



CITY OF

NorthOaks

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CITY OF NORTH OAKS

Regular Planning Commission Meeting

Thursday, May 28, 2020

7 PM, Via Teleconference or Other Electronic Means Only

The meeting can be viewed live via the web broadcast on the City website.

Those wishing to provide comment during the Public Hearing - click the link below to join the webinar:

<https://us02web.zoom.us/j/89761089500>

Or iPhone one-tap : US: +13126266799,,89761089500#

Or Telephone: US: +1 312 626 6799 Webinar ID: 897 6108 9500

Due to the existing COVID-19 Health Pandemic, no more than five (5) members of the public may be in Council Chambers (Community Room, 100 Village Center Drive, MN) during the meeting. Once room capacity is met, anyone wishing to attend the meeting above the five (5) members of the public who may be present in the room during the meeting will be required to monitor the meeting remotely as noted above. Please note that one (1) of the public spots will be reserved for individuals wanting to make a presentation during the continued public hearing portion of the meeting.

MEETING AGENDA

1. Call To Order

2. Roll Call

3. Pledge

4. Approval of Agenda

5. **Citizen Comments** - *Individuals may address the Planning Commission about any item not included on the agenda. Speakers are requested to come to the podium, state name and address for the clerk's record, and limit their remarks to three minutes. During the pandemic, when meetings are held virtually, speakers will be able to call in to the meetings to make remarks, or request that submitted comments are read by a member of Commission or the City Staff. Generally, the Commission will not take official action on items discussed during the citizen comment period, but Commissioners may refer the matter to City Staff for a future report or direct that the matter be scheduled on an upcoming agenda.*

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

6a. Approval of Planning Commission Meeting Minutes of 4/14/20, 4/25/2020 and 4/30/2020

[4-30-2020 Planning Commission Minutes - timesavers.docx](#)

[04.14.2020 Planning Commission Minutes.docx](#)

[04.15.2020 Planning Commission Minutes.docx](#)

7. Business Action Items

7a. Consider Variance 20-03 - Septic Replacement system at 16 Sunset Lane
[16 Sunset - Septic Variance application.pdf](#)

[Variance 16 Sunset Lane.doc](#)

8. Commissioner Report(s)

9. Adjourn

**North Oaks Planning Commission
Meeting Minutes
City of North Oaks Community Meeting Room
April 30, 2020**

CALL TO ORDER

Chair Azman called the meeting of April 30, 2020, to order at 7:00 p.m.

In compliance with Governor Walz’s Stay-at-Home Order and pursuant to Minnesota Statutes 13D.021, the meeting was conducted via Zoom.

ROLL CALL

Present: Chair Mark Azman, Commissioners David Cremmons, Jim Hara, Stig Hauge, Nick Sandell, Sara Shah, and Joyce Yoshimura-Rank. City Council Liaison Rick Kingston.

Staff Present: Administrator Kevin Kress, City Engineer Larina DeWalt, Building Inspector Kevin White.

Others Present: Videographer Maureen Anderson.

A quorum was declared present.

APPROVAL OF AGENDA

- Chair Azman requested the agenda be revised so that Item 6 is changed to a discussion of a potential tree ordinance being created by the Natural Resource Commission (NRC) and the remaining items renumbered.
- Commissioner Shah stated she did not know if it was a potential item or not, but she has been wondering where the Commission is at with the Comp Plan; she asked if it was possible to get an update or if it should be deferred to another meeting.
- Administrator Kress said there is no update; City Staff has not heard anything from Met Council.
- Chair Azman suggested the agenda be revised so that Item 7 reflects the Planning Commissioners were given the update about the Comp Plan.
- Administrator Kress suggested listing the additions as Items 5c and 5d on the agenda.

MOTION by Hauge, seconded by Sandell, to approve the agenda as revised, with Items 5c and 5d added to the agenda. Motion carried unanimously by roll call.

APPROVAL OF PREVIOUS MONTH’S MINUTES

a. Approval of February 27, 2020 Minutes

MOTION by Yoshimura-Rank, seconded by Cremmons, to approve the minutes of February 27, 2020. Motion carried unanimously by roll call.

BUSINESS ACTION ITEMS**a. Public Hearing: 15 Ridge Road Grading CUP**

- Chair Azman reminded everyone the State is under an existing Stay-at-Home Order from Governor Walz and the meeting and public hearing is being conducted virtually. The Zoom address has been published, allowing the public to hear and speak. He called the public hearing to order at 7:10 p.m. on April 30, 2020, for the purpose identified in the notice of hearing: to consider the Conditional Use Permit (CUP) application at 15 Ridge Road. The hearing will allow the public an opportunity to speak and be heard. He asked Staff for a presentation.
- Administrator Kress stated Building Official White could do a brief presentation followed by City Engineer DeWalt.
- City Engineer DeWalt, due to technical difficulties experienced by Building Official White, presented the Planning Report included in the packet and recommendation for approval of the Conditional Use Permit (CUP) application to allow the completion of land reclamation activities on the property at 15 Ridge Road for the construction of his home, with exception to the 30-foot grading setback, subject to conditions as outlined in the packet.
- Commissioner Hauge said he did not understand how the filling material would be distributed on the property, specifically, the purpose for it. He asked for additional explanation.
- City Engineer DeWalt indicated the property owner could also speak at the appropriate time, but according to the grading cut and fill plan that was submitted, she believes there was a previously existing swimming pool area and some other **sub cut** areas that are being filled. The fill on the proposed property will be used to backfill the house, create a new driveway area in the front, and landscape areas around the home. Based on the site elevations, it has been determined, according to the design, this activity is necessary. The total fill required after sub cutting the existing grade -- cutting below what is necessary for construction of the home and driveway, which produces extra material -- is 1,210 yards. 800 yards are already on the site, and they need an additional 410 yards of material.
- Commissioner Hauge noted it sounds like a minor issue. The Resolution indicates they cannot exceed 1,210 cubic yards, and he asked why they would not be allowed to exceed that amount, adding that 1,300 cubic yards does not matter. He stated that it looks to him as though it should have been settled by Administration.
- City Engineer DeWalt stated in her personal experience and opinion she would agree with Commissioner Hauge, that it is more of a paperwork exercise than anything, but code requires approval by the Planning Commission.
- Commissioner Shah asked for verification that the neighbors have been notified about the potential CUP and asked if there was any feedback/comment from neighbors.

- Administrator Kress said the City sent letters/correspondence and did not get any phone calls or emails, to his knowledge.
- Building Inspector White stated the applicant wanted to haul in fill and level off his backyard. What the applicant wants to do in his backyard has no effect on any of the adjoining properties. It also has no effect on his home because it is to the west of the house.
- Chair Azman asked if Building Inspector White had any objections or concerns about the application.
- Building Inspector White stated he did not.
- Commissioner Cremmons noted he does not have a problem with the application. In the past there have been issues with people raising the elevation of their houses as part of the construction, causing issues with drainage, etc. He said in this case the elevation of the house looks like it's about the same as the house that was there before and asked if that was correct.
- Building Inspector White said Commissioner Cremmons was correct.
- Commissioner Hauge noted the house was already built.
- Commissioner Sandell asked if this was the same property that had the easement with the golf course.
- Building Inspector White indicated it was.
- Commissioner Hauge indicated it was and noted that he would like the driving range if he was a golfer.
- Jon Reedy, 15 Ridge Road, explained that when they tore the existing house down, they didn't fill in the hole that was there before. There was also a large swimming pool. When they submitted for a permit, they had the elevation shown, and it requires fill to be brought in. If they would have filled in the pool and the home, there would be less fill that needed to be brought in, but it would have been brought in with the tear-down permit.
- Commissioner Hauge said he understands there needs to be a discussion about the issue because of code requirements. He asked Mr. Reedy if 1,210 yards would be enough. He noted the Resolution says the Commission will give him permission to do exactly 1,210 cubic yards, and he suggested 10% over that for a total of 1,331 cubic yards. He asked Mr. Reedy how sure he was about the number, because the Commission does not want him back to discuss it again.
- Mr. Reedy stated he is not an excavator or surveyor and that is what the surveyor came up with. He is also not sure how that would be monitored.

- Commissioner Hauge said he does not see that 10% over the 1,210 cubic yards would be a problem. He would move at some stage to give Mr. Reedy a little extra, like 1,300 cubic yards, instead of the 1,210 cubic yards, if that was okay with Mr. Reedy.
- Mr. Reedy stated he thought that was reasonable.
- City Engineer DeWalt said what Commissioner Hauge is suggesting is reasonable, but the code does not require any approvals for land reclamation involving less than 100 cubic yards. If the applicant gets to 1,210 and needs less than 100 more, he would not need a CUP.
- Chair Azman asked Administrator Kress how it should be worded in the Resolution such as, “shall not exceed 1,210 cubic yards and up to an additional 10% as may be needed” subject to submitting something to the City so the City knows, and asked if something like that would be needed.
- Administrator Kress said he did not know if it needed to be that detailed. If it was him doing it, he would just change the verbiage to “estimated” instead of a very strict defined number. The Resolution is actually for the City Council’s consideration, so the Planning Commission can make those alterations with the motion.
- Chair Azman asked if there were any objections to Commissioner Hauge’s suggestion, adding that he thought it was a good idea.
- Commissioner Sandell said it sounded efficient.

MOTION by Yoshimura-Rank, seconded by Hauge, to open the public hearing for the CUP. Motion carried unanimously by roll call.

- Chair Azman opened the public hearing at 7:26 p.m. He reminded the attendees, if they would like to speak, to click the “raise your hand” button, and then he could unmute the audio and allow them to be heard.
- There were no public comments regarding this application.

MOTION by Hara, seconded by Shah, to close the public hearing. Motion carried unanimously by roll call.

Chair Azman closed the public hearing at 7:29 p.m.

b. Discussion and consideration of Resolution recommending City Council approval of CUP for land reclamation activities at 15 Ridge Road

- Chair Azman asked for a motion to take action on the CUP either through approval or denial.
- Administrator Kress noted the motion should be to recommend approval of the CUP to the City Council in the Draft Resolution.

- Chair Azman asked for a motion to recommend approval utilizing the proposed Resolution in the packets subject to a change in Paragraph 1, stating “approximately 1,210 yards,” to give the applicant a little bit of wiggle room.
- Administrator Kress clarified that it is a motion to recommend approval and recommendation of the approval of the Draft Resolution with the changes as stated by the Chair.
- Chair Azman asked if he was correct that Commissioner Hara had a motion to approve on those grounds.

MOTION by Hara, seconded by Yoshimura-Rank, to recommend approval of Resolution Approving a Conditional Use Permit for Land Reclamation Activities on Real Property Located at 15 Ridge Road, North Oaks, Minnesota, subject to the fulfillment of conditions 1-4 and subject to a change in Paragraph 1 stating “approximately 1,210 yards.” Motion carried unanimously by roll call.

c. Discussion of potential tree ordinance being created by the Natural Resource Commission (NRC)

- Councilmember Kingston noted this item came before the City Council about 5 years ago. At the time there were a couple episodes of residents clearcutting their properties, which was not well-received. There were other challenges the City was facing such as Dutch elm disease, Emerald ash borer, and also the buckthorn issue. That was the first attempt for a proposed ordinance to deal with trees in general. When it first came before the Council, it was not necessarily well-received by the community and essentially got tabled. He said Administrator Kress had a chance to see there had been some work done on the item and thought it was important to bring it back before the Council to see if the Council needed to re-engage on the topic. Currently there is no action that has been set on this particular draft ordinance; it is essentially the start of one to engage the community further. Council may or may not decide to engage in that right now, but it is on the agenda as an informational item to see where the Council wants to go with it. There is no action being taken on the draft ordinance that was circulated. It is in its infancy stage in terms of what direction the City might want to take in the future.
- Administrator Kress said the City sent it to the NRC for an initial review. They had a very light discussion regarding the tree ordinance; the City Forester was there as well. It was suggested that it move on to a subcommittee. The subcommittee has had one meeting with a few members of the Natural Environment Stewardship Team (NEST) from the North Oaks Home Owners Association (NOHOA). There has not been a second meeting yet. There have been no updates to the draft which was sent to the Planning Commission/City Council.
- Councilmember Kingston stated it was sent out as an informational item to the City Council, so the Council has not been doing anything to it from an activity standpoint. The next question is, where does the City want to go from here.

- Administrator Kress agreed with Councilmember Kingston. He stated the original ordinance is at least 5 years old and has not been worked on since he has been with the City.
- Commissioner Shah asked if it went to the City Council 5 years ago when it was initiated by the NRC.
- Councilmember Kingston said he believes it came up as an informational item and the draft had been circulated. At that time, it did not seem to get much traction with the community and there were a lot of concerns with it. It went into a dormant stage, which is kind of where it has been since.
- Commissioner Shah asked Councilmember Kingston or Administrator Kress their opinion on the Planning Commission's involvement with this, noting she used the word "this" because she is not sure if the ordinance will move forward or not.
- Councilmember Kingston stated, because the Planning Commission was involved at that time, he felt the Commission should be involved at this time. He said they should be part of the process, as they would need to act on some permits that come in that might have potential tree-related issues. In addition, he noted that people were concerned that, with the way the ordinance was drafted, it might have some significant impacts on the East Oaks development. He stated East Oaks is covered under a completely different PUD and is not part of any other ordinance that might be enacted by the City. It is a completely separate issue and it would not have any impact on any development plans currently in progress.
- Commissioner Yoshimura-Rank asked whether an entirely different plan would need to be created just for the East Oaks development.
- Administrator Kress said Councilmember Kingston is saying that North Oaks Company (NOC) would have to accept the ordinance as a change, no different than any other change to ordinances like zoning.
- Councilmember Kingston stated an ordinance would actually have to be passed and then NOC would have to make a decision as to whether or not they wanted to be part of that. They already have the terms of their agreement that have been set forth in the PUD, so it would really not come into play unless they chose to somehow engage with a new ordinance that the City might come up with.
- Commissioner Shah asked Administrator Kress what sort of timeframe he was anticipating: May, June, July.
- Administrator Kress said it is hard to say at this point. He agrees with Councilmember Kingston that it is in its infancy stages. It has only been looked at a handful of times. It

started off fairly slow, there would need to be a closer look at it with the City Forester, so it could be July or so. The City has not spent a lot of time on it recently.

- Councilmember Kingston stated the Council has not spent any time on the matter in recent history. In order for it to move forward, the ordinance has to be brought up before the City Council and get a sense for where people want to go with it, and then give some direction to NRC and others. He said it makes sense to have some type of tree ordinance. He suggested that Administrator Kress should give the Planning Commission a bit of his background as far as some ordinances he has been involved with at other cities and his experience in the area. He stated North Oaks has some unique situations with invasive species like buckthorn that need to be addressed, and a place to do it would be in a tree ordinance.
- Administrator Kress said he created an ordinance with the City of Clearwater, which would probably be much different than North Oaks'. Generally, they are more of a preservation plan than they are a strict tree ordinance. It involves planting, cutting, restrictions on width of trees, number of cuttings, and the types of replacements that are allowed. He noted Maplewood has a pretty good tree preservation plan; Shoreview does a pretty good job of doing tree inventories and updating their stock from time to time. The big difference is, North Oaks doesn't own any property; all the property is owned by NOHOA.
- Commissioner Shah asked if there was any opportunity from a public standpoint for people to get engaged if they are interested, adding that it sounds like there is a subcommittee with the NRC. She asked if there were any words of wisdom for those in the public hearing about the item.
- Councilmember Kingston said it will be on the agenda for the next Council meeting, a discussion about it and suggestions about ways to move forward. At that point the Council can talk about the proper steps the Council would like to see in terms of who should be engaged and how people can get involved if they would like to do so.
- Commissioner Cremmons stated Councilmember Kingston mentioned there was some bad feedback in his past experience with an attempt to get an ordinance. He asked if the issue ever went before the Council for a vote.
- Councilmember Kingston said he did not remember it going up to any vote.
- Commissioner Cremmons asked how the negative feedback was expressed and how large the group of people was. He clarified he was not asking for exact numbers but just a general feeling.
- Councilmember Kingston stated it was 5 years ago, he remembers getting feedback from people that saw the proposed ordinance and felt it was overreaching, and they had a number

of concerns in that regard. He said it seemed like there were people that spoke at the meeting when it was under discussion. However, it did not go any further at that particular point.

- Commissioner Cremmons asked if NOC expressed any kind of positive, negative, or neutral views towards an ordinance such as this for the long-term.
- Councilmember Kingston said he did not even know about this until Administrator Kress sent the proposal around for discussion, so he does not know if NOC has been involved in it.
- Administrator Kress stated NOC has not been involved in the process for the ordinance.
- Commissioner Cremmons said he would like to see at least some effort by the Council to advance this for discussion in the community, because a well-drawn pre-ordinance would be very consistent with what North Oaks is trying to do and also prevent some of the things that have happened in the past with clearcutting. He stated it would be a balancing act to come up with something that makes sense but would be worth the effort. He hopes the Council will take it seriously and try to advance it.
- Councilmember Kingston stated he could only speak for himself, but he felt it is something the Council needs to address. There are a lot of different issues in the health of North Oaks' forests, and he wants to make sure the right kind of expertise, such as Foresters, is giving the City guidance in terms of what is best for the community to maintain its pristine environment. He said it is within the City's wheelhouse and they need to look at that. He appreciated the comments and supports taking a close look at the ordinance to see what they can do, what areas the City should be commenting on, where the greatest need is, and making sure there is plenty of community input in terms of what direction to take.
- Commissioner Yoshimura-Rank said she thinks it is really important to emphasize saving larger trees and replanting because at Anderson Woods there are 100 trees being cut down, and that will continue to happen as development continues. She also thinks the City needs to move quickly.
- Councilmember Kingston noted he will see how it goes at the next Council meeting.

d. Update on Comp Plan

- Administrator Kress stated there is no Comp Plan update. It was discussed internally and they chose not to push the issue. There is no reason for the City to get extra attention from the Met Council at this time, and North Oaks will let it sit until the Met Council gets back to them.
- Commissioner Yoshimura-Rank asked when the Comp Plan was due.

- Chair Azman asked if she meant by year or month.
- Administrator Kress said he thought it was February. He clarified that the latest draft was due prior to that. Nobody made the deadline as far as he is aware; every city is traditionally behind the mark on that front.
- Chair Azman asked if there is any thought, if the City does not hear anything, that at some point the City may have to take some affirmative steps.
- Administrator Kress said he did not know that the City would hear anything until the State is out of the shelter-in-place, adding he thinks they are up to their eyeballs with other stuff going on and that is why the City has not heard anything.

COMMISSIONER REPORT(S)

- Chair Azman said he did not have a report this month but it has been busy with the last couple of hearings. He is not on any other committees to report back on to the Commission.
- Commissioner Yoshimura-Rank had no updates. She asked what it was looking like for the Planning Commission's next public hearings.
- Administrator Kress stated the Governor's orders are until May 18. He does not think an in-person meeting will be allowed, because his understanding is there will still be 6-foot distancing in effect. He noted that would not be possible just with the 7 Planning Commission members and any consultants in the Council Chambers.
- Chair Azman asked, assuming the extension does not go beyond May 18 and the Planning Commission tries to do something in-person, if there was a way to place some Commissioners in the room, some would be virtual, and then allow people in a controlled fashion to cycle in, make a comment, and leave. He noted that would be to accommodate some concerns about the virtual hearings, particularly for the higher-level interest applications.
- Administrator Kress said it is a yes and no answer. If you have certain members in the Council Chambers, anyone not present that wants to participate by video has to be in a public place that can be accessed by anyone.
- Chair Azman asked, if the City is still operating under Minn. Stat. § 13D.021, whether the virtual component could be utilized for portions of the meeting or some members but not all members of the Commission. He noted it was more of a talking point.
- Administrator Kress said he would probably have to visit with City Attorney Nason. The latest order was just given so he has not visited with her on anything moving forward

- Chair Azman asked Administrator Kress to keep it in mind and take a look at it in light of the interest on the applications. If it cannot be done because it cannot be done, that is fine; but at least the City has considered and talked about it. He asked Administrator Kress to talk with City Attorney Nason, other Staff, the Council, and whoever needs to join in on the appropriate decision-making.
- Administrator Kress agreed to Chair Azman's request.
- Chair Azman stated he brought it up because he has gotten feedback/comments from residents about doing something like that, which he thinks the Planning Commission was trying to do when setting the last public hearing.
- Commissioner Hara had no comments. He encouraged the rest of the Commissioners to walk through the proposed trail so they understand what people are talking about at the next meeting.
- Commissioner Hauge asked if they could do that, noting it would be trespassing in technical terms.
- Commissioner Hara said he thought there were people out there volunteering to walk people. He stated NOHOA would take people on the tour.
- Commissioner Hauge stated the Commissioners have been informed by the Company that they couldn't walk the trails on that property without permission.
- Commissioner Hara said it would be hard to make a good judgment on something if someone has no idea what the trail looks like and how it impacts the residents, in his opinion.
- Commissioner Hauge asked Administrator Kress what the stance is on the issue.
- Administrator Kress said it would be a good idea to get permission from NOC for any property they own. If it is on the easements that are already in place, that is NOHOA property currently.
- Councilmember Kingston doubted they would give anybody any grief if people wanted to walk the trail and they would make arrangements to let people do that.
- Commissioner Cremmons stated that Commissioner Yoshimura-Rank and himself walked it a few days prior with NOHOA people and it was fine.
- Commissioner Hara said he had nothing else.
- Commissioner Sandell stated he had nothing to add.

- Commissioner Shah noted everyone had already covered her questions so she was good.
- Commissioner Hauge said he had nothing to report.
- Commissioner Cremmons said he had nothing to report.

MISCELLANEOUS

Next Meeting: May 28, 2020

ADJOURN

MOTION by Yoshimura-Rank, seconded by Hara, to adjourn the Planning Commission meeting at 7:58 p.m. Motion carried unanimously by roll call

Kevin Kress, City Administrator

Mark Azman, Chair

Date approved _____

**North Oaks Planning Commission
Meeting Minutes
City of North Oaks Community Meeting Room
April 14, 2020**

CALL TO ORDER

Chair Azman called the meeting of April 14, 2020, to order at 6:00 p.m.

In compliance with Governor Walz's Stay-at-Home Order and pursuant to Minnesota Statute 13D.021, the meeting was conducted via Zoom.

Chair Azman noted there have been a lot of emails, mostly from concerned citizens, about meeting virtually: it doesn't provide the public with the optimum ability to meaningfully participate; some citizens might not have sufficient technology; the meeting should be postponed; and there might be some problems with the meeting notice. He shared with everyone some reasons why the meeting is moving forward in this manner: Governor Walz's Declaration of Peacetime Emergency by Executive Order effective through May 13; his Stay-at-Home Order effective through May 4; and the North Oaks City Council Resolution consenting to the Mayor's Declaration of Emergency which extends through May 19 and authorizes the Planning Commission and other bodies to meet remotely pursuant to Minnesota Statute 13D.021 involving situations where there is a pandemic. He also noted there are 2 pending subdivision applications, and they need to be moved through due to the 120-day rule. They thought about waiting to see if there would be an opportunity to meet in-person, and it does not look like there will be a blanket statement of, "We're done; everybody go back to normal." The concern is that there will not be a real opportunity to meet in-person in the near future with respect to the 2 applications while complying with the social-distancing and masking recommendations. Another reason to move forward is to give the Planning Commission the ability to proceed and get their feet wet in a hearing process with a virtual format. He noted that at the end of the meeting, instead of asking for a vote, the public hearing may be continued to a date in May that will be re-noticed to allow further public comment. He will also ask the Commission to not vote regarding the application in order to try and accommodate the various concerns that have been expressed to the Commission and Staff about meeting virtually. He asked City Attorney Nason to offer an opinion on whether a public hearing as opposed to a public meeting is permitted by virtual means and how the impact of a 120-day rule would apply.

