



Le Sueur County, MN

Thursday, November 8, 2018

Regular session

Item 1

Smith Kunkel Packet

Staff Contact: Joshua Mankowski or Michelle R. Mettler

STAFF REPORT

GENERAL INFORMATION

APPLICANT: Jordan Smith

OWNER: Kim Kunkel

911 ADDRESS: 3762 Sioux Ln, Madison Lake, MN

PROJECT DESCRIPTION: To construct a retaining wall on a steep slope and a retaining wall within the shore impact zone to include grading, excavating, and filling of 11.11 cubic yards of material within the shore impact zone.

PARCEL NUMBER: 05.410.0300

CUP NUMBER: 18255

SITE INFORMATION

LOCATION: Lot 3, Auditor's Subdivision, Section 18, Kasota Township

ZONING DISTRICT: Recreational Residential

ZONING DISTRICT PURPOSE: The intent of the **Recreational Residential (RR) District** is to preserve areas which have natural characteristics suitable for both passive and active recreational usage. Also, it is the intent of this district to manage areas suitable for residential development of varying types, including permanent and seasonal housing. Some non-residential uses with minimal impacts on residential uses are allowed if properly managed under conditional use procedures.

GENERAL SITE DESCRIPTION: Shoreland, residential

ACCESS: Existing access off Sioux Lane

EXISTING LAND USE WITHIN ¼ MILE:

North: Residential Development	South: Residential Development
East: Lake Washington	West: Farmland and Residential Development

BACKGROUND INFORMATION

The proposal is to replace failing retaining walls with the construction of a retaining wall 72 feet in length and varying from 1 foot to 4 feet in height within a steep slope. Also a retaining wall 5 feet in length and 2.5 feet in height located within the shore impact zone. The project will entail 11.11 cubic yards of grading, excavating, and filling for the retaining walls construction. (There is a total of 42.08 cubic yards of grading, excavating and filling on the lot-permitted use.)

TOWNSHIP BOARD NOTIFICATION

Public Notice sent to Township via mail. Joe Kienlen from Kasota Township was contacted on April 11, 2018 by applicant.

NATURAL RESOURCES INFORMATION

SHORELAND: The proposal is located within the Shoreland District.

LAKE: Lake Washington, Recreational Development Lake

Recreational Development Lake - Lakes that usually have between sixty (60) and two hundred twenty five (225) acres of water per mile of shoreline, between three (3) and twenty five (25) dwellings per mile of shoreline, and are more than fifteen (15) feet deep.

WETLANDS: According to the National Wetlands Inventory, no wetlands located in the quarter-quarter section where the project is proposed.

ATTACHMENTS

Application, description of request, site plan, aerial photo, Findings of Fact sheet, aerial photo

STAFF FINDINGS

ZONING ORDINANCE SECTIONS: Section 13, Shoreland, Section 18, Environmental Performance Standards

GOALS & POLICIES: The current Land Use Plan as adopted in 2007 does make reference to shoreland development.

GOAL #2:	Le Sueur County should adopt and enforce land use goals and policies that conserve and restore its natural resources, bring protections to the ecological systems of the natural environment, and prevent the premature development of natural resources areas.
Objective 2:	Utilize shorelands on Recreational Development Lakes (RD) for housing but with focus on development design that protects the resource.
Action 1:	Continue utilizing the minimum state shoreland regulations to determine housing densities and development design.

DNR GUIDANCE LETTERS

- | | |
|---|--------|
| 1. Administration, Compliance, and Enforcement | pg. 1 |
| 2. Grading & Filling within Shoreland Areas | pg. 3 |
| 3. Bluffs and Steep Slopes | pg. 11 |
| 4. Non-conforming Lots of Record in Shoreland Areas | pg. 19 |

ENVIRONMENTAL PERFORMANCE STANDARDS-SECTION 18

GRADING, EXCAVATING, OR FILLING: More than 10 cubic yards of grading, excavating, and filling requires a Conditional Use Permit. Retaining walls in the shore impact zone and on a steep slope requires a Conditional Use Permit.

EROSION CONTROL: Erosion Control measures must be implemented prior to any construction activity.

DRAINAGE: Any proposed development shall not increase the runoff or rate of stormwater so as to cause an adverse effect upon adjacent land.

PLANNING AND ZONING COMMISSION CONSIDERATIONS

The Planning Commission and staff shall consider possible adverse effects of the proposed conditional use and what additional requirements may be necessary to reduce such adverse effects. Its judgment shall be based upon the following factors to include, but not limited to:

1. Relationship to County plans.
2. The geographical area involved.

3. Whether such use will negatively affect surrounding properties in the area in which it is proposed.
4. The character of the surrounding area.
5. The demonstrated need for such use.
6. Whether the proposed use would cause odors, dust, flies, vermin, smoke, gas, noise, or vibration or would impose hazards to life or property in the neighborhood.
7. Whether such use would inherently lead to or encourage disturbing influences in the neighborhood.
8. Whether stored equipment or materials would be screened and whether there would be continuous operation within the visible range of surrounding residences.
9. Abatement of Environmental Hazards as regulated in this Ordinance.
10. Other factors impacting the public health, safety and welfare.

