

RICE CREEK /

RAMSEY COUNTY DITCH 2  
STATIONS

# RICE CREEK WATERSHED DISTRICT

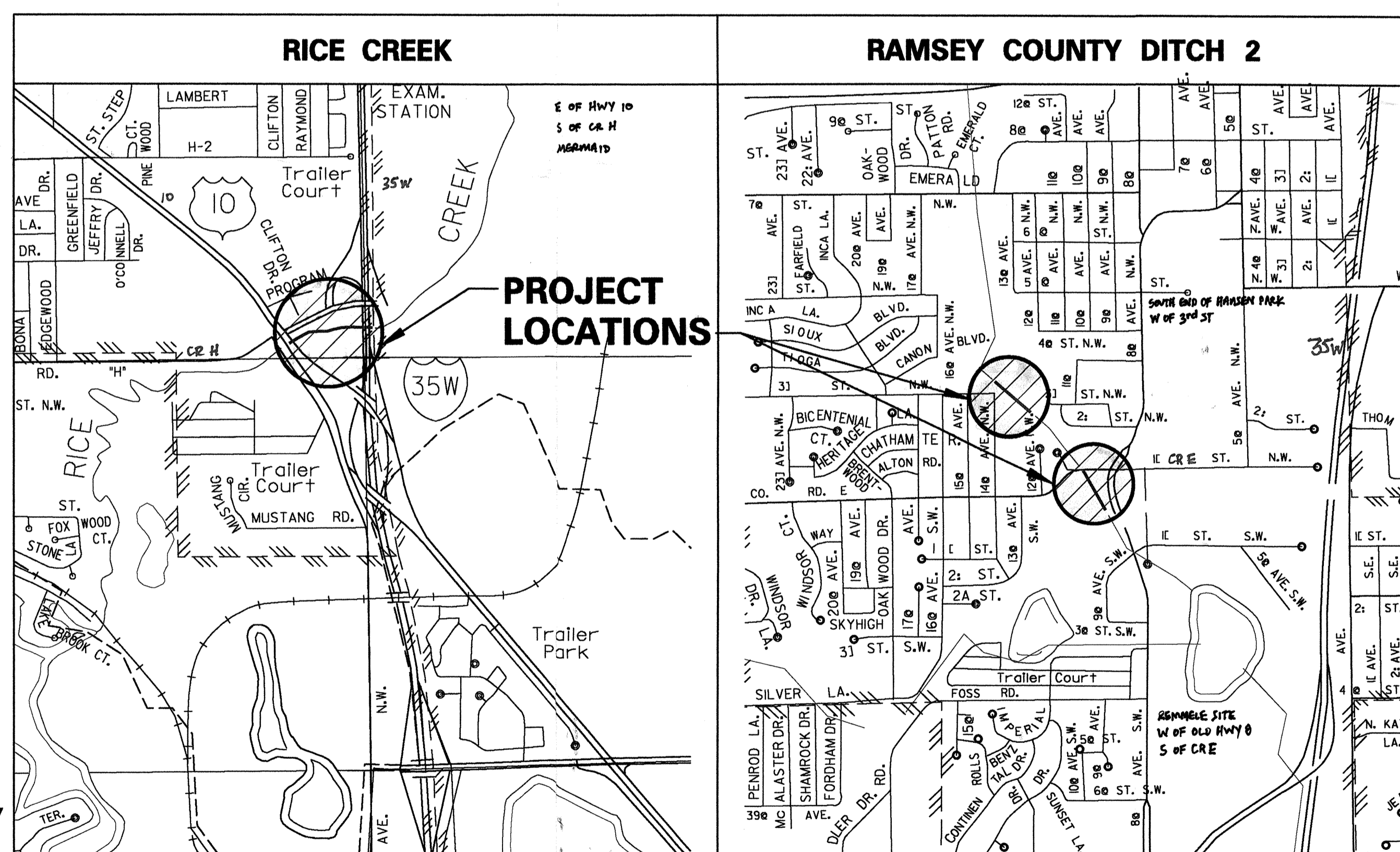
## 2000 - 2001 RICE CREEK STAS. 462+00 AND 464+00, RAMSEY COUNTY DITCH 2 STAS. 72+00 AND 87+00

MOUNDS VIEW,  
MINNESOTA

NEW BRIGHTON,  
MINNESOTA

### DRAWING INDEX

SHEET	DESCRIPTION
1.	TITLE SHEET, LOCATION MAPS AND DRAWING INDEX
2.	PROJECT LIMITS MAPS
3.	RICE CREEK SITE REPAIR AND QUANTITIES (STAS. 462+00 AND 464+00)
4.	RICE CREEK CROSS SECTIONS AND DETAILS - (STAS. 462+00 AND 464+00)
5.	COUNTY DITCH 2 SITE REPAIR, QUANTITIES AND CROSS SECTIONS (STA. 87+00)
6.	COUNTY DITCH 2 SITE REPAIR, QUANTITIES, PROFILE, AND CROSS SECTIONS (STA. 72+00)



