

**City of East Bethel**  
**City Council Agenda**  
Special Meeting - 6:00 PM  
Date: February 10, 2015



**Item**

- |         |            |   |
|---------|------------|---|
| 6:00 PM | <b>1.0</b> | <b>Call to Order</b>                          |
| 6:31 PM | <b>2.0</b> | <b>Adopt Agenda</b>                           |
| 6:02 PM | <b>3.0</b> | <b>Viking Preserve – Phase I Grading Plan</b> |
| 6:20 PM | <b>4.0</b> | <b>Adjourn</b>                                |



# City of East Bethel Special City Council Meeting Agenda Information

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**Date:**

February 10, 2015

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**Agenda Item Number:**

Item 3.0

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**Agenda Item:**

Viking Preserve – Excavation Request

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**Requested Action:**

Consider approving a request to begin excavation on the Viking Preserve Project prior to the approval of the Final Plat and Developers Agreement.

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**Background Information:**

Mr. Don Shaw filed and received approval for a Preliminary Plat for the Viking Preserve Project from City Council on December 4, 2013. However, on January 9, 2014, a reversal of the Army Corps of Engineers initial decision on Mr. Shaw’s permit required additional requirements to be placed on his project. Consequently, Mr. Shaw was forced to amend his site plan and reduce his projected number of building sites from 60 to 49. Appeals were presented to the Army Corps Office in St. Paul for modification to their directives but the Corps did not reverse their decision. Senator’s Franken and Klobuchar were informed of this issue but were unable or did not intervene in the matter.

As a result, Mr. Shaw revised his development plan to meet the standards of a less restrictive permit and re-submitted a request for approval of the preliminary plat/concept plan to City Council on January 22, 2014. Council approved the plan and the Planning Commission subsequently approved the revised Preliminary Plat and Final Plat on July 22, 2014. Mr. Shaw placed his project on hold, due to the issues with the Corps and market issues, and requested an extension for consideration of Final Plat submission to the City Council.

Mr. Don Shaw met with City Staff on Thursday, February 5, 2015 and requested approval to perform excavation activities on the Viking Preserve Project, Outlot A on the southwest corner at the intersection of Taylor Street and Viking Boulevard. The area to be disturbed is indicated on the attached grading plan and is a proposed pond and stockpiling of the excavated materials on site. The stockpiled materials would be used in the construction and finish of proposed building pads on the site. The amount of excavation is estimated to be approximately 40,000 cubic yards and the excavation site is denoted as 2.96 acres. The excavated material would be moved approximately 1,000’ west of the pond location and stockpiled on the site. The primary stockpile site is indicated on the grading plan and would cover approximately 1.5 acres with a height of 15’. A secondary stockpile site, if required, would be located at the northeast corner of Outlot A.

The stockpile area would be in place for up to two years, be seeded, and all required erosion and sediment control measures would be provided as per direction of the City Engineer. Mr. Shaw's request to approve this activity upon such short notice is due to the need to perform the excavation while frost depths are sufficient to allow on-site trucking of the material to the stockpile site. Mr. Shaw received his NPDES permit for this portion of the project on Friday, February 6, 2015 and has all his other required permits.

In order to approve Mr. Shaw's request, a Memorandum of Understanding (MOU) that would protect the City's interests and address the following should be considered:

1. A grading and erosion and sediment control plan
2. Submission of LGU, Army Corps, NPDES and any other necessary permit
3. Timetable and schedule for the work
4. All excavated material remain on site
5. Provide an escrow or letter of credit equal to 125% of the restoration costs should Mr. Shaw fail to fulfill the obligations of the MOU.

**Attachments:**

1. Phase I Grading Plan
2. Preliminary Plat January 22, 2014
3. Preliminary Plat December 4, 2013
4. Memorandum of Understanding

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**Fiscal Impact:**

None at this time

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**Recommendation:**

Absent a Developer's Agreement, and in order to continue to assist Mr. Shaw in his efforts to proceed with his project, Staff recommends that Council consider granting permission to conduct the excavation activities as proposed be approved subject to the conditions of the attached Memorandum of Understanding.

Motion by: \_\_\_\_\_

Second by: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Vote Yes: \_\_\_\_\_

Vote No: \_\_\_\_\_

No Action Required: \_\_\_\_\_

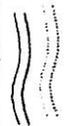
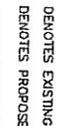
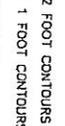
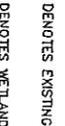
# WETLAND EXCAVATION EXHIBIT

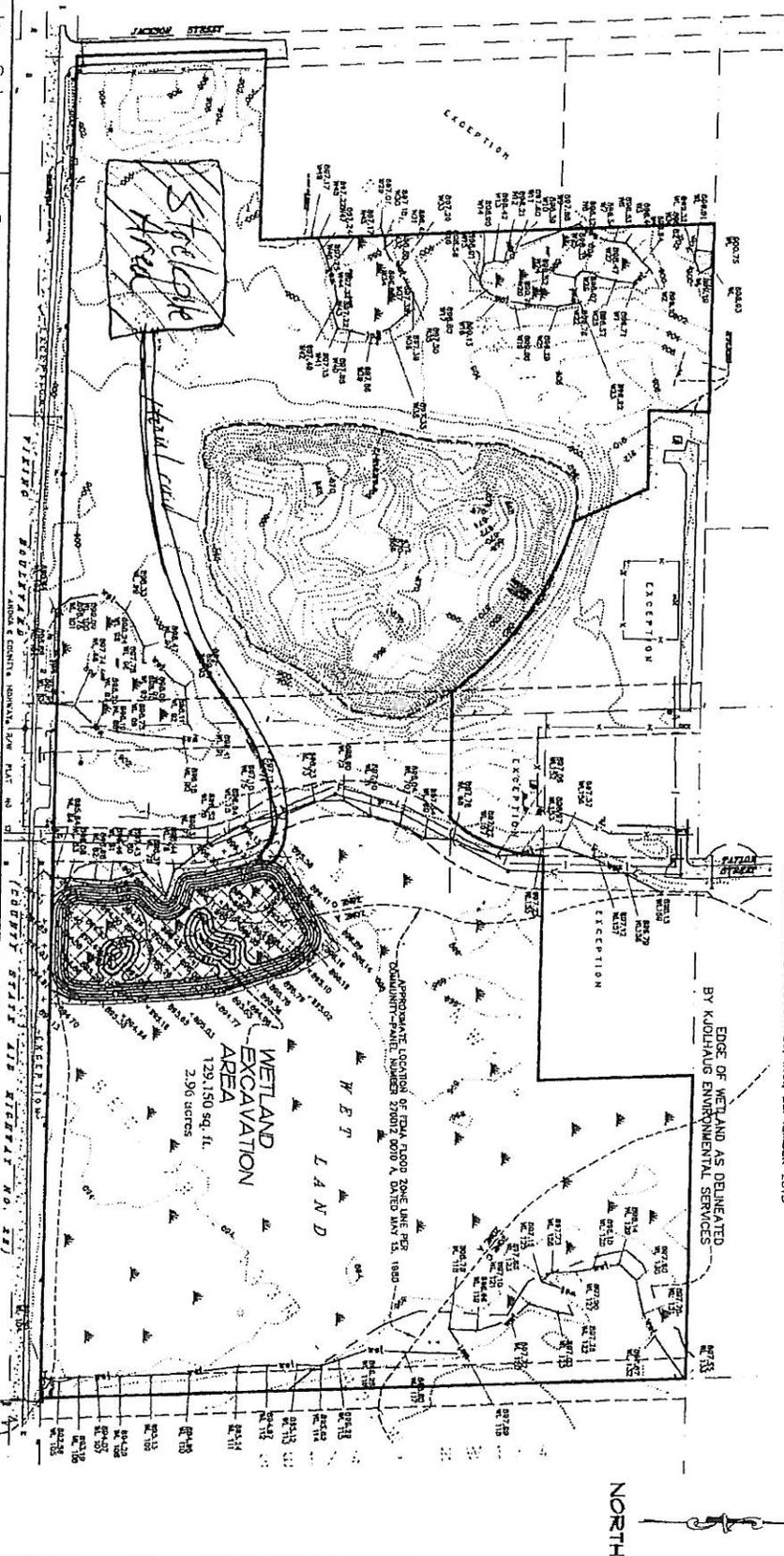
for SHAW TRUCKING, INC.  
18530 Buchanan Street NE  
East Bethel, MN 55011

## WETLAND NOTES

WETLAND EXCAVATION = 129,150 SQ. FT. (2.96 ACRES)

## LEGEND

-  DENOTES EXISTING 2 FOOT CONTOURS
-  DENOTES PROPOSED 1 FOOT CONTOURS
-  DENOTES EDGE OF WETLANDS AS DELINEATED BY EARTH SCIENCE ASSOCIATES, INC., SEPTEMBER 2013
-  DENOTES EXISTING WETLAND
-  DENOTES WETLAND EXCAVATION



Denotes Iron Set	Bearings shown are on an assumed datum.	I hereby certify that this plan, survey 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. Dated this 26th day of February, 2014.
Denotes Iron Found	Drawn By: MMD	
Scale 1" = 200'	Project Manager: JER	License No. 41578
Job No.: 12630PP		

- Stockpile site to be 250' x 300' x 15' high,
- haul road to be used in existing road on site
- Stockpile to be gone within a 2 year period
- Stockpile to be seeded in spring of 2015

**E. G. RUD & SONS, INC.**  
Professional Land Surveyors  
6776 Lake Drive NE, Suite 110  
Lino Lakes, MN 55014  
Tel: (651) 341-4200 Fax: (651) 341-3201  
www.egrud.com



# VIKING PRESERVE

## TITLE SHEET, NOTES & LEGEND

EAST BETHEL, MN

### VICINITY MAP



N.T.S.

### GENERAL NOTES

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF EXISTING UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUDING. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UTILITIES AS NECESSARY TO AVOID DAMAGE TO THESE UTILITIES.

CALL "811" FOR EXISTING UTILITIES LOCATIONS PRIOR TO ANY EXCAVATIONS.

THE CONTRACTOR SHALL FIELD VERIFY SIZE, ELEVATION, AND LOCATION OF EXISTING SANITARY SEWER, STORM SEWER, AND WATER MAIN AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO THE START OF INSTALLATIONS.

INSTALLATIONS SHALL CONFORM TO THE CITY STANDARD SPECIFICATIONS (MOST CURRENT EDITION), CITY STANDARD DETAIL PLATES, AND MNDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, 2005 EDITION.

THE CONTRACTOR SHALL NOTIFY CITY PUBLIC WORKS DEPARTMENT A MINIMUM OF 48 HOURS PRIOR TO THE INTERRUPTION OF ANY SEWER OR WATER SERVICES TO EXISTING HOMES OR BUSINESSES.

STORAGE OF MATERIALS OR EQUIPMENT SHALL NOT BE ALLOWED ON PUBLIC STREETS OR WITHIN PUBLIC RIGHT-OF-WAY.

NOTIFY CITY A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

ALL ELECTRIC, TELEPHONE, AND GAS EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTIONS SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY.

REMOVE/RELOCATE EXISTING UTILITIES AS NECESSARY FOR CONSTRUCTION.

ABANDON EXISTING WATER WELLS PER CITY AND STATE CODE.

### WATER MAIN NOTES

EXISTING WATER MAIN LOCATION AND SIZE SHALL BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY INSTALLATIONS.

PROVIDE PIPE INSULATION PER STANDARD DETAIL PLATE NO. 304 WHERE SEWER (SANITARY OR STORM) CROSSES WITHIN 18" OF WATER MAIN.

MECHANICAL JOINTS SHALL BE USED FOR WATER MAIN PIPES 4" IN DIAMETER AND LARGER. RUBBER GASKETS SHALL CONFORM TO AWWA C111 (ANSI A21.11).

MAINTAIN MINIMUM 7.5-FT COVER TO TOP OF ALL WATER MAIN PIPE.

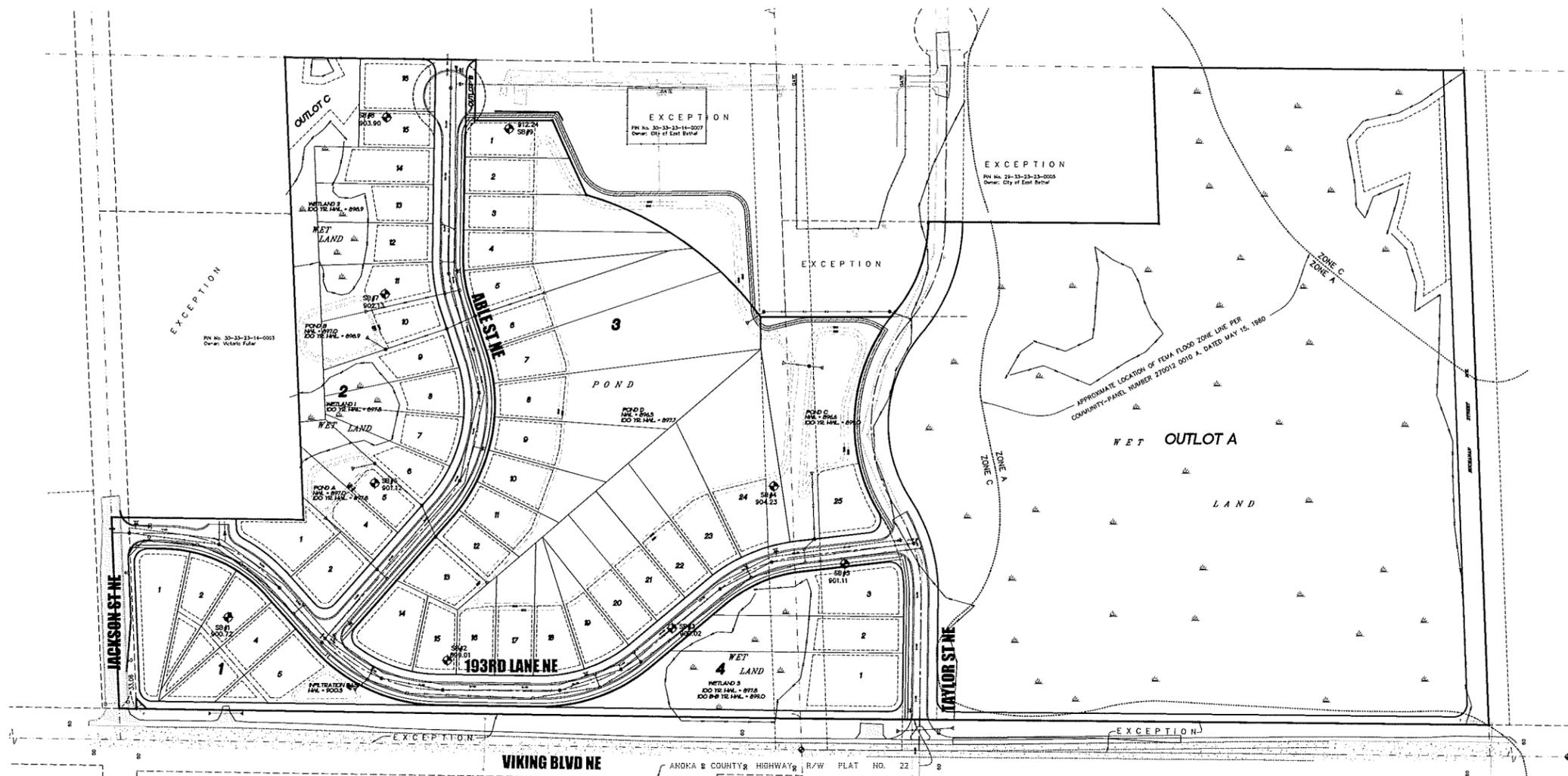
PROVIDE CONCRETE THRUST BLOCKING AT BENDS AND TEES PER STANDARD PLATE NO. 202

TRACER WIRE IS REQUIRED FOR ALL PVC WATERMAIN PIPE AND SHALL BE NO. 8 COPPER INSULATED AND RATED FOR UNDERGROUND SERVICE. TRACER WIRE SHALL REMAIN CONTINUOUS AND BE BROUGHT TO THE SURFACE AT ALL HYDRANTS. SEE STANDARD PLATE NO. 204 FOR DETAIL.

GATE VALVES SHALL BE RESILIENT WEDGE VALVES CONFORMING TO AWWA C509 STANDARDS. ALL VALVES SHALL BE INSTALLED ON-LINE WITH ACCOMPANYING VALVE BOXES. ALL VALVES SHALL CLOSE IN A CLOCKWISE DIRECTION. ALL VALVES SHALL BE EPOXY COATED PER AWWA C550. ALSO SEE STANDARD DETAIL PLATE NO. 205.

WATER SERVICES SHALL BE 1" COPPER TYPE K AND SHALL CONFORM TO STANDARD DETAIL PLATE NO. 200.

HYDRANTS SHALL BE PLACE FIVE (5) FEET FROM BACK OF CURB AND SHALL CONFORM TO STANDARD DETAIL PLATE NO. 204.



### STORM SEWER NOTES

FIELD VERIFY SIZE, ELEVATION, AND LOCATION OF EXISTING STORM SEWER AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY INSTALLATIONS.

STORM SEWER SHALL BE REINFORCED CONCRETE PIPE (RCP) ANSI C76 WITH R-4 GASKETS AND HDPE. ALL RCP PIPE SHALL BE CLASS 3. HDPE PIPE SHALL MEET THE REQUIREMENTS OF AASHTO M294, TYPE S WITH WATERTIGHT CONNECTIONS. USE SAND/GRANULAR MATERIAL FOR BACKFILLING AND COMPACTION OF HDPE PIPE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM 2321.

STORM SEWER LENGTHS INCLUDE THE LAYING LENGTH OF THE FLARED-END SECTION. LAYING LENGTH OF APRON TO BE DEDUCTED FROM PAYMENT LENGTH OF PIPE.

ALL PORTIONS OF THE STORM SEWER SYSTEM LOCATED WITHIN 10 FEET OF A WATER SERVICE LINE MUST BE TESTED IN ACCORDANCE WITH MINNESOTA RULES, PART 4715.2820.

STORM SEWER PIPES TO BE JOINED TO THE CATCH BASIN MANHOLES W/ APPROVED PRE-FORMED RUBBER, TYPE A, IN ACCORDANCE WITH MNDOT 3726.

ALL FLARED-END SECTIONS FOR PIPE CULVERTS 18" AND LARGER SHALL BE FITTED WITH TRASH GUARDS AND ALL FLARED-END SECTIONS ON PIPE STORM SEWER SYSTEMS SHALL BE FITTED WITH TRASH GUARDS.

ALL CATCH BASINS SHALL BE OFFSET PER STANDARD DETAIL PLATE NO. 703.

### SANITARY SEWER NOTES

EXISTING SANITARY SEWER LOCATION, SIZE, AND ELEVATION SHALL BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY INSTALLATIONS.

PROPOSED SANITARY SEWER SHALL BE PVC AND SHALL CONFORM TO ASTM 3034 FOR THE SIZE AND STRENGTH REQUIREMENTS AS SHOWN ON THE PLAN.

ALL CONNECTION BETWEEN EXISTING AND NEW SANITARY SEWER OR SERVICE PIPE SHALL BE MADE WITH FACTORY MANUFACTURED FLEXIBLE COUPLINGS, FERNCO OR EQUIVALENT, SPECIFICALLY DESIGNED AND SIZED FOR SANITARY SEWER CONNECTIONS.

ALL SANITARY SEWER SERVICE PIPE SHALL BE 4" PVC SDR 26. ALL SERVICE CONNECTION SHALL BE SOLVENT WELDED - GASKETED CONNECTIONS WILL NOT BE ALLOWED. ALSO SEE STANDARD DETAIL PLATE NO. 302.

### CHIMNEY SEALS

ANY ONE OF THE FOLLOWING RING SEALS IS ALLOWED:

1. FLEXIBLE INTERNAL RUBBER SLEEVE, INTERLOCKING EXTENSIONS AND STAINLESS STEEL EXPANSION BANDS (STANDARD PLATE 308)
2. FLEX-SEAL UTILITY SEALANT (STANDARD PLATE 309)
3. INFI-SHIELD (STANDARD PLATE 310)

### CURB & BITUMINOUS NOTES

REMOVAL AND DISPOSAL OF EXISTING STREET MATERIALS AS REQUIRED FOR CONSTRUCTION IS CONSIDERED INCIDENTAL.

PROVIDE SAW-CUT AND 2-INCH DEEP BY 4 FOOT WIDE MILL AT BITUMINOUS MATCH POINT. SAW-CUT EXISTING BITUMINOUS CONCRETE CURB TO PROVIDE BUTT-JOINT.

RESTORE DISTURBED STREET TO EXISTING OR BETTER SECTION.

BACKFILLING OF CURB IS INCIDENTAL TO CURB INSTALLATION.

APPROVED GRANULAR SUBGRADE UNDER CURB IS INCIDENTAL TO CURB INSTALLATION.

### LEGEND

	EXISTING OVERHEAD ELECTRIC		PROPOSED WATER PIPE
	EXISTING TELEPHONE PEDESTAL		PROPOSED SANITARY SEWER PIPE
	EXISTING ELECTRICAL PEDESTAL		PROPOSED STORM SEWER PIPE
	EXISTING CABLE PEDESTAL		PROPOSED DRAIN TILE AND CLEAN-OUT
	EXISTING UTILITY POLE		PROPOSED STORM MANHOLE
	EXISTING STORM SEWER		PROPOSED CATCH BASIN
	EXISTING WATER MAIN		PROPOSED FLARED-END SECTION
	EXISTING SANITARY SEWER		PROPOSED GATE VALVE
	EXISTING SANITARY MANHOLE		PROPOSED HYDRANT
	EXISTING CATCH BASIN		PROPOSED SANITARY SEWER MANHOLE
	EXISTING FLARED-END SECTION		
	EXISTING GATE VALVE		
	EXISTING HYDRANT		
	EXISTING WELL		
	EXISTING SANITARY SEWER MANHOLE		
	EXISTING FENCE		
	EXISTING WETLAND		
	SOIL BORING LOCATIONS PERFORMED BY ITC ALLED TESTING COMPANY OCTOBER 2013		

### SHEET INDEX

C0	TITLE SHEET, NOTES & LEGEND
E1	PRELIMINARY LIGHTING LAYOUT
G0	INITIAL GRADING EXHIBIT
G1-G4	PRELIMINARY GRADING, DRAINAGE & ESC PLAN
G5	LOT TABULATION & GRADING DETAILS
C1.1	PLAN/PROFILE (SANITARY/WATER) - 193RD LN NE
C1.2	PLAN/PROFILE (SANITARY/WATER) - 193RD LN NE/ABLE ST NE
C1.3	PLAN/PROFILE (SANITARY/WATER) - TAYLOR ST NE
C1.4	PLAN/PROFILE (STORM/STREET) - 193RD LN NE
C1.5	PLAN/PROFILE (STORM/STREET) - 193RD LN NE/ABLE ST NE
C1.6	PLAN/PROFILE (STORM/STREET) - TAYLOR ST NE
C1.7	PLAN/PROFILE (STORM) - MISCELLANEOUS STORM
C1.8	PLAN/PROFILE (STORM) - MISCELLANEOUS STORM
C2.1	STREET INTERSECTION DETAILS
C3.1-C3.3	DETAILS
C4.1	COUNTY HIGHWAY 22 TURN LANE
C5.1-C5.2	STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

TITLE SHEET, NOTES & LEGEND  
VIKING PRESERVE

DRAWN BY:	DESIGN BY:
A.G.	A.G.
CHKD BY:	PROJ. NO.
C.W.P.	13-1445
ORIGINAL DATE:	
NOVEMBER 12, 2013	

DATE	REVISION DESCRIPTION
1-7-14	CITY REVIEW #1
2-3-14	STREET, LOT, AND POND LAYOUT DJ
7-11-14	CITY REVIEW #2

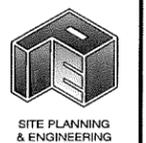
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND I AM AN ACTIVE LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

**PRELIMINARY**

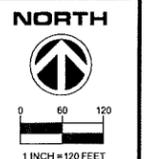
ADAM GANKEL  
LIC. NO. 43863  
DATE: 07.11.2014

VIKING PRESERVE  
EAST BETHEL, MN  
TITLE SHEET, NOTES & LEGEND

PREPARED FOR:  
SHAW TRUCKING, INC.



