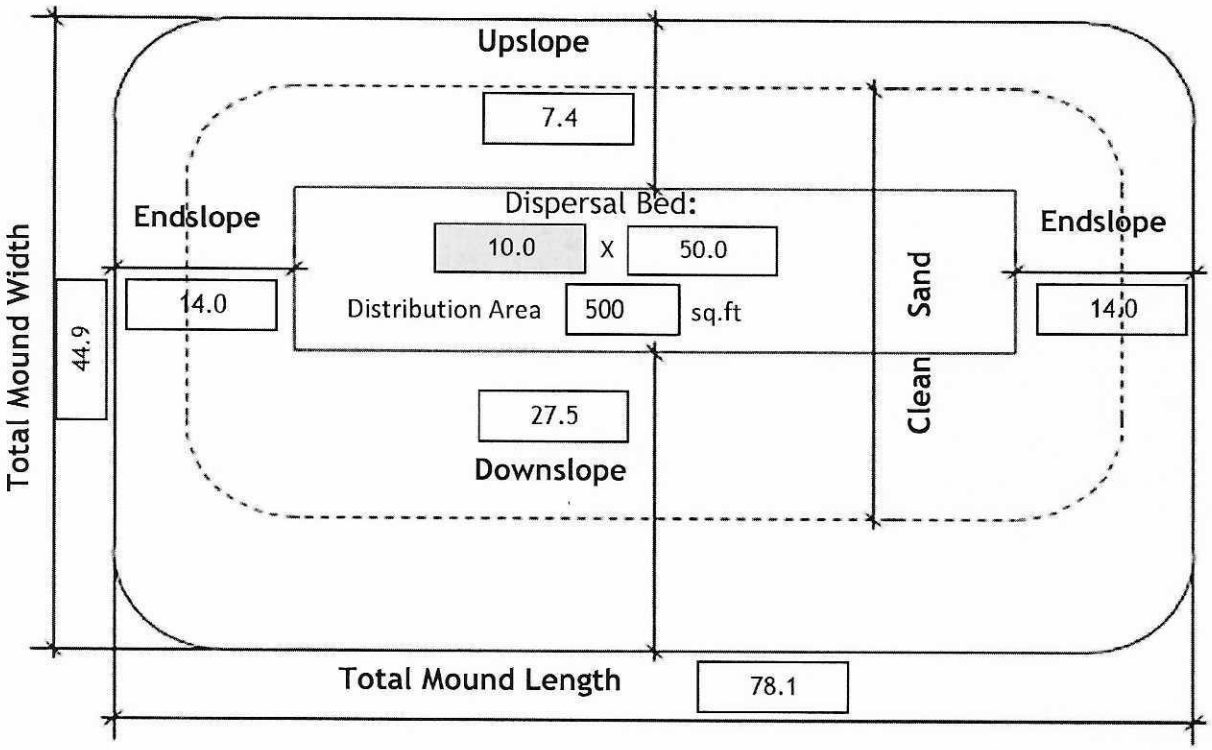
7.4 ft + 10.0 ft + 27.5 ft = 44.9 ft

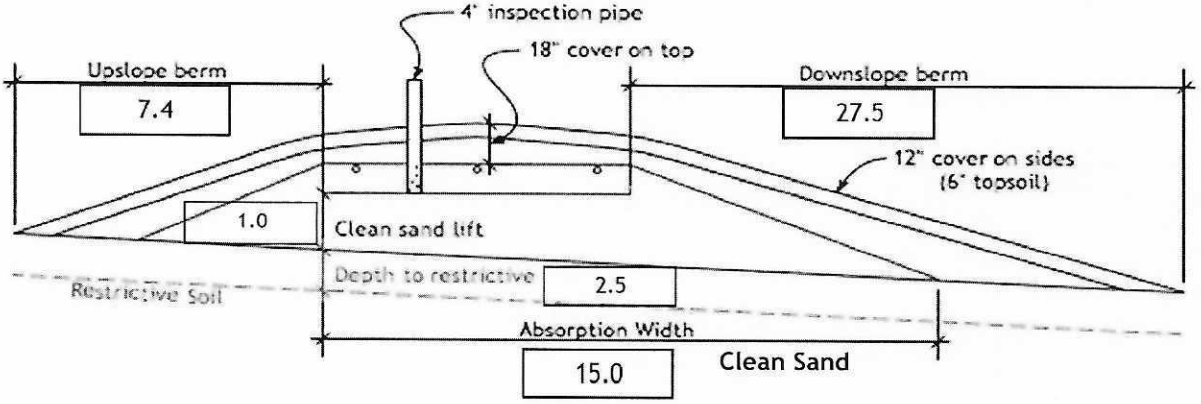
N. Calculate Mound Length: Endslope Berm Width (5L) + Bed Length(2D) + Endslope Berm Width(5L)

14.0 ft + 50.0 ft + 14.0 ft = 78.1 ft

6. MOUND DIMENSIONS (Feet)

Project ID:





Elevation to Benchmark

Required Separation:	36	(in)	Elevation Limiting Layer:	947.8	ft
Distribution Media:	Rock		Elevation required Separation:	950.8	ft
Media Depth:	9.0	(in)	Elevation Distribution Media Bottom:	951.3	ft
Manifold Connection:	End		Elevation Top of Media(min):	952.4	ft
Lateral Pipe Diameter:	2.00	(in)	Elevation Top of System(min):	953.4	ft
Perforation Size:	1/4	(in)	Perforation Spacing:	36.0	(in)

If Split and Non-Level Pressure Distribution Used: See Non-Level Pressure Distribution Form

Comments:

University of Minnesota Onsite Sewage Treatment Program

Mound Materials Worksheet

MINNESOTA POLLUTION CONTROL AGENCY

Project ID:

v 03.15.2023

A. Rock *Volume*: (Rock Below Pipe + Rock to cover pipe (*pipe outside dia + ~2 inch)*) X *Bed Length* X *Bed Width* = *Volume*

(9 in + 0.3 in) ÷ 12 X 50.0 ft X 10.0 ft = 388.8 cu.ft

Divide cu.ft by 27 cu.ft/cu.yd to calculate cubic yards: 388.8 cu.ft ÷ 27 = 14.4 cu.yd

Add 30% for constructability: 14.4 cu.yd X 1.3 = 18.7 cu.yd

B. Calculate *Clean Sand Volume:*

Volume Under Rock bed: *Average Sand Depth* x *Media Width* x *Media Length* = cubic feet

1.8 ft X 10.0 ft X 50 ft = 900 cu.ft

For a Mound on a slope from 0-1%

Volume from Length = ((Upslope Mound Height - 1) X Absorption Width Beyond Bed X Media Bed Length)

ft - 1) X X ft =

Volume from Width = ((Upslope Mound Height - 1) X Absorption Width Beyond Bed X Media Bed Width)

ft - 1) X X ft =

Total Clean Sand Volume: *Volume from Length* + *Volume from Width* + *Volume Under Media*

cu.ft + cu.ft + cu.ft = cu.ft

For a Mound on a slope greater than 1%

Upslope Volume: ((*Upslope Mound Height - 1*) x 3 x *Bed Length*) ÷ 2 = cubic feet

((3.1 ft - 1) X 3.0 ft X 50.0) ÷ 2 = 156.0 cu.ft

Downslope Volume: ((*Downslope Height - 1)* x Downslope Absorption Width x *Media Length*) ÷ 2 = cubic feet

((4.7 ft - 1) X 5.0 ft X 50.0) ÷ 2 = 460.0 cu.ft

Endslope Volume: (*Downslope Mound Height - 1)* x 3 x *Media Width* = cubic feet

(4.7 ft - 1) X 3.0 ft X 10.0 ft = 110.4 cu.ft

Total Clean Sand Volume: *Upslope Volume* + *Downslope Volume* + *Endslope Volume* + *Volume Under Media*

156.0 cu.ft + 460.0 cu.ft + 110.4 cu.ft + 900.0 cu.ft = 1626.4 cu.ft

Divide cu.ft by 27 cu.ft/cu.yd to calculate cubic yards: 1626.4 cu.ft ÷ 27 = 60.2 cu.yd

Add 30% for constructability: 60.2 cu.yd X 1.3 = 78.3 cu.yd

C. Calculate *Sandy Berm Volume:*

Total Berm Volume (approx.): ((Avg. Mound Height - 0.5 ft topsoil) x Mound Width x Mound Length) ÷ 2

(3.9 - 0.5)ft X 44.9 ft X 78.1) ÷ 2 = 5930.2 cu.ft

Total Mound Volume - Clean Sand volume -Rock Volume = cubic feet

5930.2 cu.ft - 1626.4 cu.ft - 388.8 cu.ft = 3915.1 cu.ft

Divide cu.ft by 27 cu.ft/cu.yd to calculate cubic yards: 3915.1 cu.ft ÷ 27 = 145.0 cu.yd

Add 30% for constructability: 145.0 yd^3 x 1.3 = 188.5 cu.yd

D. Calculate *Topsoil Material Volume: Total Mound Width X Total Mound Length X .5 ft*

44.9 ft X 78.1 ft X 0.5 ft = 1754.5 cu.ft

Divide cu.ft by 27 cu.ft/cu.yd to calculate cubic yards: 1754.5 cu.ft ÷ 27 = 65.0 cu.yd

Add 30% for constructability: 65.0 cu.yd X 1.3 = 84.5 cu.yd

ONSITE SEWAGE TREATMENT PROGRAM

Mound Materials Worksheet

MINNESOTA POLLUTION CONTROL AGENCY

Project ID:

v 03.15.2023

A. Rock *Volume* : (Rock Below Pipe + Rock to cover pipe (*pipe outside dia + ~2 inch)*) X *Bed Length* X *Bed Width* = *Volume*

(9 in + 0.3 in) ÷ 12 X 50.0 ft X 10.0 ft = 388.8 cu.ft

Divide cu.ft by 27 cu.ft/cu.yd to calculate cubic yards: 388.8 cu.ft ÷ 27 = 14.4 cu.yd

Add 30% for constructability: 14.4 cu.yd X 1.3 = 18.7 cu.yd

B. Calculate *Clean Sand Volume:*

Volume Under Rock bed : *Average Sand Depth* x *Media Width* x *Media Length* = cubic feet

1.8 ft X 10.0 ft X 50 ft = 900 cu.ft

For a Mound on a slope from 0-1%

Volume from Length = ((Upslope Mound Height - 1) X Absorption Width Beyond Bed X Media Bed Length)

ft - 1) X X ft =

Volume from Width = ((Upslope Mound Height - 1) X Absorption Width Beyond Bed X Media Bed Width)

ft - 1) X X ft =

Total Clean Sand Volume : *Volume from Length* + *Volume from Width* + *Volume Under Media*

cu.ft + cu.ft + cu.ft = cu.ft

For a Mound on a slope greater than 1%

Upslope Volume : ((*Upslope Mound Height - 1*) x 3 x *Bed Length*) ÷ 2 = cubic feet

((3.1 ft - 1) X 3.0 ft X 50.0) ÷ 2 = 156.0 cu.ft

Downslope Volume : ((*Downslope Height - 1)* x Downslope Absorption Width x *Media Length*) ÷ 2 = cubic feet

((4.7 ft - 1) X 5.0 ft X 50.0) ÷ 2 = 460.0 cu.ft

Endslope Volume : (*Downslope Mound Height - 1)* x 3 x *Media Width* = cubic feet

(4.7 ft - 1) X 3.0 ft X 10.0 ft = 110.4 cu.ft

Total Clean Sand Volume : *Upslope Volume* + *Downslope Volume* + *Endslope Volume* + *Volume Under Media*

156.0 cu.ft + 460.0 cu.ft + 110.4 cu.ft + 900.0 cu.ft = 1626.4 cu.ft

Divide cu.ft by 27 cu.ft/cu.yd to calculate cubic yards: 1626.4 cu.ft ÷ 27 = 60.2 cu.yd

Add 30% for constructability: 60.2 cu.yd X 1.3 = 78.3 cu.yd

C. Calculate *Sandy Berm Volume:*

Total Berm Volume (approx.) : ((Avg. Mound Height - 0.5 ft topsoil) x Mound Width x Mound Length) ÷ 2

(3.9 - 0.5)ft X 44.9 ft X 87.4) ÷ 2 = 6641.1 cu.ft

Total Mound Volume - Clean Sand volume -Rock Volume = cubic feet

6641.1 cu.ft - 1626.4 cu.ft - 388.8 cu.ft = 4626.0 cu.ft

Divide cu.ft by 27 cu.ft/cu.yd to calculate cubic yards: 4626.0 cu.ft ÷ 27 = 171.3 cu.yd

Add 30% for constructability: 171.3 yd^3 x 1.3 = 222.7 cu.yd

D. Calculate *Topsoil Material Volume: Total Mound Width X Total Mound Length X .5 ft*

44.9 ft X 87.4 ft X 0.5 ft = 1964.8 cu.ft

Divide cu.ft by 27 cu.ft/cu.yd to calculate cubic yards: 1964.8 cu.ft ÷ 27 = 72.8 cu.yd

Add 30% for constructability: 72.8 cu.yd X 1.3 = 94.6 cu.yd

ONSITE SEWAGE TREATMENT PROGRAM

Pressure Distribution Design Worksheet

MINNESOTA POLLUTION CONTROL AGENCY

Project ID: v 03.15.2023

1. Media Bed Width: 10 ft

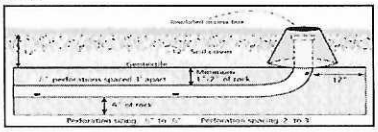
2. Minimum Number of Laterals in system/zone = Rounded up number of [(Media Bed Width - 4) ÷ 3] + 1.

[(10 - 4) ÷ 3] + 1 = 3 laterals *Does not apply to at-grades*

3. Designer Selected *Number of Laterals*: 3 laterals
Cannot be less than line 2 (Except in at-grades)

4. Select *Perforation Spacing*: 3.00 ft

5. Select *Perforation Diameter Size:* 1/4 in



6. *Length of Laterals* = Media Bed Length(1.) - 2 Feet.

50.0 - 2ft = 48.0 ft *Perforation can not be closer then 1 foot from edge.*

7. Determine the *Number of Perforation Spaces*. Divide the *Length of Laterals(6.)* by the *Perforation Spacing* (4.) and round down to the nearest whole number.

Number of Perforation Spaces = 48.0 ft ÷ 3.0 ft = 16 Spaces

8. *Number of Perforations per Lateral* is equal to 1.0 plus the *Number of Perforation Spaces(7.)*. Check table below to verify the number of perforations per lateral guarantees less than a 10% discharge variation. The value is double with a center manifold.

Perforations Per Lateral = 16 Spaces + 1 = 17 Perfs. Per Lateral

Maximum Number of Perforations Per Lateral to Guarantee <10% Discharge Variation

1/4 Inch Perforations

Perforation Spacing (Feet)	Pipe Diameter (Inches)				
	1	1¼	1½	2	3
2	10	13	18	30	60
2½	8	12	16	28	54
3	8	12	16	25	52

7/32 Inch Perforations

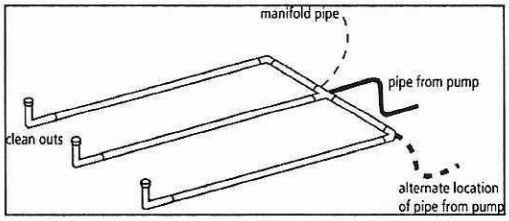
Perforation Spacing (Feet)	Pipe Diameter (Inches)				
	1	1¼	1½	2	3
2	11	16	21	34	68
2½	10	14	20	32	64
3	9	14	19	30	60

3/16 Inch Perforations

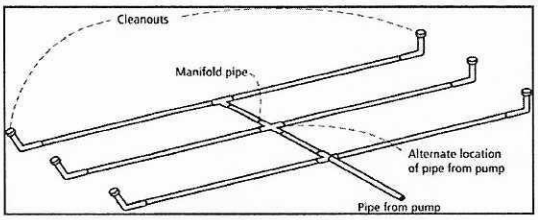
Perforation Spacing (Feet)	Pipe Diameter (Inches)				
	1	1¼	1½	2	3
2	12	18	26	46	87
2½	12	17	24	40	80
3	12	16	22	37	75

1/8 Inch Perforations

Perforation Spacing (Feet)	Pipe Diameter (Inches)				
	1	1¼	1½	2	3
2	21	33	44	74	149
2½	20	30	41	69	135
3	20	29	38	64	128



END Connection



CENTER Connection

Perf Per Lateral: 17

Perf Per Lateral Equal Split: 9 | 8

OPTIONAL Perf Per Lateral Non-Equal Split*: ____ | ____

* must not exceed maximum number perfs per lateral in table

9. *Total Number of Perforations* equals the *Number of Perforations per Lateral (8.)* multiplied by the *Number of Perforated Laterals.(3.)*

17 Perf. Per Lat. X 3 Number of Perf. Lat. = 51 Total Number of Perf.

10. Spacing of laterals; Must be greater than 1 foot and no more than 3 feet: 3.0 ft

11. Select *Type of Manifold Connection* (End or Center): End

12. *Select Lateral Diameter (See Table)*: 2.00 in

If Center Manifold Connection the max number of perfs per lateral in the table can be doubled.

ONSITE SEWAGE TREATMENT PROGRAM

Pressure Distribution Design Worksheet

MINNESOTA POLLUTION CONTROL AGENCY

13. Calculate the *Square Feet per Perforation.*

Recommended value is 4-11 ft2 per perforation, Does not apply to At-Grades

a. *Bed Area* = Bed Width (ft) X Bed Length (ft)

10	ft X	50	ft =	500	sq.ft

b. *Square Foot per Perforation = Bed Area* ÷ by the *Total Number of Perfs*

500	sqft ÷	51	perf =	9.8	sq.ft/perf

14. Select *Minimum Average Head*: 1.0 ft

15. Select *Perforation Discharge* based on Table: 0.74 GPM per Perf

16. *Flow Rate = Total Number of Perfs(9.) X Perforation Discharge(15.)*

51	Perfs X	0.74	GPM per Perforation =	38	GPM

17. *Volume of Liquid Per Foot of Distribution Piping (Table II)*: 0.170 Gallons/ft

18. *Volume of Distribution Piping = Number of Perforated Laterals(3.) X Length of Laterals(6.) X Volume of Liquid Per Foot of Distribution Piping (17.)*

3	X	48	ft X	0.170	gal/ft	= 24.5	Gallons

19. Minimum Delivered Volume = Volume of Distribution Piping X 4

24.5	gals X	4	= 97.9	Gallons

20. Maximum Delivered Volume = Design flow x 25%

600.0	gpd X	25%	= 150.0	Gallons

21. Minimum Delivered vs Maximum Delivered evaluation: Volume ratio correct

Perforation Discharge (GPM)				
Head (ft)	Perforation Diameter			
	1/8	3/16	7/32	1/4
1.0[a]	0.18	0.41	0.56	0.74
1.5	0.22	0.51	0.69	0.9
2.0[b]	0.26	0.59	0.80	1.04
2.5	0.29	0.65	0.89	1.17
3.0	0.32	0.72	0.98	1.28
4.0	0.37	0.83	1.13	1.47
5.0[c]	0.41	0.93	1.26	1.65

1 foot	Dwellings with 3/16 inch to 1/4 inch perforations
2 feet	Dwellings with 1/8 inch perforations
	Other establishments and MSTS with 3/16 inch to 1/4 inch perforations
5 feet	Other establishments and MSTS with 1/8 inch perforations

Table II
Volume of Liquid in Pipe

Pipe Diameter (inches)	Liquid Per Foot (Gallons)
1	0.045
1.25	0.078
1.5	0.110
2	0.170
3	0.380
4	0.661

Comments/Special Design Considerations:

ONSITE SEWAGE TREATMENT PROGRAM

Basic STA Pump Selection Design Worksheet

MINNESOTA POLLUTION CONTROL AGENCY

1. PUMP CAPACITY

Project ID:

v 03.15.2023

Pumping to Gravity or Pressure Distribution: Pressure

A. If pumping to gravity enter the gallon per minute of the pump: _____ GPM *(10 - 45 gpm)*

B. If pumping to a pressurized distribution system: 38.0 GPM

C. Enter pump description: Demand Dosing

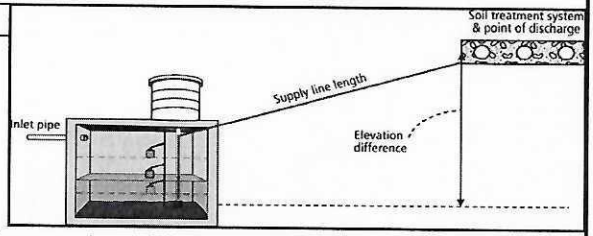
2. HEAD REQUIREMENTS

A. Elevation Difference between pump and point of discharge: 10 ft

B. Distribution Head Loss: 5 ft

C. Additional Head Loss*: _____ ft (due to special equipment, etc.)

* Common additional head loss: gate valve = 1 ft each, globe valve = 1.5 ft each, splitter valve = see manufacturers details



Distribution Head Loss	
Gravity Distribution = 0ft	
Pressure Distribution based on Minimum Average Head Value on Pressure Distribution Worksheet:	
Minimum Average Head	**Distribution Head Loss**
1ft	5ft
2ft	6ft
5ft	10ft

Table I. Friction Loss in Plastic Pipe per 100ft

Flow Rate (GPM)	Pipe Diameter (inches)			
	1	1.25	1.5	2
10	9.1	3.1	1.3	0.3
12	12.8	4.3	1.8	0.4
14	17.0	5.7	2.4	0.6
16	21.8	7.3	3.0	0.7
18		9.1	3.8	0.9
20		11.1	4.6	1.1
25		16.8	6.9	1.7
30		23.5	9.7	2.4
35			12.9	3.2
40			16.5	4.1
45			20.5	5.0
50				6.1
55				7.3
60				8.6
65				10.0
70				11.4
75				13.0
85				16.4
95				20.1

D. 1. Supply Pipe Diameter: 2.0 in

2. Supply Pipe Length: 40 ft

E. **Friction Loss in Plastic Pipe per 100ft** from Table I:

Friction Loss = 3.67 ft per 100ft of pipe

F. Determine *Equivalent Pipe Length* from pump discharge to soil dispersal area discharge point. Estimate by adding 25% to supply pipe length for fitting loss.
Supply Pipe Length X 1.25 = *Equivalent Pipe Length*

40 ft X 1.25 = 50.0 ft

G. Calculate *Supply Friction Loss* by multiplying *Friction Loss Per 100ft(E.)* by the *Equivalent Pipe Length(F.)* and divide by 100.

Supply Friction Loss =

3.67 ft per 100ft X 50.0 ft ÷ 100 = 1.8 ft

H. *Total Head* requirement is the sum of the *Elevation Difference(2A)* + Distribution Head Loss(2B) + Additional Head Loss(2C) + Supply Friction Loss(2G)

10.0 ft + 5.0 ft + _____ ft + 1.8 ft = 16.8 ft

3. PUMP SELECTION

A pump must be selected to deliver at least **38.0** GPM with at least **16.8** feet of total head.

