

CITY OF CENTERVILLE

SECTION 23, T31N, R22W

C.S.A.H. 14 (MAIN ST.)

BRIDGE NO. **97893**, APPROACHES AND CHANNEL EXCAVATION
C.S.A.H. 14 AT CLEARWATER CREEK FROM 960 FEET TO 1052 FEET
EAST OF JUNCTION OF C.S.A.H. 21 IN CENTERVILLE

02501, 02503, 02504, 02505

M.S.A.S. S.A.P. 02-614-21

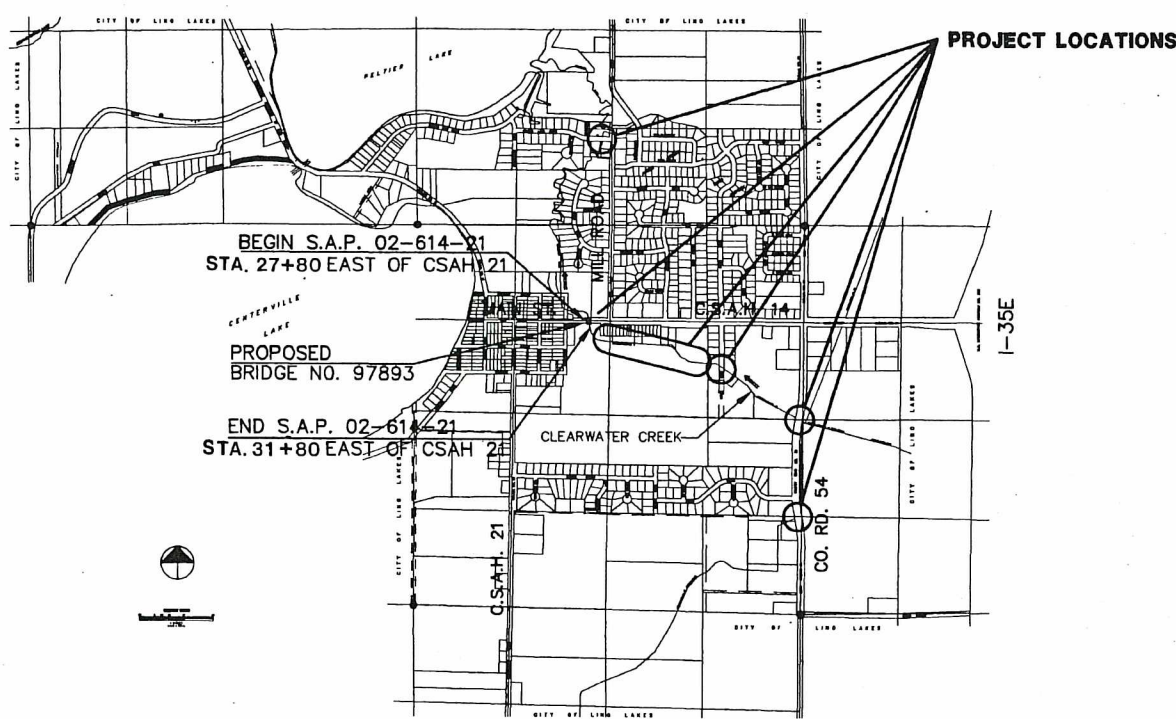
GROSS LENGTH	92 FEET	0.017 MILES
BRIDGE LENGTH	26.33 FEET	.005 MILES
EXCEPTION LENGTH	0 FEET	0 MILES
NET LENGTH	92 FEET	0.017 MILES

PLAN SYMBOLS

SECTION LINE	---	TREES	⊗
QUARTER LINE	- - - -	BRUSH OR SHRUBS	⊙
SIXTEENTH LINE	- · - · - ·	HEDGE	⊗⊗⊗⊗
RIGHT OF WAY	———	CONIFERS	⊗*
CENTER LINE	———	SWAMP	⊗
FENCE LINE	- x - x -	MAILBOX	⊕MB
RIVER OR CREEK	———	SIGN	⊗SIGN
LAKE OR POND	⊖		
CULVERT	— — —		
BRIDGE	— — —		
RETAINING WALL	— — —		

UTILITIES SYMBOLS

SANITARY SEWER	—●—	HYDRANT	⊙
STORM SEWER	—○—	POWER OR TELEPHONE POLE	⊙PP
WATERMAIN	— — —	LIGHT POLE	⊙*
GAS LINE	—G—G—	ANCHOR	— —
POWER LINE	—○—	SOIL BORING	⊕
MANHOLE	⊙	CURB INLET CATCH BASIN	⊕
BEEHIVE CATCH BASIN	⊙		
VALVE	⊙		



INDEX OF SHEETS

- 1 TITLE SHEET AND LOCATION MAP
- 2 ESTIMATED QUANTITIES, STREET SECTIONS, AND NOTES
- 3 LOCATION MAP
- 4-8 PLAN AND PROFILE SHEETS
- 9-11 CROSS SECTIONS
- 12-15 DETOUR SIGNING PLANS
- 16 STORM SEWER CONSTRUCTION DETAILS

I HEREBY CERTIFY THAT PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

[Signature] REG. NO. 19400 DATE 11/1/94

PRESENT ADT (1994) 6009 PROJ. ADT (2014) 10,216

NO. OF TRAFFIC LANES 2 NO. OF PARKING LANES N/A
SHOULDER WIDTH 8'