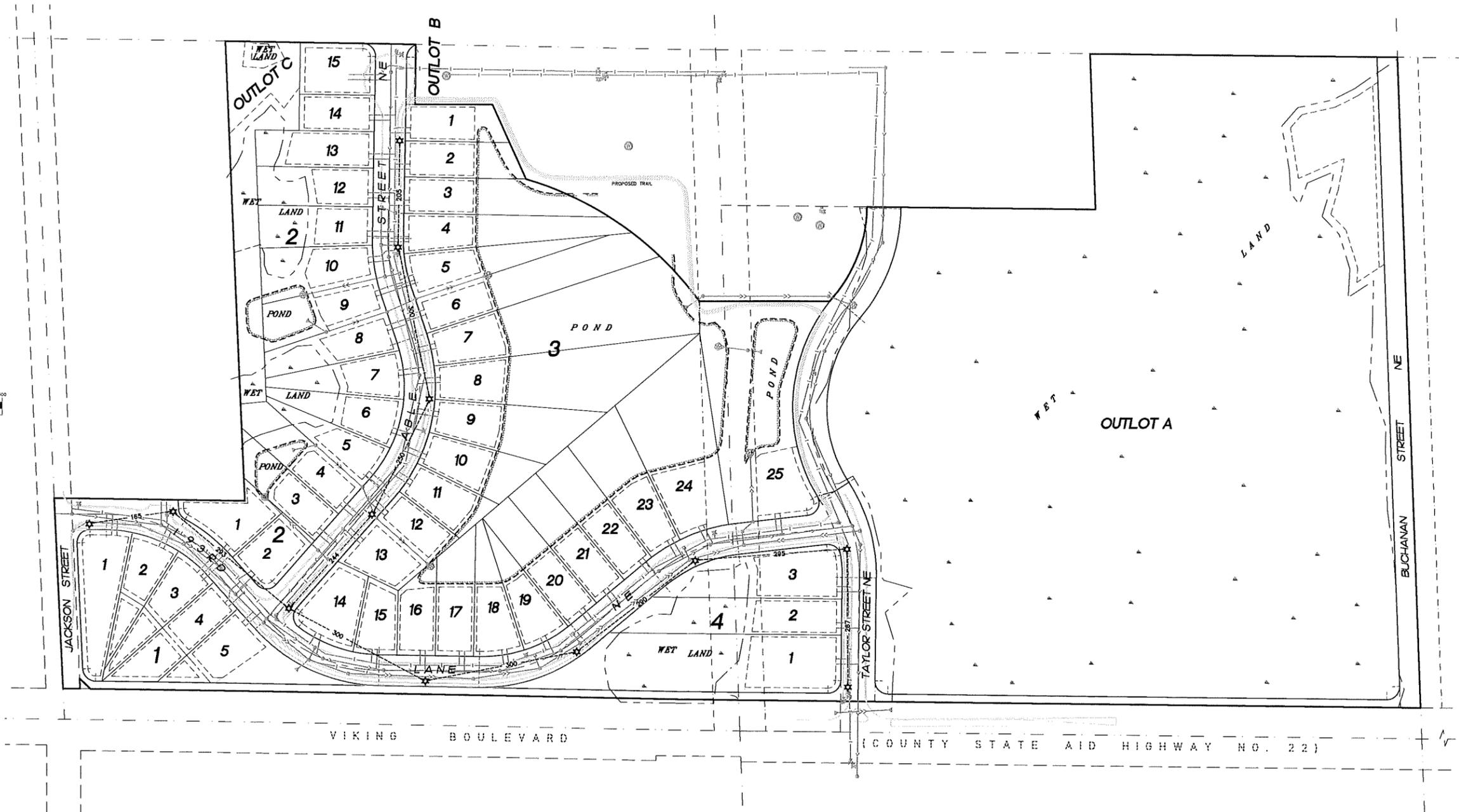
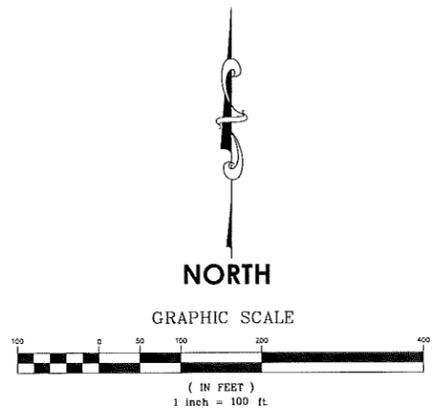
**PLOWE**  
ENGINEERING, INC.  
6776 LAKE DRIVE  
SUITE 110  
LINO LAKES, MN 55014  
PHONE: (651) 361-8210  
FAX: (651) 361-8701



**GO**

# PRELIMINARY LIGHTING LAYOUT

~of~ VIKING PRESERVE  
 ~for~ SHAW TRUCKING, INC.  
 18530 Buchanan Street N.E  
 East Bethel, MN 55011



### LEGEND

★ DENOTES PROPOSED STREET LIGHT (12 TOTAL)

### NOTES

- PER CONNEXUS ENERGY, 300 FOOT MAXIMUM DISTANCE BETWEEN LIGHTS.  
 - FINAL LIGHTING PLAN AND DESIGN TO BE DONE BY CONNEXUS ENERGY.  
 - CONNEXUS ENERGY CONTACT IS DAN JOHNSON 763-323-4265.

**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

DRAWN BY: JEN	JOB NO: 13630PP	DATE: 7/11/14	
CHECK BY: JER	SCANNED <input type="checkbox"/>		
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NO.	DATE	DESCRIPTION	BY

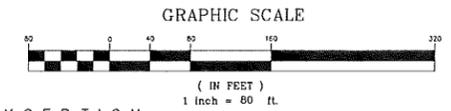
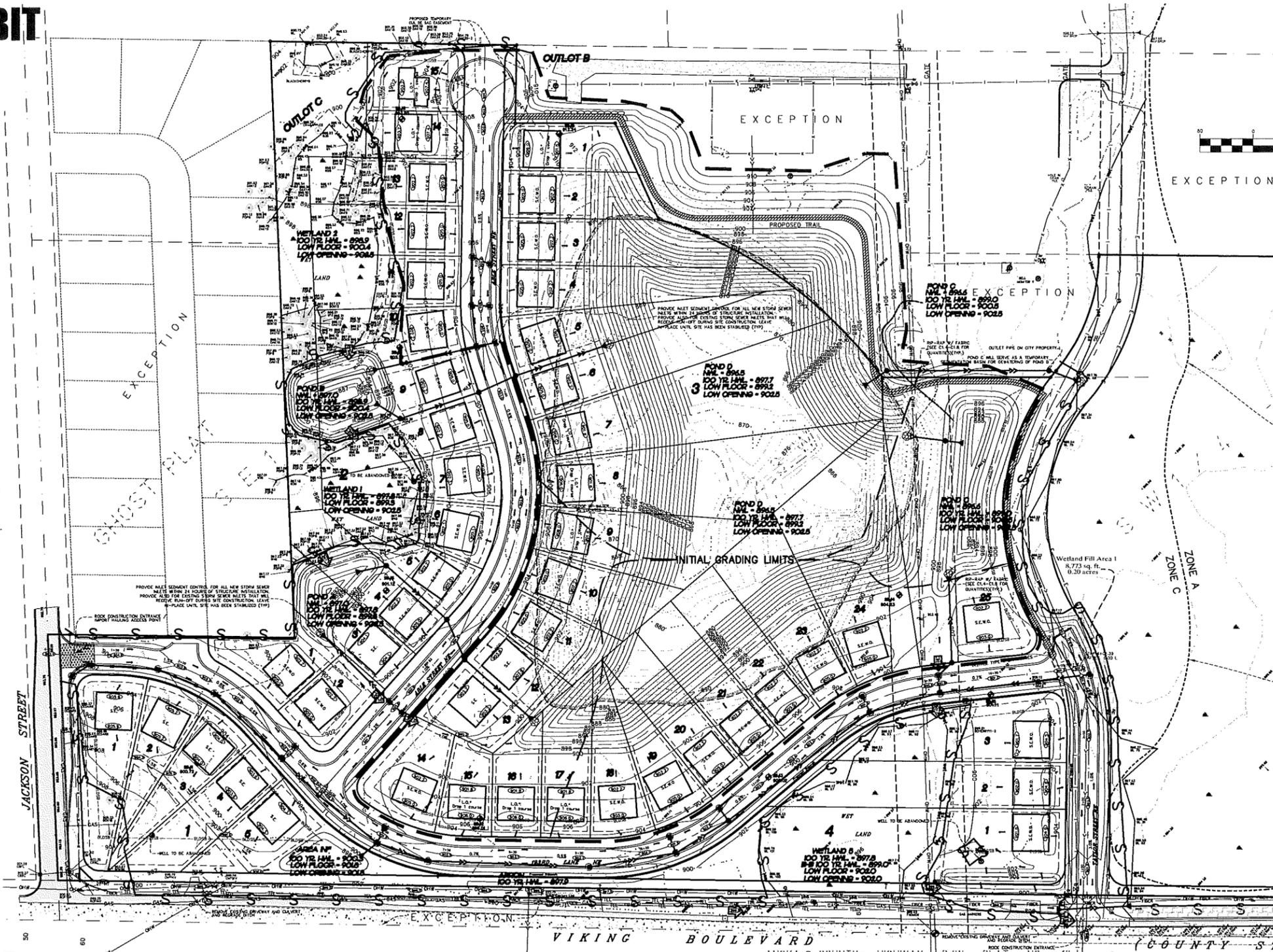
S:\rud\CAD\13proj\13630PP\13630PP-LIGHTINGPLAN.dwg 7/11/2014 9:45:26 AM CDT

# INITIAL GRADING EXHIBIT

~of~ VIKING PRESERVE  
 ~for~ SHAW TRUCKING, INC.  
 18530 Buchanan Street N.E  
 East Bethel, MN 55011

## 2014 INITIAL GRADING SEQUENCING

- POND C WILL BE EXCAVATED TO SERVE AS A TEMPORARY SEDIMENTATION BASIN FOR THE DEWATERING OF POND D.
- POND D WILL BE DEWATERED AND EXCAVATED AND THE MATERIAL WILL BE USED TO BUILD UP NEW POND SLOPES AND REAR YARDS OF BLOCK 3.
- SUITABLE MATERIAL FROM THE EXCAVATION WILL BE USED TO FILL BUILDING PAD AREAS.
- SUITABLE FILL MATERIAL WILL BE IMPORTED TO BRING THE REMAINING BUILDING PADS TO GRADE.
- GRADING ACTIVITY TO BE MONITORED BY A QUALIFIED SOILS TESTING COMPANY, AND SOIL TESTING WILL BE DONE TO ENSURE CONTROLLED FILL MEETS THE STANDARDS DETAILED IN THE REPORT OF GEOTECHNICAL EXPLORATION BY ITCO ALLIED ENGINEERING COMPANY DATED 10/14/13.
- SOILS TESTING COMPANY TO PROVIDE REPORT TO CITY CERTIFYING THAT ALL COMPLETED LOTS ARE BUILDABLE.



GRADING, LOT GRADING DETAILS AND PONDING SLOPES BY RUDS LAND SURVEYING, INC.

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*  
 JASON E. RUD  
 Date: 07-11-14 License No. 41578

---

PONDING CALCULATIONS, EROSION CONTROL, REVEGETATION, AND STORM SEWER DESIGN BY PLOWE ENGINEERING, INC.

**PLOWE ENGINEERING, INC.**  
 6776 LAKE DRIVE  
 SUITE 110  
 LINO LAKES, MN 55014  
 PHONE: (651) 361-8210  
 FAX: (651) 361-8701

SITE PLANNING & ENGINEERING

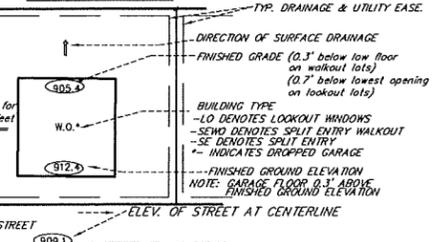
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

*Adam Ginkel*  
 ADAM GINKEL  
 DATE: 07.11.2014 LIC. NO. 43963

### 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. INSTALL TREE PROTECTION AS DEEMED NECESSARY BY THE CITY FORESTER PRIOR TO ANY GRADING.
- 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.
- SEE "STORM WATER POLLUTION PREVENTION PLAN" FOR ADDITIONAL EROSION CONTROL NOTES AND SITE SEQUENCING.

### TYPICAL LOT



**LEGEND**

- DENOTES IRON MONUMENT FOUND AS LABELED
- DENOTES IRON MONUMENT SET, MARKED RLS# 41578
- DENOTES ANOKA COUNTY CAST IRON MONUMENT
- DENOTES CATCH BASIN
- DENOTES SANITARY SEWER MANHOLE
- DENOTES HYDRANT
- DENOTES GATE VALVE
- DENOTES POWER POLE
- x 952.36 DENOTES EXISTING SPOT ELEVATION
- DENOTES SIGN
- DENOTES LIGHT POLE
- DENOTES TELEPHONE PEDESTAL
- DENOTES FIBER OPTIC BOX
- DENOTES GUY WIRE
- DENOTES EMERGENCY OVERFLOW ELEVATION
- DENOTES WELL
- DENOTES DIRECTION OF DRAINAGE
- DENOTES PROPOSED SPOT ELEVATION
- DENOTES SOL BORING BY ALLIED TESTING
- DENOTES PROPOSED SILT / TREE PROTECTION FENCE
- DENOTES STORM SEWER APRON
- DENOTES WET LAND
- DENOTES WOVEN WIRE FENCE
- DENOTES EXISTING 2 FOOT CONTOURS
- DENOTES PROPOSED 2 FOOT CONTOURS
- DENOTES EXISTING SANITARY SEWER
- DENOTES EXISTING STORM SEWER
- DENOTES PROPOSED STORM SEWER
- DENOTES EXISTING WATER MAIN
- DENOTES OVERHEAD WIRE
- DENOTES CONCRETE SURFACE
- DENOTES BITUMINOUS SURFACE
- DENOTES GRAVEL SURFACE
- DENOTES EDGE OF WETLANDS AS DELINEATED BY EARTH SCIENCE ASSOCIATES, INC., SEPTEMBER 2013
- DENOTES BUILDING SETBACK LINE
- DENOTES PROPOSED RETAINING WALL
- DENOTES WETLAND FILL

NOTE: SEE PLAN / PROFILE DRAWINGS FOR STORM SEWER RIMS, INVERTS AND SIZES.

DRAWN BY: MJD JOB NO: 13630PP DATE: 07/11/14  
 CHECK BY: JER SCANNED

NO.	DATE	DESCRIPTION	BY
1			
2			
3			

**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

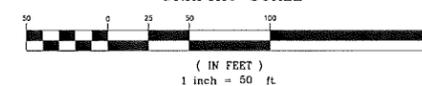
# GRADING, DRAINAGE, AND EROSION CONTROL PLAN

~of~ VIKING PRESERVE  
 ~for~ SHAW TRUCKING, INC.  
 18530 Buchanan Street N.E.  
 East Bethel, MN 55011

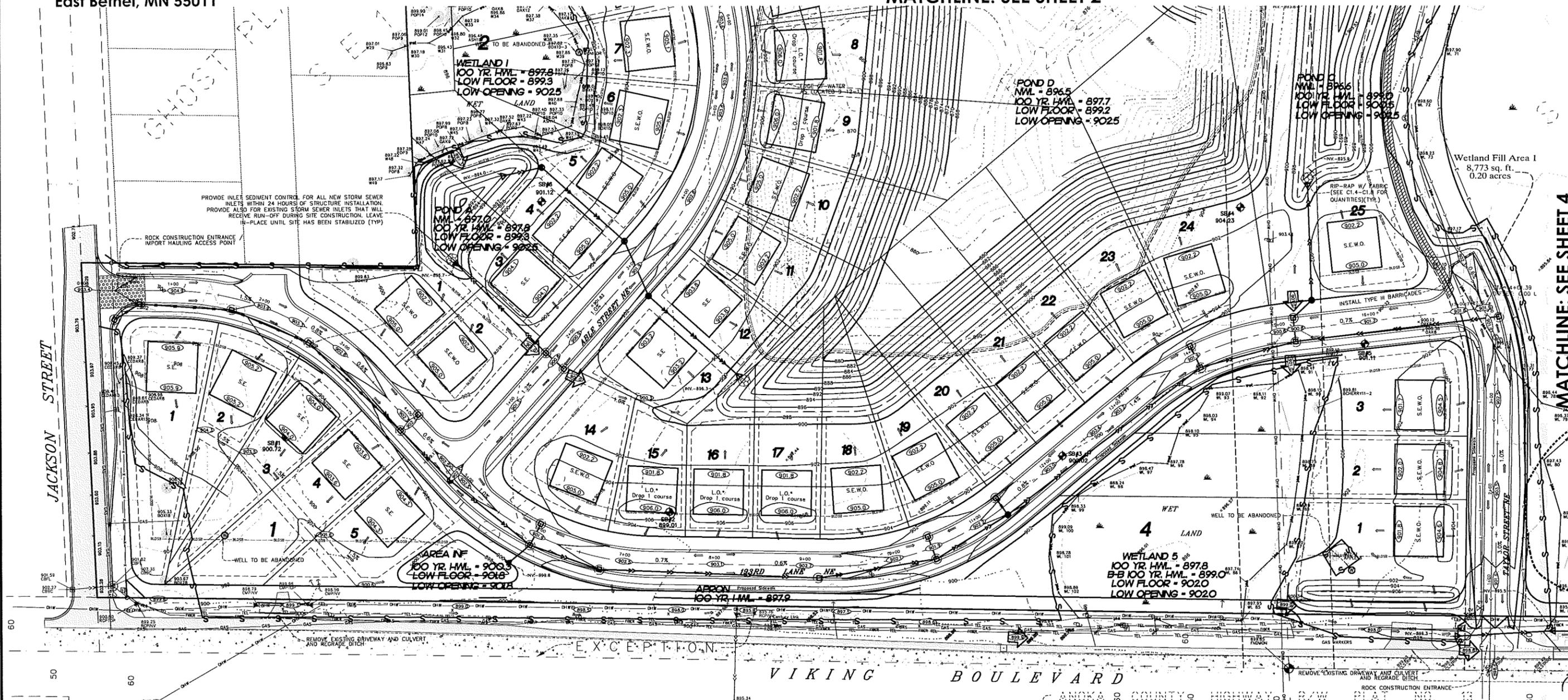
## WETLAND NOTES

- AREA OF WETLAND FILL = 18,517 SQ. FT. (0.43 ACRES)

GRAPHIC SCALE



MATCHLINE: SEE SHEET 2



MATCHLINE: SEE SHEET 4

GRADING, LOT GRADING DETAILS AND PONDING SLOPES BY RUDS LAND SURVEYING, INC. 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*  
 JASON E. RUD License No. 41578  
 Date: 07-11-14

**E.G. RUD & SONS, INC.**  
 EST. 1977 Professional Land Surveyors  
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PONDING CALCULATIONS, EROSION CONTROL, REVEGETATION, AND STORM SEWER DESIGN BY PLOWE ENGINEERING, INC.

**PLOWE ENGINEERING, INC.**  
 6776 LAKE DRIVE SUITE 110 LINO LAKES, MN 55014  
 PHONE: (651) 361-8210 FAX: (651) 361-8701

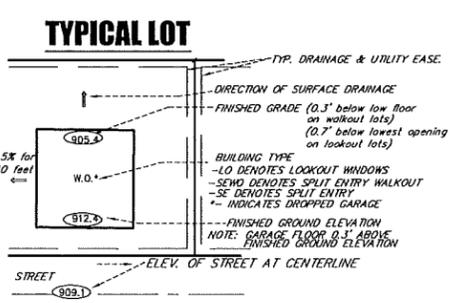
SITE PLANNING & ENGINEERING

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.

*Adam Ginkel*  
 ADAM GINKEL  
 DATE: 07.11.2014 LIC. NO. 43963

### EROSION CONTROL / REVEGETATION SPECS.

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- SEE "STORM WATER POLLUTION PREVENTION PLAN" FOR ADDITIONAL EROSION CONTROL NOTES AND SITE SEQUENCING.



### LEGEND

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- DENOTES IRON MONUMENT SET, MARKED RLS# 41578
- DENOTES ANOKA COUNTY CAST IRON MONUMENT
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- DENOTES SANITARY SEWER MANHOLE
- DENOTES HYDRANT
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- DENOTES EDGE OF WETLANDS AS DELINEATED BY EARTH SCIENCE ASSOCIATES, INC., SEPTEMBER 2013
- DENOTES BUILDING SETBACK LINE
- DENOTES PROPOSED RETAINING WALL
- DENOTES WETLAND FILL

NOTE: SEE PLAN / PROFILE DRAWINGS FOR STORM SEWER RIMS, INVERTS AND SIZES.

DRAWN BY: MJD JOB NO: 13630PP DATE: 11/12/13  
 CHECK BY: JER SCANNED  
 1 01/07/14 CITY COMMENTS MJD  
 2 02/03/14 REVISED LAYOUT MJD  
 3 07/11/14 CITY COMMENTS MJD  
 NO. DATE DESCRIPTION BY

NORTH

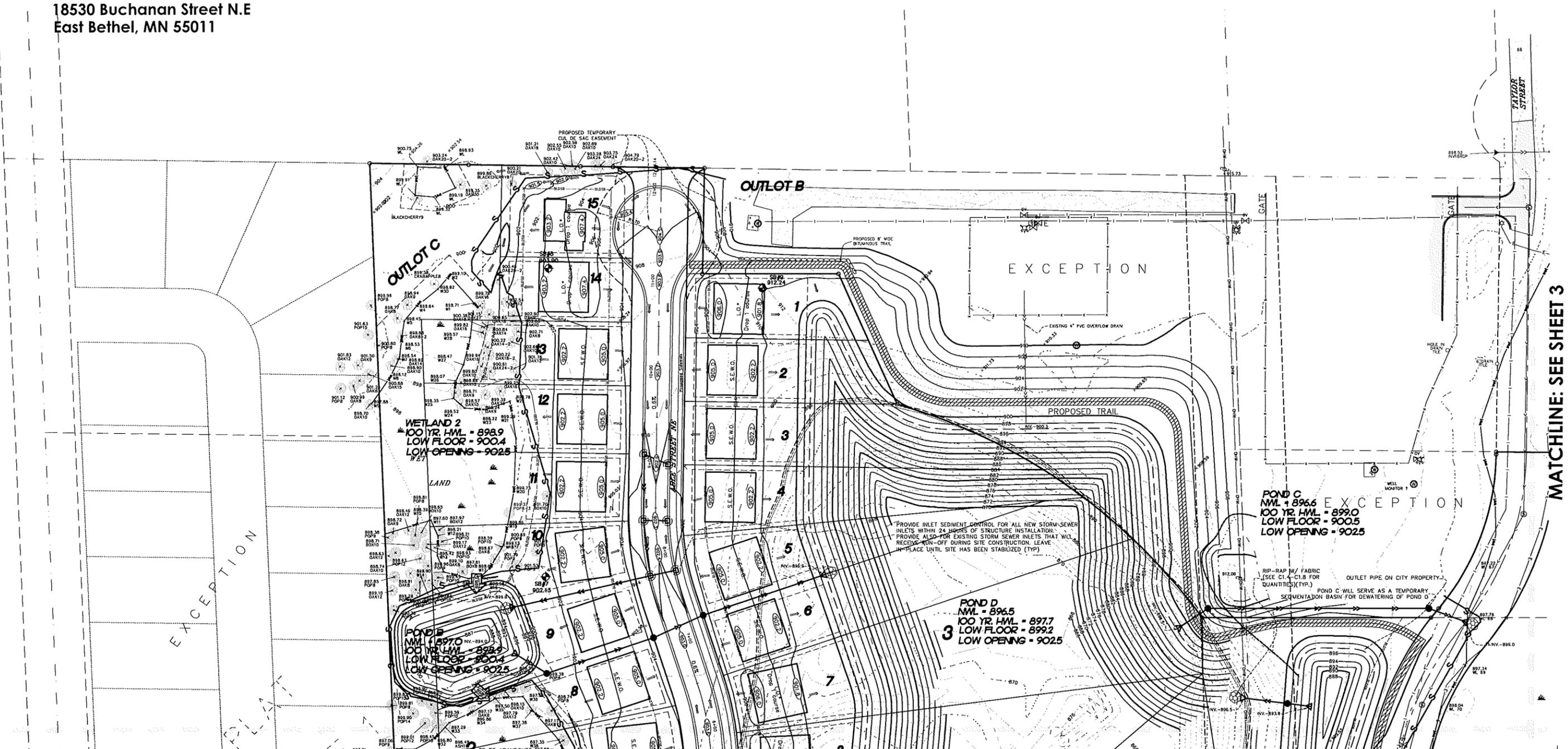
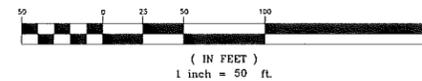
# GRADING, DRAINAGE, AND EROSION CONTROL PLAN

~of~ VIKING PRESERVE  
 ~for~ SHAW TRUCKING, INC.  
 18530 Buchanan Street N.E.  
 East Bethel, MN 55011

## WETLAND NOTES

- AREA OF WETLAND FILL = 18,517 SQ. FT. (0.43 ACRES)

GRAPHIC SCALE



MATCHLINE: SEE SHEET 3

MATCHLINE: SEE SHEET 1

GRADING, LOT GRADING DETAILS AND  
 PONDING SLOPES BY  
 RUDS LAND SURVEYING, INC.  
 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*  
 JASON E. RUD  
 Date: 07-11-14 License No. 41578

PONDING CALCULATIONS, EROSION CONTROL,  
 REVEGETATION, AND STORM SEWER DESIGN BY  
 PLOWE ENGINEERING, INC.

