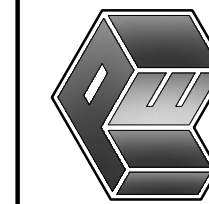


ENTSMINGER ESTATES

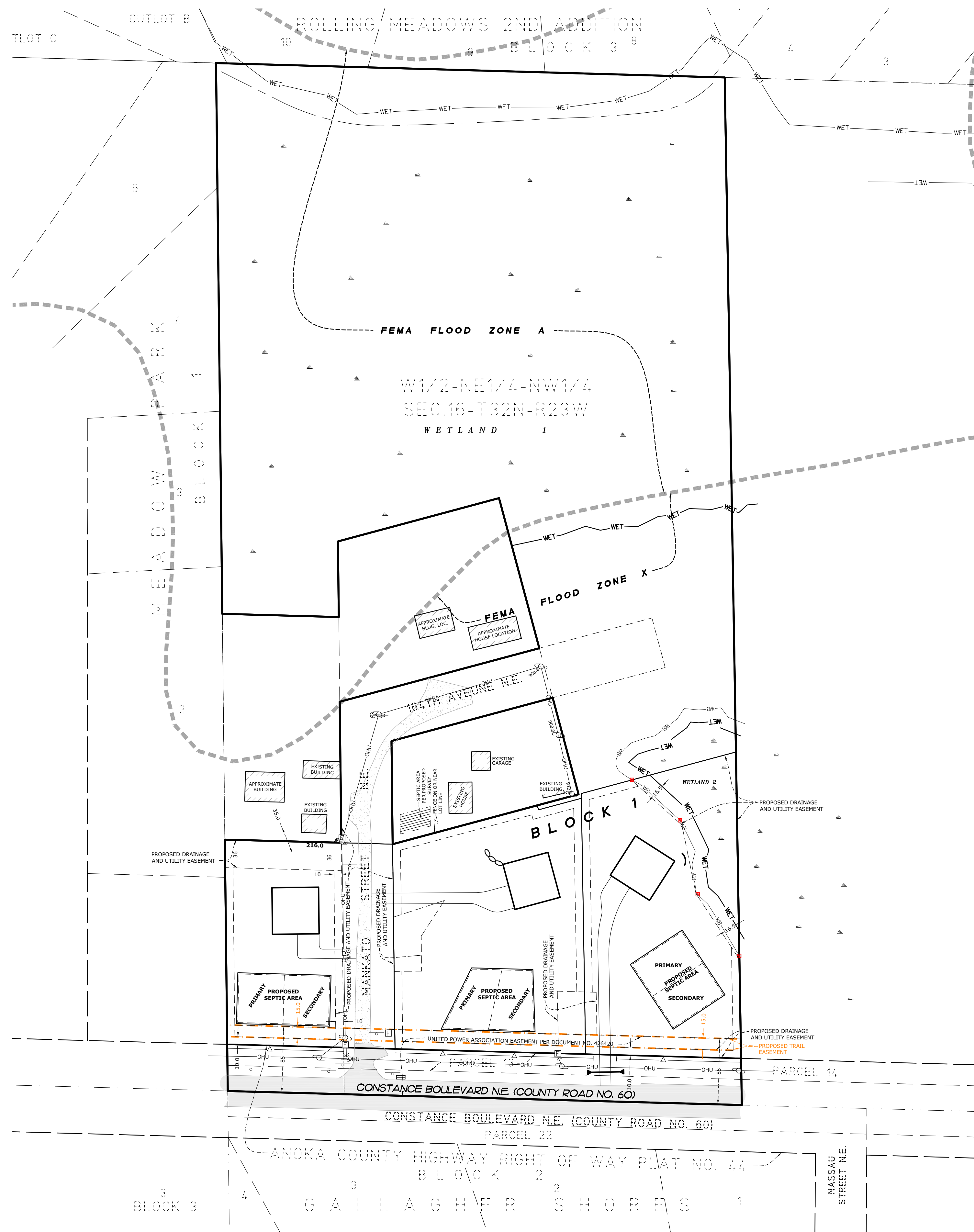
TITLE SHEET, NOTES & LEGEND

HAM LAKE, MINNESOTA

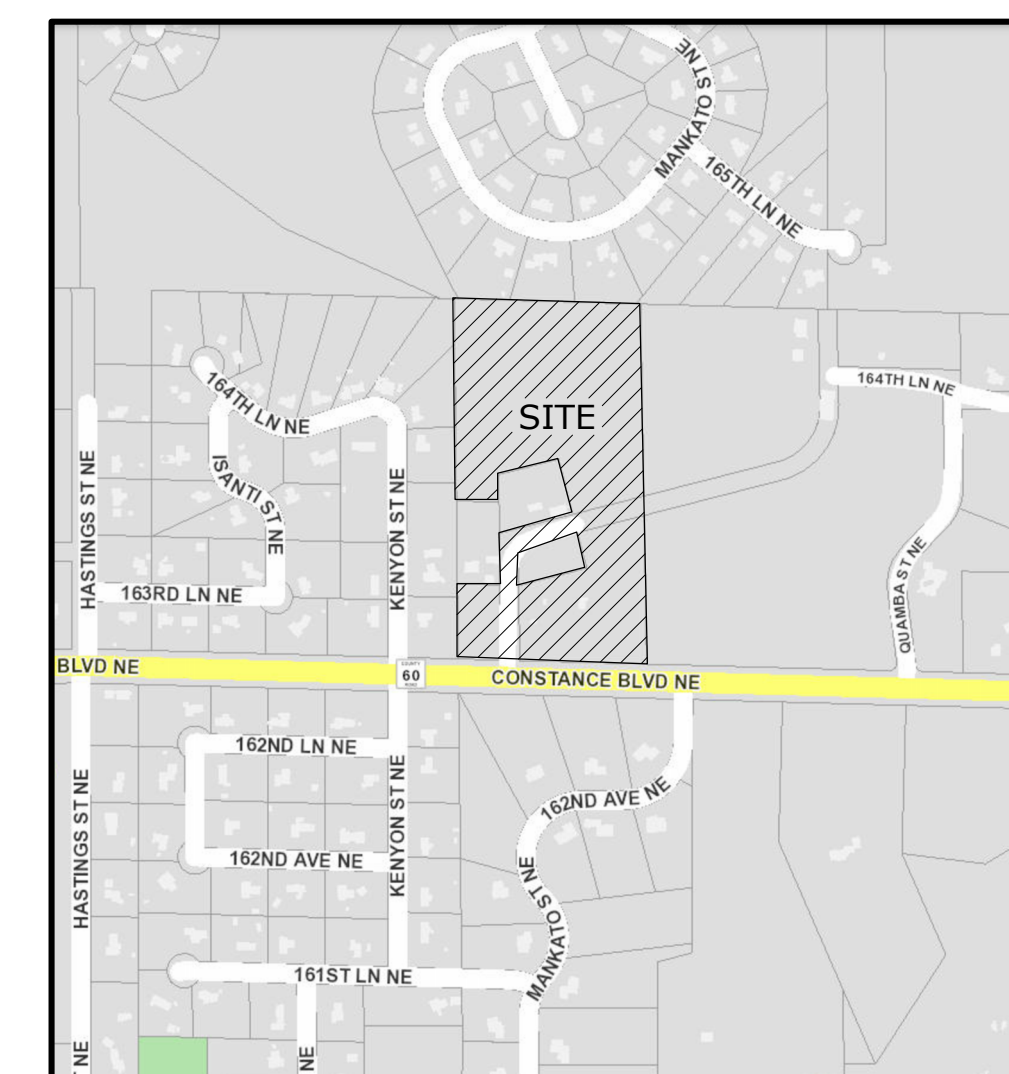


PLOWE
ENGINEERING, INC.
38776 LAKE DRIVE
SUITE 110
LINO LAKES, MN 55014
PHONE: (651) 361-8210
FAX: (651) 361-8701

DRAWN BY: AG	JOB NO: 24-2159	CHECK BY: MQA	DATE: 08/02/24
-----------------	--------------------	------------------	-------------------



VICINITY MAP (NOT TO SCALE)