City Attorney Nason stated the meeting is being conducted by telephone/other electronic means because, pursuant to Minnesota Statute 13D.021, an emergency exists and has been declared under Chapter 12, and a health pandemic exists. Under state statute, any meeting governed by Section 13D.01 may be conducted by telephone/other electronic means where, due to the circumstances outlined, it is neither practical or prudent to meet in public/in a public setting. This includes all components of a public meeting, including public hearings. She said Minnesota Statute 462.358 requires that applications for preliminary plan/preliminary plat approval for a subdivision be acted upon within 120 days from the date a completed application is received by the City. The League of Minnesota Cities has been working to obtain some type of legislation that would extend the 60-day rule and 120-day subdivision application rule. To date there has

been no legislative action, which means the statutory provisions which require the City to take action or, by its inaction, to have an application be deemed approved by default, apply to this situation. The City has to move forward with the application at this time, absent confirmation by the applicant to delay the proceeding or a legislative change that would overdate the 120-day deadline. She said although it is more challenging to meet in the electronic space, that is the situation the City is in. Other cities are in the same situation, not only with respect to meeting by electronic means, but also having to conduct public hearings via electronic means. Many cities are also in the process of moving forward with approving special assessments for street or road projects, all of which require a public hearing, and are working to adapt and meet the public hearing requirements in the electronic space. It is contemplated that there may be a motion made to continue the public hearing and to continue the meeting to a date towards the end of May, outside of the current declared emergency and shelter-in-place order. No one knows whether that will result in an in-person meeting, but it is a possibility. It is a challenging environment to navigate, but all cities and governmental subdivisions in the State are dealing with it at this time.

Chair Azman asked City Attorney Nason to explain what the impact of the 120-day rule is on the Planning Commission's obligation to move forward.

City Attorney Nason said that from the date of complete application as received by the City, the City has to take action to either approve or deny an application for a subdivision. If the City fails to do so, the application is deemed automatically approved, unless there is consent by the applicant to extend the deadline or some type of legislative change which extends the deadline for some period of time as a result of this pandemic. At this time, the City has to act or the application will be deemed approved.

Commissioner Shah asked for clarification of dates to get the application to the Council in time, noting there will be a May 28 Planning Commission meeting and the following City Council meeting is June 4.

Administrator Kress stated the City Council has until June 23 to take action on the application.

Chair Azman noted that if the Planning Commission pushed until the end of May to accommodate the various emergency declarations, it should provide the Planning Commission the optimum amount of time/ability to meet again, hopefully have an in-person meeting, and still be able to conclude and provide a recommendation to the City Council.

Commissioner Hauge asked if there was a Planning Commission meeting on April 30.

Administrator Kress said there is a meeting planned for April 30, which will be a separate public hearing for a Conditional Use Permit. If the Planning Commission is interested in extending this meeting out, there will be some options at the end of the meeting which also give the City Council sufficient time to act on the application on or before June 23. He also indicated every motion would need to be done by roll call as part of the virtual meeting process.

Commissioner Sandell asked Chair Azman to walk through the logistics going to the next meeting, wondering whether the Planning Commission would go through the entire

agenda/conversations again, or if everything that was discussed and considered in this meeting would count and it would be a 5-minute meeting, or how the 2 meetings would work together.

Chair Azman stated there might be some overlap and duplication. His request of the Commission would be to not deny anyone who would like the opportunity to speak/present, whether tonight or at the next meeting, to optimize the Commission's ability to hear everyone. He expected that the Commission would not need a full-blown Staff report at the next meeting, but if there were persons that wanted to speak or speak again, the Commission would provide that opportunity. He felt that would fully accommodate the concerns expressed about meeting virtually, notices, and things of that nature. He said he would give additional instructions to members of the public on how to participate and reminded everyone to stay muted to help with background noise. He noted the Planning Commission received a lot of public comments from people separate from the meeting and that they would get that information in the record.

ROLL CALL

Present: Chair Mark Azman, Commissioners David Cremmons, Jim Hara, Stig Hauge, Nick Sandell, Sara Shah, and Joyce Yoshimura-Rank. City Council Liaison Rick Kingston.

Staff Present: Administrator Kevin Kress, City Planner Bob Kirmis, City Attorney Bridget Nason, Engineer Larina DeWalt, City Forester Mark Rehder.

Others Present: Videographer Maureen Anderson.

A quorum was declared present.

APPROVAL OF AGENDA

MOTION by Hauge, seconded by Yoshimura-Rank, to approve the agenda as submitted.

Roll call vote: Ayes 7 (Hauge, Sandell, Shah, Yoshimura-Rank, Cremmons, Hara, Azman), Nays 0. Motion carried unanimously.

Commissioner Hara stated he has relatives that are residents of North Oaks that have gone on record opposing the current Nord concept development plan. He views his role as a Planning Commission member to support the North Oaks community at-large and not any specific individual/group. He has been a resident for over 30 years, and his votes and comments are based on his passion for the community. He wanted to put on the record that he is not biased toward any person or group of people.

Chair Azman noted the meeting is being conducted via Zoom, and there are panelists -- Planning Commissioners, Staff, Council member Kingston, and the applicant -- and also the attendees who he can see and call upon. Members of the public that wish to speak need to utilize the "raise your hand" function in Zoom, which signals to him that a member of the public would like to speak. As the hands go up, he will unmute the attendee; the attendee should accept the request to be unmuted and begin speaking. Comments should be limited to 3 minutes or less, if possible. If a member of the public would like to make a presentation or show content from their computer, he will elevate that member to "panelist" and they can share content. If a member does not use the "raise your hand" function, he does not know if they want to speak and cannot unmute anyone. If someone crashes or "Zoom bombs" the meeting, he as the host has the ability to remove them. If anything goes haywire, he can end the meeting. If there is a disruption similar to that, he will do the least amount he needs to do in order to remove the disruption. He noted that the meeting is

being broadcast over Channel 16 and also recorded so people that cannot make the meeting can watch it another evening.

Chair Azman called the public hearing to order at 6:30 p.m. for the purpose identified in the notice that was published: to consider an application for the subdivision of the Nord Parcel known as Site C in the planned development agreement between the applicant, North Oaks Company (NOC), and the City, which will allow the public an equitable opportunity to be heard.

BUSINESS ACTION ITEMS

a. Public Hearing: Preliminary Plan/Preliminary Plat (Subdivision) Application: Nord Parcel

- City Planner Kirmis presented the Planning Report included in the packet and recommendation for approval of the proposed Nord preliminary plan/preliminary plat (subdivision) application subject to fulfillment of conditions 1-49.
- Commissioner Hara, referencing the May 2018 minutes, when the topic came before the Planning Commission, stated that at that time it was the Planning Commission's belief that V-284 and B-292 appeared to be trails in former maps. City Staff thought parcel V-284 was intended to be a trail, and City Planner Robinson said the circumstantial evidence and shape of the parcel suggested it was meant to be a trail leading into the recreation area. He said it seemed like it had been talked about a reasonable amount. Now there are different City Staff and Planning Commission members, but he is confused about the comment that these are mysteries, that nobody seemed to know what the 2 parcels were. When looking at the original platting of the 10 lots, his observation and thinking would be the same as what the 2018 Planning Commission and City Staff thought. He asked for illumination as far as how the 2 lots became mysteries in the past couple of years.
- City Planner Kirmis said Administrator Kress had a theory that potentially a roadway was envisioned at some point, particularly the east-west strip, V-284, but he did not know.
- Administrator Kress stated if one looks at the 2 different parcels, the width is about 60 feet; and he disagrees that it could be considered the size of a trail. If one were to look at the parcels with the southern development, it would have made more sense as a road. As they developed the southern parcel, they figured out it did not make any sense. As the City Council and Planning Commission went through the Comp Plan phases, those consistently changed. There have been a number of different zoning designations for both of the parcels.
- City Engineer DeWalt noted she had a number of high-level comments within the report related to service water management, grading, utilities, and streets. For the most part, they were cookie cutter/boilerplate/industry-standard comments that she would expect to be addressed with final design plans, and she did not think it would be a good use of time to go through them in great detail.
- Commissioner Hara referenced the orphan property that goes through a wetland and noted there was a question as to why someone would run a trail through a wetland. He understood Administrator Kress to say it was a road and asked if a road would be preferred over a trail,

and also if the trail would almost parallel the road that already exists there except it would be to the north by 25-50 yards.

- City Engineer DeWalt said she did not know how far back the V-284 _____ (RLS) dates, but it could be prior to any wetland delineation and prior to a lot of planning and understanding of what existed on the property. She thought the Commission would get further into the trail discussion once the applicant presents, although there is also the incorporation of the existing trail easements. She was not sure why there would be an additional trail planned when there are already trail easements to the south.
- Commissioner Shah clarified that it was the Environmental Assessment Worksheet (EAW) that did not have V-284, so that was where the discrepancy was found in February and then brought to Staff's attention. She also noted that there is some land located east of Lot 12 and asked what the intention of that land is, noting that it is a long, skinny piece of land.
- Chair Azman asked if Commissioner Shah was talking about the wetland area.
- Commissioner Shah said that east of Lot 12 there is a basin, but there is a skinny piece of land north/northeast of that which does not seem to be part of the lot to the east.
- Chair Azman said it looked like it was part of Lot 12 and hoped Mr. Houge could help answer that question.
- City Engineer DeWalt asked if Commissioner Shah was referring to the part of the wetland that is on Lot 12.
- Commissioner Shah indicated the cul-de-sac is the start of a long "flag" lot and, referring to the upper north portion, she said she is curious about the future of the outlot.
- City Engineer DeWalt said the entire piece of land appears to be part of Lot 12.
- City Planner Kirmis stated City Engineer DeWalt was correct, that it is all part of Lot 12, noting there is a skinny component that runs along the north property line of the development that extends up to near the center point of the cul-de-sac turn-around.
- Commissioner Hauge asked City Engineer DeWalt and City Planner Kirmis if there were any further thoughts about making provisions for future City sewer and water to the area. He noted from a planning perspective it would make sense to do so.
- City Engineer DeWalt said it had been discussed in the past and the prior plan showed City water and sewer coming into the area. Staff has requested a discussion with the applicant again. She stated part of the challenge with bringing in City water is where it will come from and how the system will be adequately looped, because North Oaks is on the edge of 2 disparate systems. She indicated another challenge will be bringing in City sanitary sewer, noting there was a stub that was planned from the Rapp Farm Phase 6 and a forced main but that there were challenges with a forced main system as well. She has been told that White

Bear Township and North Oaks Home Owner's Association (NOHOA) have stated they would not like to take on that type of system. She said there are ways to move forward with planning in the future, but the City is not quite there yet with this particular application.

- Administrator Kress stated he sat in on a meeting with Mr. Houge and White Bear Township regarding the utilities section of the development. One of the main concerns was the water level lawsuit that White Bear Township is currently dealing with. There is a bit of uncertainty as far as providing water. He said there is also potential to get water services from the Shoreview side up Sherwood Road because their system is just down the street from that. They did request from the company, if possible, to place additional easements so that if or when utilities are requested or desired, the City has the option to do that. Beyond that, he would turn the discussion over to Mr. Houge for any commentary.
- Mark Houge from NOC echoed Administrator Kress' comments, stating if they can show a potential future path and accommodate that with some easements, they are open to that idea. He said at this point the discussion needs to go beyond what might happen in the Nord area and asked how they would connect to any utilities that would ultimately go in there beyond the boundaries of Nord.
- Commissioner Shah noted the Planning Commission talked in the past about having a fire hydrant in the area and asked where the Commission ended as far as whether it was viable.
- Administrator Kress said the City did address the issue with White Bear Township. If the line system were to be extended, it would still be a dead-end system. You would need some type of valve to clean at some point, or there would be a bunch of junk in the hydrant when you would want to use it. It is currently not advised unless the system can be looped.
- Chair Azman asked City Engineer DeWalt what her thoughts were on how the plan addresses wetland impacts, if there are any.
- City Engineer DeWalt stated, as the plan has been submitted, there are no wetland impacts identified.
- City Forester Rehder said he was asked to determine impacts to significant and heritage trees on-site as a result of the work -- the construction of the street, installation of storm ponds, and installation of trails -- and then provide the information to the City. He provided a report to the City, and it included his observations of the site and also recommendations if the process goes forward on things that can be done to preserve trees on-site.
- Commissioner Shah stated City Forester Rehder indicated there would be 216 possible trees removed from this parcel and asked what percentage of the parcel that was.
- City Forester Rehder said that as far as the entirety of the population on-site, he did not do any analysis or measurements of area. Just looking at the size of the lots and width/length of the street, he would think it would be less than 10% and probably in the 5% region.

- Commissioner Yoshimura-Rank asked if a heritage tree would need to be defined for the City, or what trees would be considered valuable.
- City Forester Rehder noted the City does not currently have a tree preservation ordinance in place nor true definitions of what constitutes a “significant” or “heritage” tree. He mentioned in the report he had reviewed a number of other City Ordinances to see what a usable definition is, and he did incorporate that into the report. Usually it is used when the community has a replacement policy to help determine how many trees need to be replaced. For example, if you take a heritage tree, you may have to replace at a 3:1 ratio compared to a smaller tree or a significant tree, where you may have to replace at a 1:1 ratio. He did not know if the City needed to clarify the definitions for a “significant” or “heritage” tree.
- Commissioner Hauge asked City Forester Rehder if he ranked any type of tree higher or has a list of tree rankings. For example, his grandfather said aspen might not be ranked very high while oak might be ranked the highest, with pine somewhere in between.
- City Forester Rehder said the perspective that one is coming from is important. There are different ways to look at the value of trees. The way he generally looks at it is, what the benefits are to the environment; oak and cherry trees definitely feed a lot of insects which, in turn, feed birds, and so on. In his opinion, from a natural environment perspective, oaks and cherries have more value than aspen or ash, but all trees are good trees.
- Chair Azman asked Mr. Houge to comment about the application and summarize his April 14 Memo which was issued to the Planning Commission. He reminded attendees to click the “raise your hand” button if they wished to speak.
- Mark Houge said they started the process over a year ago with an entirely different plan, hoping to get approval in early 2019 and build lots last summer. One year later, and they have new residents at Rapp Farm and a lot of people still interested in moving in the area which could be satisfied by the Nord addition. In order for the process to be satisfied in a timely way, NOC needs approval for a preliminary plan; then they would request a permit to start doing grading in July, which times well with City Forester Rehder’s recommendation that they not disturb trees until after July 1, if possible. They would work closely with City Forester Rehder to make minor tweaks to the road, if possible, to preserve any really important trees. Then they would come back before the Council to get the final plat, which they would file with the County. It would take until the latter part of summer/early fall to complete the process. He said he is aware that there are a number of residents concerned about the Company’s approach to the project. He thinks there is a misconception that the Company is unwilling to make changes in response to input from its members, the Planning Commission, NOHOA, and the City Council. He stated the opposite is true. NOC started the process of entering the project from North Deep Lake Road. The idea was to preserve privacy and not to create another entrance. It would have also given NOC an opportunity to extend a pressure sewer system for sanitary sewer as well as water. NOC would have had some challenges working with White Bear Township: they had concerns about a dead-end water system as well as who would maintain the pressure system. NOC changed the design and now are accessing a majority of the lots from Sherwood Road. They have worked with

NOHOA to try to come up with the best trail solution. He said Exhibit B4, which is part of the PDA, does not require the Company to add any trails in Nord. They have decided, with the support of NOHOA, to extend the trail easements by adding an easement on Lots 1 and 2 on the easterly portion of the project, and NOHOA would restore the trail south of the wetland and continue over to the south tip of Rapp Farm and connect to the conservation area. With respect to Lots V-284 and B-292, they do not know what was in the mind of Louis Hill, Jr., at the time. He also asked everyone to keep in mind the lots were created in the 60s.

- Commissioner Hara referenced an exhibit and the area where the trail connects, which is south of Rapp Farm, and asked if the proposed dashed line is an existing trail or a new trail, noting it is a pretty heavily wooded area and it would not seem like the best idea to put the trail there and cut trees down. He also said if the existing trail were used, it would encroach into Lot 1 roughly 30 feet.
- Mark Houge said they would put the trail on Lots 2 and 1 as close to the wetland as possible. They would enter the Rapp Farm development on an existing outlot that was intended to be strictly for stormwater. It does not encroach on Lot 93.
- Commissioner Hara stated behind Lot 93 there is a thicket of woods, which is probably 20-30 feet wide, and on the other side of the thicket is the existing trail which is used for cross-country skiing and walking, etc. He asked if the intention is to use the existing pathway, or cut the trees down and move the pathway to the north by eliminating the trees.
- Mark Houge said their hope is to shift the trail a little to the south where it crosses the boundary going into Rapp if that is where there is a clear path. They have to be careful to not come too far south to encroach on where a home may be built.
- Commissioner Hara stated if the trail that is there now could be maintained, it would eliminate removing a stand of trees, which includes birch and other high-value trees.
- Mark Houge said he hoped they would be able to accommodate that and would probably have to go out there with City Forester Rehder and look at it to make sure they were both talking about the same thing. Their approach generally would be to put the trail in locations around large trees so they would not have to be cut down. The trail meanders through most parts of North Oaks, and they try to avoid taking down trees if possible.
- Chair Azman indicated he screen-shared the trail map that was submitted. He stated it was his understanding the trail map is representing the agreement between NOHOA and the Company on a trail through the Nord Parcel.
- Mark Houge stated he was correct. He said there is a letter from NOHOA acknowledging that a solution was worked out and that NOHOA is in support of the trail map on the screen.
- Commissioner Shah asked if Mr. Houge approached the Rapp Farm Subassociation in regard to the extension to the east which was being indicated on the displayed map.

- Mark Houge stated he has and also shared that he is on the Rapp Farm Subassociation Board, along with Gary Eagles and Robyne Platzer and two residents. They have discussed the matter and, as a Board, they think this is a reasonable approach. They want to bring it to the members of the Subassociation to confirm their agreement.
- Commissioner Cremmons asked if there was any portion of the proposed trail path that requires the agreement of any homeowners to change the rights that are currently there. He asked if it was dependent on anything other than the Rapp Farm Subassociation giving its final consent.
- Mark Houge indicated there is not. The easements all exist on the lots to the south and the Company owns the other property and they would grant easements, so there are no additional easements that would have to be granted by any of the homeowners.
- Commissioner Cremmons clarified that there would also be no relocation of easements or any other changes which require consent.
- Mark Houge stated he was correct as far as accommodating the trail as shown.
- Commissioner Cremmons noted NOC has a timing issue but he is concerned about a precedent that could be created by approving a Site C plan that includes property that isn't within Site C, clarifying that there are 2 lots that are not within the definition of Site C under the PDA. He asked for some kind of assurance from NOC that in future developments, where there is going to be any kind of change/request of change to the boundary beyond the site as it is currently defined, an amendment to the PDA be obtained first as opposed to having to deal with the issue later in the process.
- Mark Houge said he would like to see that in the future as well and is more than happy to accommodate that request.
- Commissioner Cremmons requested that be put in writing in some form so there is no issue of a precedent being created that could cause a problem with Gate Hill, etc.
- Mark Houge stated he would be happy to do so. He said North Oaks is a place with a lot of challenges and there are other locations where lots were created that crossed zoning boundaries. It has happened before, and they should try to make sure it doesn't happen again.
- Commissioner Shah asked how many households/existing homes are impacted by the easements that would be implemented.
- Mark Houge referenced a map and said Lots F, D, C, and B are where the current easements exist.
- Commissioner Shah asked if NOC has approached the homeowners at this point.

- Mark Houge said NOHOA has talked with each of them, although there may have been 1 they were not able to reach. He noted Kathie Emmons may want to speak to that issue. They have had discussions with 2 of the owners, the Savereides and Coonses, and although they may not view this as ideal, they did alter the original plan to make it more palatable.
- Commissioner Hauge asked if they could hear from NOHOA before the public hearing.
- Chair Azman stated he felt it may be more productive to have NOHOA speak after the public in the event there are any comments by the public that NOHOA could wrap into their comments. He asked for any additional comments.

MOTION by Yoshimura-Rank, seconded by Shah, to open the public hearing. Roll call vote: Ayes 7 (Hauge, Sandell, Shah, Yoshimura-Rank, Cremmons, Hara, Azman), Nays 0. Motion carried unanimously.

- Citizen Comment: Don Nightingale, 11 Nord Circle, said originally, he hoped to have some exhibits he could put up but was not able to get it done. He understood and thought it was wise that Chair Azman would not be taking a vote but at least get things out in the open. He said he would argue strongly that the Planning Commission should reject this plan, which is not in agreement with the PUD, and it should be sent back to the Company to be corrected. He noted it relates primarily to 2 areas, and the first area is access. He referenced Article 7.1 of the PUD, which discusses location and creation of streets, and said that is married with the Nord Parcel, Exhibit B2 in the Conceptual Street & Access Plan, East Oaks Project of February 11, 1999. He said it clearly indicates that the Nord Parcel is to only be accessed off of Sherwood Road. The Company seems to be arguing that they had an existing driveway on the east and that, for Lots 1 and 2, they can be accessed by the shared driveway. He said the shared driveway was never a vehicle road that was used by North Oaks residents; it is an old farm road. He has lived in North Oaks since 1982, and it had a gate and lock and was the access to the Company up into what is now the Nord/Rapp Farm area where they had a burn site. He said to call it a driveway is a bit of semantic gymnastics. The Company is proposing a road into North Oaks to service the 2 lots and gives absolutely no justification for that. He stated most of the Commissioners understand/should understand the key basis of the 1999 PUD is that the Company struck a deal with North Oaks of, "Give us more density on the periphery areas," and then the community said they would all be accessed only by existing periphery roads and not come into old North Oaks roads and adding the traffic and density there. This proposal, as well as the proposals for the other periphery areas that the Company presented last spring, are in complete violation, including 3 new accesses into North Oaks on the east side. He said he has a download from the Ramsey County Platbook, which everyone could access via computer, that shows there are currently no platted lots in the Nord Parcel. He has been told by one of the Council members that the Company thinks that Lots 1 and 2 were previously platted, but the plat download shows it is not true. It also shows the immense difference in the amount of density in Rapp Farm versus North Oaks, which is not surprising because of the zoning difference. He believes it is accurate to say that in the Nord Parcel, under the zoning the rest of the residents live with, you could get 4-5 lots, depending on if there were 2 good septic sites for each of the parcels. The current proposal is coming in with 12 lots. Assuming the Company prices each lot at \$200,000, if they had the old zoning the

Company could have a revenue of approximately \$1 million as opposed to the \$2.4 million, a 140% increase. He thinks North Oaks did a good job of treating the Company well, but the Company is now trying to change the deal that was struck in 1999. He stated the current proposed trail plan by NOC is very unsatisfactory even though it goes into easements that no one remembered or knew about or were ever maintained or used south of the big wetland. The problem with it is, at the southwest end it dumps you onto an asphalt road. Therefore, in terms of use, particularly in the winter by cross-country skiers, it wouldn't be a continuous on-ski experience. He said he has an exhibit which shows a NOHOA trail that would have pretty well followed the EAW-documented trail, which would go on the north edge of the big wetland, which can be a no-brainer and win-win for everyone. For the homeowner at 5 North Deep Lake Road, the middle of the easement goes less than 1 foot from the deck of the house. It cannot be mediated by moving to the north because it is right next to the wetland already, or looping around the house the other way because then a driveway is crossed in a wetland. He thinks there is a very good alternative which could work for everyone.