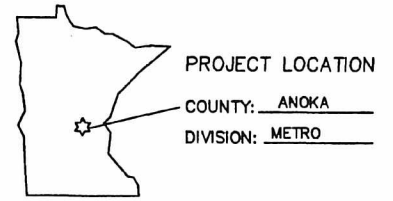
9 TON DESIGN

SOIL FACTOR N/A PROJ. HCA DT (2014) 766
OR

R-VALUE N/A N18 FACTOR N/A

DESIGN SPEED 45 MPH
DESIGN SPEED NOT ACHIEVED AT:
STA. N/A TO STA. N/A MPH

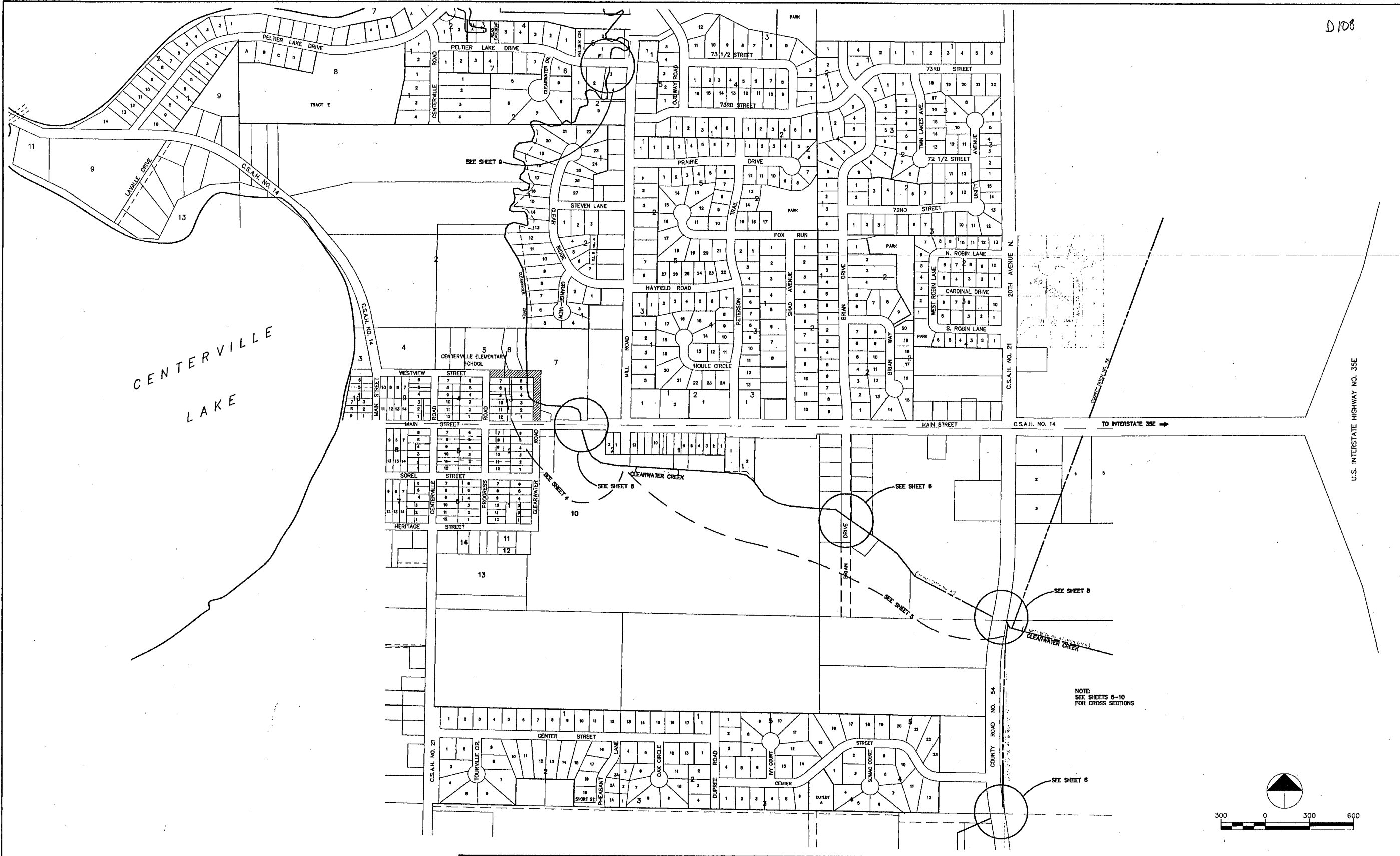
STOPPING SITE DISTANCE BASED ON:
3.5' HEIGHT OF EYE
0.5' HEIGHT OF OBJECT



PREPARED BY:
MSA CONSULTING ENGINEERS
Maier Stewart & Associates Inc.

APPROVED *[Signature]* CENTERVILLE CITY ENGINEER DATE 11/1/94
APPROVED *[Signature]* ANOKA COUNTY ENGINEER DATE 3/20/94
RECOMMENDED FOR APPROVAL *[Signature]* METRO - ASSISTANT DIVISION ENGINEER - STATE AID DATE 5/4/94
RECOMMENDED FOR APPROVAL *[Signature]* STATE PLANS & SPEC. ENGINEER DATE 10-13-94
APPROVED *[Signature]* STATE AID DIRECTOR DATE 6-13-94
RECOMMENDED FOR APPROVAL _____ STATE BRIDGE ENGINEER DATE _____

D108



NOTE:
SEE SHEETS 8-10
FOR CROSS SECTIONS

CV023

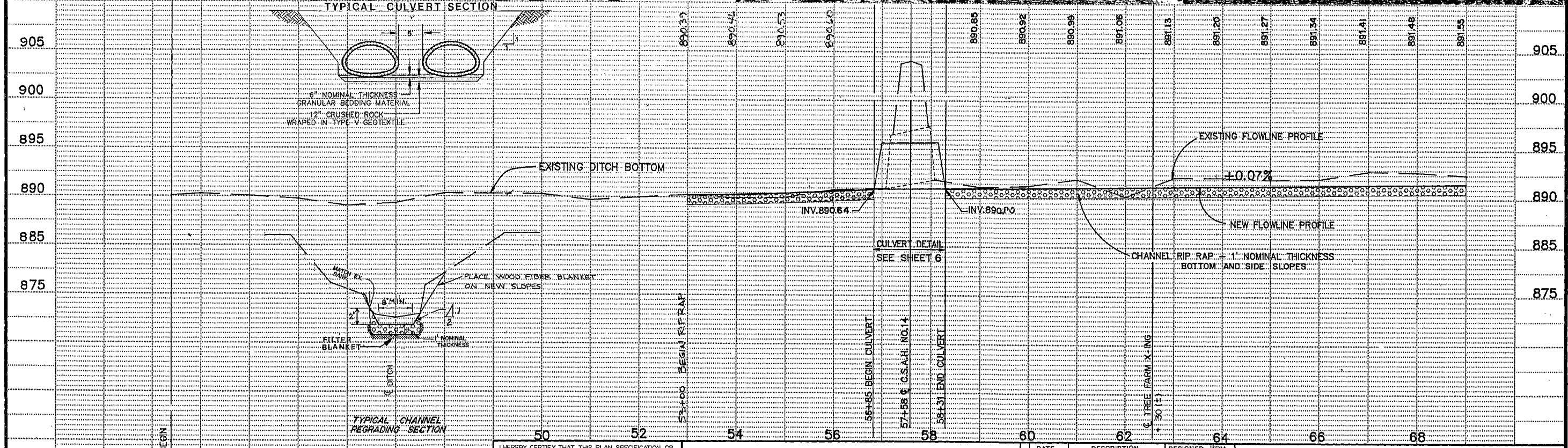
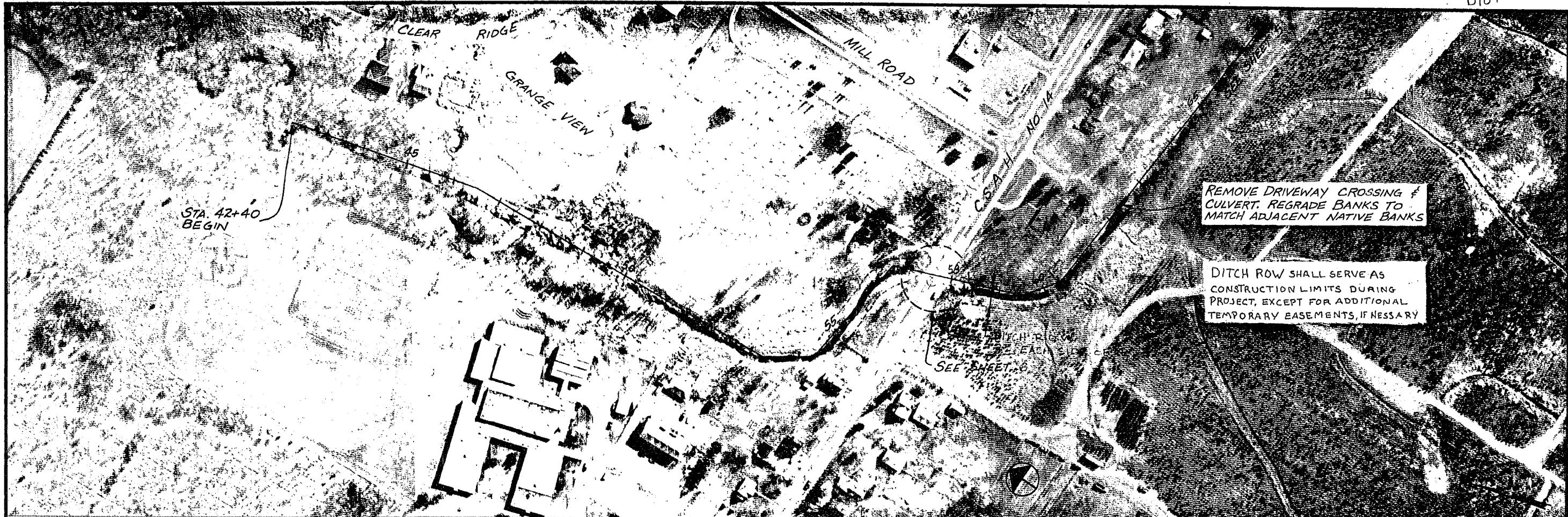
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA
Walter R. Miller
 DATE 6/13/94 REG. NO. 18805