### RICE CREEK WATERSHED DISTRICT BOARD OF MANAGERS

#### RAMSEY COUNTY

ORDEEN J. BRAATHEN  
TOM WADDELL

#### ANOKA COUNTY

ANDREW J. CARDINAL  
EUGENE L. PETERSON

#### WASHINGTON COUNTY

ROBERT M. HULT

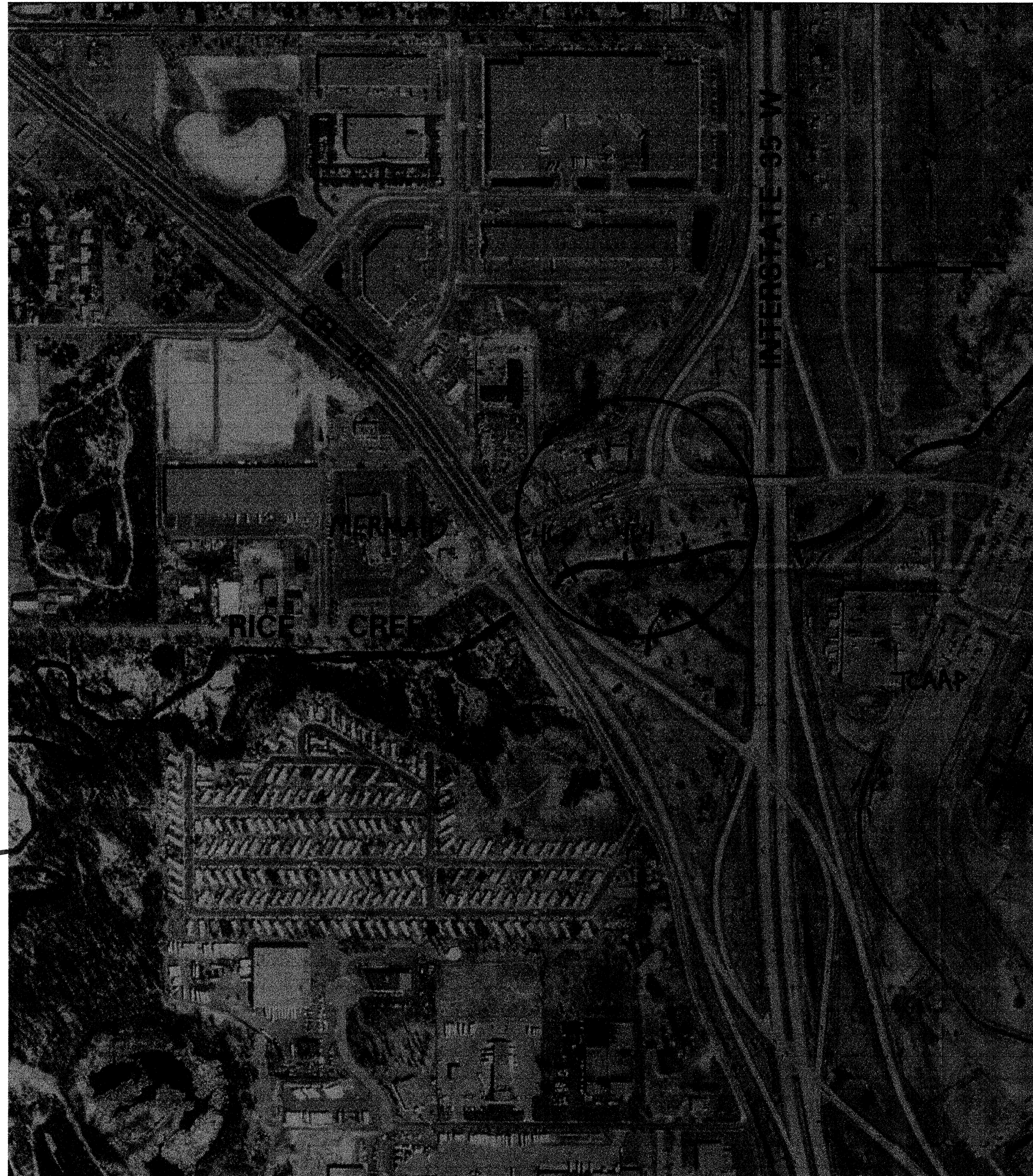
LOCATION MAP  
NOT TO SCALE



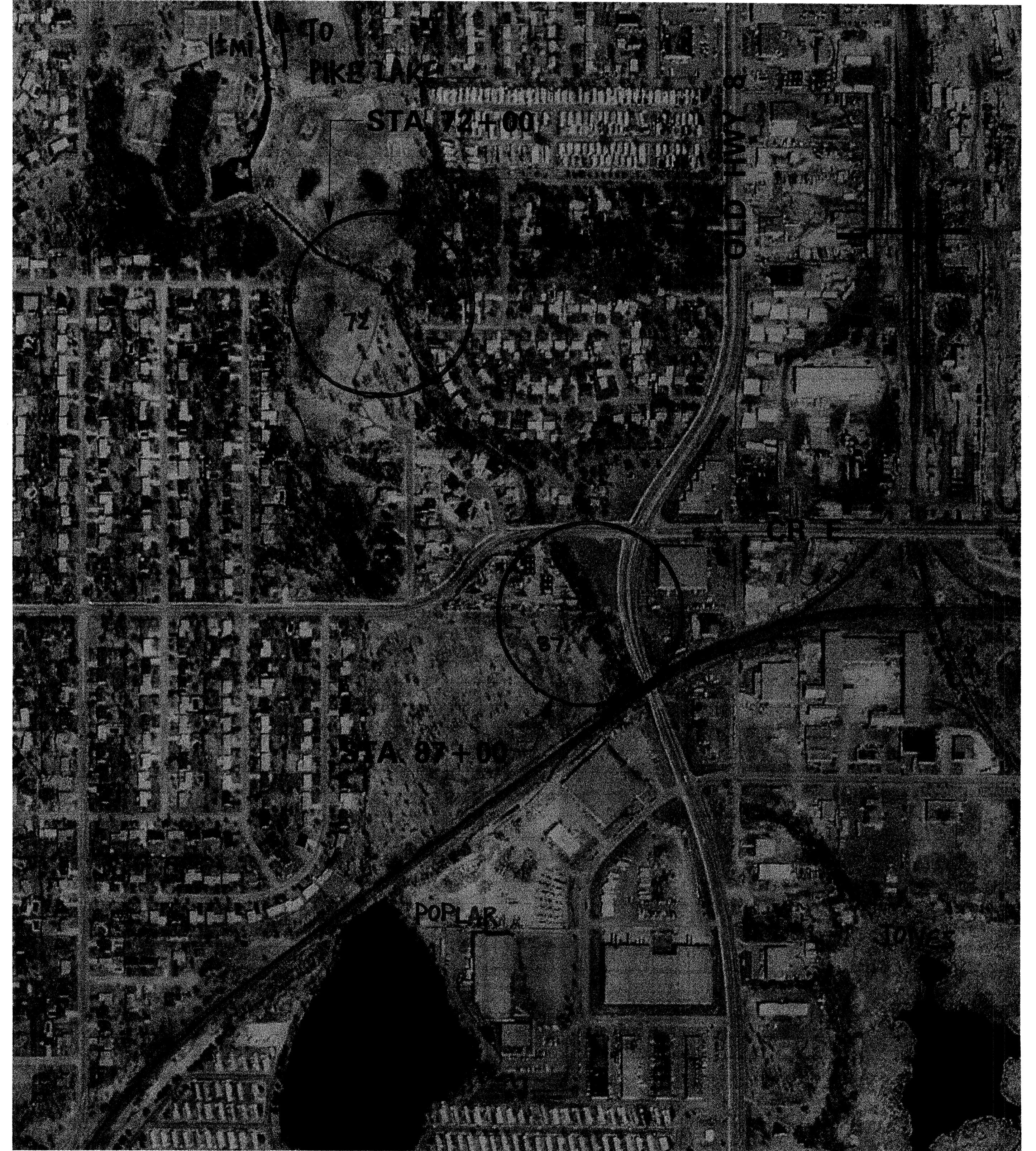
MONTGOMERY WATSON

Minneapolis, Minnesota

**RICE CREEK STATIONS 462+00 AND 464+00**



**RAMSEY COUNTY DITCH 2 - STAS. 72+00 AND 87+00**



1 1/2 MI TO LONG LK

