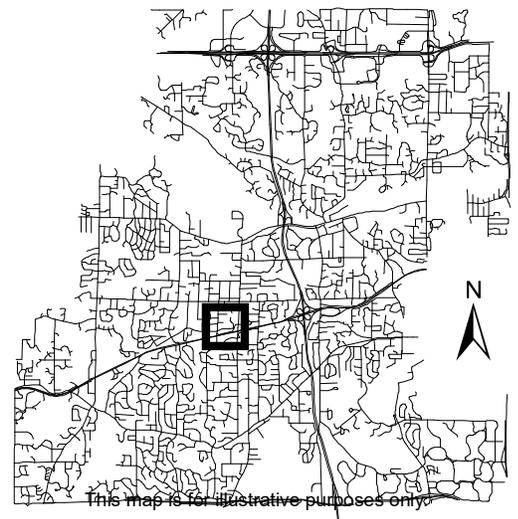




### Location Map

Project: Tonkawood Farms 3rd Addn  
Address: 15014 Highwood Dr



This map is for illustrative purposes only.

# PRELIMINARY PLAT

~for~R&R CONSTRUCTION

## VICINITY MAP

PART OF SEC. 21, TWP. 17, RING. 22



HENNEPIN COUNTY, MINNESOTA  
(NO SCALE)

## NOTES

- Field survey was completed by E.G. Rud and Sons, Inc. on 04/28/14.
- Bearings shown are on Hennepin County datum.
- Curb shots are taken at the top and back of curb.
- This survey was prepared without the benefit of title work. Additional easements, restrictions and/or encumbrances may exist other than those shown hereon. Survey subject to revision upon receipt of a current title commitment or an attorney's title opinion.
- Parcel ID Number: 21-117-22-43-0021
- Total boundary area: 75,722 square feet/1.74 acres

## PROPOSED LOT STANDARDS / ZONING

- Existing zoning: R-1
- Minimum lot width = 110 feet wide at front setback  
(Average proposed width: 104.2 feet.  
Owner will apply for variance)
- Minimum lot area = 22,000 square feet
- Setbacks: Front = 35 feet  
Rear = 40 feet or 20% of lot depth, whichever is less  
Side = 2 sides must total 30 feet, 10 foot minimum is allowed on one side.

## PROPERTY DESCRIPTION

That Part of Lot 7, Block 1, TONKAWOOD FARMS lying east of the west 312.63 feet. Except Roads. Hennepin County, Minnesota.

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

PRELIMINARY

DANIEL W. OBERMILLER

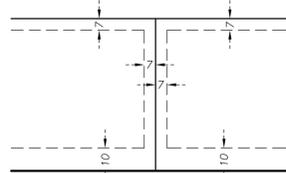
Date: 12/9/16 License No. 25341

## BENCHMARK

BENCHMARK: CSID Station # 100837 MNDOT name WELSH  
Elevation = 1002.875 (NAVD88)

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

## TYPICAL EASEMENTS

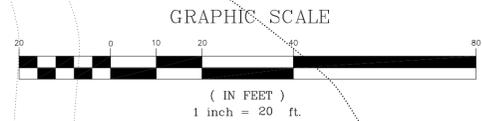
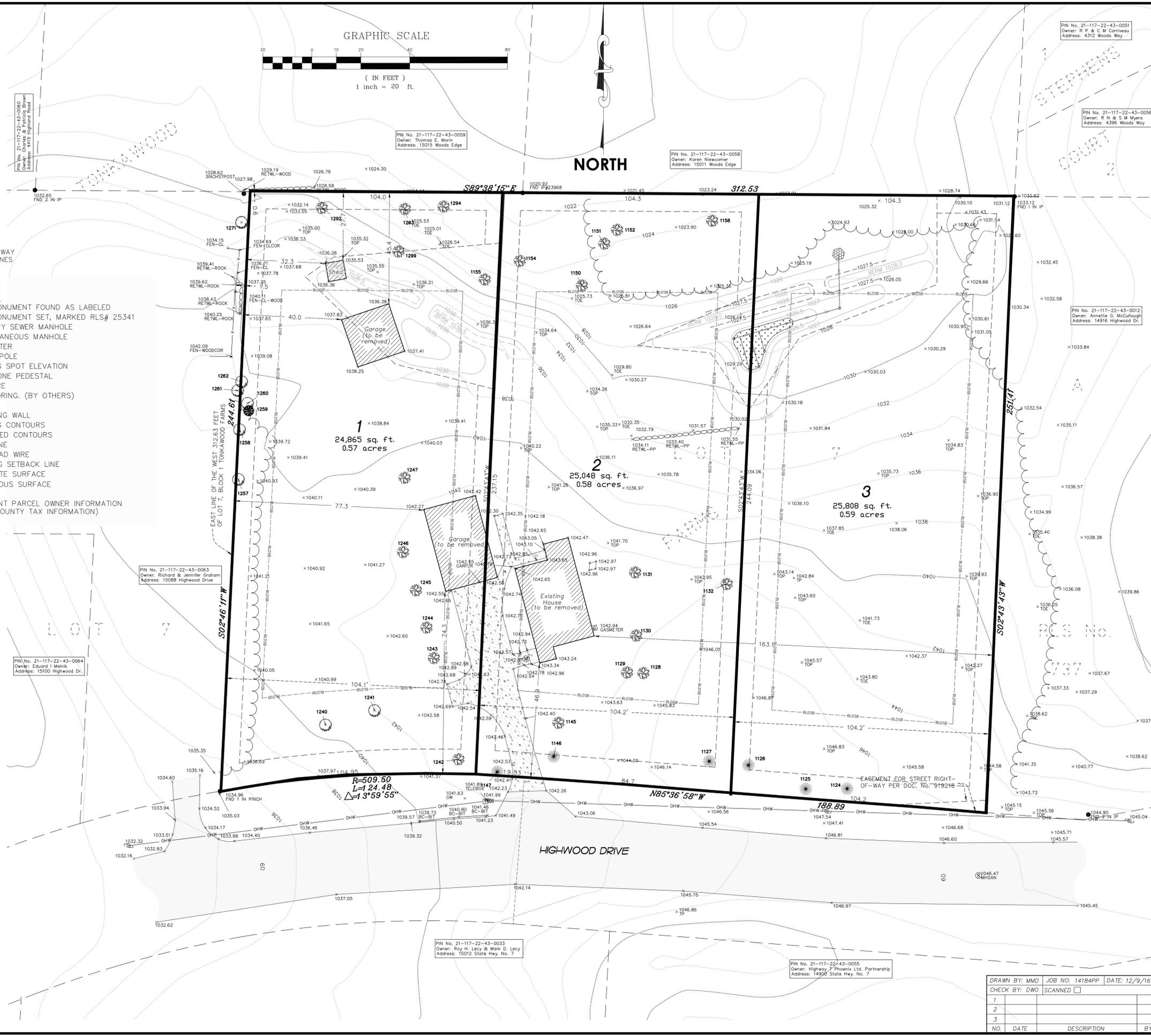


BEING 10 FEET IN WIDTH ADJOINING RIGHT OF WAY LINES AND 7 FEET IN WIDTH ADJOINING LOT LINES UNLESS OTHERWISE SHOWN.

## LEGEND

- DENOTES IRON MONUMENT FOUND AS LABELED
- DENOTES IRON MONUMENT SET, MARKED RLS# 25341
- ⊙ DENOTES SANITARY SEWER MANHOLE
- ⊕ DENOTES MISCELLANEOUS MANHOLE
- ⊗ DENOTES GAS METER
- ⊖ DENOTES POWER POLE
- ⊙ DENOTES EXISTING SPOT ELEVATION
- ⊙ DENOTES TELEPHONE PEDESTAL
- ⊙ DENOTES GUY WIRE
- ⊙ DENOTES SOIL BORING. (BY OTHERS)
- ⊙ DENOTES FENCE
- ⊙ DENOTES RETAINING WALL
- ⊙ DENOTES EXISTING CONTOURS
- ⊙ DENOTES PROPOSED CONTOURS
- ⊙ DENOTES TREE LINE
- ⊙ DENOTES OVERHEAD WIRE
- ⊙ DENOTES BUILDING SETBACK LINE
- ⊙ DENOTES CONCRETE SURFACE
- ⊙ DENOTES BITUMINOUS SURFACE
- ⊙ DENOTES ADJACENT PARCEL OWNER INFORMATION (PER HENNEPIN COUNTY TAX INFORMATION)

PIN No. 17-119-22-14-0008  
Owner: City of X  
Address: Unassigned



NORTH

DRAWN BY: MMD	JOB NO: 14184PP	DATE: 12/9/16	
CHECK BY: DWO	SCANNED		
NO.	DATE	DESCRIPTION	BY
1			
2			
3			

KNOW ALL PERSONS BY THESE PRESENTS: That John M. Tesar and Janice M. Tesar, husband and wife; Timothy M. Neutgens and Lynelle M. Neutgens, husband and wife; Matthew M. Neutgens and Julie M. Neutgens, husband and wife; James J. Payne and Lori A. Payne, husband and wife; and Thomas A. Neutgens and Elizabeth B. Neutgens, husband and wife, fee owners of the following described property situated in the County of Hennepin, State of Minnesota to-wit:

All that part of Lot 7, Block 1, "TONKAWOOD FARMS" described as follows, to-wit: Beginning at the Southeast corner of said Lot 7, thence North along the East line of said Lot a distance of 253.65 feet to the Northeast corner of said Lot, thence West along the North line of said Lot a distance of 312.63 to a point 312.63 feet East of the Northwest corner of said Lot 7, thence South parallel with the West line of said Lot to the Southerly line of said Lot, thence East along the Southerly line of said Lot to the point of beginning.

Have caused the same to be surveyed and platted as TONKAWOOD FARMS THIRD ADDITION and do hereby dedicate to the public for public use forever the public way and the easements for drainage and utility purposes as shown on this plat.

In witness whereof said John M. Tesar and Janice M. Tesar, husband and wife, have hereunto set their hands this \_\_\_\_ day of \_\_\_\_\_, 20\_\_

John M. Tesar Janice M. Tesar  
STATE OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by John M. Tesar and Janice M. Tesar, husband and wife.

Notary Public, \_\_\_\_\_ County, \_\_\_\_\_  
My Commission Expires \_\_\_\_\_

In witness whereof said Timothy M. Neutgens and Lynelle M. Neutgens, husband and wife, have hereunto set their hands this \_\_\_\_ day of \_\_\_\_\_, 20\_\_

Timothy M. Neutgens Lynelle M. Neutgens  
STATE OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by Timothy M. Neutgens and Lynelle M. Neutgens, husband and wife.

Notary Public, \_\_\_\_\_ County, \_\_\_\_\_  
My Commission Expires \_\_\_\_\_

In witness whereof said Matthew M. Neutgens and Julie M. Neutgens, husband and wife, have hereunto set their hands this \_\_\_\_ day of \_\_\_\_\_, 20\_\_

Matthew M. Neutgens Julie M. Neutgens  
STATE OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by Matthew M. Neutgens and Julie M. Neutgens, husband and wife.

Notary Public, \_\_\_\_\_ County, \_\_\_\_\_  
My Commission Expires \_\_\_\_\_

In witness whereof said James J. Payne and Lori A. Payne, husband and wife, have hereunto set their hands this \_\_\_\_ day of \_\_\_\_\_, 20\_\_

James J. Payne Lori A. Payne  
STATE OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by James J. Payne and Lori A. Payne, husband and wife.

Notary Public, \_\_\_\_\_ County, \_\_\_\_\_  
My Commission Expires \_\_\_\_\_

In witness whereof said Thomas A. Neutgens and Elizabeth B. Neutgens, husband and wife, have hereunto set their hands this \_\_\_\_ day of \_\_\_\_\_, 20\_\_

Thomas A. Neutgens Elizabeth B. Neutgens  
STATE OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by Thomas A. Neutgens and Elizabeth B. Neutgens, husband and wife.