Comments:

STA Dosing Pump Tank Design Worksheet (Demand Dose)

MINNESOTA POLLUTION CONTROL AGENCY

DETERMINE TANK CAPACITY AND DIMENSIONS Project ID: v 03.15.2023

1. A. *Design Flow (Design Sum. 1A)*: 600 GPD C. Tank Use: Dosing
   B. Min. required pump tank capacity: 1000 Gal D. Recommended pump tank capacity: 1000 Gal

2. A. Tank Manufacturer: B. Tank Model:
   C. Capacity from manufacturer: 1000 Gallons
   D. Gallons per inch from manufacturer: 24.0 Gallons per inch
   E. Liquid depth of tank from manufacturer: 42.0 inches

Note: Design calculations are based on this specific tank. Substituting a different tank model will change the pump float or timer settings. Contact designer if changes are necessary.

DETERMINE DOSING VOLUME

3. Calculate *Volume to Cover Pump* (The inlet of the pump must be at least 4-inches from the bottom of the pump tank & 2 inches of water covering the pump is recommended)

   (Pump and block height + 2 inches) X *Gallons Per Inch* (2D)

   (10 in + 2 inches) X 24.0 Gallons Per Inch = 288 Gallons

4. ***Minimum*** *Delivered Volume* = 4 X Volume of Distribution Piping:

   -Item 19 of the Pressure Distribution STA or Item 11 of Non-level STA 98 **Gallons (Minimum dose)** 4.1 inches/dose

5. Calculate ***Maximum*** *Pumpout Volume* (25% of Design Flow(1A))

   Design Flow: 600 GPD X 0.25 = 150 **Gallons (Maximum dose)** 6.3 inches/dose

6. *Select a pumpout volume that meets both Minimum and Maximum:* 149 Gallons

7. Calculate *Doses Per Day* = Design Flow(1A) ÷ *Delivered Volume(6.)*

   600 gpd ÷ 149 gal = 4.03 *Doses**

   * Doses need to be equal to or greater than 4

8. Calculate Drainback:

   A. *Diameter of Supply Pipe* = 2 inches

   B. Length of Supply Pipe = 40 feet

   C. *Volume of Liquid Per Lineal Foot of Pipe* = 0.170 Gallons/ft

   D. *Drainback = Length of Supply Pipe(8B) X Volume of Liquid Per Lineal Foot of Pipe(8C)*

   40 ft X 0.170 gal/ft = 6.8 Gallons

9. *Total Dosing Volume = Delivered Volume(6.) + Drainback* (8D)

   149 gal + 6.8 gal = 156 Gallons

10. Minimum Alarm Volume = Depth of alarm (2 or 3 inches) X gallons per inch of tank(2D)

    2 in X 24.0 gal/in = 48.0 Gallons

11. Reserve Capacity Volume = [Tank Liquid Depth(2E) - Alarm Float Depth(10.)] x gallons per inch of tank(2D)

    [42.0 in - 20.5 in] X 24.0 gal/in = 516.2 Gallons

Volume of Liquid in Pipe	
Pipe Diameter (inches)	**Liquid Per Foot (Gallons)**
1	0.045
1.25	0.078
1.5	0.110
2	0.170
3	0.380
4	0.661

DEMAND DOSE FLOAT SETTINGS **Alarm and Pump are to be wired on separate circuits and inspected by the electrical inspector**

12. Calculate *Float Separation Distance* using *Dosing Volume*.

    Total Dosing Volume(9.) ÷ Gallons Per Inch(2D)

    156 gal ÷ 24.0 gal/in = 6.5 inches

13. Measuring from bottom of tank:

    A. *Distance to set Pump Off Float* = Pump + block height + 2 inches

    10 in + 2 in = 12 inches

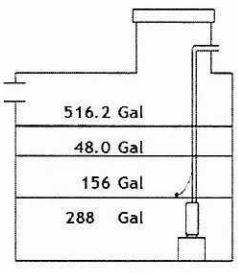
    B. *Distance to set Pump On Float=Distance to Set Pump-Off Float(13A) + Float Separation Distance(12.)*

    12 in + 6.5 in = 18 inches

    C. *Distance to set Alarm Float = Distance to set Pump-On Float(13B) + Alarm Depth* (2-3 inches)(10.)

    18 in + 2.0 in = 20 inches

Inches for Dose: 6.5 in
Alarm Depth 20.5 in
Pump On 18.5 in
Pump Off 12.0 in



Tank Buoyancy

www.SepticResource.com (vers 12.6)

Property Owner: Tom & Kim Romanko **Date:** 8/29/2023

Site Address: 6 Badger Lane, North Oaks **PID:**

Comments:

1250 gallon tank

instructions: [ ] = req'd input [ ] = self-calculated (DO NOT ADJUST)

1) Enter the empty weight of the tank.

9500 lbs

2) Enter the external dimensions of the tank.

Length	128	inches	if Round Tank enter here:		
Width	86	inches	Diameter	0	inches
Height	61	inches	Height	0	inches

3) Enter the number of risers on the tank, and the riser diameter.

# of risers	2	
riser diameter	24	inches (typically 24")

4) Enter the soil density. (Use 100 lbs/ft^3 for a conservative calculation.)

soil density 100 lbs/ft^3

70 lbs/ft^3 dry clay (rarely found)
100 lbs/ft^3 dry sand
115 lbs/ft^3 wet clay
120 lbs/ft^3 wet sand

Based on the information given, the following minimum soil cover amounts are required to avoid tank floatation.

Soil saturated up to the lid (top) of the tank	Soil saturated to grade or higher (flood conditions)
2.1 ft. of cover is req'd	**5.6** ft. of cover is req'd

For saturation levels between the tank lid and grade, interpolate as necessary between the two given amounts.

Calculations are deemed reliable for estimation purposes only.

Designer Signature	Company	License#	Date
	S-T TESTING INC.	394	8/29/2023

Tank Buoyancy

www.SepticResource.com (vers 12.6)

Property Owner: Tom & Kim Romanko **Date:** 8/29/2023

Site Address: 6 Badger Lane, North Oaks **PID:**

Comments:

instructions: [ ] = req'd input [ ] = self-calculated (DO NOT ADJUST)

1) Enter the empty weight of the tank.

8000 lbs

2) Enter the external dimensions of the tank.

Length	102	inches	if Round Tank enter here:		
Width	78	inches	Diameter	0	inches
Height	58	inches	Height	0	inches

3) Enter the number of risers on the tank, and the riser diameter.

# of risers	1	
riser diameter	24	inches (typically 24")

4) Enter the soil density. (Use 100 lbs/ft^3 for a conservative calculation.)

soil density 100 lbs/ft^3

70 lbs/ft^3 dry clay (rarely found)
100 lbs/ft^3 dry sand
115 lbs/ft^3 wet clay
120 lbs/ft^3 wet sand

Based on the information given, the following minimum soil cover amounts are required to avoid tank floatation.

Soil saturated up to the lid (top) of the tank	Soil saturated to grade or higher (flood conditions)
1.7 ft. of cover is req'd	**4.4** ft. of cover is req'd

For saturation levels between the tank lid and grade, interpolate as necessary between the two given amounts.

Calculations are deemed reliable for estimation purposes only.

Designer Signature	Company	License#	Date
	S-P TESTING INC	394	8/29/2023

University of Minnesota Onsite Sewage Treatment Program

Soil Observation Log

Project ID:

v 03.15.2023

Client:	Tom Romanko	Location / Address:	6 Badger Lane, North Oaks

Soil parent material(s): (Check all that apply) ☐ Outwash ☐ Lacustrine ☐ Loess ☑ Till ☐ Alluvium ☐ Bedrock ☐ Organic Matter ☐ Disturbed/Fill

Landscape Position:	Back/Side Slope	Slope %:	16.0	Slope shape:	Linear, Linear	Flooding/Run-On potential:	No
Vegetation:	Grass	Soil survey map units:	169D			Surface Elevation-Relative to benchmark:	944.5 ~~95.1~~
Date/Time of Day/Weather Conditions:		8/28/2023 12:00				Limiting Layer Elevation:	941.7
Observation #/Location:	1					Observation Type:	Pit

Depth (in)	Texture	Rock Frag. %	Matrix Color(s)		Mottle Color(s)		Redox Kind(s)	Indicator(s)	Structure Shape	Structure Grade	Structure Consistence
0 - 6	Medium Sandy Loam		10YR	3/3					Granular	Weak	Friable
6 - 34	Medium Sandy Loam		10YR	4/3					Granular	Weak	Friable
34 - 46	Medium Sandy Loam		10YR	5/3	10YR	6/8	Concentrations	S1	Granular	Weak	Friable
46 - 60	Loam		7.5YR	5/4	10YR	6/8	Concentrations	S4	Prismatic	Weak	Friable

Comments: A PIT WAS DUG 18" DEEP

I hereby certify that I have completed this work in accordance with all applicable ordinances, rules and laws.

Steven Schirmers	Steven B. Schirmers	394	9-11-23
(Designer/Inspector)	(Signature)	(License #)	(Date)

Optional Verification: I hereby certify that this soil observation was verified according to Minn. R. 7082.0500 subp. 3 A. The signature below represents an infield verification of the periodically saturated soil or bedrock at the proposed soil treatment and dispersal site.

(LGU/Designer/Inspector)	(Signature)	(Cert #)	(Date)

University of Minnesota Onsite Sewage Treatment Program

Soil Observation Log

Project ID:

v 03.15.2023

Client:	Tom Romanko	Location / Address:	6 Badger Lane, North Oaks

Soil parent material(s): (Check all that apply) ☐ Outwash ☐ Lacustrine ☐ Loess ☑ Till ☐ Alluvium ☐ Bedrock ☐ Organic Matter ☐ Disturbed/Fill

Landscape Position:	Back/Side Slope	Slope %:	16.0	Slope shape:	Linear, Linear	Flooding/Run-On potential:	No
Vegetation:	Grass	Soil survey map units:	169D			Surface Elevation-Relative to benchmark:	943.4 ~~94.0~~
Date/Time of Day/Weather Conditions:		8/28/2023 0:00	12:00			Limiting Layer Elevation:	939.4
Observation #/Location:	2					Observation Type:	Pit

Depth (in)	Texture	Rock Frag. %	Matrix Color(s)		Mottle Color(s)		Redox Kind(s)	Indicator(s)	I-------- Structure----------I		
									Shape	Grade	Consistence
0 - 8	Medium Sandy Loam		10YR	3/3					Granular	Weak	Friable
8 - 30	Medium Sandy Loam		10YR	5/3					Granular	Weak	Friable
30 - 36	Sandy Clay Loam		10YR	5/4					Prismatic	Moderate	Firm
36 - 48	Medium Sandy Loam		10YR	5/4					Granular	Weak	Friable
48 - 60	Medium Sandy Loam		10YR	5/4	10YR	6/8	Concentrations	S1	Granular	Weak	Friable

Comments: A PIT WAS DUG 18" DEEP

I hereby certify that I have completed this work in accordance with all applicable ordinances, rules and laws.

Steven Schirmers	Steven B. Schirmers	394	9-11-23
(Designer/Inspector)	(Signature)	(License #)	(Date)

Optional Verification: I hereby certify that this soil observation was verified according to Minn. R. 7082.0500 subp. 3 A. The signature below represents an infield verification of the periodically saturated soil or bedrock at the proposed soil treatment and dispersal site.

(LGU/Designer/Inspector)	(Signature)	(Cert #)	(Date)

University of Minnesota Onsite Sewage Treatment Program

Soil Observation Log

Project ID:

v 03.15.2023

Client:	Tom Romanko			Location / Address:	6 Badger Lane, North Oaks
Soil parent material(s): (Check all that apply)	☐ Outwash ☐ Lacustrine ☐ Loess ☑ Till ☐ Alluvium ☐ Bedrock ☐ Organic Matter ☐ Disturbed/Fill				
Landscape Position:	Back/Side Slope	Slope %: 16.0	Slope shape:	Linear, Linear	Flooding/Run-On potential: No
Vegetation:	Grass	Soil survey map units:	169D		Surface Elevation-Relative to benchmark: 948.0 ~~99.3~~
Date/Time of Day/Weather Conditions:	8/28/2023	12:00			Limiting Layer Elevation: 946.2
Observation #/Location:	3			Observation Type:	Auger

Depth (in)	Texture	Rock Frag. %	Matrix Color(s)	Mottle Color(s)	Redox Kind(s)	Indicator(s)	Structure Shape	Structure Grade	Structure Consistence
0 - 6	Medium Sandy Loam		10YR 4/3				Granular	Weak	Friable
6 - 18	Medium Sandy Loam		10YR 3/3				Granular	Weak	Friable
18 - 30	Medium Sandy Loam		10YR 5/3				Granular	Weak	Friable
30 - 42	Medium Sandy Loam		10YR 5/4	10YR 6/8	Concentrations	S1	Granular	Weak	Friable
42 - 48	Clay Loam		10YR 5/4	10YR 6/8 10YR 7/1	Concentrations Depletions	S1	Prismatic	Moderate	Firm

Comments:

I hereby certify that I have completed this work in accordance with all applicable ordinances, rules and laws.

Steven Schirmers	Steven B. Schirmers	394	9-11-23
(Designer/Inspector)	(Signature)	(License #)	(Date)

Optional Verification: I hereby certify that this soil observation was verified according to Minn. R. 7082.0500 subp. 3 A. The signature below represents an infield verification of the periodically saturated soil or bedrock at the proposed soil treatment and dispersal site.

(LGU/Designer/Inspector)	(Signature)	(Cert #)	(Date)

University of Minnesota Onsite Sewage Treatment Program

Soil Observation Log

Project ID:

v 03.15.2023

Client:	Tom Romanko			Location / Address:	6 Badger Lane, North Oaks
Soil parent material(s): (Check all that apply)	☐ Outwash ☐ Lacustrine ☐ Loess ☑ Till ☐ Alluvium ☐ Bedrock ☐ Organic Matter ☐ Disturbed/Fill				
Landscape Position:	Back/Side Slope	Slope %: 16.0	Slope shape:	Linear, Linear	Flooding/Run-On potential: No
Vegetation:	Grass	Soil survey map units:	169D		Surface Elevation-Relative to benchmark: 950.3 ~~100.9~~
Date/Time of Day/Weather Conditions:	8/28/2023	12:00			Limiting Layer Elevation: 949.6
Observation #/Location:	4			Observation Type:	Auger

Depth (in)	Texture	Rock Frag. %	Matrix Color(s)		Mottle Color(s)		Redox Kind(s)	Indicator(s)	Structure Shape	Structure Grade	Structure Consistence
0 - 6	Medium Sandy Loam		10R	3/3					Granular	Weak	Friable
6 - 28	Medium Sandy Loam		10YR	5/3					Granular	Weak	Friable
28 - 32	Sandy Clay Loam		10YR	5/6					Prismatic	Moderate	Firm
32 - 42	sancy clay loam		10YR	5/6	10YR	6/8	Concentrations	S1	Prismatic	Moderate	Firm

Comments:

I hereby certify that I have completed this work in accordance with all applicable ordinances, rules and laws.

Steven Schirmers	Steven B. Schirmers	394	9-11-23
(Designer/Inspector)	(Signature)	(License #)	(Date)

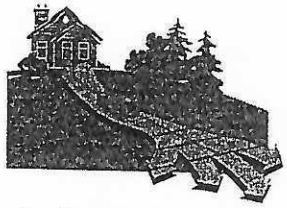
Optional Verification: I hereby certify that this soil observation was verified according to Minn. R. 7082.0500 subp. 3 A. The signature below represents an infield verification of the periodically saturated soil or bedrock at the proposed soil treatment and dispersal site.

(LGU/Designer/Inspector)	(Signature)	(Cert #)	(Date)

ROMANKO

UNIVERSITY OF MINNESOTA

Septic System Best Management Practices



Septic systems protect human health and the environment by safely recycling wastewater and returning it to the natural environment. It is your job as the homeowner to be sure this happens effectively and safely. As with your car, regular maintenance and attention is needed to keep it operating efficiently in a cost effective manner.

Septic Tank

Functions:

- Separates into three layers: scum (stuff that floats), sludge (stuff that sinks), and the liquid.
- The solids and scum are held until removed by the maintainer. Anaerobic bacteria work to break down wastes, prepare the liquid for the drainfield.
- The liquid is delivered to the soil treatment area to complete the treatment process.
- If solids are not removed, they can end up in the soil treatment area, causing (often irreparable) damage.
- Factors that increase frequency of pumping: use of garbage disposal, water treatment unit that discharges into the septic system, in-home daycare or other reason a large number of people are present most of the time, laundry on the 2nd floor, excessive use of water and strong cleaning products.

Best management practices:

- Tanks need to be evaluated every two to three years and pumped if necessary. Some counties require pumping on a specified basis. New homes—pump within 3—12 months of occupancy the first time.
- Never allow a tank to be cleaned through the inspection pipe. This is not allowed by code, and it does not allow a good cleaning to occur. Scum can plug the baffle, baffles can be knocked off. Tanks should only be cleaned through the manhole or maintenance hole.
- Be sure baffles, effluent screen, pumps and other components are inspected when the tank is pumped.
- Install risers on the manhole covers to allow easier access. Insulate the cover and secure tightly.
- An effluent screen will prevent most solids from reaching the soil treatment area. Install and clean according to manufacturer recommendations.
- Never use additives. The cleaners are harmful to your system. They do not replace good management practices. Starters and feeders are not effective.
- **Warning:** NEVER go into a septic tank—there are dangerous gases and no oxygen!
- Do not ignore alarms—troubleshoot the problem.

Soil Treatment Area: Trench or Mound

Functions:

- Soil organisms destroy pathogens (bacteria, viruses).
- Remove phosphorus, reduce nitrogen content.
- Recycle clean water into the soil and ground water. Water and nutrients enter the ground water, evaporate through plants, and are used by plants.

Best management practices:

- Maintain vegetative cover (turf grass, native grasses, flowers). Mow, but do not fertilize, burn or over-water.
- Keep all vehicles, bikes, snowmobiles, etc. off.
- Do not plant trees or shrubs near drainfield.
- Inspect for cracked, missing inspection pipe covers.
- Follow practices to prevent freezing, including mulching the entire system if needed.

Household Best Management Practices

Manage water use:

- Repair all leaking faucets, toilets, fixtures.
- Change to low flow toilets, shower heads.
- Replace appliances with low water use models.
- Spread water uses evenly throughout the day and week..
- Re-route clean water sources: water softener, treatment unit recharge water, high efficiency furnace drip, sump pumps to separate drainage area.

Watch what goes down the drain:

- The toilet is not a garbage can—nothing should be flushed except human waste and toilet paper.
- Excess medications—return to pharmacy or land-fill.
- Limit or eliminate drain cleaner use.
- Do not use automatic toilet cleaners, disposable brushes.
- Do not use every-use or automatic shower cleaners.
- No hazardous waste, paints, solvents, chemicals. Use disposable paint brushes.
- Eliminate or limit use of garbage disposal.
- No chlorine treated water such as from hot tubs.

Manage product use:

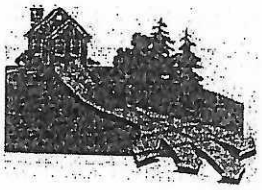
- Minimize use of anti-bacterial soaps, cleansers.
- Detergents: measure accurately, use as little as possible.
- Limit use of bleach-based cleansers.

Septage—the solids from the tank are usually land-applied. Lime is added in the truck to destroy pathogens and help control odors. Septic pumpers must follow strict guidelines to protect public safety and water quality. Septage disposal is managed by the MN Pollution Control Agency (MPCA) and the Environmental Protection Agency (EPA).

For more information: Order the Septic System Owner's Guide. Call 800-876-8636 or go to http://shop.extension.umn.edu. Onsite Sewage Treatment Program web site: http://septic.umn.edu. University of Minnesota Extension http://www.extension.umn.edu.

Written by Valerie Prax, Regional Extension Educator, 6/07

UNIVERSITY OF MINNESOTA



Septic System Management Plan for Below Grade Systems

The goal of a septic system is to protect human health and the environment by properly treating wastewater before returning it to the environment. Your septic system is designed to kill harmful organisms and remove pollutants before the water is recycled back into our lakes, streams and groundwater.

This **management plan** will identify the operation and maintenance activities necessary to ensure long-term performance of your septic system. Some of these activities must be performed by you, the homeowner. Other tasks must be performed by a licensed septic maintainer or service provider. However, it is YOUR responsibility to make sure all tasks get accomplished in a timely manner.

The University of Minnesota's *Septic System Owner's Guide* contains additional tips and recommendations designed to extend the effective life of your system and save you money over time.

Proper septic system design, installation, operation and maintenance means safe and clean water!

Property Owner JOAKIM ROMANKO

Property Address #6 BADER LA., NO. OAKS Property ID

System Designer S-TESTING INC. Phone 763-497-3566

System Installer Phone

Service Provider/Maintainer Phone

Permitting Authority CITY OF NO. OAKS Phone 651-484-5177

Permit # Date Inspected

Keep this Management Plan with your Septic System Owner's Guide. The Septic System Owner's Guide includes a folder to hold maintenance records including pumping, inspection and evaluation reports. Ask your septic professional to also:

- Attach permit information, designer drawings and as-builts of your system, if they are available.
- Keep copies of all pumping records and other maintenance and repair invoices with this document.
- Review this document with your maintenance professional at each visit; discuss any changes in product use, activities, or water-use appliances.

