

Permit Application Review

Permit No. 2018-48
Received complete: November 13, 2018

Applicant: Blaine Waters: Villas of Glen Lake, LLC.
Consultant: Todd McLouth; Loucks
Project: Villas of Glen Lake
Location: 5517-5525 Eden Prairie Road: Minnetonka
Rule(s): 4,5,11,12
Reviewer: BCO

General Background & Comments

The project proposes the replatting (subdivision) of two lots into four (4) single-family homes/lots and an outlot, with a shared driveway on a 1.5 acre site located on the east side of Eden Prairie Road approximately 400 feet south of Excelsior Boulevard in Minnetonka. This site is currently two parcels that will be combined through the platting process. An existing home on each lot will be razed as part of the project. The project site information is:

- Total Site Area: 1.49 acres (69,904 square feet)
- Existing Total Site Impervious Area: 7,536 square feet
- New Total Site Impervious Area : 16,117 square feet (8,581 square foot increase in impervious area)
- 113.9% increase in the site impervious area
- 100% of existing impervious area will be disturbed
- Total site area disturbed: 32,234 square feet

The Nine Mile Creek Watershed District's Rule for Redevelopment, Rule 4.2.3, states, if a proposed activity will disturb more than 50% of the existing impervious surface on a parcel or will increase the imperviousness of the parcel by more than 50%, storm water management will apply to the entire project parcel. Otherwise, the storm water requirements will apply only to the disturbed areas and additional impervious area on the parcel. Since the entire site impervious area will be disturbed and the increase in site impervious area is 113.9%, storm water management is required for the 32,234 square feet of disturbed area including the 16,117 square feet of new and reconstructed impervious area.

The District's requirements for both storm water management and erosion and sediment control apply to the project because more than 50 cubic yards of material will be disturbed and 5000 square feet or more surface area disturbed, Rules 4.2.1a and b and 5.2.1a and b.

Storm water management is to be provided within a rainwater garden/infiltration basin (Basin) that will provide volume retention, rate control and water quality management.

Silt fence is to be constructed at the limits of construction and a rock construction entrance will be provided for erosion control.

Exhibits

1. Permit Application dated April 26, 2018.
2. Plans dated, last revision date, November 13, 2018 prepared by Loucks.
3. Storm Water Management calculations dated April 26, 2018, revised November 13, 2018 prepared by Loucks.
4. Geo-technical Report dated August 14, 2018 prepared by Haugo Geotechnical Services
5. E-mail correspondence dated April 30, 2018 outlining 3 items that were required for the application to be considered complete.
6. E-mail correspondence received from the City of Minnetonka dated May 2, 2018 stating that the project has just been submitted to the planning commission and would be scheduled for the planning commission meeting in June.
7. Resubmittal of the project, November 13, 2018, with the development plan down scaled from five lots to four lots as requested by the City.

The application is now complete.

4.0 Stormwater Management

The Basin to be constructed will provide volume retention, rate control and water quality management.

There are two discharge points leaving the site:

Frequency	Existing Discharge to the East c.f.s.	Proposed Discharge to the East c.f.s.
2 year	<1.0	<1.0
10 year	<1.0	<1.0
100 year	<1.0	<1.0

Frequency	Existing Discharge to the West c.f.s.	Proposed Discharge to the West c.f.s.
2 year	<1.0	<1.0
10 year	<1.0	<1.0
100 year	1.5	1.3

Rule 4.3.1b is met.

An infiltration volume of 1,477 cubic feet is required from the 16,117 square feet of site impervious area. Soil borings indicate the underlying soil as poorly graded (SP). An infiltration rate of 0.8 inches/hour has been assumed using the Minnesota Storm Water Manual for the SP soil. An area of 462 square feet is required for volume retention using this infiltration rate. The Basin will provide a volume of 3,809 cubic feet (1,477 cubic feet required) and area of 2,044 square feet (462 square feet required). This area and volume are at a maximum inundation depth of 3.2 feet that will still enable the Basin to be drawn down in 48 hours using the 0.8 inches/hour infiltration rate.

The District's water quality criterion requires a 60% annual removal efficiency for phosphorus and 90% annual removal efficiency for total suspended solids. The results from a MIDS calculator show that an annual removal efficiency of 95% will be provided for total suspended solids (186.4 lbs.) and 95% for total phosphorous (1.03 lbs.). We are in agreement with the results of the MIDS calculator. Rule 4.3.1c is met.