DEVELOPER

ENTSMINGER ENTERPRISES
14916 CENTRAL AVE NE
HAM LAKE, MN 55304
JEFF ENTSMINGER
612-669-4004
JEFF@ALLSEASONSERVICES.COM

ENGINEER

PLOWE ENGINEERING, INC.
6776 LAKE DRIVE
LINO LAKES, MN 55014
ADAM GINKEL, P.E.
651-361-8234
ADAM@PLOWE.COM

SURVEYOR

**E.G. RUD & SONS LAND
SURVEYING, INC.
6776 LAKE DRIVE
LINO LAKES, MN 55014
JASON RUD
651-361-8225
JRUD@EGRUD.COM**

AN MPCA NPDES CONSTRUCTION PERMIT IS REQUIRED PRIOR TO THE START OF CONSTRUCTION

ALL PERMITS, INCLUDING BUT NOT LIMITED TO PERMITS FROM CITY OF HAM LAKE, MNDOT, AND THE MINNESOTA DEPARTMENT OF LABOR AND INDUSTRY, SHALL BE OBTAINED PRIOR TO ORDERING OF MATERIAL AND STARTING OF CONSTRUCTION. NO INSTALLATION OF UTILITIES SHALL BE PERMITTED UNTIL ALL APPLICABLE PERMITS ARE RECEIVED BY CONTRACTOR. INSTALLATION OF UTILITIES SHALL BE CONSTRUCTED TO MINNESOTA DEPARTMENT OF LABOR AND INDUSTRY STANDARDS AND CITY STANDARDS AS IDENTIFIED IN THE PUBLIC WORKS/ENGINEERING STANDARDS.

_____ 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

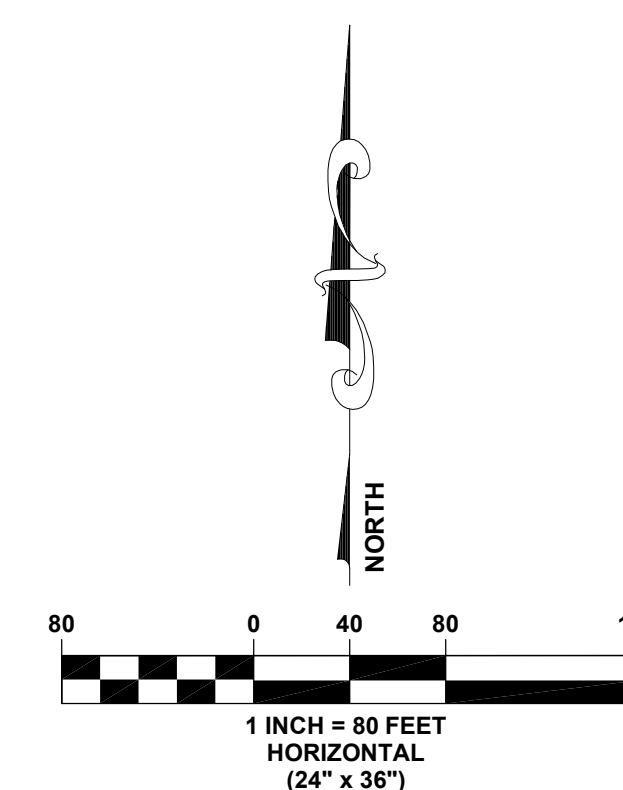
Date: 10/28/2024 License No: 43963

ENTSMINGER ESTATES
HAM LAKE, MN
TITLE SHEET, NOTES & LEGEND

PREPARED FOR: ENTSMINGER ENTERPRISES

SHEET

CO



SHEET INDEX

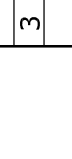
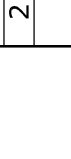
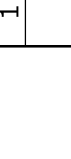
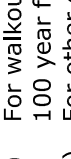
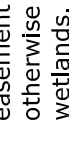
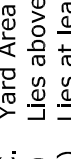
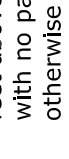
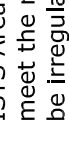
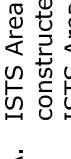
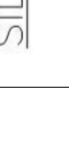
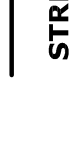
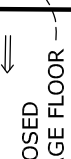
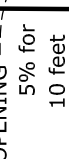
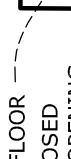
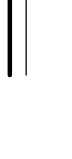
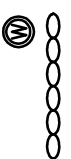
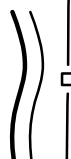
CO	TITLE SHEET, NOTES & LEGEND
	GRADING, DRAINAGE, EROSION CONTROL AND LIVABILITY PLAN PRELIMINARY PLAT
C1.1	REMOVALS PLAN
C1.2	BASIN DETAILS & LOT 3 DRIVEWAY CULVERT
C1.3 - C1.4	SWPPP
C2.1	DETAILS

GRADING, DRAINAGE, EROSION CONTROL AND LIVABILITY PLAN

~for~ ENTSMINGER ENTERPRISES
~of~ ENTSMINGER ESTATES

LEGEND

- DENOTES IRON MONUMENT FOUND FROM PREVIOUS SURVEY WORK
- ▣ DENOTES FIBER OPTIC BOX
- ⊙ DENOTES GUY WIRE
- ⊕ DENOTES POWER POLE
- ⊖ DENOTES WELL
- DENOTES EXISTING LIDAR CONTOURS
- DENOTES OVERHEAD UTILITY
- DENOTES BITUMINOUS SURFACE
- DENOTES CONCRETE SURFACE
- DENOTES GRAVEL SURFACE
- DENOTES PROPOSED RESTRICTED ACCESS (BY TRADEWALL SOIL TESTING)
- DENOTES PROPOSED CONTOURS
- DENOTES PROPOSED BIOROLL
- DENOTES SILT FENCE
- DENOTES BUILDING SETBACK LINE
- DENOTES 16.5 WETLAND BUFFER
- DENOTES PROPOSED YARD AREA
- DENOTES PROPOSED SEPTIC AREA
- DENOTES AREA 1' ABOVE MOTTLES
- DENOTES PROPOSED WELL LOCATION
- DENOTES PROPOSED RETAINING WALL



EROSION CONTROL / REVEGETATION SPECS.

- PRIOR TO ROUGH GRADING, INSTALL SILT STOP FENCE IN LOCATIONS SHOWN.
- ADDITIONAL SILT STOP FENCE WILL BE REQUIRED WHERE LOCAL CONDITIONS REQUIRE.
- ANY GRADING SHALL PROCEED ON AN AREA BY AREA BASIS TO MINIMIZE UNCOMPLETED AREAS.
- 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.
- MAINTAIN AND REPAIR SILT STOP FENCES (INCLUDING REMOVAL OF ACCUMULATED SILT) UNTIL VEGETATION IS ESTABLISHED.
- ROAD SURFACES TO BE CLEANED AND SEDIMENT TO BE TRANSPORTED BY THE END OF THE DAY.
- DISTURBED SOILS AND STOCKPILES WILL BE TEMPORARILY OR PERMANENTLY STABILIZED WITHIN 24 HOURS AFTER CONSTRUCTION ACTIVITY IN THE AREAS THAT HAVE TEMPORARILY OR PERMANENTLY CEASED.