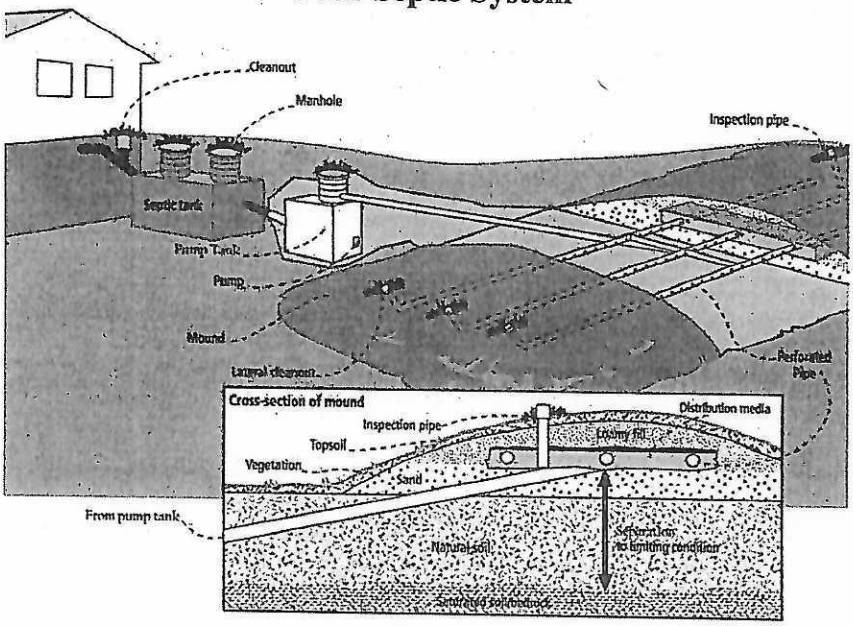
For a copy of the *Septic System Owner's Guide*, call 1-800-876-8636 or go to http://shop.extension.umn.edu/

http://septic.umn.edu

UNIVERSITY OF MINNESOTA

Septic System Management Plan for Above Grade Systems

Your Septic System



Septic System Specifics

System Type: (●) I ( ) II ( ) III ( ) IV* ( ) V*

(Based on MN Rules Chapter 7080.2200 – 2400)

☐ System is subject to operating permit*

☐ System uses UV disinfection unit*

Type of advanced treatment unit _____

**Additional Management Plan required*

Dwelling Type

Number of bedrooms: 4

System capacity/ design flow (gpd): 600

Anticipated average daily flow (gpd): 425

Comments _____

Business? ____ What type? _____

Well Construction

Well depth (ft): _____

☐ Cased well Casing depth: _____

☐ Other (specify): _____

Distance from septic (ft): _____

Is the well on the design drawing? ( ) Y ( ) N

Septic Tank

☐ One tank *Tank volume:* _____ *gallons*

Does tank have two compartments? ( ) Y ( ) N

☑ Two tanks *Tank volume:* 1250 *gallons*

☐ Tank is constructed of CONCRETE

☐ Effluent Screen *type:* —

☑ Pump Tank 1000 gallons

☐ Effluent Pump *make/model:* 113HS

Pump capacity 36 GPM

TDH 13 Feet of head

☐ Alarm location _____

Soil Treatment Area (STA)

Mound/At-Grade area (width x length): 45 ft x 76 ft

Rock bed size (width x length): 10 ft x 50 ft

Location of additional STA: —

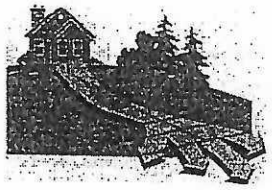
☑ Cleanouts or inspection ports

☑ Surface water diversions

☐ Additional STA not available

UNIVERSITY OF MINNESOTA

Septic System Management Plan for Below Grade Systems



Homeowner Management Tasks

These o*peration and maintenance a*ctivities are your responsibility. *Use the chart on page 6 to track your activities.*

Identify the service intervals recommended by your system designer and your local government. The tank assessment for your system will be the **shortest interval of these three intervals.** Your pumper/maintainer will determine if your tank needs to be pumped.

System Designer: check every 24 months
Local Government: check every _____ months
State Requirement: check every 36 months

My tank needs to be checked every 24 months

Seasonally or several times per year

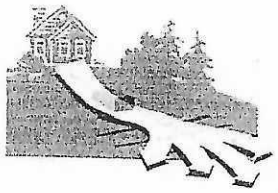
- *Leaks*. Check (listen, look) for leaks in toilets and dripping faucets. Repair leaks promptly.
- *Surfacing sewage*. Regularly check for wet or spongy soil around your soil treatment area. If surfaced sewage or strong odors are not corrected by pumping the tank or fixing broken caps and leaks, call your service professional. *Untreated sewage may make humans and animals sick.*
- *Alarms*. Alarms signal when there is a problem; contact your maintainer any time the alarm signals.
- *Lint filter*. If you have a lint filter, check for lint buildup and clean when necessary. Consider adding one after washing machine.
- *Effluent screen*. If you do not have one, consider having one installed the next time the tank is cleaned.

Annually

- *Water usage rate*. A water meter can be used to monitor your average daily water use. Compare your water usage rate to the design flow of your system (listed on the next page). Contact your septic professional if your average daily flow over the course of a month exceeds 70% of the design flow for your system.
- *Caps*. Make sure that all caps and lids are intact and in place. Inspect for damaged caps at least every fall. Fix or replace damaged caps before winter to help prevent freezing issues.
- *Water conditioning devices*. See Page 5 for a list of devices. When possible, program the recharge frequency based on *water demand (gallons)* rather than *time (days)*. Recharging too frequently may negatively impact your septic system.
- *Review your water usage rate*. Review the Water Use Appliance chart on Page 5. Discuss any major changes with your pumper/maintainer.

During each visit by a pumper/maintainer

- Ask if your pumper/maintainer is licensed in Minnesota.
- Make sure that your pumper/maintainer services the tank through the manhole. (NOT though a 4" or 6" diameter inspection port.)
- Ask your pumper/maintainer to accomplish the tasks listed on the Professional Tasks on Page 4.



Professional Management Tasks

These are the operation and maintenance activities that a pumper/maintainer performs to help ensure long-term performance of your system. Professionals should refer to the O/M Manual for detailed checklists for tanks, pumps, alarms and other components. Call 800-322-8642 for more details.

- Written record provided to homeowner after each visit.

Plumbing/Source of Wastewater

- Review the Water Use Appliance Chart on Page 5 with homeowner. Discuss any changes in water use and the impact those changes may have on the septic system.
- Review water usage rates (if available) with homeowner.

Septic Tank/Pump Tanks

- *Manhole lid.* A riser is recommended if the lid is not accessible from the ground surface. Insulate the riser cover for frost protection.
- *Liquid level.* Check to make sure the tank is not leaking. The liquid level should be level with the bottom of the outlet pipe. (If the water level is below the bottom of the outlet pipe, the tank may not be watertight. If the water level is higher than the bottom of the outlet pipe of the tank, the effluent screen may need cleaning, or there may be ponding in the drainfield.)
- *Inspection pipes.* Replace damaged caps.
- *Baffles.* Check to make sure they are in place and attached, and that inlet/outlet baffles are clear of buildup or obstructions.
- *Effluent screen.* Check to make sure it is in place; clean per manufacturer recommendation. Recommend retrofitted installation if one is not present.
- *Alarm.* Verify that the alarm works.
- *Scum and sludge.* Measure scum and sludge in each compartment of each septic and pump tank, pump if needed.

Pump

- *Pump and controls.* Check to make sure the pump and controls are operating correctly.
- *Pump vault.* Check to make sure it is in place; clean per manufacturer recommendations.
- *Alarm.* Verify that the alarm works.
- *Drainback.* Check to make sure it is operating properly.
- *Event counter or run time.* Check to see if there is an event counter or run time log for the pump. If there is one, calculate the water usage rate and compare to the anticipated average daily flow listed on Page 2.

Soil Treatment Area

- *Inspection pipes.* Check to make sure they are properly capped. Replace caps that are damaged.
- *Surfacing of effluent.* Check for surfaced effluent or other signs of problems.
- *Gravity trenches and beds.* Check the number of gravity trenches with ponded effluent. Identify the percentage of the system in use. Determine if action is needed.
- *Pressure trenches and beds - Lateral flushing.* Check lateral distribution; if cleanouts exist, flush and clean as needed.

All other components – inspect as listed here:

UNIVERSITY OF MINNESOTA

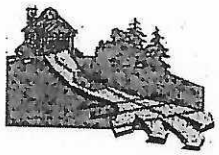
Septic System Management Plan for Below Grade Systems

Water-Use Appliances and Equipment in the Home

Appliance	Impacts on System	Management Tips
Garbage disposal	• Uses additional water. • Adds solids to the tank. • Finely-ground solids may not settle. Unsettled solids can exit the tank and enter the soil treatment area.	• Use of a garbage disposal is not recommended. • Minimize garbage disposal use. Compost instead. • To prevent solids from exiting the tank, have your tank pumped more frequently. • Add an effluent screen to your tank.
Washing machine	• Washing several loads on one day uses a lot of water and may overload your system. • Overloading your system may prevent solids from settling out in the tank. Unsettled solids can exit the tank and enter the soil treatment area.	• Choose a front-loader or water-saving top-loader, these units use less water than older models. • Limit the addition of extra solids to your tank by using liquid or easily biodegradable detergents. • Install a lint filter after the washer and an effluent screen to your tank • Wash only full loads. • Limit use of bleach-based detergents. • Think even – spread your laundry loads throughout the week.
2nd floor laundry	• The rapid speed of water entering the tank may reduce performance.	• Install an effluent screen in the septic tank to prevent the release of excessive solids to the soil treatment area. • Be sure that you have adequate tank capacity.
Dishwasher	• Powdered and/or high-phosphorus detergents can negatively impact the performance of your tank and soil treatment area. • New models promote "no scraping". They have a garbage disposal inside.	• Use gel detergents. Powdered detergents may add solids to the tank. • Use detergents that are low or no-phosphorus. • Wash only full loads. • Scrape your dishes anyways to keep undigested solids out of your septic system.
Grinder pump (in home)	• Finely-ground solids may not settle. Unsettled solids can exit the tank and enter the soil treatment area.	• Expand septic tank capacity by a factor of 1.5. • Include pump monitoring in your maintenance schedule to ensure that it is working properly. • Add an effluent screen.
Large bathtub (whirlpool)	• Large volume of water may overload your system. • Heavy use of bath oils and soaps can impact biological activity in your tank and soil treatment area.	• Avoid using other water-use appliances at the same time. For example, don't wash clothes and take a bath at the same time. • Use oils, soaps, and cleaners in the bath or shower sparingly.
Clean Water Uses	**Impacts on System**	**Management Tips**
High-efficiency furnace	• Drip may result in frozen pipes during cold weather.	• Re-route water into a sump pump or directly out of the house. Do not route furnace recharge to your septic system.
Water softener Iron filter Reverse osmosis	• Salt in recharge water may affect system performance. • Recharge water may hydraulically overload the system.	• These sources produce water that is not sewage and should not go into your septic system. • Reroute water from these sources to another outlet, such as a dry well, draintile or old drainfield. • When replacing, consider using a demand-based recharge vs. a time-based recharge. • Check valves to ensure proper operation; have unit serviced per manufacturer directions
Surface drainage Footing drains	• Water from these sources will likely overload the system.	

UNIVERSITY OF MINNESOTA

Septic System Management Plan for Above Grade Systems



Maintenance Log

Track maintenance activities here for easy reference. See list of management tasks on pages 3 and 4.

Activity	Date accomplished									
Check frequently:										
Leaks: check for plumbing leaks										
Soil treatment area check for surfacing										
Lint filter: check, clean if needed										
Effluent screen: if owner-maintained										
Check annually:										
Water usage rate (monitor frequency___)										
Caps: inspect, replace if needed										
Water use appliances – review use										
Other:										

Notes: _____

_____

Mitigation/corrective action plan: _____

_____

_____

_____

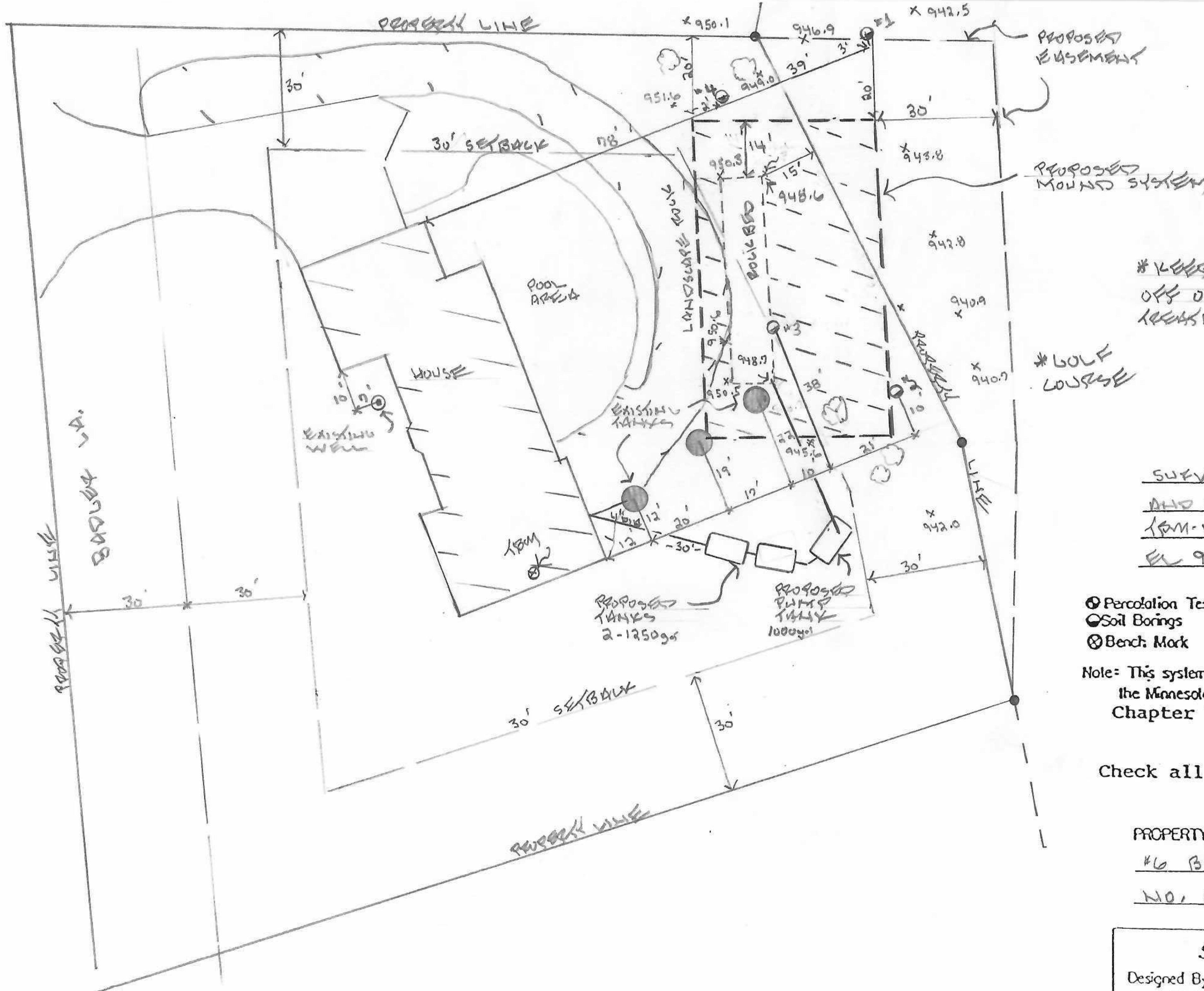
_____

"As the owner of this SSTS, I understand it is my responsibility to properly operate and maintain the sewage treatment system on this property, utilizing the Management Plan. If requirements in this Management Plan are not met, I will promptly notify the permitting authority and take necessary corrective actions. If I have a new system, I agree to adequately protect the reserve area for future use as a soil treatment system."

Property Owner Signature: _____ Date _____

Management Plan Prepared By: S-P TESTING INC. STEVEN B. SCHIRMERS Certification # 627 LIC# 3914

Permitting Authority: _____



*KEEP ALL HEAVY EQUIPMENT OFF OF THE PROPOSED TREATMENT AREA

SURVEY BY: EG RUD AND SONS INC.
TBM-LOW FLOOR
EL 949.4

- Percolation Tests
- Soil Borings
- Bench Mark

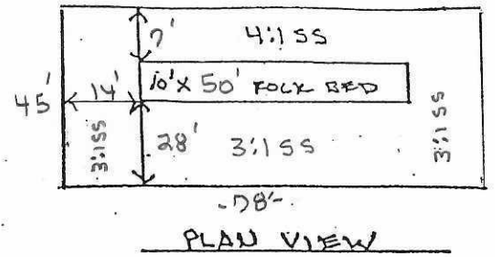
Scale: 1" = 30'

Note: This system is to be constructed to meet the Minnesota Pollution Control Agency Chapter 7080 & Local Ordinance

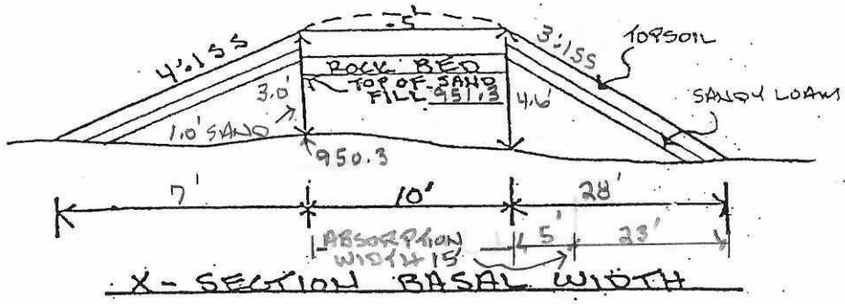
Check all underground utilities

PROPERTY OF: TOM RAMANKO
#6 BADLER LANE
NO. OAKS MN RAMSEY CO.

S-P TESTING, INC.
Designed By: [signature]
Date: 12/1/23 PH 763-497-3566



PLAN VIEW



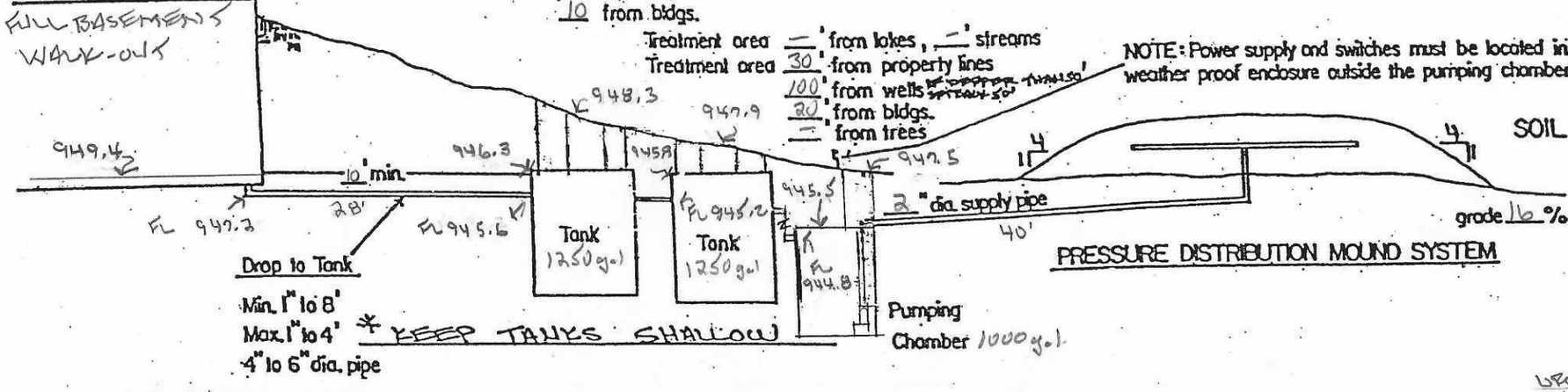
X-SECTION BASAL WIDTH

SET-BACKS

System must be:

Tank 30' from property lines
50' from wells
10' from bldgs.
Treatment area — ' from lakes, — ' streams
Treatment area 30' from property lines
100' from wells
20' from bldgs.
— ' from trees

NOTE: Power supply and switches must be located in a weather proof enclosure outside the pumping chamber and manhole



* KEEP TANKS SHALLOW

PRESSURE DISTRIBUTION MOUND SYSTEM

SOIL BORING ELEVATIONS

TH. #1 EL.- 944.5
TH. #2 EL.- 943.4
TH. #3 EL.- 948.7
TH. #4 EL.- 950.3
TH. #5 EL.- ___

ELEVATION of PROPOSED PUMPING CHAMBER- 940.5, PUMP 941.0
GROUND AT 1ST EXISTING TANK 949.0
TOP OF " " " " 1.4- 947.6

SYSTEM DESIGN – MOUND

TYPE- I, 4 BEDROOM, Average percolation rate ___ min./inch (design .83 sq.ft treatment area per gal. of daily sewage flow)

600 gal/day ÷ 1.2 gal/sq.ft. of treatment area 500 sq.ft. (÷ 10 ft. width = 50 ft. length of bed area + side slope run 4 to 1 (UPSLOPE, 3:1 DOWNSLOPE, AVE) x 3.4 height = 45 ft x 78 ft. lawn area needed) ADD,

* MATERIAL 20% ADDED

Clean rock needed – 500 sq.ft. treatment area x 1.0' depth of rock = 500 cu.ft ÷ 27 = 18 cuyds. (3/4" to 2 1/2" dia., includes 2" of rock above pipe) DUE. SAND DEPTH 1.4'

Clean sand fill below rock needed 78 cuyds. approx., sandy loam back fill 188 cuyds. approx., topsoil 6" 85 cuyd.

Number of tanks required 2, 1st tank 1250 gal.; 2nd tank 1250 gal. minimums PLUS PUMPING CHAMBER

Pumping chamber capacity – 25% of daily sewage flow of 600 gal. = 150 gal. + reserve storage of 150 gal/BR 600 gal. + pipe back drainage –

of 17 gal./100 lin.ft. of 2" dia. supply pipe, lin.ft needed 40, 7 gal.

total capacity needed 757 gal. (plus area for pump) USE min. 1000 gal. cap.

Distribution pipe 2" dia., 144 lin.ft, 1/4" dia. perforations 36" apart

Pump size 1/3 hp. (pumpable capacity 150 gal. 4 cycles/day) USED 16.8' HEAD PRESS, DISCHARGE 38 gal/min.

Note: When constructing bed – , this area should be shaped to divert run-off from entering treatment area.

Note: Distance from treatment area to neighboring wells – GREATER THAN 100'

PROPERTY OF: TOM ROMANKO
#6 BADGER LANE
NO. OAKS MN, RAMSEY CO.

S-P TESTING INC.
Designed By: SL 03. SL
Date: 8/29/23, PH. 763-497-3566

DECLARATION OF GRANT OF EASEMENTS FOR INGRESS, EGRESS AND ENCROACHMENT

This Declaration of Grant of Easements for Ingress, Egress and Encroachment ("Declaration ") is made this ___ day of January, 2024, by North Oaks Golf Club, Inc., a Minnesota corporation, hereinafter referred to as Grantor.

WHEREAS, this Declaration involves certain real property located in the City of North Oaks, County of Ramsey, State of Minnesota, owned by the Grantor and legally described on Exhibit A attached hereto:

(the Burdened Parcel);

WHEREAS, Thomas and Kim Romanko (together, the "Grantee") own real property located in the City of North Oaks, County of Ramsey, State of Minnesota, legally described on Exhibit B attached hereto:

(the "Benefited Property," which together with the Burdened Property are each a "Lot" and together the "Lots");

WHEREAS, the Lots abut each other;

WHEREAS, the Grantee desires and intends to install on the Benefited Property a new septic system (the "System") to replace the existing septic system;

WHEREAS, current legal requirements related to the System require that it be located on the Benefited Property so that its drain field would extend into a portion of the Burdened Property;

WHEREAS, the Grantee desires to obtain and the Grantor is willing to grant an

easement to the Grantee over a portion of the Burdened Property to facilitate and allow for the installation, maintenance and repair of the System;

NOW, THEREFORE, subject to the terms and conditions hereof, this Declaration is hereby duly made, executed, and recorded.