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11/13/98  
JOB No. \_\_\_\_\_ FILE No. \_\_\_\_\_

REV	DATE	BY	DESCRIPTION

SCALE: 1"=300'  
 WARNING: IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

DESIGNED: CKA  
 DRAWN: MPM  
 CHECKED: DSK

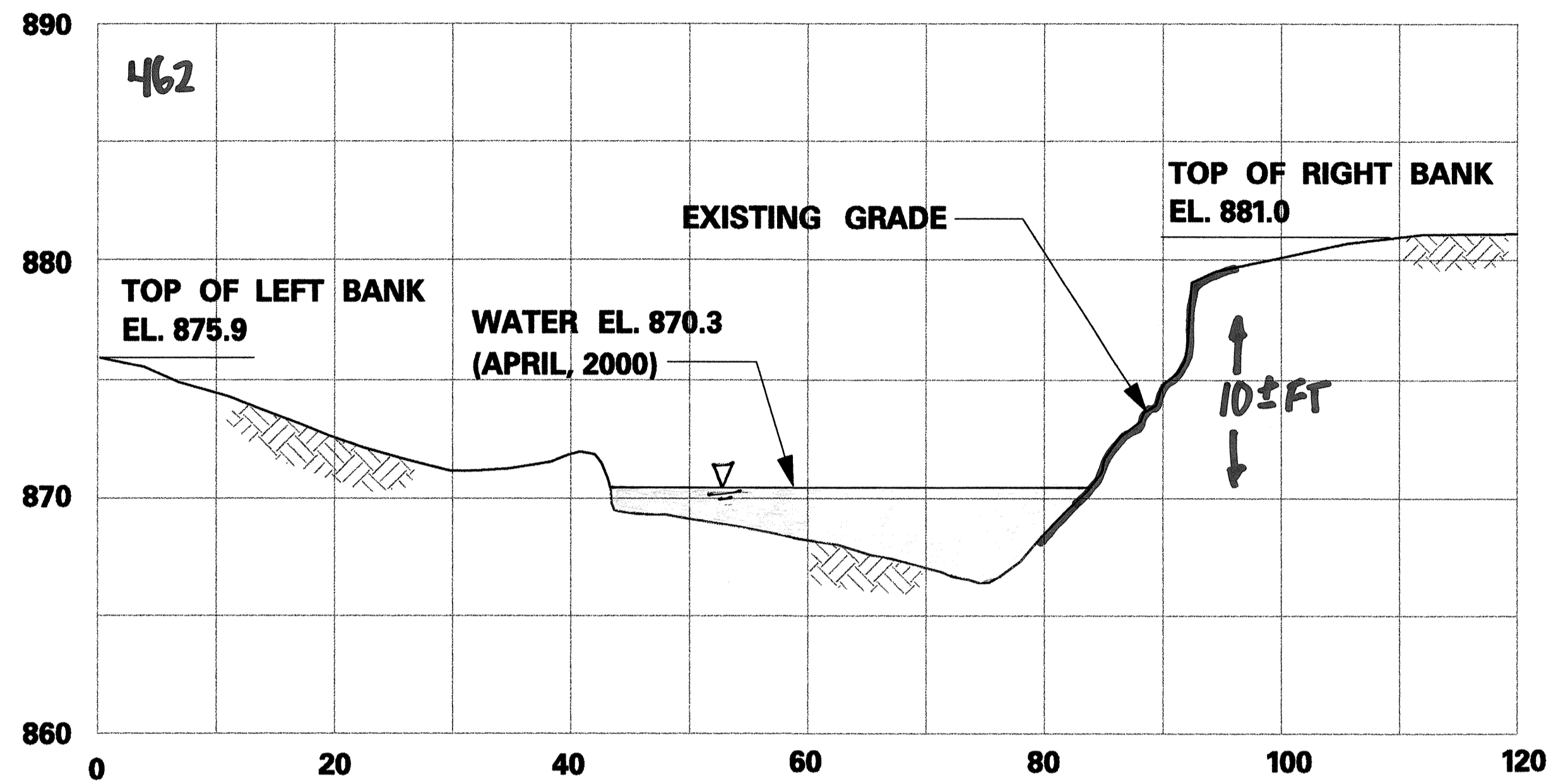
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED ENGINEER IN THE STATE OF MINNESOTA.  
 DATE \_\_\_\_\_ MN. REG. NO. \_\_\_\_\_