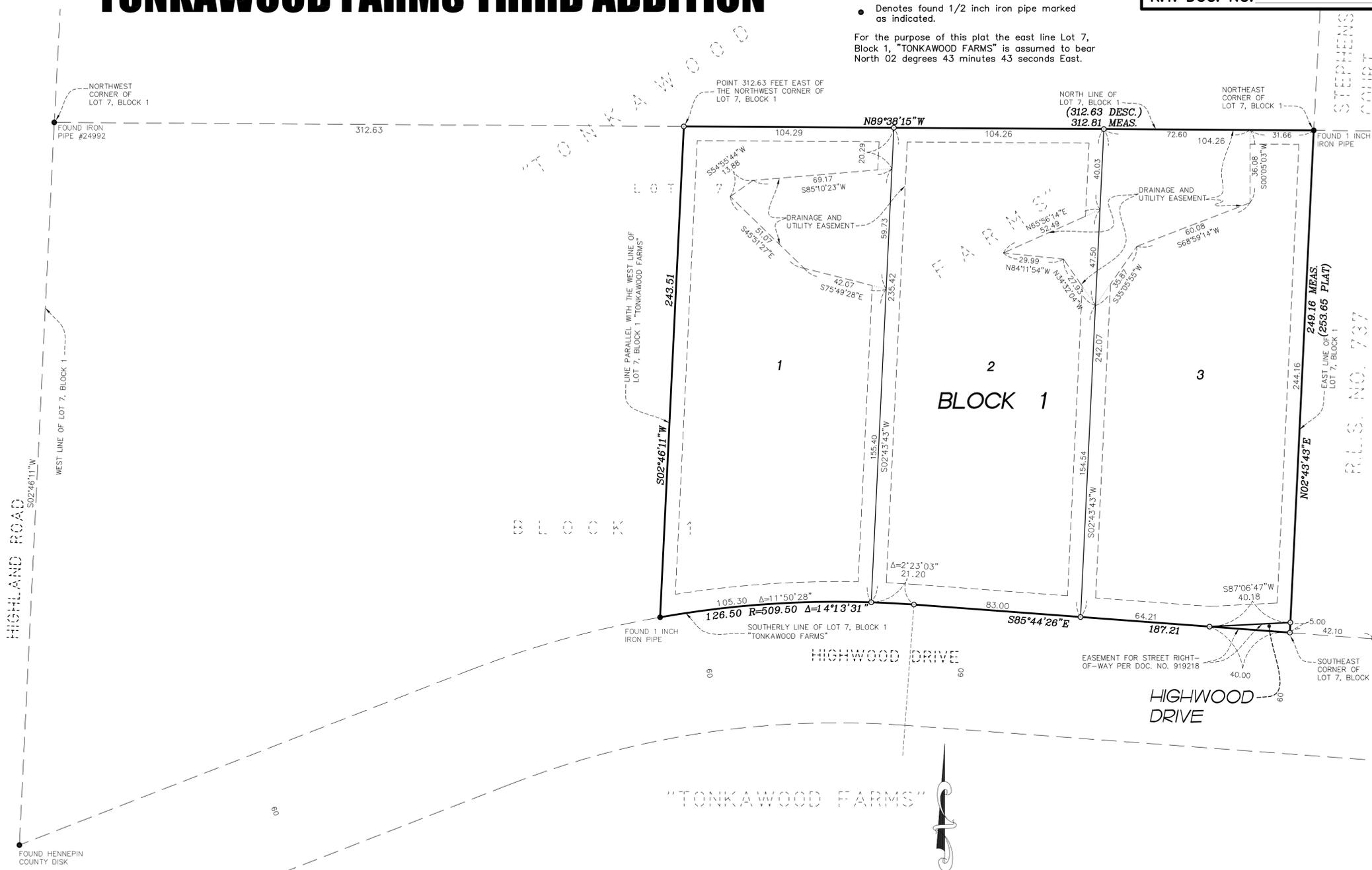
Notary Public, \_\_\_\_\_ County, \_\_\_\_\_  
My Commission Expires \_\_\_\_\_

I Daniel W. Obermiller do hereby certify that this plat was prepared by me or under my direct supervision; that I am a duly Licensed Land Surveyor in the State of Minnesota; that this plat is a correct representation of the boundary survey; that all mathematical data and labels are correctly designated on this plat; that all monuments depicted on the plat have been, or will be correctly set within one year; that all water boundaries and wet lands as defined in Minnesota Statutes, Section 505.01, Subd. 3, as of the date of this certificate are shown and labeled on the plat; and all public ways are shown and labeled on the plat.

Dated \_\_\_\_ day of \_\_\_\_\_, 20\_\_

Daniel W. Obermiller, Licensed Land Surveyor  
Minnesota License No. 25341

# TONKAWOOD FARMS THIRD ADDITION



- Denotes set 1/2 inch by 14 inch iron pipe marked RLS. No. 25341.
- Denotes found 1/2 inch iron pipe marked as indicated.

For the purpose of this plat the east line Lot 7, Block 1, "TONKAWOOD FARMS" is assumed to bear North 02 degrees 43 minutes 43 seconds East.

R.T. DOC. NO. \_\_\_\_\_

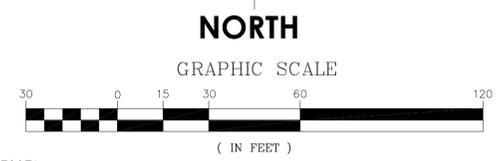
STATE OF MINNESOTA  
COUNTY OF \_\_\_\_\_  
The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by Daniel W. Obermiller, Licensed Land Surveyor.

Notary Public, \_\_\_\_\_ County, \_\_\_\_\_  
My Commission Expires \_\_\_\_\_

MINNETONKA, MINNESOTA  
This plat of TONKAWOOD FARMS THIRD ADDITION was approved and accepted by the City Council of Minnetonka, Minnesota, at a regular meeting thereof held this \_\_\_\_ day of \_\_\_\_\_, 20\_\_. If applicable, the written comments and recommendations of the Commissioner of Transportation and the County Highway Engineer have been received by the City or the prescribed 30 day period has elapsed without receipt of such comments and recommendations, as provided by Minnesota Statutes, Section 505.03, Subdivision 2.

\_\_\_\_\_, Mayor \_\_\_\_\_, Clerk

RESIDENT AND REAL ESTATE SERVICES, HENNEPIN COUNTY, MINNESOTA  
I hereby certify that taxes payable in \_\_\_\_\_ and prior years have been paid for land described on this plat, dated \_\_\_\_ day of \_\_\_\_\_, 20\_\_.  
Mark V. Chapin, County Auditor By \_\_\_\_\_, Deputy



SURVEY DIVISION, HENNEPIN COUNTY, MINNESOTA  
Pursuant to MN. STAT. Sec. 383B.565 (1969), this plat has been approved this \_\_\_\_ day of \_\_\_\_\_, 20\_\_

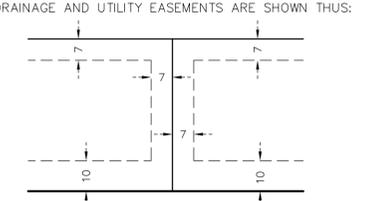
Chris F. Mavis, County Surveyor By \_\_\_\_\_

REGISTRAR OF TITLES, HENNEPIN COUNTY, MINNESOTA

I do hereby certify that the within plat of TONKAWOOD FARMS THIRD ADDITION was filed in this office this \_\_\_\_ day of \_\_\_\_\_, 20\_\_, at \_\_\_\_ o'clock \_\_\_\_ M.

Martin McCormick, Registrar of Titles By \_\_\_\_\_, Deputy

## TYPICAL EASEMENTS



BEING 10 FEET IN WIDTH ADJOINING RIGHT OF WAY LINES AND 7 FEET IN WIDTH ADJOINING LOT LINES UNLESS OTHERWISE SHOWN.

**E. G. RUD & SONS, INC.**  
EST. 1977 Professional Land Surveyors

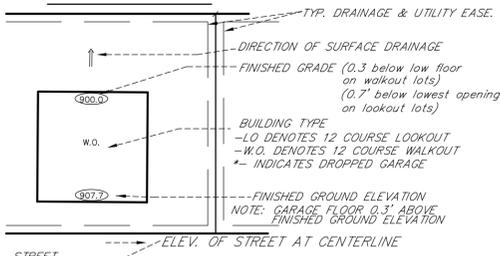
# GRADING DRAINAGE AND EROSION CONTROL PLAN

for R&R CONSTRUCTION

GRAPHIC SCALE



## TYPICAL LOT



NORTH

## LEGEND

- DENOTES EMERGENCY OVERFLOW ELEVATION
  - DENOTES EXISTING SPOT ELEVATION
  - DENOTES EXISTING 2 FOOT CONTOUR
  - DENOTES PROPOSED 2 FOOT CONTOURS
  - DENOTES EASEMENT LINE
  - DENOTES SETBACK LINE
  - DENOTES PROPOSED STORM SEWER
  - DENOTES PROPOSED SILT FENCE
  - DENOTES DIRECTION OF DRAINAGE
  - DENOTES PROPOSED SPOT ELEVATION
  - DENOTES TELEPHONE PEDESTAL
  - DENOTES ELECTRICAL BOX
  - DENOTES CABLE PEDESTAL
  - DENOTES PROPOSED TREE PRESERVATION FENCE
  - DENOTES TREE TO BE REMOVED
- TREE DETAIL:**
- Denotes Tree Number
  - Denotes Tree Elevation
  - Denotes Tree Quantity
  - Denotes Tree Size in Inches
  - Denotes Tree Type

PONDING CALCULATIONS AND STORM SEWER DESIGN BY  
**PLOWE ENGINEERING, INC.**  
 6776 LAKE DRIVE  
 SUITE 110  
 LINO LAKES, MN 55014

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

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

PRELIMINARY  
 ADAM GINKEL  
 DATE: 12.09.2016 LIC. NO. 43963

## NOTES

- Field survey was completed by E.G. Rud and Sons, Inc. on 04/28/14.
- Bearings shown are on Hennepin County datum.
- Curb shots are taken at the top and back of curb.
- This survey was prepared without the benefit of title work. Additional easements, restrictions and/or encumbrances may exist other than those shown hereon. Survey subject to revision upon receipt of a current title commitment or an attorney's title opinion.
- Parcel ID Number: 21-117-22-43-0021
- Total boundary area: 75,722 square feet/1.74 acres
- See Sheets C1, C2.1 and C2.2 for erosion control and filtration area details.

## BENCHMARK

BENCHMARK: GSID Station # 100837 MNDOT name WELSH  
 Elevation = 1002.875 (NAVD88)

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

PRELIMINARY

DANIEL W. OBERMILLER

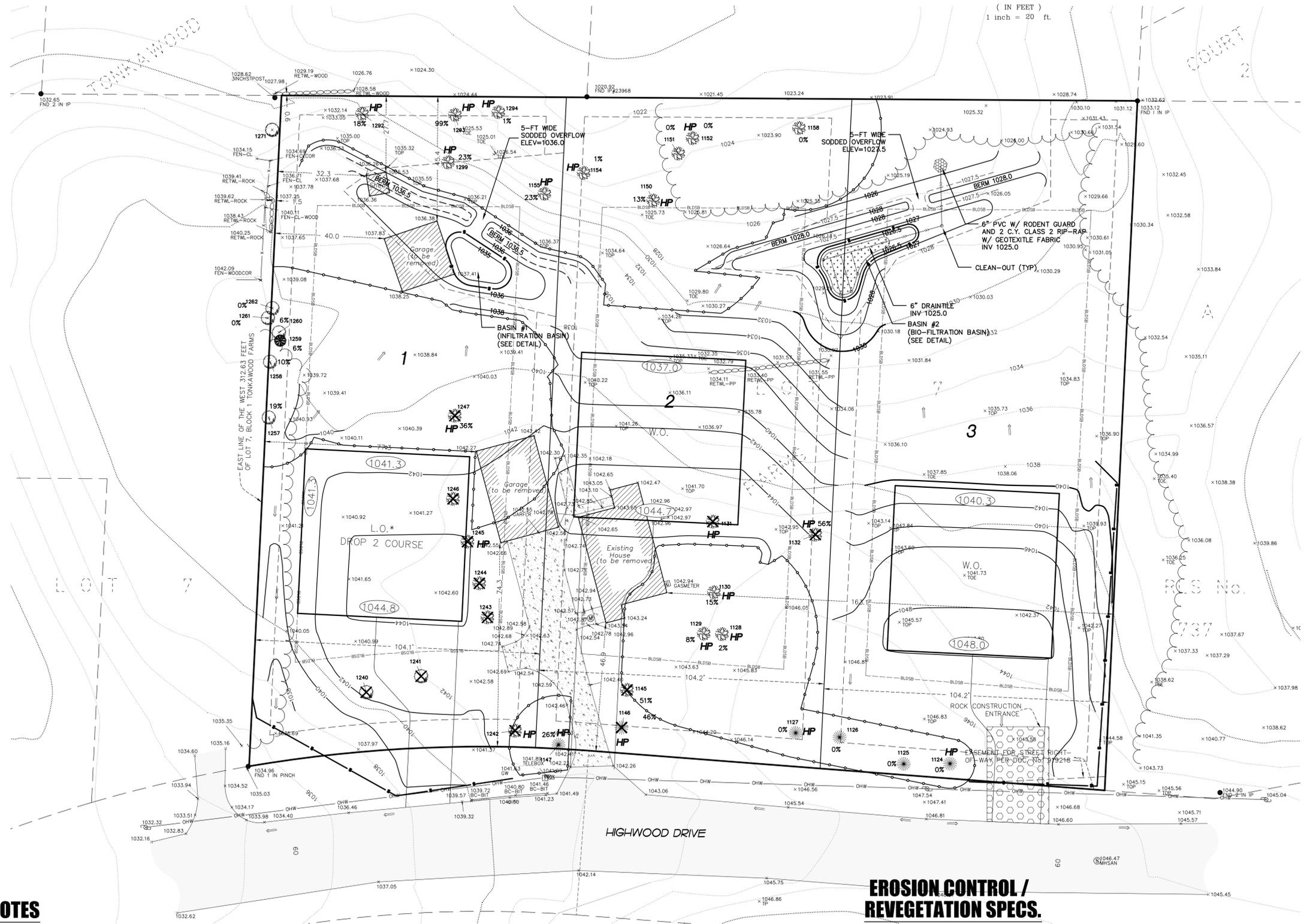
Date: 12/9/16 License No. 25341

## EROSION CONTROL / REVEGETATION SPECS.

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

DRAWN BY: MMD		JOB NO: 14184PP		DATE: 12/9/16	
CHECK BY: DWO		SCANNED <input type="checkbox"/>			
1					
2					
3					
NO.	DATE	DESCRIPTION	BY		

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



# TREE PRESERVATION PLAN

~for~R&R CONSTRUCTION

## LEGEND

- DENOTES PROPOSED TREE PRESERVATION FENCE
- DENOTES TREE TO BE REMOVED

- TREE DETAIL:**
- Denotes Tree Number
  - Denotes Elevation
  - Denotes Tree Quantity
  - Denotes Tree Size in Inches
  - Denotes Tree Type

## TREE PRESERVATION NOTES

Before construction, grading or land clearing begins, the city-approved tree protection fencing or other method must be installed and maintained at the critical root zones of the trees to be protected. The location of the fencing must be in conformance with the approved tree preservation plan. This fencing must be inspected by city staff before site work begins.

No construction, compaction, construction access, stock piling of earth, storage of equipment or building materials, or grading of any kind may occur within the critical root zone areas of trees to be protected.