ARTICLE I
DEFINITIONS

A. **Defined Terms**. Reference in this Declaration to the following terms shall mean:

1. Owner(s). For purposes of this Declaration, an "Owner" shall be the Grantor and its successors as the recorded fee simple owner of the Burdened Parcel and "Owner" shall be the Grantee and its successors as the recorded fee simple owner of the Benefited Parcel. In the event any Lot is owned or deemed to be owned by more than one Person, such Person shall constitute one Owner, but shall be jointly and severally obligated under this Declaration.

2. Permittee(s). Owners and their respective employees, agents, contractors, customers, vendors, suppliers, visitors, invitees and licensees, including but not limited to any person performing installation, maintenance or repair of the System.

3. Person(s). Individuals, partnerships, limited liability companies, corporations, trusts or any other form of business or government entity.

4. Easement Area. The Easement Area means that part of the Burdened Property legally described in Exhibit C and depicted on the attached Exhibit D.

5. Encroachment. The portion of the System drain field located within the Easement Area.

ARTICLE II
EASEMENT

2.1 **GRANT OF EASEMENT.** Subject to any express conditions, limitations or reservations contained herein, Grantor hereby declares that the Lots and all Owners, Occupants and Permittees of the Lots shall be benefited and burdened by the following nonexclusive, perpetual easements which are hereby imposed upon the Burdened Parcel and all present and future Owners, Occupants and Permittees of the Burdened Parcel:

A. **PEDESTRIAN INGRESS AND EGRESS EASEMENT**. As a benefit for the Benefited Parcel, Grantor hereby grants and conveys to each Owner of the Benefited Parcel for its use and for the use of its Permittees, a non-exclusive, perpetual easement for pedestrian traffic over and across the Easement Area for the purpose of installation, repair and maintenance of the System.

B. **ENCROACHMENT EASEMENT.** As a benefit for the Benefited Parcel, Grantor hereby grants and conveys to each Owner of the Benefited Parcel for its use a non-exclusive, perpetual easement to install and maintain the Encroachment on the Burdened Parcel. Such easement rights, if any, shall be subject to the following reservations as well as other provisions contained in this Declaration.

1. The Encroachment may be continued, repaired and maintained but may not under any circumstances be increased or expanded.

2.2. **REASONABLE USE OF EASEMENTS.** The easements herein granted shall be used and enjoyed by each Owner, Occupant and Permittee in such a manner as not to unreasonably interfere with, obstruct or delay the conduct and operations of the business at any time conducted on the Lot of the Grantor or any other Owner, Occupant or Permittee of the Burdened Property.

ARTICLE III
REMEDIES AND ENFORCEMENT

3.1. **EQUITABLE REMEDIES**. In the event of a breach or threatened breach by any Owner or its Permittees of any of the terms, covenants, restrictions or conditions of this Declaration, any Owner shall, in addition to any other available remedy, be entitled forthwith to full and adequate relief by injunction and/or all such other equitable remedies from the consequences of such breach, including specific performance. In addition to any and all other remedies, an Owner successfully enforcing this Declaration shall be entitled to recover from a breaching Owner the costs incurred to enforce the Declaration, including reasonable attorney fees.

ARTICLE IV
MISCELLANEOUS

4.1 **COVENANTS RUNNING WITH THE LAND.** It is intended that each of the easements, covenants, conditions and restrictions described and set forth in this Declaration shall run with the Lots and create equitable servitudes in favor of the real property benefited hereby, shall bind every Owner and/or other person or entity now or hereafter having any fee, leasehold or other interest therein and shall inure to the benefit of the respective parties and their successors, assigns, heirs and personal representatives.

4.2 **CONSTRUCTION AND INTERPRETATION.**

(A) This Declaration and any Exhibits hereto contain all the representations and the entire agreement between the parties executing the Declaration with respect to the subject matter thereof.

(B) Whenever required by the context of this Declaration, (i) the singular shall include the plural, and vice versa, and the masculine shall include the feminine and neuter genders, and vice versa and (ii) use the words "including," "such as" or words of similar import, when following any general items, whether or not language of non-limitation, such as "without limitation," or "but not limited to," are used with reference thereto, but rather shall be deemed to refer to all other items or matters that could reasonably fall within the broadest scope of such statement, terms or matter.

(C) The captions preceding the text of each article and section are included only for convenience of reference. Captions shall be disregarded in the construction and interpretation of this Declaration. Capitalized terms are also selected only for convenience of reference and do not necessarily have any connection to the meaning that might otherwise be attached to such term in a context outside of this Declaration.

(D) Invalidation of any of the provisions contained in this Declaration, or of the application thereof to any person by judgment or court order shall in no way affect any of the other provisions hereof or the application thereof to any other person and the same shall remain in full force and effect.

(E) This Declaration may be amended by, and only by, a written agreement signed by the Owners and shall be effective only when recorded in the county and state where the Lots are located; provided, however, that no such amendment shall impose any materially greater obligation on, or materially impair any right of an Owner or its Lot without the consent of such Owner. No consent to the amendment of this Declaration shall ever be required of any Occupant or Person other than the Owners, nor shall any Occupant or Person other than the Owners have any right to enforce any of the provisions hereof.

4.3 **NO WAIVER**. The failure of any Owner to insist upon strict performance of any of the terms, covenants or conditions hereof shall not be deemed a waiver of any rights or remedies which that Owner may have hereunder, at law or in equity and shall not be deemed a waiver of any subsequent breach or default in any of such terms, covenants or conditions.

4.4 **GOVERNING LAW.** The laws of the State of Minnesota shall govern the interpretation, validity, performance and enforcement of this Declaration.

IN WITNESS WHEREOF, the undersigned has executed this Declaration.

North Oaks Golf Club, Inc.

By: _____
Morgan Donahue, President

STATE OF MINNESOTA)
) SS
COUNTY OF Ramsey)

The foregoing instrument was acknowledged before me this 25 day of January, 2024, by Morgan Donahue, President of North Oaks Golf Club, Inc., a Minnesota corporation on behalf of such company.

Jessica Ilene Bailey
Notary Public

JESSICA ILENE BAILEY
Notary Public
Minnesota
My Commission Expires
Jan 31, 2028

THIS INSTRUMENT WAS DRAFTED BY:

Chestnut Cambronne PA (wcc)
100 Washington Avenue South, Suite 1700
Minneapolis, MN 55401

EXHIBIT A – LEGAL DESCRIPTION OF BURDENED PARCEL

Tract A, Registered Land Survey No. 113

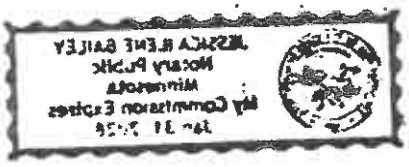


EXHIBIT B – LEGAL DESCRIPTION OF BENEFITED PARCEL

Tract D, Registered Land Survey No. 57

EXHIBIT C – LEGAL DESCRIPTION OF EASEMENT AREA

That part of Tract A, Registered Land Survey No. 113, Ramsey County, Minnesota described as follows:

Beginning at the most southerly corner of Tract D, Registered Land Survey No. 57, Ramsey County, Minnesota; thence on an assumed bearing of North 34 degrees 54 minutes 56 seconds East, along the southeasterly line of said Tract D, a distance of 64.59 feet to an angle point in said southeasterly line; then continuing along said southeasterly line North 19 degrees 20 minutes 45 seconds East a distance of 112.29 feet to the most easterly corner of said Tract D; then South 43 degrees 10 minutes 47 second East, along the southeasterly extension of the northeasterly line of said Tract D, a distance of 56.28 feet; then South 41 degrees 36 minutes 23 seconds West a distance of 95.35 feet; thence South 46 degrees 39 minutes 53 seconds West a distance of 67.88 feet to the point of beginning.

EXHIBIT D – DEPICTION OF EASEMENT AREA

CERTIFICATE OF SURVEY

~for~ TOM AND KIM ROMANKO
~of~ 6 BADGER LANE
NORTH OAKS, MN 55127

PROPERTY DESCRIPTION

Tract B, REGISTERED LAND SURVEY No. 57, Ramsey County, Minnesota.

NOTES

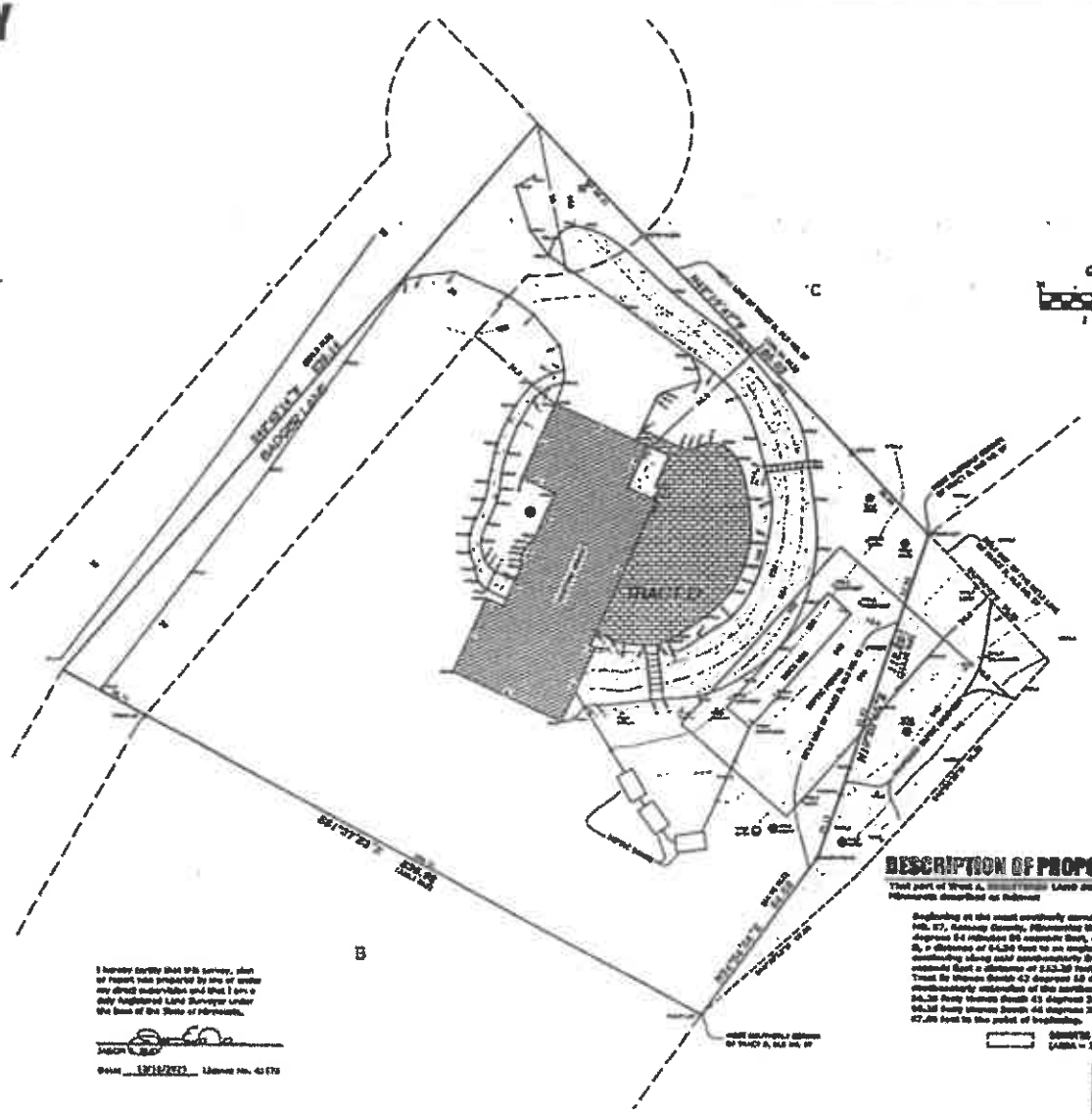
- Field survey was completed by E.G. Rud and Sons, Inc. on 10/12/2023 and 11/13/2023.
- Bearings shown are on Ramsey County datum.
- Parcel ID Number: 13-30-22-44-0043.
- This survey was prepared without the benefit of title work. Additional easements, restrictions and/or encumbrances may exist other than those shown hereon. Survey subject to updates upon receipt of a current title commitment or an attorney's title opinion.
- Septic shown per design sketch by S-A Testing, Inc. dated 11/1/2023.

LEGEND

- DENOTES IRON MONUMENT FOUND AS LABELED
- DENOTES IRON MONUMENT SET, MARKED RLS # 41570
- DENOTES FOUND SPIKE
- DENOTES SET SPIKE
- DENOTES CABLE PEDESTAL
- DENOTES ELECTRICAL BOX
- DENOTES EXISTING SPOT ELEVATION
- DENOTES EXISTING CONTOURS
- DENOTES WELL
- DENOTES BITUMINOUS SURFACE
- DENOTES CONCRETE SURFACE
- DENOTES ROCK AREA
- DENOTES PAVER SURFACE

TREE DETAIL

- DENOTES ELEVATION
- DENOTES TREE DIAMETER
- DENOTES TREE SIZE IN INCHES
- DENOTES TREE TYPE



DESCRIPTION OF PROPOSED SEPTIC EASEMENT

That part of Tract B, REGISTERED LAND SURVEY No. 57, Ramsey County, Minnesota described as follows:

Beginning at the most southerly corner of Tract B, REGISTERED LAND SURVEY No. 57, Ramsey County, Minnesota; thence on an assumed bearing of North 34 degrees 54 minutes 00 seconds West, along the southwesterly line of said Tract B, a distance of 64.30 feet to an angle point in said southwesterly line; thence continuing along said southwesterly line North 55 degrees 06 minutes 00 seconds East a distance of 152.30 feet to the most easterly corner of said Tract B; thence South 42 degrees 54 minutes 47 seconds East, along the southeasterly extension of the northeasterly line of said Tract B, a distance of 64.30 feet; thence South 41 degrees 26 minutes 20 seconds West a distance of 64.30 feet; thence South 48 degrees 39 minutes 33 seconds West a distance of 47.84 feet to the point of beginning.

DENOTES PROPOSED SEPTIC EASEMENT (AREA = 3,264 SQ. FT.)

I hereby certify that this survey, plan 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.

JASON R. RUD

Date: 12/13/2023 License No. 41570

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

REVISIONS			
NO.	DATE	DESCRIPTION	BY
1	12/13/23	ADD PROP. SEPTIC & SEPTIC EASEMENT	JRR
2			
3			
4			

23.107810

March 22, 2024
VARIANCE 24-03
Thomas Romanko
6 Badger Lane
North Oaks, MN 55127
RSL Zoning

Date Application Determined Complete:	March 6, 2024
Planning Commission Meeting Date	March 28, 2024
City Council Meeting Date:	April 11, 2024
60 Day Review Date:	May 5, 2024

Description of Request

The applicant has requested a variance to install a subsurface sewage treatment system (SSTS), which would encroach 15 feet into the required 30-foot east property line setback.

The applicable regulations are as follows:

§ 151.050 RSL - RESIDENTIAL SINGLE-FAMILY LOW DENSITY DISTRICT.

(F) Setbacks.

(1) No building or structure (except fences, screening, planting strips, and landscaping in compliance with Sections 151.033 and 151.034), individual sewage treatment system, or well shall be located within thirty (30) feet of the lot lines, the nearest edge of any road easement(s), or any wetland(s), except that additions which do not exceed twenty five (25) percent of the existing building footprint area, on buildings or structures lawfully existing upon the effective date of this chapter shall be excluded from wetland setback requirements.

Staff Review

Due to the existing cesspools, the current system would be classified as non-compliant under MPCA Rule 7080.1500 Subp. 4 (B).

Due to water supply lines, structures, impervious areas, slopes, and property lines, the space available for installing a replacement system is very limited.

Based on these facts, the staff believes the applicant has met the requirements for a variance as outlined in Section 151.078 of the code. This hardship is created by the property itself and not the result of the property owner's actions. We are in agreement with the designer, Steve Schirmers, that the proposed location of the new system is the most viable option for an SSTS. This variance would be the minimum variance, which would alleviate the practical difficulties. Additionally, the proposed system will result in a significant improvement to the local ground and surface waters.

Action Requested
That the Planning Commission recommends that the City Council approve Variance #24-03, allowing the applicant to encroach 15 feet into the required 30-foot east property line setback.

Motions

Motion to Approve

MOTION_____SECOND_____

That Variance #24-03, for 6 Badger Lane:

be APPROVED with the following conditions:
1. Completion date 365 days after approval
2. System to be located per the design dated September 11, 2023 by Steve Schirmers.

Motion to Deny

MOTION_____ SECOND_____

That Variance #24-03, for 4 6 Badger Lane
:

be DENIED with the following findings:
1.

2.

CITY OF
NorthOaks
Building on a tradition of innovation

PLANNING REPORT

TO: North Oaks Planning Commission

FROM: Kendra Lindahl, City Planner
Kevin Kress, City Administrator
Bridget McCauley Nason, City Attorney
Michael Nielson, City Engineer

DATE: March 28, 2024

RE: Conditional Use Permit for Building Height in Excess of 35 feet and Driveway Setback Variance at 8 Sherwood Trail

Date Application Submitted	January 25, 2024
Date Application Determined Complete:	February 2, 2024
Planning Commission Meeting Date:	February 29, 2024
60-day Review Date:	March 25, 2024
Planning Commission Meeting Date:	March 28, 2024
City Council Meeting Date:	April 11, 2024
120-day Review Date:	May 24, 2024

REQUEST

Mark Englund of Hanson Homes has requested approval of a conditional use permit (CUP) to allow the construction of a new home at 8 Sherwood Trail to be 44.2 feet in height where 35 feet in is the maximum height permitted in the City Code and a variance to allow a 11-foot setback from the wetland and a 25-foot setback from the side lot line where 30 feet is required for both. The applicant's narrative is attached, as well as building elevations, a survey and a site plan for the proposed structure.

The Planning Commission tabled the CUP request at the February meeting so that it could be reviewed with the variance application.

BACKGROUND

The site is currently undeveloped. The property is in the Nord development. Final approval for that subdivision was granted in 2022.

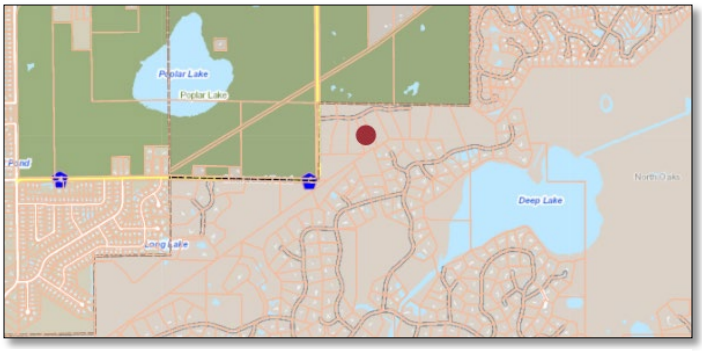


Figure 1 - Subject Parcel

Zoning and Land Use

The property is guided Low Density residential and is zoned Residential Single Family – Low Density (RSL). Homes greater than 35 feet in height are subject to the conditional use permit (CUP) standards and process in Section 151.050(D.7) (conditional uses), Section 151.076 (CUP review criteria) and Section 151.079 (CUP procedure) of the Zoning Code.

The 2.6-acre property is located along Sherwood Trail, east of the intersection of Sherwood Trail and Sherwood Road (County Road 4).

PLANNING ANALYSIS

Building Height

The applicant is requesting a CUP to allow the southern (rear) elevation of the proposed home to exceed 35 feet in height. Elevations provided by the applicant show the proposed home to be 44.2 inches in height along the side and rear facades. The front facade of the home is 34.9 feet in height. Building height is defined as the vertical distance from grade as defined herein to the top ridge of the highest roof surface in Section 151.005 of the Zoning Code.

Setbacks

The proposed single-family home exceeds the 30-foot minimum setback requirements at all property lines and street easements. The front elevation is set back 272.9 feet from the roadway easement. The side elevations are 50.5feet from the east property line and 55.8 feet from the west property line. The rear elevation is setback more than 200 feet from the rear property line. The building complies with the setback requirements.

Section 151.050(F)(1) requires that structures be at least 30 feet from any wetland, SSTS, well or road easement. It does not appear that the septic locations shown are in compliance with the

setback requirements. Section 153.053 requires all driveways to meet structure setbacks. The driveway does meet the required 30-foot side yard setback requirement but does not meet the 30-foto wetland setback requirement.

Size

The applicant has provided a FAR worksheet showing 8.25% FAR. Plans must be in compliance with the maximum 12% FAR requirement at the time of review by the Building Official.

Wetlands

There are two wetlands on the site. The Code requires a 30-foot setback from the wetlands and VLAWMO encourages a 30-foot wetland buffer. The Code also requires that driveways be 30-feet from the property line. A setback variance is required to construct the house at the proposed location.

The approved plans for the Nord development showed the home site at the front of the lot, which would have eliminated the need for the driveway variance. It is the applicant's responsibility to show that the practical difficulties exist, and that the mandatory criteria for issuance of a variance are met before the City Council can approve the required variance. Without a variance from the wetland and side lot line setback requirements, the house cannot be constructed as proposed.

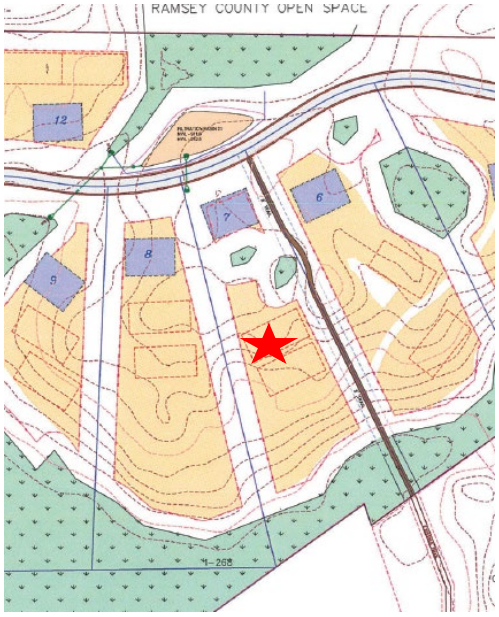


Figure 2- preliminary plans

Septic

Section 51.01 of the City Code requires the plans to show the location of two septic systems, each 5,000 sq. ft. in size, which comply with setbacks and will be protected during construction. The current plan shows the home where the septic sites were shown during the approval process. The plan submitted by the applicant shows two 650 sq. ft. rock beds. This does not meet ordinance requirements. The septic sites must be a minimum of 30 feet from structures, wetlands and property lines. The current plans do not comply. The plans must be revised to show the two 5,000 sq. ft. septic sites with supporting documentation from a licensed SSTS professional.

Trees

At the February Planning Commission, the Commission asked for more information about the tree removal on site. City Administrator Kress noted that the tree removal was part of the subdivision approval and is complete. At the request of the Commission, the applicant has provided information from NOHOA about the required plantings.

Building Height CUP

To allow a conditional use permit for a home greater than 35 feet in height, Section 151.05(D.7) of the Zoning Code requires that the following criteria be considered:

1. *The front elevation of the building does not exceed 35 feet in height at any point;*

   The proposed front elevation does not exceed 35 feet at any point.