PLANNING AND ZONING COMMISSION CONDITIONS

The Planning Commission shall recommend such conditions relating to the granting of said Conditional Use Permit, as they deem necessary to carry out the intent and purpose of this Ordinance or recommend that the request be denied. Such recommendation shall be in writing. The conditions may include, but are not limited to the following:

1. Increasing the required lot size or yard dimension.
2. Limiting the height, size, or location of the structures.
3. Controlling the location, size, and number of vehicle access points.
4. Increasing the street width.
5. Increasing the number of required off-street parking space.
6. Limiting the number, size, location, or lighting of signs.
7. Requiring diking, fencing, screening, landscaping or other facilities to protect adjacent or nearby property.
8. Designating sites for open space.

SHORELAND DISTRICT-EVLAUATION CRITERIA

1. The prevention of soil erosion or other possible pollution of public waters, both during and after construction.
2. The visibility of structures and other facilities as viewed from public waters is limited.
3. The types, uses, and numbers of watercraft that the project will generate are compatible in relation to the suitability of public waters to safely accommodate this watercraft.

SHORELAND DISTRICT CONDITIONS

1. Increased setbacks from the ordinary high water level.
2. Limitations on the natural vegetation to be removed or the requirement that additional vegetation be planted.
3. Special provisions for the location, design, and use of structures, sewage treatment system, watercraft, launching and docking areas, and vehicle parking areas.

CONDITIONAL USE PERMIT

LE SUEUR COUNTY PLANNING AND ZONING

88 SOUTH PARK AVENUE

LE CENTER MN 56057

Direct Dial (507) 357-8538 Fax (507) 357-8541

APPLICATION DATE: 9/20/2018 PERMIT NUMBER: 18255 FEE: \$796.00
60 DAY RULING DATE: 11/19/2018 *FEES NON-REFUNDABLE
APPLICANT: JORDAN SMITH LAND OWNER: KIM KUMKEL
ADDRESS: 23371 610TH AVE ADDRESS: 18581 552 AVE
CITY: MADISON LAKE CITY: GOOD THUNDER
STATE: MN ZIP: 56063 STATE: MN ZIP: 56037
PHONE: 507-317-8833 PHONE: 507-317-2013
911: 3762 SIOUX LN. MADISON LAKE MN

PARCEL #: 05.410.0300 TOWNSHIP: KASOTA
SEC: 18 SUBDIV: AUDITOR'S SUBDIV DISTRICT: RR
TWP: 109 LOT: 3 FEMA PANEL # 27079C0380D
RANGE: 25 BLOCK: FLOOD ZONE: X OUTSIDE
QTR/QTR: ROAD: TWP

I (We), the undersigned, owner(s) and or applicant(s) of the property described herein, do hereby respectfully petition your Honorable Bodies to grant a Conditional Use Permit, as hereinafter designated, and in support thereof, the following facts are presented:

1.) Reason for Requested Conditional Use Permit.

TO ALLOW THE APPLICANT TO CONSTRUCT A RETAINING WALL IN A STEEP SLOPE AND A RETAINING WALL WITHIN THE SHORE IMPACT ZONE TO INCLUDE GRADING, EXCAVATING, AND FILLING OF 11.11 CUBIC YARDS IN THE SHORE IMPACT ZONE (TOTAL 42.08 cy on lot)

2.) Reason for Approval or Denial of Request as Listed in Findings.

3.) Special Conditions of Conditional Use Permit.

RECORDED LEGAL DESCRIPTION OF PROPERTY MUST BE SUBMITTED PRIOR TO ISSUANCE OF ZONING PERMITS. ADDITIONAL CONDITIONS AS STATED IN RECORD.

Kim Kumkel 9/20/18
APPLICANT/PROPERTY OWNER DATE
Michelle R. Math 9-20-18
LE SUEUR COUNTY PLANNING AND ZONING AUTHORITY DATE

PUBLIC HEARING DATE: 11/8/2018 ACTION: _____
☐ AS WRITTEN _____ ☐ WITH CONDITIONS _____
COUNTY BOARD DATE: 11/27/2018 ACTION: _____
☐ AS WRITTEN _____ ☐ WITH CONDITIONS _____

CHAIRMAN, LE SUEUR COUNTY PLANNING AND ZONING COMMISSION DATE

CHAIRMAN, LE SUEUR COUNTY BOARD OF COMMISSIONERS DATE

LE SUEUR COUNTY CONDITIONAL USE PERMIT CRITERIA

Conditional Use Permit #: 18255

Applicant: JORDAN SMITH

Land Owner: KIM KUMKEL

Conditional Use Permit Request: TO ALLOW THE APPLICANT TO CONSTRUCT A RETAINING WALL IN A STEEP SLOPE AND A RETAINING WALL WITHIN THE SHORE IMPACT ZONE TO INCLUDE GRADING, EXCAVATING, AND FILLING OF 11.11 CUBIC YARDS IN THE SHORE IMPACT ZONE (TOTAL 42.88 CUBIC YARDS ON THE LOT).

*mem
9-24-18*

1. The conditional use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminishes and impairs property values within the immediate vicinity.

Don Rk	Pam	Doug	Jeanne	Shirley	Don Ry	Al	TOTAL

Explain _____

2. The establishment of the conditional use will not impede the normal and orderly development and improvement of surrounding vacant property for uses predominant in the area.

Don Rk	Pam	Doug	Jeanne	Shirley	Don Ry	Al	TOTAL

Explain _____

3. Adequate utilities, access roads, drainage and other facilities have been or are being provided.

Don Rk	Pam	Doug	Jeanne	Shirley	Don Ry	Al	TOTAL

Explain _____

4. Adequate measures have been or will be taken to provide sufficient off-street parking and loading space to service the proposed use.