- Citizen Comment: Cheryl DuBois, 20 Black Oak Road, said she and her husband Jeff have been residents for 25 years. They are avid cross-country skiers. They also run, bike, use the lakes for paddling, and love the trails. She noted Black Oak Road is on the west side near the Wildflower Way entrance. They love to ski into the Conservancy, although they have not been able to do so in a few years. They have a strong interest in a trail that will meaningfully allow them to traverse through. They noticed a road crossing at Red Maple. She asked if there was a road crossing on Deep Lake Road. She also asked what other obstructions there were, adding that she heard there was one point where you would be 10 inches from someone's foundation. She stated it is very disruptive and time-consuming as a skier to have to stop and take off your skis and put them back on. Also, there is a danger in walking on icy roads in ski boots. She requested that before any proposals are agreed to, stakeholder citizens and members view/walk the trail, as they need to be able to see what the ease of traverse is of the trail, because she has heard that it could be very difficult to get through unimpeded. She volunteered herself and offered Greg Mack, who is an expert on trails, among others who would be interested in walking/viewing the trail.
- Citizen Comment: Franny Skamsler Lewis, 3 Red Maple Lane, referenced a Nord Parcel map and noted a lot of her points follow the general trajectory of Mr. Nightingale's comments, and she would limit her comments to those that build on his. She stated, as noted by all Commissioners, Staff, and other residents, what she lovingly refers to as the "V-B parcels" are not included in the development site. She said the land is clearly valuable; otherwise, it would not be of interest to be included in the development site. It builds value for the potential owners of those sites and, therefore, NOC. Because the land also has a tangible value to the residents, she echoed Commissioner Cremmons' position: this is something that should not be included or changed by way of an application. She believes the application is not compliant by virtue of the fact that those parcels are included; it is grounds for rejection of the application. She thinks ultimately there would be a path forward for all parties to find a way to include that, but because it involves rezoning and an amendment to the PUD, she believes it is most appropriate that it happens outside of the application process and appropriately noticed with any public hearings, meetings, and town hall sessions. She said there is value to cleaning this up, but it does not mean there is value in doing it the way it is

being proposed currently. She commented that while it is possible at some point it was ideated as a road, it is indicated in the PUD on Exhibit B4 as an existing trail. She understands that it was known and has been known that there have been failures to properly transfer easements and trail dedications in the past. She does not think that diminishes the contractual standard that the trail was agreed to by all parties as existing, and it ought to be identified as a legitimate criteria of the proposal. She stated the trail is meaningful to the community because of its contiguous, uninterrupted access from east to west into the Conservancy; it is a major connection trail that is referred to as the “Golden Gate Trail.” The proposed trail does not meaningfully satisfy the criteria that this trail provides the community. The proposed trail might have been an acceptable replacement had the contractual standard not already been agreed to by both parties that this was an existing trail and, according to the agreement, can only be eliminated if it is replaced with a meaningful equivalent. She sympathizes with the Company because it may have been a mistake, but it does not change the fact that it was agreed to by all parties. If there is interest in changing the agreement, it requires an amendment, which can only be done by a super majority vote of the Council. She said she is hoping the Planner is also counseling the Commission on the value of “desire paths.” People walk and traverse in ways that make sense; people are animals in that respect. When you look at paths, it might not make sense until you realize that trails were created by the humans that were walking on them. People know what the topography was like in the Nord Parcel over time. Satellite images from the government going back to the 50s demonstrate where the wet spots are, although they have changed a little. The general path that people have been walking has not changed much. She referenced the original NOHOA-proposed trail which was outlined in yellow on a displayed map, and stated it is reflective of what the EAW anticipated, it is reflective of how the existing trail would be accommodated for the natural topography, and it is as close to possible, as the desire path indicates, while still accommodating development of all 12 of the lots for the Company. It is unclear how the City would move forward without accepting the trail. She noted the access is coming off of Sherwood. She referenced City Ordinance 151.005 which defines road or street as “a public or private thoroughfare or easement, constructed according to the specifications of the city, which affords the principle means of access for vehicular traffic to abutting land.” As she reads it, the driveway would be considered a road or street. According to the concept plan, which is the controlling document of the PDA currently, Exhibit B2, Conceptual Street & Access Plan, there is no access designed there. She thinks the Company would meet incredible support from the community on immediate acceptance of their application if, including that extra land and driveway, which are considered non-compliant currently, that trail was reflective of the community’s needs and the contractual standards which have been agreed to by all parties. She welcomed any of the Commissioners reaching out, discussing, debating, any sort of discourse, and is very interested in continuing the conversation in a more in-depth way.

- Citizen Comment: Cheryl Blackford, 7 North Deep Lake Road, said she is the middle of the 3 houses where the proposed trail will go through the properties. They have spoken with NOHOA about the easement at the bottom of the property. They have managed that as a trail, including her husband putting wood chips on the trail for many, many years, which has built up the level of the trail. It is right on the edge of the wetland. She noted someone had brought up winter sport activities and said if the trail is not elevated, it will flood in the spring. She

did not know if gravel would be brought in. She stated that their neighbor, Friedrichs, is the house that will be the most affected because the easement comes very close to that house, about 3 feet from his windows. She brought up that parking would not be allowed on the shared driveway and that if either of the other two homes have any kind of party or gathering, all the extra cars would be parked along North Deep Lake Road. On one side of the road is a pond and on the other side there is a wetland. She is not convinced there will be adequate parking for 2 extra houses. The shared driveway was not part of the PUD and it feels as though it is being imposed on the residents, and she would like the Planning Commission to think about it some more.

- Citizen Comment: Rachel Maher, 91 Rapp Farm Place, said she had a video she wanted to submit entitled “Subdivision & Site Planning, Nord Parcel.” The video gave the following information: in the 1990s NOC chose renowned landscape planner Randall Arendt to design the 12 development sites in the East Oak project, those sites to be centered around a conservation area. Arendt used what is called “conservation subdivision” to design those development sites. This approach reduces lot size and preserves the extra land surrounding those lots and protected open space. The open space is designed to conserve natural resources and create trails that can ultimately link with open spaces in other similar subdivisions, which creates an interconnection network of footpaths and conservation lands. Additionally, conservation subdivision principles were adopted within the planning documents, subdivision regulations, and zoning ordinances. Under the PDA, the Nord Parcel is zoned as RSM-PUD, Residential Detached Open Space Home Lots for a Planned Development Unit. Open space home lots are used in conservation subdivisions which arrange lots that are 2-3 acres in size and clusters them together in an area on-site so as to reserve a portion of the site for community open space/green space that is protected in perpetuity. In using the conservation subdivision technique, conservation is extremely important. Interconnectivity is a basic requirement if conservation lands are to work together as an ecological whole, since linking them together physically and functionally enables natural systems to filter stormwater, detail and absorb floodwaters, and cleanse the area reef, which are all key in preventing negative impacts on human and wildlife biodiversity. Lack of interconnectivity prevents wildlife populations from flourishing and the ecological process from functioning properly. That is why the subdivision technique is so important when it comes to conservation. She displayed the Nord Parcel as initially designed by Randall Arendt on the screen and stated it was very common for a conservation subdivision to include incentives. For the Nord Parcel, there is an allowable 30% increase so lots can be added without sacrificing a desirable open space concept. She said there were 10 original lots and then added 3 virtual lots for a total of 13 lots, with plenty of open space available. She stated there was a problem with the Nord Parcel. The conservation subdivision, as outlined by Randall Arendt, was used for previously completed development sites: Rapp Farm, Wilkinson, The Pines, Gate Hill, and The Summits. She displayed the original subdivision parcel for Nord, noting it did not use conservation subdivision; instead, it uses conventional subdivision. After extensive research, she discovered that the PDA, EAW, PUD ordinances, subdivision ordinances, Comp Plan, and previously developed parcels are all consistent with conservation subdivision as described and planned by Mr. Arendt. She said she reviewed previous years’ meeting minutes which also evidence the adoption of conservation subdivision and its principles by the Commission, Council, and Company. She noted one inconsistency in the PUD controls,

which has been the focus and reason for reverting back to conventional subdivision: PUD Article 1.6. Essentially, the recent interpretation is that the developer's obligation to include open space and trails in each subdivision is satisfied by the conservation area and trails within it, which does not make a lot of sense because that defeats the entire purpose of the interconnectivity plan of the East Oaks Development Project. She stated there are an overwhelming number of governing and non-governing documents that support open space home lots and conservation subdivisions and displayed information in support of her statement. She stated that Nord Parcel, using conservation subdivision, better serves the interests of the community, environment, and overall philosophy and vision of North Oaks. She asked the Commission to reject the preliminary plan for Nord Parcel, as it is inconsistent with the PDA as a whole. In addition, further clarity is requested per PUD Article 1.6. She reiterated that the information in her presentation would probably solve the vast majority of other concerns and issues.

- Citizen Comment: Greg Mack, 2 High Circle Way, said he was involved with Ramsey County Parks for a number of years and is very familiar with different types of trails and alignments. He has lived in North Oaks for about 30 years and, particularly with the advent of COVID-19, he sees the value of trails and open space. What is out there is significant and being used by the residents. He supports the trail connections and thinks they are critical to the well-being of the North Oaks community. He asked Chair Azman to display the trail map in order to point out the road access for Lots 1 and 2. While Chair Azman looked for the document, Mr. Mack stated he believed the driveway crosses the parcels that have been added to the subdivision, although he does not know the exact location. If they do, they are necessary for that access, so it is an important addition in order to make the plan work and also a good leverage point moving forward. After Chair Azman displayed a map showing the shared driveway, Mr. Mack asked if the trail illustration is going north of the building site on Lots 1 and 2. He does not want to see a trail with 2 trail crossings, 1 at Maple Lane and a second crossing on the driveway. He asked if the building site on Lot 2 is south of the trail.
- Mark Houge of NOC said the trail which was being displayed would be north of the building sites, which is one of the things NOC worked out with NOHOA, to minimize any driveway crossings by moving it to the northern location. There should be no driveway crossings. The only area that would have to be crossed is Red Maple Lane.
- Citizen Comment: Greg Mack stated he agreed with Ms. DuBois' suggestion to walk the site at some point and would be happy to do that. He said he knows there are challenges in the Red Maple Lane area that would be satisfied with the yellow alignment that was proposed by NOHOA; but as he has watched this unfold, he thinks the Company and NOHOA have come to a much better agreement except in the area where the old easements existed. When he entered the discussion, his objective was to try to get a continuous trail, understanding there may be one driveway crossing, and one driveway crossing has been illustrated so that objective has been met. He said he appreciates the work people have put into the project. If there were options, the trail Franny Skamser Lewis presented is a more continuous trail.
- Citizen Comment: Cindy Nielsen is allowing husband to use her speaker. He asked Chair Azman to show the trail map that was displayed to orient himself as to where he used to go

on skis to what is being proposed now. He echoed the desire to either walk or get a feel for the area. He said it will never be perfect for everyone, but if he is seeing things the way he thinks he is, it is a positive step forward in cooperation. He understands it has not been easy for a lot of people and thinks all parties involved have tried to have a respectful dialogue. If the area could not be indicated on the trail map, he said he could wait to hear if there would be any markings or a “tour.” After Chair Azman enlarged the aerial map in response to his request, He stated that, when looking at Lots 1 and 2, the tree line looks very close to where the red dotted line is and looks very close to where the trail was. He asked if that was accurate or not.

- Mark Houge said that he was accurate. He noted a shadow line under the “1” and stated that it is the remnants of the farm road, which is a little farther south than where the red dots are. He indicated the faint purple line above the dots is the edge of the wetland. The trail would be somewhere between the purple line and word “Lot 1.” The farm road went south and west, following a similar path to where the proposed new trail easement would go, then circled back up and basically dissected the center of Lots 2, 3, 4, 5, and 6, and then returned down to the connection on Parcel G-284. He stated that dissection in the middle is one of the reasons it is so difficult to make something work, not to mention the requirement for 2 areas for septic tanks that are each 5,000 square feet.
- Citizen Comment: Mr. Nielsen asked if it would be safe to assume the other option would be 2 driveways rather than the shared driveway. He said he would like to learn more about the thought process behind the shared driveway.
- Mark Houge stated he believes the shared driveway has the least amount of impact because you end up with a single private driveway which is significantly narrower than a street, which would have been the other option. Each lot will be served by the shared driveway and eliminates 1 driveway in its entirety.
- Chair Azman noted a drawback with Zoom is people that call in cannot raise their hand. He said he was checking to see if one person who called in would like to make a comment, noting the phone number ended in “2790.”
- Citizen Comment: Don Nightingale indicated at least 2 people who spoke have said they would like to walk the area. Having walked the Company’s proposed trail twice in the last week with a group of people, he said he would be happy to lead people when and if they wished to go.
- Chair Azman said he appreciated Mr. Nightingale’s comment and encouraged people to contact the Company and/or Mr. Nightingale to make arrangements.
- Mark Houge recommended the Planning Commission direct people to NOHOA to conduct the walking tour, given that it is NOHOA’s responsibility to help work through the trail solution. He said it is on easements that were granted to NOHOA that currently exist and he feels that would be the most appropriate approach. He added that he is happy to participate.

- Kathie Emmons of NOHOA thanked everyone for their comments, noting they have heard a lot of them before but there are some new angles on things and it is helpful. She said, as the entity ultimately responsible for setting the trails, they have worked hard with the Company to come up with different solutions and test them out in the field. They have walked the sites and would be happy to arrange tours of the segment that is across the existing easements, but would have to get permission from the homeowners beforehand. There are currently stakes out there with little neon orange flags so they can see where the center of the trail goes through those properties. They have worked with their Consulting Engineer, Kristie Elfering; the Community Planner, Rita Trapp; and their Attorney, Tim Hassett, to give them a good foundation of facts and information as they go through the process. They have to look at what both the PUD says and how they are interpreting that, they have to look for overall connectivity, and they have to look at how it is impacting the environment -- both the wetlands and the trees. They tried to take all of the comments they heard over the last year into consideration when they tackled the project. She stated not only is Nord the toughest parcel they will address, but it also has the component of everyone figuring out how to work together. She said she has to give NOHOA credit for figuring out a way to work with the Planning Commission, Council, and Company. Regarding the Nord trail, she said they initially wanted the trail to go north of the wetland until they dug down into the facts. They are interpreting what is in the PUD as there is no call for new trails. The old easements were established in 1972, but that does not mean they do not matter anymore or don't exist. In speaking with the homeowners on 2 of the parcels, they have the trails there. They maintain them with chips, and they are still viable in that way. She commented that no negotiation is going to get everyone the ideal trail configuration, and opined that everyone present has their own idea of what a really great trail would be. She said when they looked at the northernmost loop above the wetlands, to cut out a 30-foot minimum swath along the edge of the wetland would not only cut into the lots that are there, it would make a significant impact to the environment, not to mention removing all of the root systems from along the shoreline of the wetland, and then Vadnais Lake Area Water Management Organization (VLAWMO) would need to be involved. She said drawing it on the map is not the same as imagining it in the actual environment. As they were looking at what the PUD calls for, NOHOA has the existing easements. They are not ideal; they are close to 1 house and they have to figure that out. But in meetings with other homeowners, they were actually very okay with it, even pointing out spots they would like preserved or addressed. She stated NOHOA is trying to establish connectivity throughout the whole community. They are not just looking at Nord; they are looking at everything. Some of the things that they have commitments for down the line, which will enhance the connectivity and the trail-walking and trail-skiing experience throughout the community for new and existing residents, are the trails that will be built in the next phases, and things that the Company has given NOHOA above and beyond what they originally requested. Like the east end of Nord trail that goes across through the top of Lots 1 and 2, these other trails are their ideal. In the negotiations they tried hard to give and take, and the trail map depicted is the result of that negotiation. It creates a minimal impact on wetlands and existing trees. It preserves and provides access to a significant natural vista both from the south and for new homeowners to the north. It is not located along the roadway as it was originally proposed. It provides access points for neighbors in Rapp Farm for new homeowners and everyone on the west side to get across. It also provides the critical east-west connection. NOHOA recognizes that it is not ideal for skiers who are going west to east.

She said they are excited to take anyone through the trail configuration and suggested setting something up with Mikeya. She encouraged anyone to contact the office with any questions. She reiterated that after working hard, this is the best outcome for the Nord Parcel and is a win for the community and whole trail system.

- Commissioner Shah asked Ms. Emmons to explain the vote that took place at the last meeting and the outcome of the vote.
- Kathie Emmons said the Board voted to accept the trails in Nord as they are shown on the maps which were viewed tonight and some of the other technical comments related to how the surface of the trails should be constructed, how the roads should be constructed, etc., and were recommending to send their comments to the Planning Commission. Although she did not recall the exact results of the vote, she thought there were a couple of “no” votes and it passed with the rest of the votes being in favor. She volunteered to share the information with the community at the next opportunity.
- Citizen Comment: Leanne Savereide, 4 Red Maple Lane, stated she has way too many things to say about it and does not know where to start. The trail going through their easement does not satisfy the B4 trail map which shows it existing in the Nord development. She clarified that it is something outside of Nord. The trail map shows a little trail going along the edge of the end of Red Maple Lane; that is not possible because it is all cottonwood trees and they would all have to be cut down. It would be on the road longer than just crossing the road; it would cross the road from where it comes out on Red Maple to where it goes in by their house. She expressed strong support for Franny Skamser Lewis’ presentation and Rachel Maher’s presentation, indicating she loves the idea that they are trying to do something that is conservation-minded. She thinks the ecosystem is a beautiful, fragile wetland area and having that many houses in it is going to disrupt wildlife, etc. She reiterated the trail on the south edge is not ideal and does not think that it should be considered as appropriate according to the PUD.
- Citizen Comment: Cheryl Blackford stated she thought Ms. Emmons said if they had put the trail on the north side of the wetland, they would have had to carve out a 30-foot-wide strip. She asked if Ms. Emmons was saying she would need a 30-foot-wide strip on the south side of the wetland.
- Kathie Emmons stated the easement is that wide but the trail itself is not that wide and they would not be changing the width of the trail.
- Citizen Comment: Cheryl Blackford asked if Ms. Emmons said the flags that are down right now are in the center of where the trail would be.
- Kathie Emmons said she believes that is where Kristie posted them. That is the center of the easement. They are willing to work with the homeowners to get it in the spot where it already is or shift it 2 feet to the left or the right.

- Citizen Comment: Cheryl Blackford commented that they have some big oak trees in the area and do not want to lose them.
- Kathie Emmons agreed that they do not want to disturb those.
- Citizen Comment: Don Nightingale asked if Ms. Emmons said the PUD does not allow or require the Company to make any existing trail changes. He said if that is Ms. Emmons' understanding and the Chair thought it was appropriate, he would read a 9-sentence paragraph that the author on the City side created which indicates the Company is responsible to change unworkable trails.
- Kathie Emmons stated NOHOA was basing that on Exhibit 4B of the PDA. In NOHOA's review of the documents, their technical experts did not see where there was an indication for additional trails through Nord.
- Citizen Comment: Don Nightingale offered to quote parts of the PUD which require the developer to correct trail problems.
- Kathie Emmons indicated he could do so.
- Citizen Comment: Don Nightingale stated he was looking at a 1-page exhibit which talks about the areas of trails, which are Articles 12 and 13 in the PUD. He stated the following: Article 13.1 defines 3 types of trails: existing NOHOA trails, primary trails, and restricted trails. Article 13.3 places the responsibility on the developer to construct and grade all trails on the plan. It does not reserve this obligation to new trails; it refers to all trails. He said this is quoting the person on the City side who did the PUD. This is because at the time of the PUD, there were ongoing issues with the existing NOHOA trail that the developer was supposed to have previously conveyed but because of various failures had not properly located, constructed, conveyed, or provided. It put the obligation on the developer to fix these historic problems so that Louis Hill's vision and the vision of the Harpers when they entered into the PUD would be accomplished and corrected.
- Chair Azman referenced a discussion wherein the Planning Commission agreed to read the list of emails received from residents and asked Administrator Kress to do so.
- Administrator Kress offered to do a screenshare, noting a number of people that had emailed him previously also presented at the meeting, so some of them might be repeats.
- Chair Azman asked Administrator Kress to put the information on the screen and it could be scrolled through and see those that did not speak at the hearing.
- Administrator Kress pulled up the email from Leanne and John Savereide, and indicated Leanne had spoken.
- Chair Azman clarified that the summary or reproduction gets put into the record.

- Administrator Kress stated they could be put in the minutes and he could read each comment into the record, but they have a physical copy they could include as part of the packet.
- Chair Azman asked to make sure all the Commission members get a copy, noting he could not remember how it was distributed. He said he saw some of them since some were directed to him but wanted to make sure everyone on the Commission received them.
- Commissioner Hauge asked Administrator Kress to send copies to the Commissioners in the morning.
- Administrator Kress agreed and said if the Commission is planning to continue the public hearing, they should each be read into the record so they are more of an official record. He offered to go through some of them but indicated, for the sake of time, they could perhaps make a recording of them to get them all in one place.
- Commissioner Hauge noted the hearing would be continued to the next meeting and asked Administrator Kress to send the information to each Commissioner rather than walking through them now. He noted each Commissioner could read through the comments and it could be discussed at the continued hearing.
- Administrator Kress stated that sounded fair.
- Chair Azman asked if any Commissioners had any problems or concerns with that idea. After there was no comment from Commissioners, Chair Azman asked Administrator Kress if he got any phone calls/voicemails.
- Administrator Kress said that for anyone who called and left him a voicemail, he tried to call back. He asked anyone he missed to please call him again and he would make sure he put the name down as wanting to speak at the public hearing.
- Chair Azman asked whether the persons he called back followed up with an email, or how their comments would be available at the meeting tonight.
- Administrator Kress stated most of them presented as part of tonight's meeting or wrote a written summary.

b. Discussion/Preliminary Plan/Preliminary Plat (Subdivision) Application: Nord Parcel

- There being no additional comment, Chair Azman discussed continuing the public hearing in May.
- Administrator Kress shared with the Commissioners the required language and optional dates available for the continued public hearing, and asked what date the Commissioners would want to host the continued hearing. He stated if the Planning Commission wants to continue the public hearing to May 28, it is a regularly scheduled meeting, then the publication occurs

on May 12 and the notice is due on May 6.

- Chair Azman felt the hearing from the meeting on April 15 would have to be done separate.
- Administrator Kress agreed with Chair Azman.
- Chair Azman said due to the Governor's Order, if a later day in May gets picked, such as the regular Commission meeting date which everyone knows about, that might give the Commission the most time they could possibly ask for. He asked for comments from Commissioners.
- Commissioner Sandell asked if there was an opportunity to consolidate the 2 matters into 1 meeting, since there will have been a full session on each matter.
- Chair Azman stated there is a significant amount of time between now and then and there may be some repetition. He suggested starting at 5:00 p.m. rather than 6:00 p.m. and combining the matters.
- Commissioner Cremmons suggested May 28, since part of the goal is to have a face-to-face meeting with the public. He said the Planning Commission had a 50/50 chance that they will be able to have a public hearing. If the Planning Commission would meet earlier, the chances go down to almost 0 and the purpose of the continued meeting seems to be without any merit.
- Chair Azman, Commissioners Sandell, Hara, Shah, and Yoshimura-Rank agreed with Commissioner Cremmons.
- Commissioner Hauge agreed but noted it should be a motion.
- Chair Azman stated they are trying to get the date set and then the motion will be done.
- Members of the Planning Commission discussed a start time and date for the continued meeting. It was suggested to have the meeting on May 28 starting at 5:30 p.m.
- After receiving no further comments regarding the 5:30 p.m. start time on May 28, Chair Azman asked someone to make a motion to continue the meeting using the correct language.
- Administrator Kress asked City Attorney Nason if the language regarding location should be taken out of the motion.
- City Attorney Nason said the language as worded says the meeting will be in the Community Room. She noted there is an option to potentially have notice for the Community Room and provide the Zoom login information, and stated it is important that people know where the meeting location is. She said the Planning Commission will have to work within the confines and constraints of the existing situation as they get closer to the publication deadline.