2. *The building height at any other elevation does not exceed 45 feet;*

   The building height at the rear and side elevations does not exceed 45 feet.

3. *The environmental and topographical conditions of the lot prior to building development are naturally suited to the design of a building with an egress or walkout level;*

   Based on review of the plans, topography of the site and Ramsey County GIS, the proposed home and walkout level appear conducive to the site's natural layout in this location. Prior to construction, the City will review all erosion control measures to ensure that the construction project does not adversely affect the surrounding environment. The City Engineer will make periodic site visits during construction to ensure all erosion control measures are fully complied with.

4. *Buildings shall be limited to a basement and 2 full stories. Finished areas within the roof structure will be considered a full story;*

   The proposed home is two full stories with a basement walkout.

5. *Any time the side or rear elevations of a building exceeds 35 feet in height within 50 feet of adjacent lot lines, the building line shall be setback an additional 2 feet from the adjacent setback line for each foot in height above 35 feet; and*

   The home has been designed to meet the 50-foot setback.

6. *Section 151.083 is complied with.*

   The applicant has complied with the fees associated with Section 151.083.

In addition to the standards identified for the specific CUP request, the City must also review the conditional use permit request against the standards in Section 151.076 of the City Code. Staff has reviewed the request against those standards:

1. *Relationship of the proposed conditional use to the Comprehensive Plan;*

   The proposed use is consistent with the uses anticipated in the Comprehensive Plan and the permitted uses in the single family zoning district.

2. *The nature of the land and adjacent land or building where the use is to be located;*

   The use is consistent with the surrounding land uses.

3. *Whether the use will in any way depreciate the area in which it is proposed;*

   The proposed single-family should not negatively impact adjacent property values.

4. *The effect upon traffic into and from the land and on adjoining roads, streets, and highways;*

   The proposed use will not create a traffic impact.

5. *Whether the use would disrupt the reasonable use and enjoyment of other land in the neighborhood;*

   The proposed single-family home use will not cause a negative impact to the use and enjoyment of other land in the neighborhood.

6. *Whether adequate utilities, roads, streets, and other facilities exist or will be available in the near future;*

   There are adequate utilities, roads, streets, and other facilities available to the property.

7. *Whether the proposed conditional use conforms to all of the provisions of this chapter;*

   The proposed request is compliant with the City's zoning code.

8. *The effect up natural drainage patterns onto and from the site;*

   Finished grading will work with existing drainage patterns.

7. *Whether the proposed use will be detrimental to or endanger the public health, safety, comfort, convenience or general welfare of the neighborhood or the city;*

   The use as proposed will not be detrimental to or endanger the public health, safety, comfort, convenience or general welfare of the neighborhood or the city;

9. *Whether the proposed use would create additional requirements at public cost for public facilities and services and whether or not the use will be detrimental to the economic welfare of the neighborhood or city; and*

   As proposed, the use will not create additional requirements at public cost for public facilities and services and will not be detrimental to the economic welfare of the neighborhood or city.

10. *Whether the proposed use is environmentally sound and will not involve uses, activities, processes, materials, equipment, and conditions of operation that will be detrimental to any persons, land, or the general welfare because of excessive production of traffic, noise, smoke, fumes, wastes, toxins, glare, or orders.*

    Beyond initial construction activity, and based on erosion control requirements, the proposed residential use and grading activity will not be detrimental to the environment or surrounding area.

Driveway Setback Variance

The applicant has revised the request since the Planning Commission meeting in February. The current request is to allow a 25-foot driveway setback from the west property line and an 11-foot setback from wetland #9 where a 30-foot setback is required from both.

This lot was platted as part of the Nord subdivision. That subdivision plan showed building pads for all of the lots up near the street with septics in the rear yard, however, several of the adjacent lots did push the home to the back of the lot. They were able to have that flexibility because they do not have the wetlands in the middle of the lot like 8 Sherwood.

The variance being requested so that the builder can move the building pad to the back of the lot to accommodate a home with a walkout. The Planning Commission has had many

conversations lately about what it means for a lot to be *naturally suited to the design of a building.* Is it a reasonable expectation that builders can take a standard home plan and make it fit it onto any lot in North Oaks or should they be required to work with the existing site conditions? The building pad at the front of the lot could accommodate a reasonably sized home but a builder/buyer would need to be creative and develop a home plan to fit this lot. The Planning Commission must keep this question in mind when reviewing the variance request.

Section 151.078 of the Zoning Code requires that the following criteria be considered and a variance only be granted when it is demonstrated that following standards have all been met:

> *(1)(a) Their strict enforcement would cause practical difficulties because of circumstances unique to the individual land under consideration, and the variances shall be granted only when it is demonstrated that the actions will be in keeping with the spirit and intent of this chapter.*
>
> The applicant argues that they bought the lot, entered into a purchase agreement with a buyer and the house they want to build does not fit on the front building pad. Hanson Builders argues that this creates a practical difficulty because they cannot build a home like others they are building in the neighborhood without the driveway variance and placing this house up by the street will look out of character with the other homes in the neighborhood.
>
> The final plans/plat for Red Forest Way South Phase 1 showed the house pad on the front of the lot. The approvals for the subdivision were based on the approved plans and due diligence as part of the land purchase should have identified this home site. The Commission could find the there is no practical difficulty and the landowner simply needs to develop a home plan that fits the lot without the need for a variance.
>
> *b) PRACTICAL DIFFICULTIES means the land in question cannot be put to a reasonable use if used under conditions allowed by the official controls, the plight of the land owner is due to circumstances unique to the land in question which were not created by the land owner, and the variance, if granted, will not alter the essential character of the locality.*
>
> Hanson Builders has provided a detailed narrative outlining what they believe are the practical difficulties that necessitate the variance. They argue that the small building pad in the front of the lot is out of character with other homes in the neighborhood and the home needs to be behind the wetlands to build the home the buyer wants. They also make the argument that that the driveway would be too steep if they built on the house pad in the front of the lot.

The Planning Commission must evaluate whether or not the building pad proposed by The North Oaks Company and approved by the City is a reasonable location or whether the location is not feasible and creates a practical difficulty. The Commission could agree with Hanson Builders that the house they designed does not fit on this lot, but find that is not a practical difficulty, because a different home could be designed to work with the site conditions and not require a variance. Staff believes a house could be designed for the approved building site with a driveway that complies with the maximum grade of 10%. The City Engineer is reviewing the plans and will provide comments for the Planning Commission meeting.

(c) Economic considerations alone shall not constitute an undue hardship if reasonable use for the land exists under the terms of this chapter.

The variance request is not driven solely be economic considerations, but the Commission must first answer the question of whether a practical difficulty exists that requires the home to be built on the rear of the lot triggering the need for the variance from the wetland setbacks for the new driveway.

(d) A variance may not be granted for any use that is not permitted under this chapter for land in the zone where the affected person's land is located.

The variance would not allow a use that is not permitted under this chapter.

(2) Subject to the above, a variance may be granted only in the event that all of the following circumstances exist:

(a) Unique circumstances apply to the which do not generally apply to other land in the same zone or vicinity, and result from lot size or shape, topography, or other circumstances over which the owners of the land have no control;

The two wetlands in the center of the lot are unique to this lot. The applicant's narrative argues that there are unique circumstances because placing the home near the street would be out of character with the other homes in the neighborhood and to avoid the wetlands the home needs to be moved to the rear of the lot if a walkout is to be built. If the home is moved to the back of the lot the driveway cannot be built without driveway variances.

However, the Commission could find that the approved plans showed the home site on the front of the lot with a compliant driveway grade. The City of North Oaks has many lots with wetlands and this is not a unique circumstance.

(b) The proposed uses is reasonable;

The applicant states that the proposed variance is reasonable because the building pad at the front of the site where originally approved is feasible for the home they wish to build. The proposed home is reasonable as it is a comparable size and style as the adjacent homes.

The Commission could find that in North Oaks homes should be built to the particular site conditions and expecting every lot to support every home type is not reasonable. The parcel has a buildable home site as approved with the plat and a reasonable home could be built in that location.

(c) That the unique circumstances do not result from the actions of the applicant;

Hanson Builders was not involved in the original platting or lot layouts of this development and are simply trying to work with the constraints for this lot.

Alternatively, the Commission could find that the owner had a responsibility to understand the site constraints before purchasing the lot and designing the home, circumstances of the lot are not unique to the lot and the builder has alternatives to build on this vacant lot.

(d) That granting the variance requested will not confer on the applicant any special privilege that is denied by this chapter to other lands, structures, or buildings in the same district;

The Commission could find that the site constraints require the home to be placed on the rear of the lot, which creates the need for the driveway setback variance and granting the variance does not grant special privileges.

Alternatively, the Commission could find that the developer provided a building pad site at the front of the lot to avoid this exact circumstance and granting the variance would confer special privileges to the applicant.

(e) That the Variance requested is the minimum variance which would alleviate the practical difficulties;

The applicant argues that the variance is the minimum action needed to alleviate the practical difficulties on site because the house they want to build won't fit on the approved building pad site and that a house that could fit would be out of character with the neighborhood. The variance is the minimum action necessary to allow the builder to build the selected home plan on this lot.

Alternatively, the Commission could find that there is no practical difficulty because the building pad site as approved can be developed but simply requires the builder to develop a house plan that works with the existing site.

(f) The proposed variance will not impair an adequate supply of light and air to adjacent land, or substantially increase the congestion of the roads and streets, or increase the danger of fire, or endanger the public safety, or substantially diminish or impair property values within the neighborhood; and

The proposed variance will not impair an adequate supply of light and air to adjacent land, or substantially increase the congestion of the roads and streets, or increase the danger of fire, or endanger the public safety, or substantially diminish or impair property values within the neighborhood.

(g) At no time after the land became nonconforming was the property under common ownership with contiguous land, the combination of which could have been used to reduce or avoid the nonconformity of the land.

N/A

Attached for reference:

Exhibit A:	Location Map
Exhibit B:	Approved Nord Plan
Exhibit C:	Site Survey dated February 16, 2024
Exhibit D:	Applicant Narrative dated January 25, 2024
Exhibit E:	Variance Narrative dated March 6, 2024
Exhibit F:	FAR Worksheet
Exhibit G:	Building elevations dated January 25, 2024
Exhibit H:	City Engineer memo dated February 14, 2024
Exhibit I:	VLAWMO Letter dated March 9, 2023

Exhibit J: Email from NOHOA dated March 4, 2024

SUMMARY

Staff finds that applicant does comply with conditional use permit standards for building height in excess of 35 feet as outlined in the staff report. However, the conditional use permit is tied to the variance request, because without the driveway variance the home could not be built as proposed.

Staff has provided potential findings for approval or denial of the variance. The Planning Commission is reminded that the burden of proof is on the applicant to provide that all of the variance standards have been met. If the Planning Commission believes that all of the variance standards have been met, they should recommend approval. If the Planning Commission believes that the variance standards have not been met, they should recommend denial.

PLANNING COMMISSION OPTIONS

In consideration of the conditional use permit and variance application, the Planning Commission has the following options:

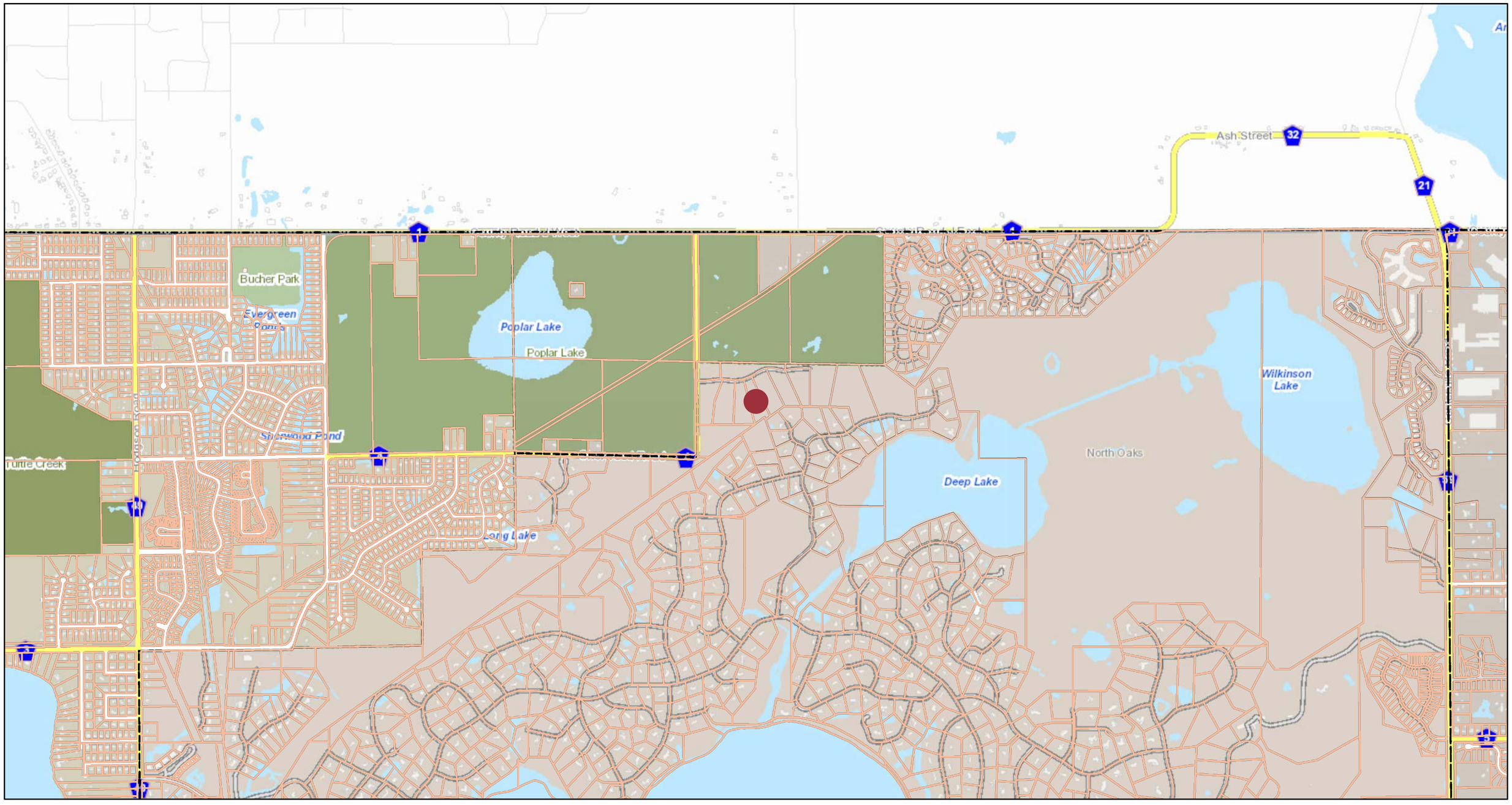
A) **Recommend approval** of the application with conditions, based on the applicant's submission, the contents of this report, public testimony and other evidence available to the Planning Commission.

- This option should be utilized if the Planning Commission finds the proposal adheres to all City Code requirements or will do so with conditions.

B) **Recommend denial** of the application with findings for denial clearly articulated.

C) **Recommend continuance** of the application review based on the need for more information in which to process the request.

Map Ramsey



2/6/2024, 12:05:50 PM

1:16,000

0 0.2 0.4 0.8 mi

0 0.3 0.6 1.2 km

- Personal Property
- Tax Parcels
- Cities
- County Offices

Proposed Conditional Use Permit

For Height Variance for Walkout Basement Foundation

8 Sherwood Trail, East Preserve Subdivision, North Oaks, MN

Our purpose in applying for a Conditional Use Permit for our proposed home at 8 Sherwood Trail in East Preserve, North Oaks is to request a height variance to make the basement a rear walkout where the natural grade drops about 9.5 feet from the garage elevation to proposed walkout elevation.

We would like to add windows and a door to the lower floor on the rear of the home to take advantage of the natural grade drop and thereby allow light and views of the woods and access to the existing rear grade. The resulting exposed building height would remain 35-feet at the front elevation and about 44.5-feet on the rear elevation from grade to ridge.

Our engineer, Sathre Bergquist, who did the overall engineering for the East Preserve subdivision, has calculated the Grading Quantities involved with this project to be +/- 30 Cubic Yards of fill.

Thank you for your consideration of this requested rear wall height variance of 9.5 feet.

Hanson Builders, Inc.

Variance Request
8 Sherwood Trail, Tract G
North Oaks, MN

Description of Variance Requested:

Hanson Builders (license BC0004568) on behalf of Mr and Mrs Becker (future homeowners for this property), are respectfully requesting a variance of the 30-foot setback for a driveway to the side property line and/or a variance to the 30-foot buffer setback from an wetland area to a driveway.

Specific Location of the Variance request:

The proposed driveway would be located on lot 8 between wetland #9 and the westerly property line. Currently there is 48 feet between those two areas. We are proposing three things to get the driveway past this "pinch" point and to the house on the lot. (These will be presented later in this narrative.)

Reasoning for the Variance Request. We will address the code section 151.078 Variances and Appeals, specifically subsection (E,2):

(a) Unique circumstances apply to the which do not generally apply to other land in the same zone or vicinity, and result from lot size shape, topography, or other circumstances over which the owners of the land have no control.

1. If the home were placed on the front section of the buildable area between the wetland and the road, it would be very out of character for the rest of the development. Even though it is technically allowed to be that close to the road, no other home in Sherwood is placed that close on these deep lots (lot 8 is over 600 feet deep deep). The existing home to the west (6 Sherwood) is setback, roughly 150 feet, the home to the east (10 Sherwood) is setback, roughly 300 feet. Placing a house in front of the two small wetlands would make the house only 45 feet from the street.
2. No other lot in this development has two very small wetlands placed right in the middle of the typically usable lot space thus making it impossible to move the home a little further back on the lot, unless it is moved all the way back behind the wetlands.
3. The elevation makes putting a home on this smaller front section completely impractical. The elevation of the street is 914.0. In conforming with the rules of staying within the grades as they exist, the top of the foundation of the house would need to be 920.7 with a slight swale on the east side. That would make the high side of the driveway at 18.7% slope, with an average 13.8% from garage to street. The guideline for the city of North Oak is a maximum of 10%. Guidelines in many other cities and the professional pledge of the builder is 8%. Much over that, a driveway can become rather dangerous from a safety standpoint in the winter time in Minnesota. A 13.8%+ grade is pretty much impossible.

> *12. A grading plan for each "custom" lot shall be submitted with each building permit application. Proposed grades around the perimeter of the proposed homes shall meet the requirements of the state building code. Staff recommends that a minimum driveway slope of 3 percent, and a maximum of 10 percent. Details of proposed driveway sections over drainage ditch with proposed culverts shall be included in plans for building permit review to ensure grading and drainage plan is maintained.*

(b) The proposed uses is reasonable:

The front building area is small at only about 65 feet wide and 50 feet deep. The entire lot is about 180 feet wide by 600+ deep. We had engineering verify that no other home, built or planned, in this development would fit within the building setback lines of the front buildable area as shown on lot 8. See attached exhibits for the floor plans of Sherwood 1, 2, 6, 8, 10, and 14. The only reasonable location for a home of this caliber in this neighborhood would be to have the home positioned behind the two small wetlands in question.

(b) That the unique circumstances do not result from the actions of the applicant:

Hanson Builders was not involved in the original platting or lot layouts of this development. We are trying to resolve the issues of the constraints for this lot.

(c) That granting the variance requested will not confer on the applicant any special privilege that is denied by this chapter to other lands, structures, or building in the same district:

The requested variance is only applicable on this lot. None of the other lots that Hanson Builders has purchased in the community will have this same or similar situation.

(e) That the requested variance is the minimum variance which would alleviate the practical difficulties:

We are trying to be very sensitive to propose the minimum amount of variance that will resolve the difficulties of this lot. As shown on the most current survey

We are proposing three things to solve the problems outlined and to do so with minimal impact. Per items below and attached revised survey

1. Reduce the driveway in just this area next to the wetland down to 12 feet.
2. Reduce the side setback from the side property line from 30 to 25 feet.
3. Apply the wetland buffer averaging principle to the wetland setback. The current survey shows a 11' setback on the driveway side, by then relocating that minimized frontage and replacing it on the other side of the wetland. Note on the survey shows proposed fill of 470 sqft of wetland buffer, but then creation of 555 sqft of buffer basically connecting the areas. This would be an 18% increase in overall buffer area, providing more than originally required.

(f) The proposed variance will not impair an adequate supply of light and air to adjacent land, or substantially increase the congestion of the roads and streets, or increase the danger of fire, or endanger the public safety, or substantially diminish or impair property values within the neighborhood; and

We do not feel a driveway placement will affect any of the above concerns for air, light, congestion, fire danger. If anything, having the home setback further will increase the appeal of the neighborhood.

(g) At no time after the land became nonconforming was the property under common ownership with contiguous land, the combination of which could have been used to reduce or avoid the nonconformity of the land.

Hanson Builders purchased this lot in Sept ’23 so we are not aware of any issues with the above statement. Initial home placement that was submitted (with home on rear/southern building pad) was initially reviewed with no concerns. First awareness of non-compliance was brought up on 2/9/24. A purchase agreement was written on 12/7/23 between Hanson Builders, Inc. and our clients Jeremiah and Andrea Becker.

Thank you for your consideration,
Hanson Builders Inc.

DESCRIPTION OF PROPERTY SURVEYED

Tract G, REGISTERED LAND SURVEY NO. 634, according to the recorded plat thereof, Ramsey County, Minnesota.

GENERAL NOTES

1) **Site Address**: 8 Sherwood Trail, North Oaks, Minnesota 55127

2) **Flood Zone Information**: This property appears to lie in Zone X (Areas outside the 1-percent annual chance floodplain, areas of 1% annual chance sheet flow flooding where average depths are less than 1 foot, areas of 1% annual chance stream flooding where the contributing drainage area is less than 1 square mile, or areas protected from the 1% annual chance flood by levees. No Base Flood Elevations or depths are shown within this zone. Insurance purchase is not required in these zones.) per Flood Insurance Rate Map, Community Panel No. 27123C0030G, effective date of June 4th, 2010.

3) **Parcel Area Information**: Gross Area: 113,362 s.f. ~ 2.60 acres
Roadway Easement Area: 3,547 s.f. ~ 0.08 acres
Lot Area To Roadway Easement: 109,815 s.f. ~ 2.52 acres
Wetland Area: 23,404 s.f ~ 0.49 acres

4) **Principal Structure Setbacks** - Front: 30 feet from roadway easement
Side: 30 feet
Rear: 30 feet

Please note that the general restrictions for the subject property may have been amended through a city process. We could be unaware of such amendments if they are not in a recorded document provided to us. We recommend that a zoning letter be obtained from the Zoning Administrator for the current restrictions for this site.