The soil boring logs indicates that groundwater was not encountered to a depth of 17 feet elevation 935.4 +/- M.S.L. The bottom of the Basin is shown to be 949 +/- M.S.L., a separation of 13.6 feet. A 3 foot of separation is required between the bottom of the UGSWMF and groundwater.

In accordance with Rule 4.3.1a (i), where infiltration facilities, practices or systems are proposed, pretreatment of runoff must be provided. Runoff from the proposed structures and driveway are shown to sheet-flow across as much as 180 feet of pervious – turf grass that will act as a filter and provide the required pretreatment of storm water upstream of the rainwater garden/infiltration area.

Rule 4.3.3 states that all new and reconstructed buildings must be constructed such that the low floor elevation is at least two feet above the 100-year high water elevation of any open stormwater conveyance and/or a constructed facility. The lowest basement floor elevation of the 4 proposed homes is shown to be 955 M.S.L. The 100-year frequency flood elevation of the infiltration basin/rainwater garden is 952.1 M.S.L. A separation of 2.9 feet will be provided. Rule 4.3.3 is met.

In accordance with Rule 4.3.4, a post-project chloride management plan must be provided that will, 1) designate an individual authorized to implement the chloride-use plan and 2) designate

a MPCA certified salt applicator engaged in the implementation of the chloride-use plan for the site.

5.0 Erosion and Sediment Control

The submitted erosion and sediment control plan includes silt fence at the limits of construction and a gravel construction entrance. The project contact is Todd McLouth, Loucks.

11.0 Fees

Fees for the project are:

Rules 2.0-6.0	\$750
---------------	-------

12.0 Financial Assurances

Financial Assurances for the project are:

Rule 4.0 Volume Retention: 462 sq. ft. x \$12/sq. ft. = \$5,544	\$5,544
---	---------

Rule 5: Silt fence: 846 L.F. x \$2.50/L.F. = \$2,115	
--	--

Site restoration: 0.8 acres x \$2500/acre = \$2,000	\$4,115
---	---------

Contingency and Administration	\$4,241
--------------------------------	---------

Findings

The proposed project includes the information necessary, plan sheets and erosion control plan, for review.

1. Rules 4 and 5 are met.

Recommendation

Approval, contingent upon:

1. General Conditions
2. Financial Assurance in the amount of \$18,900 - \$5,000 for stormwater management, erosion control and site restoration and \$13,900 for compliance with the chloride management requirements.
3. Submission of documentation that a drainage easement over the stormwater-management facilities has been submitted to Minnetonka (4.5.4i), if such easement is required by the city.
1. Submission of a receipt showing recordation of a maintenance declaration for the on-site storm water management facilities. A draft of the declaration must be approved by the District prior to recordation.

By accepting the permit, when issued, the applicant agrees to the following stipulations:

1. Per Rule 4.5.6, an as-built drawing of the storm water facilities, including an as-built stage-volume relationship for the infiltration basin/rainwater garden, conforming to the design specifications as approved by the District must be submitted.
2. Submission of a plan for post-project management of Chloride use on the site. The plan must include 1) the designation of an individual authorized to implement the chloride use plan and 2) the designation of a Minnesota Pollution Control Agency certified salt

applicator engaged in the implementation of the chloride-use plan for the site. The release of the \$5,000 of the financial assurance required for the chloride-management plan requires that chloride-management plan has been provided and approved by the District's Administrator

3. For the release of the \$13,900 financial assurance required in Recommendation #2, Rule 12.4.1b requires demonstration and confirmation that the storm water management facilities have been constructed or installed and are functioning as designed and permitted. Verification, through daily observation logs and photographs, must be provided showing the storm water facilities used for volume retention have drawn down within 48 hours from the completion of two 1-inch (approximate) separate rainfall events.

Board Action

It was moved by Manager _____, seconded by Manager _____ to approve permit application No. 2018-48 with the conditions recommended by staff.

Permit #: 2018-48
Project Name: Villas of Glen Lake – 5517 and 5525 Eden Prairie Road: Minnetonka
Approval Date: December 19, 2018

General Provisions

1. All temporary erosion control measures shown on the erosion and sedimentation control plans must be installed prior to commencement of surface or vegetation alteration and be maintained until completion of construction and vegetation is established as determined by NMCWD.

If silt fence is used, the bottom flap must be buried and the maximum allowable spacing between posts is 4-foot on center. All posts must be either 2-inch x 2-inch pine, hardwood, or steel fence posts. If hay bales are used, all bales must be staked in place and reinforced on the downstream side with snow fence.