- Chair Azman quoted language in the motion, “unless due to a health pandemic or an emergency declared under chapter 12 it is not practical,” and asked if neither of those are the case but social distancing is in place, which would make it almost impossible to meet in the Meeting Room, if it would be an option for the Planning Commission to have an electronic meeting.
- City Attorney Nason said the language as quoted is taken directly from Minnesota Statute 13D.021, which authorizes all public meetings and their components, and the language needs to be used to have a meeting by electronic means.
- Chair Azman asked if there was an option to do a meeting remotely under 13D.02.
- City Attorney Nason said the problem with doing a meeting under 13D.02 is that if you are meeting under the interactive TV situation, you have to have the location where each member of the Planning Commission is open to the public to attend at that location, along with other restrictions.
- Chair Azman asked City Attorney Nason if her recommendation is that the Planning Commission leave the language as-is at this point and move forward.
- City Attorney Nason stated that was her recommendation.

MOTION by Hauge, seconded by Cremmons, to continue the public hearing on the application for preliminary plan/preliminary plat (subdivision) approval for the Nord Parcel and to continue and adjourn this meeting to May 28, 2020, at 5:30 p.m. in the Community Room, 100 Village Center Drive, North Oaks, Minnesota, unless due to a health pandemic or an emergency declared under Chapter 12 it is not practical or prudent for an in-person meeting to occur, in which case the continued meeting and public hearing shall occur by telephone or other electronic means. If the continued meeting and public hearing must occur by telephone or other electronic means, then notice of how to monitor the meeting and present at the public hearing will be published in the City’s official newspaper at least 10 days in advance of the continued meeting and public hearing date. Roll call vote: Ayes 7 (Hauge, Sandell, Shah, Yoshimura-Rank, Cremmons, Hara, Azman), Nays 0. Motion carried unanimously.

- Commissioner Yoshimura-Rank asked, if the language says 10 days in advance of the continued meeting and it has to be put in the paper, what date does the Planning Commission have to decide.
- Chair Azman noted the meeting date is May 28.
- Commissioner Hara noted Commissioner Yoshimura-Rank was referring to the date to put it in the paper before the meeting to give people an opportunity to respond.

- Commissioner Yoshimura-Rank asked whether it has to be in the paper if the Planning Commission changes anything.
- Administrator Kress stated the Planning Commission's notice will be structured very similar to the language just read, where it talks about if the Planning Commission is able to meet in person they will do so; if there is still a shelter-in-place order, the Planning Commission will meet remotely. Verbiage will be used so it makes sense. The Planning Commission will not have to meet again to re-issue notice whether it will be in-person or not. Worst-case scenario if that happened, a special meeting would be called to change the date, but he would have to meet the notice requirement of the May 12 publication, which is May 6. He said he would have to send the notice on May 6 to the paper so they can publish it 10 days in advance.
- Chair Azman clarified that Administrator Kress has to get it to the paper by May 6 in order for them to get it in the May 12 edition.
- Administrator Kress indicated Chair Azman was correct.
- Commissioner Yoshimura-Rank stated that if a decision has to be made by May 6, there is a good chance it will be an electronic meeting.
- Commissioner Hauge agreed and said it will probably be electronic.
- Administrator Kress stated that he did not think the order will be lifted for quite some time and that it is very unrealistic that it would be in any sort of public fashion where the Planning Commission could meet at the Community Room. It makes sense, though, to post it, regardless of the situation.
- Commissioner Hauge said if there is not a vaccine, the reins will be loosened very gradually.
- City Attorney Nason agreed that there is a strong likelihood the Planning Commission will not be able to meet in person on May 28. However, it is being structured so that if the shelter-in-place order is lifted, the Planning Commission has a window of opportunity should it be practical and prudent for in-person meetings to occur at that time. If not, it will have to be an electronic meeting again.
- Chair Azman asked if there would have to be notice 10 days beforehand if it was an electronic meeting.
- City Attorney Nason said he was correct and the recommendation is to publish notice of the continued meeting. Under the statute, when you continue a meeting, you do not have to re-publish the notice of the meeting if the motion is made to continue and the date and time of meeting are set at the meeting itself. However, to ensure the community is fully informed of how they may participate and make a presentation at the public hearing, it is recommended that the Planning Commission publish notice in accordance with the general publication requirements for that public hearing for a subdivision application.

- Chair Azman asked what the requirements would be to get notice out about the Zoom login credentials.
- City Attorney Nason said she anticipated having at the time the Zoom meeting information that would work for the meeting. With respect to the continuation of the hearing and continuation of the meeting, it would be anticipated that the notice of the meeting and public hearing would include all of the Zoom login information, which would be published in the paper as well as publicized to the residents of the City via Facebook, email message, sent out to NOHOA, etc.
- Chair Azman noted the proceedings tonight have concluded and asked how the Planning Commission appropriately signs off without inadvertently closing the hearing, whether he should declare the meeting continued and the Videographer instructed to go off the air.
- City Attorney Nason said he was correct and reiterated that the motion made was to continue and adjourn the meeting to May 28 at 5:30 p.m., and that vote was taken. She advised Chair Azman to declare the meeting adjourned and continued to the specified date and time and end the meeting in that fashion.
- Commissioner Shah thanked Staff and CTV for organizing the virtual meeting because the Planning Commission had to pivot to a different place and take a totally different approach and there have been logistics and technical challenges.
- Commissioner Yoshimura-Rank thanked Administrative Assistant Deb Breen for printing out all of the material.
- Chair Azman said he would follow City Attorney Nason’s advice regarding how to continue the meeting. He asked Videographer Anderson to end the broadcast.

The Planning Commission meeting adjourned at 9:06 p.m.

Kevin Kress, City Administrator

Mark Azman, Chair

Date approved _____

**North Oaks Planning Commission
Meeting Minutes
City of North Oaks Community Meeting Room
April 15, 2020**

CALL TO ORDER

Chair Azman called the meeting of April 15, 2020, to order at 6:00 p.m.

In compliance with Governor Walz's Stay-at-Home Order and pursuant to Minnesota Statute 13D.021, the meeting was conducted via Zoom.

ROLL CALL

Present: Chair Mark Azman, Commissioners Jim Hara, Stig Hauge, Nick Sandell, Sara Shah, and Joyce Yoshimura-Rank. Commissioner David Cremmons joined at 6:10 p.m., City Council Liaison Rick Kingston.

Staff Present: Administrator Kevin Kress, City Planner Bob Kirmis, City Attorney Bridget McCauley Nason, City Engineer Larina DeWalt, City Forester Mark Rehder.

Others Present: Videographer Maureen Anderson.

A quorum was declared present.

Chair Azman reviewed various rules regarding Zoom meetings. He stated some people have questioned whether meeting virtually provides a meaningful opportunity for the public to participate, whether some residents have the technological capabilities/savviness to participate, whether meetings should be postponed until they can be in-person, and whether or not recent meeting notices have been appropriate. However, in order to accommodate the applicant and keep the City government moving forward, it was decided to use a Zoom webinar platform. He described the factors that went into the decision: the declaration of peacetime emergency and stay-at-home directive by Governor Walz; the North Oaks City Council's resolution declaring an emergency and allowing public bodies to meet virtually under special statutes; the need for the City to take action and review the pending application for Site F; and the public's opportunity to speak, be seen, be heard, and make presentations. He said the Planning Commission considered postponing the meeting, but in light of Governor Walz's comments about the unlikelihood of an abrupt reopening, the ability to stop and suspend government work does not seem reasonably possible at this point. A Zoom webinar allows people to speak and hear public comments. Azman recommended the Planning Commission not take a vote but open the hearing, take public comment, and continue the hearing to May 28 in hopes that the meeting can be finished in-person, which would still allow the City Council to take action within the 120-day timeframe.

City Attorney Nason said the Planning Commission is meeting pursuant to the authority granted to them, as well as other cities and governmental entities, pursuant to Minnesota Statute 13D.021, which provides that when there is an emergency declared under Chapter 12 or a health pandemic and it is determined not practical or prudent to meet in-person, these types of meetings may be conducted in an electronic/other environment. There are certain notification requirements which go along with that, such as a need for a roll call vote on each action. Notice has been provided for specific Zoom links for both the audio and electronic version to the public and there

is an opportunity for the public to participate using one of those versions. The City is holding a meeting and public hearing on the subdivision applications that have been submitted pursuant to the Planning Commission's directive in February. She noted the application is subject to the 120-day deadline established by statute which requires, from the date of application received by the City, which was February 24, the City to make a final determination to approve or deny the application. There has been no specific legislative fix/change to the deadline under Minnesota Statute 15.99, although there is legislation being worked on to potentially push those dates out because of the challenge in meeting remotely versus in-person. Since there has been no change, the City is required to take action unless the developer agrees to grant an extension for the final action on the application within the 120 days, which is June 23, 2020, so the City will move forward with processing the application. If the City fails to take action on the application before the Planning Commission, the end result is that the application is deemed to be automatically approved pursuant to Minnesota Statute.

Chair Azman indicated City Attorney Nason's comments provided much-needed context for why the Planning Commission is proceeding in this manner and the importance of forging ahead towards a meaningful review of the application. He noted although the meeting was held by virtual means, the goal is that no one would be denied an opportunity to speak in any manner through the webinar. He said he would have additional instructions on how the Commission would logistically move through the hearing in order to allow members of the public to speak.

APPROVAL OF AGENDA

MOTION by Yoshimura-Rank, seconded by Cremmons, to approve the agenda as submitted. Roll call vote: Ayes 7 (Hauge, Sandell, Shah, Yoshimura-Rank, Cremmons, Hara, Azman), Nays 0. Motion carried unanimously.

Chair Azman explained that Commissioners and Staff are called panelists and people at home are the attendees. If an attendee wants to speak, they should raise their hand by using the "raise hand" function in the Zoom menu. He will see the raised hands and call on people in the order in which their hands are raised. As far as phone calls, he will unmute the caller and ask if they want to participate because the raised hand function is not as effective. He said Staff would give a presentation regarding the application, the applicant will speak, and then it will move into the public hearing and members of the public can speak. He asked participants to limit comments to 3 minutes. If there is any "Zoom bombing" or disruption, he is able to either end the meeting or remove the disruption and keep the meeting moving forward. If anything occurs, he will do the least amount necessary to remove the disruption and keep the meeting going. He noted there was a producer from the cable TV franchise that could help as well.

a. Public Hearing: Preliminary Plan/Preliminary Plat (Subdivision) Application: Anderson Woods Parcel

- City Planner Kirmis presented the Planning Report included in the packet and recommendation for approval of the proposed Anderson Woods preliminary plan/preliminary plat subject to the fulfillment of conditions 1-50.

- City Engineer DeWalt stated her review of the application resulted in a number of comments listed in the Staff report, a majority of which are fairly general in nature, and she would expect the applicant to resolve them in the final application. She said the development is planned to be served with sewer and water from Centerville Road with a dead-end water line. However, North Oaks Company (NOC) indicated they are working with the White Bear Township Engineer to design a loop system, which will differ from the plan in the packet. There are no wetland impacts for the Nord development, but in Anderson Woods there are wetland impacts of .19 acres for the access road which goes over Wet Basin 1. As part of final plan development, NOC has indicated they will do a global slope stability analysis, so the final proposed impacts for that crossing may increase or decrease slightly. She referenced Kirmis' comment about the access point differing from the conceptual plan in the 1999 PUD documents and stated that for the access point for Ramsey County on Centerville Road, she would have to defer to the County Engineer. In her engineering opinion, one access point would be preferred for the safety, minimization of impacts to the land, and privacy of North Oaks residents.
- Commissioner Hauge asked City Engineer DeWalt to explain how the road will be constructed across the wetland.
- City Engineer DeWalt said the current plans show the roadway would fill the area. Based on the geotechnical evaluation, fill would be brought in and placed. Dependent upon the slope stability analysis, that may change to include retaining walls, installing riprap or compacted fill, etc. She noted she would review the plans as they come in and the geotechnical engineer would make recommendations based on the slope stability analysis. At this point, what is shown is a fair estimate of what it would look like.
- Commissioner Shah asked Staff where the City is in totality in relation to the history of wetland impacts for East Oaks.
- City Engineer DeWalt said she does not have a great fact-filled answer and understands it has been discussed for over a year, before she came to the City. Based on the length of time that the East Oaks PUD projects have been implemented, even the LGU does not have proper records of what those impacts are. She spoke with the applicant and tried to get a better estimate of what has been implemented to this point, and referred the applicant to the question for more facts and information.
- Commissioner Cremmons referenced the proposed trail on the south end, which appears to join the existing farm road, and asked if there would be any wetland impact associated with the connection from Lot 2 to where the farm road is or if there is an existing berm there.
- City Engineer DeWalt stated it is her understanding that is an existing location and there are no current wetland impacts planned for that connection. She referred the question to the applicant.
- Commissioner Shah referenced Exhibit C and asked Staff what they thought about the lot size variability, noting that other subdevelopments are generally consistent in lot size, which

gives a more cohesive feel in a neighborhood.

- City Planner Kirmis said City Ordinances typically establish minimum lot area requirements. Most of the time developers will not exceed those, since the objective is typically to provide as many lots as allowed by ordinance. There is nothing that says someone can't significantly exceed any minimum requirement. He stated it is subjective and potentially relates to some of the environmental features that are included in a subdivision. He felt there was a bit of a trend to provide smaller lots along the perimeter of the City boundary, specifically the high-volume roadways.
- Commissioner Shah asked if there were any other neighborhoods in North Oaks that have this amount of variability.
- City Planner Kirmis stated he did not know.
- Commissioner Sandell said when he looks at the table, the variability seems pretty gray. However, when looking at the map, it looks like there is a lot of natural space, which might not make the 2 lots feel quite as big as they look.
- City Planner Kirmis noted he referenced gross area rather than net.
- City Engineer DeWalt said it would be helpful to look at the buildable, and when doing so, it is pretty equivalent across all lots and the home sizes would be similar. She said she did not think it would feel that divergent when someone is in the neighborhood.
- Mark Houge of NOC stated they are down to 1 single-family lot in Rapp Farm and a handful in Red Forest Way. It is important to both the Company and community to continue to supply lots for those who might want to move into the community. He said the lots would be close to the Villas of Wilkinson Lake but are intended to be single-family homes, and there will not be an association. Regarding the lot size variability, if you look at the buildable areas, it felt like they were sized appropriately from their perspective. Generally, lots in proximity to a road such as Centerville Road are less desirable for some, so they wanted to make sure they were sized in accordance with the lot value. In regard to the wetland issue and how wide the road crossing will be, that is dependent on working through some of the pros and cons with engineering staff from both North Oaks Home Owners' Association (NOHOA) and the City. Originally proposed was a 1:1 slope, similar to a railroad track crossing East Oaks Road. It could just as easily be 3:1 and will depend on the preferences of NOHOA or long-term maintenance by the City in terms of the design standards. The trail on the south side is basically high ground that was probably used for access for forest management, so no fill will be required at that location. He said he will ask Don Pereira, Director of Conservation Programs, to speak about how NOC decided to take this approach, along with Gary Eagles. He pointed out there are very few trees on the larger lots to the west and virtually no trees where the trail is going. The trees are mostly on the eastern portion. They are proposing to grade the road to minimize any tree removal and leave the trees on the lots as best they can, and then each homeowner will decide how they want to organize their home on the site. He trusts they will value the trees as much as everyone in the community

and make every effort to preserve as many trees as possible. It will be municipal sewer and water. White Bear Township has had a policy of letting water lines go to a dead end if the cul-de-sac is between 500-1,000 feet. The development is about 800 feet. The NOC recently did a project with them where a loop-back was done, and they will discuss with the Township what their preference is in this case. They worked on the trails with NOHOA and will go forward with a trail that runs along the west boundary as well as a connection on the south part of the site.

- Don Pereira of NOC stated they are quite confident that the total environmental impact from the proposed access to the development from Anderson Lane will be likely considerably less than the originally proposed farm road coming in from the south. Although the farm road is an existing road, if it was developed into something suitable for residential access, it would have to get built up, and there would be additional wetland impacts and likely more tree removal as well. In regard to the proposed crossing over the wetland, the elevation is very flat on both sides. Ideally there would be fill there so the utilities could be buried, but the water will end up in the same place: the water to the north will eventually get into the drainage moving up to Wilkinson; and the water to the south can move to the flowage between Black Lake, which also moves up north into Wilkinson. He said they would work with the Vadnais Lakes Area Water Management Organization (VLAWMO) to extend any efforts for proper water quality management for Wilkinson. There is an existing culvert in the proposed trail that NOC will improve, and there are a number of things the Company will do to make the existing water resources of the area function better than they are today. NOC wants to do what they can to help develop a better, more robust trail system. For example, there is a lot of water on the landscape. He has done a fair bit of climate resilience planning for recent projects. According to the climatologists, the world will be as wet in the future as it is now, or even wetter, which means there will be some retrofitting of some trails to better cope with a wetter future, including the trail that crosses a major wetland to the west of Anderson Woods.
- City Forester Rehder said he was asked to determine impacts to both significant and heritage trees on-site. Although the City does not have a definition regarding what that constitutes, he researched other City Ordinances and provided those to the Planning Commission. He stated if a heritage tree is taken out, it is a 3:1 replacement ratio. If a smaller significant tree is taken out, it might be a 1:1 ratio. There was an existing tree inventory in place for the wooded portion of the property of about 300 trees. There would be about 100 trees removed due to the placement of the road, trail, and sedimentation pond. He spoke with the developer regarding concerns about the topography and the impacts that could occur to save trees and provided a number of suggestions and recommendations which they could use to make it easier for the trees on-site. He feels confident that construction can take place with a minimal amount of tree loss, hopefully working around trees as necessary and doing everything possible to preserve trees. He said there was an old nursery across the wetland with a number of trees. They used to pull trees from there and transplant them in different places in the community, but the trees got old and large and no longer have the form and function as transplant trees and were removed.

- Commissioner Yoshimura-Rank noted there would be about 200 trees lost in Nord and another 100 trees lost at Anderson, and asked if the City was in the process of creating a tree ordinance, defining a “heritage” tree, and also making some kind of policy to preserve/replace trees and asked who would undertake the project.
- City Forester Rehder indicated the issue has been brought up a number of times, most recently at the Natural Resources Commission (NRC). It has been tried before without much success but is something they are willing to try again from both a developer and builder standpoint. He thinks it is important and is glad it is being pursued and hopes it goes through this time so they can replant, which is the best thing to do to make sure there is a forest for everyone’s grandchildren. He noted there are many things people do not understand about forests such as impacts from invasives and structure as far as old versus young trees, etc. They are exploring many avenues and using different partners to get a clearer picture of what North Oaks’ forests will look like in the future and will do what they can to preserve it.
- Commissioner Yoshimura-Rank asked if there were people working on the issue currently.
- City Forester Rehder said both the NRC and the Homeowners' Association are looking at avenues, and the hope is to come up with something that works for all parties.
- Commissioner Sandell asked Mr. Houge where the house would go on Lot 9 and if the double orange lines on the map were for proposed driveways.
- Mr. Houge stated he envisioned it to be as close to the west property line as possible because he would want to preserve trees as a buffer between where the home would go and the street. He asked everyone to keep in mind that Lot 9 is a very large lot and it is sometimes hard to get a good sense of scale on small drawings. He reiterated it would be on the west and, depending on the homeowner’s desire, they may choose to be farther north to get better views of the wetlands or closer to the road to save costs on the driveway, as well as take tree locations into account.
- Commissioner Sandell referenced a little strip which goes south to the entrance on the map and asked what the strip would look like as far as landscape when the neighborhood is complete.
- Mr. Houge said the homeowner would own the area and could do what they wished to do. Their desire would be to leave the area natural. They are trying to minimize the construction area and save as many trees as possible between the proposed street and Centerville. He imagined that anyone who would want to live in this neighborhood would want to preserve as many trees as possible and keep it a natural setting.
- Commissioner Sandell clarified that the NOC team would not do anything to the strip and that no one knows what the homeowner would do, but it would be fairly cumbersome for them to do anything much.

- Mr. Houge stated Commissioner Sandell was correct. He said they gave a lot of thought regarding how best to grade the site, noting a lot of people like walk-out lots. In order to do that, they would have had to grade the land in a manner that would have removed most, if not all, the trees. They chose not to go that route. They think part of the benefit of being in the area is to take advantage of the trees.
- Commissioner Hara asked how many feet the skinny part is and asked if it was 100-200 feet from the new road to Centerville.
- Houge said a reference would be, if the street was 60 feet, it would be between 120-150 feet.
- Commissioner Cremmons asked Houge if the infiltration basin shown on Lot 1 is within the boundaries or if it is in some kind of common area at the far south end of the property.
- Mr. Houge said it is being shown in a separate outlot.
- Commissioner Cremmons clarified that it would not be owned by the property owner of Lot 1.
- Mr. Houge said it would be an outlot that the company would own and they would ultimately determine if NOHOA would want to take responsibility because there is no subassociation.
- City Engineer DeWalt stated the plans she reviewed shows the infiltration basin is currently part of that lot acreage with an easement over the top. She asked if that was correct or if that was going to change on future development plans.
- Mr. Houge stated, in looking at the drawings, that she was correct and he misspoke.

MOTION by Hara, seconded by Shah, to open the public hearing at 8:05 p.m. Roll call vote: Ayes 7 (Hauge, Sandell, Shah, Yoshimura-Rank, Cremmons, Hara, Azman), Nays 0. Motion carried unanimously.

Chair Azman opened the floor for public comment.