A healthy protected tree that was not a hazard to personal safety or property damage and that was removed or otherwise destroyed by unnatural causes within three years before a development application will be regarded as if it were present at the time of construction or a development application. This provision does not apply if a number of protected trees removed is less than 5% of the protected trees existing five years before the application.

An area of new or compensatory water storage may not be located where there are woodland preservation areas, high priority trees or significant trees, unless approved by the city. Mitigation will be required for the loss of woodland preservation areas and high priority trees due to ponding. The compensatory storage area must be created in a manner that prevents erosion into any nearby water resource.

Total number of trees: 37  
 Trees to be removed: 12  
 High Priority Trees: 20  
 High Priority Trees to be removed: 6 (35% of total)

## TREE TABLE

TREE #	DESCRIPTION	HIGH PRIORITY	REMOVE
1124	SPRUCE6	YES	NO
1125	SPRUCE4	NO	NO
1126	SPRUCE4	NO	NO
1127	SPRUCE6	YES	NO
1128	OAK24	YES	NO
1129	OAK24	YES	NO
1130	OAK18	YES	NO
1131	MAPLE22	YES	YES
1132	OAK24	YES	YES
1145	ASH12	NO	YES
1146	SPRUCE14	YES	YES
1147	SPRUCE12	YES	NO
1150	OAK32	YES	NO
1151	OAK28	NO	NO
1152	OAK20	YES	NO
1154	OAK20	YES	NO
1155	OAK1-24-2-18	YES	NO
1158	MAPLE20	NO	NO
1240	TREE14	NO	YES
1241	TREE14	NO	YES
1242	MAPLE30	YES	YES
1243	MAPLE14	NO	YES
1244	MAPLE14	NO	YES
1245	MAPLE36	YES	YES
1246	MAPLE26	NO	YES
1247	OAK28	YES	YES
1257	TREE12	NO	NO
1258	TREE14	NO	NO
1259	ASPEN14	NO	NO
1260	TREE16	NO	NO
1261	TREE14	NO	NO
1262	TREE10	NO	NO
1271	TREE22	NO	NO
1292	MAPLE20	YES	NO
1293	OAK20	YES	NO
1294	OAK24	YES	NO
1299	OAK16	YES	NO

## NOTES

- Field survey was completed by E.G. Rud and Sons, Inc. on 04/28/14.
- Bearings shown are on Hennepin County datum.
- Curb shots are taken at the top and back of curb.
- This survey was prepared without the benefit of title work. Additional easements, restrictions and/or encumbrances may exist other than those shown hereon. Survey subject to revision upon receipt of a current title commitment or an attorney's title opinion.
- Parcel ID Number: 21-117-22-43-0021
- Total boundary area: 75,722 square feet/1.74 acres

## PROPERTY DESCRIPTION

That Part of Lot 7, Block 1, TONKAWOOD FARMS lying east of the west 312.63 feet. Except Roads. Hennepin County, Minnesota.

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

PRELIMINARY

DANIEL W. OBERMILLER

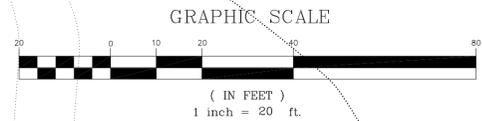
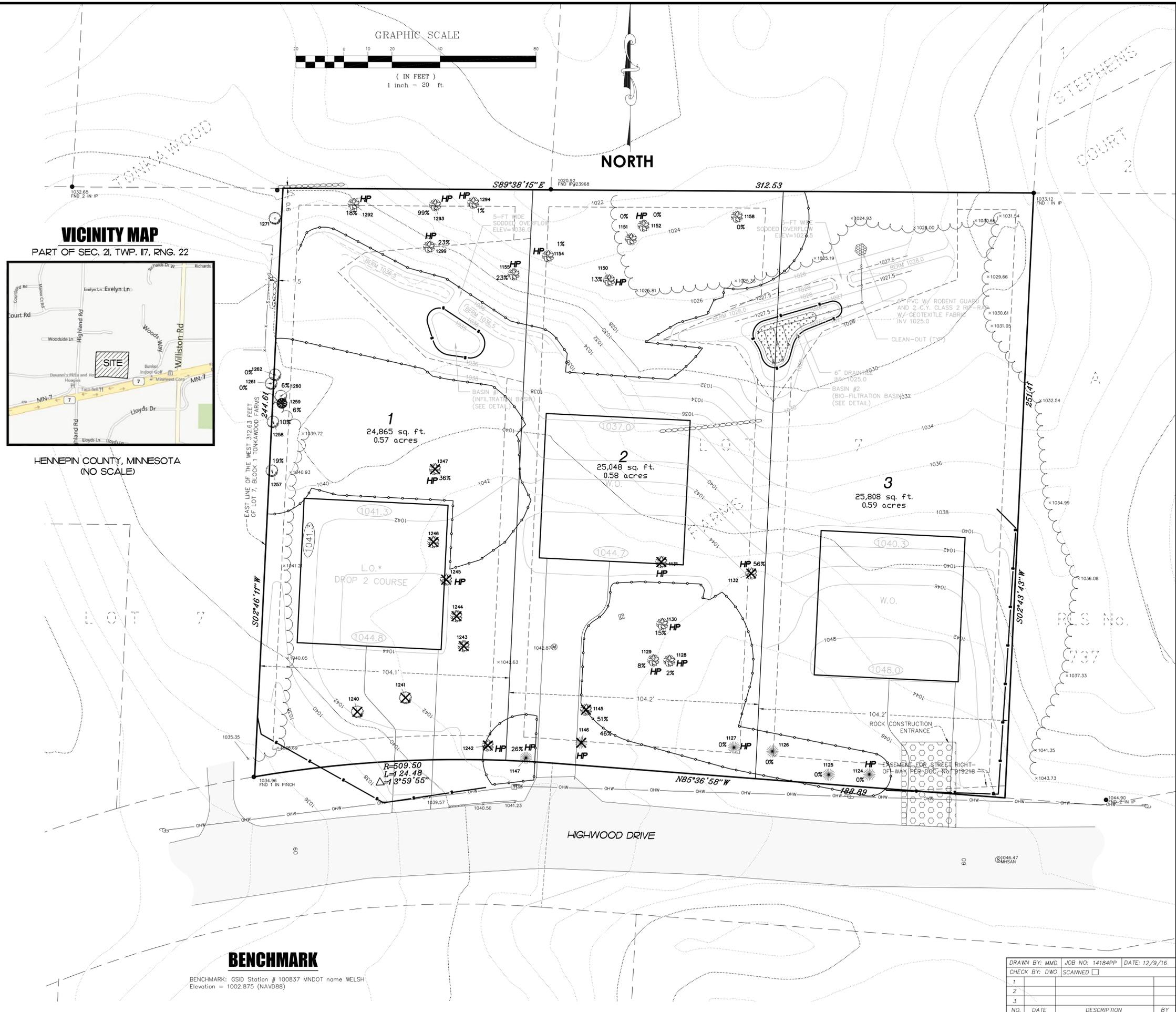
Date: 12/9/16 License No. 25341

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

## BENCHMARK

BENCHMARK: CSID Station # 100837 MNDOT name WELSH  
 Elevation = 1002.875 (NAVD88)

DRAWN BY: MMD	JOB NO: 14184PP	DATE: 12/9/16	
CHECK BY: DWO	SCANNED <input type="checkbox"/>		
NO.	DATE	DESCRIPTION	BY
1			
2			
3			



NORTH

### VICINITY MAP PART OF SEC. 21, TWP. 17, RNG. 22



HENNEPIN COUNTY, MINNESOTA  
(NO SCALE)

# MINNETONKA LOT SPLIT

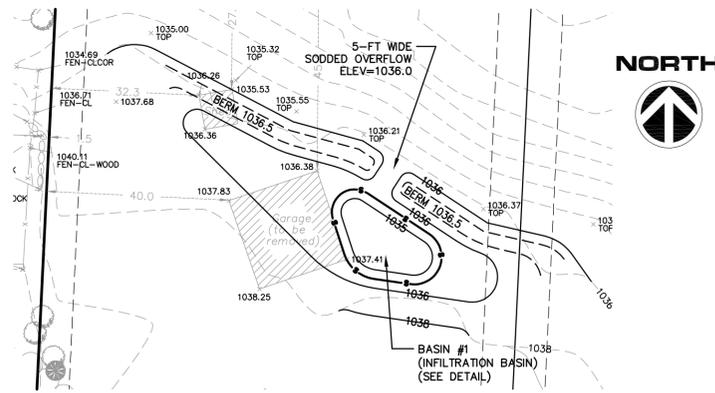
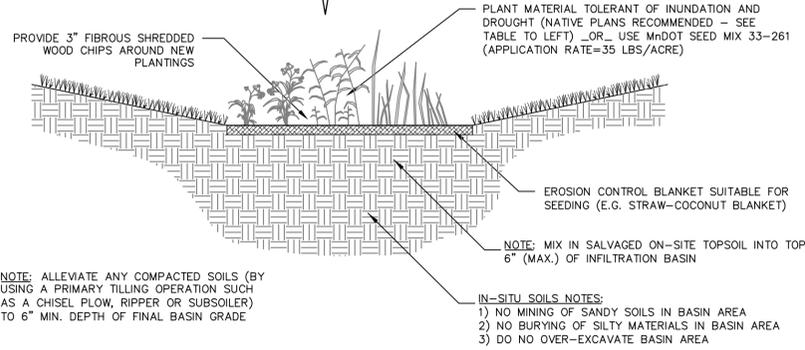
## MINNETONKA, MINNESOTA

### DETAILS

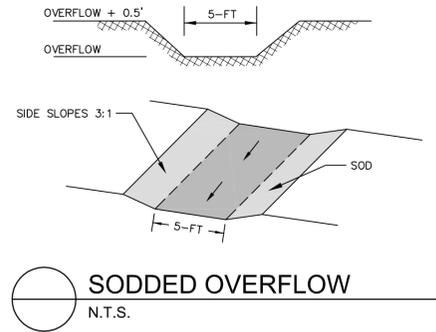
1. USE LOW-IMPACT, EARTH MOVING EQUIPMENT (WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT-EQUIPMENT WITH TURF-TYPE TIRES.)
2. NO MINING OF SANDY SOILS ALLOWED IN BASIN.
3. FINAL GRADE ONLY UPON STABILIZATION OF UPSTREAM AREAS.
4. BASIN TO REMAIN UNLINED.
5. PROTECT BASIN FROM RUN-OFF DURING CONSTRUCTION ACTIVITIES. EXCAVATE BASIN TO FINAL GRADE ONLY UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREAS.

#### PLANTING SUGGESTIONS

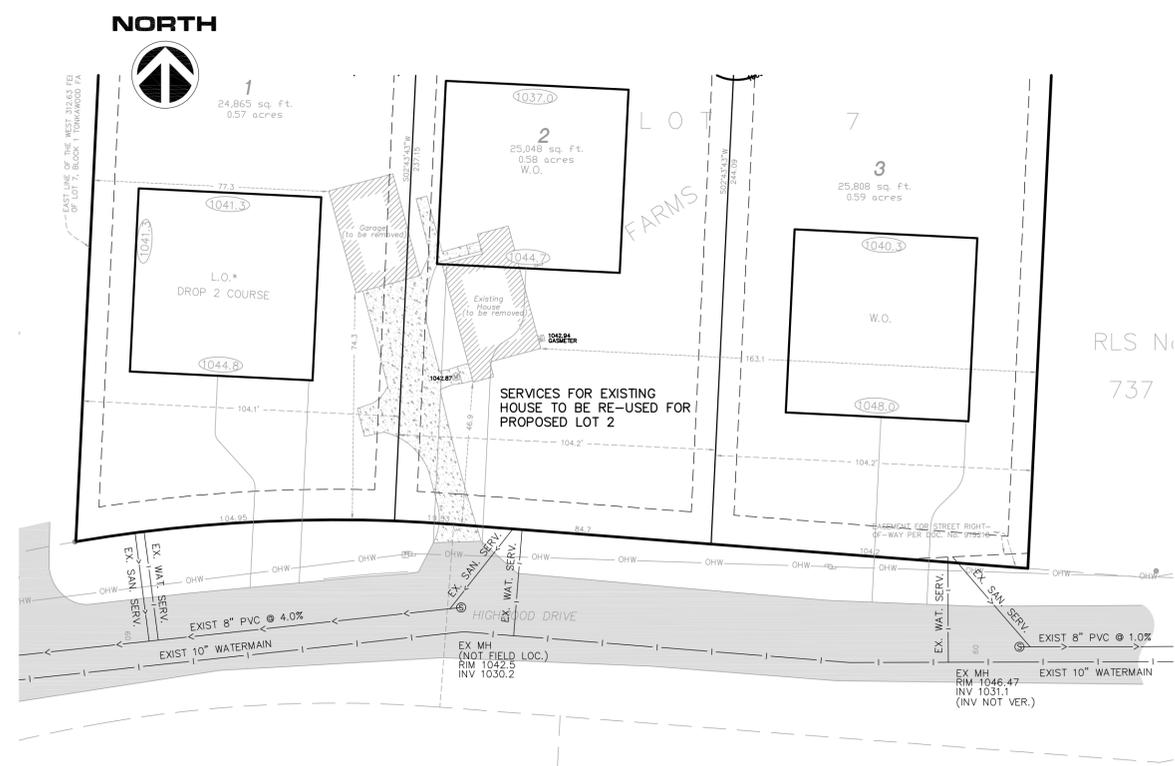
BOTTOM OF BASIN	SIDE SLOPES
NATIVE PLANTINGS	NATIVE PLANTINGS
GIANT BUR-REED	BIG BLUESTEM
WOOL GRASS SEDGE	BLUE JOINT GRASS
CORD GRASS	SWITCH GRASS
BLUE FLAG IRIS	BLUE VERVAIN
SWAMP MILKWEED	PRAIRIE BLAZINGSTAR
TAMARACK	TAMARACK
JOE-PYE WEED	NEW ENGLAND ASTER
NEW ENGLAND ASTER	RED-OSIER DOGWOOD
PRAIRIE BLAZINGSTAR	SANDBAR WILLOW
BONESET	BLACK CHOKECHERRY
BLACK WILLOW	BLACK WILLOW