Don Rk	Pam	Doug	Jeanne	Shirley	Don Ry	Al	TOTAL

Explain _____

5. Adequate measures have been or will be taken to prevent and control offensive odor, fumes, dust, noise and vibration, so that none of these will constitute a nuisance, and to control lighted signs and other lights in such a manner that no disturbance to neighboring properties will result.

Don Rk	Pam	Doug	Jeanne	Shirley	Don Ry	Al	TOTAL

Explain _____

6. The conditional use is consistent with and supported by the statement of purposes, policies, goals and objectives in the Ordinance.

Don Rk	Pam	Doug	Jeanne	Shirley	Don Ry	Al	TOTAL

Explain _____

7. The conditional use is consistent with the Comprehensive Land Use Plan.

Don Rk	Pam	Doug	Jeanne	Shirley	Don Ry	Al	TOTAL

Explain _____

If all answers are "YES" by a majority of the Planning Commission, the criteria for granting of the Conditional Use Permit request have been met. The Conditional Use Permit will meet the goals of safety, health and the general welfare of the public.

Date: _____ APPROVED _____ DENIED _____ PZ Chairperson _____

COUNTY BOARD MEETING DATE _____

Le Sueur County

Conditional Use Application-Grading, Excavating & Filling

Activities that involve topographic alterations in all districts shall conform to the standards in Section 18 of the Le Sueur County Zoning Ordinance. Activities within a shoreland district shall conform to the standards in Section 13 of the Le Sueur County Zoning Ordinance.

In addition any activities in any type wetland shall be evaluated in accordance with the Wetland Conservation Act (WCA) regulations, as administered by the Le Sueur County Soil & Water Conservation District (SWCD).

I. Applicant:

Name Jordan Smith- Smith Lawn and Landscape
Mailing Address 23371 610th Ave
City Madison Lake State MN Zip 56063
Phone # 507-317-8833 Phone # _____

II. Landowner:

Name Kim Kunkel
Mailing Address 18581 552 Ave
City Good Thunder State MN Zip 56037
Property Address 3762 Sioux Lane
City Madison Lake State MN Zip 56063
Phone # 507-317-2013 Phone # 507-389-5237

III. Parcel Information:

Parcel Number 05.0410.0300 Parcel Acreage < 1 acre
Attach Full Legal Description (**NOT** abbreviated description from tax statement)
Township Kasota Section 18
Subdivision Auditors Lot 3 Block N/A

IV. Township Notification: Township must be notified of proposed use prior to application.

Kasota Township notified on 4/11/18
(Township Name) (Date)
Board Member Joe Klenen regarding the proposed use.
(Name)

V. Quantities and Submittal Formats:

- One (1) reproducible 8.5" x 11" copy of the request and all other supporting documents.
- Twenty Three (23) copies must be submitted, if any documents are in color, an aerial, or larger than 8.5" x 11" in size.
- Electronic version of any supporting documents *if available*.
- Additional copies may be requested as deemed necessary by the Department.
- Application must be made in person** by the applicant and/or landowner no later than 12 P.M. on the date of application deadline.
- Appointment is necessary.
- Applications will not be accepted by mail.



VI. Fees: Must be paid at the time of application.

Conditional Use Permit \$ 750 After-The-Fact fee is doubled.
Filing Fee \$ 46

Additional Fees:

Special Meeting \$ 2,000
After-The-Fact Penalty \$ 1,500 OR 10% of improvement, whichever is greater

VII. Type of Request: Grading, Excavating or Filling.

☐ **Non-Shoreland**

- ☐ Within Bluff Impact Zone
☐ Within Bluff

Cubic yards of material movement: _____
Cubic yards of material movement: _____
Cubic yards of material movement: _____

TOTAL cubic yards of material movement: _____

☒ **Shoreland- Outside Shore Impact Zone**

- ☐ Within Shore Impact Zone
☐ Within Bluff Impact Zone
☐ Within Bluff

Cubic yards of material movement: 30.97 cu yds
Cubic yards of material movement: 11.11 cu yds
Cubic yards of material movement: _____
Cubic yards of material movement: _____

TOTAL cubic yards of material movement: 42.08 cu yds

☐ Assurance security shall be required for projects that are >1500 cubic yards.

VIII. Description of Request:

- a. A full description of request with detailed information including what operations are to occur and what general types of equipment may be used in the operation must be attached.
b. Complete the following in relationship to the proposed Conditional Use Permit.

1. ENVIRONMENTAL IMPACT: _____
2. ADVERSE IMPACT ON SURROUNDING AREAS: _____
3. STORMWATER RUNOFF: _____
4. DOES ANY PART OF THE PROJECT EXTEND BELOW OHWL: _____
5. WETLAND IMPACT: _____
6. SLOPE STABILITY: _____
7. CERTIFICATE OF INSURANCE: _____
8. MEET ALL APPLICABLE COUNTY STATE & FEDERAL REGULATIONS:
(For example additional licensing and/or permitting) _____

RECEIVED
SEP 24 2018
BY: _____

IX. Site Plan: Shall include but not limited to the following:

- **Parcels < 5 AC =** 2-foot contours depicting existing and proposed topography.
- **Parcels 5-20 AC =** 5-foot contours depicting existing and proposed topography.
- **Parcels >20 AC =** 10-foot contours depicting existing and proposed topography.
- Location of grading, excavating, and/or filling sites.
- Location of areas for obtaining fill or disposing of excavated materials.
- Tree inventory of all trees, indicating trees to be cut or removed.
(Caliper of 6 inches or greater measured 4.5 feet from ground level).