5) **Utilities**: We have shown the location of utilities to the best of our ability based on observed evidence together with evidence from the following sources: plans obtained from utility companies, plans provided by client, markings by utility companies and other appropriate sources. We have used this information to develop a view of the underground utilities for this site. However, lacking excavation, the exact location of underground features cannot be accurately, completely and reliably depicted. Where additional or more detailed information is required, the client is advised that excavation may be necessary. Also, please note that seasonal conditions may inhibit our ability to visibly observe all the utilities located on the subject property.

I hereby certify that this survey, plan 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.

Dated this 25th day of January, 2024.

Daniel L. Schmidt, PLS Minnesota License No. 26147
schmidt@sathre.com

Tract G, #8 Sherwood Trail

An easement, for purposes of a roadway for ingress and egress, over the northwesterly 30.00 feet thereof and being adjacent to Tract L, REGISTERED LAND SURVEY NO. 634.
An easement for utility purposes over the southeasterly 12.00 feet of the northwesterly 42.00 feet thereof.
An easement for trail purposes lying 15 feet each side of the following described line:
Beginning at the southeast corner of Tract G, thence on a bearing of North 11 degrees 00 minutes 00 seconds East, assuming the most southeasterly line of said Tract G bears South 54 degrees 38 minutes 09 seconds West, a distance of 85.00 feet;
thence North 22 degrees 22 minutes 00 seconds West, a distance of 76.00 feet;
thence North 64 degrees 27 minutes 40 seconds West, a distance of 83.14 feet;
thence North 26 degrees 09 minutes 36 seconds West, a distance of 169.00 feet;
thence North 00 degrees 40 minutes 00 seconds East, a distance of 55.00 feet;
thence North 48 degrees 00 minutes 54 seconds West, a distance of 80.11 feet to a point on the northeasterly line of said Tract G, distant 122.00 feet from the most northeast corner of said Tract G;
thence North 26 degrees 09 minutes 36 seconds West, a distance of 122.00 feet to said northeast corner.

Proposed Elevations - WO

Proposed Garage Floor Elevation	= 921.0
Proposed Top of Foundation Elevation	= 921.3
Proposed Basement Floor Elevation	= 912.6

Offset Irons
(elevations are to the top of pipe)

OS #1= 914.07	OS #2= 916.85
OS #4= 910.60	OS #3= 913.24

Grading Quantities (CY)	
Fill	
Cut	31.98
House Footing	0
Garage Footing	0
Porch Footing	0
Driveway	0
Egress Pit	0
Total Fill	0
Total Cut	31.98
Total (+/-)	31.98

30 15 0 15 30 60
SCALE IN FEET

NORTH

Bearings are based on the Hennepin County Coordinate System (NAD 83 - 1986 adj.)

SURVEY LEGEND

CAST IRON MONUMENT	PIEZOMETER	WOE WALKOUT ELEVATION
IRON PIPE MONUMENT SET	POWER POLE	FFE FIRST FLOOR ELEVATION
IRON PIPE MONUMENT FOUND	GUY WIRE	GFE GARAGE FLOOR ELEVATION
DRILL HOLE FOUND	ROOF DRAIN	TOF TOP OF FOUNDATION ELEV.
CHISELED "X" MONUMENT SET	LIFT STATION	LOE LOWEST OPENING ELEV.
CHISELED "X" MONUMENT FOUND	SANITARY MANHOLE	CONCRETE
REBAR MONUMENT FOUND	SANITARY CLEANOUT	BITUMINOUS
PK NAIL MONUMENT SET	STORM MANHOLE	BUILDING SETBACK LINE
PK NAIL MONUMENT FOUND	STORM DRAIN	CABLE TV
PK NAIL W/ ALUMINUM DISC	CATCH BASIN	CONCRETE CURB
SURVEY CONTROL POINT	FLARED END SECTION	CONTOUR EXISTING
A/C UNIT	TREE CONIFEROUS	CONTOUR PROPOSED
CABLE TV PEDESTAL	TREE DECIDUOUS	GUARD RAIL
ELECTRIC TRANSFORMER	TREE CONIFEROUS REMOVED	DRAIN TILE
ELECTRIC MANHOLE	TREE DECIDUOUS REMOVED	ELECTRIC UNDERGROUND
ELECTRIC METER	TELEPHONE MANHOLE	FENCE
ELECTRIC OUTLET	TELEPHONE PEDESTAL	FIBER OPTIC UNDERGROUND
YARD LIGHT	UTILITY MANHOLE	GAS UNDERGROUND
LIGHT POLE	UTILITY PEDESTAL	OVERHEAD UTILITY
FIBER OPTIC MANHOLE	UTILITY VAULT	TREE LINE
FIRE DEPT. HOOK UP	WATERMAIN MANHOLE	SANITARY SEWER
FLAG POLE	WATER METER	STORM SEWER
FUEL PUMP	WATER SPIGOT	TELEPHONE UNDERGROUND
FUEL TANK	WELL	RETAINING WALL
PROPANE TANK	MONITORING WELL	UTILITY UNDERGROUND
GAS METER	CURB STOP	WATERMAIN
GAS VALVE	GATE VALVE	TRAFFIC SIGNAL
GAS MANHOLE	HYDRANT	RAILROAD TRACKS
GENERATOR	IRRIGATION VALVE	RAILROAD SIGNAL
GUARD POST	POST INDICATOR VALVE	RAILROAD SWITCH
HAND HOLE	SIGN	SATELLITE DISH
MAIL BOX	SOIL BORING	WETLAND BUFFER SIGN

FIELD CREW	NO.	BY	DATE	REVISION
JD	1	ML	1/24/2024	HOUSE STAKE IN FIELD
DRAWN	2	ML	2/16/2024	DRIVEWAY
ML	3	ML	2/16/2024	HOUSE MOVED WEST
CHECKED	4	ML	3/4/2024	DRIVEWAY
DLS	5	ML	3/5/2024	BUFFER AVERAGING
DATE	6	ML	3/6/2024	DRIVEWAY - CROSS SECTION
01-12-2024				

SATHRE BERGQUIST INC.
14000 25TH AVENUE NORTH, SUITE 120
PLYMOUTH MN 55447
(952) 476-6000 WW.SATHRE.COM

TWP:030-RGE.22-SEC.06
Ramsey County

NORTH OAKS, MINNESOTA

CERTIFICATE OF SURVEY

PREPARED FOR:
HANSON BUILDERS

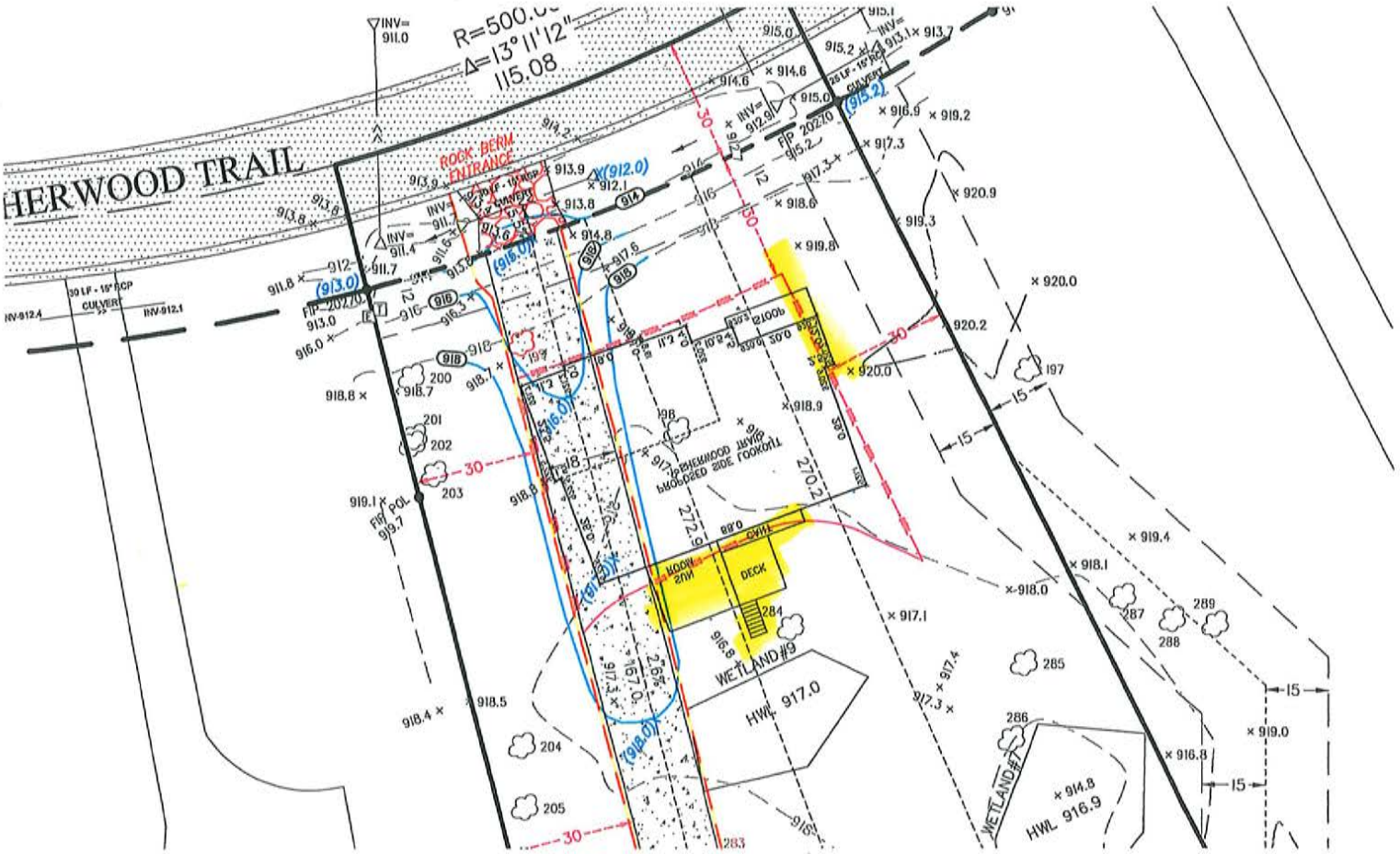
FILE NO. 3279-1538

1/2

81

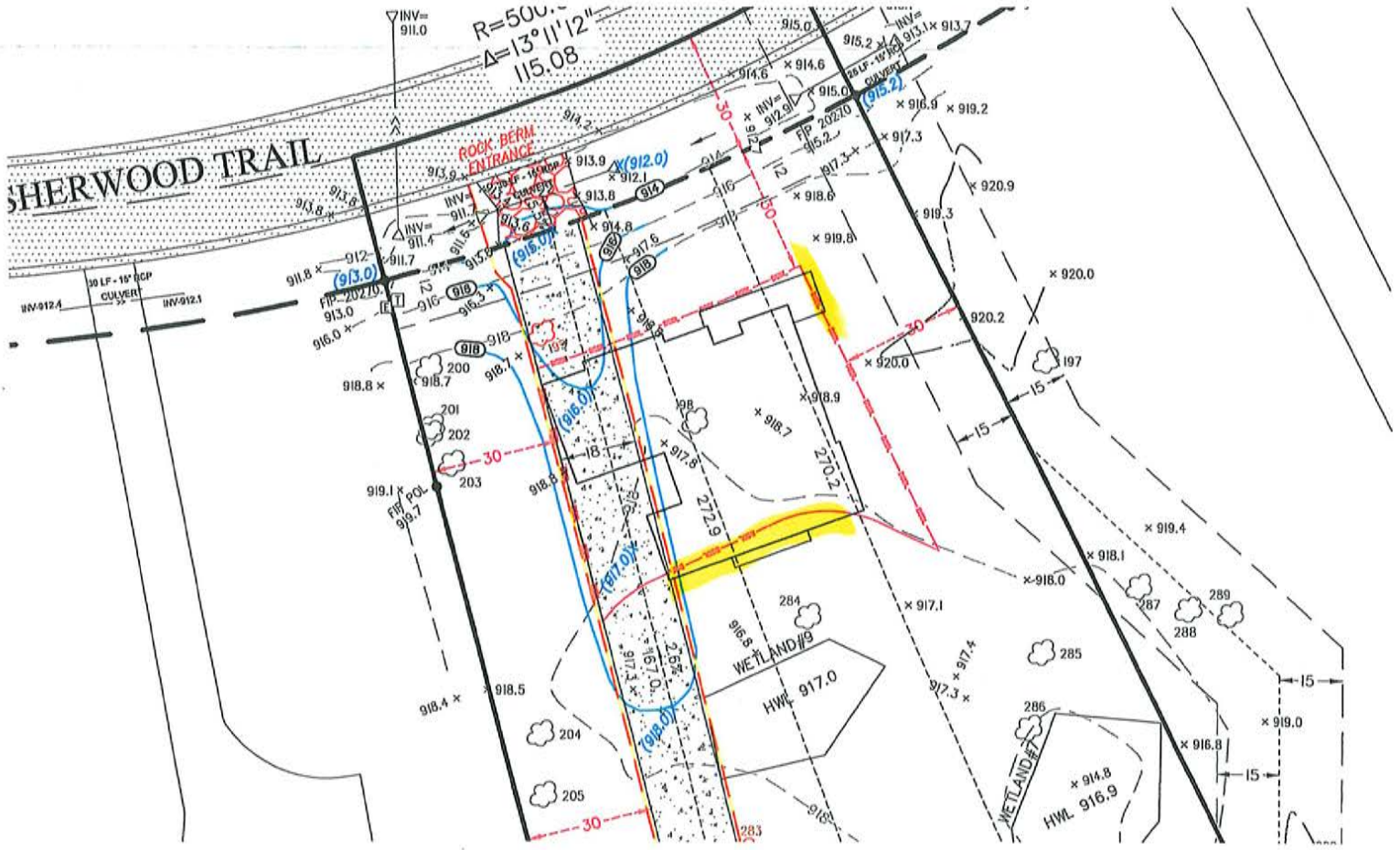
Plan of 1 Sherwood Trail

Shows the home placed on the forward Building area of lot 8 does not fit the buildable area. Does not fit inside the setbacks of the wetland, street, and sides.



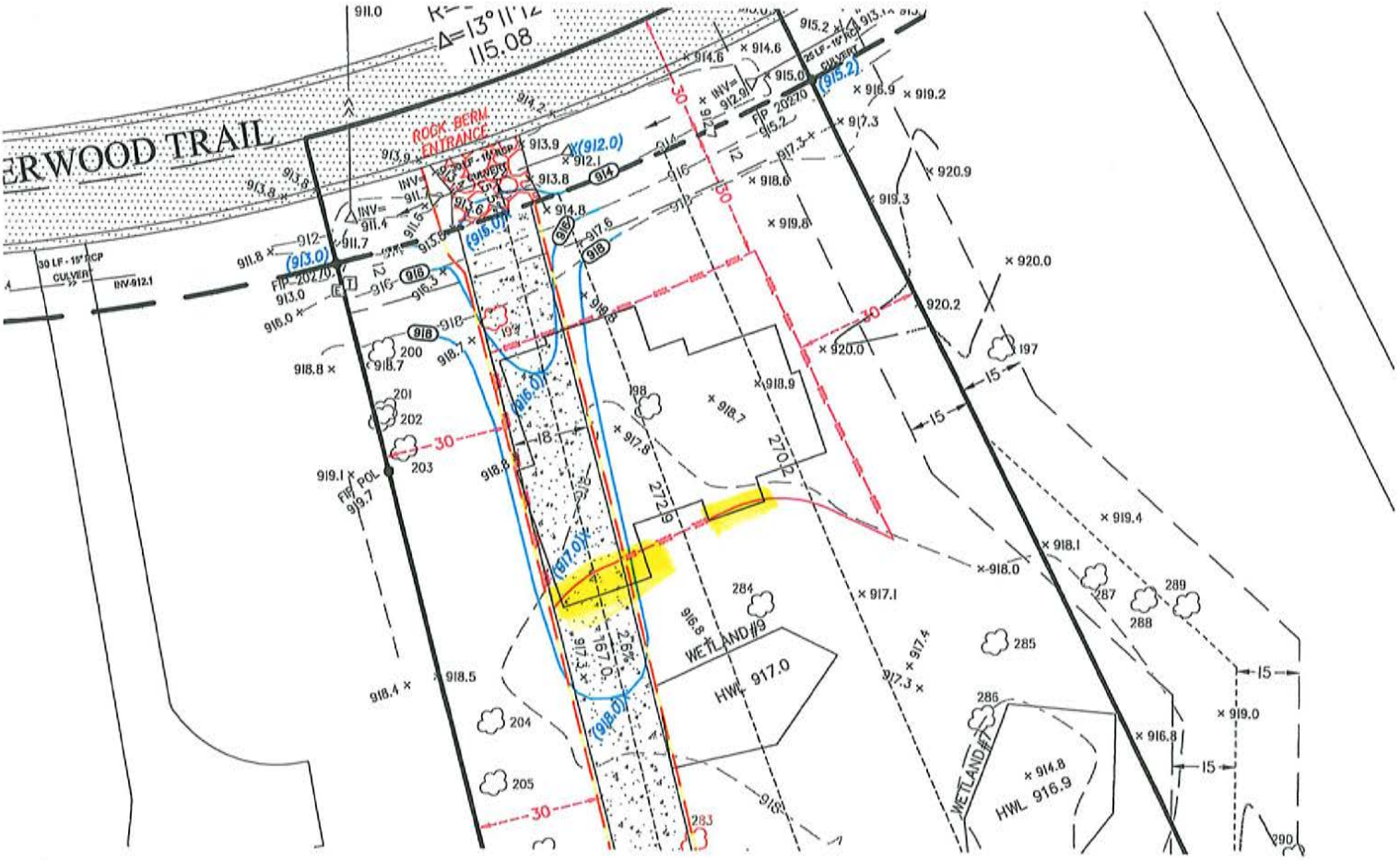
Plan of 2 Sherwood Trail

Shows the home placed on the forward Building area of lot 8 does not fit the buildable area. Does not fit inside the setbacks of the wetland, street, and sides.

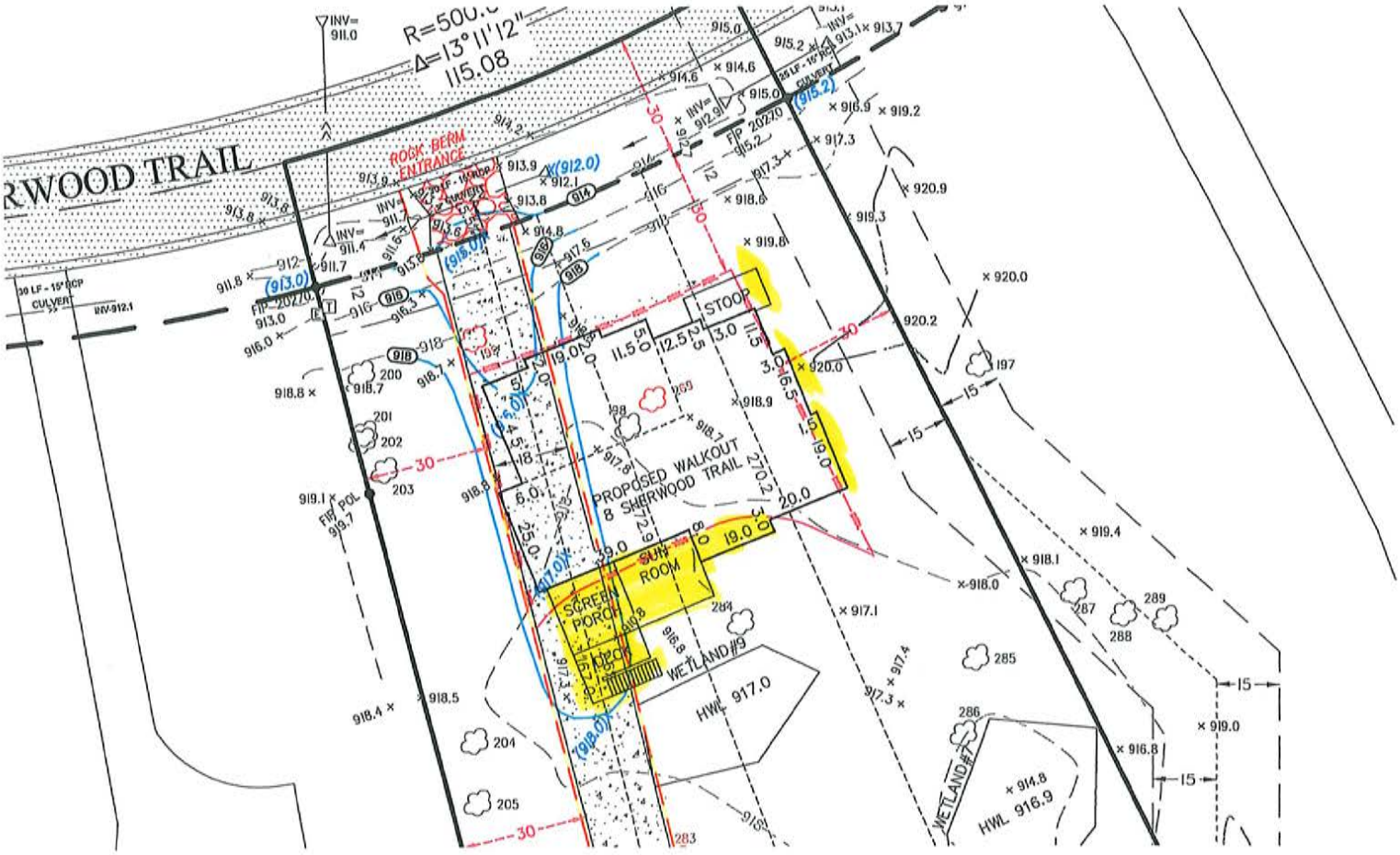


Plan of 6 Sherwood Trail

Shows the home placed on the forward Building area of lot 8 does not fit the buildable area. Does not fit inside the setbacks of the wetland, street, and sides.