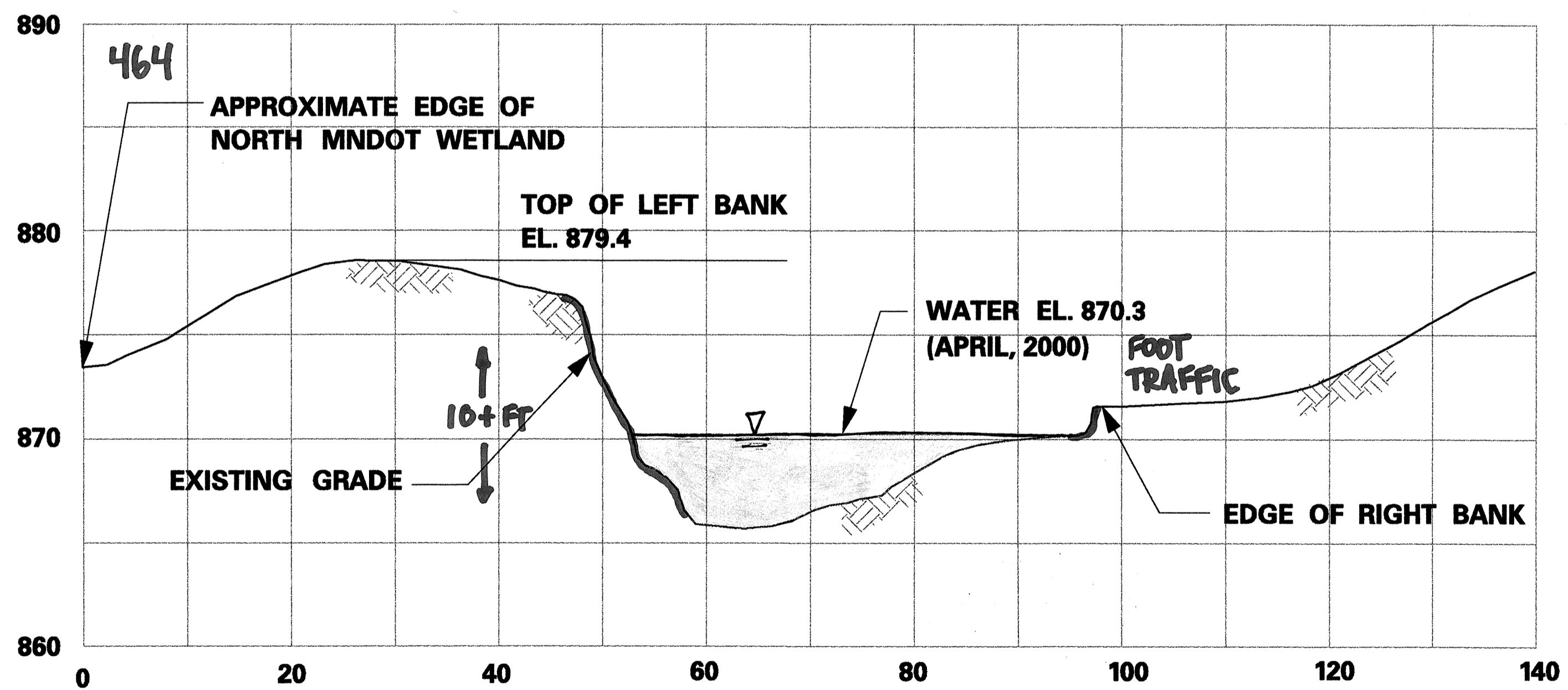
**RICE CREEK WATERSHED DISTRICT**

2000-2001 RICE CREEK / RAMSEY COUNTY DITCH 2 STABILIZATION PROJECT  
 PROJECT LIMITS MAPS

SHEET 2 OF 6 SHEETS

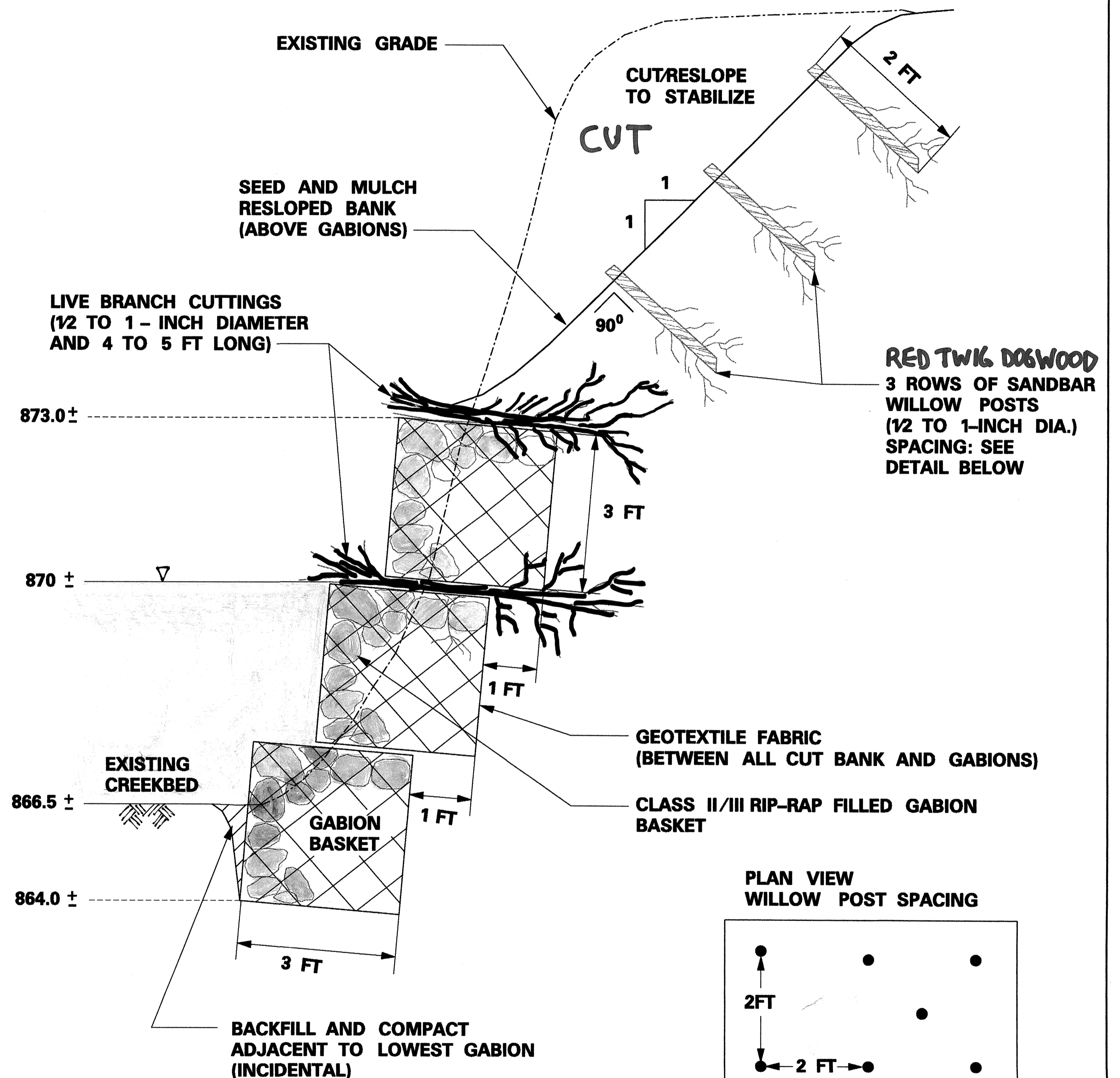


CROSS SECTION 1

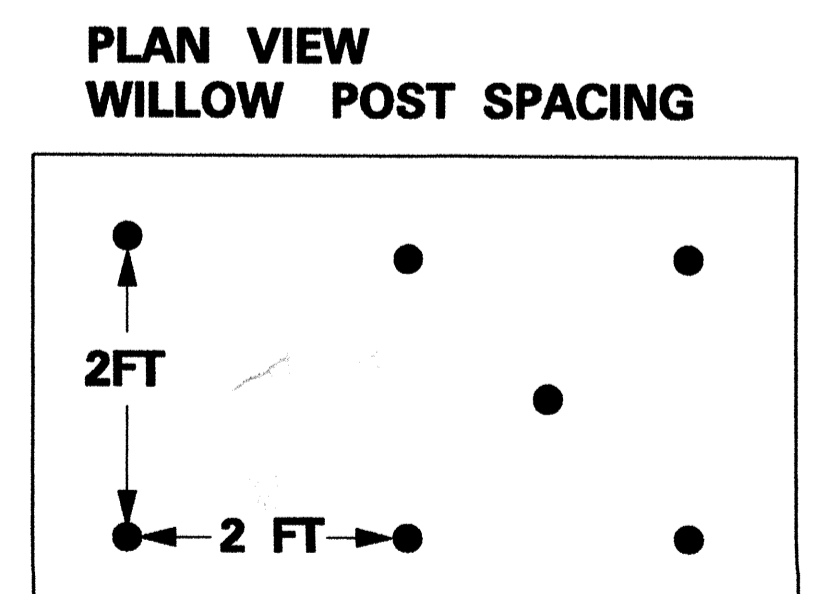


CROSS SECTION 2

SCALE:  
 VERTICAL 1" = 10'  
 HORIZONTAL 1" = 20'



TYPICAL REPAIRED BANK  
 CROSS - SECTION  
 N.T.S.