- Citizen Comment: Franny Skamsler Lewis, 3 Red Maple Lane, stated she would like to emphasize that in the PDA a great deal of consideration was given to all of the factors discussed during the meeting. She thinks that is obvious based on the amount of detail that was provided to the environmental analysis group that performed the EAW, as well as all of the exhibits in the agreement itself, where it very clearly depicts road access not crossing the wetland. At the time, all parties involved evaluated the most advantageous configuration for lots and access for that property/parcel. The decision was to have access off of Centerville Road for the lots east of the wetland and access from the south for the lots west of the wetland. Ultimately, the one that was settled on was the one that was codified in the concept plan, which is the current controlling document. If there was interest in changing that access, she would encourage the Planning Commission to view that the same way it did the additional land being subsumed into the Nord parcel: through an amendment to the PDA that

can be as equally and thoroughly evaluated by all parties, including the community, and that can be managed before an application is brought to the Planning Commission and City. She stated the community has been very clear in its interest for strict adherence to the PDA and its controlling documents. While the EAW is not a controlling document, it is included by reference and virtue of that negative declaration. She recalled that, in totality, for all development parcels associated with the PUD, there was an anticipated .35 acres of wetland impact. The crossing at Anderson alone is estimated at .19 acres, which is over half of the total wetland impact for all of the development sites that have been worked on and developed since 1999. Because no party is able to provide an accurate accounting of the wetland mitigation to date in those development sites, it is unclear how the City could ever make an adequate determination that the total impact of wetlands has not exceeded a meaningful or significant amount of what was originally estimated. Even using the suggested criteria by the Environmental Quality Board, there is no conceivable way in her mind that the government can, in good faith and conscience, approve additional wetland mitigation without understanding the entire picture. She said it is also worth noting that she spoke to the Ramsey County Lead Transportation Planner, Joe Lux, and discussed with him the relative safety benefits of the original access plan versus what has been proposed, and he acknowledged the County generally guides new developments towards single-access points that are directly across from an existing access point to a main road. He said that when he looked at the plans and imagery of that specific parcel, it was clear to him why the original access plan had been chosen, and that from a safety standpoint he recognized the County does not have any specific regulation that would prevent the City from approving the original access plan. He also mentioned that, statistically speaking, the Centerville Road portion is incredibly safe and he would not have any concerns approving the original access plan. If the City decides it is more optimal or they are more comfortable with a single-access point, that is understandable. It does not give credence to any party to extend the access across the wetland, given the other covenants of the agreement that were agreed to by all parties. She said just because there is interest in changing one element for one reason does not mean any party has the right to sacrifice the other elements. She encouraged the Commission to recommend the plan for rejection until either a compliant plan is brought forward or the parties have agreed, by proper amendment, to change the access plan that was codified in the agreement.

- Leanne Savereide, 4 Red Maple Lane, said removing 100 out of 293 trees, and with construction it may be more than that, leaving $\frac{1}{3}$ of the trees, seems a bit drastic to her. She noted the tree report talks about oak wilt, which happens when you disturb trees during the summer. Even though July is the beginning of the medium amount of risk, they had a tree limb break off a red oak tree near their house in July, which died by August and spread oak wilt to other trees. It seems a very dangerous thing if they really are trying to save trees.
- City Forester Rehder stated oak wilt is a concern and there are recommendations in the report about things that can be done to limit it. He relies on University of Minnesota scientist Jenny Juzwik, who has a long history with oak wilt. She indicated there are 3 components to spreading oak wilt: the wound, inoculum, and correct weather situation. He stated that oak wilt usually occurs when the bugs are out and trees are still producing spore mats. It is generally a low risk time frame, but he would like to adhere to the determination by Jenny Juzwik. There are generally updates every 2 weeks: July 1, July 15. If it is still a high risk by

July 1, he would like to see the recommendations in the forestry report implemented and wait until the new determination on July 15, which is generally what good practitioners/tree care companies/utility contractors will do when they prune trees. Then it becomes a low-risk situation. He would then leave it in the developer's hands as to whether they wanted to continue to use the strategies which have been put forth.

- Kathie Emmons stated NOHOA has very little objection to the proposed preliminary plan for Anderson Woods. The trail configuration is very straightforward, meets all of their criteria, connects into the greater trail system, has minimal impact in and of itself to wetlands and trees and is not located on or close to a roadway. The surfaces are required to be high and dry throughout most of the seasons, and she felt it would be in good shape. They would do what they can to avoid trees or to keep the trail in the kind of shape they would want to see it. Regarding the trees and tree preservation activity, NOHOA was part of the discussion and continues to be very interested in tree preservation and replacement. NOHOA would like to explore being able to take a more aggressive stance on it through the purview of the ASC. As there are conversations with the partners, NOHOA wants to make sure they are hitting it from all sides to preserve as many trees as possible.
- Commissioner Cremmons asked Ms. Emmons if the infiltration basins on Lots 1 and 5, which NOC would like to be a NOHOA responsibility, is something that is typically handled by the Association and if the Association is accepting of the assignment.
- Ms. Emmons said they are not currently actively interested in accepting stormwater ponds. They have some already, but they also have subassociations that handle their own stormwater and drainage ponds. The Board will discuss the issue in the coming months. They know the Company will have responsibility for the ponds until such time as they transfer them over to NOHOA, and they will be able to decide at that time where they would like to assign them. If they do not want to take care of them, there are a number of different options. For the short-term, the Company will take care of them. She looks forward to the Board reaching some clarity on what they would like to do so everyone is clear.
- Mr. Houge stated he agreed with Ms. Emmons' comments. They have an obligation when they develop sites to take care of the stormwater ponds. They are connected to the road system so it occurred to the Company that NOHOA may be interested in participating in the future maintenance versus somebody like the City. Dialogue has started, no decisions have been made, but it is important to look at this and come up with a long-term solution.
- Ms. Emmons agreed with Mr. Houge's comments.
- There being no additional comment, Chair Azman recommended to continue the public hearing to May 28 at 5:30 p.m. He indicated the hearing would be newly published and noticed as well. He stated Administrator Kress advised him that once the motion passes, the proceedings must end; there is nothing more to do at that point.

**b. Discussion/Action: Public Hearing: Preliminary Plan/Preliminary Plat (Subdivision)
Application: Anderson Woods Parcel**

MOTION by Shah, seconded by Yoshimura-Rank, to continue the public hearing on the application for preliminary plan/preliminary plat (subdivision) approval for the Anderson Woods Parcel and to continue and adjourn this meeting to May 28, 2020, at 5:30 p.m. in the Community Room, 100 Village Center Drive, North Oaks, Minnesota, unless due to a health pandemic or an emergency declared under Chapter 12 it is not practical or prudent for an in-person meeting to occur, in which case the continued meeting and public hearing shall occur by telephone or other electronic means. If the continued meeting and public hearing must occur by telephone or other electronic means, then notice of how to monitor the meeting and present at the public hearing will be published in the City's official newspaper at least 10 days in advance of the continued meeting and public hearing date.

- Commissioner Hauge asked what the Planning Commission would be doing on April 30.
- Administrator Kress said there is a separate public hearing on April 30 to consider a CUP.
- Chair Azman stated the idea is to push the matter out as far as they can, consistent with the 120-day rule, in order to optimize the opportunity to have an in-person hearing, which is preferred, and that is why May 28 was selected.
- Commissioner Hauge asked Administrator Kress to clarify the process of what will happen if something changes by May 6, noting further meetings may happen via Zoom.
- Administrator Kress said Commissioner Hauge was correct, noting the end goal is not to get to June 23 and risk the 120-day rule or there would be an automatic approval. The idea of extending the meeting is to meet in-house/in-person if possible. If not, the Planning Commission will meet again via Zoom.
- Commissioner Shah asked if there would be anything done in the background while the Planning Commission waits until the May 28 meeting, such as some of the items which were brought up at the meeting.
- Administrator Kress stated City Staff and some of the consultants will review the public commentary and get in contact with NOC to see if any of them are relevant to address.
- Commissioner Shah indicated that was fair and stated Staff could look at the record to see what the open items and unanswered questions were.
- Chair Azman stated NOHOA had some of the issues in their letter. For example, they requested something different regarding the slopes on the wetland crossing. He said some of the issues can be worked through in the next 6 weeks so everyone can get on the same page.
- Commissioner Hara said he thought the adherence to the PDA seemed to be the most significant item.

- Chair Azman asked Commissioner Hara if he had that opinion from the comment on the roadway and access.
- Commissioner Hara stated that was correct. He asked, if that had to be vetted out, what the result of the vetting would be.
- Chair Azman said when the Planning Commission reconvenes and after the public hearing is closed the issue can be talked about and deliberated on, and then a vote taken regarding a recommendation to the City Council.
- Commissioner Sandell asked how the Planning Commission would memorialize the agreements between NOHOA and the Company on the trail route. He felt it was important to hear that NOHOA and the Company had agreed on a trail route and thought if they would have voted yesterday and voted today, that would have memorialized it. He asked if that could stay as an open item that could change until the next time the Planning Commission meets, or if the documents are frozen in time until the Planning Commission gets together.
- Administrator Kress said the Planning Commission would memorialize it in a resolution recommending approval or denial to the City Council.
- Commissioner Shah asked if it was safe to say NOHOA memorialized their position by taking a vote, which she indicated was 6-2.
- Administrator Kress said the Planning Commission would want to also memorialize it, so in the recommendations of approval or denial it should be specifically stated.
- Chair Azman agreed, noting it would be a condition.
- Ms. Emmons said they already made their review and comment in an April 7 letter and they do not plan to revisit any of those terms.
- Chair Azman stated that another option, now that the parties have presented, would be if it's approved, there can be a condition to follow that agreement.
- Administrator Kress agreed and stated the Council could weigh in on what their perspective is at the final approval stage.
- City Planner Kirmis said the trail plan map, which was agreed upon between the applicant and NOHOA, could be incorporated into the approval and cross-referenced as a condition of approval.
- Commissioners Hauge and Sandell agreed with City Planner Kirmis' suggestion.
- Chair Azman asked if there were any concerns on the logistics of the motion, saying Administrator Kress and Staff will take care of the republication, and on May 28 it will begin

with the public hearing.

- Commissioner Hauge asked what the City's official newspaper is, the *North Oaks News* or *Shoreview Press*.
- Administrator Kress stated it is the *Shoreview Press*.
- Chair Azman asked if the *North Oaks News* is a backup paper.
- Administrator Kress stated the City can only have one official newspaper, which is the *Shoreview Press*.
- Commissioner Cremmons asked if it made sense to put a small article in the *North Oaks News* to let people know since the issue has been heated, assuming a lot more people read that than the *Shoreview Press*.
- Administrator Kress said he could make the suggestion.
- Ms. Emmons said NOHOA would be willing to put the information in their email blast.
- Commissioner Sandell asked if the *Shoreview Press* is a free publication.
- Chair Azman said as far as he knew it is, because he gets it and does not pay a subscription.
- Commissioner Hauge stated he also gets the paper free.
- Commissioner Yoshimura-Rank noted they send out an envelope once or twice a year and people can write a check then.
- Chair Azman said he knew *North Oaks News* did that but was not aware that *Shoreview Press* also did so.
- Administrator Kress noted *North Oaks News* is published monthly and the *Shoreview Press* is published twice per month.
- Ms. Emmons noted the deadline for *North Oaks News* is on Friday.
- There being no additional comment, Chair Azman asked for a roll call vote.
- Administrator Kress asked Chair Azman to shut video feed down immediately if the motion passed as that concludes meeting.

Roll call vote: Ayes 7 (Hauge, Sandell, Shah, Yoshimura-Rank, Cremmons, Hara, Azman), Nays 0. Motion carried unanimously.

ADJOURN

The Planning Commission meeting adjourned at 7:38 p.m.

Kevin Kress, City Administrator

Mark Azman, Chair

Date approved _____

No. 20-03

**CITY OF NORTH OAKS, MINNESOTA
APPLICATION FOR CUP, VARIANCE, APPEAL, AMENDMENT, PLAN REVIEW**

Location of Property: (address) 16 Sunset Lane

Legal Description of Property: Tract B RLS 115

Fee Owner: Kimberly Einan 16 Sunset Lane
Name Address

North Oaks MN 55127 773-841-9995 / 612-251-1373
City State Zip Contact Number/s

Signature of Fee Owner: [Signature] Date 4/10/2020

Applicant: _____
(if different from owner) Name Address

City State Zip Contact Numbers/s

Signature of Applicant: [Signature] Date 4/10/20

Type of Request: (Please circle correct request)

CONDITIONAL USE PERMIT (as provided for in Chapter 151.076 of Code of Ordinances) ^{Text}

VARIANCE

APPEAL

AMENDMENT

BUILDING / SITE PLAN REVIEW

OTHER

Please attach fifteen (15) copies of detailed written and graphic material fully explaining the proposed request and include the reason for the request, present zoning classification and existing use of the property.

(For office use)

Application received with \$450 fee on 4/10/20 Check# _____ Amt# \$450

Date for review of completeness fifteen (15) business days from initial receipt 5/1/2020

* If application is deemed incomplete, written notice must be sent to the applicant by above date stating the items that need to be submitted for the application to be deemed complete.

Deadline for action sixty (60) days from initial receipt _____

Extended deadline

** City may extend the review period by up to sixty days from the end of deadline for action only if applicant is notified in writing prior to the end of the initial sixty (60) day review period. The deadline may be extended beyond sixty days with applicant's approval.

P.C.

5/28/2020

Conditional Use or Amendment request - Public Hearing date _____

Planning Commission action:

Approval or disapproval on _____ with conditions _____

City Council Action:

Approval or disapproval on _____ with conditions _____

Variance, Appeal, Building/Site Plan Review, Other

Action of Board of Adjustment and Appeals:

Approval or disapproval on _____

Bond Required _____

Bond Received on _____

CITY REIMBURSEMENT POLICY

In connection with your request and submittal of material to be reviewed by the City of North Oaks, please be informed that if the City incurs any additional expense in the course of this application review beyond the normal processing fee, the cost will be assessed to the applicant. As authorized in Chapter 151.083 of the Ordinance Code, an applicant will be responsible for full reimbursement of incurred costs to the City of North Oaks. (A copy of this section of the Ordinance is available upon request.)

Your initial application fee of \$450.00 covers the processing of a typical zoning action. A typical process for reviewing a zoning action may include some or all of the following: City employee help in explaining the application process, City employee receipt of completed application and proper scheduling on appropriate agenda, one legal notice for a public hearing (if applicable), written notice to abutting property owners (if applicable) generation of a staff report, presentation of the staff report to the Planning Commission and presentation of the staff report and Planning Commission recommendation to the City Council.

If the scope of your application goes beyond a typical review process, you will be asked for an additional escrow deposit. At that time, you will be advised of the additional review necessary to complete your zoning action request and the potential cost for completing said review. You will be provided written documentation for your acknowledgement that outlines the above two items.

An applicant will be allowed to remove their request at any time during said further review process. Any remaining escrow deposit that is not needed to pay incurred costs to the date of application removal will be refunded to the applicant within sixty days.

I acknowledge that I have read and fully understand the above statements.

J.A. Einar

Applicant's Signature

Date 4/10/20

100 Village Center Dr., Suite 230, North Oaks, MN 55127
(651) 792-7750 Fax: (651) 792-7751

INDIVIDUAL SEWAGE TREATMENT SYSTEM
APPLICATION/PERMIT

Application Date 4-8-2020

Job Address 16 Sunset Lane Permit No. 2020-202

Owner Eric Einan Fee Type I, II, III \$450
Type IV \$450 plus \$85/hr.

Installer Bill Wolfe Excavating

Address PO Box 775 Stillwater MN 55082

Phone No. 651 430 2256 MPCA Certificate No. L3902

Legal Description: RLS _____ Tract _____

Proposed Work

Description Replace Septic System
(New System, Alteration, Repair)

Type of System III No. of Bedrooms 4

Variance No. (if applicable) _____ No. of TANKS 3

Renee Bue
Signature of Applicant

Renee Bue Bill Wolfe Excavating
Print Name

Date PD 4/9/20 Amt 450 (For Office Use Only) Ck # 13377

This permit is granted upon the express condition that the person, partnership, firm or corporation to whom it is granted, together with the agents, employees, workers, and sub-contractors agree to abide by and conform to all Ordinances of the City of North Oaks regarding the construction, alteration, and repair of sewage treatment systems within the City; and that this permit may be revoked at any time upon evidence of violations of any of the provisions of said ordinances.

PERMITS ARE VALID FOR 180 DAYS

Approval Date _____

Sanitary Inspector _____



May 7, 2020

Kimberly Einan
16 Sunset Lane
North Oaks, MN 55127

Dear Ms. Einan:

An application for a Variance for a replacement Septic system to allow placement 14' into the 30' setback has been received by the City of North Oaks; this is CUP No. 20-03. We have received your check \$450 for the application fee. Your variance application will be discussed at the next available Planning Commission meeting, which is **Thursday, May 28, 2020**. At this meeting, the Planning Commission will either recommend approval or denial as it moves onto the City Council. The meeting agenda packet and staff report will be available on the City website 72 hours prior to the meeting.

You are invited to join this Planning Commission discussion by:

Clicking the link to join the webinar: <https://us02web.zoom.us/j/89761089500>

Or iPhone one-tap : US: +13126266799,,89761089500#

Or Telephone: US: +1 312 626 6799 Webinar ID: 897 6108 9500

The City Council will then decide whether to approve or disapprove your application at their meeting on **June 11, 2020**.

Letters will be sent to abutting neighbors 10 business days before the next Planning Commission meeting.

Please contact our office with any questions about your application process.

Sincerely,

Debbie Breen



Abutter Letters for Varlance 20-03 16 Sunset Lane

9, 10, 12, 14, 18, 20 Sunset Lane

24, 26 Spring Farm Lane

37, 39, 43, 45 Pheasant Lane

12/20/2019



Your water. Our neighbors.

SSTS Design

16 Sunset Lane
North Oaks, MN 55127-6454

PID # 173022220013

Version 1.0

Kloppner Services & Designs, LLC
MPCA LICENSE # 4043

763.843.4114
CONNECT@KSD-MN.COM

SSTS Design Summary Report

12/20/19

On December 19th, 2019, a site evaluation was conducted at 16 Sunset Lane, North Oaks, MN 55127 to design a replacement Sub-Soil Treatment System (SSTS) for a 4-bedroom home. The PID number is 173022220013. The new replacement SSTS will use a Type III Mound dispersal bed with a two new Septic Tanks & a new Dose Tank to pump the effluent to the Mound.

Prior to submitting for permit from the local unit government (City of North Oaks) please review and sign all pages which require a signature.

Wastewater Sources & Peak Flow Rate

The expected waste strength is Residential Wastewater with a Peak flow of 600 gallons per day (GPD) for a 4-bedroom house. The Actual Expected Daily Flow should be less than 70% of the Peak Flow (420 GPD).

Septic Tanks

The existing Septic Tanks & Cesspools must be abandoned, pumped, crushed and filled. If the new tanks are placed in the same location as a current tank, the tanks must be pumped crushed and removed.

The depth of the sewer line from the house is 8 feet deep at the inlet of the first septic tank. The new tanks must not be buried greater than 7 feet unless tank is design for greater bury depth.

The 1st Septic Tank and Dose Tank are purposely oversized for a 4-bedroom home. The homeowners may remodel in the future and add a 5th bedroom. To plan for this addition, the 1,500-gallon 1st Septic Tank is sized for a 5-bedroom home. Also, the Dose Tank (3rd Tank) is sized to be used with a Timed Dose Control Panel to measure and manage flow to the mound to restrict overuse for the 4-bedroom sized mound.

Type III Mound

The dispersal area will be a Type III Mound. The Mound Soil Absorption Area (STA) required is 1,000 sqft (20' x 50'). The site will need a Type III system.

The reason for a Type III SSTS is due to the small lot size (1.28 acres), the steep slopes throughout the property and the shallow limiting layer in the soil. The only available soil is to the located at the top of the hill to the Southeast of the house.

The minimum required materials for the sewer line, distribution network, pumps, supply line, sand, rock, fill and cover are detailed in the design worksheets included with this design. Actual values may change slightly and will need to be field verified for correctness.

Special Notes

- Septic Tanks must be approved for buried depth.
- The Mound Upslope & Downslope Berms are calculated at 4:1 ratio. The Mound Endslope Berm is calculated at 3:1 ratio ensure system will fit on property.

- There are several Large trees (2-3 Oaks) which will need to be removed prior to construction of the mound. Additionally, there are many other small trees throughout the hillside which will need to be cleared.
- The edge of the Right of Way is marked by a large Iron Pole at SW corner located ~ 35 feet East of Electrical Post near road.
- To use this system with a 5-bedroom home, after remodeling in the future, the current pump controls (Demand Dose w/ Pump On/Off float) must be replaced with a Timed Dose control panel. The Timed Dose control panel must be programmed maintain a maximum rate of 525 gallons per day, at peak usage, to the mound.
 - See Pump Tank Design Worksheet (Time Dose) for 5-Bedroom Home

Construction Notes

Building Permit requirements

No construction shall be allowed by any local unit of government until the permit required for the subsurface sewage treatment system has been issued.

Site Protection

Prior to and during construction or lot improvements, the proposed initial and replacement soil treatment and dispersal areas shall be protected from disturbance, compaction, or other damage by use of stakes and silt fence or snow fence.

MR 7080.2100, Subpart 1. F

Electrical installations must comply with applicable laws and ordinances including the most current codes, rules, and regulations of public authorities having jurisdiction and with part 1315.0200, which incorporates the National Electrical Code.

As-Built Drawing

The Licensed Installer must provide an As-Built of the final location of all components. The attached Site Plan is only for reference and should not be considered as final survey or location of system components.

Protection from Freezing for Supply Line

The Mound supply line must drain back and empty pipe after each dose. To avoid potential freezing, additional depth or insulation may be necessary to keep line from freezing if buried too shallow.

Soil Erosion & Protection from Freezing

The dispersal area must have seed and grass established throughout the excavated areas to maintain proper protection from soil erosion and freezing.

Materials & Specifications

16 Sunset Lane, North Oaks



Tankage – Concrete

- 1,500-Gallon Septic
- 1,000-Gallon Septic
- 1,000-Gallon Dose

Recommended Effluent Filter & Alarm

- Polylok 525 w/ Reed Switch for Alarm (or approved equal)
- Dual-Alarm Box located in or near house (or Installer equivalent)
- Electrical wire & Junction Box
- Dedicated 120V circuit from house for alarm

Sewer Line

- 25' – 4" Sch 40 pipe

Pump – Installer Choice

- 22 GPM
- 31 TDH
- Pump Connection for floats & flow measurement
 - Pump On/Off
 - High Level Alarm
 - Include an Event Counter (*or other method to measure flow*)

Supply Line to Pressure Laterals

- 65' - 2" sch 40 pipe
- Fittings, as necessary

Pressure Laterals

- 3 – 48' long w/ 1-1/2" sch 40 pipe
- 3' spacing (orifices)
- 3/16" diameter orifices (drilled holes)
- Clean-outs at end of each lateral
- 2" & 1 1/2" Bends, crosses, couplings, sweeps and fittings, as necessary

Dispersal Area

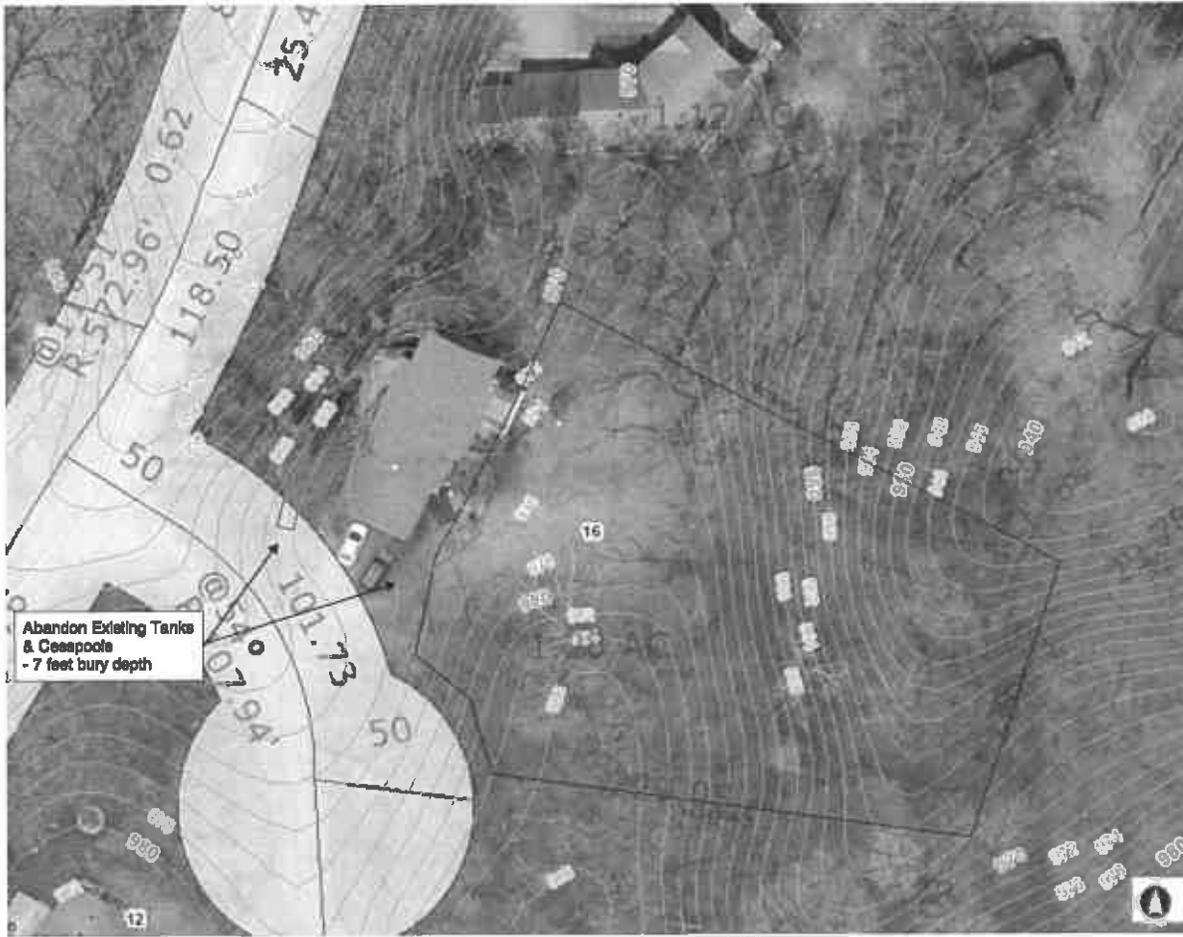
- Rockbed – 10' x 50'
- Absorption Area – 20' x 50'
- Rock depth – 6" + min 3.5" to cover pipe
- Washed-Mound Sand – Min. Height: 29"

Back Fill & Black Dirt for cover

- See calculations from Mound Materials Worksheet

*Note: All materials quantities for pipe, sand, rock, etc. are only estimates.