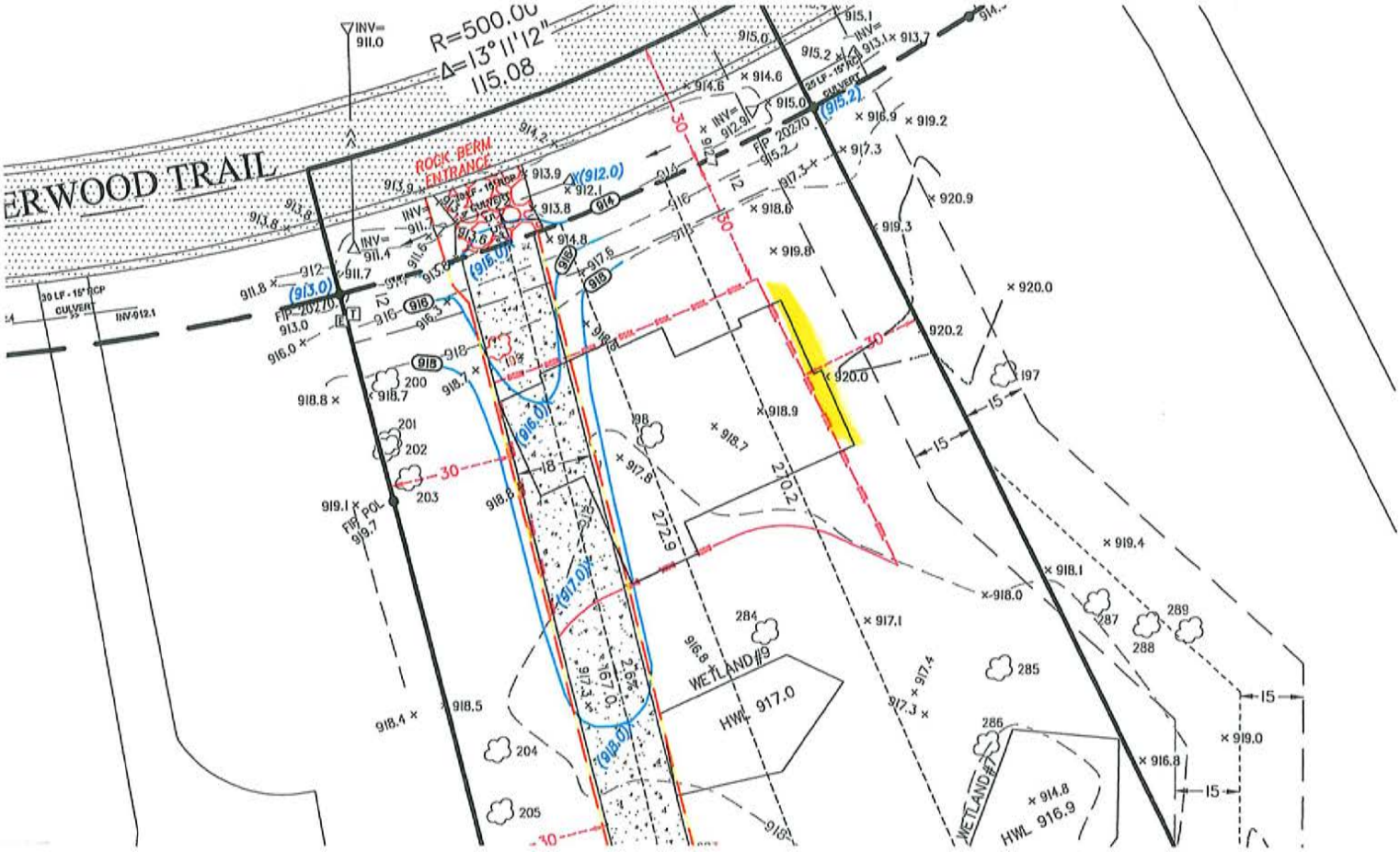


Proposed Plan lot 8 Sherwood Trail
Shows the home placed on the forward Building area of lot 8 does not fit the buildable area. Does not fit inside the setbacks of the wetland, street, and sides.



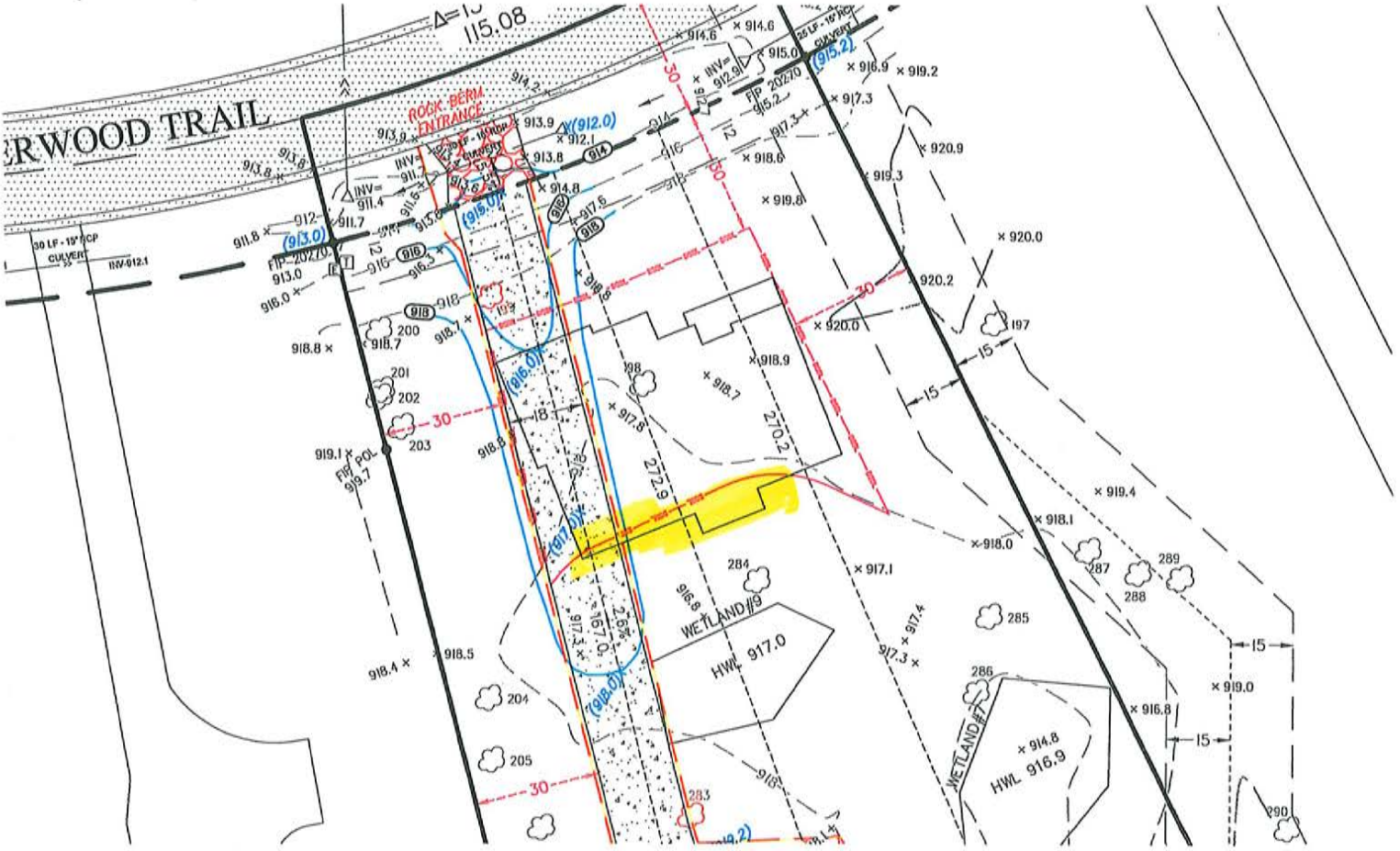
Plan of 10 Sherwood Trail

Shows the home placed on the forward Building area of lot 8 does not fit the buildable area. Does not fit inside the setbacks of the wetland, street, and sides.



Plan of 14 Sherwood Trail

Shows the home placed on the forward Building area of lot 8 does not fit the buildable area. Does not fit inside the setbacks of the wetland, street, and sides.



FLOOR AREA RATIO (FAR) WORKSHEET **JOB ADDRESS:** 8 Sherwood Trail

1) Total Lot Area 113,362 Sq. Ft.

2) Total Area of Road Easement(s) 3,547 Sq. Ft.

3) Adjusted Total Lot Area 109,815 **Sq. Ft.**
(Subtract Line 2 from Line 1)

4) DNR-Designated Wetland 23,404 Sq. Ft. X .66 = 15,447 Sq. Ft.

5) Gross Lot Area 94,368 **Sq. Ft.**
(Subtract Line 4 from Line 3)

6) Floor Area of Existing or Proposed House

A) First Floor 2,558 Sq. Ft.

B) Second Floor 2,679 Sq. Ft.

C) Basement 3,072 Sq. Ft.
Exposed Basement Walls 50 %
1)Adjusted Basement Area 1,536 Sq. Ft.
(Multiply Line 6C by 6C1)

D) Garage 1,039 Sq. Ft.

E) Add Lines A, B, C2, D **Sub-Total:** 7,812 **Sq. Ft.**

7) Additional Floor Area
A) Additions — Sq. Ft.

B) Detached Accessory Buildings — Sq. Ft.

C) Add Lines A and B **Sub-Total:** — **Sq. Ft.**

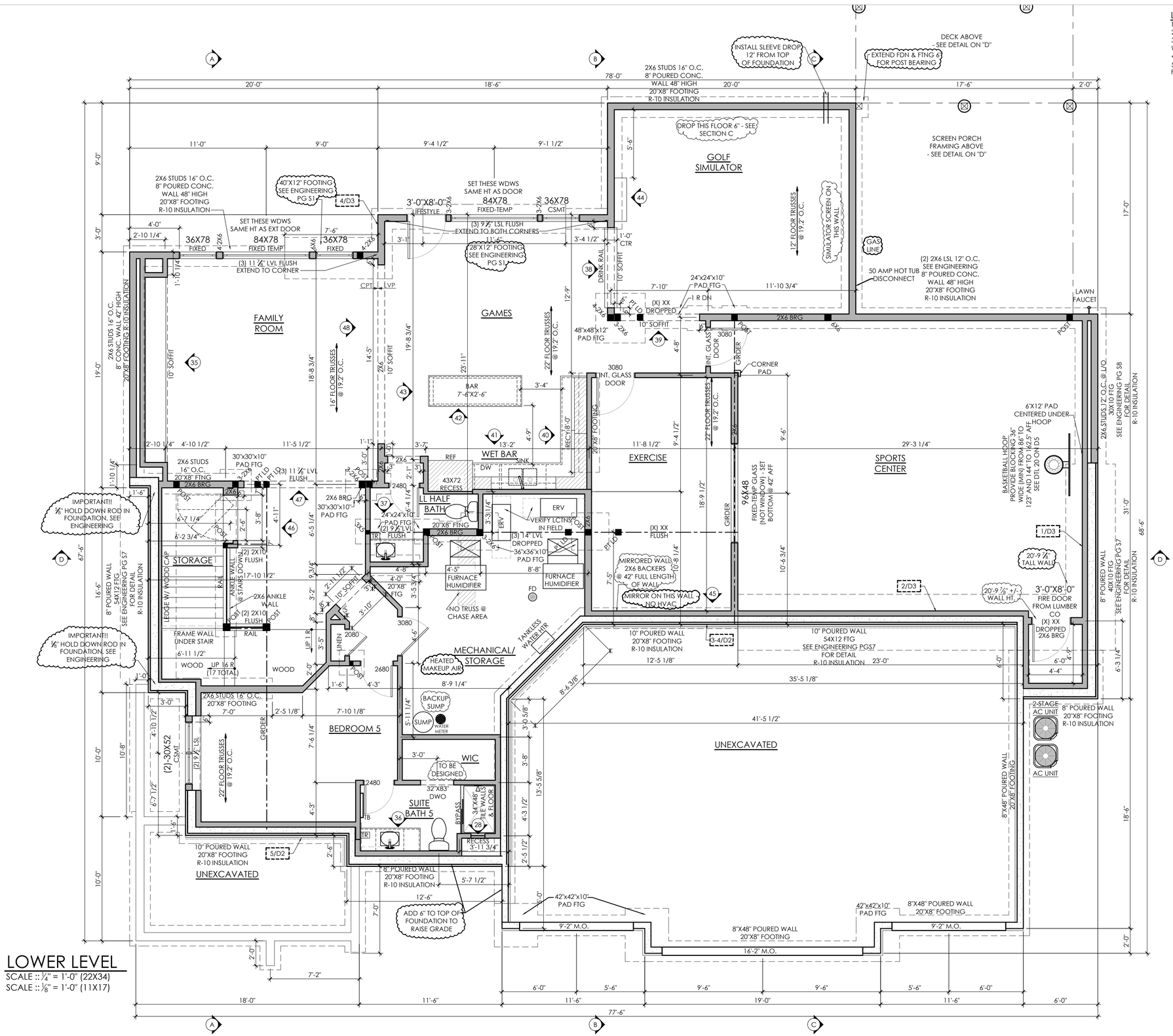
8) Total Floor Area TOTAL: 7,812 **Sq. Ft.**
(Add Lines 6E and 7C)

9) FLOOR AREA RATIO .0828
(Divide Line 8 by Line 5)

Note: For Lots where the combined square footage of all Buildings thereon exceeds 4,000 square feet, then the combined total Floor Area Ratio (FAR) of all Buildings on such Lots shall not exceed 0.12

Date: 3/22 Phone: 952.452.4793 Signature: Scott Hockert

Print Name: Scott Hockert 12/10



LOWER FLOOR PLAN NOTES

1. 8'-10" CEILING HEIGHT UNO
2. 7'-8" WINDOW HEADER HEIGHT @ WALKOUT UNO
3. INTERIOR WALLS @ 24" OC EXCEPT AT BEARING WALLS
4. 2X6 BEARING WALLS UNO
5. ALL INT DOORS PLACED 4½" FROM CORNER FRAMING (4" FROM CORNER ON PLAN)

HANSON BUILDERS

BUILDERS LICENCE #BC004568

13432 HANSON BLVD. NW
ANDOVER, MINNESOTA 55304
763-421-5435

BECKER RESIDENCE

8 SHERWOOD TRAIL

TRACT G
EAST PRESERVE
NORTH OAKS, MN

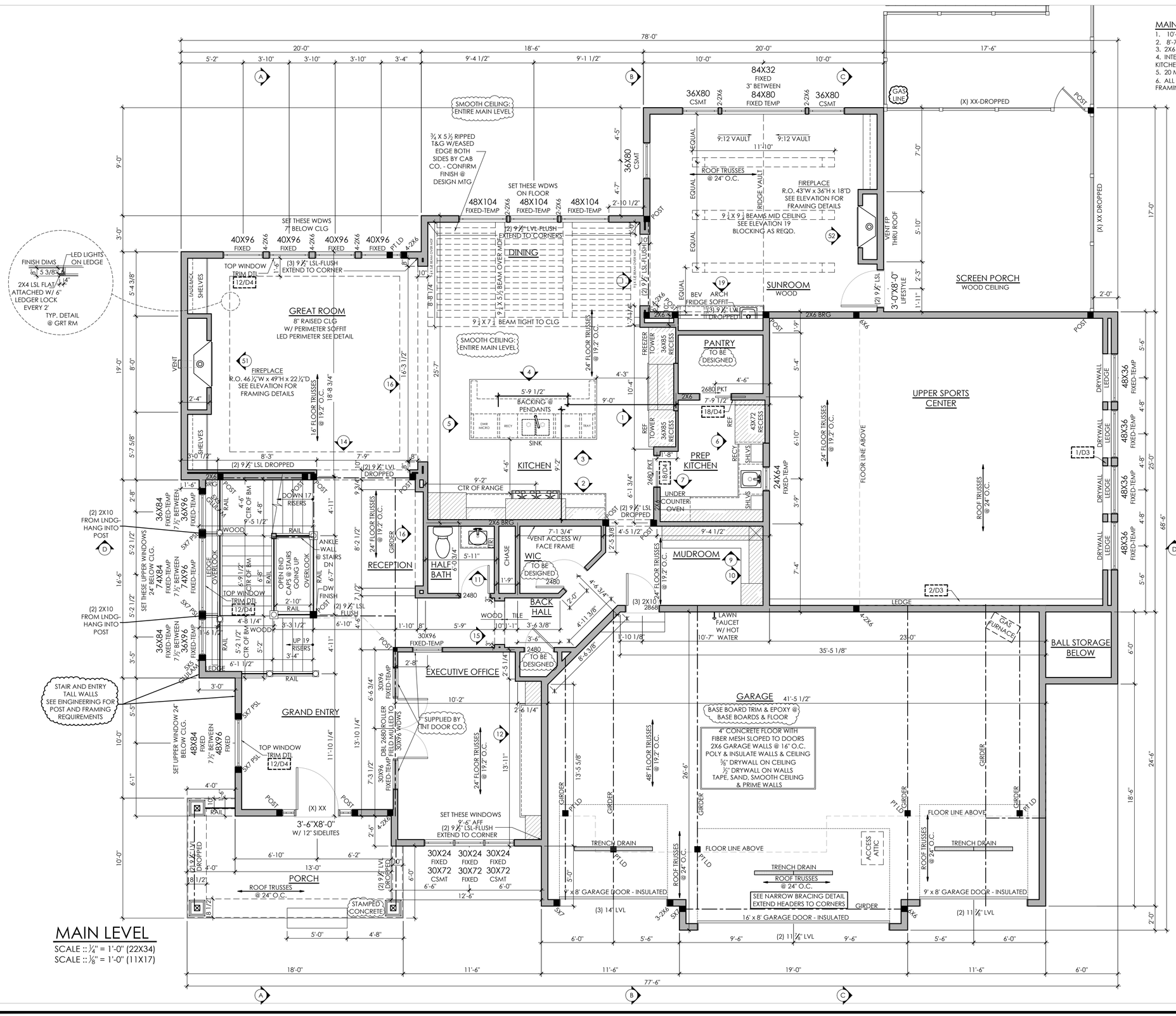
OAKMONT
CUSTOM

WORKFLOW	DATE	BY
MATCH CONTRACT	01/26/24	KW
AMENDMENTS	XX/XX/XX	XX
FILE CHECK	XX/XX/XX	XX
PERMIT PLAN	XX/XX/XX	XX
FINAL PLANS	03/21/23	KW
PLOT DATE: 1/31/2024		

REVISIONS	DATE	BY
REVISION 1	XX/XX/XX	XX

SHEET TITLE
LOWER FLOOR

SHEET NUMBER
A1



HANSON BUILDERS

BUILDERS LICENCE #BC004568

13432 HANSON BLVD. NW
ANDOVER, MINNESOTA 55304
763-421-5435

BECKER RESIDENCE
8 SHERWOOD TRAIL

TRACT G
EAST PRESERVE
NORTH OAKS, MN

OAKMONT
CUSTOM

WORKFLOW	DATE	BY
MATCH CONTRACT	01/26/24	KW
AMENDMENTS	XX/XX/XX	XX
FILE CHECK	XX/XX/XX	XX
PERMIT PLAN	XX/XX/XX	XX
FINAL PLANS	03/21/23	KW

PLOT DATE: 1/31/2024

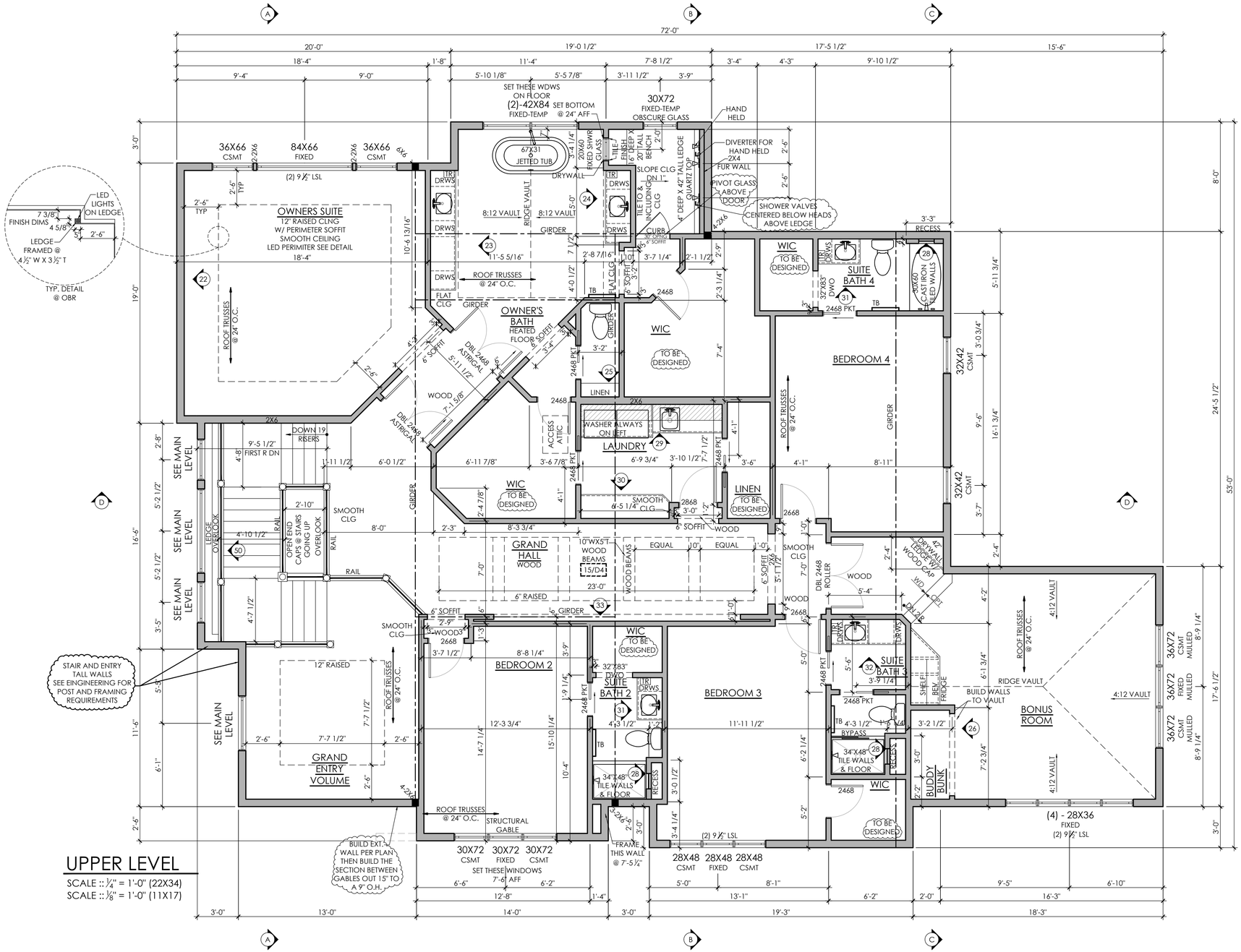
REVISIONS	DATE	BY
REVISION 1	XX/XX/XX	XX

SHEET TITLE
MAIN FLOOR

SHEET NUMBER
A2

UPPER FLOOR PLAN NOTES

1. 8'-1⅛" CEILING HEIGHT UNO
2. 6'-11⅜" WINDOW HEADER HEIGHT UNO
3. INTERIOR WALLS @ 24" OC EXCEPT AT BEARING WALLS
4. ALL INT DOORS PLACED 4½" FROM CORNER FRAMING (4" FROM CORNER ON PLAN)



UPPER LEVEL

SCALE :: ¼" = 1'-0" (22X34)
SCALE :: ⅛" = 1'-0" (11X17)

HANSON BUILDERS

BUILDERS LICENCE #BC004568

13432 HANSON BLVD. NW
ANDOVER, MINNESOTA 55304
763-421-5435

BECKER RESIDENCE
8 SHERWOOD TRAIL
TRACT G
EAST PRESERVE
NORTH OAKS, MN

OAKMONT
CUSTOM

WORKFLOW	DATE	BY
MATCH CONTRACT	01/26/24	KW
AMENDMENTS	XX/XX/XX	XX
FILE CHECK	XX/XX/XX	XX
PERMIT PLAN	XX/XX/XX	XX
FINAL PLANS	03/21/23	KW

PLOT DATE: 1/31/2024

REVISIONS	DATE	BY
REVISION 1	XX/XX/XX	XX

SHEET TITLE
UPPER FLOOR

SHEET NUMBER
A3

REAR ELEVATION

SCALE :: 1/8" = 1'-0" (22X34)
SCALE :: 1/16" = 1'-0" (11X17)

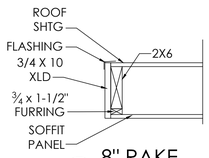
SIDE ELEVATION

SCALE :: 1/8" = 1'-0" (22X34)
SCALE :: 1/16" = 1'-0" (11X17)

ELEVATION NOTES

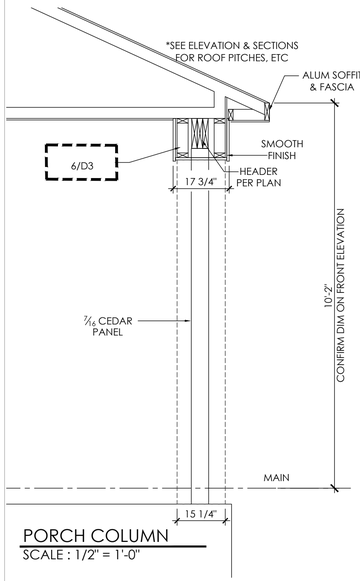
FRONT:
1. 8 ¼" CEMENT BOARD SIDING (7" REVEAL)
2. ¾"X6" TRIM BOARDS @ OPENINGS U.N.O.
3. SEE DETAIL 10/D4 FOR CORNERS U.N.O.
4. NOTE: FILL IN OPENINGS OVER ALL BRACKETS
5. SHIP FRONT DOOR W/ NO BRICK MOULD
6. BOARD & BATTEN @ 24" OC SPACING U.N.O.