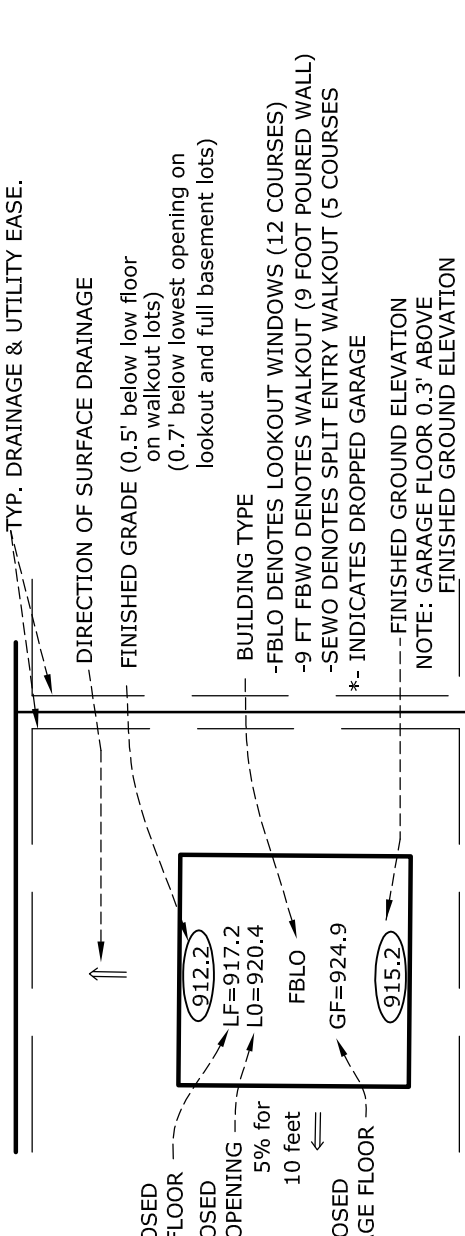
LOT GRADING NOTES

- PAD CONTOURS SHOWN ARE FOR DEMONSTRATION PURPOSES.
- HOUSE TYPES AND GRADING THAT VARY FROM WHAT IS PROPOSED ON THE GRADING PLAN REQUIRE A PLAN REVIEW BY THE CITY OF HAM LAKE.
- SILT FENCE TO BE INSTALLED BY BUILDER PRIOR TO HOUSE CONSTRUCTION.
- THERE IS TO BE NO GRADING WITHIN ISTS AREAS.
- IF DEWATERING IS REQUIRED, PROVIDE DNR DEWATERING PERMIT PRIOR TO CONSTRUCTION. IF A DNR PERMIT IS REQUIRED, PROVIDE WELL-FIELD LOCATION, RATES, DISCHARGE LOCATION, SCHEDULE, AND QUANTITIES PRIOR TO CONSTRUCTION.

TREE PROTECTION NOTES

- TREE PROTECTION LIMITS TO BE MARKED IN FIELD PRIOR TO ANY TREE CLEARING ACTIVITY.
- SILT / TREE PROTECTION FENCE TO BE INSTALLED AT CONSTRUCTION LIMIT LINE.
- CARE IS TO BE TAKEN TO AVOID CONSTRUCTION ACTIVITY OR CONSTRUCTION VEHICLE TRAFFIC WITHIN TREE PROTECTION LIMITS.
- FIELD DECISIONS WILL BE MADE ON LOCATION OF TREE PROTECTION LIMITS TO PRESERVE SIGNIFICANT TREES.
- SOME TREES AND DEAD PLANT ARE TO BE CLEARED. THIS MAY BE DONE PRIOR TO INSTALLATION OF SILT / TREE PROTECTION FENCE. GRUBBING OF STUMPS WILL OCCUR AFTER EROSION CONTROL MEASURE ARE INSTALLED.

TYPICAL LOT

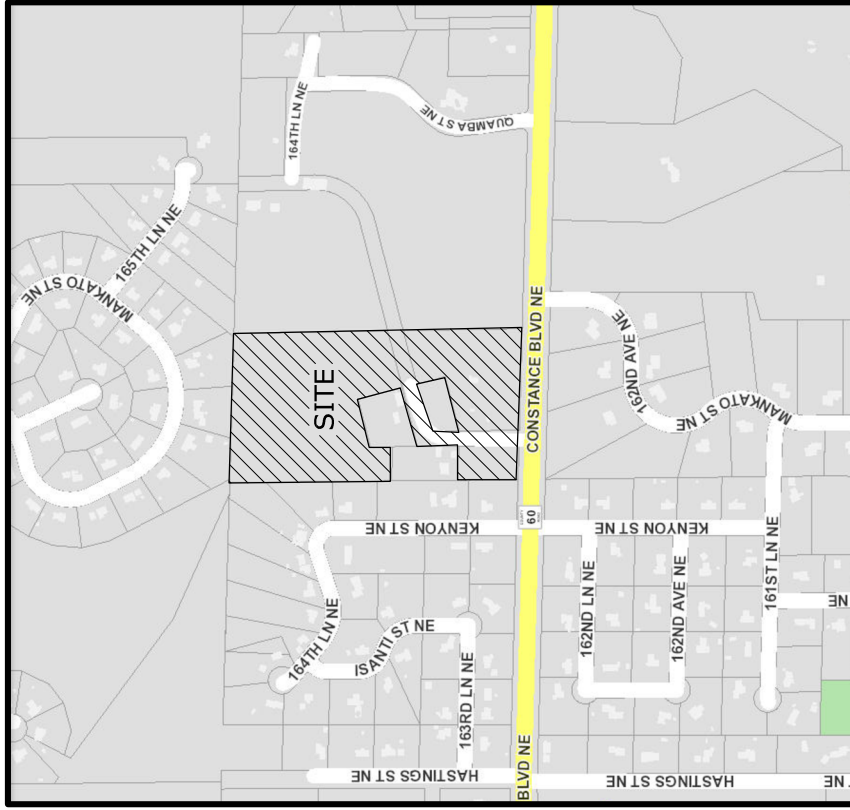


PRELIMINARY PLAT

for~ ENTSMINGER ENTERPRISES
~of~ ENTSMINGER ESTATES

VICINITY MAP

PART OF SEC. 16, TWP. 32, RANG. 23



ANKO COUNTY, MINNESOTA
(NO SCALE)

DEVELOPMENT DATA

TOTAL AREA = 17.20+ ACRES
PROPOSED NUMBER OF LOTS = 3 LOTS
PROPOSED NUMBER OF OUTLOTS = 1 OUTLOT
PROPOSED LOT AREA = 1.56 ± ACRES
AVERAGE LOT SIZE = 1.56 ± ACRES EXCLUDING PUBLIC R/W

ZONING INFORMATION

EXISTING ZONING: NORTH HALF OF THE SITE IS R-1 - SINGLE FAMILY RESIDENTIAL
SOUTH HALF OF THE SITE IS R-A - RURAL SINGLE FAMILY RESIDENTIAL

R-1 - SINGLE FAMILY RESIDENTIAL LOT REQUIREMENTS

MINIMUM LOT AREA = 1.0 ACRES (INCLUDING
MINIMUM STREET FRONTAGE CUL-DE-SAC = 200 FEET
MINIMUM STREET FRONTAGE CUL-DE-SAC = 60 FEET

SETBACKS

COUNTY ROAD = 50 FEET
FRONT ROAD = 30 FEET
SIDE YARD = 10 FEET
REAR YARD = 10 FEET
WETLAND = 25/15 FEET PENDING QUALITY OF WETLAND

PROPERTY DESCRIPTION

The West Half of the Northeast Quarter of the Northwest Quarter of Section 16, Township 32, Range 23, Anoka County, Minnesota, EXCEPT the following described tracts:

Commencing at the Southwest corner of said Northeast Quarter of the Northwest Quarter of said Section 16, Township 32, Range 23, Anoka County, Minnesota, and beginning of the land to be described; thence East parallel with the South line of said Northeast Quarter of the Northwest Quarter 150 feet; thence North parallel with said West line 290.63 feet; thence West to a point on said West line 290.63 feet North of the point of beginning; thence South to the point of beginning.

ALSO EXCEPT: Commencing at a point on the South line of said Northeast Quarter of the Northwest Quarter 150 feet East of the southwest corner thereof; thence North parallel with the West line thereof 505.17 feet to the actual point of beginning of land to be described (for the purpose of this description the West line of said Northeast Quarter of the Northwest Quarter bears due North); thence North 75 degrees 37 minutes East 37 minutes West to intersect a line bearing North from the point of beginning; thence South to the point of beginning.