- PROP. STAB:  
 - BANK REPAIRING  
 - 3 ROWS OF GABIONS  
 - WILLOW BUNDLES  
 - PILTS / DOGWOOD  
 - SEED / MULCH

GT. CNT. 8/22/00

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REV	DATE	BY	DESCRIPTION

SCALE:	AS SHOWN	DESIGNED:	CKA
		DRAWN:	MPM
		CHECKED:	DSK

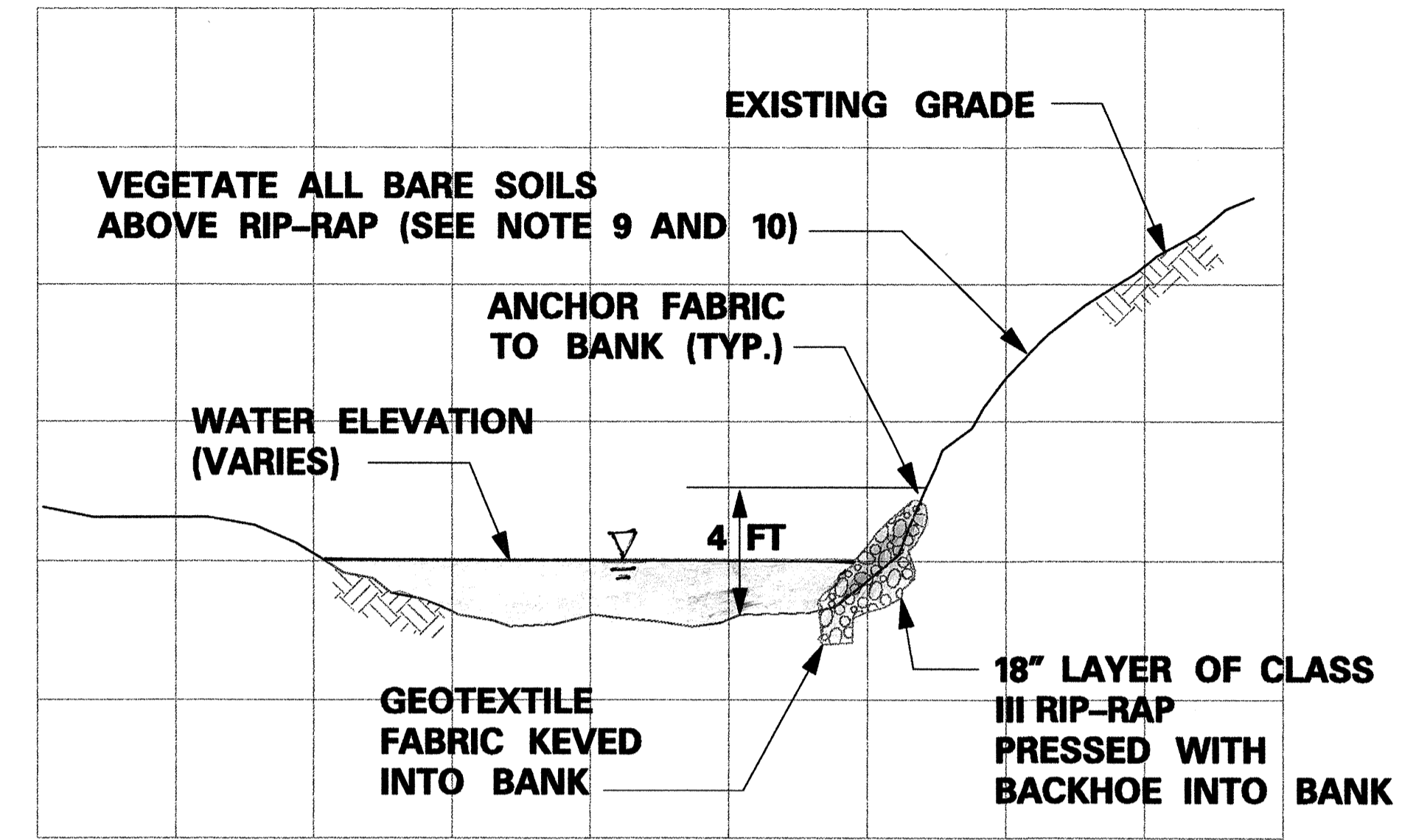
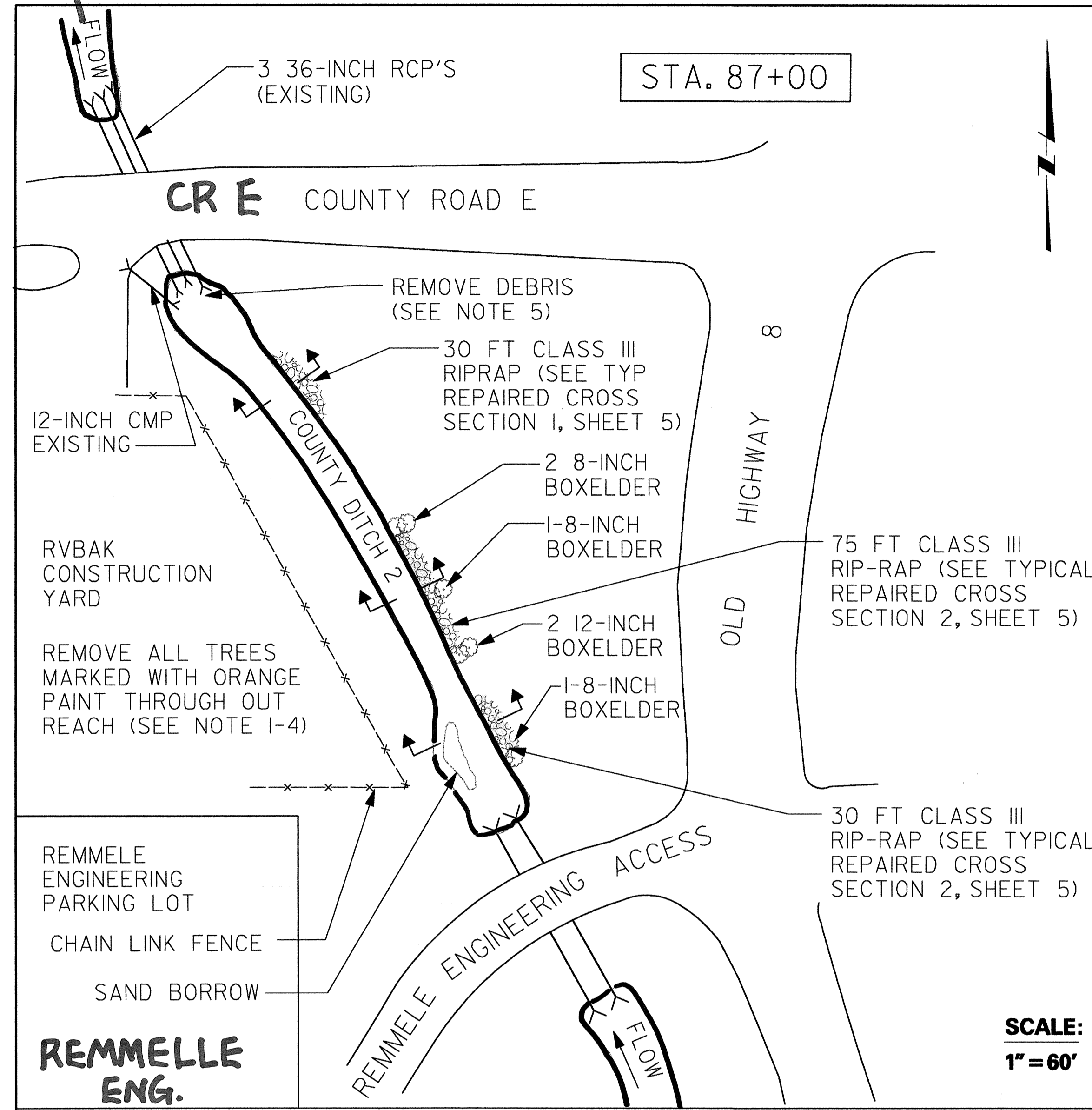
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 THAT I AM A DULY REGISTERED ENGINEER IN THE  
 STATE OF MINNESOTA.  
 DATE MN. REG. NO.



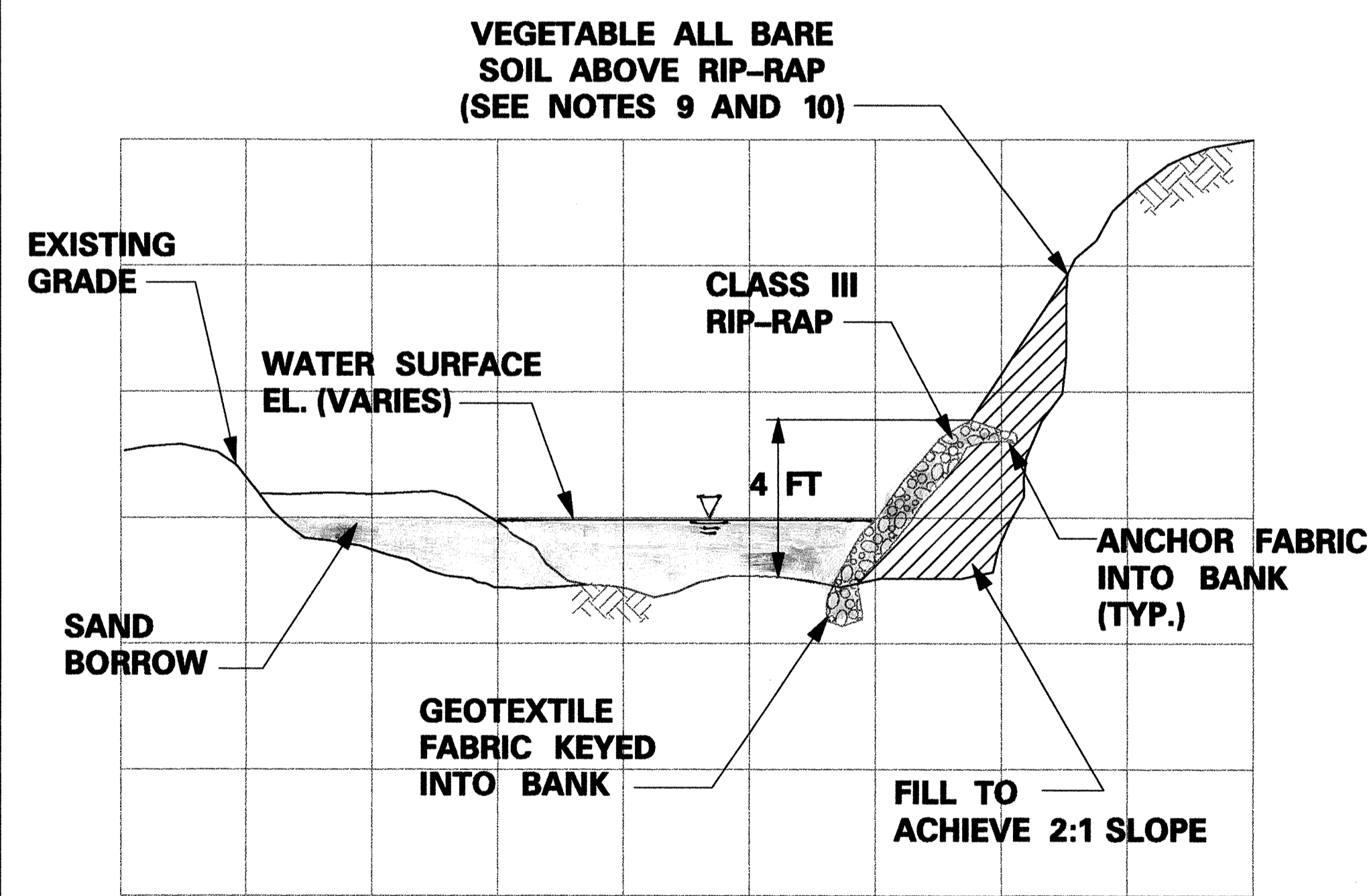
RICE CREEK  
 WATERSHED DISTRICT

2000-2001 RICE CREEK / RAMSEY COUNTY DITCH 2  
 STABILIZATION PROJECT  
 RICE CREEK CROSS SECTIONS AND DETAILS  
 (STAS. 462+00 AND 464+00)

TO PIKE LAKE



TYPICAL REPAIRED CROSS SECTION 1  
N.T.S.