**Tonnage calculations for materials may differ from actual volume used onsite.#



100.0 0 50.00 100.0 Feet

NAD_1983_HARN_Adj_MN_Ramsey_Feet
 © Ramsey County Enterprise GIS Division

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.
THIS MAP IS NOT TO BE USED FOR NAVIGATION

Legend



- City Halls
- Schools
- Hospitals
- Fire Stations
- Police Stations
- Recreational Centers
- 2012 Contours
- Parcel Points
- Parcel Boundaries
- Easement**
 - Misc Easements
 - Ditch, County & Judicial
 - Other
 - Parking
 - Pedestrian
 - Private Access
 - Private Driveway
 - Public Right of Way
 - Ponding
 - Railroad
 - Undetermined
 - Drainage
 - Drainage & Utility
 - Utility
- Benchmark

Notes

Enter Map Description



Preliminary Evaluation Worksheet

Site within 200' of noncommunity transient well (Y/N)	<input type="text" value="No"/>	Yes, source: <input style="width: 100%;" type="text"/>
Site within a drinking water supply management area (Y/N)	<input type="text" value="No"/>	Yes, source: <input style="width: 100%;" type="text"/>
Site in a Well Head Protection inner wellhead management zone (Y/N)	<input type="text" value="No"/>	Yes, source: <input style="width: 100%;" type="text"/>
Buried water supply pipes within 50 ft of proposed system (Y/N)	<input type="text" value="No"/>	
B. Site located in a shoreland district/area?	<input type="text" value="No"/>	Yes, name: <input style="width: 100%;" type="text"/>
Elevation of ordinary high water level:	<input style="width: 50%;" type="text"/> ft	Source: <input style="width: 100%;" type="text"/>
Classification: <input style="width: 150%;" type="text"/>	Tank Setback: <input style="width: 50%;" type="text"/> ft.	STA Setbk: <input style="width: 50%;" type="text"/> ft.
C. Site located in a floodplain?	<input type="text" value="No"/>	Yes, Type(s): <input style="width: 100%;" type="text"/>
Floodplain designation/elevation (10 Year):	<input style="width: 50%;" type="text"/> ft	Source: <input style="width: 100%;" type="text"/>
Floodplain designation/elevation (100 Year):	<input style="width: 50%;" type="text"/> ft	Source: <input style="width: 100%;" type="text"/>
D. Property Line Id / Source:	<input type="checkbox"/> Owner <input type="checkbox"/> Survey <input checked="" type="checkbox"/> County GIS <input type="checkbox"/> Plat Map <input type="checkbox"/> Other: <input style="width: 100%;" type="text"/>	
E. ID distance of relevant setbacks on map:	<input checked="" type="checkbox"/> Water <input checked="" type="checkbox"/> Easements <input checked="" type="checkbox"/> Well(s) <input checked="" type="checkbox"/> Building(s) <input checked="" type="checkbox"/> Property Lines <input checked="" type="checkbox"/> OHWL <input type="checkbox"/> Other: <input style="width: 100%;" type="text"/>	

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

Map Units:	<input style="width: 95%;" type="text" value="177D—Gotham loamy sand"/>	Slope Range:	<input style="width: 95%;" type="text" value="12-20"/> %
List landforms:	<input style="width: 95%;" type="text" value="Pitted outwash plains"/>		
Landform position(s):	<input style="width: 95%;" type="text" value="Shoulder"/>		
Parent materials:	<input style="width: 95%;" type="text" value="Outwash"/>		
	Depth to Bedrock/Restrictive Feature: <input style="width: 50%;" type="text" value="80"/> in	Depth to Watertable: <input style="width: 50%;" type="text" value="80"/> in	
Map Unit Ratings	Septic Tank Absorption Field- At-grade: <input style="width: 95%;" type="text" value="Moderately Limited"/>		
	Septic Tank Absorption Field- Mound: <input style="width: 95%;" type="text" value="Extremely Limited"/>		
	Septic Tank Absorption Field- Trench: <input style="width: 95%;" type="text" value="Moderately Limited"/>		

5. Local Government Unit Information

Name of LGU:	<input style="width: 95%;" type="text" value="City of North Oaks"/>
LGU Contact:	<input style="width: 95%;" type="text" value="Midwest Soil Testing"/>
LGU-specific setbacks:	<input style="width: 95%;" type="text"/>
LGU-specific design requirements:	<input style="width: 95%;" type="text"/>
LGU-specific installation requirements:	<input style="width: 95%;" type="text"/>
Notes:	<input style="width: 95%;" type="text"/>



Field Evaluation Worksheet



1. Project Information

v 04.02.2019

Property Owner/Client: Project ID:

Site Address: Date Completed:

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): Landscape position:

Percent slope: % Slope shape: Slope direction:

Describe the flooding or run-on potential of site:

Describe the need for Type III or Type IV system:

Note:

Elevations and Benchmarks identified on map? (Y/N): If yes, describe:

Proposed soil treatment area protected? (Y/N): 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):

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

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

Percolation tests performed & attached (Y/N):

5. Phase I. Reporting Information

	Depth	Elevation	
Periodically saturated soil:	<input type="text" value="7"/> in	<input type="text" value="115.0"/> ft	Soil Texture: <input type="text" value="Loam"/>
Standing water:	<input type="text"/> in	<input type="text"/> ft	Percolation Rate: <input type="text"/> min/inch
Bedrock:	<input type="text"/> in	<input type="text"/> ft	Soil Hyd Loading Rate: <input type="text" value="0.6"/> gpd/ft ²
Benchmark:		<input type="text" value="100"/> ft	

Benchmark Location:

Differences between soil survey and field evaluation:

Site evaluation issues / comments:

Anticipated construction issues:



Soil Observation Log

Project ID:

v 04.02.2019

Client: Eric & Kimberly Elnan				Location / Address: 16 Sunset Lane, North Oaks, MN 55127-6454					
Soil parent material(s): (Check all that apply) <input type="checkbox"/> Outwash <input type="checkbox"/> Lacustrine <input type="checkbox"/> Loess <input type="checkbox"/> Till <input type="checkbox"/> Alluvium <input type="checkbox"/> Bedrock <input type="checkbox"/> Organic Matter									
Landscape Position: (check one) <input type="checkbox"/> Summit <input checked="" type="checkbox"/> Shoulder <input type="checkbox"/> Back/Side Slope <input type="checkbox"/> Foot Slope <input type="checkbox"/> Toe Slope						Slope shape: Convex, Linear			
Vegetation: Forest		Soil survey map units: 177D		Slope %: 2		Elevation: 114.6			
Weather Conditions/Time of Day: Sunny / 12:45 pm				Date: 12/19/19					
Observation #/Location: SB1 / See Map				Observation Type: Auger					
Depth (In)	Texture	Rock Frag. %	Matrix Color(s)	Mottle Color(s)	Redox Kind(s)	Indicator(s)	Structure		
							Shape	Grade	Consistence
0-9	LOAM	~10%	7.5YR 3/3				GR	W	FR
9-13	MSL	~15%	7.5YR 5/3	5YR 4/2	D	S1	GR	W	FR
13-26	MS	~25%	7.5YR 4/3	5YR 6/1	D	S4	SG	STRU	L
26-35	CS	~30%	2.5YR 5/3	2.5YR 4/6	C	S4	SG	STRU	L
Comments: Limiting Layer - 9" = 113.9' - Type III - MOUND I hereby certify that I have completed this work in accordance with all applicable ordinances, rules and laws.									
Jesse Kloppner		<i>Jesse Kloppner</i>			L4043		12/18/2019		
(Designer/Inspector)		(Signature)			(License #)		(Date)		

9"
↑

Textures: c-clay sic-silty clay sc-sandy clay cl-clay loam sicl-silty clay loam scl-sandy clay loam si-silt sil-silt loam l-loam sl-sandy loam* ls-loamy sand* s-sand*	Subsoil Indicator(s) of Saturation: S1. Depleted matrix (value >/=4 and chroma </=2) S2. Distinct gray or red redox features S3. 5Y chroma </= 3 S4. 7.5 YR or redder faint redox concentrations or redox depletion	Consistence: <u>Loose-</u> Intact specimen not available <u>Friable-</u> Slight force between fingers <u>Firm-</u> Moderate force between fingers <u>Extremely firm-</u> Moderate force between hands or slight foot pressure <u>Rigid-</u> Foot pressure
	Topsoil Indicator(s) of Saturation: T1. Wetland Vegetation T2. Depressional Landscape T3. Organic texture or organic modifiers T4. N 2.5/ 0 color T5. Redox features in topsoil T6. Hydric Soil	Slope Shape: Slope shape is described in two directions: up and down slope (perpendicular to the contour), and across slope (along the horizontal contour); e.g. Linear, Convex or LV.
Soil Structure Grade: <u>Massive-</u> No observable aggregates, or no orderly arrangement of natural lines of weakness <u>Weak-</u> Poorly formed, indistinct peds, barely observable in place <u>Moderate-</u> Well formed, distinct peds, moderately durable and evident, but not distinct in undisturbed <u>Strong-</u> Durable peds that are quite evident in un-displaced soil, adhere weakly to one another, withstand displacement, and become separated when soil is disturbed <u>Loose-</u> No peds, sandy soil	*Sand Modifiers co-coarse m-medium f-fine vf-very fine	
Soil Structure Shape: <u>Granular-</u> The peds are approximately spherical or polyhedral and are commonly found in topsoil. These are the small, rounded peds that hang onto roots <u>Platy-</u> The peds are flat and plate like. They are oriented horizontally and are usually overlapping. Platy structure is commonly found in forested areas <u>Blocky-</u> The peds are block-like or polyhedral, and are bounded by flat or slightly rounded surface that are casting of the faces of surrounding peds. <u>Prismatic-</u> Flat or slightly rounded vertical faces bound the individual peds. Peds are distinctly longer vertically, and faces are typically cast or molds of <u>Single Grain-</u> The structure found in a sandy soil. The individual particles are not held together.		



Soil Observation Log

Project ID:

v 04.02.2019

Client: Eric & Kimberly Einar				Location / Address: 16 Sunset Lane, North Oaks, MN 55127-6454					
Soil parent material(s): (Check all that apply) <input checked="" type="checkbox"/> Outwash <input type="checkbox"/> Lacustrine <input type="checkbox"/> Loess <input type="checkbox"/> Till <input type="checkbox"/> Alluvium <input type="checkbox"/> Bedrock <input type="checkbox"/> Organic Matter									
Landscape Position: (check one) <input type="checkbox"/> Summit <input checked="" type="checkbox"/> Shoulder <input type="checkbox"/> Back/Side Slope <input type="checkbox"/> Foot Slope <input type="checkbox"/> Toe Slope				Slope shape		Convex, Linear			
Vegetation: Forest		Soil survey map units: 177D		Slope %: 2		Elevation (ft): 114.3			
Weather Conditions/Time of Day: Sunny / 1:15 pm				Date: 12/19/19					
Observation #/Location: SP1 / See Map				Observation Type: Soil Pit					
Depth (in)	Texture	Rock Frag. %	Matrix Color(s)	Mottle Color(s)	Redox Kind(s)	Indicator(s)	Structure		
							Shape	Grade	Consistence
0-7	LOAM ~10%		10YR 3/2				GR	W	FR
7-11	LMS ~15		7.5YR 4/2				SG	STRU	L
11-17	MS ~30%		7.5YR 5/3	7.5YR 5/6	C	S4	SG	STRU	L
17-28	CS >50%		5YR 5/3	5YR 5/1	D	S1	SG	STRU	L
Comments Limiting Layer = 11" - 113.2' - Type III - MOUND									

11" ↑

Additional Soil Observation Logs



Project ID:

Client: Eric & Kimberly Elnan

Location / Address: 16 Sunset Lane, North Oaks, MN 55127-6454

Soil parent material(s): (Check all that apply) Outwash Lacustrine Loess Till Alluvium Bedrock Organic Matter

Landscape Position: (check one) Summit Shoulder Back/Side Slope Foot Slope Toe Slope Slope shape: Convex, Linear

Vegetation: Forest Soil survey map units: 177D Slope %: 7 Elevation (ft): 113.7'

Weather Conditions/Time of Day: Sunny / 1:30 pm Date: 12/19/19

Observation #/Location: SP2 / See Map Observation Type: Soil Pit

7"

Depth (in)	Texture	Rock Frag. %	Matrix Color(s)	Mottle Color(s)	Redox Kind(s)	Indicator(s)	Structure		
							Shape	Grade	Consistence
0-7	LOAM	~5%	7.5YR 3/4				GR	W	FR
7-11	SIL	~15%	7.5YR 6/3	7.5YR 5/6	D	S4	B	M	FM
11-18	SIL	~10%	7.5YR 4/2	5YR 5/6	C	S2	B	M	EM FM
18-24	CL	~10%	5YR 4/2	10YR 4/6	C	S2	B	M	EX FM

Comments Limiting Layer - 7" - 113.1' - Type III - MOUND



Design Summary Worksheet



1. PROJECT INFORMATION		v 04.02.2019
Property Owner/Client:	<input type="text" value="Eric & Kimberly Einan"/>	Project ID: <input type="text"/>
Site Address:	<input type="text" value="16 Sunset Lane, North Oaks, MN 55127-6454"/>	Date: <input type="text" value="12/20/19"/>
2. DESIGN FLOW & WASTE STRENGTH <i>Attach data / estimate basis for Other Establishments</i>		
Design Flow:	<input type="text" value="600"/> GPD	Anticipated Waste Type: <input type="text" value="Residential"/>
BOD:	<input type="text" value="170"/> mg/L	TSS: <input type="text" value="60"/> mg/L
		Oil & Grease: <input type="text" value="20"/> mg/L
Treatment Level:	<input type="text" value="C"/> <i>Select Treatment Level C for residential septic tank effluent</i>	
3. HOLDING TANK SIZING		
Minimum Capacity: Residential =400 gal/bedroom, Other Establishment = Design Flow x 5.0, Minimum size 1000 gallons		
Code Minimum Holding Tank Capacity:	<input type="text"/> Gallons	in <input type="text"/> Tanks or Compartments
Recommended Holding Tank Capacity:	<input type="text"/> Gallons	in <input type="text"/> Tanks or Compartments
Type of High Level Alarm:	<input type="text"/> (Set @ 75% tank capacity)	
Comments:	<input type="text"/>	
4. SEPTIC TANK SIZING		
A. Residential dwellings:		
Number of Bedrooms (Residential):	<input type="text" value="4"/>	
Code Minimum Septic Tank Capacity:	<input type="text" value="2500"/> Gallons	in <input type="text" value="2"/> Tanks or Compartments
Recommended Septic Tank Capacity:	<input type="text" value="2500"/> Gallons	in <input type="text" value="2"/> Tanks or Compartments
Effluent Screen & Alarm (Y/N):	<input type="text" value="Yes"/>	Model/Type: <input type="text" value="Polylok 525"/>
B. Other Establishments:		
Waste received by:	<input type="text"/> <input type="text"/> GPD x <input type="text"/> Days Hyd. Retention Time	
Code Minimum Septic Tank Capacity:	<input type="text"/> Gallons	in <input type="text"/> Tanks or Compartments
Recommended Septic Tank Capacity:	<input type="text"/> Gallons	in <input type="text"/> Tanks or Compartments
Effluent Screen & Alarm (Y/N):	<input type="text"/>	Model/Type: <input type="text"/>
5. PUMP TANK SIZING		
Pump Tank 1 Capacity (Minimum):	<input type="text" value="1500"/> Gal	Pump Tank 2 Capacity (Minimum): <input type="text"/> Gal
Pump Tank 1 Capacity (Recommended):	<input type="text" value="1500"/> Gal	Pump Tank 2 Capacity (Recommended): <input type="text"/> Gal
Pump 1 <input type="text" value="22.0"/> GPM Total Head	<input type="text" value="30.1"/> ft	Pump 2 <input type="text"/> GPM Total Head <input type="text"/> ft
Supply Pipe Dia. <input type="text" value="2.00"/> in	Dose Vol: <input type="text" value="80.0"/> gal	Supply Pipe Dia. <input type="text"/> Dose Vol: <input type="text"/> Gal



Design Summary Worksheet



6. SYSTEM AND DISTRIBUTION TYPE		Project ID: _____	
Soil Treatment Type:	<input type="text" value="Mound"/>	Distribution Type:	<input type="text" value="Pressure Distribution-Level"/>
Elevation Benchmark:	<input type="text" value="100"/> ft	Benchmark Location:	<input type="text" value="Slab of Garage Floor"/>
MPCA System Type:	<input type="text" value="Type III"/>	Distribution Media:	<input type="text" value="Rock"/>
Type III/IV Details:	<input high."="" type="text" value="Mound Sand > 24"/>		

7. SITE EVALUATION SUMMARY:

Describe Limiting Condition:

Layers with >35% Rock Fragments? (yes/no) Yes 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:

Limiting Condition:	<input type="text" value="7"/> inches	Depth	<input type="text" value="0.6"/> ft	Elevation	<input type="text" value="115.0"/> ft
Minimum Req'd Separation:	<input type="text" value="36"/> inches		<input type="text" value="3.0"/> ft	Elevation	<i>Critical for system compliance</i>
Code Max System Depth:	<input type="text" value="Mound"/> inches		<input type="text" value="-2.4"/> ft	Elevation	<input type="text" value="117.4"/> ft

This is the maximum depth to the bottom of the distribution media. Negative Depth (ft) means it must be a mound.

Soil Texture:

Soil Hyd. Loading Rate: GPD/ft² Percolation Rate: MPI

Contour Loading Rate: Note:

Measured Land Slope: % Note:

Comments:

8. SOIL TREATMENT AREA DESIGN SUMMARY

Trench:

Dispersal Area	<input type="text"/> ft ²	Sidewall Depth	<input type="text"/> in	Trench Width	<input type="text"/> ft
Total Lineal Feet	<input type="text"/> ft	No. of Trenches	<input type="text"/>	Code Max. Trench Depth	<input type="text"/> in
Contour Loading Rate	<input type="text"/> ft	Min. Length	<input type="text"/> ft	Designed Trench Depth	<input type="text"/> in

Bed:

Dispersal Area	<input type="text"/> ft ²	Sidewall Depth	<input type="text"/> in	Maximum Bed Depth	<input type="text"/> in
Bed Width	<input type="text"/> ft	Bed Length	<input type="text"/> ft	Designed Bed Depth	<input type="text"/> in

Mound:

Dispersal Area	<input type="text" value="500.0"/> ft ²	Bed Length	<input type="text" value="50.0"/> ft	Bed Width	<input type="text" value="10.0"/> ft
Absorption Width	<input type="text" value="20.0"/> ft	Clean Sand Lift	<input type="text" value="2.4"/> ft	Berm Width (0-1%)	<input type="text"/> ft
Upslope Berm Width	<input type="text" value="14.7"/> ft	Downslope Berm	<input type="text" value="30.1"/> ft	Endslope Berm Width	<input type="text" value="16.3"/> ft
Total System Length	<input type="text" value="82.5"/> ft	System Width	<input type="text" value="54.8"/> ft	Contour Loading Rate	<input type="text" value="12.0"/> gal/ft



Design Summary Worksheet



Project ID: _____

At-Grade:

Bed Width <input type="text"/> ft	Bed Length <input type="text"/> ft	Finished Height <input type="text"/> ft
Contour Loading Rate <input type="text"/> gal/ft	Upslope Berm <input type="text"/> ft	Downslope Berm <input type="text"/> ft
Endslope Berm <input type="text"/> ft	System Length <input type="text"/> ft	System Width <input type="text"/> ft

Level & Equal Pressure Distribution

No. of Laterals <input type="text" value="3"/>	Perforation Spacing <input type="text" value="3"/> ft	Perforation Diameter <input type="text" value="3/16"/> in
Lateral Diameter <input type="text" value="1.50"/> in	Min Dose Volume <input type="text" value="63"/> gal	Max Dose Volume <input type="text" value="150"/> gal

Non-Level and Unequal Pressure Distribution

	Elevation (ft)	Pipe Size (in)	Pipe Volume (gal/ft)	Pipe Length (ft)	Perf Size (in)	Spacing (ft)	Spacing (in)	
Lateral 1								Minimum Dose Volume <input type="text"/> gal
Lateral 2								
Lateral 3								Maximum Dose Volume <input type="text"/> gal
Lateral 4								
Lateral 5								
Lateral 6								

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

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

gpd X mg/L X 8.35 ÷ 1,000,000 = lbs. BOD/day

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

gpd X mg/L X 8.35 ÷ 1,000,000 = lbs. BOD/day

Lbs. BOD To Be Removed:

PreTreatment Technology: *Must Meet or Exceed Target

Disinfection Technology: *Required for Levels A & B

C. Organic Loading to Soil Treatment Area:

mg/L X gpd x 8.35 ÷ 1,000,000 ÷ ft² = lbs./day/ft²



Design Summary Worksheet



10. Comments/Special Design Considerations:

System sized for 5-bedroom for septic tanks. 1st Tank = 1,500-gal; 2nd Tank = 1,000-gal; Dose Tank = 1,500-gal.

Current Septic Tanks are buried 7 feet deep.

The Mound Upslope & Downslope Berms are calculated at 4:1 ratio. The Mound Endslope Berm is calculated at 3:1 ratio ensure system will fit on property.