2. All areas altered because of construction must be restored with seed and disced mulch, sod, wood fiber blanket, or be hard surfaced within two weeks after completion of land alteration and no later than the end of the permit period.
3. Upon final stabilization, the permit applicant is responsible for the removal of all erosion control measures installed throughout the project site.
4. At the entryway onto the site, a rock filter dike being a minimum of two feet in height and having maximum side slopes of 4:1 must be constructed. This rock filter dike will enable construction traffic to enter the site and also provide an erosion control facility.
5. If dewatering is required and sump pumps are used, all pumped water must be discharged through an erosion control facility prior to leaving the construction site. Proper energy dissipation must be provided at the outlet of the pump system.
6. The NMCWD must be notified a minimum of 48 hours prior to commencement of construction.
7. The NMCWD, its officers, employees and agents review, comment upon, and approve plans and specifications prepared by permit applicants and their consultants for the limited administrative purpose of determining whether there is reasonable assurance that the proposed project will comply with the regulations and criteria of the NMCWD. The determination of the NMCWD that issuance of this permit is appropriate was made in reliance on the information provided by the applicant.
8. The grant of this permit shall not in any way relieve the permittee, its engineer, or other professional consultants of responsibility, nor shall it make the NMCWD responsible for the technical adequacy of the engineer's or consultant's work. The grant of this permit shall not relieve the permittee from complying with all conditions and requirements of the permit which shall be retained by the permittee with the permit.
9. The issue of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.
10. This permit is permissive only. No liability shall be imposed upon the NMCWD or any of its officers, agents or employees, officially or personally, on account of the granting of this permit or on account of any damage to any person or property resulting from any act or omission of the permittee or any of its agents, employees, or contractors.

11. In all cases where the doing by the permittee of anything authorized by this permit shall involve the taking, using, or damaging of any property, rights or interests of any other person or persons, or of any publicly-owned lands or improvements or interests, the permittee, before proceeding therewith, shall obtain the written consent of all persons, agencies, or authorities concerned, and shall acquire all necessary property, rights, and interest.
12. The permit is transferable only with the approval of the NMCWD (see NMCWD Rule 1.0). The permittee shall make no changes, without written permission previously obtained from the NMCWD, in the dimensions, capacity, or location of any items of work authorized by this permit.
13. The permittee shall grant access to the site at all reasonable times during and after construction to authorized representatives of the NMCWD for inspection of the work authorized by this permit.
14. This permit may be terminated by the NMCWD at any time deemed necessary in the interest of public health and welfare, or for violation of any of the provisions of this permit.
15. Construction work authorized under this permit shall be completed on or before date specified above. The permittee may, in writing, request that the NMCWD extend the time to complete the project in accordance with NMCWD Rule 1.0.



Permit No.2018-48

Is hereby issued to James Waters, Villas of Glen Lake LLC., subject to the conditions specified in the attached form:

For the Villas of Glen Lake development located at 5517 and 5525 Eden Prairie Road in Minnetonka.

Steve Kloiber, Chair

This permit expires on: January 1, 2020

PlotNo: 11/13/2018 7:46 AM W:\2017\17499\CADD\DATA\GENERAL\Long Sheet\Plan\CT1499 3-2