**BASIN #1 - INFILTRATION BASIN**  
SCALE = 1:20 (THIS DETAIL ONLY)

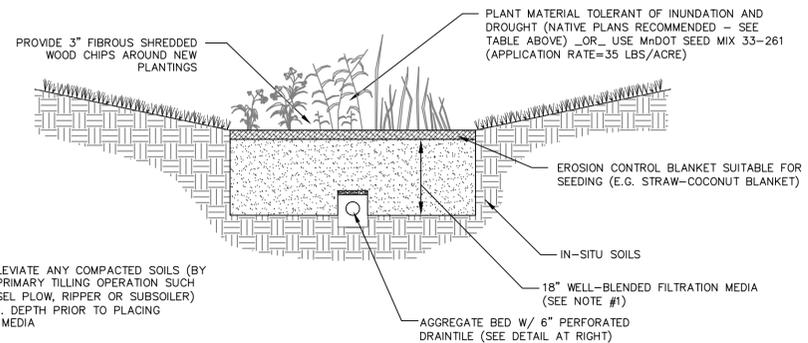


**BASIN #1 - INFILTRATION BASIN**  
N.T.S.

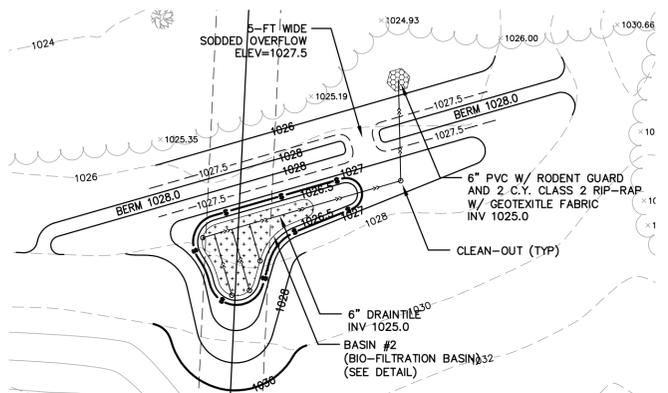


**SEWER AND WATER SERVICES**  
APPROXIMATE - NOT FIELD LOCATED  
SCALE = 1:30

1. WELL-BLENDED FILTRATION MEDIA TO BE COMPRISED OF (BY VOLUME):  
70-85% CLEAN CONSTRUCTION SAND (AASHTO M-6 OR ASTM C-33, GRAIN SIZE 0.02"-0.04")  
15-30% ORGANIC LEAF COMPOST: MnDOT GRADE 2 COMPOST
2. NO MINING OF SANDY SOILS ALLOWED IN BASIN.
3. FINAL GRADE ONLY UPON STABILIZATION OF UPSTREAM AREAS.
4. BASIN TO REMAIN UNLINED.
5. PROTECT BASIN FROM RUN-OFF DURING LOT CONSTRUCTION ACTIVITIES. EXCAVATE BASIN TO FINAL GRADE ONLY UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREAS.
6. USE LOW-IMPACT, EARTH MOVING EQUIPMENT (WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT-EQUIPMENT WITH TURF-TYPE TIRES.)



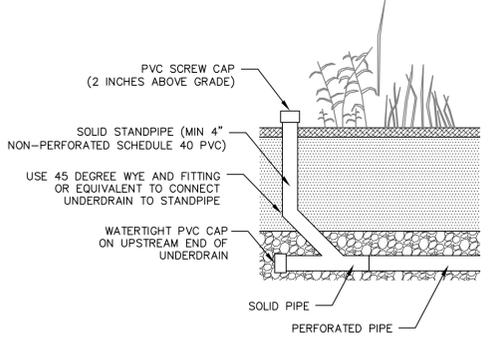
**BASIN #2 - BIO-FILTRATION BASIN**  
N.T.S.



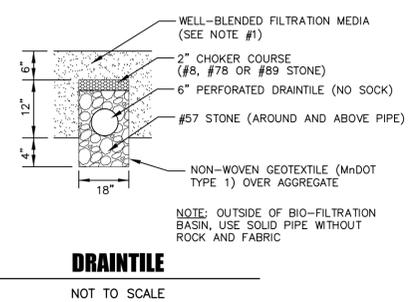
**BASIN #2 - BIO-FILTRATION BASIN**  
SCALE = 1:20 (THIS DETAIL ONLY)

#### PLANTING SUGGESTIONS

BOTTOM OF BASIN	SIDE SLOPES
NATIVE PLANTINGS	NATIVE PLANTINGS
GIANT BUR-REED	BIG BLUESTEM
WOOL GRASS SEDGE	BLUE JOINT GRASS
CORD GRASS	SWITCH GRASS
BLUE FLAG IRIS	BLUE VERVAIN
SWAMP MILKWEED	PRAIRIE BLAZINGSTAR
TAMARACK	TAMARACK
JOE-PYE WEED	NEW ENGLAND ASTER
NEW ENGLAND ASTER	PRAIRIE BLAZINGSTAR
BONESET	BONESET
BLACK WILLOW	BLACK CHOKECHERRY
	BLACK WILLOW



**DRAIN TILE CLEAN-OUT**  
NOT TO SCALE



DRAWN BY: A.G. DESIGN BY: A.G.  
 CHKCD BY: C.W.P. PROJ. NO. 15-1534  
 ORIGINAL DATE: DECEMBER 9, 2016

DATE	REVISION DESCRIPTION

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

**PRELIMINARY**  
 ADAM GINKEL  
 DATE: 12.09.2016 LIC. NO. 43963

**MINNETONKA LOT SPLIT**  
 MINNETONKA, MN  
 DETAILS

PREPARED FOR:  
**R & R CONSTRUCTION**



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

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

**C1**

# MINNETONKA LOT SPLIT

## MINNETONKA, MINNESOTA

### STORM WATER POLLUTION PREVENTION PLAN

**DRAWN BY:** C.M.  
**DESIGN BY:** A.G.  
**CHKCD BY:** C.W.P.  
**PROJ. NO.:** 15-1534  
**ORIGINAL DATE:** DECEMBER 9, 2016

#### PART II.C. – TERMINATION OF COVERAGE

1. TERMINATION OF COVERAGE WHEN CONSTRUCTION IS COMPLETE: ALL PERMITEE(S) MUST SUBMIT A NOTICE OF TERMINATION (NOT) TO THE MPCOA ON A FORM PROVIDED BY THE COMMISSIONER WITHIN 30 DAYS AFTER ALL ACTIVITIES REQUIRED FOR FINAL STABILIZATION (SEE PART IV.G.) ARE COMPLETE. THE PERMITEE(S)' COVERAGE UNDER THIS PERMIT TERMINATES AT MIDNIGHT ON THE SUBMISSION DATE OF THE NOT.
2. TERMINATION OF COVERAGE WHEN TRANSFER OF OWNERSHIP OCCURS: ALL PERMITEE(S) MUST SUBMIT A NOTICE OF TERMINATION TO THE COMMISSIONER WITHIN 30 DAYS AFTER SELLING OR OTHERWISE LEGALLY TRANSFERRING THE ENTIRE SITE, INCLUDING PERMIT RESPONSIBILITY FOR ROADS (E.G., STREET SWEEPING) AND STORMWATER INFRASTRUCTURE FINAL CLEAN OUT, OR TRANSFERRING PORTIONS OF A SITE TO ANOTHER PARTY. THE PERMITEE(S)' COVERAGE UNDER THIS PERMIT TERMINATES AT MIDNIGHT ON THE SUBMISSION DATE OF THE NOT.
3. PERMITEE(S) MAY TERMINATE PERMIT COVERAGE PRIOR TO COMPLETION OF ALL CONSTRUCTION ACTIVITY IF ALL OF THE FOLLOWING CONDITIONS ARE MET. AFTER THE PERMIT IS TERMINATED UNDER THIS PART, IF THERE IS ANY SUBSEQUENT DEVELOPMENT ON THE REMAINING PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY WAS NOT COMPLETE, NEW PERMIT COVERAGE MUST BE OBTAINED IF THE SUBSEQUENT DEVELOPMENT ITSELF OR AS PART OF THE REMAINING COMMON PLAN OF DEVELOPMENT OR SALE WILL RESULT IN LAND DISTURBING ACTIVITIES OF ONE (1) OR MORE ACRES IN SIZE.
  - A. CONSTRUCTION ACTIVITY HAS CEASED FOR AT LEAST 90 DAYS.
  - B. AT LEAST 90 PERCENT (BY AREA) OF ALL ORIGINALLY PROPOSED CONSTRUCTION ACTIVITY HAS BEEN COMPLETED AND PERMANENT COVER ESTABLISHED ON THOSE AREAS.
  - C. ON AREAS WHERE CONSTRUCTION ACTIVITY IS NOT COMPLETE, PERMANENT COVER HAS BEEN ESTABLISHED.
  - D. THE SITE IS IN COMPLIANCE WITH PART IV.G.2. AND PART IV.G.3. AND WHERE APPLICABLE, PART IV.G.4. OR PART IV.G.5.
4. PERMITEE(S) MAY TERMINATE COVERAGE UPON APPROVAL BY THE MPCOA IF INFORMATION IS SUBMITTED TO THE MPCOA DOCUMENTING THAT TERMINATION IS APPROPRIATE BECAUSE THE PROJECT IS CANCELED.

#### PART III.A.3 – TRAINING DOCUMENTATION

TRAINING DOCUMENTATION: THE PERMITEE(S) SHALL ENSURE THE INDIVIDUALS IDENTIFIED IN PART III.F. HAVE BEEN TRAINED IN ACCORDANCE WITH THIS PERMIT'S TRAINING REQUIREMENTS. THE PERMITEE(S) SHALL ENSURE THE TRAINING IS RECORDED IN OR WITH THE SWPPP BEFORE THE START OF CONSTRUCTION OR AS SOON AS THE PERSONNEL FOR THE PROJECT HAVE BEEN DETERMINED. DOCUMENTATION SHALL INCLUDE:

- A. NAMES OF THE PERSONNEL ASSOCIATED WITH THIS PROJECT THAT ARE REQUIRED TO BE TRAINED PER PART III.F.1. OF THIS PERMIT.
- B. DATES OF TRAINING AND NAME OF INSTRUCTOR(S) AND ENTITY PROVIDING TRAINING.
- C. CONTENT OF TRAINING COURSE OR WORKSHOP INCLUDING THE NUMBER OF HOURS OF TRAINING.

#### PART III.B – SWPPP AMENDMENTS

- THE PERMITEE(S) MUST AMEND THE SWPPP AS NECESSARY TO INCLUDE ADDITIONAL REQUIREMENTS, SUCH AS ADDITIONAL OR MODIFIED BMPs THAT ARE DESIGNED TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS WHENEVER:
1. THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, MAINTENANCE, WEATHER OR SEASONAL CONDITIONS THAT HAS A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR UNDERGROUND WATERS.
  2. INSPECTIONS OR INVESTIGATIONS BY SITE OWNER OR OPERATORS, USEPA OR MPCOA OFFICIALS INDICATE THE STORMWATER DISCHARGES MAY CAUSE, HAVE REASONABLE POTENTIAL TO CAUSE, OR CONTRIBUTE TO NON-ATTAINMENT OF ANY APPLICABLE WATER QUALITY STANDARD, OR THAT THE SWPPP DOES NOT INCORPORATE THE APPLICABLE REQUIREMENTS IN PART III.A.B., (IMPAIRED WATERS AND TMDLS) IF A WATER QUALITY STANDARD CHANGES DURING THE TERM OF THIS PERMIT, THE MPCOA WILL MAKE A DETERMINATION AS TO WHETHER A MODIFICATION OF THE SWPPP IS NECESSARY TO ADDRESS THE NEW STANDARD. IF THE MPCOA MAKES SUCH DETERMINATION(S) OR ANY OF THE DETERMINATIONS IN PARTS III.B.1.–3., THE MPCOA WILL NOTIFY THE PERMITEE(S) IN WRITING. IN RESPONSE, THE PERMITEE(S) MUST AMEND THE SWPPP TO ADDRESS THE IDENTIFIED CONCERNS AND SUBMIT INFORMATION REQUESTED BY THE MPCOA, WHICH MAY INCLUDE AN INDIVIDUAL PERMIT APPLICATION. IF THE MPCOA'S WRITTEN NOTIFICATION REQUIRES A RESPONSE, FAILURE TO RESPOND WITHIN THE SPECIFIED TIMEFRAME CONSTITUTES A PERMIT VIOLATION.