There are several Large trees (2-3 Oaks) which will need to be removed prior to construction of the mound. Additionally, there are many other small trees throughout the hillside which will need to be cleared.

The edge of the Right of Way is marked by a large Iron Pole at SW corner located ~ 35 feet East of Electrical Post near road.

In the future, to use this design as a 5-bedroom system, replace the Demand Dose controls for the pump cycles with a Timed Dose control panel. The effluent flow to the mound will be set to maintain a maximum rate of 525 gallons per day at peak usage.

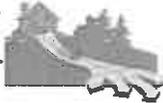
I hereby certify that I have completed this work in accordance with all applicable ordinances, rules and laws.

Jesse Kloepfner
(Designer)

Jesse Kloepfner
(Signature)

L4043
(License #)

12/20/2019
(Date)



Mound Design Worksheet ≥1% Slope

1. SYSTEM SIZING: Project ID: _____ v 04.02.2019

- A. Design Flow: GPD
- B. Soil Loading Rate: GPD/ft²
- C. Depth to Limiting Condition: ft
- D. Percent Land Slope: %
- E. Design Media Loading Rate: GPD/ft²
- F. Mound Absorption Ratio:

TABLE IXa				
LOADING RATES FOR DETERMINING BOTTOM ABSORPTION AREA AND ABSORPTION RATIOS USING PERCOLATION TESTS				
Percolation Rate (MPI)	Treatment Level C		Treatment Level A, A-2, B,	
	Absorption Area Loading Rate (gpd/ft ²)	Mound Absorption Ratio	Absorption Area Loading Rate (gpd/ft ²)	Mound Absorption Ratio
<0.1	-	1	-	1
0.1 to 5	1.2	1	1.8	1
0.1 to 5 (fine sand and loam, fine sand)	0.8	2	1	1.8
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	-	-	-	-

Table I MOUND CONTOUR LOADING RATES:				
Measured Perc Rate	OR	Texture - derived mound absorption ratio		Contour Loading Rate:
≤ 60mpl		1.0, 1.3, 2.0, 2.4, 2.6	→	≤12
61-120 mpl	OR	5.0	→	≤12
≥ 120 mpl*		>5.0*	→	≤6*

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

2. DISPERSAL MEDIA SIZING

A. Calculate Dispersal Bed Area: Design Flow ÷ Design Media Loading Rate = ft²

$$\text{600 GPD} \div \text{1.2 GPD/ft}^2 = \text{500 ft}^2$$

If a larger dispersal media area is desired, enter size: ft²

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

C. Calculate Contour Loading Rate: Bed Width X Design Media Loading Rate

$$\text{10 ft}^2 \times \text{1.2 GPD/ft}^2 = \text{12.0 gal/ft} \quad \text{Can not exceed Table 1}$$

D. Calculate Minimum Dispersal Bed Length: Dispersal Bed Area ÷ Bed Width = Bed Length

$$\text{500 ft}^2 \div \text{10.0 ft} = \text{50.0 ft}$$

3. ABSORPTION AREA SIZING

A. Calculate Absorption Width: Bed Width X Mound Absorption Ratio = Absorption Width

$$\text{10.0 ft} \times \text{2.0} = \text{20.0 ft}$$

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

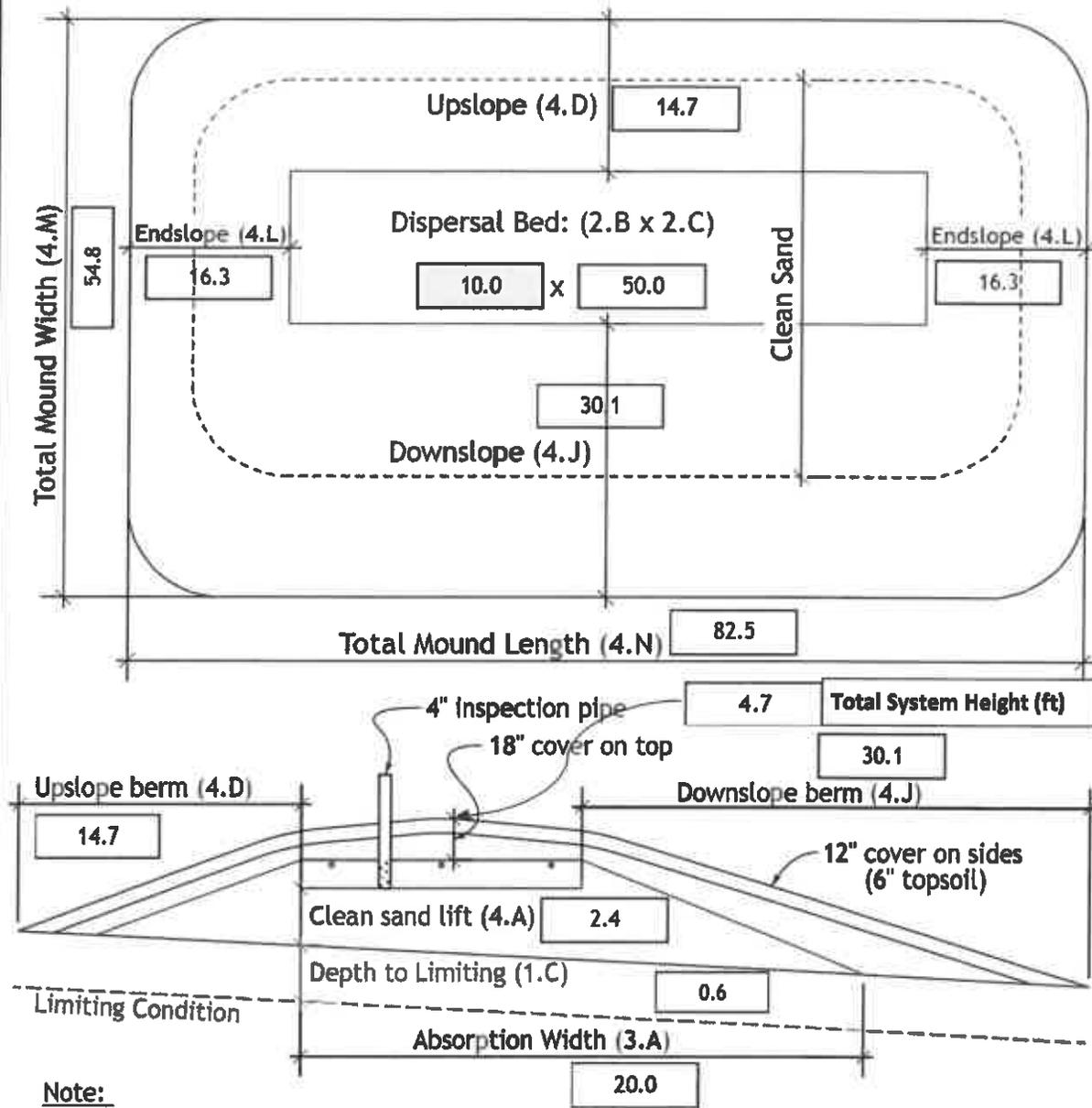
Calculate Downslope Absorption Width: Absorption Width - Bed Width

$$\text{20.0 ft} - \text{10.0 ft} = \text{10.0 ft}$$

4. DISTRIBUTION MEDIA: ROCK	Project ID:
A. Rock Depth Below Distribution Pipe	
6 in 0.50 ft	
5. DISTRIBUTION MEDIA: REGISTERED TREATMENT PRODUCTS: CHAMBERS AND EZFLOW	
A. Enter Dispersal Media: <input style="width: 100%;" type="text"/>	
B. Enter the Component: Length: <input style="width: 100px;" type="text"/> ft Width: <input style="width: 100px;" type="text"/> ft Depth: <input style="width: 100px;" type="text"/> ft	
C. Number of Components per Row = Bed Length divided by Component Length (Round up)	
<input style="width: 100px;" type="text"/> ft ÷ <input style="width: 100px;" type="text"/> ft = <input style="width: 100px;" type="text"/> components/row	<i>Check registered product information for specific application details and design</i>
D. Actual Bed Length = Number of Components/row X Component Length:	
<input style="width: 100px;" type="text"/> components X <input style="width: 100px;" type="text"/> ft = <input style="width: 100px;" type="text"/> ft	
E. Number of Rows = Bed Width divided by Component Width (Round up)	
<input style="width: 100px;" type="text"/> ft ÷ <input style="width: 100px;" type="text"/> ft = <input style="width: 100px;" type="text"/> rows <i>Adjust width so this is a whole number.</i>	
F. Total Number of Components = Number of Components per Row X Number of Rows	
<input style="width: 100px;" type="text"/> X <input style="width: 100px;" type="text"/> = <input style="width: 100px;" type="text"/> components	
6. MOUND SIZING	
A. Calculate Minimum Clean Sand Lift: 3 feet minus Depth to Limiting Condition = Clean Sand Lift	
3.0 ft - <input style="width: 100px;" type="text"/> 0.6 ft = <input style="width: 100px;" type="text"/> 2.4 ft Design Sand Lift (optional): <input style="width: 100px;" type="text"/> ft	
B. Upslope Height: Clean Sand Lift + Depth of Media + Depth of Cover cover (1 ft.)	
<input style="width: 100px;" type="text"/> 2.4 ft + <input style="width: 100px;" type="text"/> 0.8 ft + <input style="width: 100px;" type="text"/> 1.5 ft = <input style="width: 100px;" type="text"/> 4.7 ft	
C. Select Upslope Berm Multiplier (based on land slope): <input style="width: 100px;" type="text"/> 3.12	
D. Calculate Upslope Berm Width: Multiplier X Upslope Mound Height = Upslope Berm Width	
<input style="width: 100px;" type="text"/> 3.12 ft X <input style="width: 100px;" type="text"/> 4.7 ft = <input style="width: 100px;" type="text"/> 14.7 ft	
E. Calculate Drop in Elevation Under Bed: Bed Width X Land Slope ÷ 100 = Drop (ft)	
<input style="width: 100px;" type="text"/> 10.0 ft X <input style="width: 100px;" type="text"/> 7.0 % ÷ 100 = <input style="width: 100px;" type="text"/> 0.70 ft	
F. Calculate Downslope Mound Height: Upslope Height + Drop in Elevation = Downslope Height	
<input style="width: 100px;" type="text"/> 4.7 ft + <input style="width: 100px;" type="text"/> 0.70 ft = <input style="width: 100px;" type="text"/> 5.4 ft	
G. Select Downslope Berm Multiplier (based on land slope): <input style="width: 100px;" type="text"/> 5.56	
H. Calculate Downslope Berm Width: Multiplier X Downslope Height = Downslope Berm Width	
<input style="width: 100px;" type="text"/> 5.56 X <input style="width: 100px;" type="text"/> 5.4 ft = <input style="width: 100px;" type="text"/> 30.1 ft	
I. Calculate Minimum Berm to Cover Absorption Area: Downslope Absorption Width + 4 feet	
<input style="width: 100px;" type="text"/> 10.0 ft + <input style="width: 100px;" type="text"/> 4 ft = <input style="width: 100px;" type="text"/> 14.0 ft	
J. Design Downslope Berm = greater of 4H and 4I: <input style="width: 100px;" type="text"/> 30.1 ft	
K. Select Endslope Berm Multiplier: <input style="width: 100px;" type="text"/> 3.00 <i>(usually 3.0 or 4.0)</i>	
L. Calculate Endslope Berm X Downslope Mound Height = Endslope Berm Width	
<input style="width: 100px;" type="text"/> 3.00 ft X <input style="width: 100px;" type="text"/> 5.4 ft = <input style="width: 100px;" type="text"/> 16.3 ft	
M. Calculate Mound Width: Upslope Berm Width + Bed Width + Downslope Berm Width	
<input style="width: 100px;" type="text"/> 14.7 ft + <input style="width: 100px;" type="text"/> 10.0 ft + <input style="width: 100px;" type="text"/> 30.1 ft = <input style="width: 100px;" type="text"/> 54.8 ft	
N. Calculate Mound Length: Endslope Berm Width + Bed Length + Endslope Berm Width	
<input style="width: 100px;" type="text"/> 16.3 ft + <input style="width: 100px;" type="text"/> 50.0 ft + <input style="width: 100px;" type="text"/> 16.3 ft = <input style="width: 100px;" type="text"/> 82.5 ft	

7. MOUND DIMENSIONS

Project ID:



Note:
 For 0 to 1% slopes, *Absorption Width* is measured from the *Bed* equally in both directions.
 For slopes >1%, *Absorption Width* is measured downhill from the upslope edge of the *Bed*.

Comments:

There are several large trees which will need to be removed. Upslope & Downslope berms calculated at 4:1 ratio. Endslope berm calculated at 3:1 ratio to make system fit on property. Additional material may be needed on downslope to properly grade with hillside.



Mound Materials Worksheet



Project ID:

v 04.02.2019

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

$$((6 \text{ in} + 3.5 \text{ ft}) \div 12) \times 50.0 \text{ ft} \times 10.0 \text{ ft} = 395.8 \text{ ft}^3$$

Divide ft³ by 27 ft³/yd³ to calculate cubic yards: $395.8 \text{ ft}^3 \div 27 = 14.7 \text{ yd}^3$

Add 30% for constructability: $14.7 \text{ yd}^3 \times 1.3 = 19.1 \text{ yd}^3$

B. Calculate Clean Sand Volume:

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

$$3.1 \text{ ft} \times 10.0 \text{ ft} \times 50.0 \text{ ft} = 1533.3 \text{ ft}^3$$

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)

$$(\text{ft} - 1) \times \text{ft} \times \text{ft} = \text{ft}^3$$

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

$$(\text{ft} - 1) \times \text{ft} \times \text{ft} = \text{ft}^3$$

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

$$\text{ft}^3 + \text{ft}^3 + \text{ft}^3 = \text{ft}^3$$

For a Mound on a slope greater than 1%

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

$$((4.7 \text{ ft} - 1) \times 3.0 \text{ ft} \times 50.0) + 2 = 278.8 \text{ ft}^3$$

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

$$((5.4 \text{ ft} - 1) \times 10.0 \text{ ft} \times 50.0) + 2 = 1104.2 \text{ ft}^3$$

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

$$(5.4 \text{ ft} - 1) \times 3.0 \text{ ft} \times 10.0 \text{ ft} = 132.5 \text{ ft}^3$$

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

$$278.8 \text{ ft}^3 + 1104.2 \text{ ft}^3 + 132.5 \text{ ft}^3 + 1533.3 \text{ ft}^3 = 3048.8 \text{ ft}^3$$

Divide ft³ by 27 ft³/yd³ to calculate cubic yards: $3048.8 \text{ ft}^3 \div 27 = 112.9 \text{ yd}^3$

Add 30% for constructability: $112.9 \text{ yd}^3 \times 1.3 = 146.8 \text{ yd}^3$

C. Calculate Sandy Berm Volume:

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

$$(5.1 - 0.5) \text{ ft} \times 54.8 \text{ ft} \times 82.5 \text{ ft} + 2 = 10329.1 \text{ ft}^3$$

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

$$10329.1 \text{ ft}^3 - 3048.8 \text{ ft}^3 - 395.8 \text{ ft}^3 = 6884.5 \text{ ft}^3$$

Divide ft³ by 27 ft³/yd³ to calculate cubic yards: $6884.5 \text{ ft}^3 \div 27 = 255.0 \text{ yd}^3$

Add 30% for constructability: $255.0 \text{ yd}^3 \times 1.2 = 331.5 \text{ yd}^3$

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

$$54.8 \text{ ft} \times 82.5 \text{ ft} \times 0.5 \text{ ft} = 2261.8 \text{ ft}^3$$

Divide ft³ by 27 ft³/yd³ to calculate cubic yards: $2261.8 \text{ ft}^3 \div 27 = 83.8 \text{ yd}^3$

Add 30% for constructability: $83.8 \text{ yd}^3 \times 1.3 = 64.4 \text{ yd}^3$

Project ID:

v 04.02.2019

1. Media Bed Width: ft
2. Minimum Number of Laterals in system/zone = Rounded up number of $[(\text{Media Bed Width} - 4) + 3] + 1$.
- $[(\text{ } 10 \text{ } - 4) + 3] + 1 = \text{ } 3 \text{ } \text{laterals}$ *Does not apply to at-grades*

3. Designer Selected Number of Laterals: laterals

Cannot be less than line 2 (Except in at-grades)

4. Select Perforation Spacing: ft

5. Select Perforation Diameter Size: in

6. Length of Laterals = Media Bed Length - 2 Feet.

- 2ft = ft *Perforation can not be closer than 1 foot from edge.*



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

Number of Perforation Spaces = ft \div ft = Spaces

8. Number of Perforations per Lateral is equal to 1.0 plus the Number of Perforation Spaces. 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 = Spaces + 1 = Perfs. Per Lateral

Maximum Number of Perforations Per Lateral to Guarantee <10% Discharge Variation											
1/4 Inch Perforations						7/32 Inch Perforations					
Perforation Spacing (Feet)	Pipe Diameter (Inches)					Perforation Spacing (Feet)	Pipe Diameter (Inches)				
	1	1 1/4	1 1/2	2	3		1	1 1/4	1 1/2	2	3
2	10	13	18	30	60	2	11	16	21	34	68
2 1/2	8	12	16	28	54	2 1/2	10	14	20	32	64
3	8	12	16	25	52	3	9	14	19	30	60
3/16 Inch Perforations						1/8 Inch Perforations					
Perforation Spacing (Feet)	Pipe Diameter (Inches)					Perforation Spacing (Feet)	Pipe Diameter (Inches)				
	1	1 1/4	1 1/2	2	3		1	1 1/4	1 1/2	2	3
2	12	18	26	46	87	2	21	33	44	74	149
2 1/2	12	17	24	40	80	2 1/2	20	30	41	69	135
3	12	16	22	37	75	3	20	29	38	64	128

9. Total Number of Perforations equals the Number of Perforations per Lateral multiplied by the Number of Perforated Laterals.

Perf. Per Lat. X Number of Perf. Lat. = Total Number of Perf.

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

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

11. Select Lateral Diameter (See Table): in

12. 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 ft²

b. **Square Foot per Perforation** = Bed Area divided by the Total Number of Perforations.

500 ft² ÷ 51 perforations = 9.8 ft²/perforations

13. Select **Minimum Average Head**: 1.0 ft

14. Select **Perforation Discharge** (GPM) based on Table: 0.41 GPM per Perforation

15. Determine required **Flow Rate** by multiplying the **Total Number of Perfs.** by the **Perforation Discharge**.

51 Perfs X 0.41 GPM per Perforation = 22 GPM

16. **Volume of Liquid Per Foot of Distribution Piping** (Table II): 0.110 Gallons/ft

17. **Volume of Distribution Piping** =

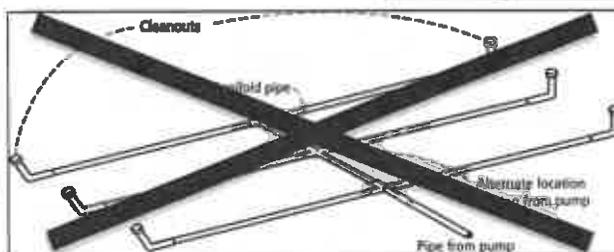
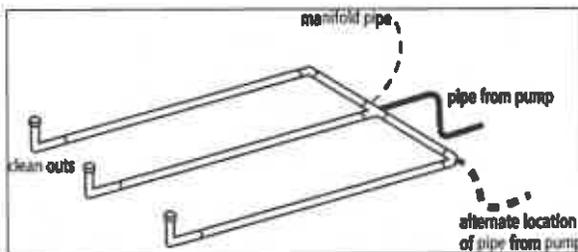
= [Number of Perforated Laterals X Length of Laterals X (Volume of Liquid Per Foot of Distribution Piping)]

3 X 48 ft X 0.110 gal/ft = 15.8 Gallons

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

15.8 gals X 4 = 63.4 Gallons

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:

1. PUMP CAPACITY Project ID: _____ v 04.02.2019

Pumping to Gravity or Pressure Distribution: Pressure

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

2. If pumping to a pressurized distribution system: 22.0 GPM

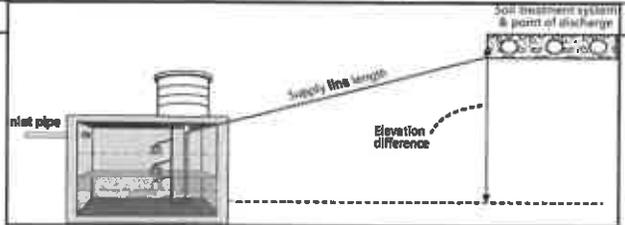
3. Enter pump description: Demand Dosing

2. HEAD REQUIREMENTS

A. Elevation Difference 24 ft
between pump and point of discharge:

B. Distribution Head Loss: 5 ft

C. Additional Head Loss: 0.0 ft (due to special equipment, etc.)



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 1. 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: 65 ft

E. Friction Loss in Plastic Pipe per 100ft from Table 1:

Friction Loss = 1.34 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 (D.2) X 1.25 = Equivalent Pipe Length*

65 ft X 1.25 = 81.3 ft

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

Supply Friction Loss = 1.34 ft per 100ft X 81.3 ft + 100 = 1.1 ft

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

24.0 ft + 5.0 ft + 0.0 ft + 1.1 ft = 30.1 ft

3. PUMP SELECTION

A pump must be selected to deliver at least **22.0** GPM (Line 1 or Line 2) with at least **30.1** feet of total head.

