

2024 Advisory Committee Meeting

Nate Koland- RLWD

Projects

- ❖ 129AX- Fladeland Ring Dike
- ❖ 129AY- Beich Ring Dike
- ❖ 149A-Thief River Streambank Stabilization

Surveying

- ❖ Thief River
- ❖ Moose River
- ❖ Clearwater River

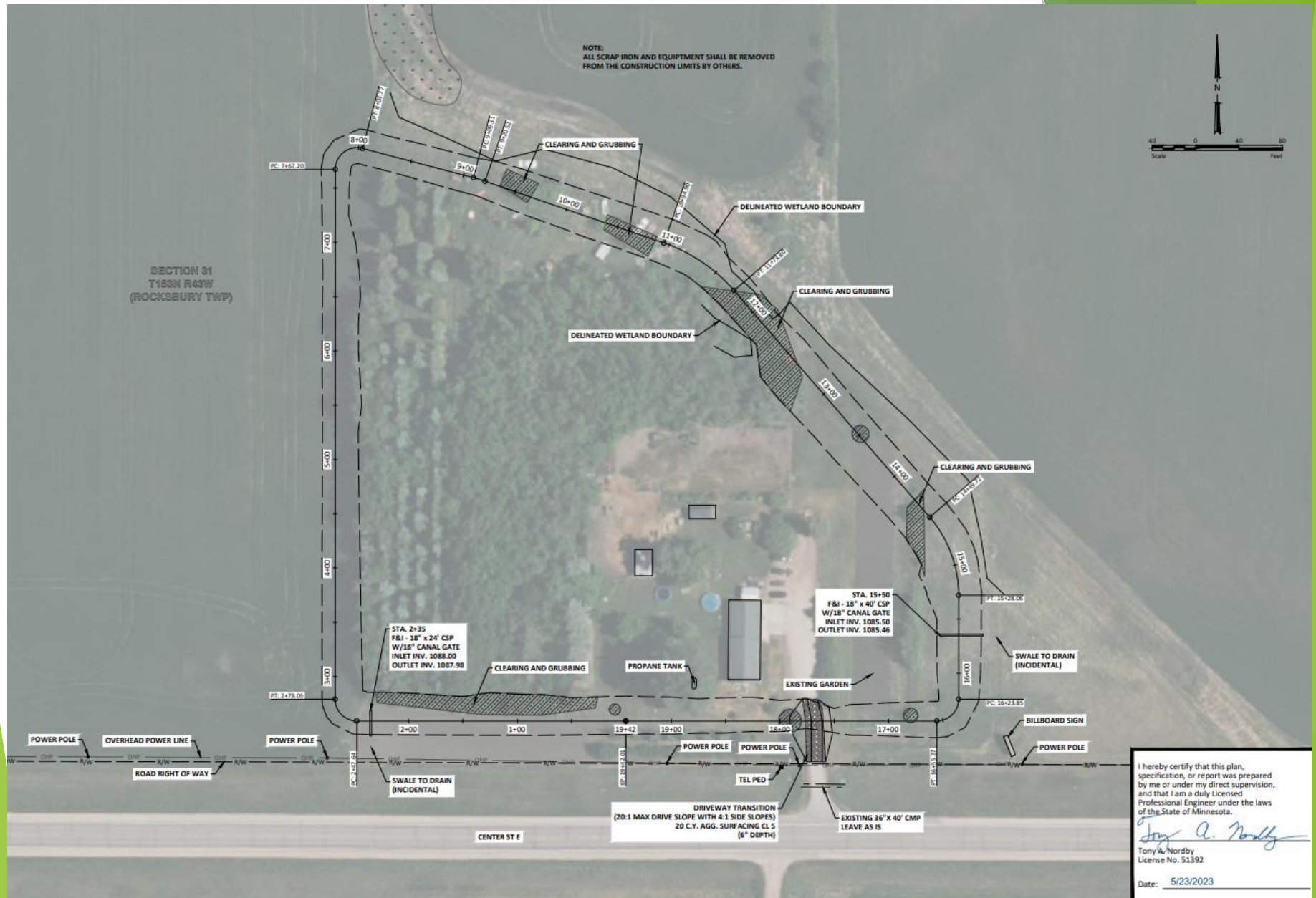
Project 129AX- Robert & Nancy Fladeland

- ❖ Section 31, Rocksbury Township, Pennington County
- ❖ Construction started in July and completed in August
- ❖ Main Contract Items: Common Excavation, Common Embankment
- ❖ Provide protection from spring runoff & large rainfall events
- ❖ Anderson Excavating

NOTE:
ALL SCRAP IRON AND EQUIPMENT SHALL BE REMOVED
FROM THE CONSTRUCTION LIMITS BY OTHERS.