TYPICAL REPAIRED CROSS SECTION 2  
N.T.S.

- NOTES:
- CUT AND REMOVE ALL TREES MARKED WITH ORANGE PAINT. MAJORITY OF TREES TO BE REMOVED ARE LOCATED AT TOP OF EAST BANK. REMAINING TREES TO BE REMOVED ARE SCATTERED THROUGHOUT REACH ON EAST AND WEST BANKS.
  - THE ESTIMATED NUMBER OF TREES TO BE REMOVED BY TRUNK DIAMETER ARE (NUMBER-DIAMETER): 14-4", 17-6", 14-12", 6-18" AND 2-24".
  - REMOVAL OF ANY UNMARKED TREES GREATER THAN 6-INCH DIAMETER TO BE APPROVED BY DISTRICT ENGINEER OR INSPECTOR.
  - TREES IDENTIFIED IN PLAN VIEW ARE TO BE PRESERVED AND STABILIZED.
  - STABILIZATION FILL MAY BE OBTAINED FROM CHANNEL SAND BARS.
  - GEOTEXTILE FABRIC SHALL CONFORM TO MNDOT 3733.1 TYPE IV.
  - ANCHOR GEOTEXTILE FABRIC TO BANK.
  - RIP-RAP SHALL CONFORM TO MNDOT 3601.2 (A2a) CLASS III.
  - SEEDING OF ALL DISTURBED AREAS SHALL BE WITH PERENNIAL RYE.
  - RED TWIG DOGWOOD ARE TO BE PLANTED (SCATTERED) ABOVE RIP-RAP AT 2 DOWNSTREAM REPAIR AREAS.
  - CLEAR AND REMOVE ALL DEBRIS AND SEDIMENT FROM INLETS TO EXISTING 36-INCH RCPS UNDER COUNTY ROAD E.
  - CONTRACTOR TO COORDINATE ACCESS AND ACCESS RESTORATION WITH LANDOWNER, BILL KOWALINK (651-633-4262) AND ENGINEER.
  - GOPHER STATE ONE-CALL SHALL BE CONTACTED BY CONTRACTOR TO MARK UTILITIES PRIOR TO CONSTRUCTION COMMENCEMENT.

**QUANTITIES**

DESCRIPTION	QTY.	UNIT
MOBILIZATION (MNDOT 2021)	1	EACH
TREE REMOVAL (SEE NOTES 1 AND 2)	1	EACH
GEOTEXTILE FABRIC (MNDOT 3733.1 TYPE IV)	175	S.Y.
CLASS III RIP-RAP (MNDOT 3601.2 A2a)	50	C.Y.
SEED (PERENNIAL RYE)	3000	S.Y.
MULCH (MNDOT 3882)	3000	S.Y.
RED TWIG DOGWOOD	150	EACH
ACCESS RESTORATION	1	EACH

REMMELLE SITE  
S OF CR E  
N OF OLD HWY 8  
15' LF OF RIGHT BANK FAILURE  
THICK TREE OVERSTORY  
LIMITED SUNLIGHT / SHADY VEG.  
EROSION FROM CR E AND OVERLAND FLOW

MAIN THREAT OF PROJECT - TREE THINNING - BT. HEALTHY VEG. UPPER BANKS  
STRUCTURAL REPAIR - BANK RESTORATION (IF NEEDED)  
- CLASS III RIP-RAP  
- DOGWOOD  
- SEED / MULCH

ESTIMATED COST - \$30,000 (TREE REMOVAL - PRICE VARIABLE)

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 JOB NO. FILE NO.