MSA CONSULTING ENGINEERS
 Maier Stewart & Associates Inc.
 1959 SLOAN PLACE [612] 774-6021 ST. PAUL, MINNESOTA 55117

REVISIONS	DATE	DESCRIPTION	DESIGNED	CHKD
	6/7/94	SHEET LOCATION	MRJ	

CITY OF CENTERVILLE
CLEARWATER CREEK RESTORATION
 LOCATION MAP S.A.P. 02-614-21
 DATE MAY 1994 SHEET 3 OF 17 SHEETS PROJECT NO. 280-023

480 JUN 8 07:50:42 1994



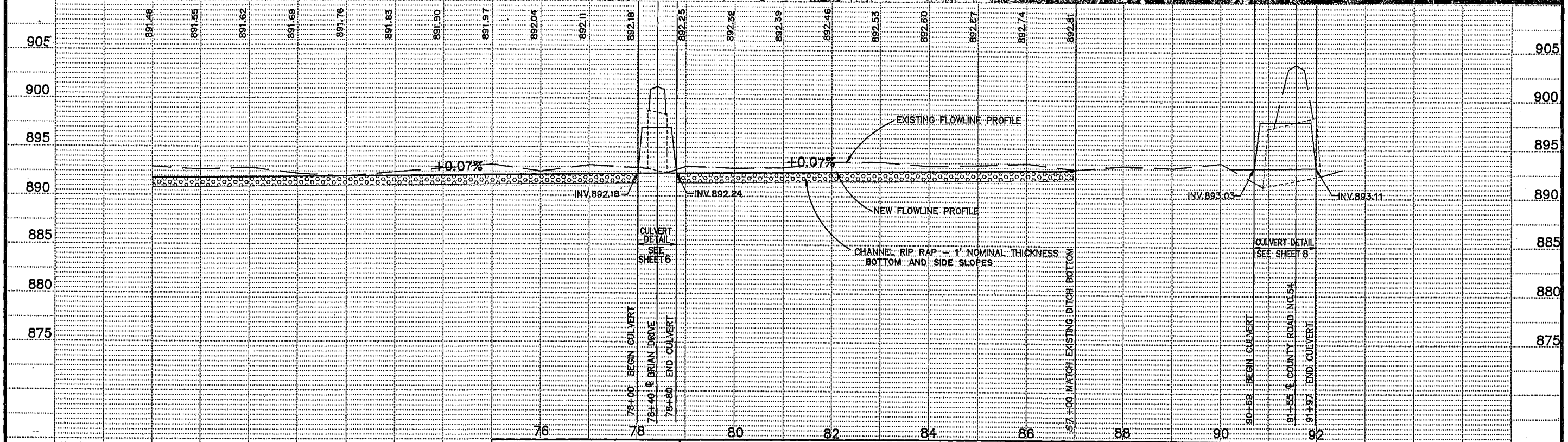
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Devin R. Miller
 DATE 4/1/91 REG. NO. 18805

MSA CONSULTING ENGINEERS
Maier Stewart & Associates Inc.
 1959 SLOAN PLACE (612)774-6021 ST. PAUL, MINNESOTA 55117

DATE	DESCRIPTION	DESIGNED BY
12-10-93	REVISE DITCH GRADE & CULVERT ELEV'S	CHECKED
3-16-94	DITCH R.O.W.	DRAWN MSL
		GRAPHIC SCALE
		0 HORIZ. 100'
		0 VERT. 5'

CITY OF CENTERVILLE
 CLEARWATER CREEK GRADING
 STA. 42+40 TO STA. 69+00
 S.A.P. 02-611-21
 DATE OCT. 1990 SHEET 4 OF 17 SHEETS PROJECT NO. 260-023