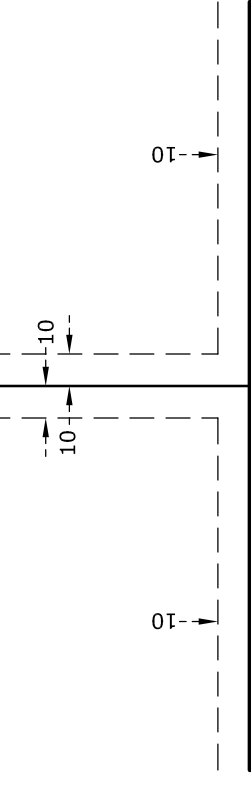
ALSO EXCEPT: Commencing at a point on the south line of said Northeast Quarter of said Section 16, Township 32, Range 23, Anoka County, Minnesota, and beginning along a line to be hereafter known as Line A, said Line A being parallel with the West line of said Northeast Quarter of the Northwest Quarter (for the purpose of this description the West line of said Northeast Quarter of the Northwest Quarter bears due North and South) 323.65 feet; thence East parallel with said South line of said Northeast Quarter of the Northwest Quarter to intersect a line parallel with and parallel to be hereafter known as Point C; thence return along the mentioned parallel line to said Line A; thence North along said Line A, 181.52 feet; thence North 75 degrees 37 minutes East along a line to be hereafter known as Line B, 266 feet; thence South 14 degrees 23 minutes East 66 feet to the actual point of intersection of said line 66 feet East of Line A; thence South along said parallel line to said Point C; thence North 75 degrees 37 minutes East to intersect with a line bearing South 14 degrees 23 minutes East from the point of beginning; thence North 14 degrees 23 minutes West to the point of beginning.

ROAD EASEMENT NOTES

Avoiding this work to determine if Parcel 13 of the ANOKA COUNTY HIGHWAY RIGHT OF WAY PLAT NO. 44 was taken in fee or easement.

TYPICAL DRAINAGE AND UTILITY EASEMENT DETAIL

DRAINAGE AND UTILITY EASEMENTS ARE SHOWN THUS:



BEING 10 FEET IN WIDTH AND ADJOINING RIGHT OF WAY OF ANOKA COUNTY HIGHWAY RIGHT OF WAY, UNLESS OTHERWISE SHOWN ON THIS PLAT.

NOTES

- Field survey was completed by E.G. Rud and Sons, Inc. on 11/01/24 for 16337 Mankato St NW. Partial topography was performed on 6/06/2024. Field Survey completed on 6/10/2024. Soil borings skated on 6/17/2024 and additional topo shot.
- Bearings shown are on Anoka County Coordinate System.
- WISNELLE MARGARET M 2045 Constance Blvd NE Ham Lake 16-32-23-21-0001
- This survey was prepared without the benefit of title work for the parcel located at 2045 Constance Blvd NE. Additional easements, restrictions and/or encumbrances may exist other than those shown herein. Survey subject to revision upon receipt of a current title commitment or an attorney's title opinion.
- 0.2% annual chance floodplain.) and Flood Zone X (No base flood elevation determined), according to the Federal Emergency Management Agency, effective date December 16th, 2015.
- Contours shown are a combination of field shots and MNGEO Ldar Topography.
- building locations shown per aerial photo.
- The boundary corners for the proposed Quot A are currently underwater.
- Wetland delineation performed by Jacobson Environmental, PLLC July of 2024.



E.G. RUD & SONS, INC.

Professional Land Surveyors

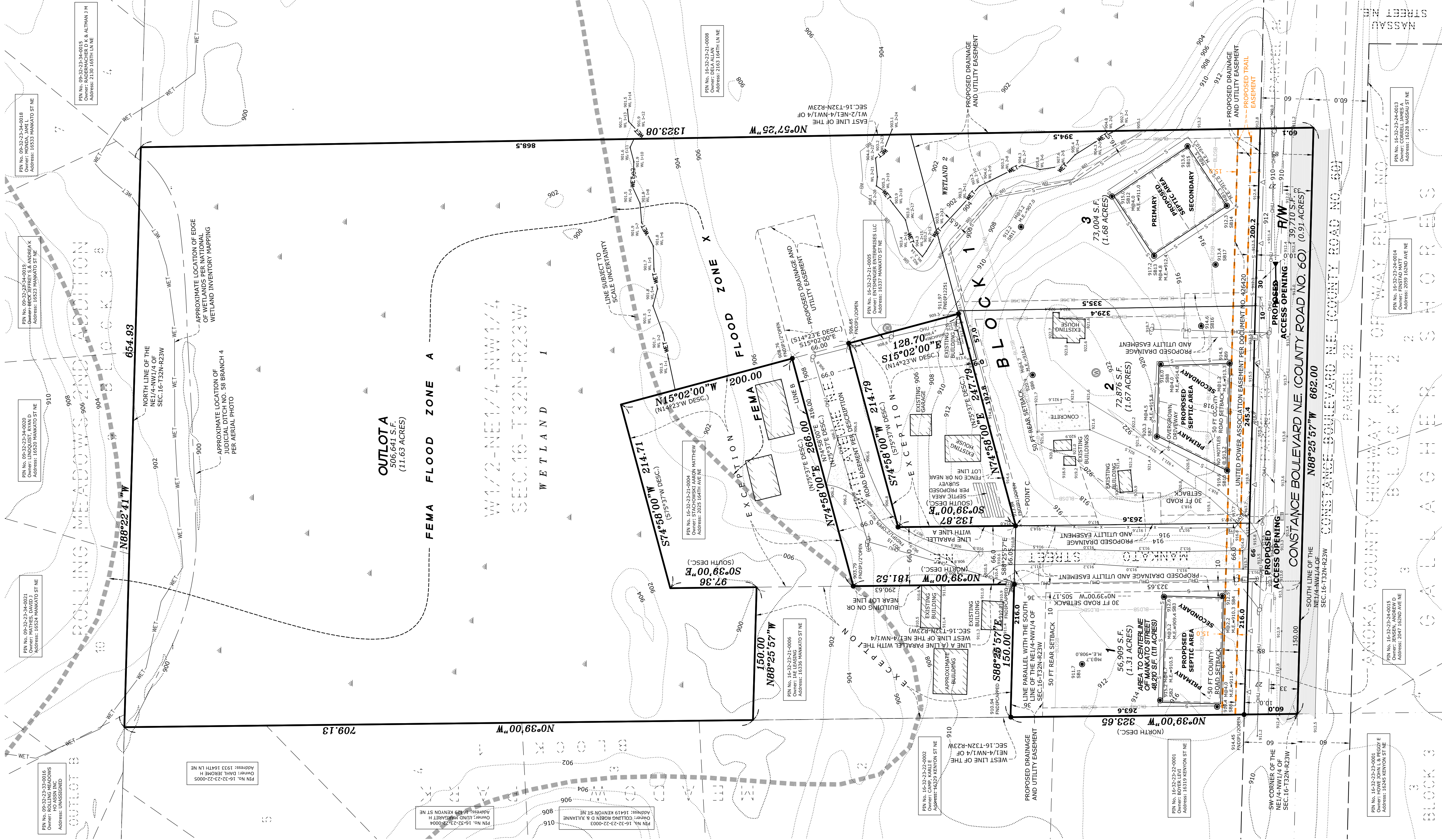
6776 Lake Drive NE, Suite 110

Lino Lakes, MN 55014

Tel. (651) 361-8200 Fax (651) 361-8701

www.egrud.com

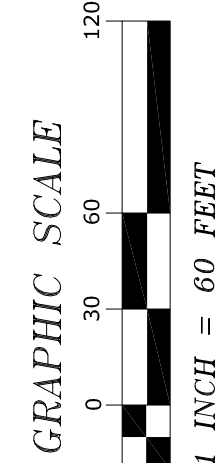
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LEGEND

- DENOTES IRON MONUMENT FOUND FROM PREVIOUS SURVEY WORK
- ☐ DENOTES FIBER OPTIC BOX
- ☑ DENOTES GUT WIRE
- ☒ DENOTES POWER POLE
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- ☒ DENOTES PROPOSED RESTRICTED ACCESS
- ☒ DENOTES PROPOSED SETBACK LINE
- ☒ DENOTES 16.5 WETLAND BUFFER
- ☒ DENOTES SOIL BORING (BY TRADEWALL SOIL TESTING)
- ☒ DENOTES ADJACENT PARCEL OWNER INFORMATION (PER ANOKA COUNTY TAX INFORMATION)