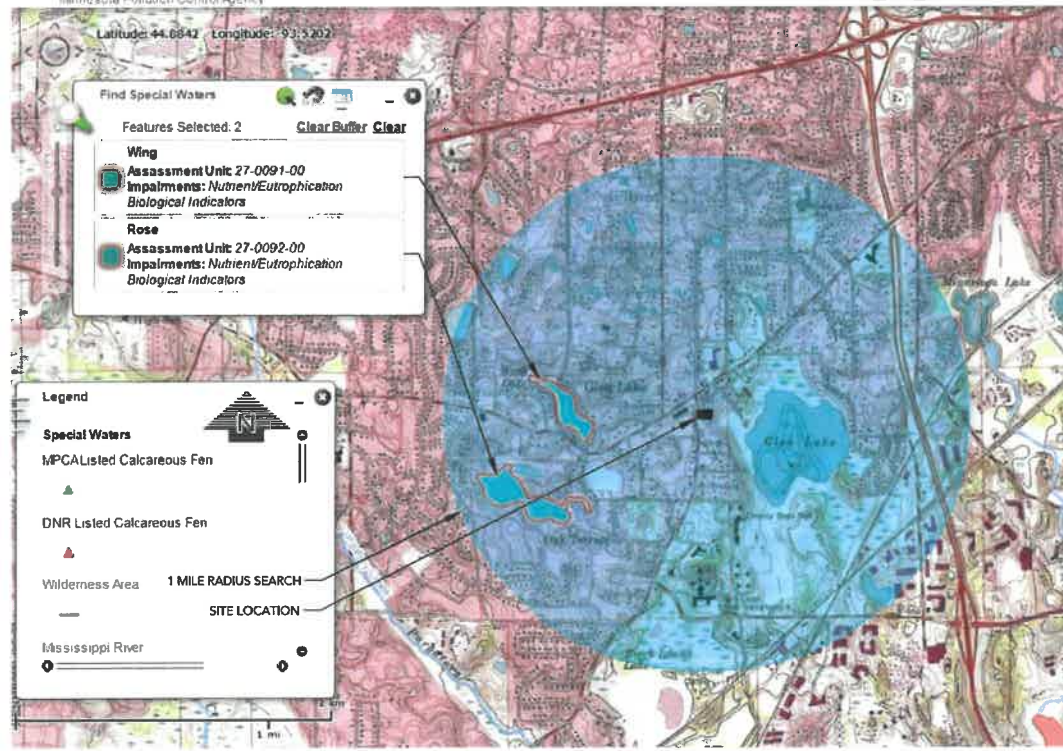


- ### EROSION CONTROL SCHEDULE
- CONTRACTOR MUST NOTIFY THE CITY 48 HOURS BEFORE ANY CONSTRUCTION ACTIVITY.
 - INSTALL EROSION CONTROL MEASURES AT LOCATIONS SHOWN ON EROSION CONTROL PLAN PRIOR TO ANY LAND DISTURBANCE. INSTALL SEDIMENT FILTERS IMMEDIATELY FOLLOWING INSTALLATION OF STRUCTURE.
 - REMOVE ALL SOILS TRACKED OR OTHERWISE DEPOSITED ONTO PUBLIC AND PRIVATE AREAS. REMOVAL SHALL BE ON A DAILY BASIS WHEN TRACKING OCCURS AND MAY BE ORDERED BY INSPECTORS AT ANY TIME IF CONDITIONS WARRANT. SWEEPING SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION AND DONE IN A MANNER TO PREVENT DUST BEING BLOWN TO ADJACENT PROPERTIES.
 - SLOPES MUST BE STABILIZED BY BEING SEEDED AND COVERED WITH AN EROSION CONTROL BLANKET OR MULCHED WITH A TACKIFYING AGENT AS SOON AS POSSIBLE AFTER GRADING AND NO LATER THAN 7 DAYS.
 - ALL EROSION CONTROL INSTALLATIONS SHALL REMAIN IN PLACE AND BE MAINTAINED IN GOOD CONDITION BY THE CONTRACTOR/PERMITEE UNTIL THE SITE HAS BEEN RE-VEGETATED, AT WHICH TIME THEY SHALL BE REMOVED. INSPECT TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES ON A DAILY BASIS AND REPLACE DETERIORATED, DAMAGED, OR ROTTED EROSION CONTROL DEVICES IMMEDIATELY. FOR PROPOSED PAVED SURFACE AREA, THE CONTRACTOR MAY REMOVE NECESSARY SILT FENCING TO CONSTRUCT ROADWAY WHILE MAINTAINING ADEQUATE EROSION CONTROL IN ADJACENT AREAS.
 - LOCATE SOIL OR DIRT STOCKPILES NO LESS THAN 25 FEET FROM ANY PUBLIC OR PRIVATE ROADWAY OR DRAINAGE CHANNEL. IF REMAINING FOR MORE THAN SEVEN DAYS, STABILIZE THE STOCKPILES BY MULCHING, VEGETATIVE COVER, TARPS, OR OTHER MEANS. CONTROL EROSION FROM ALL STOCKPILES BY PLACING SILT BARRIERS AROUND THE PILES. TEMPORARY STOCKPILES LOCATED ON PAVED SURFACES MUST BE NO LESS THAN TWO FEET FROM THE DRAINAGE/GUTTER LINE AND SHALL BE COVERED IF LEFT MORE THAN 24 HOURS. SUFFICIENT TOPSOIL SHALL BE STOCKPILED TO ALLOW FOR THE REPLACEMENT OF A MINIMUM OF 4" OF TOPSOIL FOR DISTURBED AREAS THAT ARE TO BE REVEGETATED.
 - INSTALL INLET PROTECTION AT ALL PUBLIC AND PRIVATE CATCH BASIN INLETS, WHICH RECEIVE RUNOFF FROM THE DISTURBED AREAS. CATCH BASIN INSERTS OR OTHER APPROVED PRODUCT ARE REQUIRED IN UNDISTURBED AREAS THAT MAY RECEIVE RUNOFF FROM THE PROJECT AREA. HAY BALES OR FILTER FABRIC WRAPPED GRATES ARE NOT ALLOWED FOR INLET PROTECTION.
 - THE CONTRACTOR/PERMITEE SHALL SCHEDULE SITE GRADING, UTILITY INSTALLATION AND ROADWAY CONSTRUCTION SO THAT THE GENERAL SITE CAN BE RESEEDED AND RE-SOILED SOON AFTER DISTURBANCE. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED WITHIN 7 DAYS AFTER COMPLETION OF FINAL GRADING OR AFTER 7 DAYS OF GRADING INACTIVITY. ALL MULCH MATERIAL SHALL BE DISCED INTO THE SOIL IN DIRECTION PERPENDICULAR TO THE STORMWATER FLOW OVER SUCH AREAS. AN EARLY APPLICATION OF GRAVEL BASE ON AREAS TO BE PAVED IS RECOMMENDED THEREFORE MINIMIZING EROSION POTENTIAL.
 - READY MIXED CONCRETE AND CONCRETE BATCH PLANTS ARE PROHIBITED WITHIN THE PUBLIC RIGHT OF WAY. ALL CONCRETE RELATED PRODUCTION, CLEANING AND MIXING ACTIVITIES SHALL BE DONE IN THE DESIGNATED CONCRETE MIXING/WASHOUT LOCATION AS SHOWN ON THE EROSION CONTROL PLAN. UNDER NO CIRCUMSTANCES MAY THE WASHOUT WATER DRAIN ONTO THE PUBLIC RIGHT OF WAY OR INTO ANY PUBLIC OR PRIVATE STORM SEWER CONVEYANCE.