SECTION 31
T153N R43W
(ROCKSBURY TWP)



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

Tony A. Nordby

Tony A. Nordby
License No. 51392

Date: 5/23/2023



















Project 129AY- Beich Ring Dike

- ❖ Section 8, Agder Township, Marshall County
- ❖ Construction started in late July and completed in September
- ❖ Main Contract Items: Common Excavation, Common Embankment
- ❖ Provide protection from spring runoff and large rainfall events
- ❖ Lunke, Inc.

270TH ST NE

STA. 28+90
INP. - 12" x 26' CSP
REMOVE

POWER POLE

NO CORE TRENCH STA. 29+00 - 38+00

OVERHEAD WIRE

POWER POLE

POWER POLE

TEL PED

GUY WIRE

GUY WIRE

DRIVEWAY

STA. 2+85
INP. - 12" x 26' CSP
REMOVE

STA. 4+00
F&I - 18" x 34' CSP
W/APRONS
INLET INV. 1138.85
OUTLET INV. 1138.37

STA. 10+80
F&I - 18" x 42' CSP
W/18" CANAL GATE
INLET INV. 1138.25
OUTLET INV. 1035.80

5 C.Y RANDOM RIPRAP CLASS II
(SEE DETAIL SHEET 2)

SECTION 9
T155N R42W
(AGDER TWP)

NOTE:
8:1 SWALE BACKSLOPE IN
YARD AREAS.
3:1 SWALE BACKSLOPE IN
NON YARD AREAS

STA. 21+70
F&I - 18" x 44' CSP
W/18" CANAL GATE
INLET INV. 1136.50
OUTLET INV. 1136.45

CLEARING AND GRUBBING

DIKE ALIGNMENT

PT. 23+28.54

DIKE CATCHPOINT

SWALE TO DRAIN
(INCIDENTAL)

PC: 21+23.11

PC: 15+05.02

PT: 15+62.88

PC: 15+98.18

PT: 16+71.61

PT: 13+60.15

PC: 12+22.37

10' MIN

BP: 10+00.00

NOTE:
FILL TO BE PLACED AROUND POWER POLES.
NO UTILITIES ARE PROPOSED TO BE MOVED
UNLESS DETERMINED BY UTILITY COMPANY
DURING CONSTRUCTION.

SECTION 8
T155N R42W
(AGDER TWP)













Project 149A- Thief River Streambank Stabilization

- ❖ Section 3, Excel Township, Marshall County
- ❖ Construction started in late September and completed in late October
- ❖ Main Contract Items: Common Excavation & toewood sodmat
- ❖ Provide bank stabilization
- ❖ Anderson Excavating

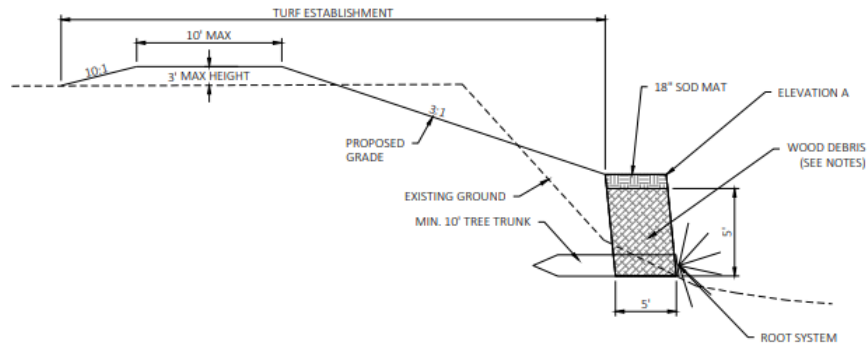
DREES NORTH SITE ESTIMATED QUANTITIES			
ITEM.NO.	ITEM	UNIT	QUANTITY
2106.507	EXCAVATION - COMMON (P)	CY	870
2106.507	COMMON EMBANKMENT (P) (CV)	CY	120
2577.601	TOE-WOOD DEBRIS	CY	458
2577.601	SOD MAT	SY	275