NORTH



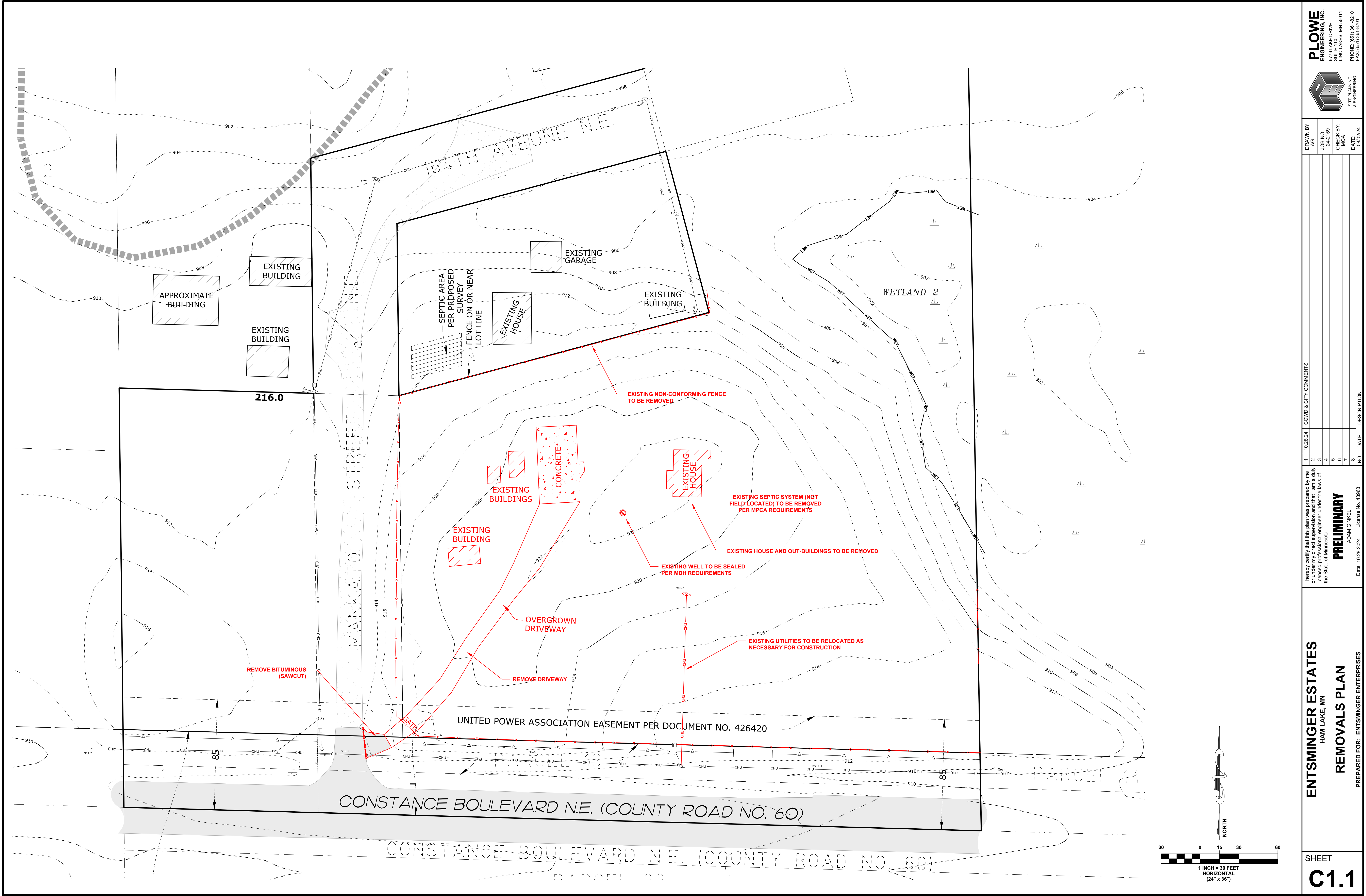
I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

JASON E. RUD

Date: 08/02/24 License No. 41578

DRAWN BY:	JEN	JOB NO.:	23087975	DATE:	08/02/24
CHECK BY:	JER	FIELD CREW:	BH-BJ		
	1	10/26/24	REVISE CONTROL ACCESS	JEN	
	2				
	3				
	4				
NO.	DATE	DESCRIPTION	BY		

230987HS

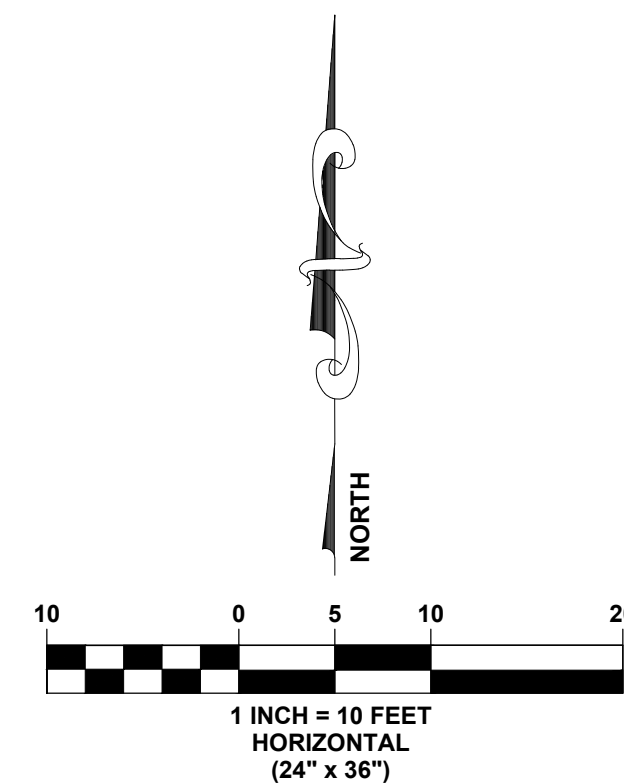


NO.	DATE	DESCRIPTION
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2		
3		
4		
5		
6		
7		
8		

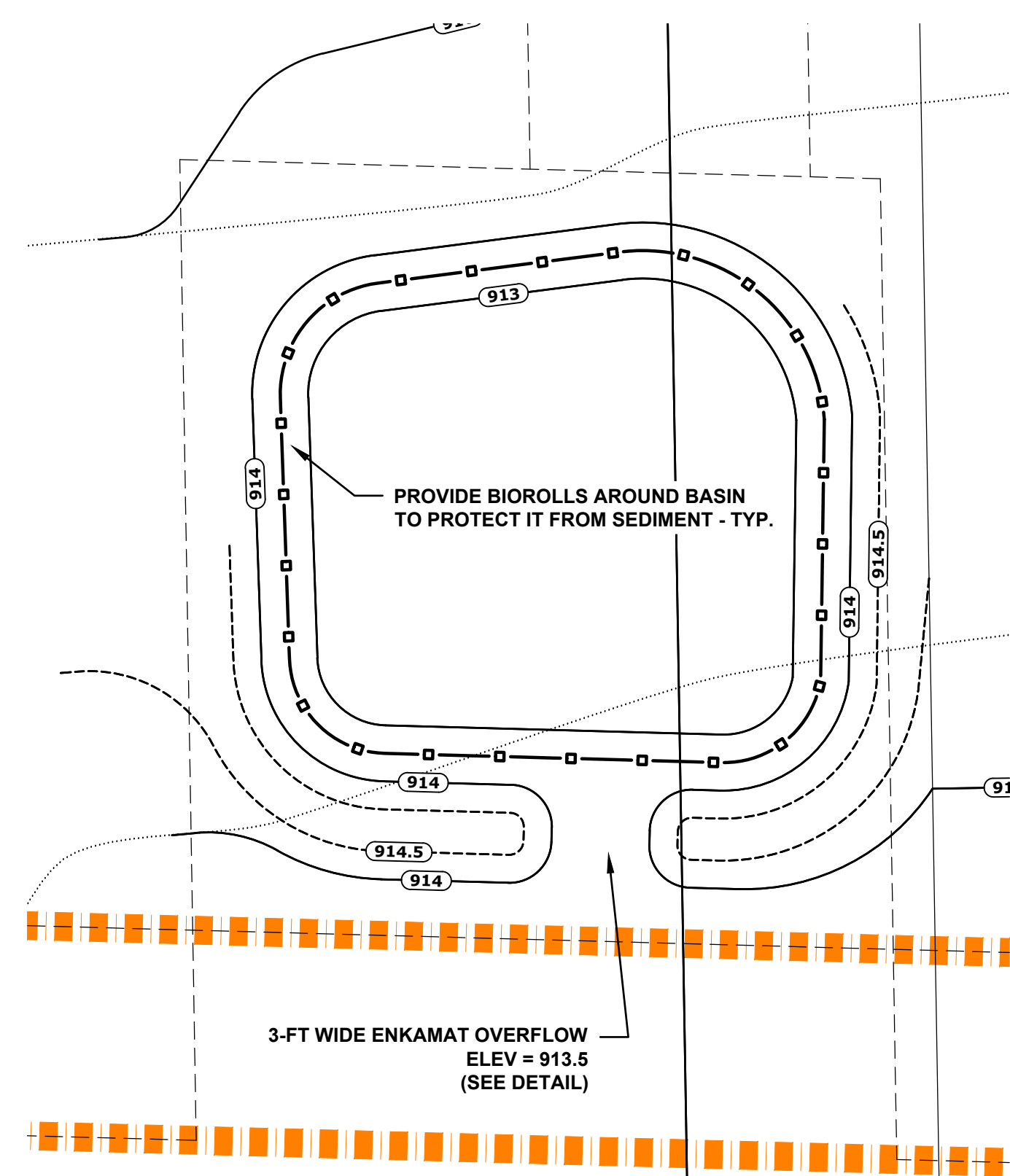
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly licensed professional engineer under the laws of the State of Minnesota.