RECEIVED
SEP 20 2018
BY: _____

- | | | | |
|--------------------------------------|-----------|-----------------------|----------------------------|
| • North point | • Lake | • Existing Structures | • Septic system |
| • Setbacks | • River | • Proposed Structures | • Well |
| • Property Lines | • Wetland | • Lot Dimensions | • Access (size & location) |
| • Road Right-Of-Way | • Stream | • Ponds | • Easements |
| • Landscape, screening and buffering | | | • Drainage |

• Site plan & As-Built must be completed by a surveyor or professional engineer.

X. Restoration Plan: Shall include but not limited to the following:

- Areas of restoration shall include the application of a minimum of 4 inches of topsoil or similar material that will support plant growth. *(Must be included in cubic yards calculation of material.)*
- Reseeded areas indicated with type of vegetation. *(Shall meet minimum standards by the SWCD))*
- Tree replacement plan. *(Areas located within the Bluff Impact Zone, Bluff, Shoreland & Conservancy Districts)*
 - Root zone of existing trees shall be preserved and protected during development.
 - Replace one tree for every tree that is removed.
 - Replacement trees shall have a minimum caliper of 2 inches at 4.5 feet from ground level.

XI. Attachments: Shall include but not limited to:

- ☒ a. **Description of Request**-See Part VIII for full details and requirements.
- ☒ b. **Site Plan**-See Part IX for full details and requirements.
- ☒ c. **Full Legal Description**-Not abbreviated description from tax statement.
- ☒ d. **Access approval**-Attach approval in writing from proper road authority.
- ☒ e. **Township Notification**-See Part IV for details and requirements.
- ☒ f. **Septic System Compliance Inspection**
- ☒ g. **Erosion Control Plan**-Attach completed and signed plan including map.
- ☒ h. **Restoration Plan**-See Part X for full details and requirements.
- ☒ i. **Approved Stormwater Pollution Prevention Plan**
-Must meet NPDES requirements and prepared by a licensed professional engineer.

XII. Procedure:

The Planning & Zoning Commission shall hold a public hearing on the proposed Conditional Use Permit at a scheduled Planning and Zoning Commission meeting.

The Planning and Zoning Commission is an advisory board to the County Board of Commissioners and will make a recommendation to the County Board.

The Department shall report the findings and recommendations of the Planning Commission to the County Board for final decision.

Action by the County Board shall be a majority vote of its members.

The Department shall notify the applicant and/or landowner in writing of the County Board decision.

A certified copy of the Conditional Use Permit shall be filed with the Le Sueur County Recorder by the Department.

XIII. Signatures:

I hereby certify with my signature that all data contained herein as well as all supporting data are true and correct to the best of my knowledge.

Applicant signature

Date

I hereby certify with my signature that all data contained herein as well as all supporting data are true and correct to the best of my knowledge.

Property Owner signature

Date



OFFICE USE ONLY

Request: GRADING, EXCAVATING & FILLING

☐ **Non-Shoreland**

- ☐ Within Bluff Impact Zone
☐ Within Bluff

Cubic yards of material movement: _____
 Cubic yards of material movement: _____
 Cubic yards of material movement: _____

TOTAL cubic yards of material movement: _____

☐ **Shoreland - Outside Shore Impact Zone**

- ☐ Within Shore Impact Zone
☐ Within Bluff Impact Zone
☐ Within Bluff

Cubic yards of material movement: _____
 Cubic yards of material movement: _____
 Cubic yards of material movement: _____
 Cubic yards of material movement: _____

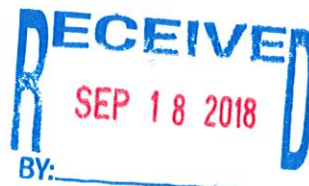
TOTAL cubic yards of material movement: _____

Pre-App Date <u>9-20-18</u>	Lake Classification <u>RD</u>	Feedlot	500'	1000'	<u>N</u>
Meeting Date <u>11-8-18</u>	Lake <u>WA</u>	Wetland Type	1-2	3-8	<u>N</u>
60 Day <u>11-19-18</u>	FEMA Panel # 27079C0 <u>380</u>	Water courses	Y		<u>N</u>
Zoning District <u>pr</u>	Flood Zone <u>X-outside</u>	Bluff	Y		<u>N</u>

- | | | | |
|---|--|---|-------------------------|
| <input checked="" type="checkbox"/> Request Description | <input checked="" type="checkbox"/> Access Approval | <input checked="" type="checkbox"/> Septic | Comp Insp / Design |
| <input checked="" type="checkbox"/> Site Plan | <input checked="" type="checkbox"/> Erosion Control Plan | <input checked="" type="checkbox"/> Meeting | <u>Reg</u> / ATF / Spec |
| <input checked="" type="checkbox"/> Full Legal | <input type="checkbox"/> | <input checked="" type="checkbox"/> Fee | \$ <u>796-</u> |
| <input checked="" type="checkbox"/> Ordinance | <input type="checkbox"/> Other _____ | <input type="checkbox"/> Penalty | \$ <u>/</u> |

(Handwritten: CLKWASP)

<input checked="" type="checkbox"/> Application Complete	<u>Michelle MDA</u>	<u>9/20/18</u>	<u>18255</u>
	Planning & Zoning Department Signature	Date	Permit #





Grading and Filling Narrative - Kunkel

Property

3762 Sioux Lane, Madison Lake

Overview -

The grading and filling necessary on this site include removing the old timber walls, installing the new fieldstone boulder walls, and touching up grade and finish with some dirt work and sod installation. This is a very simple project to calculate as a majority of the work is just replacing what is already there with new materials. Below you can read the thrilling narrative on how we calculated our grading and filling quantities. I tried to keep it simple, if you have any questions, feel free to ask and I will explain it as best as possible.