REV	DATE	BY	DESCRIPTION

SCALE: AS SHOWN

WARNING  
0 1/2 1  
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

DESIGNED: CKA  
DRAWN: MPM  
CHECKED: DSK

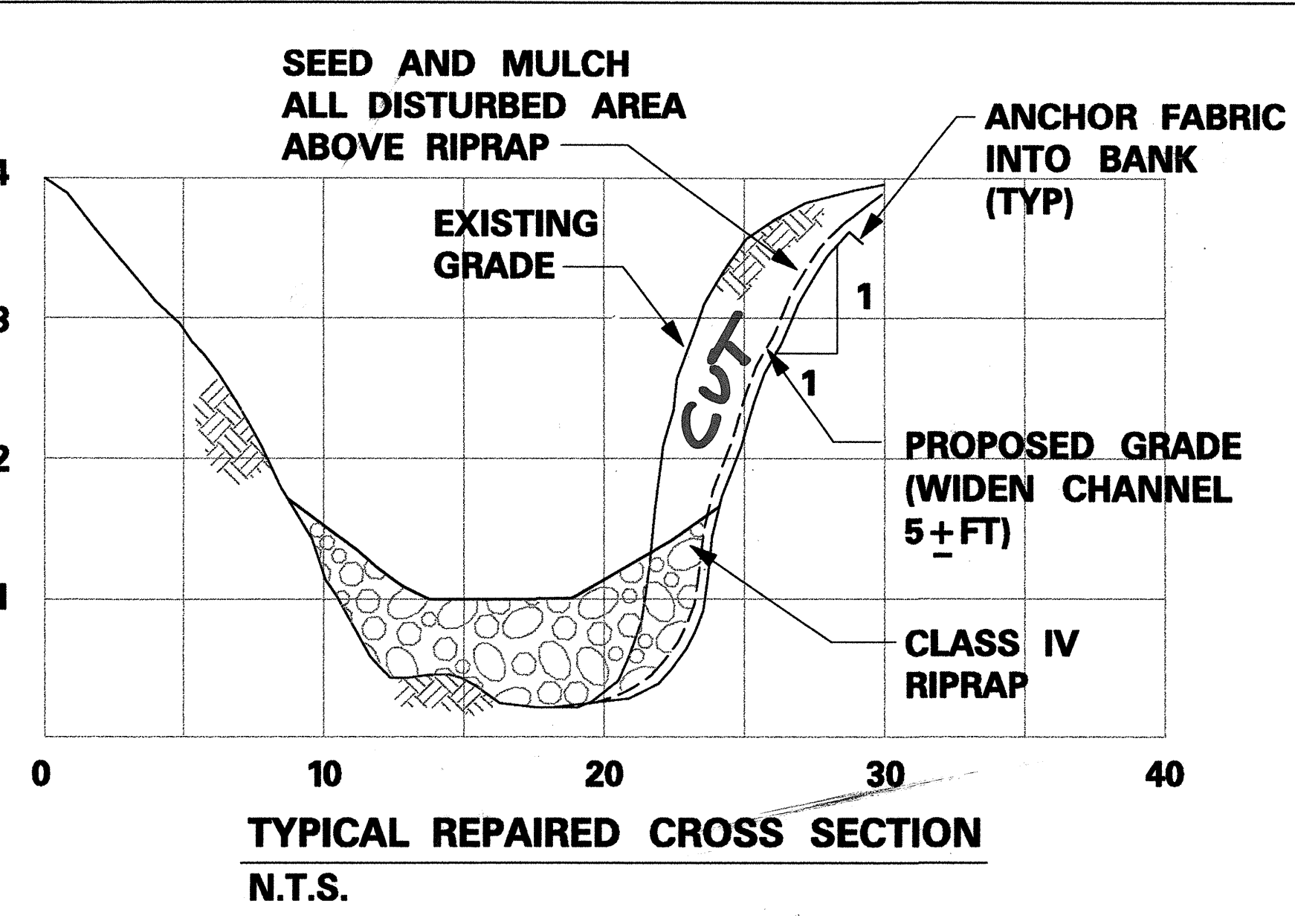
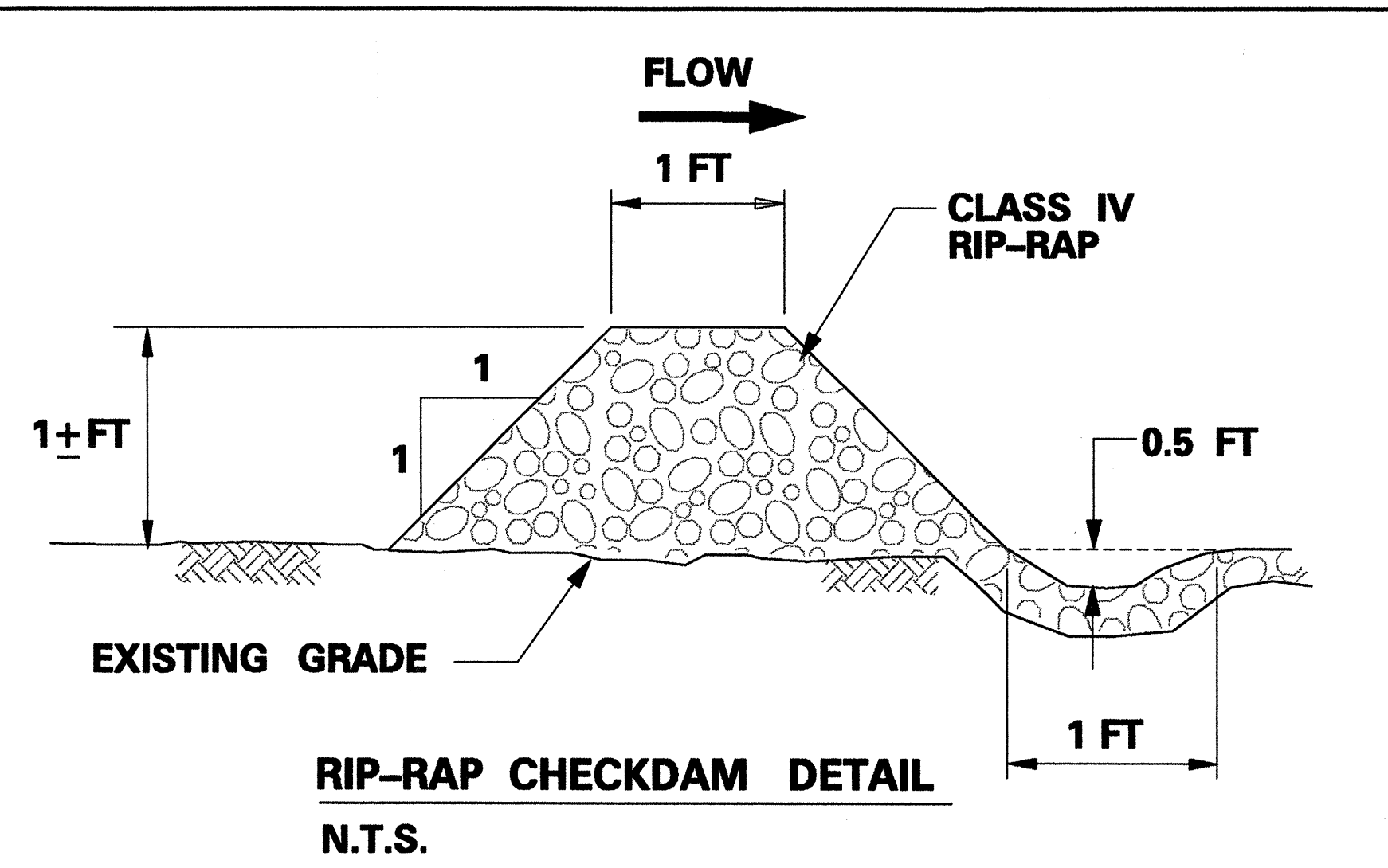
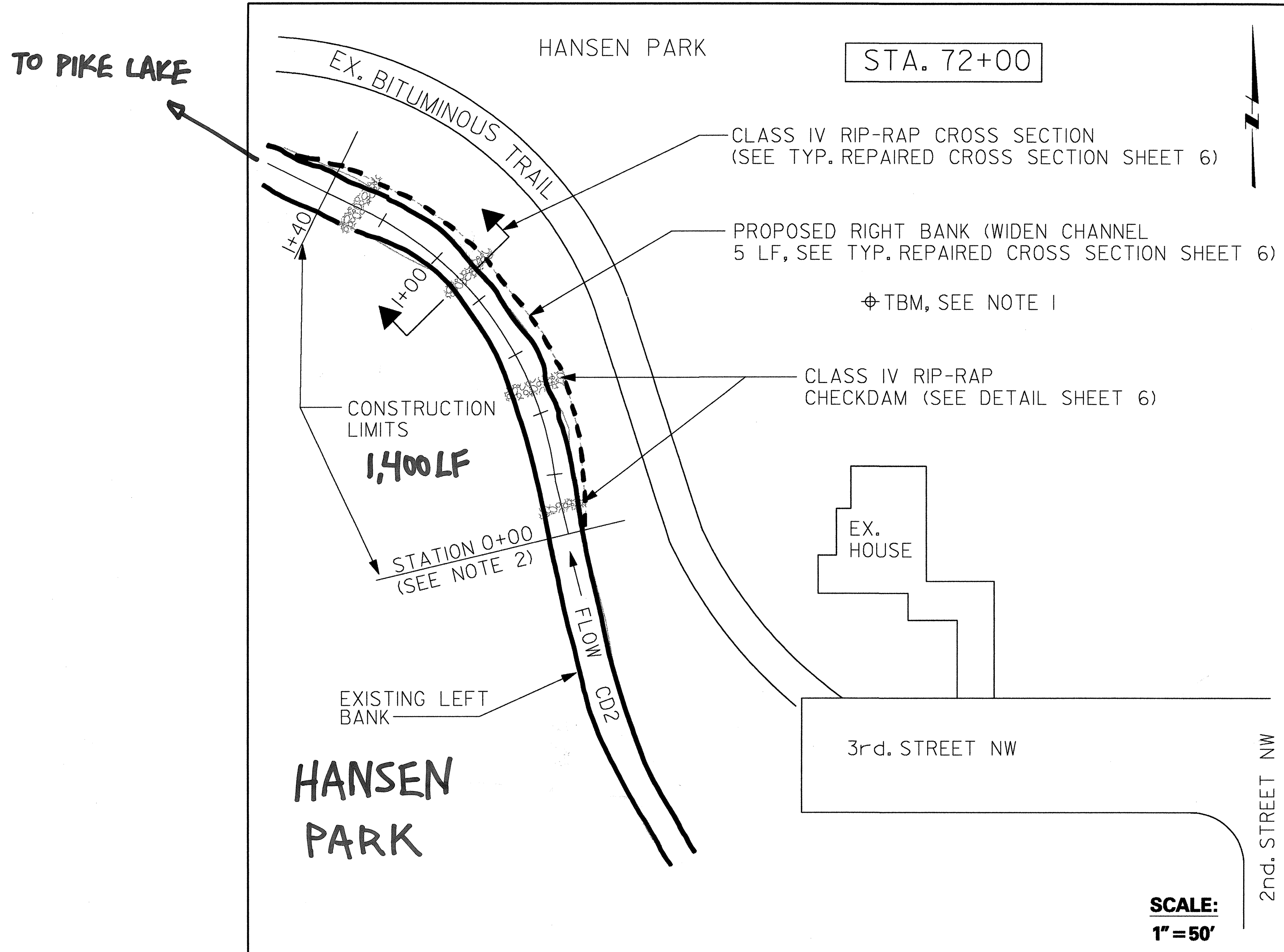
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED ENGINEER IN THE STATE OF MINNESOTA.