DREES MIDDLE SITE ESTIMATED QUANTITIES			
ITEM.NO.	ITEM	UNIT	QUANTITY
2106.507	EXCAVATION - COMMON (P)	CY	870
2106.507	COMMON EMBANKMENT (P) (CV)	CY	180
2577.601	TOE-WOOD DEBRIS	CY	431
2577.601	SOD MAT	SY	258

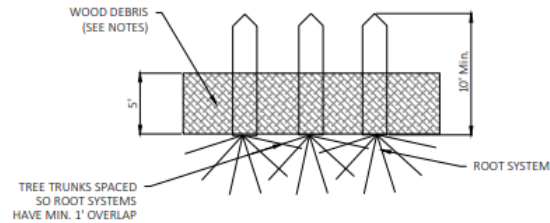
(DREES SITES) TOE-WOOD AND SOD MAT ESTIMATED QUANTITIES AND ELEVATIONS			
SITE	ELEVATION A	SOD (SY)	TOE-WOOD (CY)
NORTH	1129.00	275	458
MIDDLE	1128.00	258	431

NOTES:

1. THE TREE ROOT SYSTEM PORTION OF THE TOE-WOOD INSTALLATION IS TO BE INSTALLED 5 FT WIDE BY VARYING FT IN DEPTH BELOW 18" SOD MAT.
2. TOE-WOOD SHALL CONSIST OF TREE ROOT SYSTEMS WITH A MINIMUM 10FT PORTION OF THE TRUNK STILL ATTACHED. THE ROOT SYSTEMS SHALL BE PLACED WITH A MINIMUM OVERLAP OF 1 FEET.
3. ADDITIONAL WOOD DEBRIS IS REQUIRED TO RAISE 5 FOOT WIDE BY 5 FOOT DEPTH BENCH TO SPECIFIED ELEVATION. ACCEPTABLE DEBRIS CONSISTS OF ANY WOOD MATERIAL THAT HAS SUFFICIENT LIMBS TO LINK TO TREE ROOTS/OTHER DEBRIS.
4. ACCEPTABLE WOOD DEBRIS SHALL BE DETERMINED BY THE ENGINEER OR FIELD REPRESENTATIVE.
5. COMPACTION OF WOOD DEBRIS IS REQUIRED. SUFFICIENT COMPACTION SHALL BE DETERMINED BY THE ENGINEER OR FIELD REPRESENTATIVE.
6. SOD MAT SHALL CONSIST OF SUFFICIENT PLANT GROWTH TO BIND THE SOD MAT TOGETHER. SOD MATS CONTAINING WILLOWS AND/OR DENSE STANDS OF GRASSES ARE CONSIDERED IDEAL. ACCEPTABLE SOD MATERIAL SHALL BE DETERMINED BY ENGINEER OR FIELD REPRESENTATIVE.
7. ENGINEER TO STAKE LIMITS OF TOE-WOOD DEBRIS BENCH.
8. TOE-WOOD DEBRIS INCLUDES PLACEMENT OF TOE-WOOD DEBRIS AND TOPSOIL FILL. ALL CLEARING AND GRUBBING MATERIAL AT THE LUNDEMO-EICHENBERGER SITE SHALL BE USED FOR TOE-WOOD DEBRIS INSTALLATION AND WILL ALSO BE PAID FOR UNDER ITEM NO. 2577.601, "TOE-WOOD DEBRIS". ADDITIONAL TOE-WOOD DEBRIS NEEDED TO COMPLETE THE BIOENGINEERING INSTALLATION SHALL ONLY BE PAID FOR UNDER ITEM NO. 2577.601, "TOE-WOOD DEBRIS". SEE SHEET 5 FOR ADDITIONAL TOE-WOOD SOURCE LOCATION.