- ### EROSION CONTROL MAINTENANCE PROGRAM
- INSPECT CONSTRUCTION SITE ON A DAILY BASIS AND WITHIN 24 HOURS OF A RAINFALL EVENT OF MORE THAN 0.5 INCHES IN 24 HOUR PERIOD. WEEKLY INSPECTION REPORTS REQUIRED. A COPY OF THE SWPPP SHALL BE KEPT ON-SITE FOR REVIEW. THE SWPPP SHALL BE AMENDED AND UPDATED AS CONDITIONS CHANGE ON-SITE.
 - SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
 - ANY SEDIMENT REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER FABRIC IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED WITH THE APPROPRIATE SEED MIX.
 - IN THOSE AREAS WHERE WOOD FIBER BLANKET OR OTHER SLOPE STABILIZATION METHOD HAS FAILED, THE SLOPE SHALL BE REESTABLISHED, SEED AND TOPSOIL REPLACED, AND ADDITIONAL SLOPE TREATMENT INSTALLED.
 - SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPWARD SLOPE AREA HAS BEEN PERMANENTLY STABILIZED. REMOVAL IS REQUIRED WITH ALL TEMPORARY EROSION CONTROL FACILITIES (SEDIMENT FILTERS, HAY BALES, ETC.) ONCE SITE IS PERMANENTLY STABILIZED BY THE BUILDER.
 - ALL PERMANENT SEDIMENTATION BASINS MUST BE RESTORED TO THEIR DESIGN AND REMOVAL OF ALL TEMPORARY SYNTHETIC, STRUCTURAL, NON-BIODEGRADABLE EROSION AND SEDIMENT CONTROL DEVICES AFTER THE SITE HAS UNDERGONE FINAL STABILIZATION WITH PERMANENT VEGETATION ESTABLISHMENT. FINAL STABILIZATION FOR PURPOSES OF THIS REMOVAL IS 70% ESTABLISHED COVER OVER DENUDED AREA.