DATE MN. REG. NO.

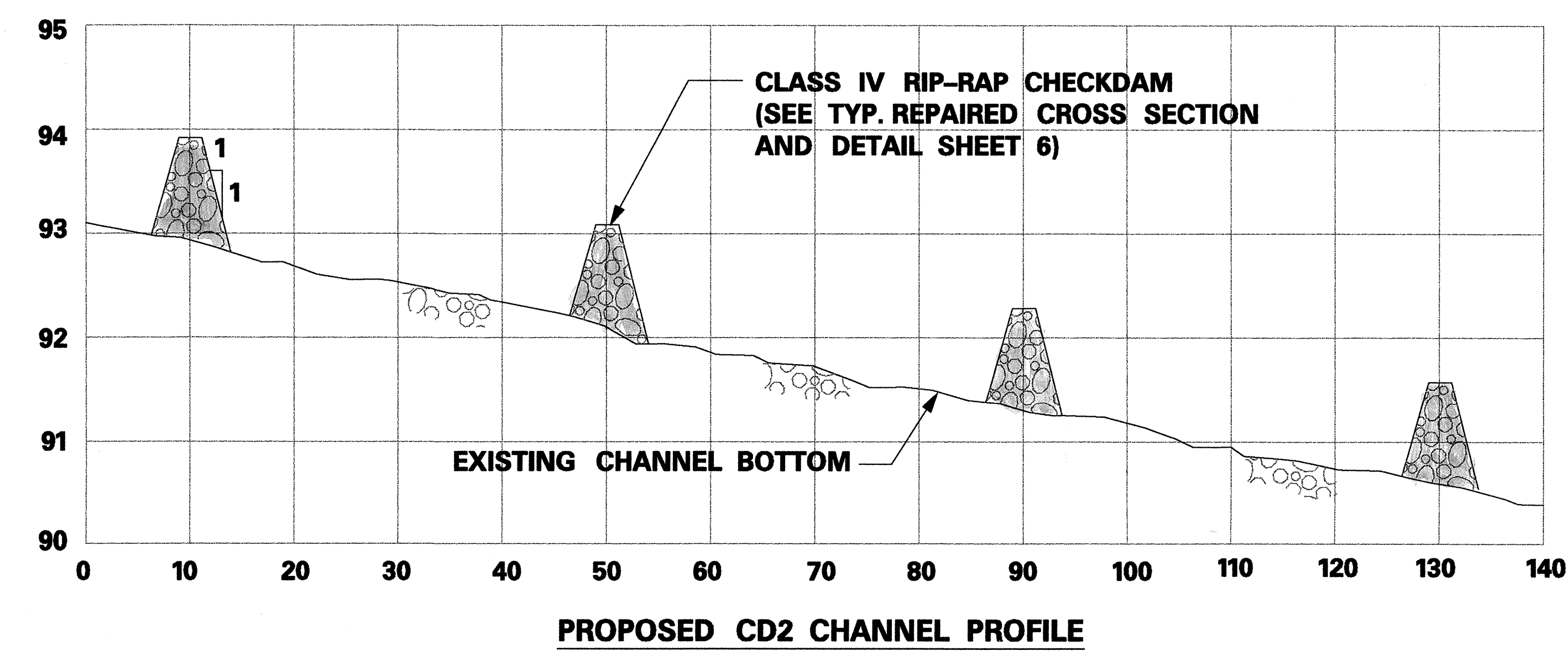


RICE CREEK WATERSHED DISTRICT

2000-2001 RICE CREEK / RAMSEY COUNTY DITCH 2 STABILIZATION PROJECT  
COUNTY DITCH 2 SITE REPAIR, QUANTITIES AND CROSS SECTIONS (STA. 87+00)



- NOTES:**
1. TBM - "0" IN OPEN, FIRE HYDRANT EAST OF CHANNEL AND BITUMINOUS PATH ELEVATION = 100.0 (ASSUMED).
  2. STATION Ø TO BE MARKED IN FIELD BY ENGINEER.
  3. CUT AND REMOVE TREES (6) MARKED WITH ORANGE PAINT.
  4. EXISTING CHANNEL RIPRAP TO BE STOCKPILED AND RE-UTILIZED ON CHANNEL BANKS AFTER WIDENING.
  5. EXISTING CHANNEL TO BE WIDENED 5 FT. VIA EXCAVATION OF RIGHT BANK. SPOILS TO BE REMOVED FROM SITE.
  6. GEOTEXTILE FABRIC TO BE PLACED OVER ENTIRE CHANNEL BED AND BANKS AFTER CHANNEL WIDENING.
  7. GEOTEXTILE FABRIC SHALL CONFORM TO MNDOT 3733.1 TYPE IV.
  8. MIX CLASS IV RIP-RAP W/EXISTING RIP-RAP STOCK PILE AND SPREAD ON CHANNEL BED AND BANKS.
  9. RIP-RAP SHALL CONFORM TO MNDOT 3601.2 (A2a) CLASS IV.
  10. SEEDING OF DISTURBED AREAS SHALL CONFORM TO MNDOT 3876.2F SEED MIX 500 (OR EQUIVALENT).
  11. PROPOSED ACCESS OFF 3rd STREET NW. COORDINATE FINAL ACCESS AND RESTORATION WITH ENGINEER AND CITY OF NEW BRIGHTON PARKS DEPARTMENT.
  12. GOPHER STATE ONE-CALL SHALL BE CONTACTED BY CONTRACTOR TO MARK UTILITIES PRIOR TO CONSTRUCTION COMMENCEMENT.



**SCALE:**  
 VERTICAL 1" = 20'  
 HORIZONTAL 1" = 2'

CO 2 HANSEN PARK  
 1. WIDEN OF BANK STABILIZATION  
 2. SEEDING AND MULCHING (SEE NOTE 10)  
 3. RIP-RAP (SEE TYP. REPAIRED CROSS SECTION SHEET 6)  
 4. GEOTEXTILE FABRIC (SEE TYP. REPAIRED CROSS SECTION SHEET 6)  
 5. CHANNEL WIDENING  
 6. RE-USE EX. CLASS IV ON UPPER BANKS  
 7. CLASS IV ON LOWER BANKS  
 8. ENERGY DISSIPATORS (1) DAMS  
 9. INCREASE FLOW CAPACITY  
 10. DECREASE VELOCITIES TO PREVENT  
 # 25,000

**QUANTITIES**

DESCRIPTION	QTY.	UNIT
MOBILIZATION (MNDOT 2021)	1	EACH
TREE REMOVAL (SEE NOTE 4)	1	EACH
EXCAVATION	100	C.Y.
CLASS IV RIP-RAP (MNDOT 3601.2 A2a)	125	C.Y.
GEOTEXTILE FABRIC (MNDOT 3733.1 TYPE IV)	800	S.Y.
SEED (MNDOT 3876.2F MIX 500)	400	S.Y.
MULCH (MNDOT 3882)	400	S.Y.
ACCESS RESTORATION	1	EACH

SCALE: 1" = 50' WARNING: IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.	DESIGNED: CKA DRAWN: MPM CHECKED: DSK	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED ENGINEER IN THE STATE OF MINNESOTA.		RICE CREEK WATERSHED DISTRICT	2000-2001 RICE CREEK / RAMSEY COUNTY DITCH 2 STABILIZATION PROJECT	SHEET 6 OF 6 SHEETS
REV. DATE BY DESCRIPTION	COUNTY DITCH 2 SITE REPAIR, QUANTITIES, PROFILE AND CROSS SECTIONS (STA. 72+00)					

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 JOB No. \_\_\_\_\_

TOTAL EST. COST - \$100,000, SUBMITTED OVER/UNDER BUDGET TO LOWEST BIDDER FOR COMMENT, MEANS TO ADVISE BIDDERS PER COMMENTS, AND BID FOR AWARD ON 11/13/98.