TOE-WOOD TYPICAL SECTION
NOT TO SCALE

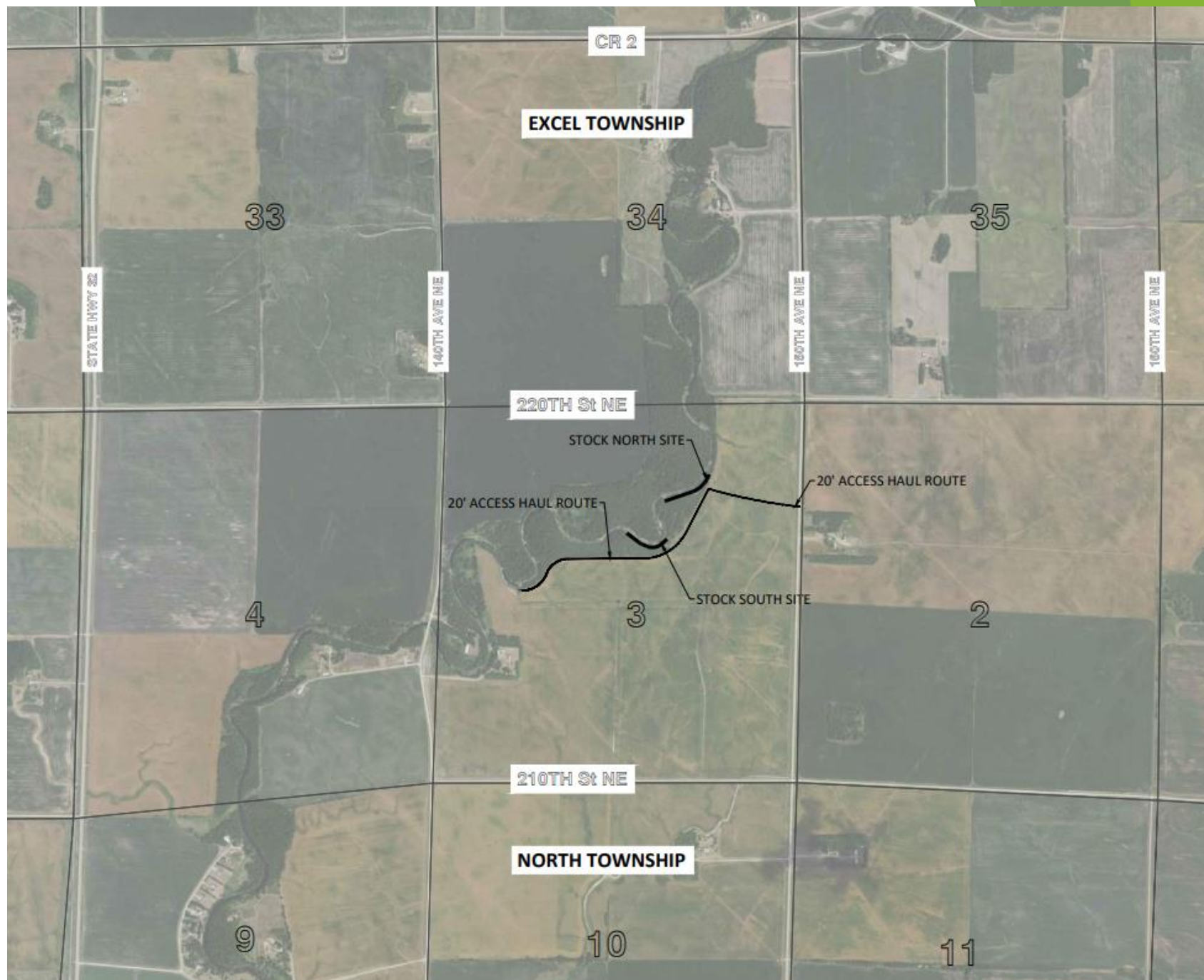


TOE-WOOD TYPICAL PLAN VIEW
NOT TO SCALE

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

Tony A. Nordby
License No. 51392

Date: _____





















Surveying

Thief River (Thief River 1W1P)

- ❖ Excel Township, Marshall County

- ❖ Channel survey and identified sites









Surveying

Moose River (Thief River 1W1P)

- ❖ Northwood Township, Beltrami County

- ❖ Channel survey









Surveying

Clearwater River

❖ Greenwood Township, Clearwater County

❖ Channel survey