**PLOWE**  
 ENGINEERING, INC.  
 6776 LAKE DRIVE  
 SUITE 110  
 LINO LAKES, MN 55014  
 PHONE: (651) 361-8210  
 FAX: (651) 361-8701

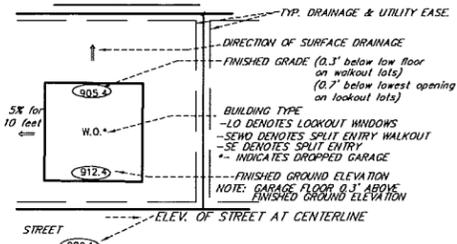
I HEREBY CERTIFY THAT THIS PLAN WAS  
 PREPARED BY ME OR UNDER MY DIRECT  
 SUPERVISION AND THAT I AM A DULY LICENSED  
 PROFESSIONAL ENGINEER UNDER THE LAWS OF  
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*Adam Ginnel*  
 ADAM GINNEL  
 DATE: 07.11.2014 LIC. NO. 43963

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- SEE "STORM WATER POLLUTION PREVENTION PLAN" FOR ADDITIONAL  
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### TYPICAL LOT



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NORTH

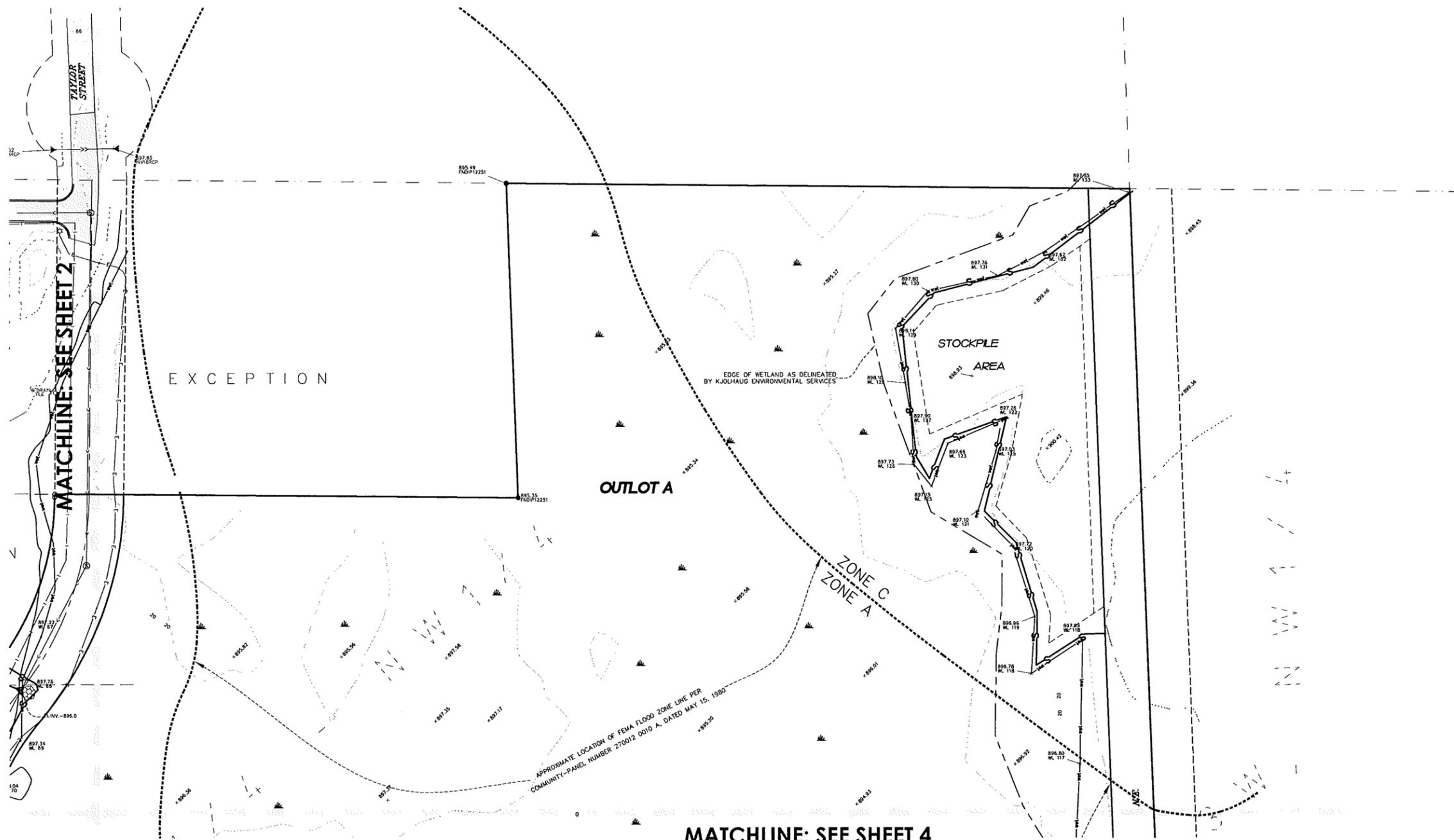
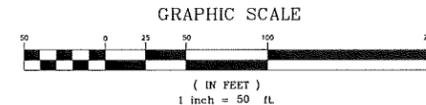
DRAWN BY: MUD	JOB NO: 13630PP	DATE: 11/12/13	
CHECK BY: JER	SCANNED		
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GRADING, LOT GRADING DETAILS AND PONDING SLOPES BY RUDS LAND SURVEYING, INC. I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

Jason E. Rud  
 Date: 07-11-14 License No. 41578

PONDING CALCULATIONS, EROSION CONTROL, REVEGETATION, AND STORM SEWER DESIGN BY PLOWE ENGINEERING, INC.

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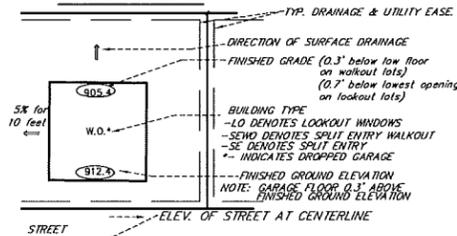
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### MATCHLINE: SEE SHEET 4

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NORTH

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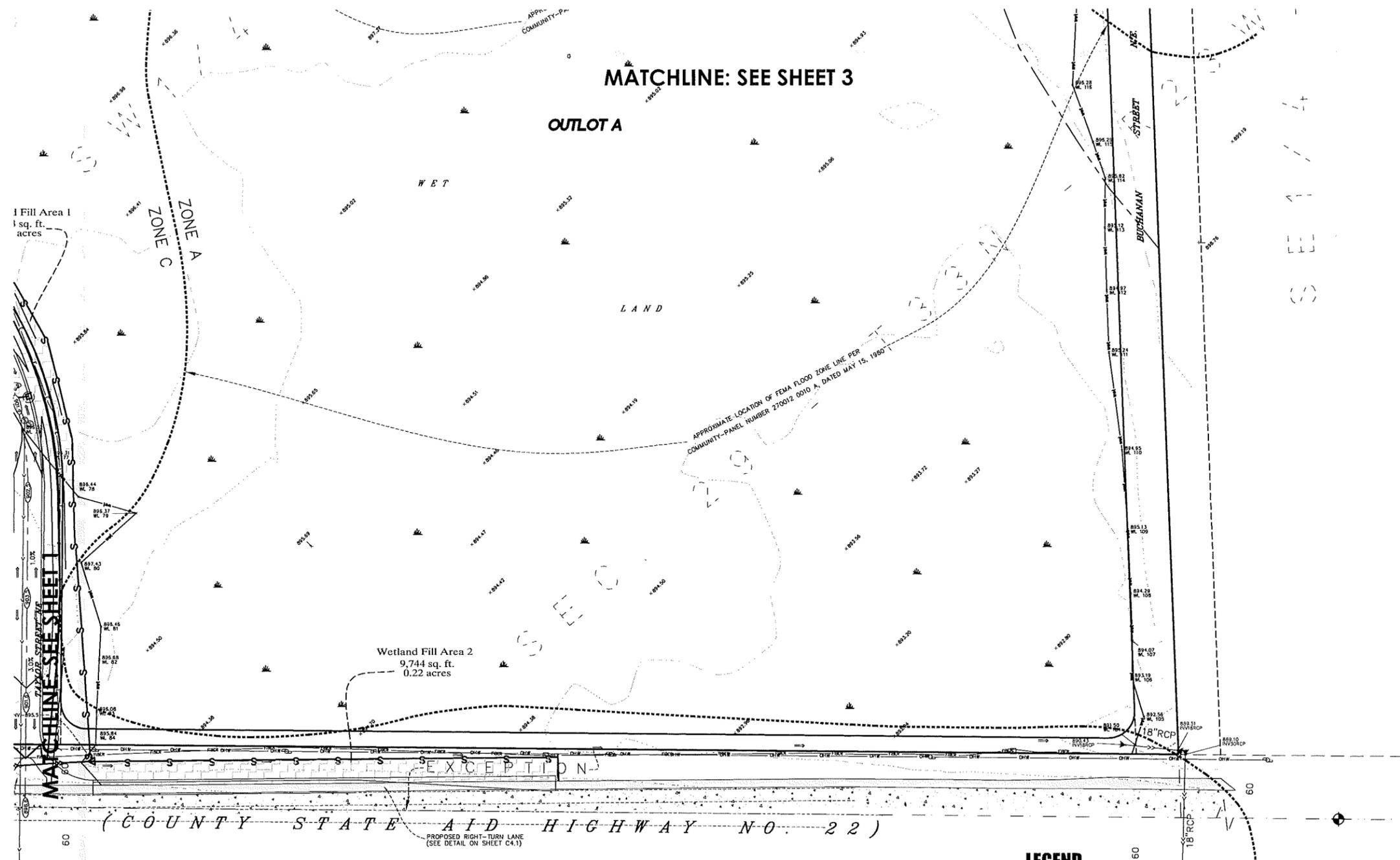
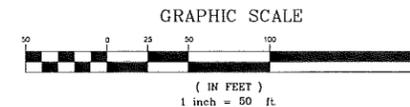
EST. 1977 **E.G. RUD & SONS, INC.**  
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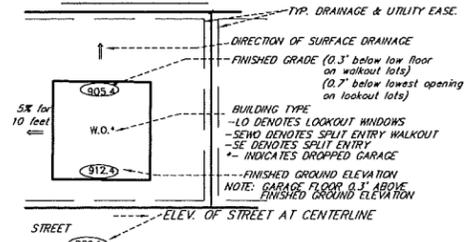
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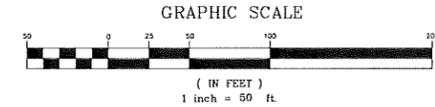
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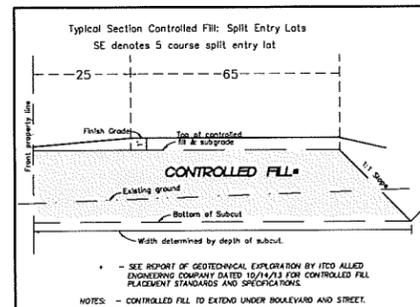
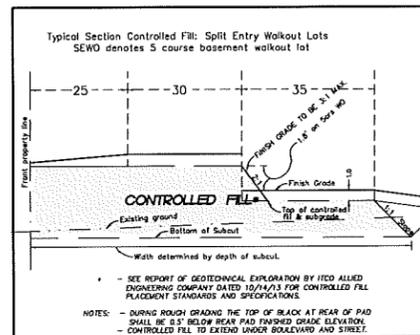
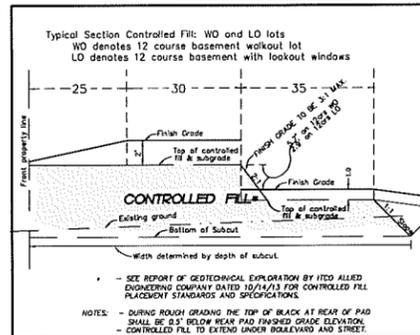
NORTH

# LOT TABULATION, AND GRADING DETAILS

~of~ VIKING PRESERVE  
 ~for~ SHAW TRUCKING, INC.  
 18530 Buchanan Street N.E.  
 East Bethel, MN 55011



## LOT GRADING DETAIL



## LOT INFORMATION TABULATION

VIKING PRESERVE												
Lot	Block	Proposed House Type	Street Elevation	Gar. Floor Elevation	Lowest Opening	Lowest Floor	100 yr. flood Elevation	Overflow Elevation	Mottling Elevation	Water Elevation	Highest Anticipated Water Elevation	SOURCE
1	1	S.E.	904.7	906.2	906.6	903.4	897.9	899.9	895.7	888.2	891.2	Boring 1
2	1	S.E.	903.9	905.5	905.9	902.7	897.9	899.9	895.7	888.2	891.2	Boring 1
3	1	S.E.	902.8	904.3	904.7	901.5	897.9	899.9	895.7	888.2	891.2	Boring 1
4	1	S.E.	902.4	903.9	904.3	901.1	897.9	899.9	895.7	888.2	891.2	Boring 1
5	1	S.E.	902.5	904.6	905.0	901.8	900.3	899.9	895.7	888.2	891.2	Boring 1

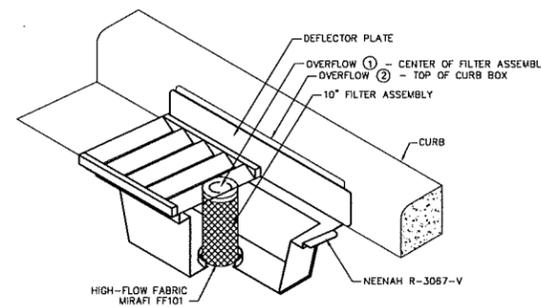
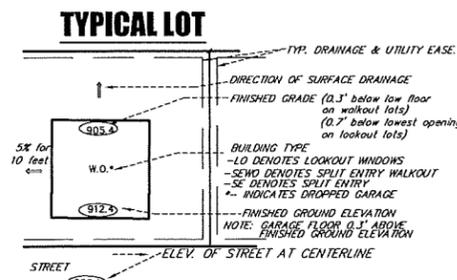
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1	2	S.E.W.O.	902.7	905.3	902.5	902.5	897.8	901.0	898.6	891.1	894.1	Boring 6
2	2	S.E.W.O.	902.4	905.3	902.5	902.5	897.8	901.0	898.6	891.1	894.1	Boring 6
3	2	S.E.	901.2	904.4	904.8	901.6	897.8	901.0	898.6	891.1	894.1	Boring 6
4	2	S.E.W.O.	901.8	905.3	902.5	902.5	897.8	901.0	898.6	891.1	894.1	Boring 6
5	2	S.E.W.O.	902.6	905.3	902.5	902.5	897.8	901.0	898.6	891.1	894.1	Boring 6
6	2	S.E.W.O.	903.6	905.4	902.6	902.6	897.8	901.0	898.6	891.1	894.1	Boring 6
7	2	S.E.W.O.	903.7	905.4	902.6	902.6	897.8	901.0	898.6	891.1	894.1	Boring 6
8	2	S.E.W.O.	903.3	905.3	902.5	902.5	898.9	901.0	897.1	889.6	892.6	Boring 7
9	2	S.E.W.O.	902.8	905.3	902.5	902.5	898.9	901.0	897.1	889.6	892.6	Boring 7
10	2	S.E.W.O.	902.4	905.3	902.5	902.5	898.9	901.0	897.1	889.6	892.6	Boring 7
11	2	S.E.W.O.	902.6	905.3	902.5	902.5	898.9	901.0	897.1	889.6	892.6	Boring 7
12	2	S.E.W.O.	903.0	905.3	902.5	902.5	898.9	901.0	897.1	889.6	892.6	Boring 7
13	2	S.E.W.O.	903.5	905.3	902.5	902.5	898.9	901.0	897.1	889.6	892.6	Boring 7
14	2	L.O.*	904.0	907.7	903.9	900.7	898.9	901.0	897.1	889.6	892.6	Boring 7
15	2	L.O.*	905.4	907.7	903.9	900.7	898.9	901.0	897.1	889.6	892.6	Boring 7

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1	3	L.O.*	903.6	906.3	902.5	899.3	897.7	901.0	NA	893.2	896.2	Boring 9
2	3	S.E.W.O.	903.3	905.3	902.5	902.5	897.7	901.0	NA	893.2	896.2	Boring 9
3	3	S.E.W.O.	902.9	905.3	902.5	902.5	897.7	901.0	NA	893.2	896.2	Boring 9
4	3	S.E.W.O.	902.5	905.3	902.5	902.5	897.7	901.0	NA	893.2	896.2	Boring 9
5	3	S.E.W.O.	902.8	905.3	902.5	902.5	897.7	901.0	NA	893.2	896.2	Boring 9
6	3	S.E.W.O.	903.2	905.3	902.5	902.5	897.7	901.0	NA	893.2	896.2	Boring 9
7	3	L.O.*	903.6	906.3	902.5	899.3	897.7	901.0	NA	893.2	896.2	Boring 9
8	3	L.O.*	903.8	906.3	902.5	899.3	897.7	901.0	NA	893.2	896.2	Boring 9
9	3	L.O.*	903.8	906.3	902.5	899.3	897.7	901.0	NA	893.2	896.2	Boring 9
10	3	S.E.W.O.	903.3	905.3	902.5	902.5	897.7	901.0	NA	893.2	896.2	Boring 9
11	3	S.E.W.O.	902.7	905.3	902.5	902.5	897.7	901.0	NA	893.2	896.2	Boring 9
12	3	S.E.	902.4	904.1	904.5	901.3	897.7	901.0	NA	893.2	896.2	Boring 9
13	3	S.E.	901.5	903.5	903.9	900.7	897.7	901.0	NA	893.2	896.2	Boring 9
14	3	S.E.W.O.	902.2	905.3	902.5	902.5	897.7	901.0	NA	893.2	896.2	Boring 9
15	3	L.O.*	902.8	906.3	902.5	899.3	897.7	901.0	NA	893.2	896.2	Boring 9
16	3	L.O.*	903.1	906.3	902.5	899.3	897.7	901.0	NA	893.2	896.2	Boring 9
17	3	L.O.*	902.9	906.3	902.5	899.3	897.7	901.0	NA	893.2	896.2	Boring 9
18	3	S.E.W.O.	902.4	905.3	902.5	902.5	897.7	901.0	NA	893.2	896.2	Boring 9
19	3	S.E.W.O.	902.2	905.3	902.5	902.5	897.7	901.0	897.5	891.0	894.0	Boring 3
20	3	S.E.W.O.	902.9	905.3	902.5	902.5	897.7	901.0	897.5	891.0	894.0	Boring 3
21	3	S.E.W.O.	903.4	905.3	902.5	902.5	897.7	901.0	897.5	891.0	894.0	Boring 3
22	3	S.E.W.O.	903.2	905.3	902.5	902.5	897.7	901.0	897.5	891.0	894.0	Boring 3
23	3	S.E.W.O.	902.3	905.3	902.5	902.5	897.7	901.0	897.5	891.0	894.0	Boring 3
24	3	S.E.W.O.	901.6	905.3	902.5	902.5	899.0	901.0	896.1	895.1	896.1	Boring 5
25	3	S.E.W.O.	901.4	905.3	902.5	902.5	899.0	901.0	896.1	895.1	896.1	Boring 5

VIKING PRESERVE												
Lot	Block	Proposed House Type	Street Elevation	Gar. Floor Elevation	Lowest Opening	Lowest Floor	B-B flood Elevation	Overflow Elevation	Mottling Elevation	Water Elevation	Highest Anticipated Water Elevation	SOURCE
1	4	S.E.W.O.	903.4	904.9	902.1	902.1	899.0	899.0	896.1	895.1	896.1	Boring 5
2	4	S.E.W.O.	903.5	905.1	902.3	902.3	899.0	899.0	896.1	895.1	896.1	Boring 5
3	4	S.E.W.O.	902.7	904.6	902.0	902.0	899.0	899.0	896.1	895.1	896.1	Boring 5

## LOWEST FLOOR / OPENING NOTES:

- Minimum Low Floor Elevation - 1.5 feet above 100 year HWL  
3.0 feet above highest anticipated water table  
3.0 feet above 100 year back to back HWL  
3.0 feet above mottled soils.
- Minimum Lowest Opening - 1.5 feet above emergency overflow elevation



**WIMCO INLET PROTECTION**  
 N.T.S.

GRADING, LOT GRADING DETAILS AND PONDING SLOPES BY RUDS LAND SURVEYING, INC. 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: 07-11-14 License No. 41578

PONDING CALCULATIONS, EROSION CONTROL, REVEGETATION, AND STORM SEWER DESIGN BY PLOWE ENGINEERING, INC.

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

ADAM GINZEL  
 DATE: 07.11.2014 LIC. NO. 43963

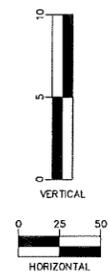
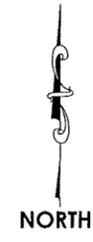
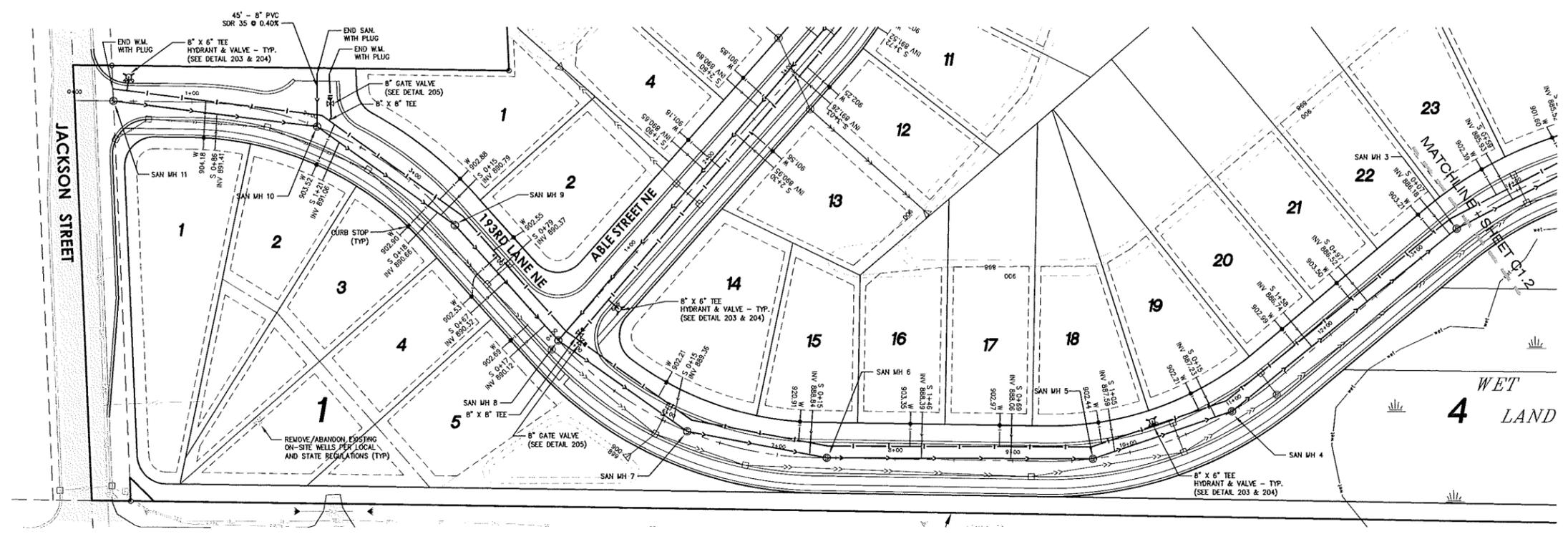
**E.G. RUD & SONS, INC.**  
 EST. 1977 Professional Land Surveyors  
 6776 Lake Drive NE, Suite 110 Lino Lakes, MN 55014  
 Tel. (651) 361-8200 Fax (651) 361-8701

DRAWN BY: MWD	JOB NO: 13630PP	DATE: 11/12/13
CHECK BY: JER	SCANNED	
1	01/07/14	CITY COMMENTS MWD
2	02/03/14	REVISED LAYOUT MWD
3	07/11/14	CITY COMMENTS MWD
NO.	DATE	DESCRIPTION BY

SEE SHEET C0 FOR LEGEND AND GENERAL CONSTRUCTION NOTES

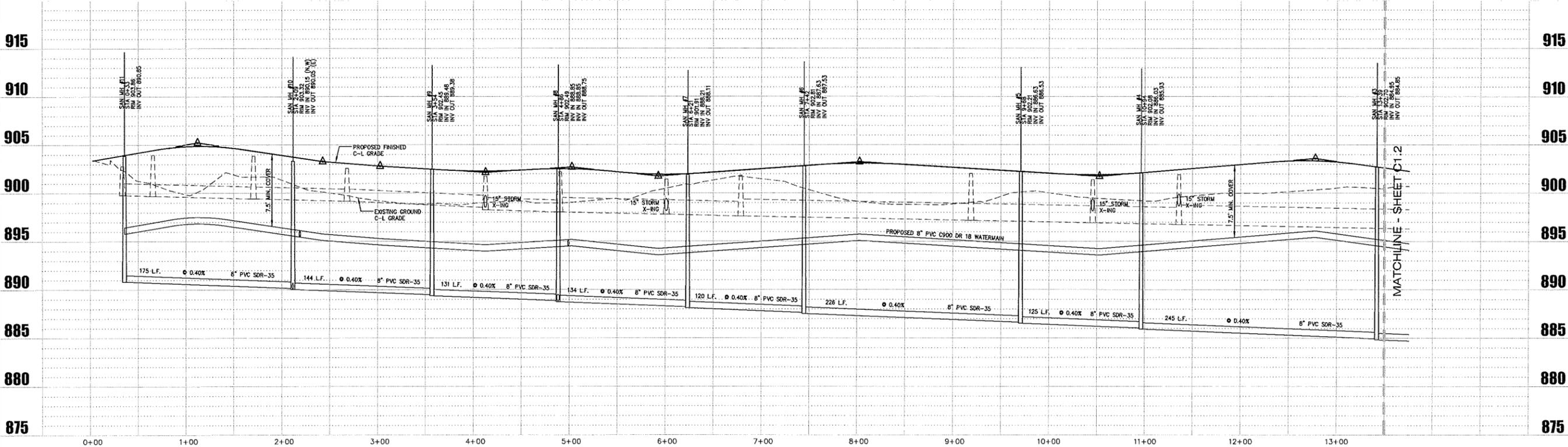
SEE SHEET C3.1 FOR WATER AND SANITARY SEWER DETAILS

DRAWN BY: A.G.  
 DESIGN BY: A.G.  
 CHCKD BY: PROJ. NO.  
 C.W.P. 13-1445  
 ORIGINAL DATE:  
 NOVEMBER 12, 2013



Know what's below.  
 Call before you dig.