PRELIMINARY
ADAM GINKEL
Date: 10/28/2024 License No. 43963

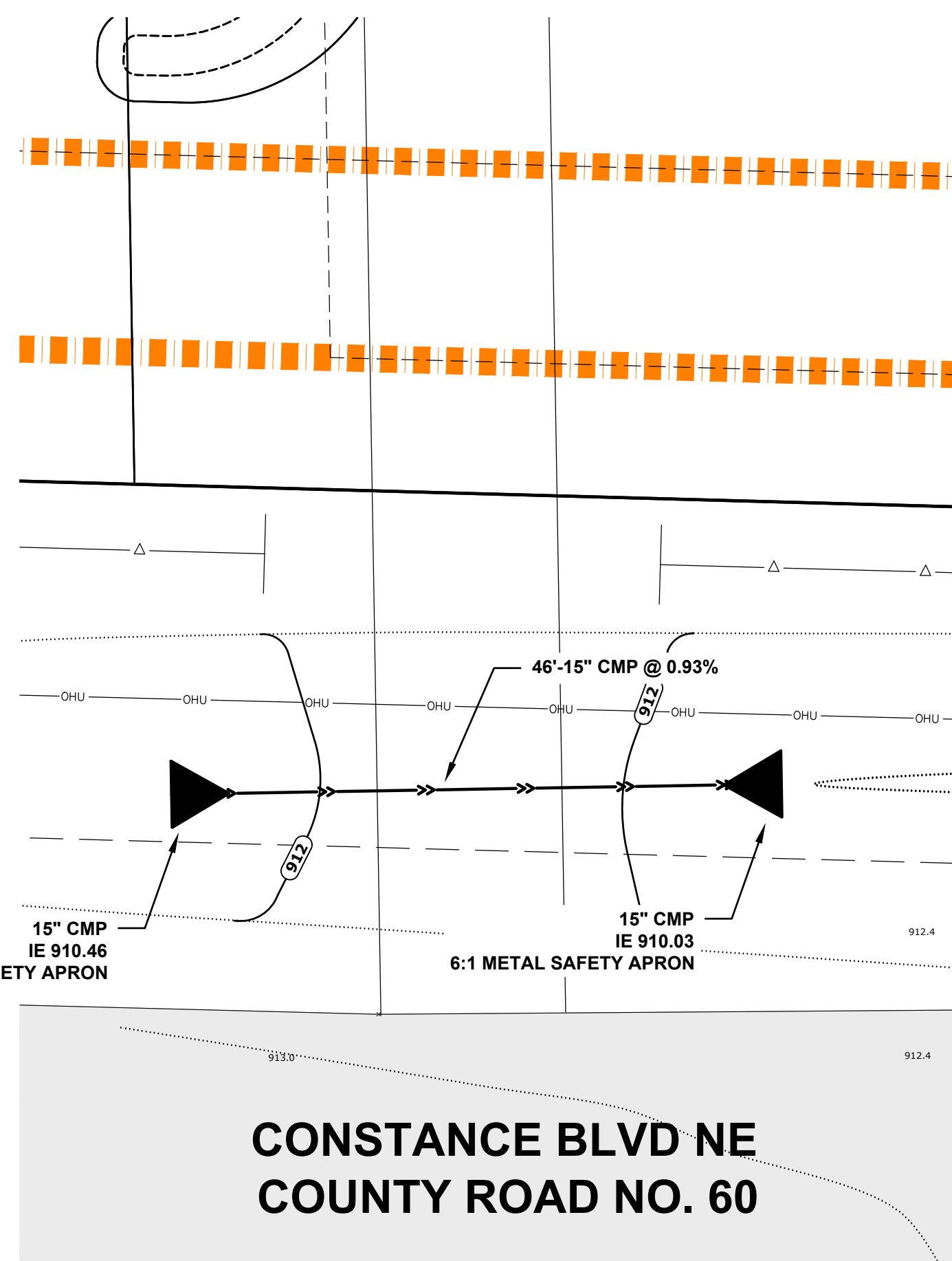
ENTSMINGER ESTATES
HAM LAKE, MN
REMOVALS PLAN
PREPARED FOR: ENTSMINGER ENTERPRISES