CV023-5
68 70 72 74

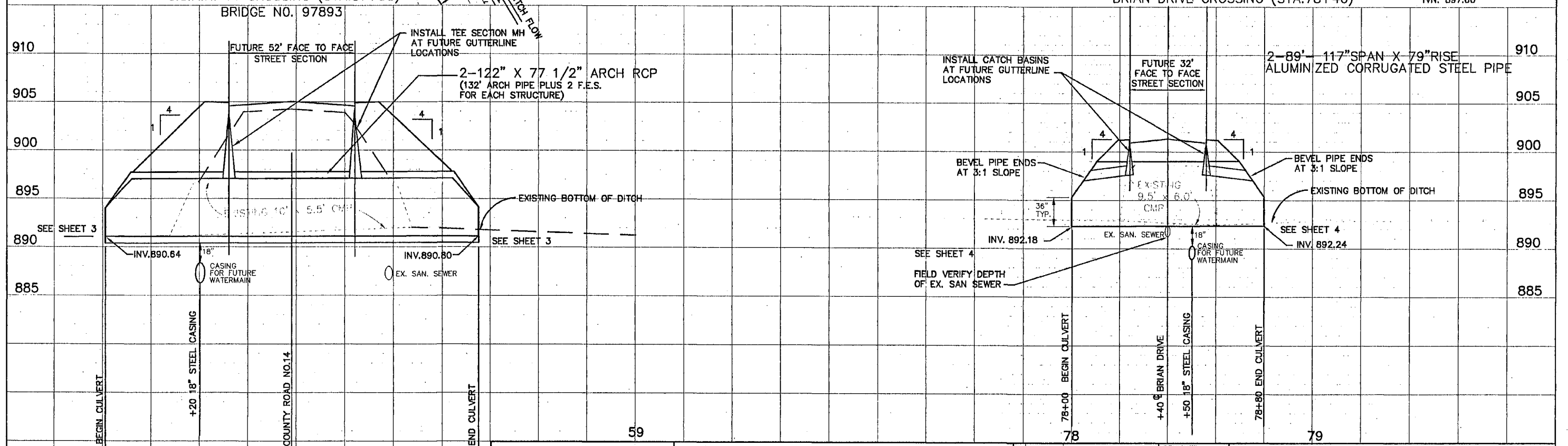
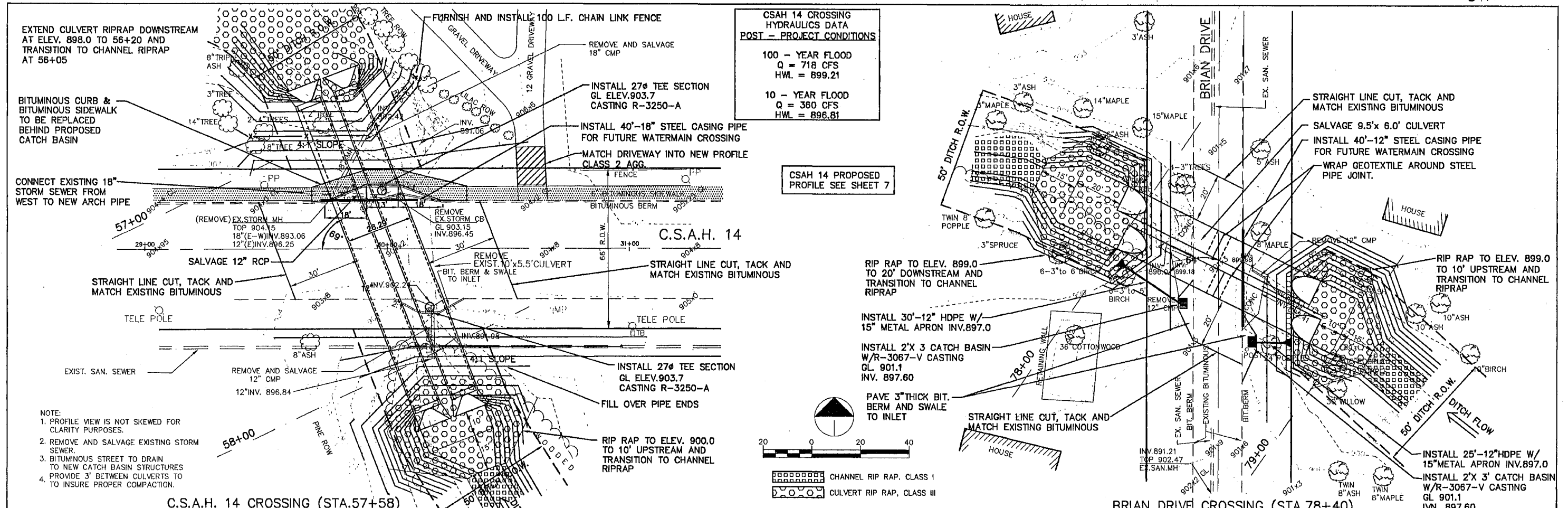
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Kevin D. Miller
DATE 4/1/91 REG. NO. 18805

MSA CONSULTING ENGINEERS
Maier Stewart & Associates Inc.
1950 SLOAN PLACE (612) 774-6021 ST. PAUL, MINNESOTA 55117

DATE	DESCRIPTION	DESIGNED	CHKD.
12-12-93	REVISE DITCH GRADE & CULVERT ELEV'S		

GRAPHIC SCALE
0 HORIZ. 100
0 VERT.

CITY OF CENTERVILLE
CLEARWATER CREEK GRADING
STA. 69+00 TO STA. 91+55
SAP 02-614-21
DATE OCT, 1990 SHEET 5 OF 17 SHEETS PROJECT NO. 260-023