# 193rd LANE N.E.



DATE	REVISION DESCRIPTION
1-7-14	CITY REVIEW #1
2-3-14	STREET, LOT, AND POND LAYOUT D.I.
7-11-14	CITY REVIEW #2

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.  
**Adam Gankel**  
 ADAM GANKEL  
 DATE: 07.11.2014 LIC. NO. 43963

**VIKING PRESERVE**  
 EAST BETHEL, MN  
 PLAN PROFILE (SANITARY/WATER)  
 193RD LANE NE

PREPARED FOR:  
 SHAW TRUCKING, INC.

**Plowe**  
 ENGINEERING, INC.  
 8775 LAKE DRIVE  
 SUITE 110  
 LINDO LAKES, MN 55014  
 PHONE: (651) 361-8210  
 FAX: (651) 361-8701

PLAN/PROFILE - 193RD LANE NE  
 (SANITARY SEWER & WATERMAIN)  
 VIKING PRESERVE

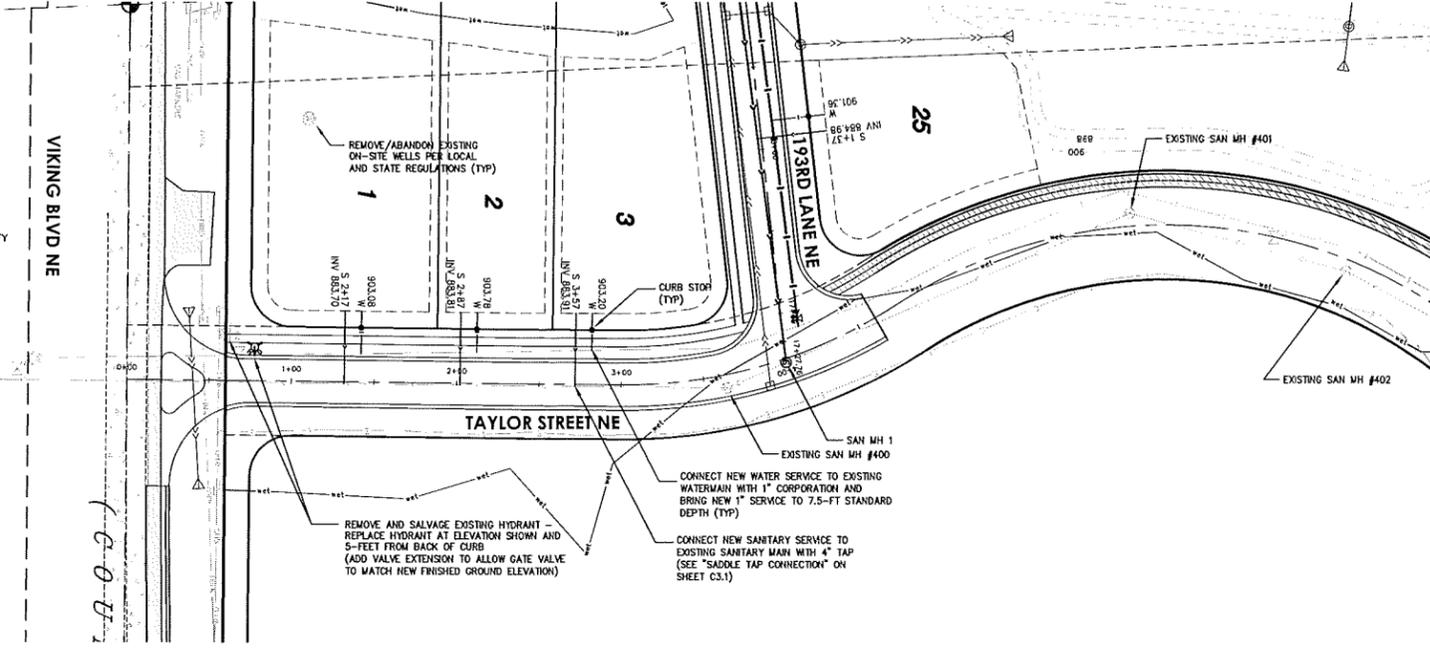
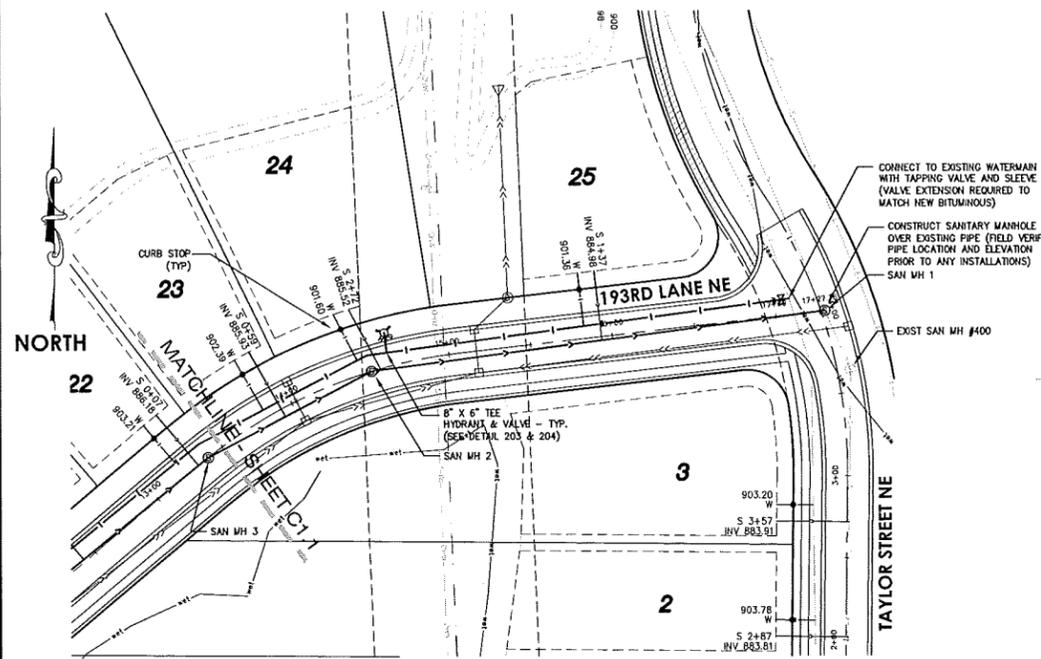
# C1.1

SEE SHEET C0 FOR LEGEND AND GENERAL CONSTRUCTION NOTES

SEE SHEET C3.1 FOR WATER AND SANITARY SEWER DETAILS

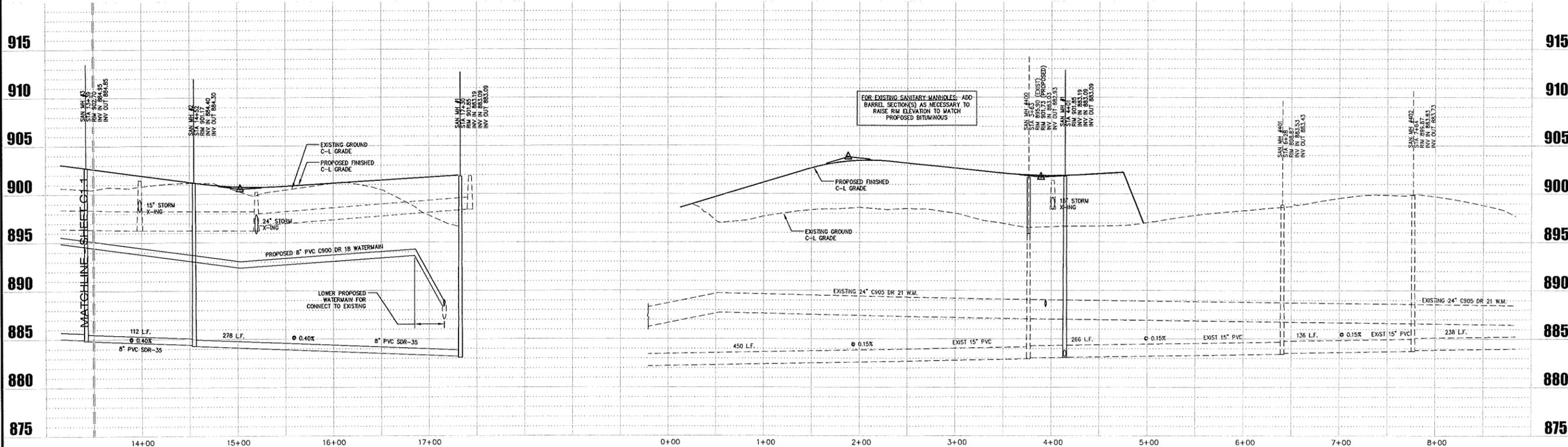


Know what's below.  
Call before you dig.



193rd LANE N.E.

TAYLOR STREET N.E.



PLAN/PROFILE - 193RD LANE NE/TAYLOR STREET NE  
(SANITARY SEWER & WATERMAIN)  
VIKING PRESERVE

DRAWN BY:	DESIGN BY:
A.G.	A.G.
CHKD BY:	PROJ. NO.
C.W.P.	13-1445
ORIGINAL DATE:	
NOVEMBER 12, 2013	

DATE	REVISION DESCRIPTION
1-2-14	CITY REVIEW #1
2-3-14	STREET LAYOUT AND POND LAYOUT D.I.
7-11-14	CITY REVIEW #2

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

**ADAM GANKEL**  
L.C. NO. 49983  
DATE: 02.03.2014

VIKING PRESERVE  
EAST BETHEL, MN  
PLAN PROFILE (SANITARY/WATER)  
193RD LANE NE & TAYLOR STREET NE

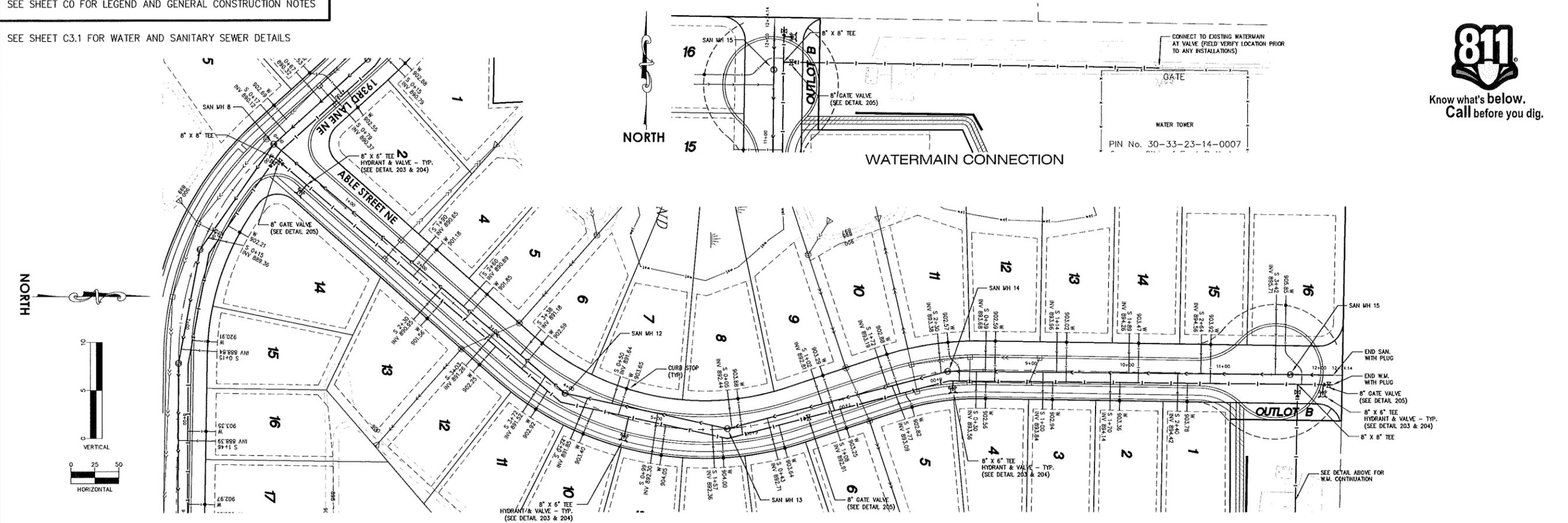
PREPARED FOR:  
SHAW TRUCKING, INC.

**Plowe**  
ENGINEERING, INC.  
0776 LAKE DRIVE  
SUITE 110  
LINO LAKES, MN 55014  
PHONE: (651) 361-8210  
FAX: (651) 361-0701

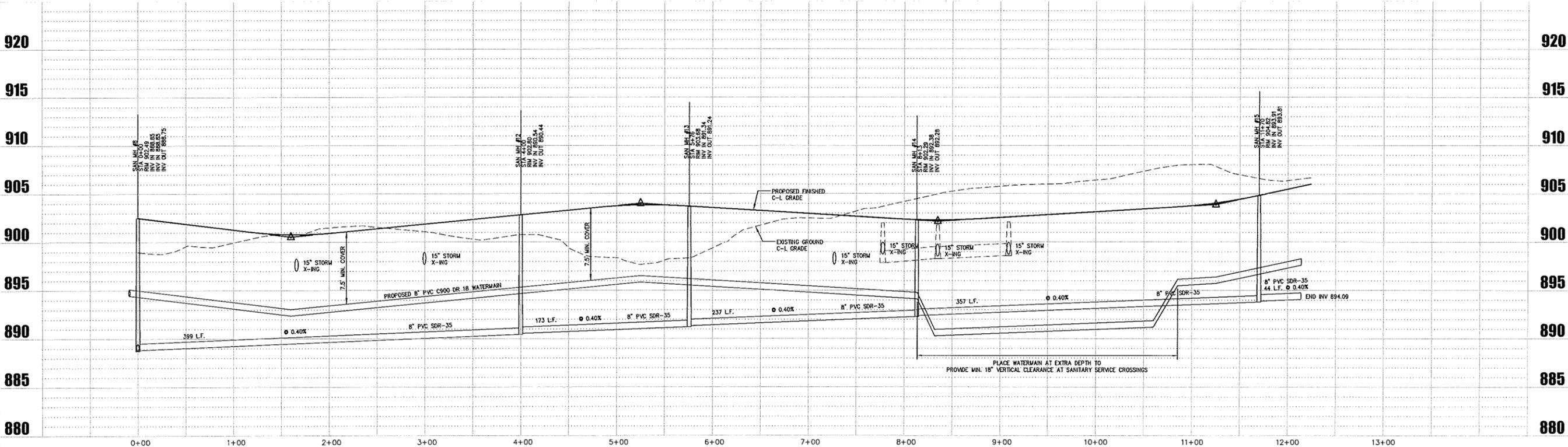
**C1.2**

SEE SHEET C0 FOR LEGEND AND GENERAL CONSTRUCTION NOTES

SEE SHEET C3.1 FOR WATER AND SANITARY SEWER DETAILS



# ABLE STREET N.E.



PLAN/PROFILE - ABLE STREET NE  
(SANITARY SEWER & WATERMAIN)  
VIKING PRESERVE



Know what's below.  
Call before you dig.

DRAWN BY:	DESIGN BY:
A.G.	A.G.
CHCKD BY:	PROJ. NO.
C.W.P.	13-1445
ORIGINAL DATE:	
NOVEMBER 12, 2013	

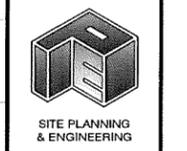
DATE	REVISION DESCRIPTION
1-7-14	CITY REVIEW #1
2-3-14	STREET, LOT, AND POND LAYOUT D.I.
7-1-14	CITY REVIEW #2

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

**ADAM GANKEL**  
L.C. NO. 43953  
DATE: 02-03-2014

VIKING PRESERVE  
EAST BETHEL, MN  
PLAN PROFILE (SANITARY/WATERMAIN)  
ABLE STREET NE

PREPARED FOR:  
SHAW TRUCKING, INC.

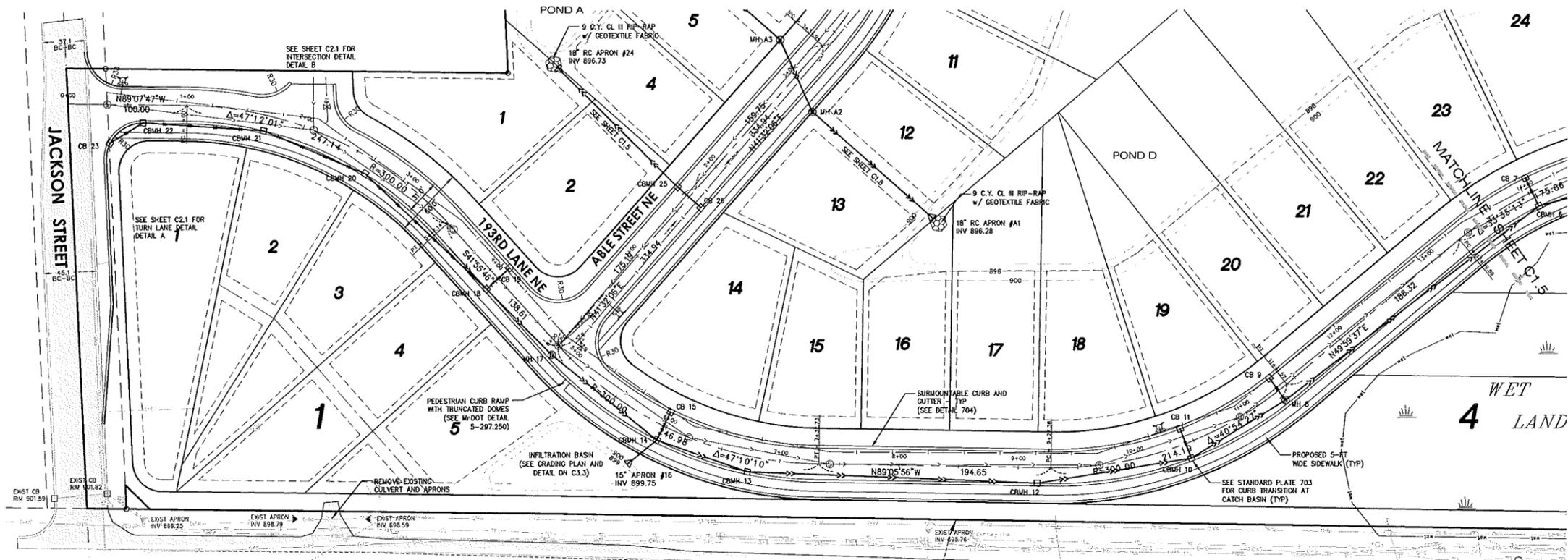


**PLOWE**  
ENGINEERING, INC.  
6776 LAKE DRIVE  
SUITE 110  
LINO LAKES, MN 55014  
PHONE: (651) 361-8210  
FAX: (651) 361-8701

SEE SHEET C0 FOR LEGEND AND GENERAL CONSTRUCTION NOTES

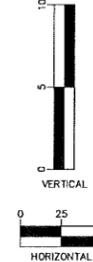
SEE SHEETS C3.2 & C3.3 FOR STORM SEWER AND STREET DETAILS

DRAWN BY:	DESIGN BY:
A.G.	A.G.
CHKD BY:	PROJ. NO.
C.W.P.	13-1446
ORIGINAL DATE:	
NOVEMBER 12, 2013	



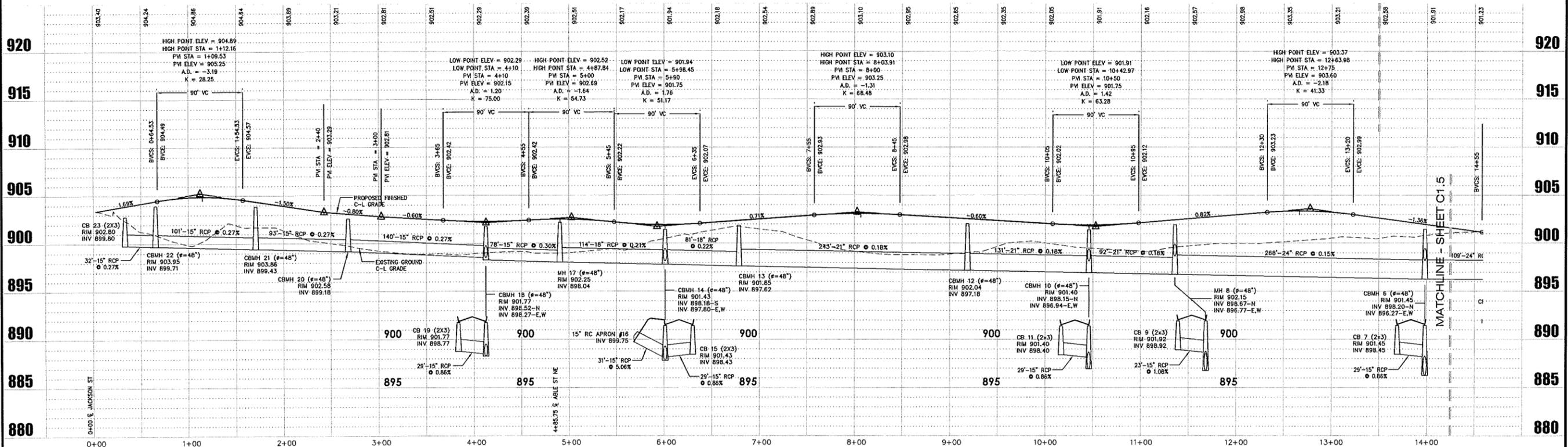
### BENCHMARK

MNDOT NAME: DENN MNDT ELEV. = 899.21 (NAVD88)  
 1.5 MILES NORTH OF HAM LAKE, AT TRUNK HIGHWAY 65 MILEPOINT 23.2, 1.5 MILES NORTH ALONG TRUNK HIGHWAY 65 FROM JUNCTION OF TRUNK HIGHWAY 65 AND COUNTY ROAD 18 (CROSSTOWN BLVD), 70 FEET EAST OF TRUNK HIGHWAY 65, 61.1 FEET NORTHWEST OF WESTERN MOST LEG OF ANTIQUES SIGN, 22.5 FEET NORTH OF POWER POLE, 31.5 FEET WEST-SOUTHWEST OF RIGHT-OF-WAY POST, 9.4 FEET SOUTHWEST OF RIGHT-OF-WAY POST, 3.0 FEET NORTH OF WITNESS POST.



Know what's below.  
Call before you dig.

## 193rd LANE N.E.



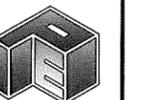
PLAN/PROFILE - 193RD LANE NE  
(STORM SEWER & STREET)  
VIKING PRESERVE

I HEREBY CERTIFY THAT THE 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.

**ADAM GANKEL**  
L.C. NO. 43983  
DATE: 08.03.2014

VIKING PRESERVE  
EAST BETHEL, MN  
PLAN PROFILE (STORM/STREET)  
193RD LANE NE

PREPARED FOR:  
SHAW TRUCKING, INC.