#### PART III.C. – TEMPORARY SEDIMENT BASINS

WHERE FIVE (5) OR MORE ACRES OF DISTURBED SOIL DRAIN TO A COMMON LOCATION, THE PERMITEE(S) MUST PROVIDE A TEMPORARY SEDIMENT BASIN TO PROVIDE TREATMENT TO THE RUNOFF BEFORE IT LEAVES THE CONSTRUCTION SITE OR ENTERS SURFACE WATERS. A TEMPORARY SEDIMENT BASIN MAY BE CONVERTED TO A PERMANENT BASIN AFTER CONSTRUCTION IS COMPLETE. THE TEMPORARY BASIN IS NO LONGER REQUIRED WHEN PERMANENT COVER HAS REDUCED THE ACREAGE OF DISTURBED SOIL TO LESS THAN FIVE (5) ACRES DRAINING TO A COMMON LOCATION, THE PERMITEE(S) IS/ARE ENCOURAGED, BUT NOT REQUIRED, TO INSTALL TEMPORARY SEDIMENT BASINS WHERE APPROPRIATE IN AREAS WITH STEEP SLOPES OR HIGHLY ERODIBLE SOILS EVEN IF LESS THAN FIVE (5) ACRES DRAINS TO ONE AREA. THE BASINS MUST BE DESIGNED AND CONSTRUCTED ACCORDING TO THE FOLLOWING REQUIREMENTS:

1. THE BASINS MUST PROVIDE LIVE STORAGE FOR A CALCULATED VOLUME OF RUNOFF FROM A TWO-YEAR, 24-HOUR STORM FROM EACH ACRE DRAINED TO THE BASIN, EXCEPT THAT IN NO CASE SHALL THE BASIN PROVIDE LESS THAN 1,800 CUBIC FEET OF LIVE STORAGE FROM EACH ACRE DRAINED TO THE BASIN.
2. WHERE THE CALCULATION IN PART III.C.1. HAS NOT BEEN PERFORMED, A TEMPORARY SEDIMENT BASIN PROVIDING 3,600 CUBIC FEET OF LIVE STORAGE PER ACRE DRAINED TO THE BASIN SHALL BE PROVIDED FOR THE ENTIRE DRAINAGE AREA OF THE TEMPORARY BASIN.
3. TEMPORARY BASIN OUTLETS MUST BE DESIGNED TO PREVENT SHORT-CIRCUITING AND THE DISCHARGE OF FLOATING DEBRIS. THE BASIN MUST BE DESIGNED WITH THE ABILITY TO ALLOW COMPLETE BASIN DRAINDOWN FOR MAINTENANCE ACTIVITIES, AND MUST INCLUDE A STABILIZED EMERGENCY OVERTFLOW TO PREVENT FAILURE OF POND INTERITY. THE OUTLET STRUCTURE MUST BE DESIGNED TO WITHDRAW WATER FROM THE SURFACE IN ORDER TO MINIMIZE THE DISCHARGE OF POLLUTANTS, EXCEPT THAT THE USE OF A SURFACE WITHDRAWAL MECHANISM FOR DISCHARGE OF THE BASIN MAY BE TEMPORARILY SUSPENDED DURING FROZEN CONDITIONS. ENERGY DISSIPATION MUST BE PROVIDED FOR THE BASIN OUTLET (SEE PART IV.B.5.).
4. SEDIMENT BASINS MUST BE SITUATED OUTSIDE SURFACE WATERS AND ANY BUFFER ZONE REQUIRED UNDER APPENDIX A.C.3, AND MUST BE DESIGNED TO AVOID DRAINING WATER FROM WETLANDS UNLESS THE IMPACT TO THE WETLAND IS IN COMPLIANCE WITH THE REQUIREMENTS OF APPENDIX A, PART D.
5. THE TEMPORARY BASINS MUST BE CONSTRUCTED AND MADE OPERATIONAL PRIOR TO 10 OR MORE ACRES OF DISTURBED SOIL DRAINING TO A COMMON LOCATION.
6. WHERE A TEMPORARY SEDIMENT BASIN MEETS THE REQUIREMENTS OF THIS PART IS INFEASIBLE, EQUIVALENT SEDIMENT CONTROLS SUCH AS SMALLER SEDIMENT BASINS, AND/OR SEDIMENT TRAPS, SILT FENCES, VEGETATIVE BUFFER STRIPS, OR ANY APPROPRIATE COMBINATION OF MEASURES ARE REQUIRED FOR ALL DOWN-SLOPE BOUNDARIES OF THE CONSTRUCTION AREA AND FOR SIDE-SLOPE BOUNDARIES AS DICTATED BY INDIVIDUAL SITE CONDITIONS. IN DETERMINING WHETHER INSTALLING A SEDIMENT BASIN IS INFEASIBLE, THE PERMITEE(S) MUST CONSIDER PUBLIC SAFETY AND MAY CONSIDER FACTORS SUCH AS SITE SLOPE, AND AVAILABLE AREA ON SITE. THIS DETERMINATION OF INFEASIBILITY MUST BE DOCUMENTED IN THE SWPPP PRE PART III.A.5.

#### PART III.E – RECORD RETENTION

THE SWPPP (ORIGINAL OR COPIES) INCLUDING, ALL CHANGES TO IT, AND INSPECTIONS AND MAINTENANCE RECORDS MUST BE KEPT AT THE SITE DURING CONSTRUCTION BY THE PERMITEE(S) WHO HAS/HAVE OPERATIONAL CONTROL OF THAT PORTION OF THE SITE. THE SWPPP CAN BE KEPT IN EITHER THE FIELD OFFICE OR IN AN ON-SITE VEHICLE DURING NORMAL WORKING HOURS.

ALL OWNER(S) MUST KEEP THE FOLLOWING RECORDS ON FILE FOR THREE (3) YEARS AFTER SUBMITTAL OF THE NOT AS OUTLINED IN PART II.C. THIS DOES NOT INCLUDE ANY RECORDS AFTER SUBMITTAL OF

#### PART III.E – RECORD RETENTION (CONT)

1. THE FINAL SWPPP
2. ANY OTHER STORMWATER RELATED PERMITS REQUIRED FOR THE PROJECT
3. RECORDS OF ALL INSPECTION AND MAINTENANCE CONDUCTED DURING CONSTRUCTION (PART IV.E. INSPECTIONS AND MAINTENANCE)
4. ALL PERMANENT OPERATION AND MAINTENANCE AGREEMENTS THAT HAVE BEEN IMPLEMENTED, INCLUDING ALL RIGHT-OF-WAY, CONTRACTS, COVENANTS AND OTHER BINDING REQUIREMENTS REGARDING PERPETUAL MAINTENANCE AND
5. ALL REQUIRED CALCULATIONS FOR DESIGN OF THE TEMPORARY AND PERMANENT STORMWATER MANAGEMENT SYSTEMS.

#### PART III.F. – TRAINING REQUIREMENTS

THE PERMITEE(S) SHALL ENSURE THE FOLLOWING INDIVIDUALS IDENTIFIED IN THIS PART HAVE BEEN TRAINED IN ACCORDANCE WITH THIS PERMIT'S TRAINING REQUIREMENTS.

1. WHO MUST BE TRAINED:
  - A. INDIVIDUAL(S) PREPARING THE SWPPP FOR THE PROJECT
  - B. INDIVIDUAL(S) OVERSEEING IMPLEMENTATION OF, REVISING, AND AMENDING THE SWPPP AND INDIVIDUAL(S) PERFORMING INSPECTIONS AS REQUIRED IN PART IV.E. ONE OF THESE INDIVIDUAL(S) MUST BE AVAILABLE FOR AN ONSITE INSPECTION WITHIN 72 HOURS UPON REQUEST BY THE MPCOA.
  - C. INDIVIDUAL(S) PERFORMING OR SUPERVISING THE INSTALLATION, MAINTENANCE AND REPAIR OF BMPs. AT LEAST ONE INDIVIDUAL ON A PROJECT MUST BE TRAINED IN THESE JOB DUTIES.
2. TRAINING CONTENT: THE CONTENT AND EXTENT OF TRAINING MUST BE COMMENSURATE WITH THE INDIVIDUAL'S JOB DUTIES AND RESPONSIBILITIES WITH REGARD TO ACTIVITIES COVERED UNDER THIS PERMIT FOR THE PROJECT. AT LEAST ONE INDIVIDUAL PRESENT ON THE PERMITTED PROJECT SITE (OR AT THE PROJECT SITE IN 72 HOURS) MUST BE TRAINED IN THE JOB DUTIES DESCRIBED IN PART III.F.1.B. AND PART III.F.1.C.
3. THE PERMITEE(S) SHALL ENSURE THAT THE INDIVIDUALS ARE TRAINED BY LOCAL, STATE, FEDERAL AGENCIES, PROFESSIONAL ORGANIZATIONS, OR OTHER ENTITIES WITH EXPERTISE IN EROSION PREVENTION, SEDIMENT CONTROL, PERMANENT STORMWATER MANAGEMENT AND THE MINNESOTA NPDES/SDS CONSTRUCTION STORMWATER PERMIT. AN UPDATE REFRESHER-TRAINING MUST BE ATTENDED EVERY THREE (3) YEARS STARTING THREE (3) YEARS FROM THE ISSUANCE DATE OF THIS PERMIT.

#### IV.B. EROSION PREVENTION PRACTICES

1. THE PERMITEE(S) MUST PLAN FOR AND IMPLEMENT APPROPRIATE BMPs SUCH AS CONSTRUCTION PHASING, VEGETATIVE BUFFER STRIPS, HORIZONTAL SLOPE GRADING, INSPECTION AND MAINTENANCE OF PART IV.E. AND OTHER CONSTRUCTION PRACTICES THAT MINIMIZE EROSION AS NECESSARY TO COMPLY WITH THIS PERMIT AND PROTECT WATERS OF THE STATE. THE LOCATION OF AREAS NOT TO BE DISTURBED MUST BE DELINEATED (E.G., WITH FLAGS, STAKES, SIGNS, SILT FENCE ETC.) ON THE PROJECT SITE BEFORE WORK BEGINS. THE PERMITEE(S) MUST MINIMIZE THE NEED FOR DISTURBANCE OF PORTIONS OF THE PROJECT THAT HAVE STEEP SLOPES. FOR THOSE SLOPED AREAS WHICH MUST BE DISTURBED, THE PERMITEE(S) MUST USE TECHNIQUES SUCH AS PHASING AND STABILIZATION PRACTICES DESIGNED FOR STEEP SLOPES (E.G., SLOPE DRAINING AND TERRACING).
2. THE PERMITEE(S) MUST STABILIZE ALL EXPOSED SOIL AREAS (INCLUDING STOCKPILES). STABILIZATION MUST BE INITIATED IMMEDIATELY TO LIMIT SOIL EROSION WHENEVER ANY CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 7 CALENDAR DAYS. STABILIZATION MUST BE COMPLETED NO LATER THAN 14 CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
3. IF USING STORMWATER CONVEYANCE CHANNELS, THE PERMITEE(S) MUST DESIGN THE CHANNELS TO ROUTE WATER AROUND UNSTABILIZED AREAS ON THE SITE AND TO REDUCE EROSION, UNLESS INFEASIBLE. THE PERMITEE(S) MUST USE EROSION CONTROLS AND VELOCITY DISSIPATION DEVICES SUCH AS CHECK DAMS, SEDIMENT TRAPS, RIPRAP, OR GROUDED RIPRAP AT OUTLETS WITHIN AND ALONG THE LENGTH OF ANY CONSTRUCTED STORMWATER CONVEYANCE CHANNEL, AND AT ANY OUTLET, TO PROVIDE A NON-EROSIVE FLOW VELOCITY, TO MINIMIZE EROSION OF CHANNELS AND THEIR EMBANKMENTS, OUTLETS, ADJACENT STREAM BANKS, SLOPES, AND DOWNSTREAM WATERS DURING DISCHARGE CONDITIONS.
4. THE PERMITEE(S) MUST STABILIZE THE NORMAL WETTED PERIMETER OF ANY TEMPORARY OR PERMANENT DRAINAGE DITCH OR SWALE THAT DRAINS WATER FROM ANY PORTION OF THE CONSTRUCTION SITE, OR DIVERTS WATER AROUND THE SITE, WITHIN 200 LINEAL FEET FROM THE PROPERTY EDGE, OR FROM THE POINT OF ENTRY OF ANY SURFACE WATER. STABILIZATION OF THE LAST 200 LINEAL FEET MUST BE COMPLETED WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE.

THE PERMITEE(S) SHALL COMPLETE STABILIZATION OF THE REMAINING PORTIONS OF ANY TEMPORARY OR PERMANENT DITCHES OR SWALES WITHIN 7 CALENDAR DAYS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE AND CONSTRUCTION IN THAT PORTION OF THE DITCH HAS TEMPORARILY OR PERMANENTLY CEASED.

TEMPORARY OR PERMANENT DITCHES OR SWALES THAT ARE BEING USED AS A SEDIMENT CONTAINMENT SYSTEM DURING CONSTRUCTION (WITH PROPERLY DESIGNED ROCK-DITCH CHECKS, BIO ROLLS, SILT DIKES, ETC.) DO NOT NEED TO BE STABILIZED DURING THE TEMPORARY PERIOD OF ITS USE AS A SEDIMENT CONTAINMENT SYSTEM. THESE AREAS MUST BE STABILIZED WITHIN 24 HOURS AFTER NO LONGER BEING USED AS A SEDIMENT CONTAINMENT SYSTEM.

APPLYING MULCH, HYDROMULCH, TACKIFIER, POLYACRYLAMIDE OR SIMILAR EROSION PREVENTION PRACTICES IS NOT ACCEPTABLE STABILIZATION IN ANY PART OF A TEMPORARY OR PERMANENT DRAINAGE DITCH OR SWALE.

5. PIPE OUTLETS MUST BE PROVIDED WITH TEMPORARY OR PERMANENT ENERGY DISSIPATION WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER.
6. UNLESS INFEASIBLE DUE TO LACK OF PEROUS OR VEGETATED AREAS, THE PERMITEE(S) MUST DIRECT DISCHARGES FROM BMPs TO VEGETATED AREAS OF THE SITE (INCLUDING ANY NATURAL BUFFERS) IN ORDER TO INCREASE SEDIMENT REMOVAL AND MAXIMIZE STORMWATER INFILTRATION. THE PERMITEE(S) MUST USE VELOCITY DISSIPATION DEVICES IF NECESSARY TO PREVENT EROSION WHEN DIRECTING STORMWATER TO VEGETATED AREAS.