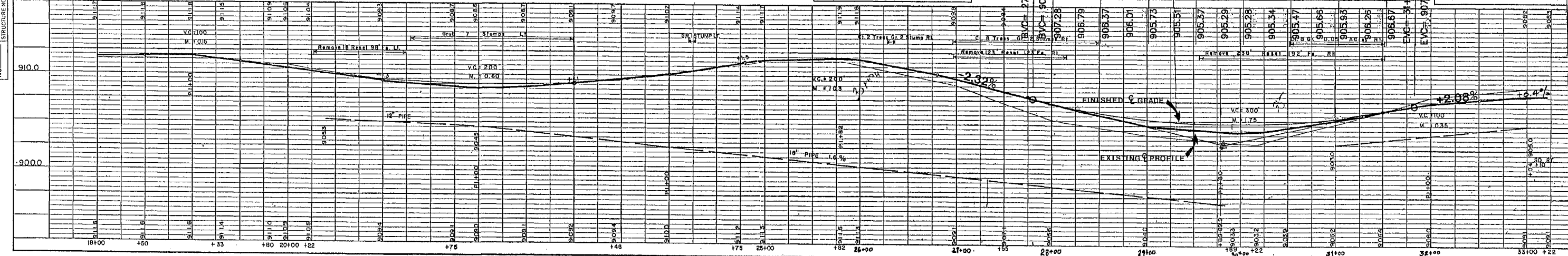
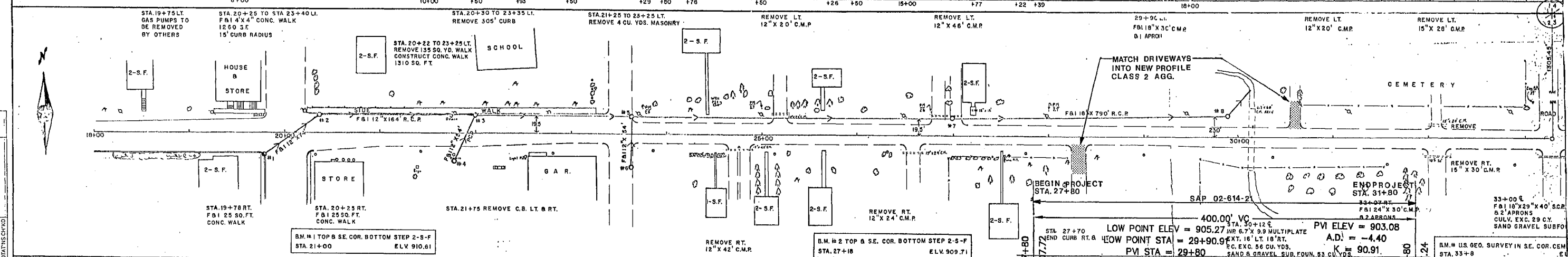
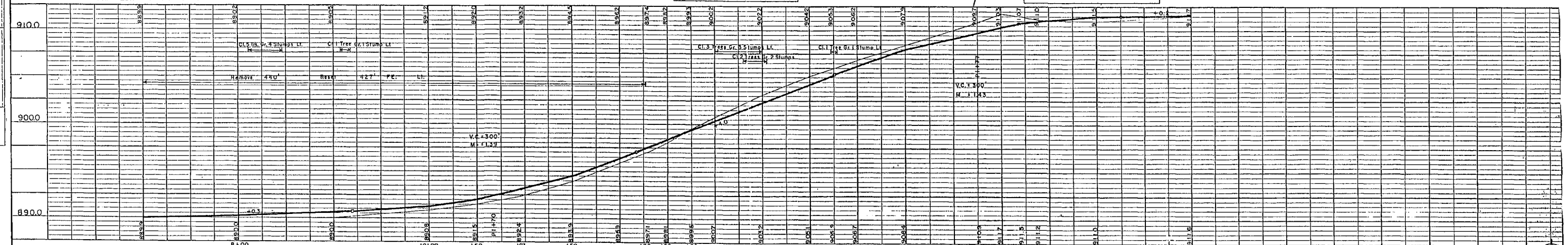
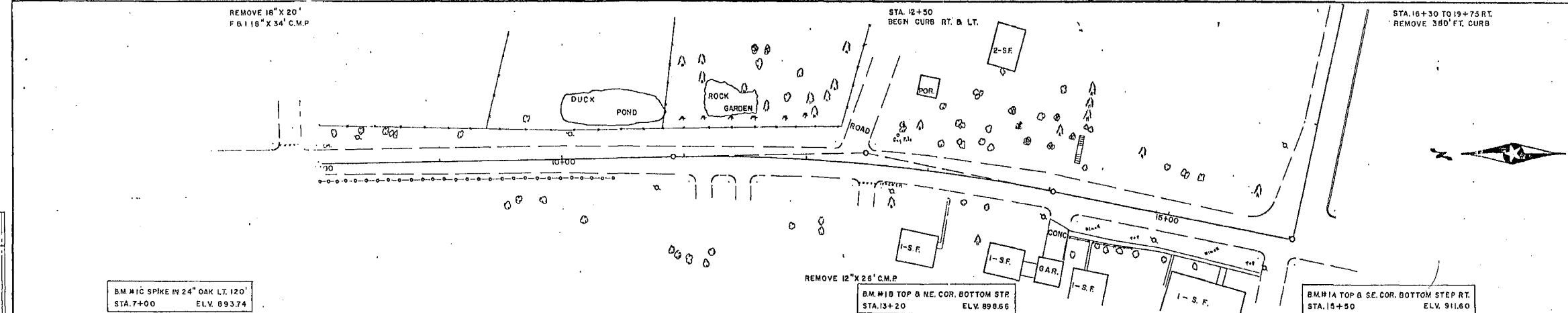
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. Brian D. Miller DATE 6/18/94 REG. NO. 18805	MAIER STEWART & ASSOCIATES INC. CONSULTING ENGINEERS 1959 SLOAN PLACE (612) 774-6021 ST. PAUL, MINNESOTA 55117 9800 SHELARD PARKWAY (612) 546-0432 MINNEAPOLIS, MINNESOTA 55441	DATE 2-21-94 3-16-94 4-22-94 6/7/94 ITC	DESCRIPTION CB'S ON BRIAN DR. PIPE LENGTH & BRIAN CSAH 14 PROFILE AND CULVERT LENGTHS ADDED DITCH R.O.W.'S REVISED NOTES	DESIGNED CHECKED DRAWN GRAPHIC SCALE 0 HORIZ. 20 0 VERT. 5	CITY OF CENTERVILLE DITCH CROSSINGS C.S.A.H. 14 & BRIAN DRIVE S.A.P. 02-614-21
		DATE APR. 1994 SHEET 6 OF 17 SHEETS PROJECT NO. 260-023			