SIDES AND REAR (PER NEIGHBORHOOD):
1. 8 ¼" CEMENT BOARD SIDING (7" REVEAL)
2. ¾"X4" TRIM BOARDS @ OPENINGS U.N.O.
3. METAL CORNERS @ BACK U.N.O.



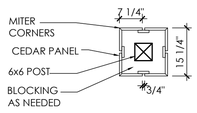
8" RAKE

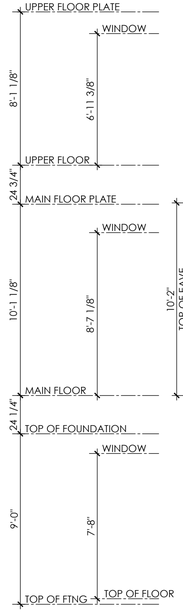
SCALE :: 1" = 1'-0" (22X34)
SCALE :: ½" = 1'-0" (11X17)



PORCH COLUMN

SCALE : 1/2" = 1'-0"





FRONT ELEVATION

SCALE :: ¼" = 1'-0" (22X34)
SCALE :: ⅛" = 1'-0" (11X17)

HANSON BUILDERS

BUILDERS LICENCE #BC004568

13432 HANSON BLVD. NW
ANDOVER, MINNESOTA 55304
763-421-5435

BECKER RESIDENCE

8 SHERWOOD TRAIL

TRACT G
EAST PRESERVE
NORTH OAKS, MN

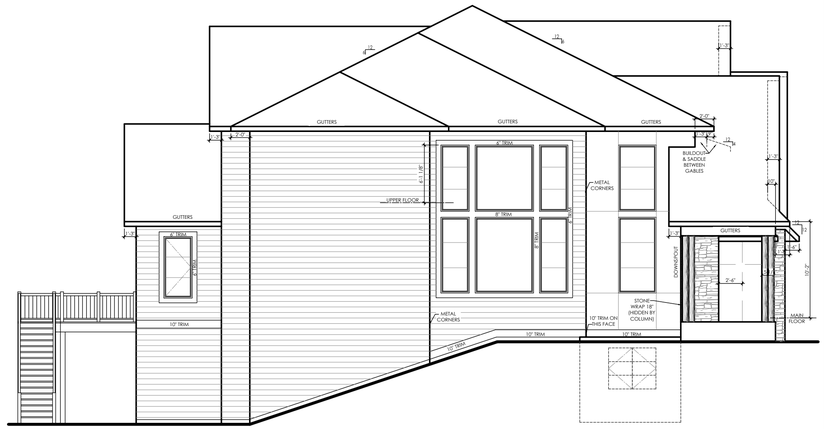
OAKMONT
CUSTOM

WORKFLOW	DATE	BY
MATCH CONTRACT	01/26/24	KW
AMENDMENTS	XX/XX/XX	XX
FILE CHECK	XX/XX/XX	XX
PERMIT PLAN	XX/XX/XX	XX
FINAL PLANS	03/21/23	KW
PLOT DATE: 1/31/2024		

REVISIONS	DATE	BY
REVISION 1	XX/XX/XX	XX

SHEET TITLE
ELEVATIONS

SHEET NUMBER
A4



SIDE ELEVATION

SCALE - $\frac{1}{4}$" = 1'-0" (22X34)
SCALE - $\frac{1}{8}$" = 1'-0" (11X17)

ELEVATION NOTES

FRONT:
1. 8 ¼" CEMENT BOARD SIDING (7" REVEAL)
2. ¾"X6" TRIM BOARDS @ OPENINGS U.N.O.
3. SEE DETAIL 10/D4 FOR CORNERS U.N.O.
4. NOTE: FILL IN OPENINGS OVER ALL BRACKETS
5. SHIP FRONT DOOR W/ NO BRICK MOULD
6. BOARD & BATTEN @ 24" OC SPACING U.N.O.

SIDES AND REAR (PER NEIGHBORHOOD):
1. 8 ¼" CEMENT BOARD SIDING (7" REVEAL)
2. ¾"X4" TRIM BOARDS @ OPENINGS U.N.O.
3. METAL CORNERS @ BACK U.N.O.

HANSON
BUILDERS

BUILDERS LICENCE #BC004568

13432 HANSON BLVD. NW
ANDOVER, MINNESOTA 55304
763-421-5435

BECKER RESIDENCE
8 SHERWOOD TRAIL
TRACT G
EAST PRESERVE
NORTH OAKS, MN

OAKMONT
CUSTOM

WORKFLOW	DATE	BY
MATCH CONTRACT	01/26/24	KW
AMENDMENTS	XX/XX/XX	XX
FILE CHECK	XX/XX/XX	XX
PERMIT PLAN	XX/XX/XX	XX
FINAL PLANS	03/21/23	KW

PLOT DATE: 1/31/2024

REVISIONS	DATE	BY
REVISION 1	XX/XX/XX	XX

SHEET TITLE
ELEVATIONS

SHEET NUMBER
A4.1

February 14, 2024

Kendra Lindahl, AICP
City Planner

Via E-mail: KLindahl@landform.net

RE: **8 Sherwood Trail**
Sambatek Project No. 51986

Dear Kendra:

I have reviewed the Conditional Use Permit request for the overall building height for this parcel.

The proposed home location requires the driveway to be located between 2 existing wetlands. City Ordinance requires a 30-foot setback from all wetlands. This condition cannot be met and I am recommending denial of this request.

Sincerely,
Sambatek, LLC

Michael J. Nielson, PE
City Engineer

CC: Kevin Kress, Administrator

800 County Road E East, Vadnais Heights, MN 55127
www.vlawmo.org

TO: Kevin Kress

FROM: Brian Corcoran Vadnais Lake Area WMO (VLAWMO)

DATE: March 9, 2023

SUBJECT: Comments – 8 Sherwood Trail - Driveway

Please find below, per your request, the VLAWMO "advisory" comments for 8 Sherwood Trail – Driveway, received 3-8-2023. These comments are advisory only given that VLAWMO does not operate a regulatory program for development review with exception of the Wetland Conservation Act (WCA). Our Water Management policy and standards have been adopted and are enforced by our respective City's and Township.

- A MN Routine Assessment Method (MNRAM) worksheet was completed on 4/6/2020, which identifies management classes for each wetland on site. 8 Sherwood Trail wetlands (W9 & W7) are Manage 2 wetlands. Base buffer width of 30ft, Applied buffer with of 24ft. See below table:

Management Class	Base Buffer Width (ft)	Minimum Applied Buffer Width (ft)
Manage 3: Storm Ponds	20	16
Manage 2	30	24
Manage 1	40	34
Preserve	75	67

- Per the Buffer section in the Water Management Policy (chapter 11 "Buffers" starting on pg 26) The buffer width may vary based on demonstrated site constraints, provided that a width of at least 50 percent of the applied buffer width is maintained (in this case that would be 12ft). See section 5 in chapter 11 Buffers.

Brian Corcoran

BODLong@nohoa.org
651-276-4392

SCOTT HOCKERT
VP of Production

HANSON BUILDERS

952.452.4793 | hansonbuilders.com

13432 Hanson Blvd NW, Andover, MN 55304

From: Kendra Lindahl, AICP <KLindahl@landform.net>
Date: Tuesday, March 5, 2024 at 1:43 PM
To: Scott Hockert <Scott@hansonbuilders.com>
Cc: Kevin Kress (kkress@northoaksmn.gov) <KKress@northoaksmn.gov>
Subject: RE: 8 Sherwood

Scott,

Yes, please share whatever information you have about the tree removal and restoration agreement. It may help head off further discussion at the Council.

If you can get your narrative in by the end of the week, that would be great.

We are only going to have 3 council members at the 3/14 meeting, so we will push all of the planning items to the April 11th Council meeting.

Please let me know if you have any other questions.

Kendra Lindahl, AICP
LANDFORM, Principal Planner
Direct: 612-638-0225

From: Scott Hockert <Scott@hansonbuilders.com>
Sent: Monday, March 4, 2024 12:37 PM
To: Kendra Lindahl, AICP <KLindahl@landform.net>
Cc: Kevin Kress (kkress@northoaksmn.gov) <KKress@northoaksmn.gov>
Subject: Re: 8 Sherwood

Good afternoon Kendra & Kevin, I wanted to communicate a couple updates regarding 8 Sherwood and the planning committee meeting:

1. Thank you both for being the voice of reason in the planning commission meeting. I was a little caught off guard with the question on the trees, but I did follow up with my team and I they came to an agreement with Bill Long at NOHOA last week to replace and/or plant a few trees, since so many did have to come down that were diseased or dead. Let me know if you guys want any specifics on this, otherwise there is an agreement in place with NOHOA

2. I do have my narrative for 8 Sherwood reformatted per your guidance below. Awaiting some final pieces of information, but hope to have that back over to you by the end of this week with more supporting materials. Wanted to make sure that timing will be sufficient or if there is some other deadline we need to hit

3. Kevin, per your update at the planning meeting, you mentioned there would not be many council members at the March 14th meeting. Is that meeting still happening or is it being cancelled/rescheduled? I'm in agreeance to your suggestion to push off the CUP approvals for 1 & 2 Sherwood unless there was something else in the works

My forte is coordinating our teams to build homes, not speaking at city meetings, so I appreciate your help on these matters

SCOTT HOCKERT
VP of Production

HANSON
BUILDERS

952.452.4793 | hansonbuilders.com

13432 Hanson Blvd NW, Andover, MN 55304

From: Kendra Lindahl, AICP <KLindahl@landform.net>
Date: Wednesday, February 28, 2024 at 9:48 AM
To: Scott Hockert <Scott@hansonbuilders.com>
Subject: RE: 8 Sherwood

Scott,

I should have included the code. Here is the link to the Code: title_xv_15_-_land_usage.pdf

Kennedy & Graven
Fifth Street Towers
150 South Fifth Street, Suite 700
Minneapolis, MN 55402

(612) 337-9245 direct
bnason@kennedy-graven.com

MEMORANDUM

TO: North Oaks Planning Commission Chair and Members

FROM: Bridget Nason, City Attorney

DATE: March 25, 2024

RE: Zoning Preemption Legislation

---

1. Background

This legislative session, several bills have been introduced that would significantly impact cities' traditional zoning authority. Since their introduction, the bills have been amended to address some of the concerns raised by the League of Minnesota Cities as well as a number of other groups and individual cities with the language in the legislation. The most recent update from the League regarding the changes to House File 4010, and remaining concerns with language still remaining in the bill, is attached to this memo. Additionally, House File 4010 was substantially amended recently, and the current version of that bill is also attached to this memo. While the legislation addresses city zoning authority, and does not appear to impact private restrictions and covenants like those that most properties in the City of North Oaks are subject to, the legislation would still curtail the city's own zoning authority in an unprecedented manner.

2. Requested Planning Commission Action

The Planning Commission is asked to review the attached draft resolution opposing these sweeping legislative changes and make a recommendation to the City Council regarding adoption of the same.

House Committee Advances Amended Multifamily Housing Development Bill

March 25, 2024

Several concerning provisions were either removed from the bill or modified based on the League's feedback and city leaders' advocacy.

On March 20, the House Housing Finance and Policy Committee considered and amended HF 4010 (Rep. Alicia "Liish" Kozlowski, DFL-Duluth) before advancing it by voice vote onto the House State and Local Government Finance and Policy Committee.

Changes to the bill

The House housing committee adopted a delete everything amendment (pdf) that replaced the existing bill's language. The amendment eliminated several concerning provisions based on League advocacy, and includes new provisions that are supported by the League and city stakeholders. Changes made by the delete-everything amendment include:

- Removal of the prohibition of multifamily development being located less than 500 feet from highways, airports, or rail lines.
- Removal of the requirement that cities must approve multifamily development if it is consistent with a city's comprehensive plan.
- Allowing cities to permit multifamily residential development, subject to the bill, to be permitted via a conditional use permit to preserve public health, safety, and general welfare.
- Removal of the 150-foot height requirement, with language that creates more reasonable height requirement restrictions, and the inclusion of language to allow cities to impose other height or setback requirements to ensure compatibility and scale with surrounding properties.
- Replacement of the previously required administrative review process with a process that is consistent with existing Minnesota Statutes, section 15.99.
- Requirements that multifamily residential development containing 13 units or more be allowed as a permitted use in any zoning district that allows for commercial use except for industrial zoning districts where commercial use is not allowed, single-family zoned areas, or any industrial-zoned areas located in an environmental justice area.

Testimony on the bill

The League provided testimony during the hearing, along with City of Eagan Community Development Director Jill Hutmacher, that shared appreciation for the authors of the bill and their willingness to continue to working with the League and cities to address concerns.

While changes in the language based on conversations with the League are appreciated, city testimony continues to focus on concerns that remain with some provisions in the bill, as well as the overarching concern with state preemption of city zoning and land use authority.

Cities are encouraged to review the legislation and provide feedback to the League as well as reach out directly to their legislators.

Read more news articles.

Your LMC Resource

Daniel Lightfoot

IGR Representative & Federal Relations Manager

(651) 281-1295 or (800) 925-1122

dlightfoot@lmc.org

..... moves to amend H.F. No. 4010 as follows:

Delete everything after the enacting clause and insert:

"Section 1. **[462.3571] MULTIFAMILY RESIDENTIAL DEVELOPMENTS.**

Subdivision 1. **Definitions.** (a) For the purposes of this section, the following terms have the meanings given them.

(b) "Affordable housing development" means a multifamily residential development in which:

(1) at least 20 percent of the residential units are for households whose incomes do not exceed 50 percent of the greater of the statewide or area median income; or

(2) at least 40 percent of the residential units are for households whose incomes do not exceed 60 percent of the greater of the statewide or area median income.

The deed or declaration for an affordable residential unit must also contain a restrictive covenant requiring the property to remain affordable housing for at least 30 years.

(c) "City" means a home rule charter or statutory city.

(d) "Commercial use" means the use of land or buildings, in whole or in part, for the sale, lease, rental, or trade of products, goods, and services.

(e) "Cottage housing" means residential dwelling units on a lot with a common open space that either:

(1) is owned in common; or

(2) has units owned as condominium units with property owned in common and a minimum of 20 percent of the lot size as open space.

(f) "Courtyard apartment" means a building with up to four attached residential dwelling units arranged on two or three sides of a yard or garden.

(g) "Duplex" means a two family home, classified as an IRC-2 in the State Building Code and not meeting the definition of townhouse.

(h) "Fiveplex" means a building containing five residential dwelling units intended for nontransient occupancy and not meeting the definition of townhouse.

(i) "Fourplex" means a building containing four residential dwelling units intended for nontransient occupancy and not meeting the definition of townhouse.

(j) "Environmental justice area" has the meaning under section 116.065, subdivision 1.

(k) "Metropolitan area" has the meaning under section 473.121, subdivision 2.

(l) "Multifamily residential development" means a single residential building with at least 13 units or a mixed-use building with commercial use on the ground floor and at least half of the usable square footage is for residential use. "Multifamily residential development" does not include the following housing types:

(1) duplexes;

(2) triplexes;

(3) fourplexes;

(4) fiveplexes;

(5) sixplexes;

(6) townhouses;

(7) stacked flats;

(8) courtyard apartments;

(9) cottage housing; and

(10) single-family detached homes.

(m) "Residential unit" means a residential dwelling for the use of a single owner or tenant.

(n) "Single-family detached home" means any building that contains one residential dwelling unit used, intended, or designed to be built, used, rented, leased, let, or hired out to be occupied, or occupied for living purposes that is not attached to another structure.

(o) "Sixplex" means a building containing six residential dwelling units intended for nontransient occupancy and not meeting the definition of townhouse.

(p) "Stacked flat" means a nontransient residential building of no more than three stories on a lot zoned for residential development in which each floor is a residential dwelling unit.

(q) "Structure" means anything constructed or installed for residential or commercial use which requires a location on a parcel of land. "Structure" does not include nonconformities.

(r) "Townhouse" means a single-family residential dwelling unit constructed in a group of three or more attached units in which each unit extends from the foundation to the roof and with open space on at least two sides. Each single-family residential dwelling unit shall be considered to be a separate building. Separate building service utilities shall be provided to each single-family residential dwelling unit when required by the Minnesota State Building Code.

(s) "Triplex" means a building containing three residential dwelling units intended for nontransient occupancy and not meeting the definition of townhouse.

Subd. 2. **Multifamily residential developments.** (a) Subject to compliance with all municipal zoning standards, multifamily residential developments shall be a permitted use in any zoning district that allows for a commercial use, except for:

(1) industrial zoning districts where a commercial use is not allowed; or

(2) industrial zoning districts that are located in an environmental justice area.

(b) A multifamily residential development may not be constructed on a lot zoned for a single-family detached home unless otherwise authorized by law, rule, or ordinance.

(c) A city may require a conditional use permit for a multifamily residential development only if the specific circumstances of the development raise concerns related to the public health, safety, and general welfare.

Subd. 3. **Applicable zoning standards.** (a) A multifamily residential development must comply with any standards, performance conditions, or requirements, including the adequacy of existing public infrastructure, imposed by a city to promote the public health, safety, and general welfare.

(b) A city must not impose a height requirement on a multifamily residential development that is less than the following:

(1) in a city of the first class, 75 feet;

(2) in a city of the second class, 45 feet;

(3) in a city of the third class in the metropolitan area, 45 feet; or

(4) in a city of the third class outside of the metropolitan area, 35 feet.

(c) A city must not impose a setback requirement on a multifamily residential development that is greater than the smallest required minimum setback distance of any other structure in the same zoning district of the parcel on which the development will be built.

(d) A city may impose a height or setback requirement that is different from the requirements in this subdivision if such requirements would result in a multifamily residential development that would substantially vary in compatibility and scale with surrounding properties.

(e) This subdivision does not apply to a city of the fourth class.

Subd. 4. **Parking requirements limited.** A city may not require more than one off-street parking space per residential unit, except that additional disability parking spaces may be required to meet the requirements of the Americans with Disabilities Act.

Subd. 5. **Affordable housing development; height and mass requirements.** An affordable housing development must be permitted to exceed one or more maximum dimensional standards imposed by city official zoning controls as a zoning density bonus. A zoning density bonus offered by a city for an affordable housing development may include one or more of the following dimensional standards above the maximum base zoning regulations:

(1) a building height increase of at least 35 feet;

(2) an increased floor area ratio;

(3) an increased number of units per acre;

(4) an increased total number of units;

(5) a higher percentage of lot coverage; or

(6) other dimensional standards that increase building size by at least 30 percent more than what is allowed for market-rate multifamily residential developments.

Subd. 6. **Administrative review process.** (a) Notwithstanding any law, rule, or ordinance to the contrary, a city must establish an administrative review process subject to the

procedures in section 15.99 for a multifamily residential development meeting the requirements of this section.

(b) An application reviewed through an administrative review process or other process may not be approved contingent on factors not related to the protection of public health, safety, and welfare; the completion of a study; or the development being a part of a planned unit development if the multifamily residential development complies with this section.

Subd. 7. **Exceptions.** (a) Nothing in this section authorizes a multifamily residential development that is prohibited by state or federal law or rule, or is prohibited under an ordinance adopted pursuant to such a state or federal law or rule, that protects floodplains, areas of critical or historic concern, wild and scenic rivers, shore land, or that otherwise restrict residential units to protect and preserve the public health, the environment, or scenic areas.

(b) A multifamily residential development may not be inconsistent with approved plans under chapter 103B.

EFFECTIVE DATE. This section is effective January 1, 2025."

Amend the title accordingly

CITY OF NORTH OAKS
RAMSEY COUNTY, MINNESOTA
RESOLUTION NO. _____

A RESOLUTION SUPPORTING RETENTION OF CITY ZONING AUTHORITY

WHEREAS, decisions about local zoning and land use that best fit community needs are best left to city residents and officials;

WHEREAS, cities use zoning and land use regulations to balance property usage, plan for community growth, and preserve natural resources among others;

WHEREAS, the Minnesota State Legislature, in an attempt to address housing availability and affordability challenges, is considering measures that would preempt city authority to regulate land use and zoning and assign that authority to state government;

WHEREAS, passage of those measures would inadequately address housing availability and affordability challenges;

WHEREAS, a rigid framework for land use and zoning mandated by the state makes little sense and cities require flexibility to address their own unique circumstances;

WHEREAS, while some of the objectional provisions have been removed from the pending legislation, other concerning measure remain;

WHEREAS, cities across the state have already put in years of work to address zoning issues, and continue to do so, with the help of community engagement, and cities should not be preempted from exercising appropriate local control over zoning matters.

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF NORTH OAKS MINNESOTA AS FOLLOWS:

The City Council of the City of North Oaks hereby:

1. Opposes state proposals that seek to preempt local zoning and land use decision-making when it comes to residential development.

2. Urges the legislature to take into consideration the many concerns raised by the League of Minnesota Cities and numerous other Minnesota cities with respect to the proposed zoning-related legislation, namely Senate File 1370 and House File 4010.

3. Supports constructive policy alternatives to incentivize and bolster city efforts for addressing housing challenges.

This Resolution is passed and adopted by the North Oaks City Council this 11th day of April, 2024.

_____
Krista Wolter, Mayor

ATTEST:

_____
Kevin Kress, City Administrator/City Clerk