#### PART IV.C. – SEDIMENT CONTROL PRACTICES

1. THE PERMITEE(S) MUST EMPLOY SEDIMENT CONTROL PRACTICES AS NECESSARY TO MINIMIZE SEDIMENT FROM ENTERING SURFACE WATERS, INCLUDING CURB AND GUTTER SYSTEMS AND STORM SEWER INLETS. A TEMPORARY OR PERMANENT DRAINAGE DITCHES AND SEDIMENT BASINS THAT ARE DESIGNED AS PART OF A SEDIMENT CONTAINMENT SYSTEM (E.G., DITCHES WITH ROCK-CHECK DAMS) REQUIRE SEDIMENT CONTROL PRACTICES ONLY AS APPROPRIATE FOR SITE CONDITIONS.
  - A. IF THE DOWN GRADIENT SEDIMENT CONTROLS ARE OVERLOADED (BASED ON FREQUENT FAILURE OR EXCESSIVE MAINTENANCE REQUIREMENT), THE PERMITEE(S) MUST INSTALL ADDITIONAL UPGRADIENT SEDIMENT CONTROL PRACTICES OR REDUNDANT BMPs TO ELIMINATE THE OVERLOADING, AND THE SWPPP MUST BE AMENDED TO IDENTIFY THESE ADDITIONAL PRACTICES AS REQUIRED IN PART III.B.1.–3.
  - B. IF THE DOWN GRADIENT SEDIMENT CONTROLS ARE OVERLOADED (BASED ON FREQUENT FAILURE OR EXCESSIVE MAINTENANCE REQUIREMENT), THE PERMITEE(S) MUST INSTALL ADDITIONAL UPGRADIENT SEDIMENT CONTROL PRACTICES OR REDUNDANT BMPs TO ELIMINATE THE OVERLOADING, AND THE SWPPP MUST BE AMENDED TO IDENTIFY THESE ADDITIONAL PRACTICES AS REQUIRED IN PART III.B.1.–3.
2. SEDIMENT CONTROL PRACTICES MUST BE ESTABLISHED ON ALL DOWN GRADIENT PERIMETERS AND BE LOCATED UPGRADIENT OF ANY BUFFER ZONES. THE PERIMETER SEDIMENT CONTROL PRACTICE MUST BE IN PLACE BEFORE ANY UPGRADIENT LAND-DISTURBING ACTIVITIES BEGIN. THESE PRACTICES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION HAS BEEN ESTABLISHED IN ACCORDANCE WITH PART IV.G.
3. THE PERMITEE(S) SHALL RE-INSTALL ALL SEDIMENT CONTROL PRACTICES THAT HAVE BEEN ADJUSTED OR REMOVED TO ACCOMMODATE SHORT-TERM ACTIVITIES SUCH AS CLEARING OR GRUBBING, OR PASSAGE OF VEHICLES, IMMEDIATELY AFTER THE SHORT-TERM ACTIVITY HAS BEEN COMPLETED. THE PERMITEE(S) SHALL COMPLETE ANY CORRECTIVE REPAIRS REQUIRED TO REINSTALL SEDIMENT CONTROL PRACTICES AS QUICKLY AS POSSIBLE. THE PERMITEE(S) MUST RE-INSTALL SEDIMENT CONTROL PRACTICES BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE SHORT-TERM ACTIVITY IS NOT COMPLETED.
4. ALL STORM DRAIN INLETS MUST BE PROTECTED BY APPROPRIATE BMPs DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED. INLET PROTECTION MAY BE REMOVED FOR A PARTICULAR INLET IF A SPECIFIC SAFETY CONCERN (STREET FLOODING/FREEZING) HAS BEEN IDENTIFIED BY THE PERMITEE(S) OR THE JURISDICTIONAL AUTHORITY (E.G., CITY/COUNTY/TOWNSHIP/MNDOT ENGINEER).THE PERMITEE(S) MUST DOCUMENT THE NEED FOR REMOVAL IN THE SWPPP.

#### PART IV.C. – SEDIMENT CONTROL PRACTICES (CONT.)

5. TEMPORARY SOIL STOCKPILES MUST HAVE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS, AND CANNOT BE PLACED IN ANY NATURAL BUFFERS OR SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS, OR CONDUITS AND DITCHES UNLESS THERE IS A BYPASS IN PLACE FOR THE STORMWATER.
6. WHERE VEHICLE TRAFFIC LEAVES ANY PART OF THE SITE (OR ONTO PAVED ROADS WITHIN THE SITE):
  - A. THE PERMITEE(S) MUST INSTALL A VEHICLE TRACKING BMP TO MINIMIZE THE TRACK OUT OF SEDIMENT FROM THE CONSTRUCTION SITE. EXAMPLES OF VEHICLE TRACKING BMPs INCLUDE (BUT ARE NOT LIMITED TO) ROCK PADS, MUD MATS, SLASH MULCH, CONCRETE OR STEEL WASH RACKS, OR EQUIVALENT SYSTEMS.
  - B. THE PERMITEE(S) MUST USE STREET SWEEPING IF SUCH VEHICLE TRACKING BMPs ARE NOT ADEQUATE TO PREVENT SEDIMENT FROM BEING TRACKED ONTO THE STREET (SEE PART IV.E.5.D.).
7. THE PERMITEE(S) MUST INSTALL TEMPORARY SEDIMENTATION BASINS AS REQUIRED IN PART III.C. OF THIS PERMIT.
8. THE PERMITEE(S) MUST MINIMIZE SOIL COMPACTION AND, UNLESS INFEASIBLE, PRESERVE TOPSOIL. MINIMIZING SOIL COMPACTION IS NOT REQUIRED WHERE THE FUNCTION OF A SPECIFIC AREA OF THE SITE DICTATES THAT IT BE COMPACTED.
9. THE PERMITEE(S) MUST PRESERVE A 50 FOOT NATURAL BUFFER OR (IF A BUFFER IS INFEASIBLE ON THE SITE) PROVIDE REDUNDANT SEDIMENT CONTROLS WHEN A SURFACE WATER IS LOCATED WITHIN 50 FEET OF THE PROJECT'S EARTH DISTURBANCES AND STORMWATER FLOWS TO THE SURFACE WATER. NATURAL BUFFERS ARE NOT REQUIRED ADJACENT TO ROAD DITCHES, JUDICIAL DITCHES, COUNTY DITCHES, STORMWATER CONVEYANCE CHANNELS, STORM DRAIN INLETS, AND SEDIMENT BASINS. THE PERMITEE(S) IS/ARE NOT REQUIRED TO ENHANCE THE QUALITY OF THE VEGETATION THAT ALREADY EXISTS IN THE BUFFER OR PROVIDE VEGETATION IF NONE EXISTS. HOWEVER, PERMITEE(S) CAN IMPROVE THE NATURAL BUFFER WITH VEGETATION.

#### PART IV.D. – DEWATERING AND BASIN DRAINING

1. THE PERMITEE(S) MUST DISCHARGE TURBID OR SEDIMENT-LADEN WATERS RELATED TO DEWATERING OR BASIN DRAINING (E.G., PUMPED DISCHARGES, TRENCH/DITCH CUTS FOR DRAINAGE) TO A TEMPORARY OR PERMANENT SEDIMENTATION BASIN ON THE PROJECT SITE UNLESS INFEASIBLE. THE PERMITEE(S) MAY DISCHARGE FROM THE TEMPORARY OR PERMANENT SEDIMENTATION BASINS TO SURFACE WATERS IF THE BASIN WATER HAS BEEN VISUALLY CHECKED TO ENSURE ADEQUATE TREATMENT HAS BEEN OBTAINED IN THE BASIN AND THAT NUISANCE CONDITIONS (SEE MINN. R. 7050.0210, SUBP. 2) WILL NOT RESULT FROM THE DISCHARGE. IF THE WATER CANNOT BE DISCHARGED TO A SEDIMENTATION BASIN PRIOR TO ENTERING THE SURFACE WATER, IT MUST BE TREATED WITH THE APPROPRIATE BMPs, SUCH THAT THE DISCHARGE DOES NOT ADVERSELY AFFECT THE RECEIVING WATER OR DOWNSTREAM ACTIVITIES. IF THE PERMITEE(S) MUST DISCHARGE WATER THAT CONTAINS OIL OR GREASE, THE PERMITEE(S) MUST USE AN OIL-WATER SEPARATOR OR SUITABLE FILTRATION DEVICE (E.G. CARTRIDGE FILTERS, ABSORBENTS PADS) PRIOR TO DISCHARGING THE WATER. THE PERMITEE(S) MUST ENSURE THAT DISCHARGE POINTS ARE ADEQUATELY PROTECTED FROM EROSION AND SCOUR. THE DISCHARGE MUST BE DISPERSED OVER NATURAL ROCK RIPRAP, SAND BAGS, PLASTIC SHEETING, OR OTHER ACCEPTED ENERGY DISSIPATION MEASURES.
2. ALL WATER FROM DEWATERING OR BASIN-DRAINING ACTIVITIES MUST BE DISCHARGED IN A MANNER THAT DOES NOT CAUSE NUISANCE CONDITIONS, EROSION IN RECEIVING CHANNELS, OR ON DOWN-SLOPE PROPERTIES, OR INUNDATION IN WETLANDS CAUSING SIGNIFICANT ADVERSE IMPACT TO THE WETLAND.
3. IF THE PERMITEE(S) IS/ARE USING FILTERS WITH BACKWASH WATER, THE PERMITEE(S) MUST HAUL THE BACKWASH WATER AWAY FOR DISPOSAL, RETURN THE BACKWASH WATER TO THE BEGINNING OF THE TREATMENT PROCESS, OR INCORPORATE THE BACKWASH WATER INTO THE SITE IN A MANNER THAT DOES NOT CAUSE EROSION. THE PERMITEE(S) MAY DISCHARGE BACKWASH WATER TO THE SANITARY SEWER IF PERMISSION IS GRANTED BY THE SANITARY SEWER AUTHORITY. THE PERMITEE(S) MUST REPLACE AND CLEAN THE FILTER MEDIA USED IN DEWATERING DEVICES WHEN REQUIRED TO RETAIN ADEQUATE FUNCTION

#### PART IV.E. – INSPECTIONS AND MAINTENANCE

1. THE PERMITEE(S) MUST ENSURE THAT A TRAINED PERSON (AS IDENTIFIED IN PART III.A.3.A.) WILL ROUTINELY INSPECT THE ENTIRE CONSTRUCTION SITE, AT LEAST ONE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS, FOLLOWING AN INSPECTION THAT OCCURS WITHIN 24 HOURS AFTER A RAINFALL EVENT. THE NEXT INSPECTION MUST BE CONDUCTED WITHIN SEVEN (7) DAYS AFTER THE RAINFALL EVENT.
2. ALL INSPECTIONS AND MAINTENANCE CONDUCTED DURING CONSTRUCTION MUST BE RECORDED WITHIN 24 HOURS IN WRITING AND THESE RECORDS MUST BE RETAINED WITH THE SWPPP IN ACCORDANCE WITH PART III.E. RECORDS OF EACH INSPECTION AND MAINTENANCE ACTIVITY SHALL INCLUDE:
  - A. DATE AND TIME OF INSPECTIONS
  - B. NAME OF PERSON(S) CONDUCTING INSPECTIONS
  - C. FINDINGS OF INSPECTIONS, INCLUDING THE SPECIFIC LOCATION WHERE CORRECTIVE ACTIONS ARE NEEDED
  - D. CORRECTIVE ACTIONS TAKEN (INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES)
  - E. DATE AND AMOUNT OF ALL RAINFALL EVENTS GREATER THAN 1/2 INCH (0.5 INCHES) IN 24 HOURS. RAINFALL AMOUNTS MUST BE OBTAINED BY A PROPERLY MAINTAINED RAIN GAUGE INSTALLED ONSITE, A WEATHER STATION THAT IS WITHIN 1 MILE OF YOUR LOCATION OR A WEATHER REPORTING SYSTEM THAT PROVIDES SITE SPECIFIC RAINFALL DATA FROM RADAR SUMMARIES.
  - F. IF ANY DISCHARGE IS OBSERVED TO BE OCCURRING DURING THE INSPECTION, A RECORD OF ALL POINTS OF THE PROPERTY FROM WHICH THERE IS A DISCHARGE MUST BE MADE, AND THE DISCHARGE SHOULD BE DESCRIBED (I.E., COLOR, ODOOR, FLOATING, SETTLING, OR SUSPENDED SOLIDS, FOAM, OIL SHEEN, AND OTHER OBVIOUS INDICATORS OF POLLUTANTS) AND PHOTOGRAPHED.
  - G. ANY AMENDMENTS TO THE SWPPP PROPOSED AS A RESULT OF THE INSPECTION MUST BE DOCUMENTED AS REQUIRED IN PART III.B. WITHIN SEVEN (7) CALENDAR DAYS.
3. INSPECTION FREQUENCY ADJUSTMENT
  - A. WHERE PARTS OF THE PROJECT SITE HAVE PERMANENT COVER, BUT WORK REMAINS ON OTHER PARTS OF THE SITE, THE PERMITEE(S) MAY REDUCE INSPECTIONS OF THE AREAS WITH PERMANENT COVER TO ONCE PER MONTH.
  - B. WHERE CONSTRUCTION SITES HAVE PERMANENT COVER ON ALL EXPOSED SOIL AREAS AND NO CONSTRUCTION ACTIVITY IS OCCURRING ANYWHERE ON THE SITE, THE SITE MUST BE INSPECTED DURING NON-FROZEN GROUND CONDITIONS AT LEAST ONCE PER MONTH FOR A PERIOD OF TWELVE (12) MONTHS, FOLLOWING THE TWELFTH MONTH OF PERMANENT COVER AND NO CONSTRUCTION ACTIVITY. INSPECTIONS MAY BE TERMINATED UNTIL CONSTRUCTION ACTIVITY IS ONCE AGAIN INITIATED UNLESS THE PERMITEE(S) IS/ARE NOTIFIED IN WRITING THAT THE PROJECT HAS CONSTRUCTION ISSUES HAVE BEEN DETECTED AT THE SITE AND INSPECTIONS NEED TO RESUME.
  - C. WHERE WORK HAS BEEN SUSPENDED DUE TO FROZEN GROUND CONDITIONS, THE INSPECTIONS MAY BE SUSPENDED. THE REQUIRED INSPECTIONS AND MAINTENANCE SCHEDULE MUST BEGIN WITHIN 24 HOURS AFTER RUNOFF OCCURS AT THE SITE OR 24 HOURS PRIOR TO RESUMING CONSTRUCTION, WHICHEVER COMES FIRST.
  - D. THE PERMITEE(S) IS/ARE RESPONSIBLE FOR THE INSPECTION AND MAINTENANCE OF TEMPORARY AND PERMANENT WATER QUALITY MANAGEMENT BMPs, AS WELL AS ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPs, UNTIL ANOTHER PERMITEE(S) HAS OBTAINED COVERAGE UNDER THIS PERMIT ACCORDING TO PART III.B. OR THE PROJECT HAS UNDERGONE FINAL STABILIZATION, AND AN NOT HAS BEEN SUBMITTED TO THE MPCOA.
  5. THE PERMITEE(S) MUST INSPECT ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPs AND POLLUTION PREVENTION MANAGEMENT MEASURES TO ENSURE INTEGRITY AND EFFECTIVENESS DURING ALL ROUTINE AND POST-RAINFALL EVENT INSPECTIONS. ALL NONFUNCTIONAL BMPs MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED WITH FUNCTIONAL BMPs BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS UNLESS ANOTHER TIME FRAME IS SPECIFIED BELOW. THE PERMITEE(S) MUST INVESTIGATE AND COMPLY WITH THE FOLLOWING INSPECTION AND MAINTENANCE REQUIREMENTS:
    - A. ALL PERIMETER CONTROL DEVICES MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES ONE-HALF (1/2) OF THE HEIGHT OF THE DEVICE. THESE REPAIRS MUST BE MADE BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY, OR THEREAFTER AS SOON AS FIELD CONDITIONS ALLOW ACCESS.