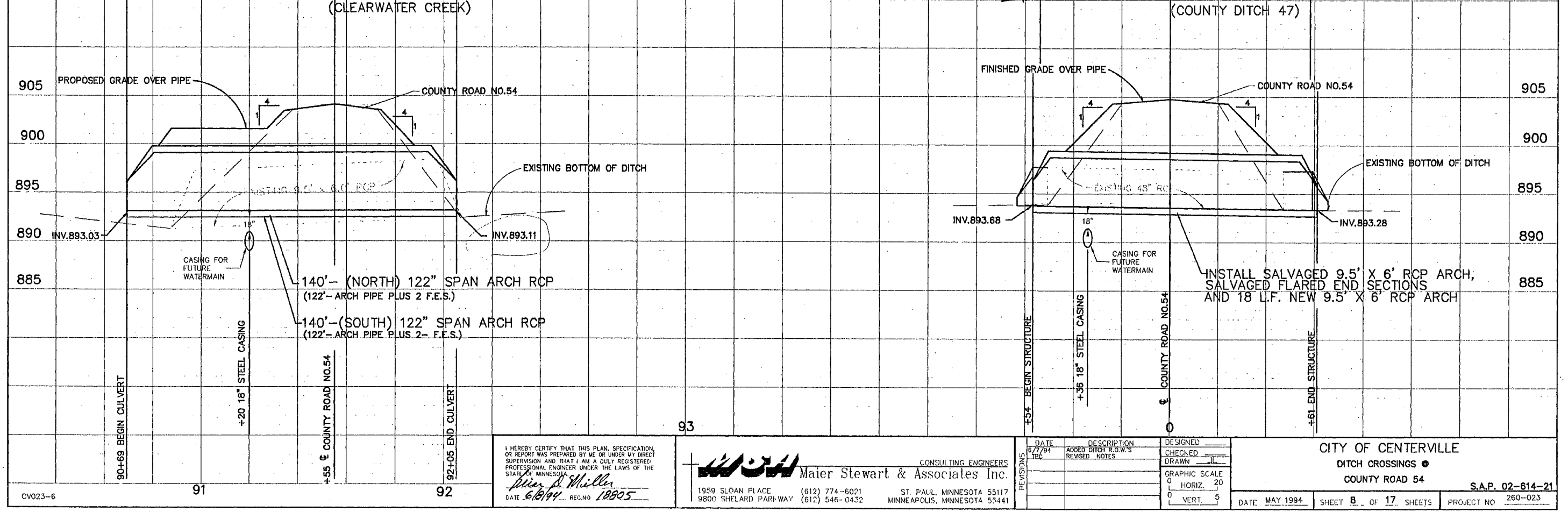
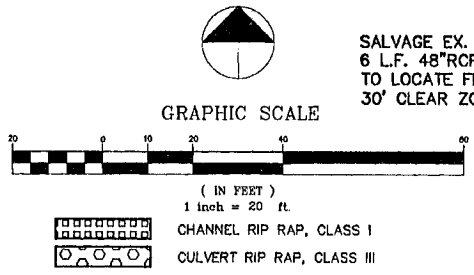
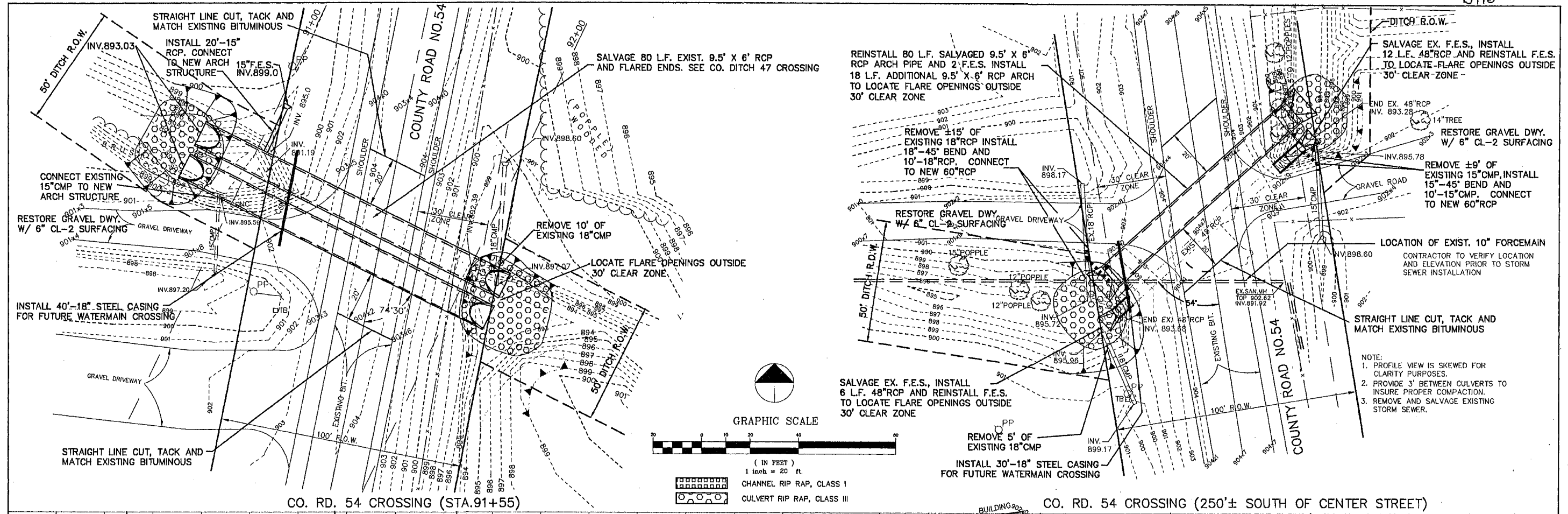
Wed Jun 8 09:10:31 1994

STORM SEWER SCHEDULE

M.H. No.	CASTING (SEE BELOW)	TOP OF GRATE ELEV.	F.L. ELEV.	DESIG.
1	UNIT 2	910.50	906.0	A O
2	UNIT 2	910.16	905.3	A O
3	UNIT 2	908.24	904.5	C O
4	UNIT 1	907.50	905.0	C O
5	UNIT 1	909.59	901.81	A O
6	UNIT 2	909.59	902.4	A O
7	UNIT 1	909.39	896.5	A O
8	UNIT 1	903.87	891.7	A O

UNIT 1 = 4101A CASTING & 4141 C GRATE
 UNIT 2 = 4126B CASTING & 41 9B GRATE WITH 4160 CUR





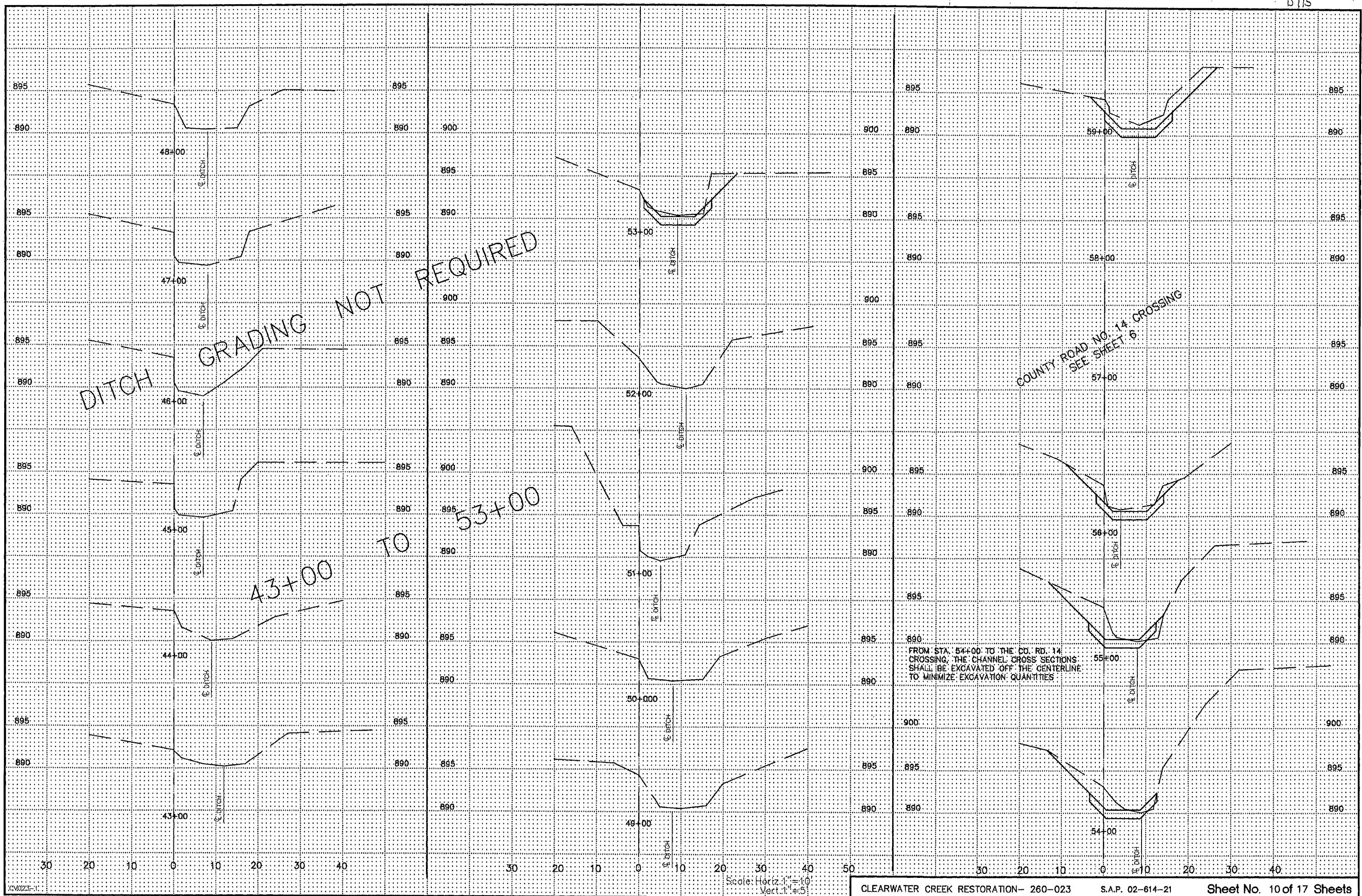
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Walter D. Miller
 DATE 6/8/94 REG. NO. 18805