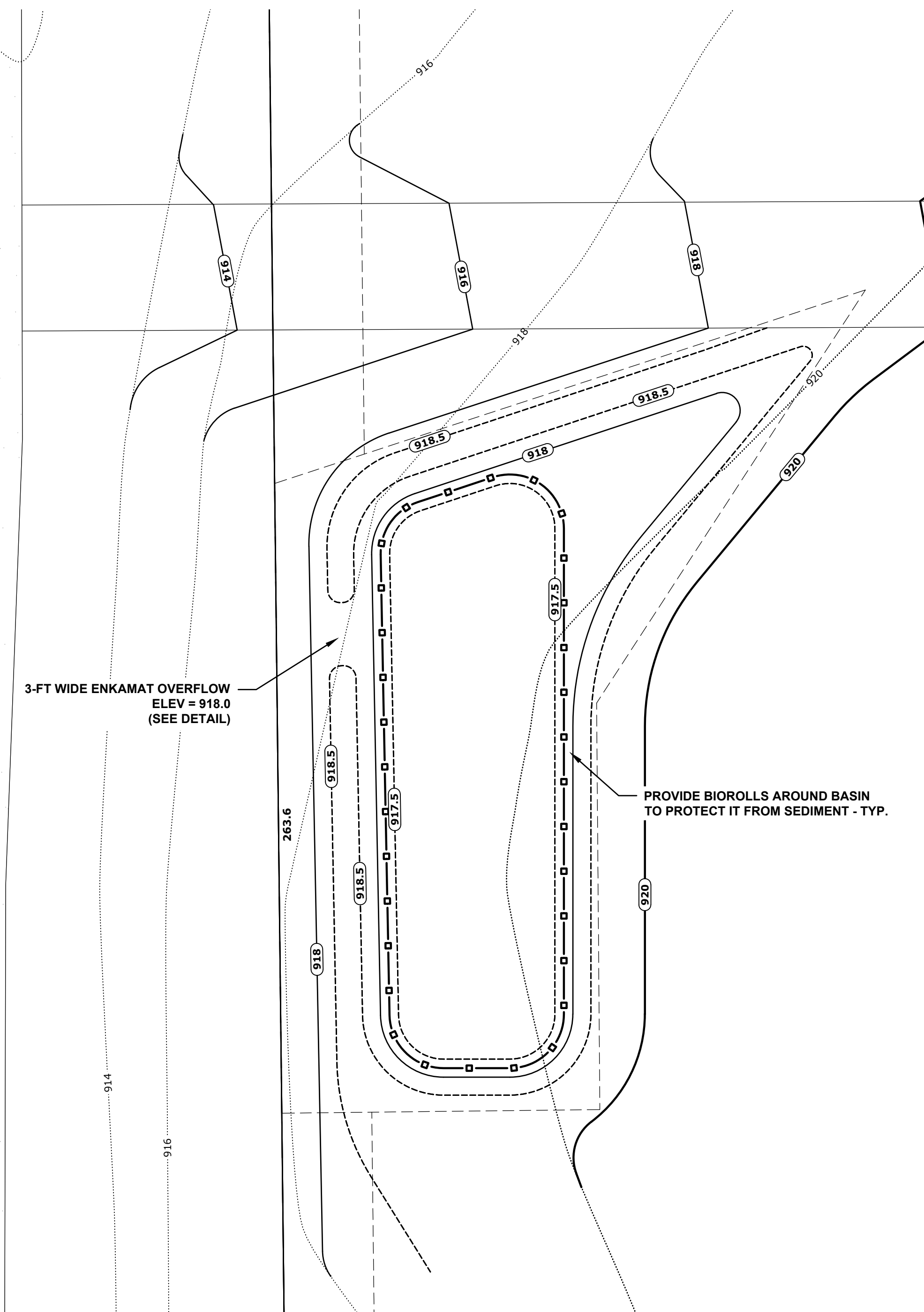
17



BASIN 3



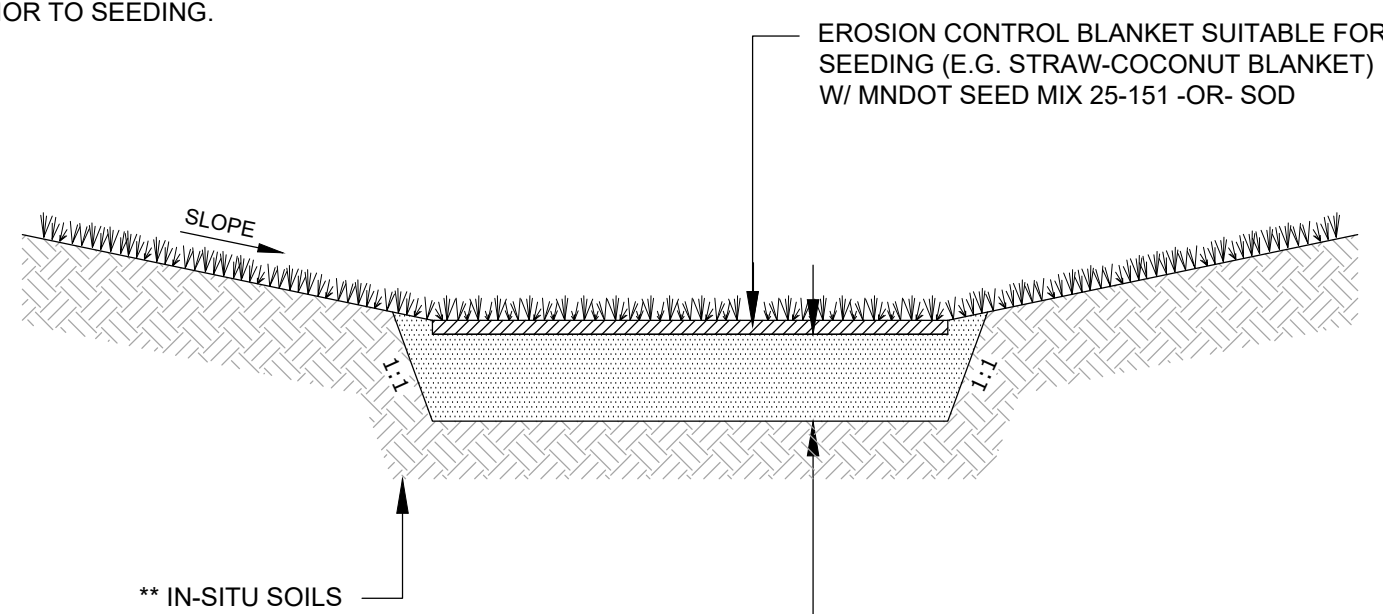
LOT 3 DRIVEWAY CULVERT



BASIN 2

- NOTES**
1. MARK-OFF BASIN AREA (E.G. FENCING, SILT FENCE, ETC.) TO PREVENT CONSTRUCTION TRAFFIC FROM ENTERING BASIN AREA.
 2. USE LOW-IMPACT, EARTH MOVING EQUIPMENT (WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT-EQUIPMENT WITH TURF-TYPE TIRES) WITHIN BASIN.
 3. PROTECT BASIN FROM RUN-OFF DURING CONSTRUCTION ACTIVITIES
 4. DO NOT EXCAVATE BASIN TO FINAL GRADE UNTIL UPSTREAM DRAINAGE AREAS HAVE BEEN STABILIZED.
 5. REMOVE ANY TOP SOIL AND/OR UNSUITABLE SOILS WITHIN INTER-TRAP BASIN FOOTPRINT. ANY SEDIMENT THAT IS WASHED INTO THE BASIN SHALL BE REMOVED.
 6. NO MINING OF SANDY SOILS ALLOWED IN BASIN AREA.
 7. EXCAVATE BASIN TO FINAL GRADE ONLY UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREAS. ALLEVIATE ANY COMPACTED SOILS DUE TO FINAL GRADING OPERATIONS PRIOR TO SEEDING.

A POST-CONSTRUCTION INFILTRATION TEST MUST BE PERFORMED ON EACH INFILTRATION PRACTICE IN THE PRESENCE OF DISTRICT STAFF AND MUST DEMONSTRATE THAT THE CONSTRUCTED INFILTRATION RATE MEETS THE DESIGN INFILTRATION RATE STANDARD PRIOR TO PROJECT ACCEPTANCE BY THE DISTRICT. THE CONSTRUCTED INFILTRATION RATE MAY EXCEED THE DESIGN INFILTRATION RATE BUT MAY NOT EXCEED 8.3 INCHES PER HOUR.



- ** ALLEVIATE ANY COMPACTED SOILS (BY USING A PRIMARY TILLING OPERATION SUCH AS A CHISEL PLOW, RIPPER OR SUBSOILER) TO A DEPTH NECESSARY TO ALLEVIATE COMPACTION (MIN. 12"**

- (1) REMOVE ANY EXISTING TOPSOIL OR FILL DEEMED UNSUITABLE FOR INFILTRATION (GEOTECHNICAL ENGINEER TO REVIEW ON-SITE SOILS)
- (2) IN AREAS OF FILL, PLACE SALVAGED ON-SITE SANDY SOILS SUITABLE FOR INFILTRATION WITH <5% FINES (AS DETERMINED BY GEOTECHNICAL ENGINEER)

INFILTRATION BASIN

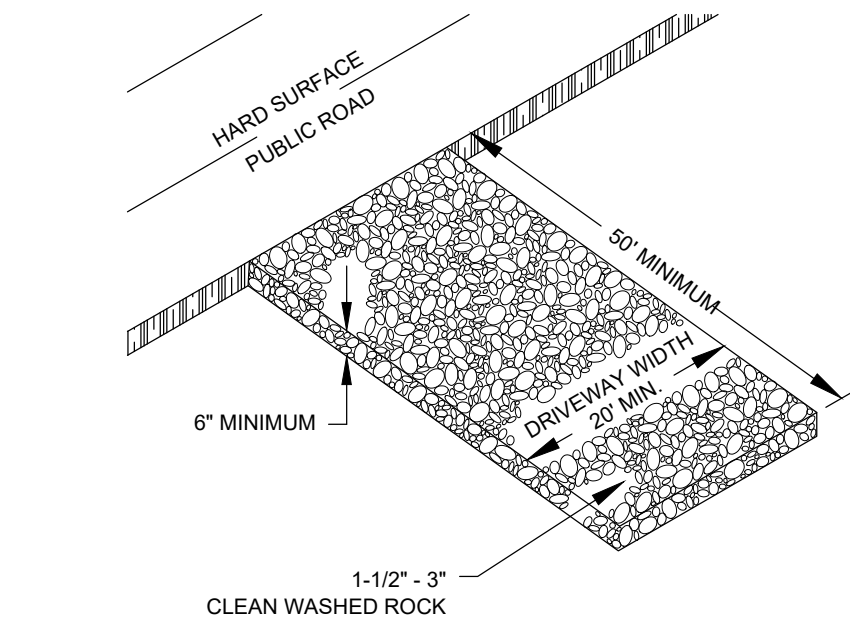
N.T.S.