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

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

**C1.4**

SEE SHEET C0 FOR LEGEND AND GENERAL CONSTRUCTION NOTES

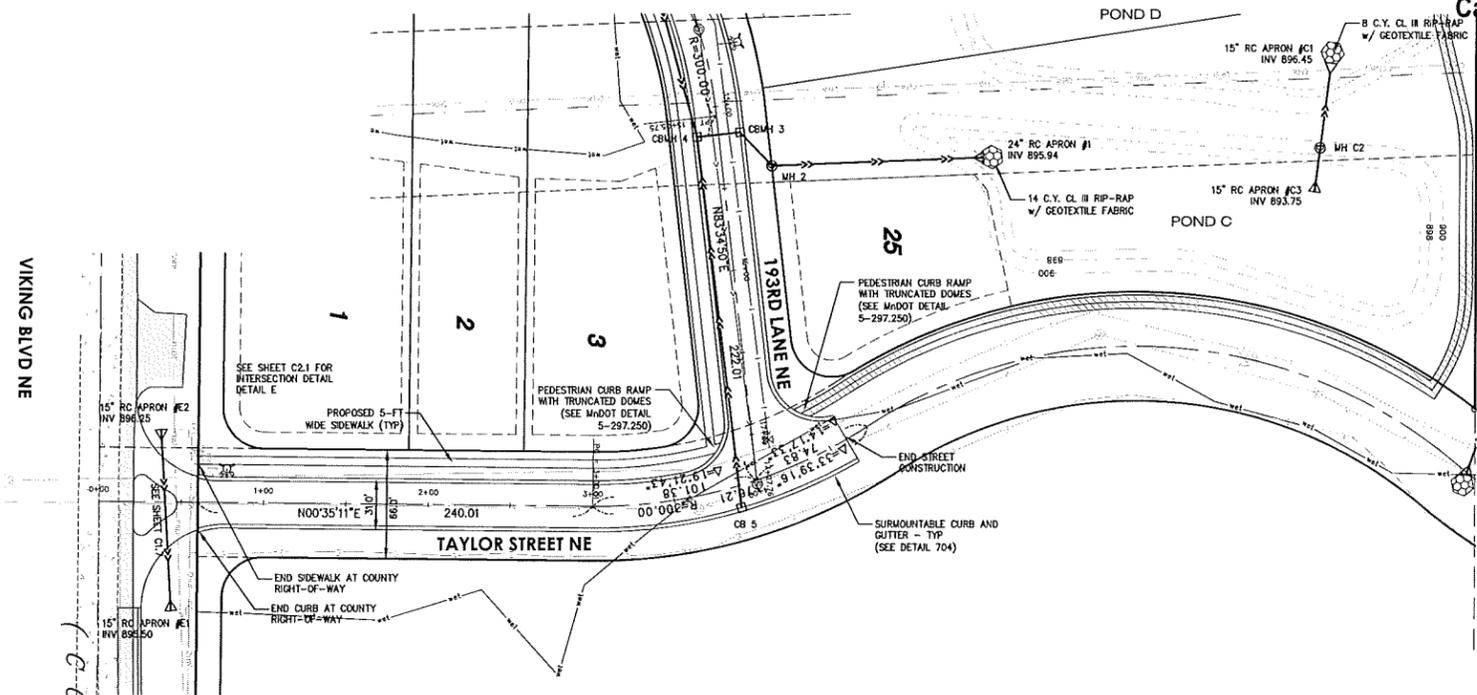
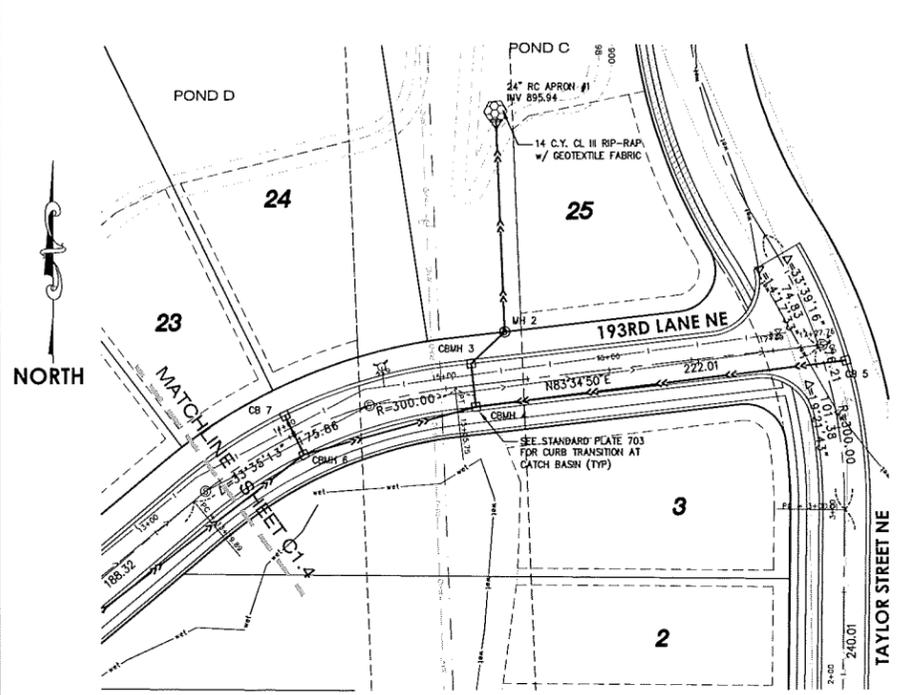
SEE SHEET C3.1 FOR WATER AND SANITARY SEWER DETAILS

**BENCHMARK**

MNDOT NAME: DENN MNDT ELEV. = 899.21 (NAVD88)  
 1.5 MILES NORTH OF HAM LAKE, AT TRUNK HIGHWAY 65 MILEPOINT 23.2, 1.5 MILES NORTH ALONG TRUNK HIGHWAY 65 FROM JUNCTION OF TRUNK HIGHWAY 65 AND COUNTY ROAD 18 (CROSSTOWN BLVD), 70 FEET EAST OF TRUNK HIGHWAY 65, 61.1 FEET NORTHWEST OF WESTERN MOST LEG OF ANTIQUES SIGN, 22.5 FEET NORTH OF POWER POLE, 31.5 FEET WEST-SOUTHWEST OF RIGHT-OF-WAY POST, 9.4 FEET SOUTHWEST OF RIGHT-OF-WAY POST, 3.0 FEET NORTH OF WITNESS POST.

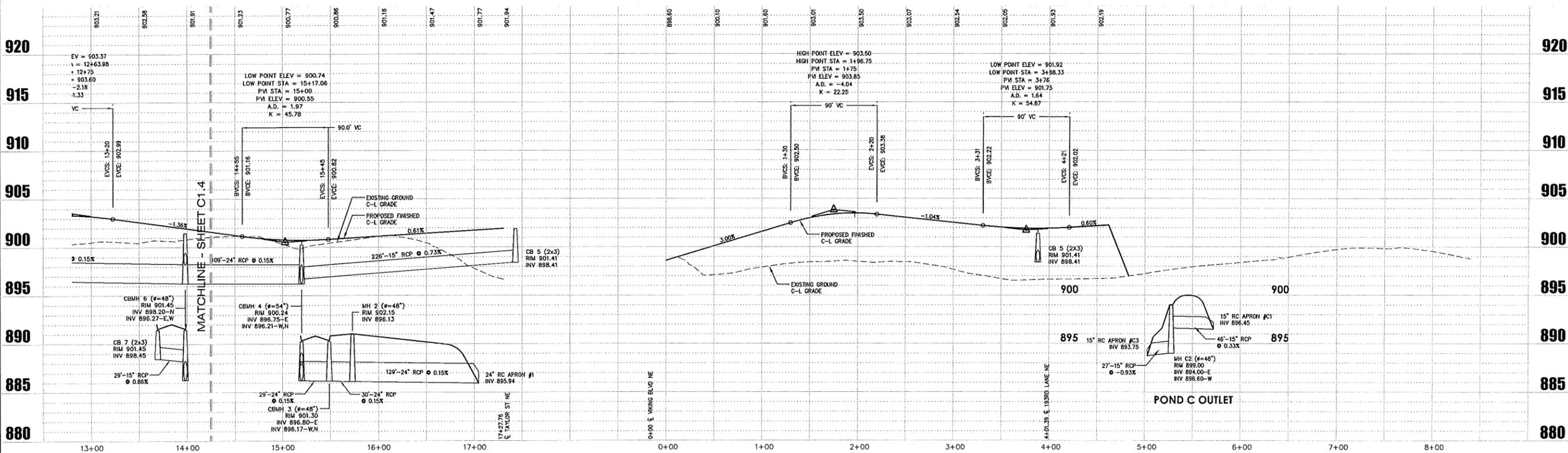


Know what's below.  
 Call before you dig.



**193rd LANE N.E.**

**TAYLOR STREET N.E.**



PLAN/PROFILE - 193RD LANE NE/TAYLOR STREET NE  
 (STORM SEWER & STREET)  
 VIKING PRESERVE

DRAWN BY:	DESIGN BY:
A.G.	A.G.
CHECKED BY:	PROJ. NO.
C.W.P.	13-1446
ORIGINAL DATE:	
NOVEMBER 12, 2013	

DATE	REVISION DESCRIPTION
1-7-14	CITY REVIEW #1
2-3-14	STREET LOT AND POND LAYOUT D1
7-11-14	CITY REVIEW #2

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.

**ADAM GANKEL**  
 ADAM GANKEL  
 DATE: 08.03.2014 LIC. NO. 43963

**VIKING PRESERVE**  
 EAST BETHEL, MN  
 PLAN PROFILE (STORM/STREET)  
 193RD LANE NE & TAYLOR STREET NE

PREPARED FOR:  
**SHAW TRUCKING, INC.**

**SITE PLANNING & ENGINEERING**

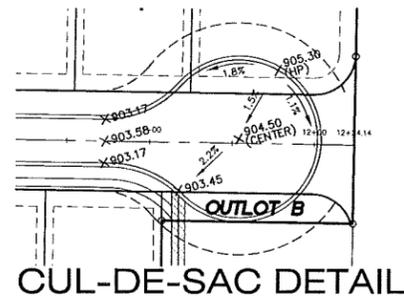
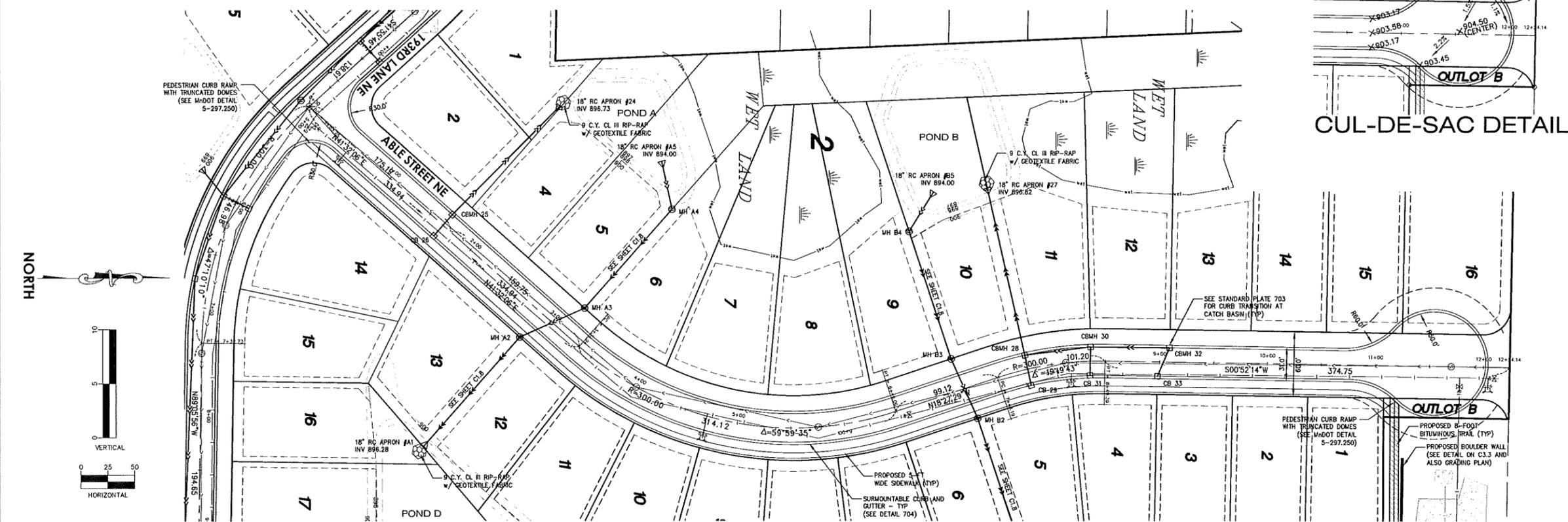
**PLOWE ENGINEERING, INC.**  
 6776 LAKE DRIVE  
 SUITE 110  
 LINDO LAKES, MN 55014

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

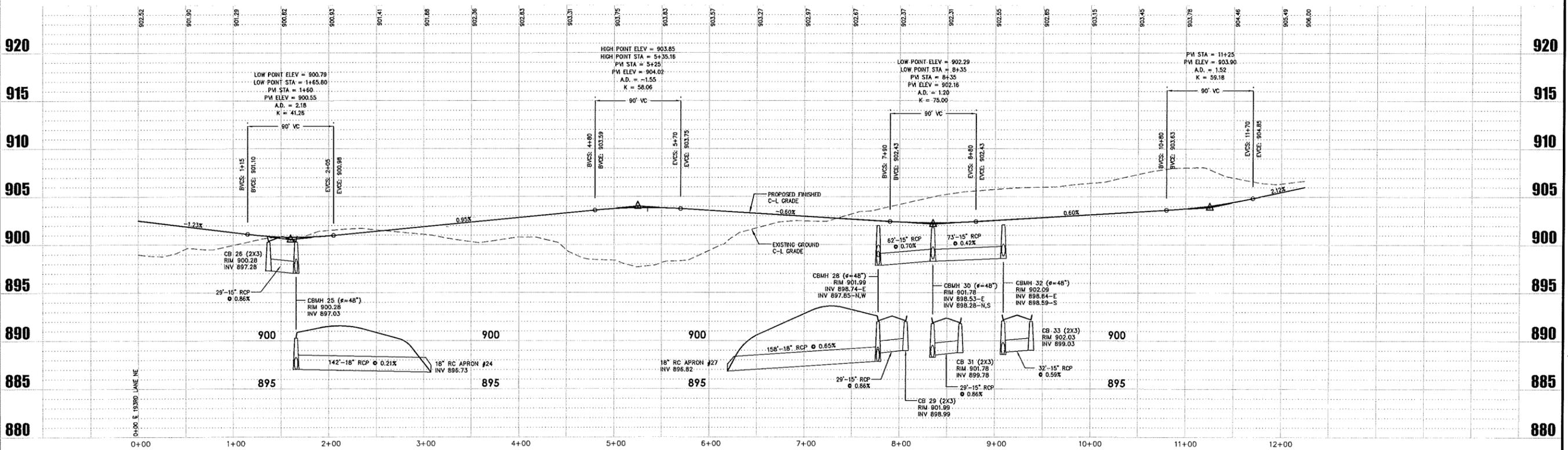
**C1.5**

SEE SHEET C0 FOR LEGEND AND GENERAL CONSTRUCTION NOTES

SEE SHEET C3.1 FOR WATER AND SANITARY SEWER DETAILS



### ABLE STREET N.E.



PLAN/PROFILE - ABLE STREET NE  
(STORM SEWER & STREET)  
VIKING PRESERVE

DRAWN BY:	DESIGN BY:
A.G.	A.G.
CHKD BY:	PROJ. NO.
C.W.P.	13-1445
ORIGINAL DATE:	
NOVEMBER 12, 2013	

DATE	REVISION DESCRIPTION
1-7-14	CITY REVIEW #1
2-3-14	STREET, LOT, AND POND LAYOUT D.I.
7-11-14	CITY REVIEW #2

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

*Adam Gniel*  
ADAM GNIEL  
DATE: 02.03.2014 LIC. NO. 43969

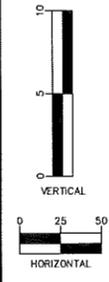
VIKING PRESERVE  
EAST BETHEL, MN  
PLAN PROFILE (STORM/STREET)  
ABLE STREET NE

PREPARED FOR:  
SHAW TRUCKING, INC.

SITE PLANNING & ENGINEERING  
**PLOWE**  
ENGINEERING, INC.  
8776 LAKE DRIVE  
SUITE 110  
LINO LAKES, MN 55014  
PHONE: (651) 361-8210  
FAX: (651) 361-8701

**C1.6**

SEE SHEET C0 FOR LEGEND AND GENERAL CONSTRUCTION NOTES



Know what's below.  
Call before you dig.

DRAWN BY:	DESIGN BY:
A.G.	A.G.
CHECKED BY:	PROJ. NO.
C.W.P.	13-1445
ORIGINAL DATE:	
NOVEMBER 12, 2013	

DATE	REVISION DESCRIPTION
1-7-14	CITY REVIEW #1
2-3-14	STREET LOT AND POND LAYOUT D.I.
7-11-14	CITY REVIEW #2

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

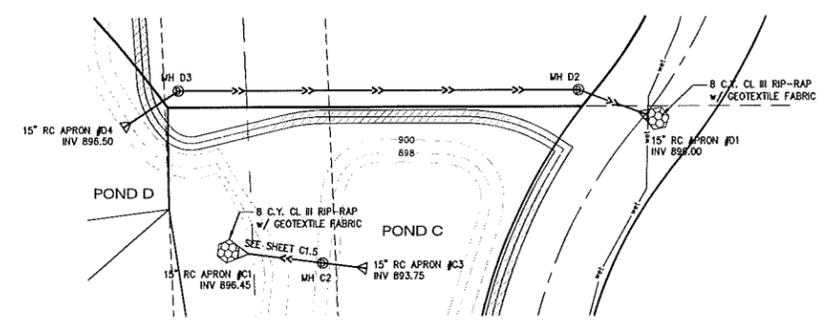
**ADAM GANIKEL**  
DATE: 02.05.2014 LIC. NO. 43968

VIKING PRESERVE  
EAST BETHEL, MN  
PLAN PROFILE (STORM SEWER)  
MISCELLANEOUS

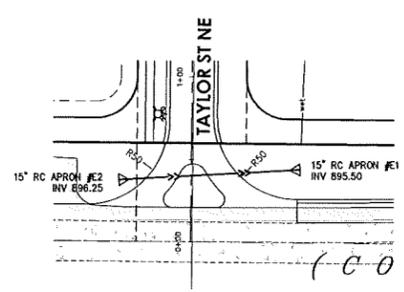
PREPARED FOR:  
SHAW TRUCKING, INC.

**PLOWE**  
ENGINEERING, INC.  
6776 LAKE DRIVE  
SUITE 110  
LINO LAKES, MN 55014  
PHONE: (651) 361-8210  
FAX: (651) 361-8701

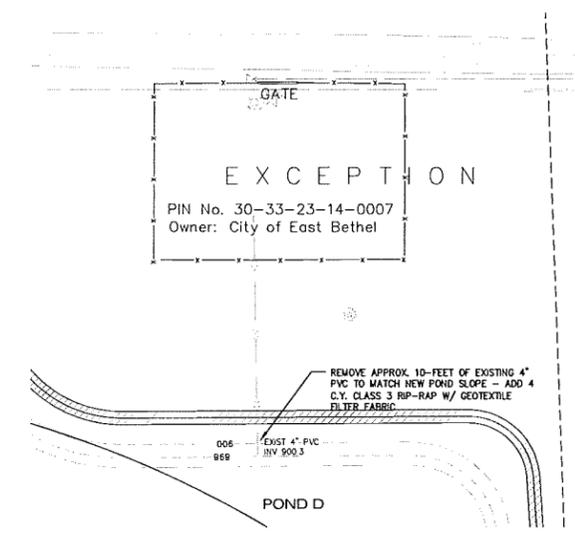
**C1.7**



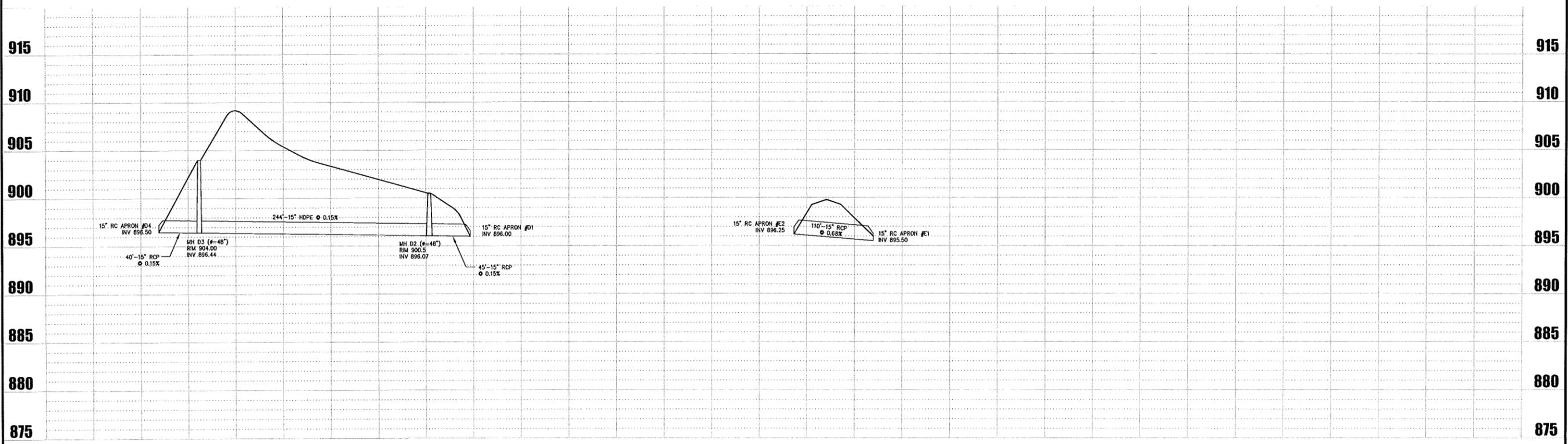
POND "D" OUTLET



CULVERT

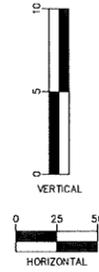


WATER TOWER  
OVERFLOW DRAIN



PLAN/PROFILE - STORM SEWER  
(MISCELLANEOUS)  
VIKING PRESERVE

SEE SHEET C0 FOR LEGEND AND GENERAL CONSTRUCTION NOTES



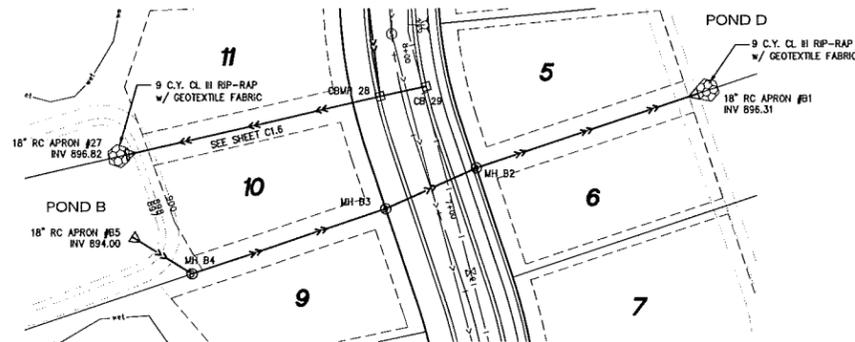
Know what's below.  
Call before you dig.

DRAWN BY: A.G. DESIGN BY: A.G.  
CHCKD BY: PROJ. NO. 13-1445  
C.W.P. 13-1445  
ORIGINAL DATE: NOVEMBER 12, 2013

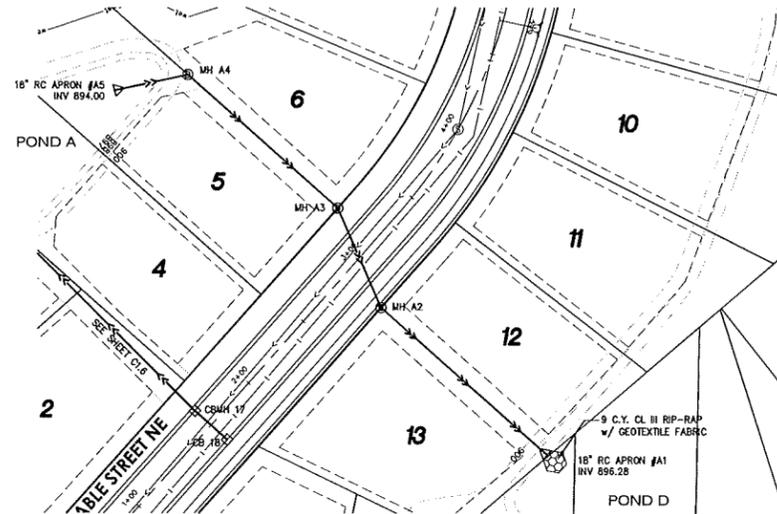
DATE	REVISION DESCRIPTION
1-7-14	CITY REVIEW #1
2-3-14	STREET, LOT, AND POND LAYOUT D.I.
7-11-14	CITY REVIEW #2

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 MINNESOTA.