MS&A CONSULTING ENGINEERS
 Maier Stewart & Associates Inc.
 1959 SLOAN PLACE (612) 774-6021 ST. PAUL, MINNESOTA 55117
 9800 SHELARD PARKWAY (612) 546-0432 MINNEAPOLIS, MINNESOTA 55441

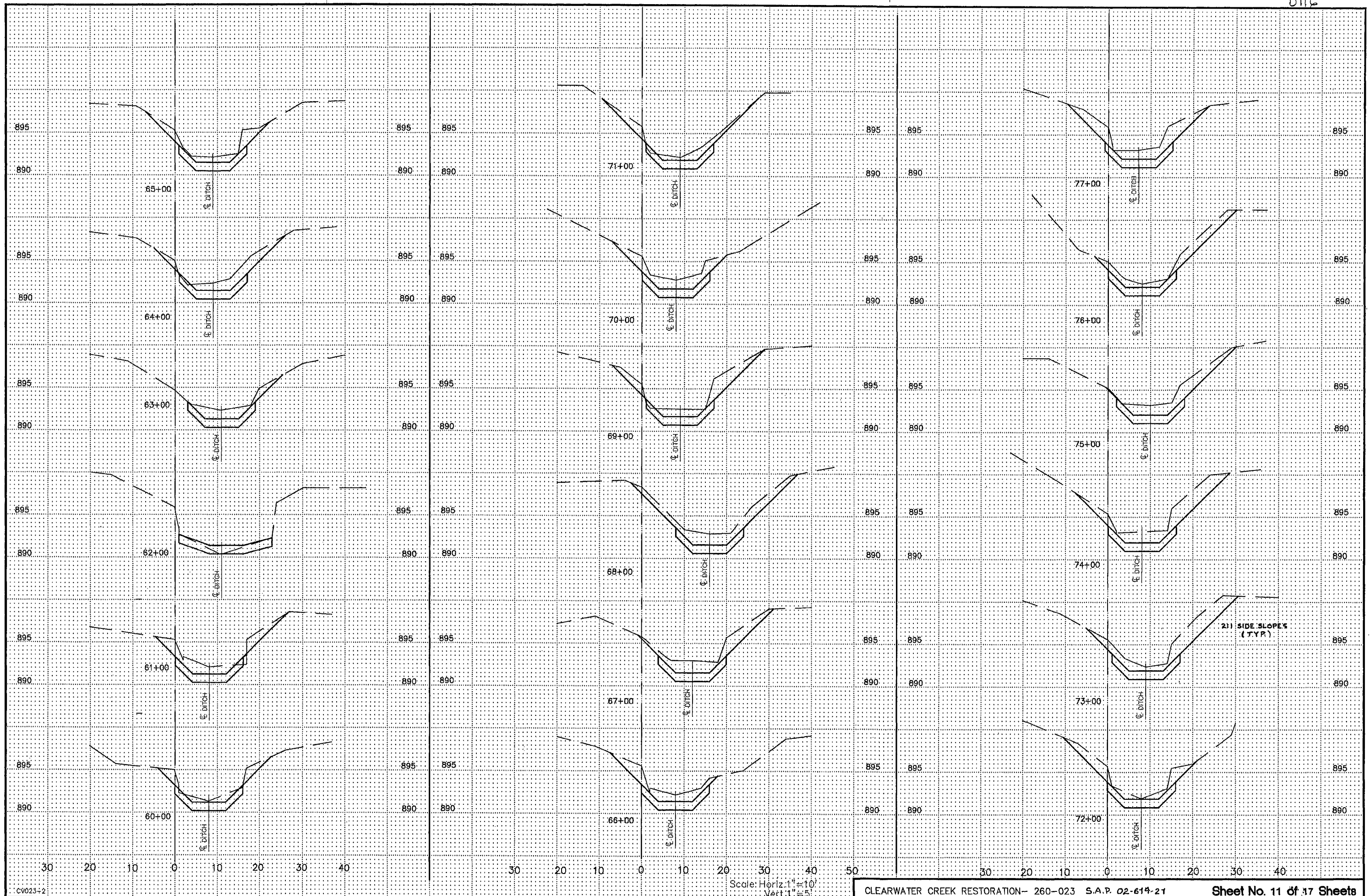
REVISIONS	DATE	DESCRIPTION	DESIGNED
1	6/7/94	ADDED DITCH R.O.W.'S	CHECKED
2	6/8/94	REVISED NOTES	DRAWN

GRAPHIC SCALE
 0 HORIZ. 20
 0 VERT. 5

CITY OF CENTERVILLE
 DITCH CROSSINGS
 COUNTY ROAD 54
 S.A.P. 02-614-21
 DATE MAY 1994 SHEET 8 OF 17 SHEETS PROJECT NO 260-023