#### PART IV.E. – INSPECTIONS AND MAINTENANCE (CONT.)

- B. TEMPORARY AND PERMANENT SEDIMENTATION BASINS MUST BE DRAINED AND THE SEDIMENT REMOVED WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES ONE-HALF (1/2) THE STORAGE VOLUME. DRAINAGE AND REMOVAL MUST BE COMPLETED WITHIN 72 HOURS OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS (SEE PART IV.D.).
- C. SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS, MUST BE INSPECTED FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION DURING EACH INSPECTION. THE PERMITEE(S) MUST REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS, INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS, AND REESTABLISH THE AREAS WHERE SEDIMENT REMOVAL RESULTS IN EXPOSED SOIL. THE REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN SEVEN (7) DAYS OF DISCOVERY UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS. THE PERMITEE(S) SHALL USE ALL REASONABLE EFFORTS TO OBTAIN ACCESS. IF PRECLUDED, REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN SEVEN (7) CALENDAR DAYS OF OBTAINING ACCESS. THE PERMITEE(S) IS/ARE RESPONSIBLE FOR CONTACTING ALL LOCAL, REGIONAL, STATE AND FEDERAL AUTHORITIES AND RECEIVING ANY APPLICABLE PERMITS, PRIOR TO CONDUCTING ANY WORK IN SURFACE WATERS.
- D. CONSTRUCTION SITE VEHICLE EXIT LOCATIONS MUST BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING ONTO PAVED SURFACES. TRACKED SEDIMENT MUST BE REMOVED FROM ALL PAVED SURFACES BOTH ON AND OFF SITE WITHIN 24 HOURS OF DISCOVERY, OR IF APPLICABLE, WITHIN A SHORTER TIME TO COMPLY WITH PART IV.C.6.
- E. STREETS AND OTHER AREAS ADJACENT TO THE PROJECT MUST BE INSPECTED FOR EVIDENCE OF OFF-SITE ACCUMULATIONS OF SEDIMENT. IF SEDIMENT IS PRESENT, IT MUST BE REMOVED IN A MANNER AND AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS (E.G., FUGITIVE SEDIMENT IN STREETS COULD BE WASHED INTO STORM SEWERS BY THE NEXT RAIN AND/OR POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS).

6. ALL INFILTRATION AREAS MUST BE INSPECTED TO ENSURE THAT NO SEDIMENT FROM ONGOING CONSTRUCTION ACTIVITY IS REACHING THE INFILTRATION AREA. ALL INFILTRATION AREAS MUST BE INSPECTED TO ENSURE THAT EQUIPMENT IS NOT BEING DRIVEN ACROSS THE INFILTRATION AREA.

#### PART IV.F. – POLLUTION PREVENTION MANAGEMENT MEASURES

THE PERMITEE(S) SHALL IMPLEMENT THE FOLLOWING POLLUTION PREVENTION MANAGEMENT MEASURES ON THE SITE:

1. STORAGE, HANDLING, AND DISPOSAL OF CONSTRUCTION PRODUCTS, MATERIALS, AND WASTES: THE PERMITEE(S) SHALL COMPLY WITH THE FOLLOWING TO MINIMIZE THE EXPOSURE TO STORMWATER OF ANY OF THE PRODUCTS, MATERIALS, OR WASTES. PRODUCTS OR WASTES WHICH ARE EITHER NOT A SOURCE OF CONTAMINATION TO STORMWATER OR ARE DESIGNED TO BE EXPOSED TO STORMWATER ARE NOT HELD TO THIS REQUIREMENT.
  - A. BUILDING PRODUCTS THAT HAVE THE POTENTIAL TO LEACH POLLUTANTS MUST BE UNDER COVER (E.G., PLASTIC SHEETING OR TEMPORARY ROOFS) TO PREVENT THE DISCHARGE OF POLLUTANTS OR PROTECTED BY A SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORMWATER.
  - B. PESTICIDES, HERBICIDES, INSECTICIDES, FERTILIZERS, TREATMENT CHEMICALS, AND LANDSCAPE MATERIALS MUST BE UNDER COVER (E.G., PLASTIC SHEETING OR TEMPORARY ROOFS) TO PREVENT THE DISCHARGE OF POLLUTANTS OR PROTECTED BY SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORMWATER.
  - C. HAZARDOUS MATERIALS, TOXIC WASTE, (INCLUDING OIL, DIESEL FUEL, GASOLINE, HYDRAULIC FLUIDS, PAINT SOLVENTS, PETROLEUM-BASED PRODUCTS, WOOD PRESERVATIVES, ADDITIVES, CURING COMPOUNDS, AND ACIDS) MUST BE PROPERLY STORED IN SEALED CONTAINERS TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. RESTRICTED ACCESS STORAGE AREAS MUST BE PROVIDED TO PREVENT VANDALISM. STORAGE AND DISPOSAL OF HAZARDOUS WASTE OR HAZARDOUS MATERIALS MUST BE IN COMPLIANCE WITH MINN. R. CH. 7045 INCLUDING SECONDARY CONTAINMENT AS APPLICABLE.
  - D. SOLID WASTE MUST BE STORED, COLLECTED AND DISPOSED OF PROPERLY IN COMPLIANCE WITH MINN. R. CH. 7035.
  - E. PORTABLE TOILETS MUST BE POSITIONED SO THAT THEY ARE SECURE AND WILL NOT BE TIPPED OR KNOCKED OVER. SANITARY WASTE MUST BE DISPOSED OF PROPERLY IN ACCORDANCE WITH MINN. R. CH. 7041.
2. FUELING AND MAINTENANCE OF EQUIPMENT OR VEHICLES: SPILL PREVENTION AND RESPONSE: THE PERMITEE(S) SHALL TAKE REASONABLE STEPS TO PREVENT THE DISCHARGE OF SPILLED OR LEAKED CHEMICALS, INCLUDING FUEL, FROM ANY AREA WHERE CHEMICALS OR FUEL WILL BE LOADED OR UNLOADED INCLUDING THE USE OF DRIP PANS OR ABSORBENTS UNLESS INFEASIBLE. THE PERMITEE(S) MUST CONDUCT FUELING IN A CONTAINED AREA UNLESS INFEASIBLE. THE PERMITEE(S) MUST ENSURE ADEQUATE SUPPLIES ARE AVAILABLE AT ALL TIMES TO CLEAN UP DISCHARGED MATERIALS AND THAT AN APPROPRIATE DISPOSAL METHOD IS AVAILABLE FOR RECOVERED SPILLED MATERIALS. THE PERMITEE(S) MUST REPORT AND CLEAN UP SPILLS IMMEDIATELY AS REQUIRED BY MINN. STAT. § 115.061, USING DRY CLEAN UP MEASURES WHERE POSSIBLE.
3. VEHICLE AND EQUIPMENT WASHING: IF THE PERMITEE(S) WASH THE EXTERIOR OF VEHICLES OR EQUIPMENT ON THE PROJECT SITE, WASHING MUST BE LIMITED TO A DEFINED AREA OF THE SITE. RUNOFF FROM THE WASHING AREA MUST BE CONTAINED IN A SEDIMENT BASIN OR OTHER SIMILARLY EFFECTIVE CONTROLS AND WASTE FROM THE WASHING ACTIVITY MUST BE PROPERLY DISPOSED. THE PERMITEE(S) MUST PROPERLY USE AND STORE SOAPS, DETERGENTS, OR SOLVENTS NO ENGINE DEGREASING IS ALLOWED ON SITE.
4. CONCRETE AND OTHER WASHOUTS WASTE: THE PERMITEE(S) MUST PROVIDE EFFECTIVE CONTAINMENT FOR ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OPERATIONS (CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIAL(S)) RELATED TO THE CONSTRUCTION ACTIVITY. THE LIQUID AND SOLID WASHOUT WASTES MUST NOT CONTACT THE GROUND, AND THE CONTAINMENT MUST BE DESIGNED SO THAT IT DOES NOT RESULT IN RUNOFF FROM THE WASHOUT OPERATIONS OR AREAS. LIQUID AND SOLID WASTES MUST BE DISPOSED OF PROPERLY AND IN COMPLIANCE WITH MPCOA RULES. A SIGN MUST BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY THAT REQUIRES SITE PERSONNEL TO UTILIZE THE PROPER FACILITIES FOR DISPOSAL OF CONCRETE AND OTHER WASHOUT WASTES.

#### PART IV.G. FINAL STABILIZATION

- THE PERMITEE(S) MUST ENSURE FINAL STABILIZATION OF THE SITE. FINAL STABILIZATION IS NOT COMPLETE UNTIL ALL REQUIREMENTS OF PARTS IV.G.1.–5. ARE COMPLETE:
1. ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND ALL SOILS ARE STABILIZED BY A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70 PERCENT OF ITS EXPECTED FINAL GROWTH DENSITY OVER THE ENTIRE PEROUS SURFACE AREA, OR OTHER EQUIVALENT MEANS NECESSARY TO PREVENT SOIL FAILURE UNDER EROSION CONDITIONS.
  2. THE PERMANENT STORMWATER MANAGEMENT SYSTEM IS CONSTRUCTED, MEETS ALL REQUIREMENTS IN PART III.D. AND IS OPERATING AS DESIGNED. TEMPORARY OR PERMANENT SEDIMENTATION BASINS THAT ARE TO BE USED AS PERMANENT WATER QUALITY MANAGEMENT BASINS HAVE BEEN CLEANED OF ANY ACCUMULATED SEDIMENT. ALL SEDIMENT HAS BEEN REMOVED FROM CONVEYANCE SYSTEMS AND DITCHES ARE STABILIZED WITH PERMANENT COVER.
  3. ALL TEMPORARY SYNTHETIC AND STRUCTURAL EROSION PREVENTION AND SEDIMENT CONTROL BMPs (SUCH AS SILT FENCE) HAVE BEEN REMOVED ON THE PORTIONS OF THE SITE FOR WHICH THE PERMITEE(S) IS/ARE RESPONSIBLE. BMPs DESIGNED TO DECOMPOSE ON SITE (SUCH AS SOME COMPOST LOGS) MAY BE LEFT IN PLACE.
  4. FOR RESIDENTIAL CONSTRUCTION ONLY, INDIVIDUAL LOTS ARE CONSIDERED FINALLY STABILIZED IF THE STRUCTURE(S) ARE FINISHED AND TEMPORARY EROSION PROTECTION AND DOWNGRADIENT PERIMETER CONTROL HAS BEEN COMPLETED AND THE RESIDENCE HAS BEEN SOLD TO THE HOMEOWNER. ADDITIONALLY, THE PERMITEE HAS DISTRIBUTED THE MPCOA'S "HOMEOWNER FACT SHEET" TO THE HOMEOWNER TO INFORM THE HOMEOWNER OF THE NEED FOR, AND BENEFITS OF, PERMANENT COVER.
  5. FOR CONSTRUCTION PROJECTS ON AGRICULTURAL LAND (E.G., PIPELINES ACROSS CROP, FIELD PASTURE OR RANGE LAND) THE DISTURBED LAND HAS BEEN RETURNED TO ITS PRECONSTRUCTION AGRICULTURAL USE.

REVISION DESCRIPTION

DATE

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

**PRELIMINARY**  
 ADAM GINKEL  
 LIC. NO. 43963

MINNETONKA LOT SPLIT

MINNETONKA, MN  
 STORM WATER POLLUTION PREVENTION PLAN

**PREPARED FOR:**  
**R & R CONSTRUCTION**



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

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

**C2.1**

# MINNETONKA LOT SPLIT

## MINNETONKA, MINNESOTA

### STORM WATER POLLUTION PREVENTION PLAN

#### SITE SPECIFIC INFORMATION

**PROJECT NAME**  
MINNETONKA LOT SPLIT

**PROJECT LOCATION**  
15014 HIGHWOOD DR  
MINNETONKA, MINNESOTA 55345  
LATITUDE: 44.9222  
LONGITUDE: -93.4711

**PROJECT OWNER**  
R & R CONSTRUCTION  
ATTN: BOB REHBERG  
612-272-8472

#### CONSTRUCTION ACTIVITY DESCRIPTION

THIS PROJECT INCLUDES THE SUBDIVISION OF AN EXISTING 1.74-ACRE RESIDENTIAL LOT INTO INTO 3 SINGLE-FAMILY RESIDENTIAL LOTS.