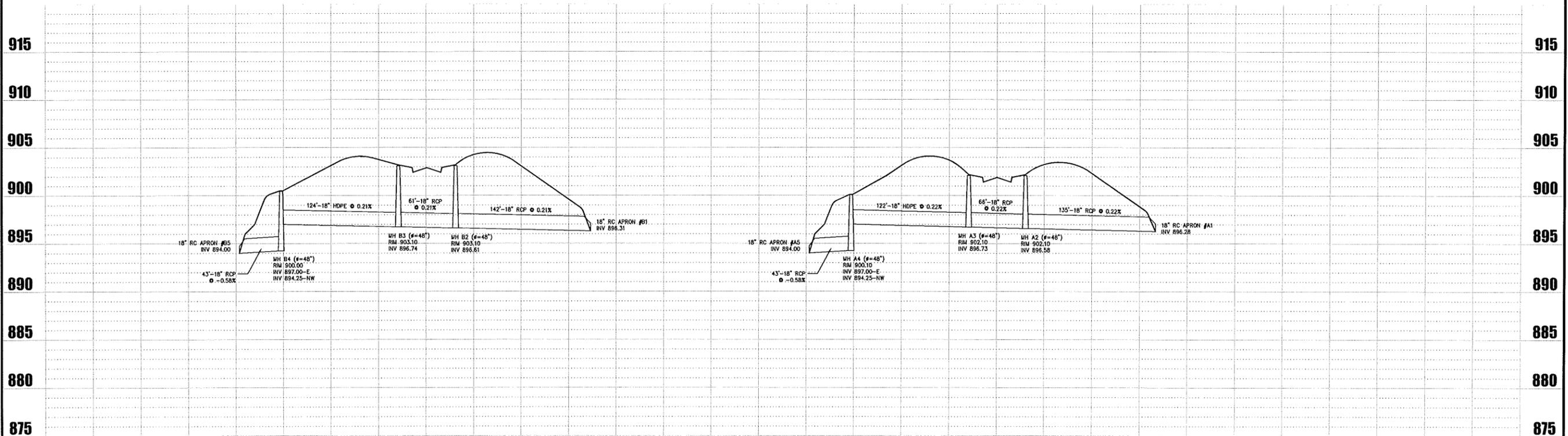
*Adam Gankel*  
ADAM GANKEL  
LIC. NO. 43953  
DATE: 02.03.2014



POND "B" OUTLET



POND "A" OUTLET



PLAN/PROFILE - STORM SEWER  
(MISCELLANEOUS)  
VIKING PRESERVE

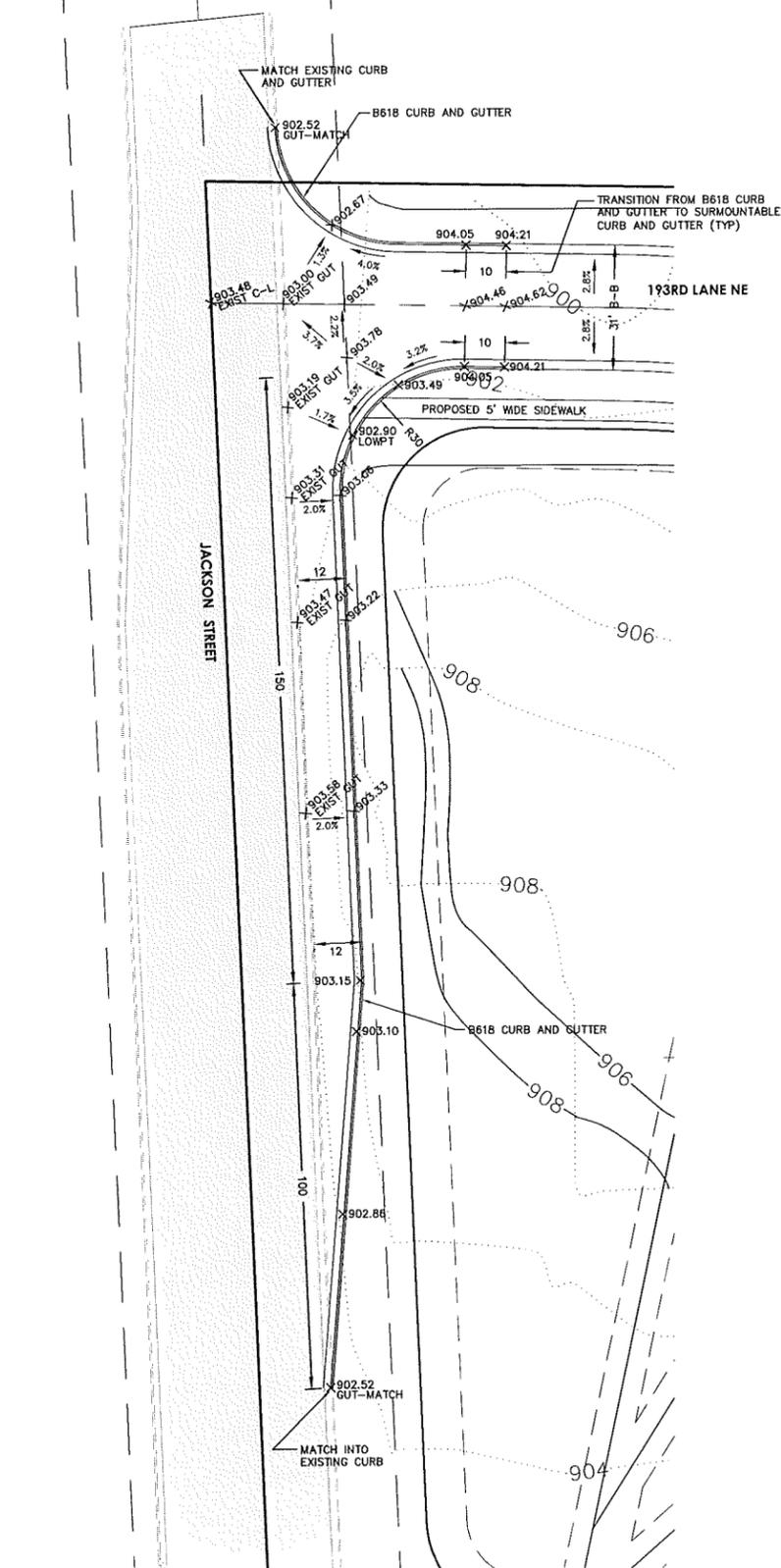
VIKING PRESERVE  
EAST BETHEL, MN  
PLAN PROFILE (STORM SEWER)  
MISCELLANEOUS

PREPARED FOR:  
SHAW TRUCKING, INC.

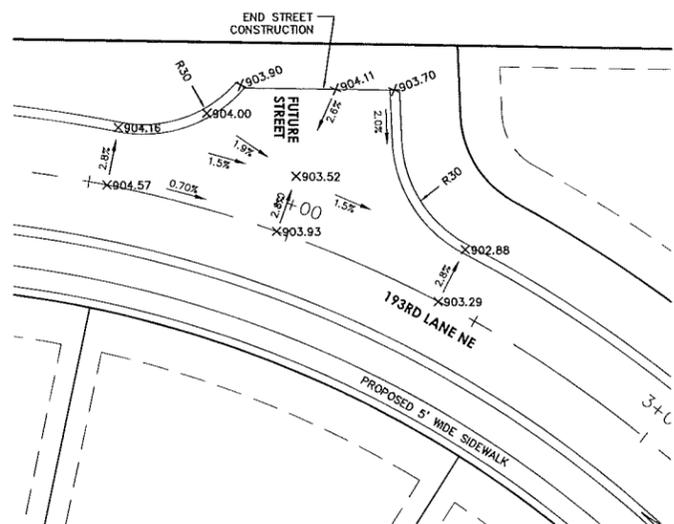


SITE PLANNING & ENGINEERING  
**PLOWE**  
ENGINEERING, INC.  
8776 LAKE DRIVE  
SUITE 110  
LINO LAKES, MN 55014  
PHONE: (651) 361-8210  
FAX: (651) 361-8701

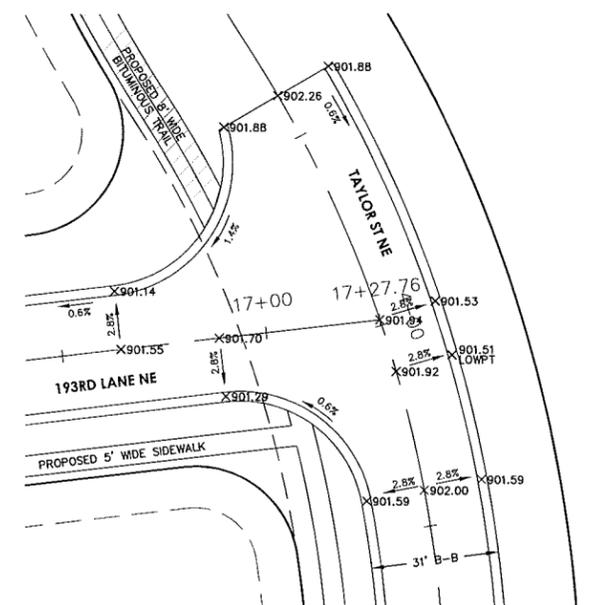
**C1.8**



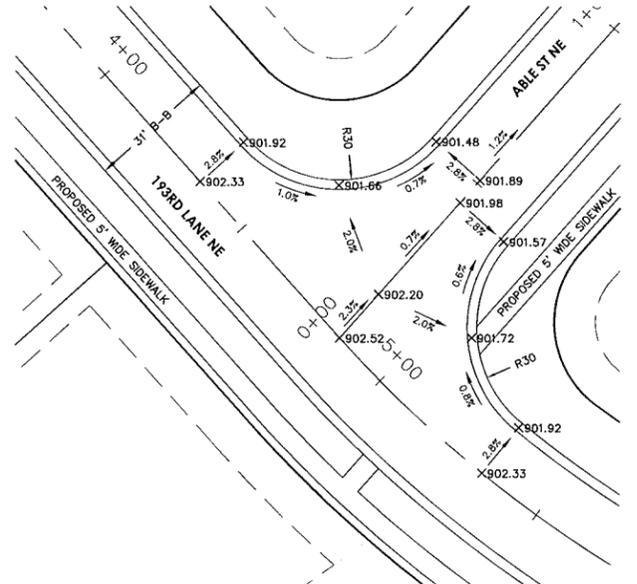
○ DETAIL A - JACKSON ST / 193RD LANE NE



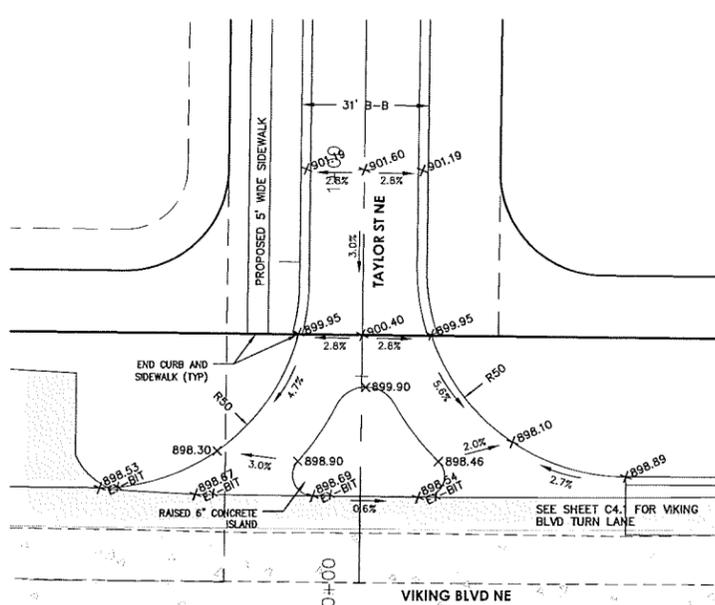
○ DETAIL B - 193RD LANE NE / FUTURE STREET



○ DETAIL D - 193RD LANE NE / TAYLOR ST NE



○ DETAIL C - 193RD LANE NE / ABLE ST NE



○ DETAIL E - VIKING BLVD NE / TAYLOR ST NE

DRAWN BY: A.G.  
 CHCKD BY: A.G.  
 C.W.P.: PROJ. NO. 13-1445  
 ORIGINAL DATE: NOVEMBER 12, 2013

DATE	REVISION DESCRIPTION
1-7-14	CITY REVIEW #1
7-11-14	CITY REVIEW #2

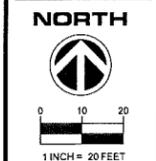
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF MINNESOTA.  
**Adam Gankel**  
 ADAM GANKEL  
 LIC. NO. 439863  
 DATE: 02.03.2014

**VIKING PRESERVE**  
 EAST BETHEL, MN  
 STREET INTERSECTION DETAILS

PREPARED FOR:  
 SHAW TRUCKING, INC.

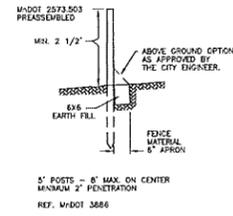
**PLOWE**  
 ENGINEERING, INC.  
 6776 LAKE DRIVE  
 SUITE 110  
 LINO LAKES, MN 55014

PHONE: (651) 361-9210  
 FAX: (651) 361-8701



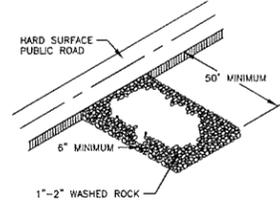
**G2.1**

STREET INTERSECTION DETAILS  
 VIKING PRESERVE



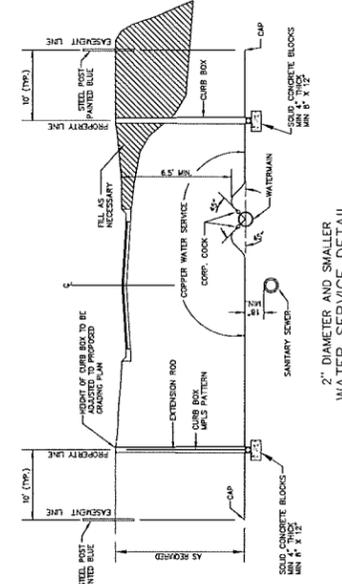
**SILT FENCE INSTALLATION**  
NO SCALE

APPROVED 3-02-05	CITY OF EAST BETHEL	STANDARD PLATE No. 501
REVISED 10-07-13		



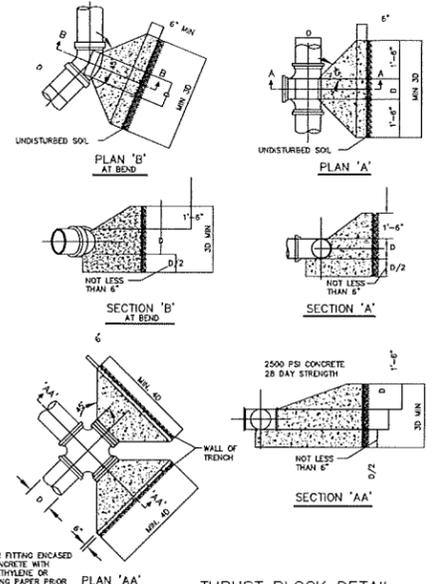
**ROCK CONSTRUCTION ENTRANCE**  
NO SCALE

APPROVED 3-02-05	CITY OF EAST BETHEL	STANDARD PLATE No. 505
REVISED		



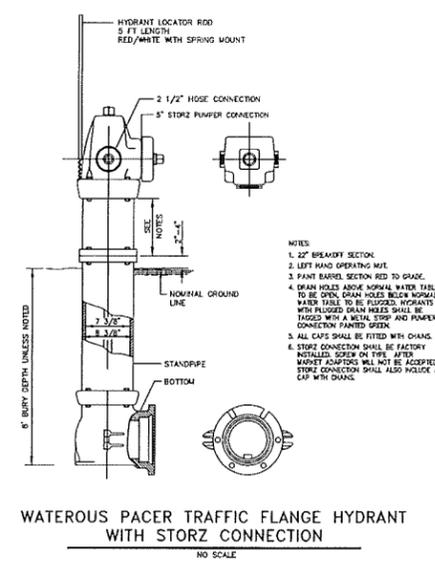
**2" DIAMETER AND SMALLER  
WATER SERVICE DETAIL**  
NO SCALE

APPROVED 3-02-05	CITY OF EAST BETHEL	STANDARD PLATE No. 200
REVISED 10-07-13		



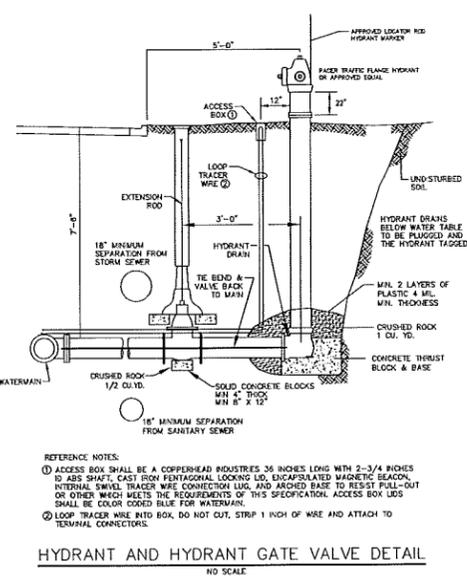
**THRUST BLOCK DETAIL**  
NO SCALE

APPROVED 3-02-05	CITY OF EAST BETHEL	STANDARD PLATE No. 202
REVISED		



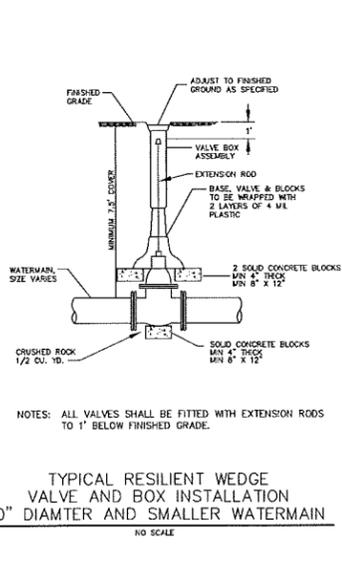
**WATEROUS PACER TRAFFIC FLANGE HYDRANT  
WITH STORZ CONNECTION**  
NO SCALE

APPROVED 3-02-05	CITY OF EAST BETHEL	STANDARD PLATE No. 203
REVISED 10-07-13		



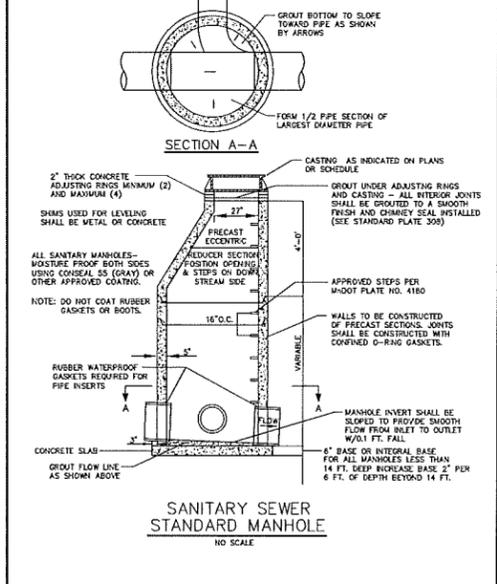
**HYDRANT AND HYDRANT GATE VALVE DETAIL**  
NO SCALE

APPROVED 3-02-05	CITY OF EAST BETHEL	STANDARD PLATE No. 204
REVISED 10-07-13		



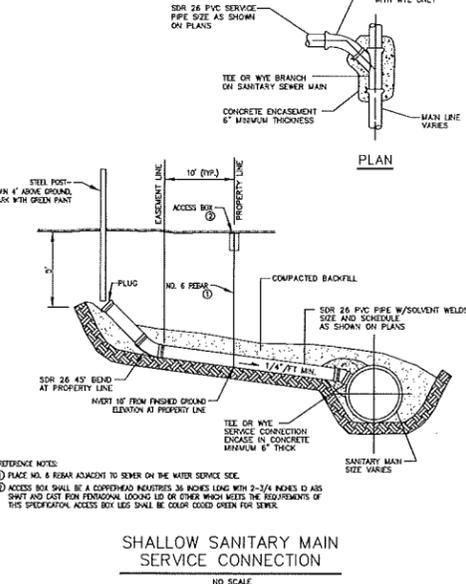
**TYPICAL RESILIENT WEDGE  
VALVE AND BOX INSTALLATION  
10" DIAMETER AND SMALLER WATERMAIN**  
NO SCALE

APPROVED 3-02-05	CITY OF EAST BETHEL	STANDARD PLATE No. 205
REVISED 10-07-13		



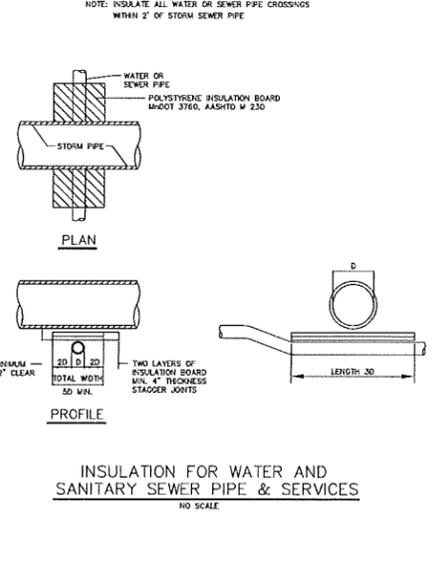
**SANITARY SEWER  
STANDARD MANHOLE**  
NO SCALE

APPROVED 3-02-05	CITY OF EAST BETHEL	STANDARD PLATE No. 300
REVISED 10-07-13		



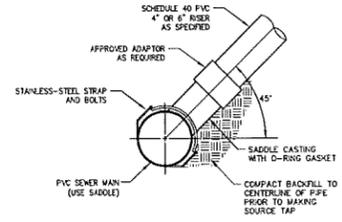
**SHALLOW SANITARY MAIN  
SERVICE CONNECTION**  
NO SCALE

APPROVED 3-02-05	CITY OF EAST BETHEL	STANDARD PLATE No. 302
REVISED 10-07-13		



**INSULATION FOR WATER AND  
SANITARY SEWER PIPE & SERVICES**  
NO SCALE

APPROVED 3-02-05	CITY OF EAST BETHEL	STANDARD PLATE No. 304
REVISED		



**SADDLE TAP CONNECTION**  
N.T.S.

APPROVED	CITY OF EAST BETHEL	STANDARD PLATE No.
REVISED		

DRAWN BY: A.G.	DESIGN BY: A.G.
CHECKD BY: C.W.P.	PROJ. NO. 13-1445
ORIGINAL DATE: NOVEMBER 12, 2013	
DATE	REVISION DESCRIPTION
1-7-14	CITY REVIEW #1
2-3-14	STREET, LOT, AND POND LAYOUT D.I.
7-11-14	CITY REVIEW #2

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

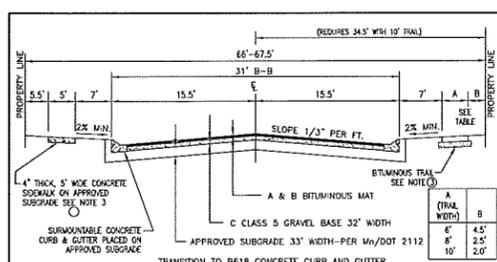
**ADAM GANKEL**  
ADAM GANKEL  
DATE: 02-03-2014 LIC. NO. 45985

**VIKING PRESERVE**  
EAST BETHEL, MN  
DETAILS

PREPARED FOR:  
**SHAW TRUCKING, INC.**

**SITE PLANNING & ENGINEERING**

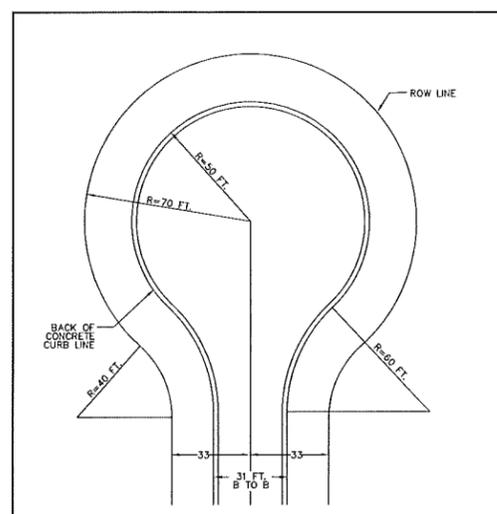
**PLOWE ENGINEERING, INC.**  
8776 LAKE DRIVE  
SUITE 110  
LINO LAKES, MN 55014  
PHONE: (651) 361-8210  
FAX: (651) 361-8701



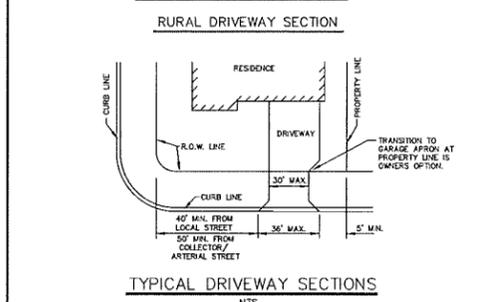
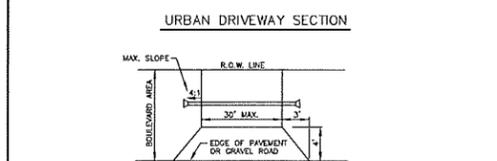
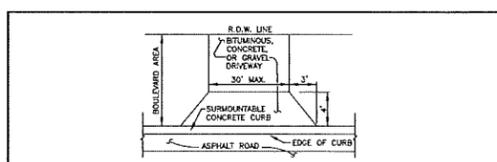
R VALUE	ESALS	BITUMINOUS SURFACE	AGGREGATE BASE
R-70 to R-35	200,000	1 1/2"	4"
R-30	175,000	1 1/2"	4"
R-20	150,000	1 1/2"	4"
R-10	125,000	1 1/2"	4"
R-5	100,000	1 1/2"	4"

\* SUBJECT TO REVIEW BY QUALIFIED SOILS ENGINEER  
 \*\* MINIMUM ALLOWABLE DESIGN THICKNESS  
 NOTES: ① R VALUE IS A MEASURE OF EMBANKMENT SOIL RESISTANCE STRENGTH AS DETERMINED BY THE HVEEM STABILOMETER METHOD.  
 ② CUMULATIVE DESIGN LANE 18 KIP ESAL'S IS THE CUMULATIVE DAMAGE EFFECT OF VEHICLES DURING THE DESIGN LIFE OF A FLEXIBLE PAVEMENT.  
 ③ REFER TO STANDARD PLATE 106 FOR SIDEWALK OR TRAIL REQUIREMENTS.