Construction Stormwater Special Waters Search

Minnesota Pollution Control Agency



PROJECT LOCATION

COUNTY	SECTION	TOWNSHIP	RANGE	LATITUDE	LONGITUDE
HENNEPIN	33	117N	22W	44.903280	-93.464420

RECEIVING WATERS

NAME OF WATER BODY	TYPE OF WATER BODY	SPECIAL WATER	IMAIRED WATER	TYPE OF SPECIAL WATER
GLEN LAKE	LAKE	NO	NO	

PERMANENT STORMWATER MANAGEMENT

X	INFILTRATION
	STORMWATER HARVEST AND REUSE
	FILTRATION
	PIPE STORAGE / IRRIGATION
	REGIONAL PONDING (PREVIOUSLY CONSTRUCTED)

ESTIMATED QUANTITIES

DESCRIPTION	UNIT	QUANTITY
TEMPORARY ROCK CONSTRUCTION ENTRANCE	EA	1
PREFABRICATED CONCRETE WASHOUT	EA	1
SILT FENCE (STANDARD)	LF	846
ROCK LOG	LF	180
TURF MAT	SF	977
TURF RESTORATION	AC	0.8

EROSION CONTROL LEGEND

- SILT FENCE
- ROCK LOG
- INLET PROTECTION
- EXISTING DRAINAGE PATTERN
- PROPOSED DRAINAGE PATTERN
- TURF MAT

SITE DATA

AREA	
TOTAL NET SITE AREA	= 63,578 SF, 1.46 ACRES, 100%
IMPERVIOUS SURFACE AREA	= 16,107 SF, 0.37 ACRES, 25.3%
PERVIOUS SURFACE AREA	= 47,471 SF, 1.09 ACRES, 74.7%
DISTURBED AREA	= 32,321 SF, 0.74 ACRES

CALL BEFORE YOU DIG!

Gopher State One Call

TWIN CITY AREA: 651-454-0002
TOLL FREE: 1-800-252-1166

WARNING:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING FOR LOCATIONS OF ALL EXISTING UTILITIES. THEY SHALL COOPERATE WITH ALL UTILITY COMPANIES IN MAINTAINING THEIR SERVICE AND / OR RELOCATION OF LINES.

THE CONTRACTOR SHALL CONTACT GOPHER STATE ONE CALL AT 651-454-0002 AT LEAST 48 HOURS IN ADVANCE FOR THE LOCATIONS OF ALL UNDERGROUND WIRES, CABLES, CONDUITS, PIPES, MANHOLES, VALVES OR OTHER BURIED STRUCTURES BEFORE DIGGING. THE CONTRACTOR SHALL REPAIR OR REPLACE THE ABOVE WHEN DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.

VILLAS OF GLEN LAKE

5515 & 5525 EDEN PRAIRIE RD
MINNETONKA, MINNESOTA

QUEST DEVELOPMENT

Quest Development, Inc.

10022 Oak County Road 11
Suite 100, Plymouth, MN 55441

LOUCKS

PLANNING
CIVIL ENGINEERING
LAND SURVEYING
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL

7200 Hamlock Lane, Suite 300
Maple Grove, MN 55369
763.424.5505
www.loucksinc.com

CADD QUALIFICATION

CADD files prepared by the Consultant for this project are instruments of the Consultant's professional services for use solely with respect to this project. These CADD files shall not be used on other projects, for additions to this project, or for completion of this project, by anyone without written approval of the Consultant. With the Consultant's consent, software may be installed to obtain copies of the CADD drawings files for electronic and reference only. All downloaded or transmitted electronic, add-on, or other use in these CADD files shall be made at the risk of the user. The Consultant shall not be responsible for any loss or damage to the user's data or files, or any other loss or damage, resulting from the use of these CADD files.

SUBMITTAL/REVISIONS

04/26/18	Preliminary City Submittal
08/23/18	Revised per Comments
11/13/18	Revised City Submittal

PROFESSIONAL SIGNATURE

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

License No. 20383
Date

Loecks Project No. 017499.00
Project Lead TWM
Drawn By WBS
Checked By TWM
Review Date

SHEET INDEX

C0-1	COVER SHEET
1 OF 1	ALTA/NSPS SURVEY
C1-2	DEMOLITION PLAN
C2-1	SITE PLAN
C3-1	GRADING & DRAINAGE PLAN
C3-2	EROSION CONTROL PLAN
C4-1	UTILITY PLAN
C0-1	PRELIMINARY PLAN
C0-2	CIVIL DETAILS
C0-2	CIVIL DETAILS
L1-0	TREE PRESERVATION PLAN
L1-1	LANDSCAPE PLAN
L1-2	LANDSCAPE DETAILS

EROSION CONTROL PLAN

C3-2

2018-48