SITE IMPROVEMENTS WILL INCLUDE HOME/DRIVEWAY CONSTRUCTION AND STORM WATER MANAGEMENT IMPROVEMENTS.

THE EXISTING HOUSE AND OUT-BUILDINGS ARE TO BE REMOVED. THREE (3) SINGLE-FAMILY LOTS WITH DRIVEWAY ACCESS TO HIGHWOOD DRIVE ARE PROPOSED.

CITY STORM WATER MANAGEMENT REQUIREMENTS INCLUDE:  
1. RATE CONTROL FOR 2-, 10- AND 100-YEAR STORMS  
2. VOLUME CONTROL FOR THE 1-INCH STORM EVENT

TO ADDRESS STORM WATER MANAGEMENT, ONE (1) INFILTRATION BASIN AND ONE (1) BIO-FILTRATION BASIN ARE PROPOSED. (NOTE THAT INFILTRATION IS NOT PROPOSED IN BOTH LOCATIONS DUE TO THE PRESENCE OF TYPE D SOILS IN THE BIO-FILTRATION BASIN AREA.) THESE BASINS ARE IN THE REAR OF THE LOTS, OUTSIDE OF THE EXISTING TREE LINE, AND WILL COLLECT REAR ROOF AND REAR YARD RUN-OFF.

SITE AREAS	BEFORE CONSTRUCTION	AFTER CONSTRUCTION
TOTAL SITE AREA		1.74 ACRES
TOTAL ESTIMATED IMPERVIOUS	0.09 ACRES	0.29 ACRES
TOTAL ESTIMATED PERVIOUS	1.65 ACRES	1.45 ACRES

TOTAL INCREASE IN IMPERVIOUS IS LESS THAN 1.0 ACRE; THEREFORE, NO PERMANENT STORM WATER MANAGEMENT FEATURES ARE REQUIRED (PER MPCA GENERAL STORMWATER PERMIT)

#### TOTAL DISTURBED AREA

1.20 ACRES

#### RECEIVING WATERS WITHIN ONE MILE

NAME OF WATER BODY	TYPE OF WATER BODY	SPECIAL WATER	IMPAIRED WATER
ON-SITE BASINS	FILTRATION	NO	NO

#### SITE MAP AND DESIGN CALCULATIONS

SEE STORM WATER DRAINAGE REPORT FOR QUANTIFICATION OF STORM WATER MANAGEMENT REQUIREMENTS AND DRAINAGE AREA MAPS.

#### SOILS, SLOPES, VEGETATION

SOIL TYPE(S): TWO SOIL BORINGS WERE COLLECTED BY HAUGO GEOTECHNICAL SERVICES (APRIL 9, 2015). ONE BORING INDICATED SILTY SAND (SM) AND POORLY GRADED SAND WITH SILT (SP-SM); THE OTHER SILTY LEAN CLAY (CL-ML) AND LEAN CLAY WITH SAND (CL).

SLOPES: PROPOSED SLOPES WILL BE GENERALLY MODERATE AND ARE NOT EXPECTED TO EXCEED 3:1.

VEGETATION: SITE IS MOSTLY OPEN LAND WITH SOME TREE COVERAGE. TREES WILL BE REMOVED AS NECESSARY FOR CONSTRUCTION. SEED AND MULCH AND/OR SOD IS PROPOSED TO RESTORE DISTURBED AREAS.

#### PERSON WHO PREPARED SWPPP ("DESIGNER")

ADAM GINKEL  
6776 LAKE DRIVE  
LINO LAKES MN 55014  
(651) 361-8200

#### PERSON WHO WILL OVERSEE IMPLEMENTATION OF SWPPP ("CONTRACTOR")

TBD

#### PERSON(S) WHO WILL INSPECT ON-SITE ESC MEASURES ("INSPECTOR")

TBD

#### TRAINING DOCUMENTATION

DOCUMENTATION MUST ACCOMPANY THE SWPPP INDICATING THAT THE INDIVIDUALS IDENTIFIED IN PART III.F. HAVE BEEN TRAINED IN ACCORDANCE WITH THE REQUIREMENTS OF PART III.F. DOCUMENTATION SHALL INCLUDE:

- NAMES OF THE PERSONNEL ASSOCIATED WITH THIS PROJECT THAT ARE REQUIRED TO BE TRAINED PER PART III.F.1. OF THIS PERMIT.
- DATES OF TRAINING AND NAME OF INSTRUCTOR(S) AND ENTITY PROVIDING TRAINING.
- CONTENT OF TRAINING COURSE OR WORKSHOP INCLUDING THE NUMBER OF HOURS OF TRAINING.

#### SITE SEQUENCING & ESC NOTES

PRIOR TO ANY LAND-DISTURBING ACTIVITY, THE CONTRACTOR SHALL INSTALL SILT FENCE AS SHOWN ON PLAN. ADDITIONAL SILT FENCE MAY BE NECESSARY IF LOCAL CONDITIONS REQUIRE. SILT FENCE SHALL REMAIN IN-PLACE UNTIL THE FINAL STABILIZATION HAS BEEN ESTABLISHED IN ACCORDANCE WITH PART IV.G.

THE CONTRACTOR SHALL PERFORM SITE GRADING ON AN AREA-BY-AREA BASIS TO MINIMIZE UNSTABILIZED AREAS. AS EACH AREA IS COMPLETED, ALL EXPOSED SOILS MUST HAVE TEMPORARY EROSION CONTROL PROTECTION OR PERMANENT COVER WITHIN SEVEN (7) DAYS.

THE CONTRACTOR SHALL PROVIDE ALL SOD, SEED, MULCH AND FERTILIZER WHICH SHALL CONFORM WITH THE FOLLOWING MNDOT SPECIFICATIONS AS MODIFIED BELOW.

ITEM	MNDOT SPECIFICATION/NOTES
SOD	3878
SEED **	3876
* FOR TURF ESTABLISHMENT	
COMMERCIAL TURF	MNDOT MIX 25-131 (220 LBS/ACRE)
RESIDENTIAL TURF	MNDOT MIX 25-131 (120 LBS/ACRE)
TEMPORARY	
FALL COVER	MNDOT MIX 21-112 (100 LBS/ACRE)
SPRING/SUMMER	MNDOT MIX 21-111 (100 LBS/ACRE)
SOIL-BUILDING COVER	MNDOT MIX 21-113 (110 LBS/ACRE)
1-2 YEARS COVER	MNDOT MIX 22-111 (30.5 LBS/ACRE)
2-5 YEARS COVER	MNDOT MIX 22-112 (40 LBS/ACRE)
MULCH	3882 (TYPE 1 - DISC ANCHORED)
FERTILIZER	3881
WOOD FIBER BLANKET	3885 (CATEGORY 2)

\* MOW A MINIMUM OF:  
RESIDENTIAL TURF - ONCE PER 2 WEEKS  
COMMERCIAL TURF - ONCE PER 4 WEEKS

\*\* SEEDED AREAS SHALL BE EITHER MULCHED OR COVERED BY FIBROUS BLANKETS TO PROTECT SEEDS AND LIMIT EROSION.

TEMPORARY OR PERMANENT MULCH MUST BE UNIFORMLY APPLIED BY MECHANICAL OR HYDRAULIC MEANS AND STABILIZED BY DISC-ANCHORING OR USE OF HYDRAULIC SOIL STABILIZERS.

ALL EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS OR IMPLEMENTED IN THE FIELD SHALL BE IN ACCORDANCE WITH THE CITY AND NPDES PHASE II PERMIT REQUIREMENTS, AND THE MPCA'S "PROTECTING WATER QUALITY IN URBAN AREAS BEST MANAGEMENT PRACTICES FOR MINNESOTA."

THE CONTRACTOR SHALL PAY SPECIAL ATTENTION TO ALL ADJACENT PROPERTY LINES AND MAKE SURE THE EROSION CONTROL PRACTICES IN PLACE IN THOSE AREAS PREVENT MIGRATION OF SEDIMENT ONTO ADJACENT PROPERTIES.

THE CONTRACTOR SHALL MAINTAIN SILT FENCE, INCLUDING THE REMOVAL OF ACCUMULATED SEDIMENT, THROUGH COMPLETION OF BUILDING CONSTRUCTION. SILT FENCE TO BE REMOVED ONLY AFTER COMPLETION OF BUILDING CONSTRUCTION AND UPON ESTABLISHMENT OF VEGETATION.

THE CONTRACTOR SHALL PROVIDE WOOD FIBER BLANKET FOR ALL AREAS OF CONCENTRATED FLOW AND FOR ALL SLOPES 3:1 OR GREATER.

PROTECT ALL STORM WATER MANAGEMENT FACILITIES FROM CONSTRUCTION RUN-OFF. CONTRACTOR TO INSTALL AND CONSTRUCT SAID FACILITIES ONCE SITE HAS BEEN STABILIZED.

IF ANY SLOPES APPEAR TO BE FAILING, THE CONTRACTOR SHALL PROVIDE ADDITIONAL SILT FENCE, BIOROLLS AND EROSION CONTROL BLANKET AS NEEDED.

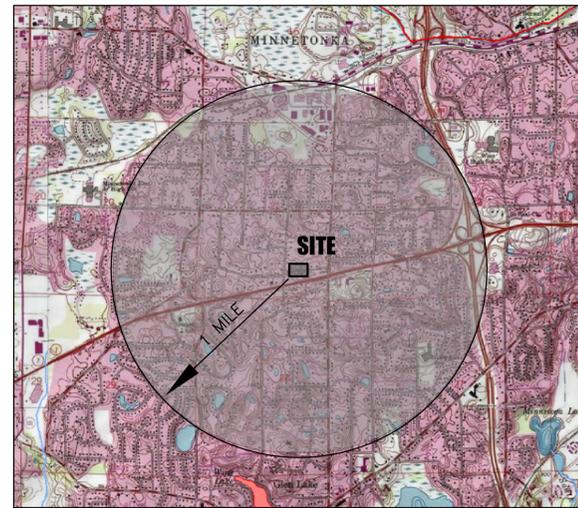
THE CONTRACTOR SHALL FINAL GRADE SWALE AREAS UPON STABILIZATION OF UPSTREAM AREAS.

UPON GRADING COMPLETION THE CONTRACTOR SHALL PROVIDE NATIVE TOPSOIL, SEED, AND MULCH ANCHORED WITH A STRAIGHT SET DISC WITHIN 48 HOURS OF FINAL GRADING.

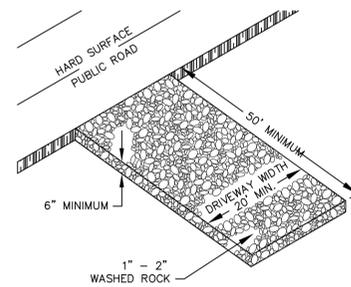
EXCESS SOIL SHOULD BE TREATED LIKE OTHER EXPOSED SOIL AND STABILIZED WITHIN 72 HOURS. ANY SOIL STOCKPILES ARE TO HAVE SILT FENCE PLACED ON DOWNSTREAM SIDES AND SHALL NOT BE PLACED IN SURFACE WATERS.

ADJACENT STREETS SHALL BE KEPT CLEAN OF CONSTRUCTION MATERIALS, DIRT, AND OTHER UNDESIRABLE MATERIALS. WHEN MATERIALS OR DEBRIS HAVE WASHED/FLOWED ONTO ADJACENT STREETS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO SWEEP/SCRAPE STREETS AS NECESSARY OR AS DIRECTED BY THE CITY.

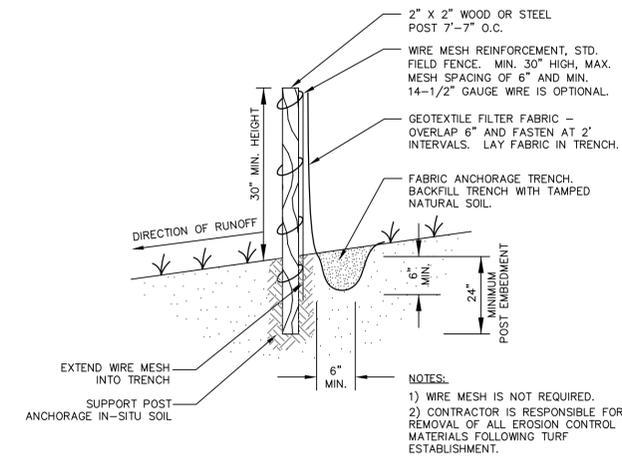
#### MAP OF SURFACE WATERS



NO SPECIAL OR IMPAIRED WATERS WITHIN 1 MILE OF PROJECT BOUNDARY.



**ROCK CONSTRUCTION ENTRANCE**  
N.T.S.



**SILT FENCE**  
N.T.S.

DRAWN BY: C.M.  
DESIGN BY: A.G.  
CHKCD BY: C.W.P.  
PROJ. NO. 15-1534

ORIGINAL DATE:  
DECEMBER 9, 2016

REVISION DESCRIPTION

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

**PRELIMINARY**  
ADAM GINKEL  
DATE: 12.09.2016 LIC. NO. 43963

**MINNETONKA LOT SPLIT**  
MINNETONKA, MN  
STORM WATER POLLUTION PREVENTION PLAN

PREPARED FOR:  
**R & R CONSTRUCTION**



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

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

**C2.2**