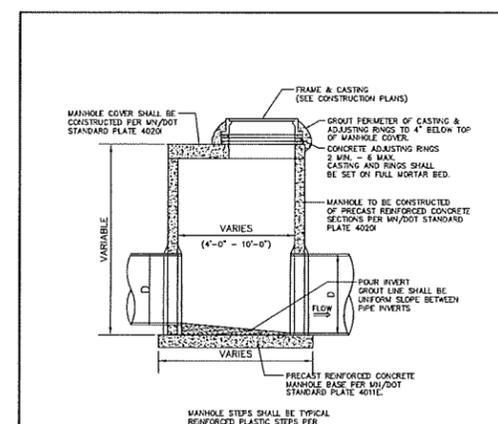
LOCAL RESIDENTIAL URBAN STREET SECTION - 9 TON  
 NO SCALE  
 APPROVED 3-02-05 CITY OF EAST BETHEL STANDARD PLATE No. 101  
 REVISED 8-28-07



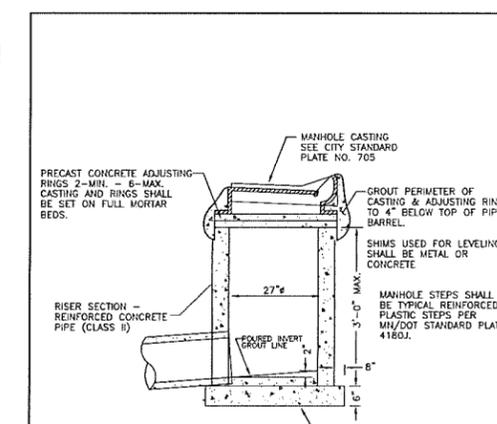
RESIDENTIAL CUL DE SAC URBAN SECTION  
 NO SCALE  
 APPROVED 3-02-05 CITY OF EAST BETHEL STANDARD PLATE No. 104  
 REVISED



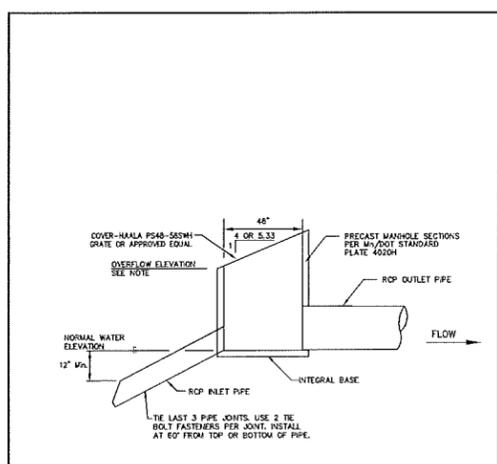
TYPICAL DRIVEWAY SECTIONS  
 NTS  
 APPROVED 3-02-05 CITY OF EAST BETHEL STANDARD PLATE No. 105  
 REVISED



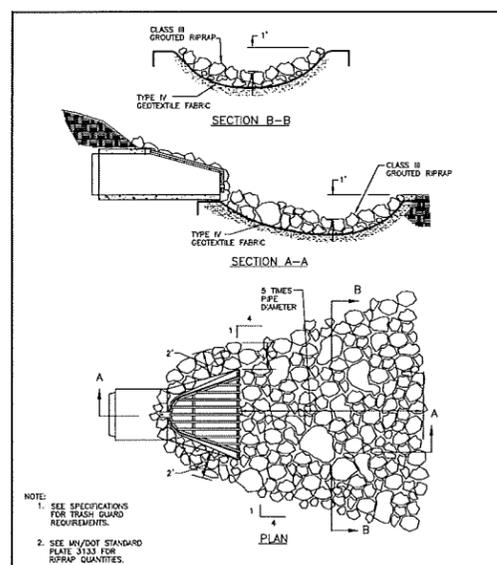
SLAB TOP MANHOLE (STORM SEWER)  
 4'-0" THROUGH 10'-0" INSIDE DIAMETER  
 NO SCALE  
 APPROVED 3-02-05 CITY OF EAST BETHEL STANDARD PLATE No. 400  
 REVISED



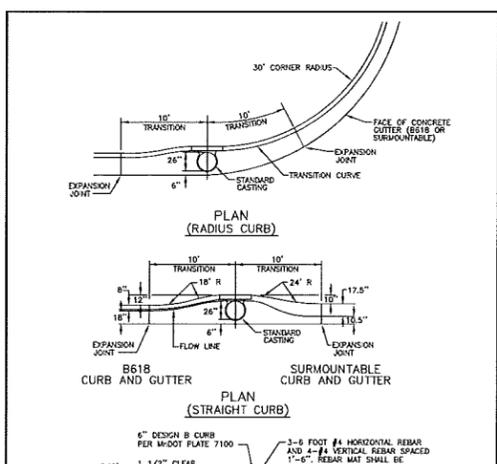
SHALLOW CATCH BASIN  
 NO SCALE  
 APPROVED 3-02-05 CITY OF EAST BETHEL STANDARD PLATE No. 401  
 REVISED



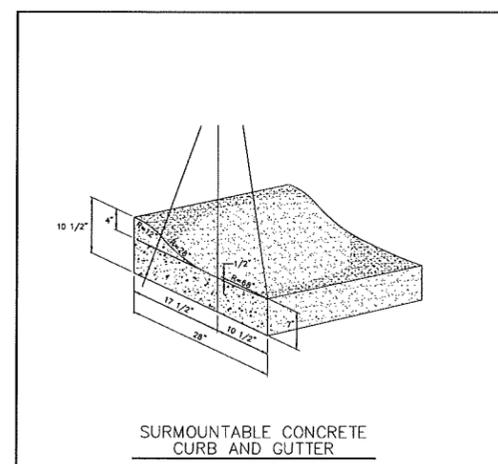
SKIMMER STRUCTURE (PREFERRED DESIGN)  
 NO SCALE  
 APPROVED 3-02-05 CITY OF EAST BETHEL STANDARD PLATE No. 402  
 REVISED 10-07-13



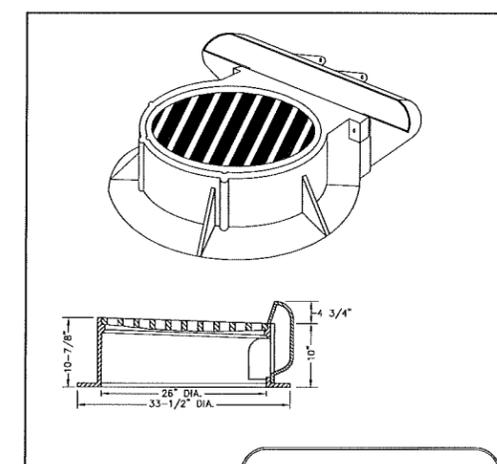
RIPRAP PLACEMENT AT OUTLETS  
 NO SCALE  
 APPROVED 3-02-05 CITY OF EAST BETHEL STANDARD PLATE No. 500  
 REVISED



CURB AND GUTTER CONSTRUCTION AT CATCH BASIN  
 NO SCALE  
 APPROVED 3-02-05 CITY OF EAST BETHEL STANDARD PLATE No. 703  
 REVISED



SURMOUNTABLE CONCRETE CURB AND GUTTER  
 NO SCALE  
 APPROVED 3-02-05 CITY OF EAST BETHEL STANDARD PLATE No. 704  
 REVISED



INLET CASTING  
 NO SCALE  
 APPROVED 3-02-05 CITY OF EAST BETHEL STANDARD PLATE No. 705  
 REVISED

DRAWN BY: A.G. DESIGN BY: A.G.  
 CHECKED BY: PROJ. NO. 13-1445  
 C.W.P.  
 ORIGINAL DATE: NOVEMBER 12, 2013

DATE	REVISION DESCRIPTION
1-7-14	CITY REVIEW #1
2-9-14	STREET, LOT, AND POND LAYOUT DL
7-11-14	CITY REVIEW #2

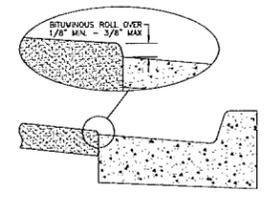
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF ALASKA.  
 ADAM GANKEL  
 DATE: 09.03.2014 LIC. NO. 43968

VIKING PRESERVE  
 EAST BETHEL, MN  
 DETAILS

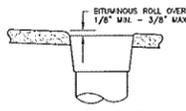
PREPARED FOR:  
 SHAW TRUCKING, INC.

SITE PLANNING & ENGINEERING

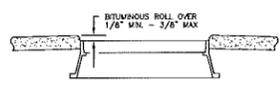
PLOWE ENGINEERING, INC.  
 6776 LAKE DRIVE  
 SUITE 110  
 LINO LAKES, MN 55014  
 PHONE: (651) 361-8210  
 FAX: (651) 361-8701



PAVING AT CURB DETAIL  
NO SCALE

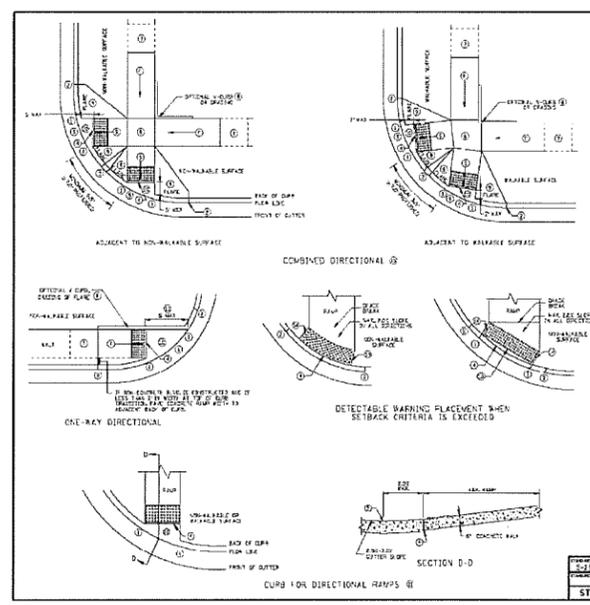


PAVING AT VALVE BOX DETAIL  
NO SCALE



PAVING AT MANHOLE DETAIL  
NO SCALE

APPROVED 3-02-05  
REVISED  
CITY OF EAST BETHEL  
STANDARD PLATE No. 706

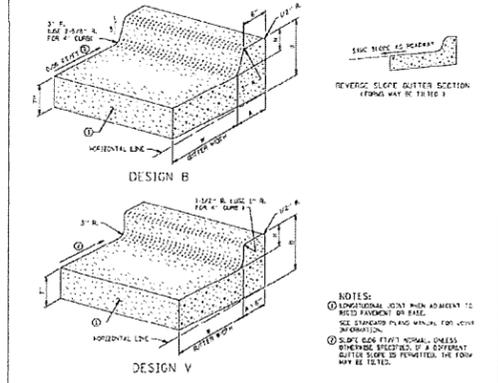


ALL TRAILS AND SIDEWALKS THAT ACCESS CITY STREETS SHALL INCLUDE TRUNCATED DOMES EPOXY COATED RED IN COLOR

- NOTES:
1. ALL CURB RAMP SURFACES SHALL BE CONSTRUCTED USING ALL EPOXY COATED TRUNCATED DOMES WITH A MINIMUM SIZE OF 1/4\"/>
  - 2. ALL CURB RAMP SURFACES SHALL BE CONSTRUCTED USING ALL EPOXY COATED TRUNCATED DOMES WITH A MINIMUM SIZE OF 1/4\"/>
  - 3. ALL CURB RAMP SURFACES SHALL BE CONSTRUCTED USING ALL EPOXY COATED TRUNCATED DOMES WITH A MINIMUM SIZE OF 1/4\"/>
  - 4. ALL CURB RAMP SURFACES SHALL BE CONSTRUCTED USING ALL EPOXY COATED TRUNCATED DOMES WITH A MINIMUM SIZE OF 1/4\"/>
  - 5. ALL CURB RAMP SURFACES SHALL BE CONSTRUCTED USING ALL EPOXY COATED TRUNCATED DOMES WITH A MINIMUM SIZE OF 1/4\"/>
  - 6. ALL CURB RAMP SURFACES SHALL BE CONSTRUCTED USING ALL EPOXY COATED TRUNCATED DOMES WITH A MINIMUM SIZE OF 1/4\"/>
  - 7. ALL CURB RAMP SURFACES SHALL BE CONSTRUCTED USING ALL EPOXY COATED TRUNCATED DOMES WITH A MINIMUM SIZE OF 1/4\"/>
  - 8. ALL CURB RAMP SURFACES SHALL BE CONSTRUCTED USING ALL EPOXY COATED TRUNCATED DOMES WITH A MINIMUM SIZE OF 1/4\"/>
  - 9. ALL CURB RAMP SURFACES SHALL BE CONSTRUCTED USING ALL EPOXY COATED TRUNCATED DOMES WITH A MINIMUM SIZE OF 1/4\"/>
  - 10. ALL CURB RAMP SURFACES SHALL BE CONSTRUCTED USING ALL EPOXY COATED TRUNCATED DOMES WITH A MINIMUM SIZE OF 1/4\"/>

LEGEND  
PEDESTRIAN CURB RAMP DETAILS  
SHEET NO. OF SHEETS

APRIL 10, 2013 5-297.250 (2 OF 5)

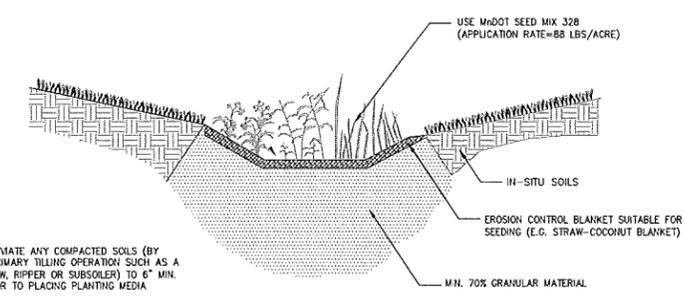


DESIGN B	CONCRETE	CONCRETE	CONCRETE	CONCRETE	CONCRETE
1'-0\"/>					

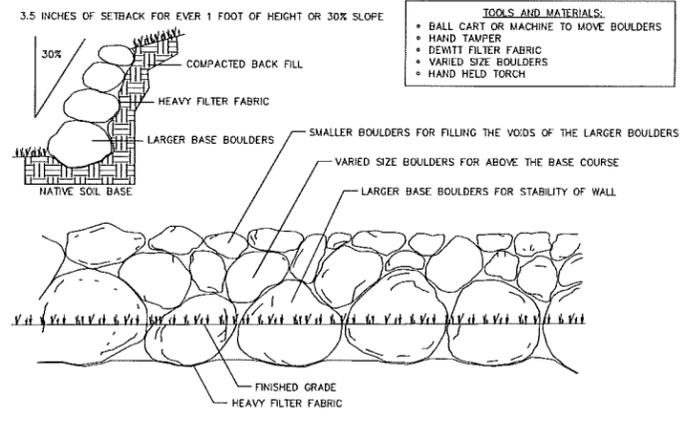
DESIGN V	CONCRETE	CONCRETE	CONCRETE	CONCRETE	CONCRETE
1'-0\"/>					

APPROVED MARCH 11, 2013  
R.P. Campbell  
STATE DESIGN ENGINEER  
STATE OF MINNESOTA  
DEPARTMENT OF TRANSPORTATION  
CONCRETE CURB AND GUTTER  
DESIGN B AND DESIGN V  
SPECIFICATION REFERENCE: 1101  
REVISION DATE: 7-28-01  
TIGCOH  
STANDARD PLATE NO.

- INFILTRATION BASIN NOTES:
1. CONTRACTOR TO MARK-OFF BASIN AREA WITH SILT FENCE OR OTHER VISIBLE MARKER.
  2. NO MINING OF SANDY SOILS IN BASIN AREA.
  3. MINIMIZE COMPACTION BY USING LOW-IMPACT EARTH MOVING EQUIPMENT (E.G. WIDE TRACK OR MARSH TRACK EQUIPMENT OR LIGHT EQUIPMENT WITH TURF-TYPE TIRES).
  4. FINAL GRADE ONLY UPON STABILIZATION OF UPSTREAM DRAINAGE AREAS.
  5. ALLEVATE ANY COMPACTED SOILS AT BOTTOM OF BASIN BY USING A PRIMARY TILLING OPERATION SUCH AS A CHISEL PLOW, RIPPER OR SUBSOILER TO 6\"/>



INFILTRATION BASIN  
N.T.S.



BOULDER RETAINING WALL  
N.T.S.

- TOOLS AND MATERIALS:
- BALL CART OR MACHINE TO MOVE BOULDERS
  - HAND TAMPER
  - DEWITT FILTER FABRIC
  - VARIED SIZE BOULDERS
  - HAND HELD TORCH

DRAWN BY: A.G.  
DESIGN BY: A.G.  
CHKD BY: C.W.P.  
PROJ. NO. 13-1446

ORIGINAL DATE: NOVEMBER 12, 2013

DATE	REVISION DESCRIPTION
1-7-14	CITY REVIEW #1
2-3-14	STREET, LOT, AND POND LAYOUT D.I.
7-11-14	CITY REVIEW #2

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.  
ADAM GANDEL  
DATE: 02.03.2014  
LIC. NO. 439683

VIKING PRESERVE  
EAST BETHEL, MN  
DETAILS

PREPARED FOR:  
SHAW TRUCKING, INC.

SITE PLANNING & ENGINEERING

PLOWE ENGINEERING, INC.  
6776 LAKE DRIVE  
SUITE 110  
LINO LAKES, MN 55014  
PHONE: (651) 361-6210  
FAX: (651) 361-6701



Know what's below.  
Call before you dig.

DRAWN BY:	DESIGN BY:
A.G.	A.G.
CHCKD BY:	PROJ. NO.
C.W.P.	13-1445
ORIGINAL DATE:	
	NOVEMBER 12, 2013

DATE	REVISION DESCRIPTION
1-7-14	CITY REVIEW #1
2-3-14	STREET, LOT, AND FOND LAYOUT D.I.
7-11-14	CITY REVIEW #2

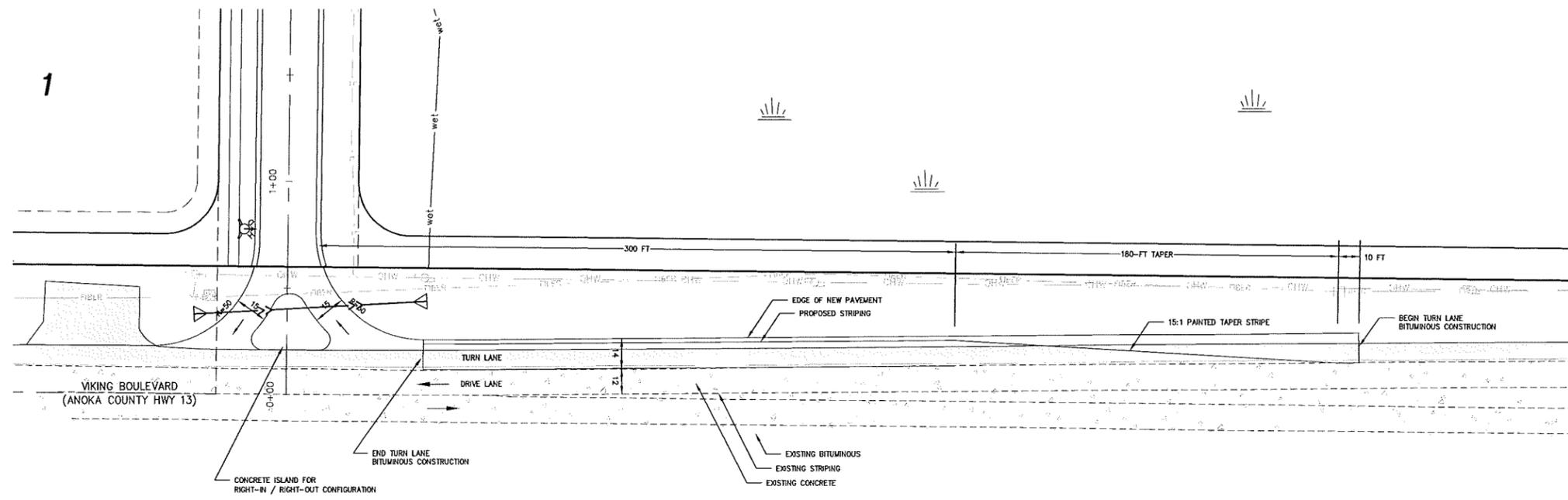
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

*Adam Gankel*  
ADAM GANKEL  
DATE: 02.03.2014  
LIC. NO. 43963

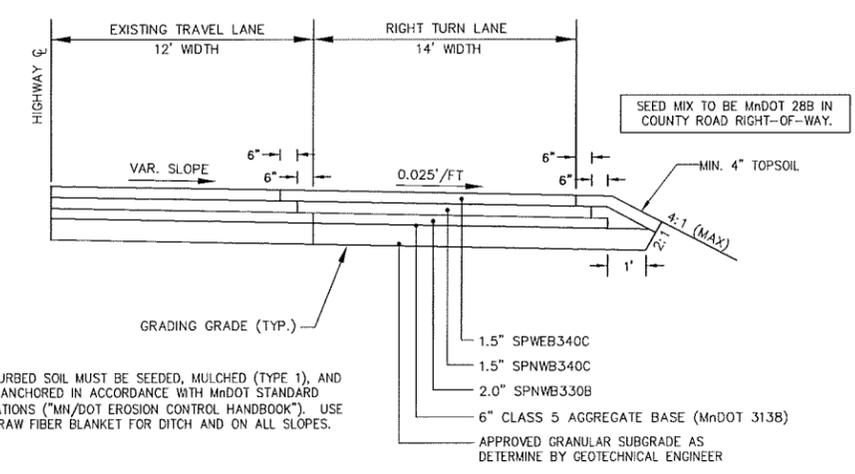
**VIKING PRESERVE**  
EAST BETHEL, MN  
PLAN PROFILE (SANITARY/WATER)  
193RD LANE NE

PREPARED FOR:  
SHAW TRUCKING, INC.

**PLOWE**  
ENGINEERING, INC.  
6776 LAKE DRIVE  
SUITE 110  
LINO LAKES, MN 55014  
PHONE: (651) 381-8210  
FAX: (651) 381-8701



**TYPICAL SECTION – RIGHT TURN LANE**  
(NOT TO SCALE)



ALL DISTURBED SOIL MUST BE SEEDED, MULCHED (TYPE 1), AND DISK ANCHORED IN ACCORDANCE WITH MnDOT STANDARD SPECIFICATIONS ("MN/DOT EROSION CONTROL HANDBOOK"). USE ALL STRAW FIBER BLANKET FOR DITCH AND ON ALL SLOPES.

**GENERAL NOTES:**

- 1) THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF EXISTING UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE TO THESE UTILITIES.

**STREET AND BITUMINOUS NOTES:**

- 1) SAW-CUT (FULL-DEPTH) EXISTING BITUMINOUS TO PROVIDE BUTT-JOINT.
- 2) REMOVAL AND DISPOSAL OF EXISTING STREET MATERIALS AS REQUIRED FOR CONSTRUCTION IS INCIDENTAL.

**TURN LANE NOTES:**

- 1) EXISTING COUNTY ROAD TO BE STRIPED TO SHOW DRIVE LANE AND NEW TURN LANE.
- 2) EXISTING STREET SIGNAGE TO BE RELOCATED AS NECESSARY. EXISTING POWER POLES TO BE RELOCATED AS NECESSARY.
- 3) EXISTING CENTERLINE STRIPE ALONG COUNTY ROAD TO REMAIN.
- 4) CONTRACTOR SHALL ENSURE THAT EXISTING DRIVE LANES HAS MINIMUM 12' WIDTH.
- 5) EPOXY TURN LANE MARKINGS SHALL BE USED.
- 6) SEED TYPE SHALL BE 28B IN DITCH AREAS AND 60B IN BOULEVARD AREAS. MULCH TYPE SHALL BE TYPE 1.
- 7) USE ALL STRAW FIBER BLANKET FOR DITCH AND ON ALL SLOPES.