Grading and Filling Calculations

The total square footage of the wall face of the new boulder wall is 144 sq ft which is calculated by taking the area of a right triangle with a height of 4' and a base of 72' (as the wall evenly tapers down from 4' tall to 0' tall over the 72 ft) $\frac{1}{2}(b)h$ is the formula to calculate this square footage, $\frac{1}{2}(72)4 = 144$ sq ft. This means the new retaining wall consists of $144 \text{ sq ft} \times 2' \text{ depth of boulders} = 288 \text{ cubic ft} / 27 \text{ cu ft per cu yard} = 10.67$ cubic yards of filling.

There is one small section of timber wall off of the southeast corner of the house which also needs to be replaced, this portion is within the short impact zone. This wall is 2.5 ft high and 5' long. This wall consists of $12.5 \text{ sq ft of wall face} \times 2' \text{ depth of boulders} = 25 \text{ cubic ft} / 27 \text{ cu ft per cu yard} = .93 \text{ cu yards of filling in the shore impact zone.}$



Additional grading and filling consists of removal of the existing timber walls, a total of 234 sq ft of wall face x 8" timber depth= 234'x.67'= 156 cubic ft/ 27 cu ft per cu yard = 5.78 cubic yards.

Of this 5.78, only a section 27' long, 6" tall and 8" deep (on the south side of the house) is in the shore impact zone. 27'x.5'x.67'= 9.05 cu ft / 27 cu ft per cu yard= .33 cu yards inside the shore impact zone and 5.45 cu yards outside the shore impact zone.

Another portion of the grading and filling includes removing the old landscape rock and landscape plastic weed barrier, putting down new pervious landscape fabric weed barrier and then placing the rock back on top of it. There are 509 sq ft of landscape beds with 3" rock depth, this removal is 509 sq ft x 3" depth: 509 x .25= 127.25 cu ft / 27 cu ft per cu yard= 4.72 cubic yards of grading and filling to remove the rock, and then 4.72 cubic yards to place the rock back in the beds, total of 9.44 cubic yards of grading and filling. 8.85 cubic yards of this are outside the shore impact zone and .59 cubic yards are inside the shore impact zone.

The final portion of grading and filling consists of asphalt removal, 397 sq ft x 3" depth: 397 x .25 = 99.25 cu ft / 27 cu ft per cu yd= 3.67 cu yards of asphalt removal all inside the shore impact zone. After the asphalt is removed, the small sidewalk will be added back in, 64 sq ft x 3" thick = 64 x .25 = 16 cubic ft / 27 cu ft per cu yard=.59 cubic yards of concrete poured in the shore impact zone.

The final step is dirt work and sod installation along the new wall area and in place of the removed asphalt driveway. 8 cubic yards of dirt will be needed to grade next to the new wall and grade over the removed asphalt area, 3.5 outside the shore impact zone and 4.5 inside the shore impact zone. 3 pallets of sod will be needed, each pallet is 1 cubic yard of material. Of the 3 cubic yards of sod material, 2.5 will be installed outside the shore impact zone and .5 cubic yards will be installed inside the shore impact zone.

Total grading and filling outside the shore impact zone is 27.25 cubic yards, total grading and filling inside of the shore impact zone is 1.76 cubic yards, total grading and filling of 29.01.



Total grading and filling outside the shore impact zone: 30.97 cubic yards
+ Total grading and filling inside the shore impact zone: 11.11 cubic yards
=

Total grading and filling: 42.08 cubic yards



Kunkel: 3762 Sioux Lane

VIII. Description of Request

Description- The existing wood timber retaining walls on the property are 35 years old, rotting and falling apart. We are proposing to replace these failing walls with new fieldstone boulder retaining walls. The fieldstone walls consist of natural and locally sourced fieldstone boulders, 18-26" in size dry stacked on a compacted gravel base and with a back "batter" (slope) of 12 degrees for stability. These boulders are backed with 8 oz non woven (pervious) landscape fabric and backfilled with clean stone to prevent hydraulic pressure (causes premature failure) and to allow for water to percolate through the wall system easily, which increases infiltration, filtration, and reduces runoff and the subsequent speed of the runoff.

Per the site plan, only the necessary walls will be replaced. The small timber wall that runs North/South (perpendicular to the main wall) is unnecessary and will simply be removed and replaced by proper grading and sod. The small 6" wall that runs parallel to the house (East to West) is also unnecessary and will be removed and simply replaced with minor grading work and landscape edging.