Comments:



Pump Tank Design Worksheet (Demand Dose)



DETERMINE TANK CAPACITY AND DIMENSIONS Project ID: _____ v 04.02.2019

1. A. Design Flow (Design Sum. 1A): GPD C. Tank Use:

B. Min. required pump tank capacity: Gal D. Recommended pump tank capacity: Gal

2. A. Tank Manufacturer: B. Tank Model:

C. Capacity from manufacturer: Gallons

D. Gallons per inch from manufacturer: Gallons per Inch

E. Liquid depth of tank from manufacturer: 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 (2C or 3E)

(in + 2 inches) X Gallons Per Inch = Gallons

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

-Item 18 of the Pressure Distribution or Item 11 of Non-level Gallons (Minimum dose) inches/dose

5 Calculate Maximum Pumpout Volume (25% of Design Flow)

Design Flow: GPD X 0.25 = Gallons (Maximum dose) inches/dose

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

7 Calculate Doses Per Day = Design Flow + Delivered Volume

gpd + gal = Doses

8 Calculate Drainback:

A. Diameter of Supply Pipe = inches

B. Length of Supply Pipe = feet

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

D. Drainback = Length of Supply Pipe X Volume of Liquid Per Lineal Foot of Pipe

ft X gal/ft = Gallons

9. Total Dosing Volume = Delivered Volume plus Drainback

gal + gal = Gallons

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

in X gal/in = 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

11. Calculate Float Separation Distance using Dosing Volume .

Total Dosing Volume /Gallons Per Inch

gal ÷ gal/in = Inches

12. Measuring from bottom of tank:

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

in + 2 in = Inches

B. Distance to set Pump On Float=Distance to Set Pump-Off Float + Float Separation Distance

in + in = Inches

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

in + in = Inches

Inches for Dose: 3.0 in

Alarm Depth 18.0 in

Pump On 15.0 in

Pump Off 12.0 in



Pump Tank Design Worksheet (Time Dose) 5-Bedroom Home

MINNESOTA POLLUTION CONTROL AGENCY

DETERMINE TANK CAPACITY AND DIMENSIONS		Project ID:	v 04.02.2019
1. A. Design Flow (Design Sum. 1A):	750 GPD	B. Tank Use:	Dosing
C. 70% of Design Flow	525 Gal	E. Recommended capacity:	1500 Gal
D. Min. required pump tank capacity:	1500 Gal		
2. A. Tank Manufacturer:	Minnesota Precast	B. Tank Model:	1,500 Gallon Dose Tank
C. Capacity from manufacturer:	1500 Gallons	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.	
D. Gallons per inch:	30.0 Gallons per inch		
E. Liquid depth of tank from manufacturer:	49.0 inches		

DETERMINE DOSING VOLUME	
3 Calculate Volume to Cover Pump (The inlet of pump should be 4 in from the bottom of the 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 30.0 Gallons Per Inch = 360 Gallons	
4 Minimum Delivered Volume = 4 X Volume of Distribution Piping: -Item 18 of the Pressure Distribution or Item 11 of Non-level	63 Gallons (minimum dose) 2.1 inches/dose
5 Calculate Maximum Pumpout Volume (25% of Design Flow) Design Flow: 600 GPD X 0.25 = 150 Gallons (maximum dose) 5.0 inches/dose	
6 Select a pumpout volume that meets both Minimum and Maximum:	80 Gallons
7 Calculate Doses Per Day = Design Flow X 70% ÷ Delivered Volume 525 gpd ÷ 80 gal = 4.6 Doses	
8 Calculate Drainback:	
A. Diameter of Supply Pipe =	2 inches
B. Length of Supply Pipe =	65 feet
C. Volume of Liquid Per Lineal Foot of Pipe =	0.170 Gallons/ft
D. Drainback = Length of Supply Pipe X Volume of Liquid Per Lineal Foot of Pipe 65 ft X 0.170 gal/ft = 11.1 Gallons	
9. Total Dosing Volume = Delivered Volume plus Drainback 80 gal + 11.1 gal = 91 Gallons	
10. Minimum Alarm Volume = Depth of alarm (2 or 3 inches) X gallons per inch of tank 3 in X 30.0 gal/in = 90.0 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

TIMER FLOAT SETTINGS*	
11. Required Flow Rate:	
A. From Pump Curve - Must be Validated after Installation:	GPM
B. Calculated GPM = Change in Depth (in) x Gallons Per Inch / Time Interval in Minutes in X 30.0 gal/in ÷ min = GPM	
12. Select Flow Rate from Line 11.A or 11.B above:	45.0 GPM*
13. Calculate TIMER ON setting: Total Dosing Volume x GPM 91 gal x 45.0 gpm = 2.0 Minutes ON*	
14. Calculate TIMER OFF setting: Minutes Per Day (1440) / Doses Per Day - Minutes On 1440 min ÷ 5 doses/day - 2.0 min = 311.4 Minutes OFF*	
15. Pump Off Float - Measuring from bottom of tank: Distance to set Pump Off Float = Gallons to Cover Pump / Gallons Per Inch 360 gal ÷ 30.0 gal/in = 12.0 inches Alarm Depth 29.5 in	
16. Alarm Float - Measuring from bottom of tank (90% recommended): Distance to set Alarm Float = Tank Depth X % of Tank Depth (0.9 recommended) 49.0 in X 1.66 = 29.5 in Pump Off 12.0 in 525 gallons from Off to HLA	

NOTE: The High Level Alarm float should be set at 525 gallons above the Timer Off float. There should be enough tank volume above High Level Alarm float to handle 615 gallons of surge flow before over-flowing back into Second Septic Tank.



Septic System Management Plan for Above 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	Eric & Kimberly Einan	Email
Property Address	16 Sunset Lane, North Oaks, MN 55127	Property ID 173022220013
System Designer	Kloepfner Services & Designs, LLC	Contact Info 763-843-4114
System Installer		Contact Info
Service Provider/Maintainer		Contact Info
Permitting Authority	City of North Oaks	Contact Info
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-built 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.

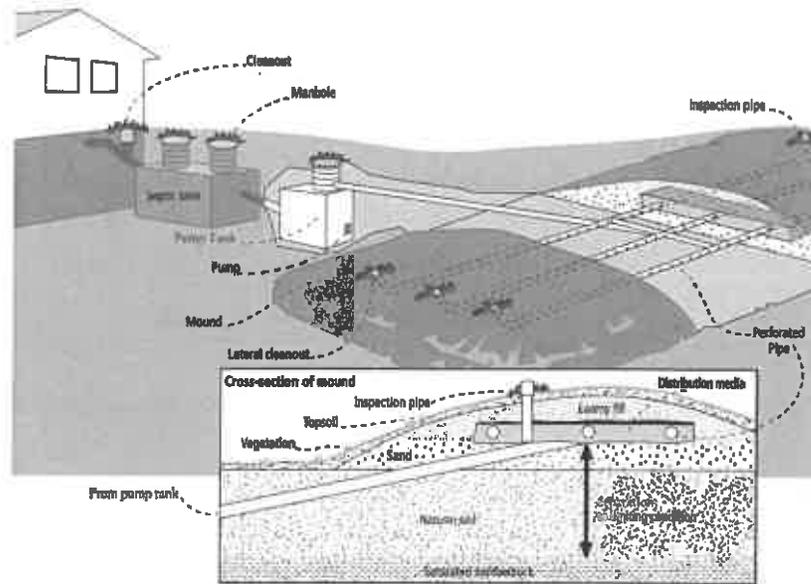
For a copy of the *Septic System Owner's Guide*, visit www.bookstores.umn.edu and search for the word "septic" or call 800-322-8642.

For more information see <http://septic.umn.edu>

Version: August 2015



Your Septic System



Septic System Specifics

System Type: I II III IV* V*
 (Based on MN Rules Chapter 7080.2200 – 2400)
 *Additional Management Plan required

System is subject to operating permit*
 System uses UV disinfection unit*
 Type of advanced treatment unit _____

Dwelling Type **Well Construction**

Number of bedrooms: 4
 System capacity/ design flow (gpd): 600
 Anticipated average daily flow (gpd): 420
 Comments _____
 Business? : Y N What type? _____

Well depth (ft): > 50'
 Cased well Casing depth: > 50'
 Other (specify): _____
 Distance from septic (ft): > 50'
 Is the well on the design drawing? Y N

Septic Tank

First tank Tank volume: 1,500 gallons
 Does tank have two compartments? Y N
 Second tank Tank volume: 1,000 gallons
 Tank is constructed of Concrete
 Effluent screen: Y N Alarm Y N

Pump Tank 1,500 gallons
 Effluent Pump make/model: Installer Choice
 Pump capacity 22 GPM
 TDH 31 Feet of head
 Alarm location TBD

Soil Treatment Area (STA)

Mound/At-Grade area (width x length): 54 ft x 82 ft
 Rock bed size (width x length): 10 ft x 50 ft
 Location of additional STA: _____
 Type of distribution media: Rock

Inspection ports Cleanouts
 Surface water diversions
 Additional STA not available



Homeowner Management Tasks

These *operation and maintenance* activities are your responsibility. *Chart on page 6 can help track your activities.*

Your toilet is not a garbage can. Do not flush anything besides human waste and toilet paper. No wet wipes, cigarette butts, disposal diapers, used medicine, feminine products or other trash!

The system and septic tanks needs to be
checked every 36 months

Your service provider or pumper/maintainer should evaluate if your tank needs to be pumped more or less often.

Seasonally or several times per year

- **Leaks.** Check (listen, look) for leaks in toilets and dripping faucets. Repair leaks promptly.
- **Soil treatment area.** 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.* Keep bikes, snowmobiles and other traffic off and control borrowing animals.
- **Alarms.** Alarms signal when there is a problem; contact your service professional any time the alarm signals.
- **Lint filter.** If you have a lint filter, check for lint buildup and clean when necessary. If you do not have one, 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 along with an alarm.

Annually

- **Water usage rate.** A water meter or another device 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. Consider updating to demand operation if your system currently uses time,
- **Review your water usage rate.** Review the Water Use Appliance chart on Page 5. Discuss any major changes with your service provider or pumper/maintainer.

During each visit by a service provider or pumper/maintainer

- Make sure that your service professional services the tank through the manhole. (NOT through a 4" or 6" diameter inspection port.)
- Ask how full your tank was with sludge and scum to determine if your service interval is appropriate.
- 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. At each visit a written report/record must be provided to homeowner.

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 soil treatment area.)
- *Inspection pipes.* Replace damaged or missing pipes and 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 draining properly.
- *Event counter or elapsed time meter.* Check to see if there is an event counter or elapsed time meter for the pump. If there is one or both, calculate the water usage rate and compare to the anticipated use listed on Design and Page 2. Dose Volume: 80 gallons: Pump run time: 3.25 Minutes

Soil Treatment Area

- *Inspection pipes.* Check to make sure they are properly capped. Replace caps and pipes that are damaged.
- *Surfacing of effluent.* Check for surfacing effluent or other signs of problems.
- *Lateral flushing.* Check lateral distribution; if cleanouts exist, flush and clean at recommended frequency.
- *Vegetation* - Check to see that a good growth of vegetation is covering the system.

All other components – evaluate as listed here:



**Water-Use Appliances and
Equipment in the Home**

Appliance	Impacts on System	Management Tips
Garbage disposal	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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. Limit use of bleach-based detergents and fabric softeners. • Install a lint filter after the washer and an effluent screen to your tank • Wash only full loads and think even – spread your laundry loads throughout the week.
Dishwasher	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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)	<ul style="list-style-type: none"> • Finely-ground solids may not settle. Unsettled solids can exit the tank and enter the soil treatment area. 	<ul style="list-style-type: none"> • 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)	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Drip may result in frozen pipes during cold weather. 	<ul style="list-style-type: none"> • Re-route water directly out of the house. Do not route furnace discharge to your septic system.
Water softener Iron filter Reverse osmosis	<ul style="list-style-type: none"> • Salt in recharge water may affect system performance. • Recharge water may hydraulically overload the system. 	<ul style="list-style-type: none"> • 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, drain tile or old drainfield.
Surface drainage Footing drains	<ul style="list-style-type: none"> • Water from these sources will overload the system and is prohibited from entering septic system. 	<ul style="list-style-type: none"> • 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



Homeowner 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)***										
Alarm**										
Check annually:										
Water usage rate (maximum gpd _____)										
Caps: inspect, replace if needed										
Water use appliances – review use										
Other:										

- *Monthly
- **Quarterly
- ***Bi-Annually

Notes:

"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 _____

SIGN HERE

Management Plan Prepared By: **Jesse Kloeppner**

Certification # **C8188**

Permitting Authority: **City of North Oaks**

Ramsey County Parcel Report

Report generated 12/11/2019 10:49:24 AM



Parcel location within Ramsey County



Taxdot highlighted in red

Parcel ID: 173022220013

Owner(s): KIMBERLY A EINAN

Site Address: 16 SUNSET LN, NORTH OAKS MN 55127-6454

[Link to Ramsey County Tax and Property Quick Info](#)

Tax Payer(s): KIMBERLY A EINAN

Homestead: Y

Tax Address: 16 SUNSET LN, SAINT PAUL MN 55127-6454

Use Type: SINGLE FAMILY DWELLING, PLATTED LOT

Dwelling Type: SINGLE FAMILY DWELLING, PLATTED LOT

Home Style: TWO STORY

Lot: B **Block:**

Living Area: 3003 **Sq. Ft.**

Plat Name: REGISTERED LAND SURVEY 115

Year Built: 1959

Area: 1.09 **Acre(s)**

Garage: Y

2019 Pay 2020 EMV Land: 177100

Garage Area: 576 **Sq. Ft.**

2019 Pay 2020 EMV Building: 300400

Heating Type:

2019 Pay 2020 EMV Total: 477500

Cooling Type:

Total Tax* In 2019 : 5046

School District: 0621

Special Assessment In 2019: 171.8

Watershed District:

Tax Exempt: N

Green Acre:

Last Sale Date: 10/13/2017 12:00:00 AM

Open Space: N

Last Sale Price: 514000

Agriculture Preserve: N

*The user of this report acknowledges that the City/County shall not be liable for any damages, and expressly waives all claims, and agrees to defend, indemnify, and hold harmless the City/County from any and all claims brought by the User, its employees or agents, or third parties which arise out of the User's access or use of data provided. *Total Tax includes special assessment due if any.*



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Ramsey County, Minnesota

16 Sunset Lane, North Oaks



Custom Soil Resource Report
Soil Map



Custom Soil Resource Report

MAP LEGEND

Area of Interest (AOI)		 Spoil Area	
	Area of Interest (AOI)	 Stony Spot	
Soils		 Very Stony Spot	
	Soil Map Unit Polygons	 Wet Spot	
	Soil Map Unit Lines	 Other	
	Soil Map Unit Points	 Special Line Features	
Special Point Features		Water Features	
	Blowout	 Streams and Canals	
	Borrow Pit	Transportation	
	Clay Spot	 Rails	
	Closed Depression	 Interstate Highways	
	Gravel Pit	 US Routes	
	Gravelly Spot	 Major Roads	
	Landfill	 Local Roads	
	Lava Flow	Background	
	Marsh or swamp	 Aerial Photography	
	Mine or Quarry		
	Miscellaneous Water		
	Perennial Water		
	Rock Outcrop		
	Saline Spot		
	Sandy Spot		
	Severely Eroded Spot		
	Sinkhole		
	Slide or Slip		
	Sodic Spot		

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Ramsey County, Minnesota
 Survey Area Data: Version 14, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 3, 2016—Sep 13, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres In AOI	Percent of AOI
169C	Braham loamy fine sand, 6 to 15 percent slopes	0.3	23.2%
177D	Gotham loamy sand, 12 to 20 percent slopes	1.2	76.8%
Totals for Area of Interest		1.5	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

Ramsey County, Minnesota

169C—Braham loamy fine sand, 6 to 15 percent slopes

Map Unit Setting

National map unit symbol: 1t98m
Elevation: 1,000 to 1,570 feet
Mean annual precipitation: 27 to 33 inches
Mean annual air temperature: 39 to 46 degrees F
Frost-free period: 135 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Braham and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Braham

Setting

Landform: Moraines
Landform position (two-dimensional): Shoulder
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Outwash over till

Typical profile

Ap - 0 to 9 inches: loamy fine sand
E - 9 to 28 inches: loamy fine sand
2Bt - 28 to 39 inches: sandy clay loam
2C - 39 to 60 inches: loam

Properties and qualities

Slope: 6 to 15 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high
(0.14 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 25 percent
Available water storage in profile: Moderate (about 8.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B
Forage suitability group: Sloping Upland, Acid (G090XN006MN)
Hydric soil rating: No

Minor Components

Zimmerman

Percent of map unit: 3 percent
Hydric soil rating: No

Custom Soil Resource Report

Blomford

Percent of map unit: 3 percent
Landform: Drainageways on moraines
Hydric soil rating: Yes

Kratka

Percent of map unit: 2 percent
Landform: Depressions on moraines, drainageways on moraines
Hydric soil rating: Yes

Cathro

Percent of map unit: 2 percent
Landform: Depressions
Hydric soil rating: Yes

177D—Gotham loamy sand, 12 to 20 percent slopes

Map Unit Setting

National map unit symbol: 1t98t
Elevation: 700 to 1,200 feet
Mean annual precipitation: 27 to 33 inches
Mean annual air temperature: 39 to 46 degrees F
Frost-free period: 135 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Gotham and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Gotham

Setting

Landform: Pitted outwash plains
Landform position (two-dimensional): Shoulder
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Outwash

Typical profile

Ap - 0 to 9 inches: loamy sand
E - 9 to 20 inches: loamy sand
Bt - 20 to 33 inches: loamy sand
C - 33 to 60 inches: loamy sand

Properties and qualities

Slope: 12 to 20 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)

Custom Soil Resource Report

Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 5.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: A
Forage suitability group: Sandy (G090XN022MN)
Hydric soil rating: No

Minor Components

Chetek

Percent of map unit: 5 percent
Hydric soil rating: No

Anoka

Percent of map unit: 5 percent
Hydric soil rating: No

Custom Soil Resource Report

Septic Tank Absorption Fields (MN)—Ramsey County, Minnesota							
Map symbol and soil name	Pct. of map unit	Septic Tank Absorption Fields - At-Grade		Septic Tank Absorption Fields - Mound		Septic Tank Absorption Fields - Trench	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
169C—Braham loamy fine sand, 6 to 15 percent slopes							
Braham	90	Slightly limited		Very limited		Moderately limited	
		Slope	0.05	Slope	0.85	Fine Sands	0.21
						Excessive percolation	0.11
						Slope	0.05
177D—Gotham loamy sand, 12 to 20 percent slopes							
Gotham	90	Moderately limited		Extremely limited		Moderately limited	
		Slope	0.45	Slope	1.00	Slope	0.45
						Excessive percolation	0.11



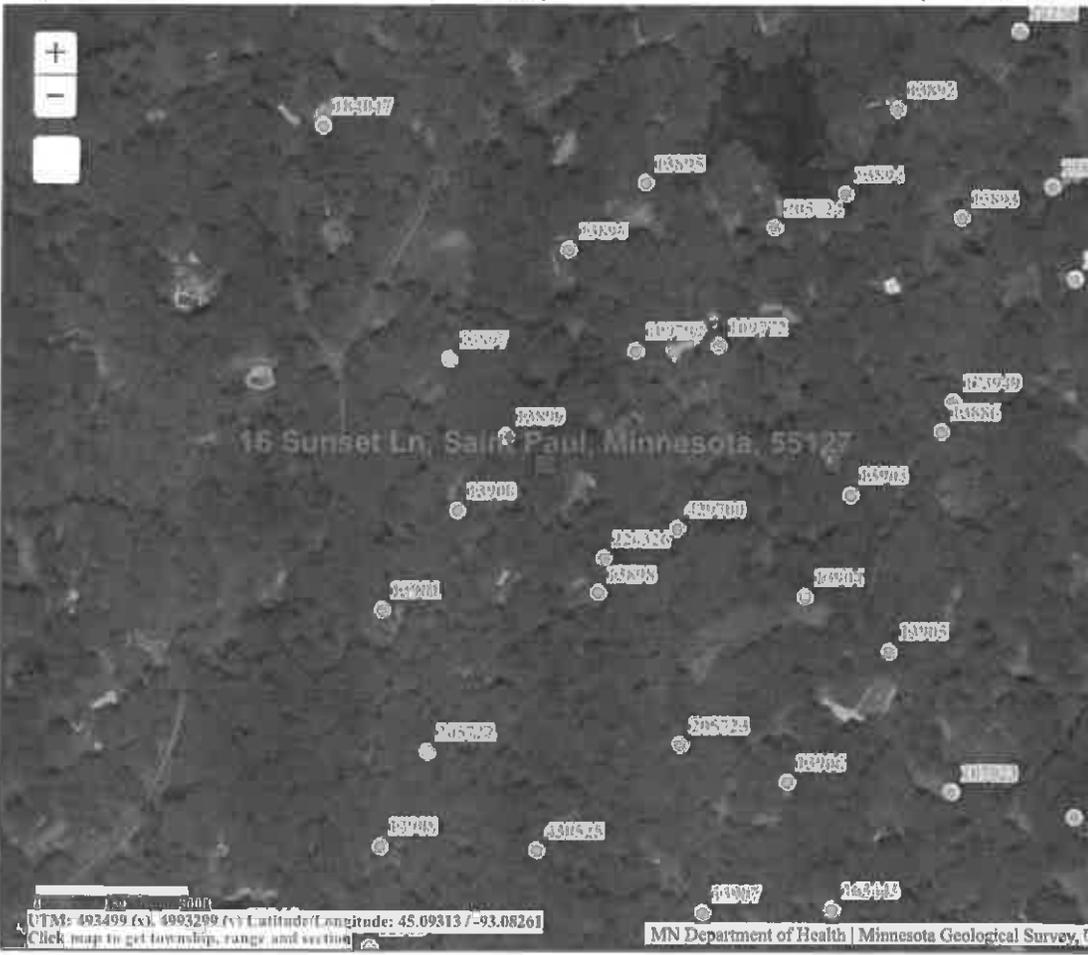
Minnesota
Department of
Health

Minnesota Well Index

View/Print/Download

16 Sunset Ln, Saint Paul, MN, 55127, USA X Q

Search by Zoom to Tools Base Maps Other Links Help



Layer Name	Layer	Label	Legend
Wells	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Selected Wells			
Public Wells			
Domestic Wells			
Irrigation Wells			
Monitor Wells			
Other Wells			
Sealed Wells			
Unverified Wells	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Township	<input type="checkbox"/>	<input type="checkbox"/>	
Range Section	<input type="checkbox"/>	<input type="checkbox"/>	
DWSMA	<input type="checkbox"/>	<input type="checkbox"/>	
SWBCA	<input type="checkbox"/>	<input type="checkbox"/>	

Zoom to see wells, TRS, DWSMA and SWBCA
 DWSMA: The area managed by a public water supplier to protect their source water
 SWBCA: Special Well and Boring Construction Area layer



Minnesota Well Index

18 Sunset Ln, Saint Paul, MN 55129, USA

Well List selected

Highlighted are Field Verified Wells. Click Unique Well ID to see detailed well information

Unique Number	Well Name	Address	City	County	Township	Range	Section	Depth(ft)	Elevation(ft)	Casing Depth(ft)	Casing Diameter
428700	WESTLUND BROTHERS BUILDERS	18 SUNSET LA	NORTH OAKS	Ramsey	30	22	17	246	948	189	4
228326	JENSEN	121 SUNSET LA	NORTH OAKS	Ramsey	30	22	17	287	980	223	4
13800	QUIN	11 SUNSET LA	null	Ramsey	30	22	17	235	980	202	4
13888	H. HANSEN	208 SUNSET LA	null	Ramsey	30	22	17	235	980	202	4

MIA and SWB/A
 DWSMA: The area managed by a public water supplier to protect their source water
 SWB/A: Special Well and Soring Construction Area Issue

MN Department of Health | Minnesota Geological Survey, University of Minnesota

May 7, 2020
VARIANCE 20-03
Mr. Eric Einan
16 Sunset Lane
North Oaks, MN 55127
RSL Zoning

Description of Request

The applicant is requesting a variance to install a replacement subsurface sewage treatment system (SSTS), which would encroach 14 feet into the required 30-foot south 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

The current system consists of cesspools and is classified as Non-Compliant under MPCA Rule 7080.1500 Subp. 4 (B) due to the cesspools.

A large percentage of this lot has been disturbed due to the house, septic system, and impervious areas, which do not allow for the installation of an SSTS. The only areas available for the installation of a primary SSTS are located along the south property line.

Based on these facts, it is the staff's opinion that the applicant has met the requirements for a variance as outlined in Section 151.078 of the code. We are in agreement with the designer, Kloepfner Services & Designs, that the proposed location of the new system appears to be the most viable location for an SSTS. This would be the minimum variance, which would alleviate the practical difficulties.

VARIANCE 20-03

May 7, 2020

Page 2

Action Requested

That the Planning Commission make a recommendation to the City Council to approve or deny Variance #20-03 to encroach 14 feet into the required 30 foot south property line setback.

Motions

Motion to Approve

MOTION _____ SECOND _____

That Variance 20-03, for 16 Sunset Lane:

be APPROVED with the following conditions:

1. Completion date by XX XX, 2020.
2. System to be located per the design dated November 1, 2020 by Kloepner Services & Designs.

Motion to Deny

MOTION _____ SECOND _____

That Variance 20-03, for 16 Sunset Lane:

be DENIED with the following findings:

- 1.
- 2.