COUNTY HIGHWAY MODIFICATIONS SHALL FOLLOW THE MnDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, 2005 EDITION.

**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 MPCA 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 THAT NOT.
- 2. TERMINATION OF COVERAGE WHEN TRANSFER OF OWNERSHIP OCCURS: ALL PERMITEE(S) MUST SUBMIT A NOT OF A FORM PROVIDED BY 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 MPCA IF INFORMATION IS SUBMITTED TO THE MPCA DOCUMENTING THAT TERMINATION IS APPROPRIATE BECAUSE THE PROJECT IS CANCELLED.

**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 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 MPCA OFFICIALS INDICATE THE SWPPP IS NOT EFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR UNDERGROUND WATERS OR THAT THE DISCHARGES ARE CAUSING WATER QUALITY STANDARD EXCEEDANCES (E.G., NUISANCE CONDITIONS AS DEFINED IN MINN. R. 7050.0210, SUBP. 2).
3. THE SWPPP IS NOT ACHIEVING THE GENERAL OBJECTIVES OF MINIMIZING POLLUTANTS IN STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY, OR THE SWPPP IS NOT CONSISTENT WITH THE TERMS AND CONDITIONS OF THIS PERMIT.
4. AT ANY TIME AFTER PERMIT COVERAGE IS EFFECTIVE, THE MPCA MAY DETERMINE THAT THE PROJECT'S STORMWATER DISCHARGES MAY CAUSE, HAVE REASONABLE POTENTIAL TO CAUSE, OR CONTRIBUTE TO ANY VIOLATION OF ANY APPLICABLE WATER QUALITY STANDARD, OR THAT THE SWPPP DOES NOT INCORPORATE THE APPLICABLE REQUIREMENTS IN PART III.A.B., (IMPAIRED WATERS AND TUDLS), IF A WATER QUALITY STANDARD CHANGES DURING THE TERM OF THIS PERMIT, THE MPCA WILL MAKE A DETERMINATION AS TO WHETHER A MODIFICATION OF THE SWPPP IS NECESSARY TO ADDRESS THE NEW STANDARD, IF THE MPCA MAKES SUCH DETERMINATIONS OR ANY OF THE DETERMINATIONS IN PARTS III.B.1.-3., THE MPCA 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 MPCA, WHICH MAY INCLUDE AN INDIVIDUAL PERMIT APPLICATION, IF THE MPCA'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 DRAIN TO ONE AREA. THE BASIN 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 DRAINING TO THE BASIN, EXCEPT THAT IN NO CASE SHALL THE BASIN PROVIDE LESS THAN 1,800 CUBIC FEET OF LIVE STORAGE FROM EACH ACRE DRAINING 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 DRAINING 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 OVERTLOW TO PREVENT FAILURE OF POND INTEGRITY. THE OUTLET STRUCTURE MUST BE DESIGNED TO WITHDRAW WATER FROM THE SURFACE IN ORDER TO UNWIND 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 OF 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 MEETING 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 SOILS, SLOPE, AND AVAILABLE AREA ON SITE. THIS DETERMINATION OF INFEASIBILITY MUST BE DOCUMENTED IN THE SWPPP PER PART III.A.

**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 III.C. THIS DOES NOT INCLUDE ANY RECORDS AFTER SUBMITTAL OF THE NOT.
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)

**PART III.E -- RECORD RETENTION (CONT)**

- 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, REMEDIATING, 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 MPCA.
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 INDIVIDUALS' 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 AVAILABLE TO 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 ENGINEERS, OR OTHER QUALIFIED INDIVIDUALS WITH TRAINING 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 IVE, 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. 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 TEMPORARILY OR PERMANENTLY 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 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 DISCHARGE INTO 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 PERVIOUS 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.
B. IF THE DOWN GRADIENT SEDIMENT CONTROLS ARE OVERLOADED (BASED ON FREQUENT FAILURE OR EXCESSIVE MAINTENANCE REQUIREMENT), THE PERMITEE(S) MUST INSTALL ADDITIONAL UPGRADED 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 UPGRADED OF ANY BUFFER ZONE. THE PERMETER SEDIMENT CONTROL PRACTICE MUST BE IN PLACE BEFORE ANY UPGRADED 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 SHORT-TERM ACTIVITY THAT REQUIRES REMOVAL OF 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 COMPLETE.
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/MUNICIPAL ENGINEER). THE PERMITEE(S) MUST DOCUMENT THE NEED FOR REMOVAL IN THE SWPPP.
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.

**PART IV.C. -- SEDIMENT CONTROL PRACTICES (CONT.)**

- 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 REQUIRES 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 100 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 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-LOADED WATERS RELATED TO DEWATERING OR BASIN DRAINING (E.G. FROM DISCHARGES, TRENCH/JOCH 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 PROPERTIES. 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 DOWNSLOPE 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 ONCE EVERY SEVEN (7) DAYS DURING PERMANENTLY OR TEMPORARILY CEASED 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 PORTIONS OF THE PROPERTY FROM WHICH THERE IS A DISCHARGE MUST BE MADE, AND THE DISCHARGE SHOULD BE DESCRIBED (I.E., COLOR, ODOR, FLOATING, SETTLED, 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 BY THE MPCA THAT EROSION 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.
4. 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 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 MPCA.
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 PERMETER 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.
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 DEBRIS AND SEDIMENT DEPOSITED IN SURFACE WATERS, INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS, AND STABILIZE 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.E.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. 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 CONTAMINANT 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 THE EQUIPMENT ON THE PROJECT SITE, WASHING MUST BE LIMITED TO A DESIGN 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 OF. 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 MATERIALS) 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 MPCA RULES. A SIGN MUST BE INSTALLED ADJACENT TO LEACH 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 GROUND DENSITY OVER THE ENTIRE PERVIOUS 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 PERMETER CONTROL HAS BEEN COMPLETED AND THE RESIDENCE HAS BEEN SOLD TO THE HOMEOWNER. ADDITIONALLY, THE PERMITEE HAS DISTRIBUTED THE MPCA'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.

DRAWN BY: A.G. DESIGN BY: A.G.
CHKCD BY: PROJ. NO. 13-1445
C.W.P.
ORIGINAL DATE: NOVEMBER 12, 2013

REVISION DESCRIPTION
DATE
1-7-14 CITY REVIEW #1
2-9-14 STREET, LOT, AND POND LAYOUT DL
2-11-14 CITY REVIEW #2

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.
Adam Gankel
DATE: 02-03-2014 LIC. NO. 43983

VIKING PRESERVE
EAST BETHEL, MN
STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

PREPARED FOR: SHAW TRUCKING, INC.



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

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

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)
VIKING PRESERVE
05.1

**SITE SPECIFIC INFORMATION**

**PROJECT NAME**  
VIKING PRESERVE

**PROJECT LOCATION**  
NORTH SIDE OF VIKING BLDG (CSAH 22), EAST OF JACKSON ST NE, EAST BETHEL

**PROJECT OWNER**  
SHAW TRUCKING, INC.  
18530 BUCHANAN ST NE  
EAST BETHEL, MN 55011

**CONSTRUCTION ACTIVITY DESCRIPTION**

THE SITE HAS BEEN USED AS FOR SAND WINING, AND AS SUCH INCLUDES AN EXISTING LARGE POND. A LARGE WETLAND COMPLEX OCCUPIES THE EASTERN ONE-HALF OF THE SITE, AND TWO SMALLER WETLANDS DOT THE WESTERN PROPERTY LINE. THE TWO SMALL WETLANDS OVERFLOW TO THE LARGE WETLAND, WHICH IN TURN DRAINS TO THE EAST VIA A CULVERT. A THIRD WETLAND (ON THE SOUTH PROPERTY LINE ADJACENT TO CSAH 22) OVERFLOWS TO THE CSAH 22 DITCH SYSTEM. THE CSAH 22 DITCH SYSTEM COLLECTS A SMALL PORTION OF THE SITE AND ROUTES IT THROUGH A CULVERT UNDER CSAH 22.

THE PROPOSED SITE HAS 48 SINGLE-FAMILY LOTS WITH PUBLIC STREETS AND UTILITIES. TO MEET STORM WATER REQUIREMENTS, MOST OF THE ROADWAY AND LOT FRONTAGE IS COLLECTED AND ROUTED TO SEVERAL NEW NURP PONDS. THESE NURP PONDS OUTLET TO THE EXISTING WINING POND, WHICH WILL BE ADJUSTED TO PROVIDE 4:1 SLOPES ABOVE THE NWL AND A 10:1 BENCH AND WILL PROVIDE RATE CONTROL FOR THE SITE (BUT IS NOT CONSIDERED A NURP POND). A SMALL INFILTRATION BASIN IS PROPOSED TO TREAT A PORTION OF THE REAR YARD LOT DRAINAGE.

**SITE AREAS**

	BEFORE CONSTRUCTION	AFTER CONSTRUCTION
TOTAL SITE AREA	58.92 ACRES	
TOTAL ESTIMATED IMPERVIOUS	0.62 ACRES	7.59 ACRES
TOTAL ESTIMATED PERVIOUS	58.30 ACRES	51.33 ACRES

**TOTAL DISTURBED AREA**  
29.0 ACRES

**RECEIVING WATERS WITHIN ONE MILE**

NAME OF WATER BODY	TYPE OF WATER BODY	SPECIAL WATER	IMPAIRED WATER
UNNAMED WETLAND	WETLAND	NO	NO
CROOKED BROOK	CREEK	NO	NO
COUNTY DITCH 28	DITCH	NO	NO

NO SPECIAL OR IMPAIRED WATERS WITHIN 1 MILE OF SITE BOUNDARIES.

**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): ON-SITE SOIL BORINGS WERE TAKEN BY ALIED TESTING. BORINGS SHOW SILTY SAND (SM) WITH VARYING WATER TABLE ELEVATIONS.

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

VEGETATION: IMPROVEMENT AREA IS MOSTLY OPEN SPACE. SEED AND MULCH IS PROPOSED FOR DISTURBED AREAS. TREES, SHRUBS, AND PERENNIALS ARE PROPOSED.

**PERSON WHO PREPARED SWPPP ("DESIGNER")**  
ADAM GNKEL, P.E.  
PLOWE ENGINEERING, INC.  
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:

- 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.

**SITE SEQUENCING & ESC NOTES**

PRIOR TO ANY LAND-DISTURBING ACTIVITY, THE CONTRACTOR MUST INSTALL ROCK CONSTRUCTION ENTRANCE(S) (LOCATIONS TO BE DETERMINED - COORDINATE WITH OWNER) AND DOWN-GRADE PERIMETER SILT FENCE AS SHOWN ON PLAN. (CONTACT CITY TO INSPECT EROSION CONTROL MEASURES PRIOR TO GRADING OPERATIONS, IF NECESSARY.) ADDITIONAL SILT FENCE MAY BE NECESSARY IF LOCAL CONDITIONS REQUIRE. THESE PRACTICES 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 SOO, 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	MNDOT MIXTURE 260 (100 LBS/ACRE) - OR - MNDOT MIXTURE 270 (120 LBS/ACRE)
TEMPORARY FALL COVER	MNDOT MIXTURE 100B (100 LBS/ACRE)
TEMPORARY SPRING/SUMMER	MNDOT MIXTURE 110 (AT 100 LBS/ACRE)
1-2 YEARS COVER	MNDOT MIXTURE 150 (AT 40 LBS/ACRE)
2-5 YEARS COVER	MNDOT MIXTURE 190 (AT 60 LBS/ACRE)
MULCH	3882 (TYPE 1 - DISC ANCHORED)
FERTILIZER	3881
WOOD FIBER BLANKET	3885 (CATEGORY 2)

\* MOW A MINIMUM OF ONCE PER 2 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 INPLACE 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.

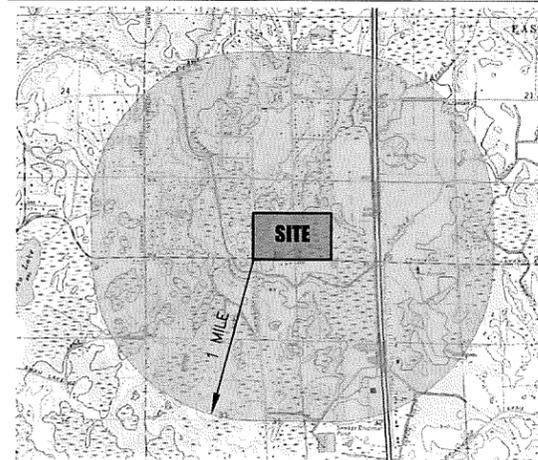
THE CONTRACTOR SHALL FINAL GRADE SWALE AREAS UPON STABILIZATION OF UPSTREAM AREAS.

THE CONTRACTOR SOO ALL DISTURBED DRAINAGE AREAS, INCLUDING SWALES, OVERFLOWS, AROUND STORM SEWER FLARED-END SECTIONS, AND OFF-STREET CATCH BASINS.

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 IMPAIRED OR SPECIAL WATERS ARE NOTED WITHIN 1 MILE OF PROJECT BOUNDARY.

DRAWN BY: A.G. DESIGN BY: A.G.  
CHECKED BY: C.W.F. PROJ. NO. 13-1445  
ORIGINAL DATE: NOVEMBER 12, 2013

DATE	REVISION DESCRIPTION
1-7-14	CITY REVIEW #1
2-9-14	STREET, LOT, AND POND LAYOUT DJL
7-11-14	CITY REVIEW #2

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.

**ADAM GNKEL**  
L.C. NO. 43963  
DATE: 02.03.2014

**VIKING PRESERVE**  
EAST BETHEL, MN  
STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

PREPARED FOR:  
**SHAW TRUCKING, INC.**

**PLOWE ENGINEERING, INC.**  
6776 LAKE DRIVE  
SUITE 110  
LINO LAKES, MN 55014  
PHONE: (651) 361-8210  
FAX: (651) 361-8701

**MEMORANDUM OF UNDERSTANDING**

**CITY OF EAST BETHEL**

**ANOKA COUNTY, MINNESOTA**

**WHEREAS**, a preliminary plat for Viking Preserve, a single family residential planned unit development, was approved by the City Council on December 4, 2013; and

**WHEREAS**, Final PUD approval for this project has not yet been applied for; and

**WHEREAS**, the applicant has requested of the city that it be allowed to commence excavation on the site adjacent to its proposed development to remove or excavate an area that would be approximately 2.96 acres or 120,000 square feet removing approximately 40,000 cubic yards of dirt which would then be stockpiled for use when the proposed Viking Preserve project is started; and

**WHEREAS**, regulatory agency approval has been applied for by the applicant for this excavation which has tentatively been granted by the Minnesota Pollution Control Agency and the Army Corps of Engineers; and,

**WHEREAS**, the area controlled for stockpiling of the soils is owned by the applicant and is proposed to be 250 feet by 350 feet with storage at a height of 15 feet; and,

**WHEREAS**, the roadway over which hauling of the soils would be used is an existing road located on-site; and,

**WHEREAS**, the applicant proposes that the stockpile created would be depleted and gone within a two-year period; and,

**WHEREAS**, the stockpile would be need to be seeded and stabilized within 2015 under a plan to be submitted by applicant and approved by the city engineer; and,

**WHEREAS**, the applicant would have to provide the city with financial security to assure full performance with the terms and provisions of this agreement and the permits issued by the city relative to the project as well as those issued by other regulatory agencies; and

**WHEREAS**, city staff recommends allowing the applicant to proceed “at it’s own risk” relative to this application and that approvals is granted herein shall not constitute any final approval of the planned unit development as applied for or approval of other land-use permits as the applicant may need for its proposed development.

**NOW THEREFORE**, be it agreed to by between the parties as follows:

1. At the applicant's requested excavation on its property to remove or excavate an area of approximately 2.96 acres or 120,000 square feet, removing a proximally 40,000 cubic yards of dirt to then be stored and stockpiled for use within a 24 month period from the date hereof is hereby granted subject to the following conditions:
  - a. Applicant shall comply with the September 18, 2014 written directives of the Department of Army (Army Corps of Engineers).
  - b. Applicant shall fully comply with the February 6, 2015 Permit No. C00039786 as issued by the Minnesota Pollution Control Agency and comply with all the terms and conditions therein.
  - c. Applicant shall prepare and file with the city engineer for his review and approval an erosion control plan relative to all operations on the site which are authorized under this agreement which plan shall be reasonably directed to achieving the best erosion control practices on the site for the 24 month period over which this activity is expected the last. No land disturbance activities shall occur on the site until the erosion control written plan is approved by the city engineer.
  - d. The applicant shall prepare and submit to the city engineer a written timetable and schedule for work implementation which timetable shall be subject to the review and approval of the city engineer. . No land disturbance activities shall occur on the site until the written timetable is approved by the city engineer.
  - e. Applicant shall apply for and obtain all necessary permits as are required under state and federal and local regulatory authorities which shall be applied for and obtained before beginning any work on the site.
  - f. The applicant shall provide the city cash security in the amount of 125% of the applicants projected costs for this project as are approved by the city engineer for this project. True and correct copy of the escrow agreement under which such security shall be provided is annexed hereto as Exhibit A and incorporated by reference herein.
  - g. The written timetable as approved by the city engineer shall not be modified or changed without the approval of city Council.
  - h. A copy of the Wetland Excavation Exhibit depicting the area of soils removal, hauling road and stockpile area is annexed hereto as Exhibit B and is incorporated by reference herein. No land disturbance activities or transportation of soils shall occur outside of the area depicted as Wetland Excavation Area, Haul Road or Stockpile Area within Exhibit B.
2. Indemnification. The applicant shall indemnify and hold the city of East Bethel harmless relative to all activities that it is implementing upon the property as are conducted under the terms of this Memorandum of Understanding.
3. Insurance. Applicant shall file with the city certificate of liability insurance for filing that provides construction liability and property damage insurance coverages in the minimum

amount of \$ 1,500,000.00 dollars for the period of time for which this MOU is active. The city shall be listed as an additional insured on the certificate of insurance to be filed with the city administrator.

4. Default. In the event of a default by the applicant of any of the required conditions set forth in paragraph 1 subparagraphs a through h above the city shall have the right to suspend permits issued hereby and issue any stop work orders it deems necessary as well as to apply on any cash security supplied to the city under the terms hereof for the purposes of completing the work and tasks anticipated by this memorandum of understanding.
5. Transfer and assignment. Benefits and rights established under the terms of this Memorandum of Understanding are not assignable or transferable by the applicant to any other person or entity without the express written approval of the city of East Bethel.
6. Notices. Notices to the city or the applicant shall be in writing and will be deemed delivered and effective when delivered in person or mailed to either party by the other using certified mail to the following addresses:

- a. If to the city: City of East Bethel/

ATTN: City Administrator  
2241 221<sup>st</sup> Ave N.E.  
East Bethel, MN 55011

With copy to:  
Mark J. Vierling  
Eckberg Lammers, Briggs, Wolff and Vierling PLLP  
1835 Northwestern Ave.  
Stillwater, MN 55082

- b. If to applicant: Shaw Trucking, Inc

Attn: Don Shaw  
18530 Buchanan St. N.E.  
East Bethel, MN 55011

7. Applicant at own risk. This Memorandum of Understanding shall not be construed to grant any land-use permit, final planned unit development permit or other permits under the city zoning or subdivision codes to the applicant relative to its project. Applicant understands that it is proceeding at its own risk and expense relative to the site excavation and stockpiling authorized under the terms of this Memorandum of Understanding.
8. Release of security. No security shall be released as has been provided under the terms of the attached escrow agreement until and unless authorized by the city engineer in writing.

9. Miscellaneous.

- a. Breach of any of the terms of this agreement by the applicant will be grounds for denial of any future land-use permit relative to the property.
- b. In the event of default hereunder applicant shall reimburse the city for its costs incurred in the enforcement of this agreement including reasonable administrative, engineering and attorney's fees.

10. Incorporation by reference. Permits as have been issued by the Department of the Army-Army Corps of Engineers and or the Minnesota pollution control agency are incorporated by reference herein.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Understanding this \_\_\_\_day of February, 2015.

SHAW TRUCKING, INC.

CITY OF EAST BETHEL

By: \_\_\_\_\_

By: \_\_\_\_\_

Donald Shaw, President

Steven Voss, Mayor

And

By: \_\_\_\_\_

Jack Davis, City Administrator

EXHIBIT A

ESCROW AGREEMENT

**THIS AGREEMENT** is made and entered into on the \_\_\_\_ day of \_\_\_\_\_, 2015, by Shaw Trucking, Inc. (“Applicant”) for the benefit of the City of East Bethel, a Minnesota Municipal corporation (“City”).

**WHEREAS**, Applicant has applied to City for the following approval(s) or action(s)

a. Memorandum of Understanding, dated February \_\_, 2015 granting approval of excavation and stockpiling of materials.

(the “Requested Approval”); and,

**WHEREAS**, in conjunction with City’s review, supervision and monitoring of the Requested Approval, City may incur costs, including administrative, legal, planning, engineering, enforcement and other consulting costs, and City requires a guaranty that such costs will be paid by Applicant; and

**WHEREAS**, Applicant acknowledges the receipt of a benefit from City’s review of the Requested Approval and from City’s Review Costs;

**NOW, THEREFORE**, Applicant agrees as follows for the benefit of the City:

1. Deposit. Applicant has made the following deposits required under the Memorandum of Understanding dated February\_\_2015 (all such deposits hereafter collectively referred to as the “Deposit Funds”):
2. Use of Deposit Funds. City may, at any time, draw upon the Deposit Funds to pay Review Costs for the Requested Approvals and to secure the site and performance of the Applicants obligations under the Memorandum of Understanding dated February\_\_2015.
3. Conditions of Deposit. The following conditions shall apply to the Deposit Funds:
  - a. Payment shall be made to City contractors and consultants, including but not limited to, earth moving contractors, engineering, legal and planning, in the amounts actually billed, according to the customary consulting rates in effect at that time. Such services or costs shall reasonably and necessarily relate to the subject matter of the Requested Approval, as determined by City in its sole discretion.
  - b. Payment shall be made to cover costs relating to public hearing notices as may apply or be required by law.
  - c. City shall not be responsible for paying any interest on the Deposit Funds.
  - d. If in the discretion of City, there is deemed to be an inadequate balance in Applicant’s deposit account to pay for all the Review Costs incurred or to be incurred by City, City will notify

Applicant of the need for additional Deposit Funds. Applicant agrees to make such additional deposits within ten (10) days of mailing of such notice.

- e. No Requested Approval will be acted upon or processed by any City personnel until all Deposit Funds due at the time of original submission, or which thereafter become due pursuant to subparagraph 3.d., have been paid in full.
4. Positive Balances in Account. In the event there is a positive balance in the deposit account and there is a completion of the Memorandum of Understanding, as verified by City Engineers Certificate being issued for the project then the balance shall be paid to Applicant within thirty (30) days of receipt by City of a written request by Applicant for payment.
5. Accounting. Upon Request by Applicant, City will provide an accounting of all expenses charged against the account, but in no event more often than once every quarter. An accounting will be provided when City notifies Applicant of a requirement for additional deposits and when the account is closed.
6. Application Fees. Applicant understands and agrees that the Review Costs and Deposit Funds are in addition to, and not in lieu of, City application fees.
7. Breach. In the event of breach of any terms of this Agreement by applicant, City may, at its option, cease processing any Requested Approval which has been submitted by Applicant to cease any further work on any project to which the Requested Approval relates. Applicant shall be responsible for all costs and expenses, including attorneys and expert's fees and administrative costs, incurred by City to enforce this Agreement or to collect any monies due to City from Applicant pursuant to this Agreement.
8. Validity. If any portion, section, subsection, sentence, clause, paragraph or phrase of this Agreement is for any reason held to be invalid, such decision shall not affect the validity of the remaining portions of this Agreement.
9. Amendments. No amendment or change of any kind to this Agreement shall be valid unless made in writing and with the consent of the City.
10. Binding Agreement. Applicant recognizes and agrees that all terms and conditions of this Agreement shall be binding upon the heirs, successors, administrators, and assigns of Applicant.

**IN WITNESS WHEREOF**, the Applicant has caused these presents to be executed as of the day and year aforesaid.

**APPLICANT: Shaw Trucking, Inc.**

By: \_\_\_\_\_

Name: Donald Shaw

It's President

Notification Contact Name and Address:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**STATE OF MINNESOTA**        )

)ss.

**COUNTY OF ANOKA**        )

The foregoing instrument was acknowledged before me this \_\_\_day of \_\_\_\_\_, 2015,  
by Donald Shaw, the President of Shaw Trucking, Inc., a Minnesota corporation on behalf of the  
corporation.

\_\_\_\_\_  
Notary Public

EXHIBIT B  
WETLAND EXCAVATION EXHIBIT