The wall height will be shortened from the existing, as the walls currently are constructed above grade, which is unnecessary and not possible with boulder walls. The main replacement wall is 72 ft long and 4 ft tall at its tallest point and tapers down in fairly even increments down to grade level from west to east. The total square footage of the wall face of the new boulder wall is 144 sq ft which is calculated by taking the area of a right triangle with a height of 4' and a base of 76' (as the wall evenly tapers down from 4' tall to 0' tall over the 72 ft) $\frac{1}{2}(b)h$ is the formula to calculate this square footage, $\frac{1}{2}(76)4 = 144$ sq ft.

There is also one small section of timber wall off of the southeast corner of the house which also needs to be replaced, this portion is within the shore impact zone. This wall is 2.5 ft high and 5' long. It will be replaced per the same specs as above.

The finishing touches on the job include redoing the landscape beds with proper pervious landscape fabric weed barrier and replacing a large section of asphalt in the shore impact zone with sod. Light grading work along the boulder walls and new edging and then installation of sod in all disturbed and graded areas.

In summary, this is a very straightforward project. This site requires retaining walls to support the driveway and house. The existing walls are failing. The new walls will replace only the necessary wall areas and only at necessary wall height. The new walls will be more aesthetically pleasing and will function better in terms of reducing sediment loads in the water running down the asphalt driveway.

Total grading and filling outside the shore impact zone is 30.97 cubic yards, total grading and filling inside of the shore impact zone is 11.11 cubic yards, total grading and filling of 42.08 cubic yards. Total time on the project is estimated at 4 working days on the demo/removals, new boulder wall system and grading and sod. The work will be done with a small excavator (6 ton size) to excavate and set boulders with the hydraulic thumb, There will also be a track skid loader (4 ton size) to haul materials back and forth. A work truck and enclosed job trailer will be on site for the duration of the project as well.



1. **Environmental Impact-** No negative environmental impact is expected. The positive impact is that these new boulder retaining walls will replace failing timber walls that are allowing sediment and debris to wash through them and down the asphalt driveway towards the lake.

2. **Adverse Impact on surrounding areas-** No adverse impact on surrounding areas is expected because the direction of water flow is not being changed, it is simply being slowed. No trees or neighbors properties will be disturbed or adversely effected in this process. The aesthetic impact to neighboring properties is positive in that the new boulder wall will be much more aesthetically pleasing than the existing rotting timber walls.

3. **Stormwater runoff-** We expect this project to reduce or eliminate sediment loads carried in stormwater to the lake by filtering and slowing the stormwater runoff.

4. **Does any part of the project extend below the OHWL-** No

5. **Wetland Impact-** None, not applicable

6. **Slope Stability-** Some level of concern with the previous slope stability as the area above the timber walls has been washing through the timber walls. With the new boulder walls this will be of no concern.

7. **Certificate of insurance-** Included

8. **Meet all applicable county state and federal regulations-** We are a licensed contractor and have a SWPPP certified person on staff. Credentials attached.



EXISTING CONDITIONS

PARCEL ID 05.410.0300

OWNER
KIM KUNKEL
18581 552 AVENUE
GOOD THUNDER, MN 56037

SITE ADDRESS
3762 SIOUX LANE
MADISON LAKE, MN 56063

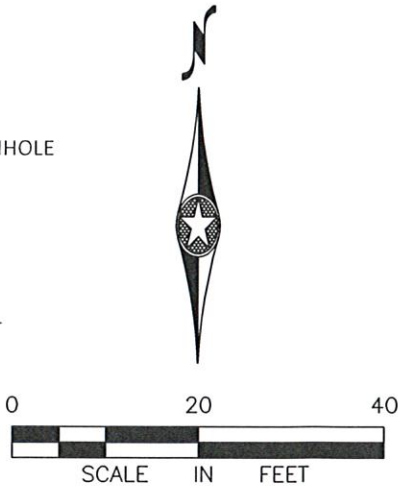
TOTAL LOT AREA
9461 SQ FT

RECEIVED
SEP 26 2018
BY:

EXISTING IMPERVIOUS SURFACE	
HOUSE & DECK W/ OVERHANG	1357 SQ FT
GARAGE 1 W/ OVERHANG	978 SQ FT
GARAGE 2 W/ OVERHANG	826 SQ FT
BITUMINOUS SURFACE	2002 SQ FT
TIMBER RETAINING WALL 1	88 SQ FT
TIMBER RETAINING WALL 2	2 SQ FT
CONCRETE 1	720 SQ FT
CONCRETE 2	3 SQ FT
LANDSCAPING	509 SQ FT
TOTAL	6485 SQ FT (68.5%)

LEGEND

- MONUMENT FOUND
- ⊙ SANITARY LIFT STATION MANHOLE
- ⊙ CURB STOP VALVE
- ⊙ DECIDUOUS TREE
- ⊙ WELL
- ⊙ GAS METER
- ⊙ COMMUNICATION PEDESTAL
- ⊙ ELECTRIC TRANSFORMER
- ⊙ MAILBOX
- ⊙ ELECTRIC METER
- ⊙ CATCH BASIN



SURVEYOR'S CERTIFICATION
I hereby certify that this survey was prepared by me or under my direct supervision and that I am a duly licensed land surveyor under the laws of the State of Minnesota.
Rory Jensen
Rory Jensen
License Number 19789
7-24-18
Date