I hereby certify that this plan was prepared by me or under my direct supervision and I am a duly licensed professional engineer under the laws of the State of Minnesota.		10-28-24		COWD & CITY COMMENTS		DRAWN BY: AG	
<div style="text-align: center;"> PRELIMINARY ADAM GINKEL </div>		1				JOB NO:	
		2				PLAN NO:	
		3				CHECK BY:	
		4				MC:	
		5				MC:	
		6				MC:	
		7				MC:	
Date: 10/28/2024	License No. 433963	NO.	DATE	DESCRIPTION	DATE: 10/28/2024		

ENTSMINGER ESTATES
HAMI LAKE, MN
BASIN DETAILS & LOT 3 DRIVEWAY
CULVERT
PREPARED FOR: ENTSMINGER ENTERPRISES

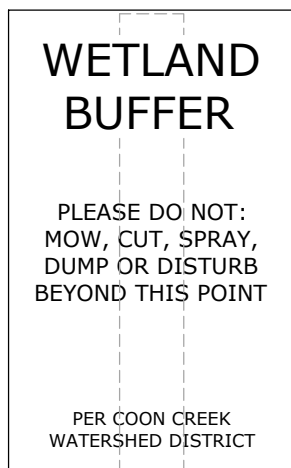
SHEET

C1.2



ROCK CONSTRUCTION EXIT

N.T.S.



EXAMPLE ONLY - TO BE APPROVED BY CITY OF HAM LAKE AND COON CREEK WATERSHED DISTRICT

WETLAND BUFFER SIGNAGE

N.T.S.

MONUMENT

- CONSISTS OF A POST AND A SIGN

WETLAND BUFFER SIGNS

- MOUNTED FLUSH WITH TOP OF POST
- PASTED WITH NON-REMOVABLE SCREWS OR RIVETS
- SIZE: 12" H x 8" W ALUMINUM SHALL BE 5052-H38 R 6061-T6 ALLOY
- GAUGE SHALL BE 0.080

POST MATERIALS

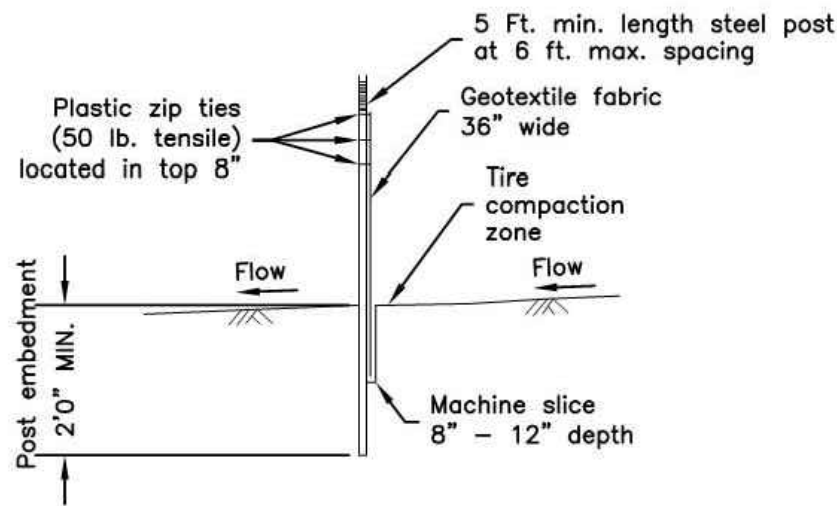
- 4" X 4" SQUARE
- TREATED WOOD OR OTHER CITY-APPROVED MATERIAL

COLOR

- SHALL BE GREEN LETTERS ON WHITE BACKGROUND

POST INSTALLATION

- MOUNTED TO A HEIGHT OF FOUR FEET ABOVE GRADE
- SET AT LEAST 42 INCHES INTO GROUND
- INSTALLED AT EACH LOT LINE WHERE IT CROSSES A WETLAND BUFFER WITH A MAXIMUM SPACING OF 300 FEET BETWEEN SIGNS
- PLACE ADDITIONAL POSTS/SIGNS AS NECESSARY TO FOLLOW BUFFER



GENERAL SILT FENCE NOTES:

Refer to MnDOT specs. 2573 & 3886

Silt fence shall be installed along the contour (on a level horizontal plane)

Curve the end of the silt fence up-gradient so that it contains the muddy water.

Maximum contributing area shall be one acre.

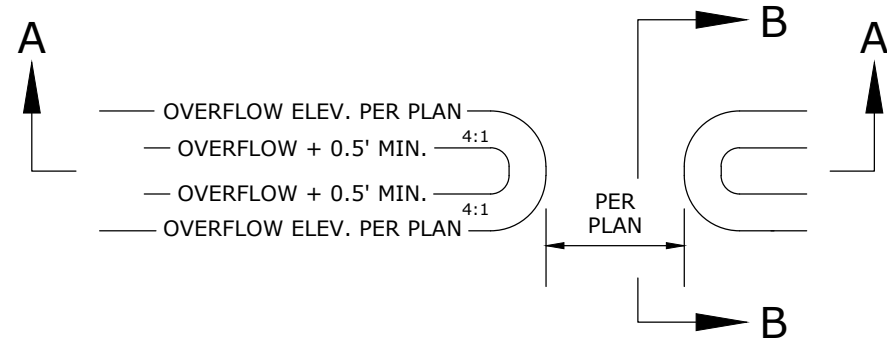
No single fencing unit should exceed 330 feet.

Follow slope grade/length guidelines:

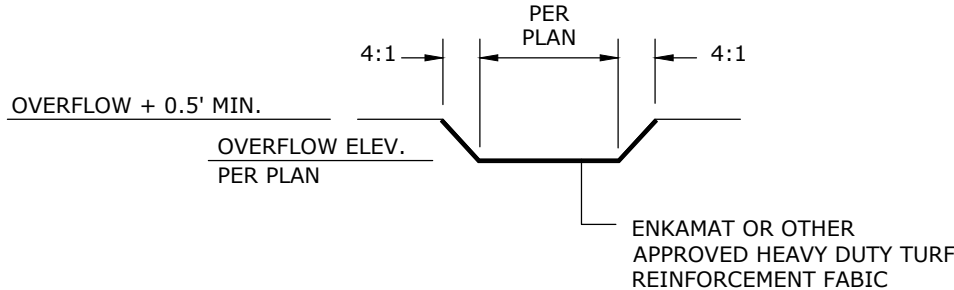
SLOPE GRADE	MAX. LENGTH
LESS THAN 2%	100 FT.
2 - 5%	75 FT.
5 - 10%	50 FT.
10 - 20%	25 FT.
GREATER THAN 20%	15 FT.

SILT FENCE: MACHINE SLICED HL-760A

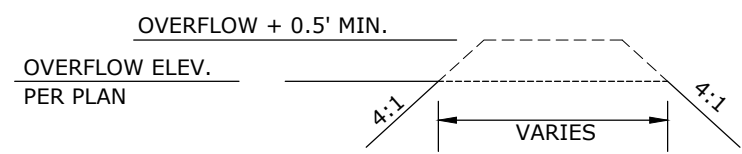
NOT TO SCALE



PLAN VIEW



SECTION A - A



SECTION B - B

BASIN OVERFLOWS

N.T.S.

NO.	DATE	DESCRIPTION
1		
2		
3		
4		
5		
6		
7		
8		

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: 10/28/2024 License No. 43963

ENTSMINGER ESTATES

HAM LAKE, MN

DETAILS

PREPARED FOR: ENTSMINGER ENTERPRISES

SHEET

C2.1