REVISED ORIGINAL SURVEY: 9-26-18

CERTIFICATE OF SURVEY
LE SUEUR COUNTY, MINNESOTA



**BOLTON
& MENK**

1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
(507) 625-4171

LOT 3, AUDITOR'S SUBDIVISION, GOVERNMENT
LOT 4 OF SECTION 18, TOWNSHIP 109 NORTH,
RANGE 25 WEST, LE SUEUR COUNTY, MINNESOTA

FOR: KIM KUNKEL

PROPOSED CONDITIONS

PARCEL ID 05.410.0300

OWNER
KIM KUNKEL
18581 552 AVENUE
GOOD THUNDER, MN 56037

SITE ADDRESS
3762 SIOUX LANE
MADISON LAKE, MN 56063

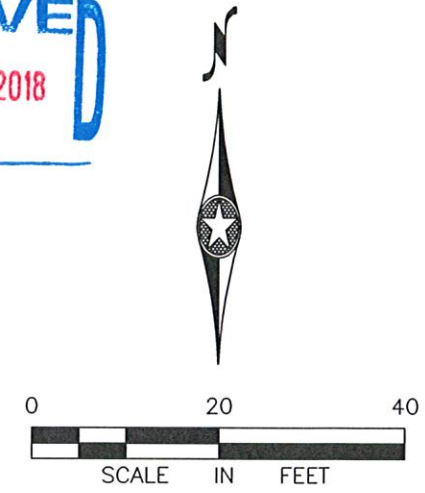
TOTAL LOT AREA
9461 SQ FT

REMOVALS IMPERVIOUS SURFACE	
BITUMINOUS SURFACE	397 SQ FT
LANDSCAPING (REMOVING PLASTIC)	509 SQ FT
TIMBER RETAINING WALL	90 SQ FT
TOTAL	996 SQ FT (10.5%)

PROPOSED IMPERVIOUS SURFACE	
CONCRETE SIDEWALK	64 SQ FT
BOULDER WALL 1	72 SQ FT
BOULDER WALL 2	10 SQ FT
TOTAL	146 SQ FT (1.5%)

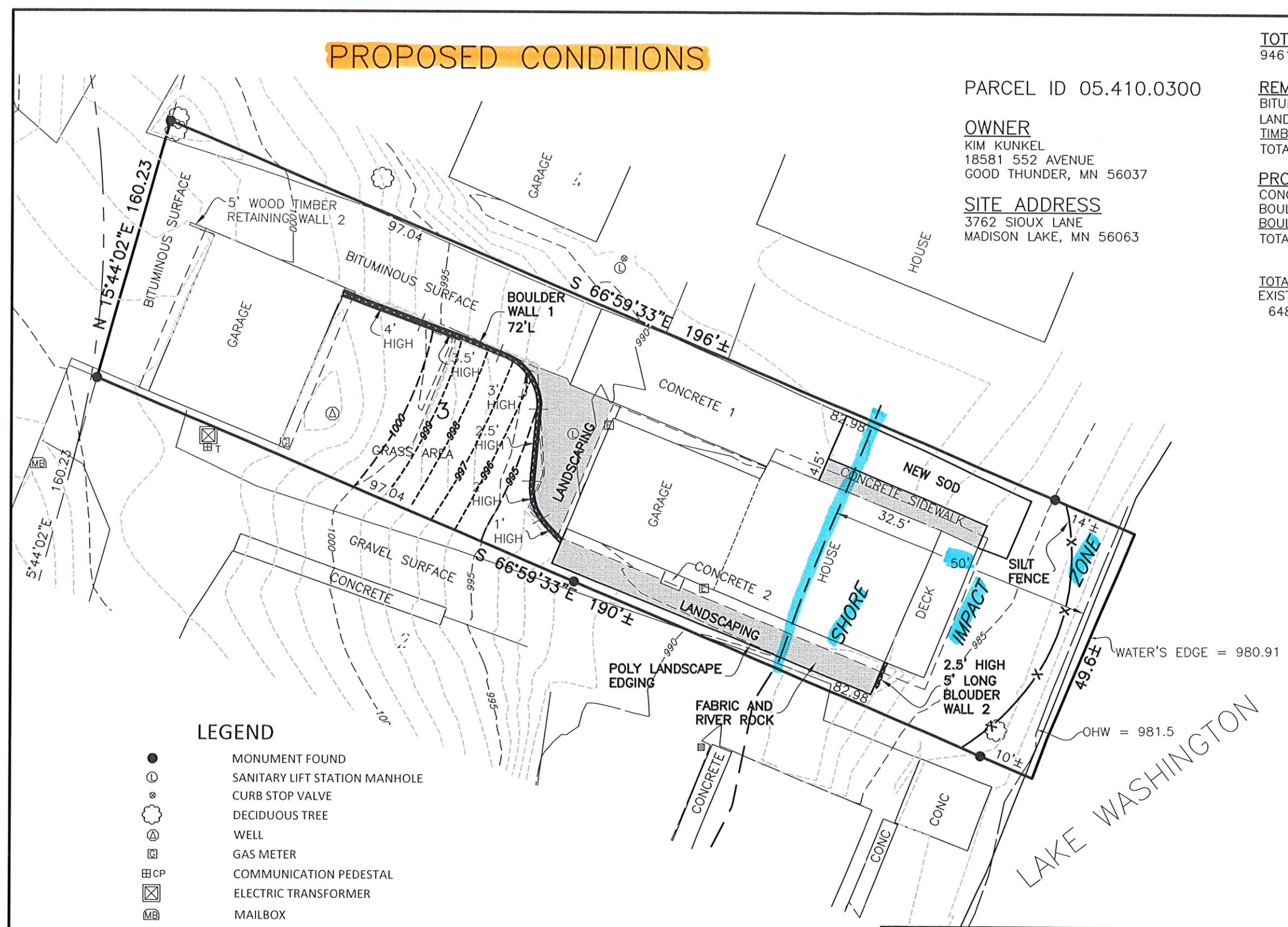
TOTALS			
EXISTING	-	REMOVALS	+ PROPOSED = TOTAL
6485		996	146 5635 SQ FT (59.5%)

RECEIVED
SEP 26 2018
BY: _____



LEGEND

- MONUMENT FOUND
- SANITARY LIFT STATION MANHOLE
- ⊗ CURB STOP VALVE
- ⊙ DECIDUOUS TREE
- ⊙ WELL
- ⊙ GAS METER
- ⊙ COMMUNICATION PEDESTAL
- ⊙ ELECTRIC TRANSFORMER
- ⊙ MAILBOX
- ⊙ ELECTRIC METER
- ⊙ CATCH BASIN
- X—X— SILT FENCE
- - - - - PROPOSED CONTOURS



SURVEYOR'S CERTIFICATION
I hereby certify that this survey was prepared by me or under my direct supervision and that I am a duly licensed land surveyor under the laws of the State of Minnesota.

Rory Jensen
Rory Jensen
License Number 19789
8-17-18
Date

REVISED ORIGINAL SURVEY: 9-18-18
9-26-18

CERTIFICATE OF SURVEY
LE SUEUR COUNTY, MINNESOTA



1960 PREMIER DRIVE
MANKATO, MINNESOTA 56001
(507) 625-4171

LOT 3, AUDITOR'S SUBDIVISION, GOVERNMENT
LOT 4 OF SECTION 18, TOWNSHIP 109 NORTH,
RANGE 25 WEST, LE SUEUR COUNTY, MINNESOTA

FOR: KIM KUNKEL

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LE SUEUR COUNTY ENVIRONMENTAL SERVICES
88 SOUTH PARK AVE.
LE CENTER, MINNESOTA 56057-1620
(507) 357-2251
FAX (507) 357-8541

Erosion and Sediment Control Plan

Goal: To control erosion and prevent sediment and other pollutants from entering the lakes, streams, wetlands, and storm drain systems during construction.

Property Owner: Kim Kunkel PID: _____
Mailing Address: 18531 502 Ave, (6001) Thunder, MN 56037
Property Address: 3762 Sioux Lake, Madison Lake, MN 56063
Phone: (507) 317-2013 Mobile/Cell: () _____

Responsible party for Implementation/Inspection: Jordan Smith
Address: 23371 610th Ave, Madison Lake, MN 56063
Phone: (507) 317-8833 Mobile/Cell: () _____

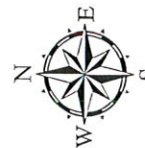
Erosion & Sediment Control Measures

1. Maintain existing vegetation whenever possible and minimize the area of disturbance. Retain and protect trees to enhance future landscaping efforts and to reduce raindrop impact. (Vegetation is the best and most cost-effective erosion control practice).
2. Install all erosion and sediment control practices prior to any soil disturbing activities, when applicable.
3. Phase construction activities to minimize the areas disturbed at one time. This will also allow completed areas to be stabilized and re-vegetated before disturbing adjacent sites.
4. Maintain and protect all natural waterways. Retain at least a 20-foot wide strip of natural vegetation along all waterways to filter out sediment and other pollutants.
5. Minimize the use of impermeable surfaces such as roofs, driveways, parking lots and roads. The Environmental Resources staff must approve all storm water runoff plans.
6. Use rock rip-rap at both the outlet and inlet ends of culverts to prevent scour erosion.
7. Limit construction equipment to designated areas to control soil compaction.
8. Install silt fence on the down-slope perimeter of all disturbed areas according to the attached installation instructions. Sensitive areas such as wetlands, drainage swales and shoreland areas should also be protected with silt fence.
9. Install straw bale checks or rock check dams in areas of concentrated flow .
10. Cover any stockpiled topsoil with plastic or other impervious covering. Use stockpiled topsoil as earthen berms to serve as temporary sediment basins.

NAME: Kim Kunkel
PID: 05.410.0300
DATE: 09-10-18
FIRM #: 27079C0380D
F-Zone: X-outside
RFPE: 985.8
District: Recreational
Residential



Map Disclaimer
Reasonable efforts have been made by the Le Sueur County GIS Department to verify that these maps accurately interpret the source data used in their preparation. However, a degree of error is inherent in all maps. These maps may contain omissions and errors in scale, resolution, rectification, positional accuracy, development methodology, interpretation of source data, and other circumstances.
The maps are date specific and are intended for use only at the published scale.
These maps should not be used for navigational, engineering, legal, or any other site-specific use.



LE SUEUR COUNTY
ENVIRONMENTAL SERVICES
507-357-8538

Coordinate System: NAD 1983 HARN Adj MN Le Sueur Feet

Photo dated April/May 2017

Created By: MRM

23	24	19	20	CLEVELAND	23	24	19
26	25	30	29	28	27	26	25
35	36	31	32	33	34	35	36
2	1	6	5	4	3	2	1
11	12	7	8	9	10	11	12
14	13	18	17	16	15	14	13