Wed Jun 8 07:02:35 1994



Thu Feb 10 15:17:31 1994

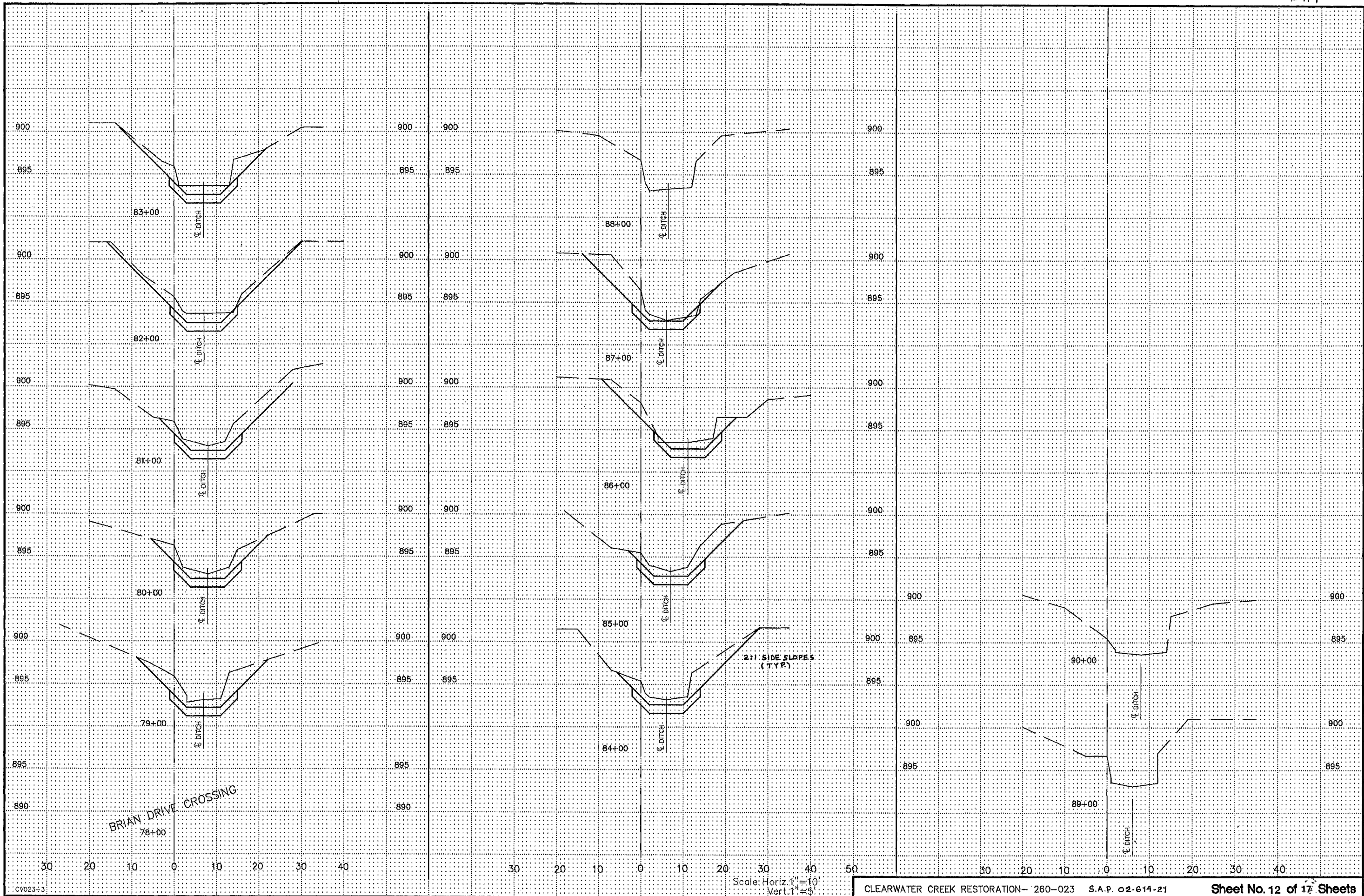
CV023-2

Scale: Horiz. 1"=10'
Vert. 1"=5'

CLEARWATER CREEK RESTORATION- 260-023 S.A.P. 02-619-21

Sheet No. 11 of 17 Sheets

2) SIDE SLOPES
(TYP)

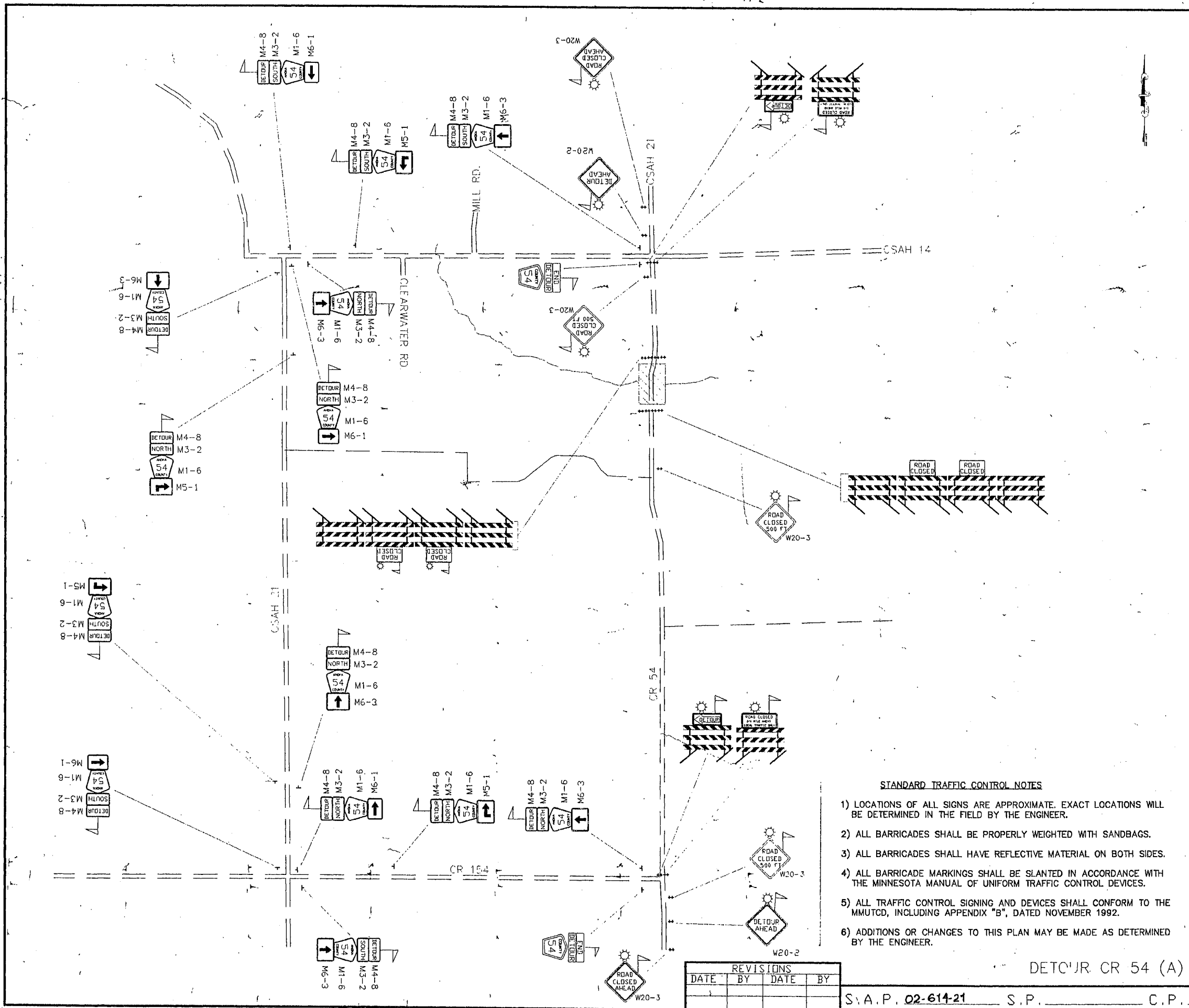


Thu Feb 10 15:32:02 1994

CV023-3

CLEARWATER CREEK RESTORATION - 260-023 S.A.P. 02-614-21

Sheet No. 12 of 17 Sheets

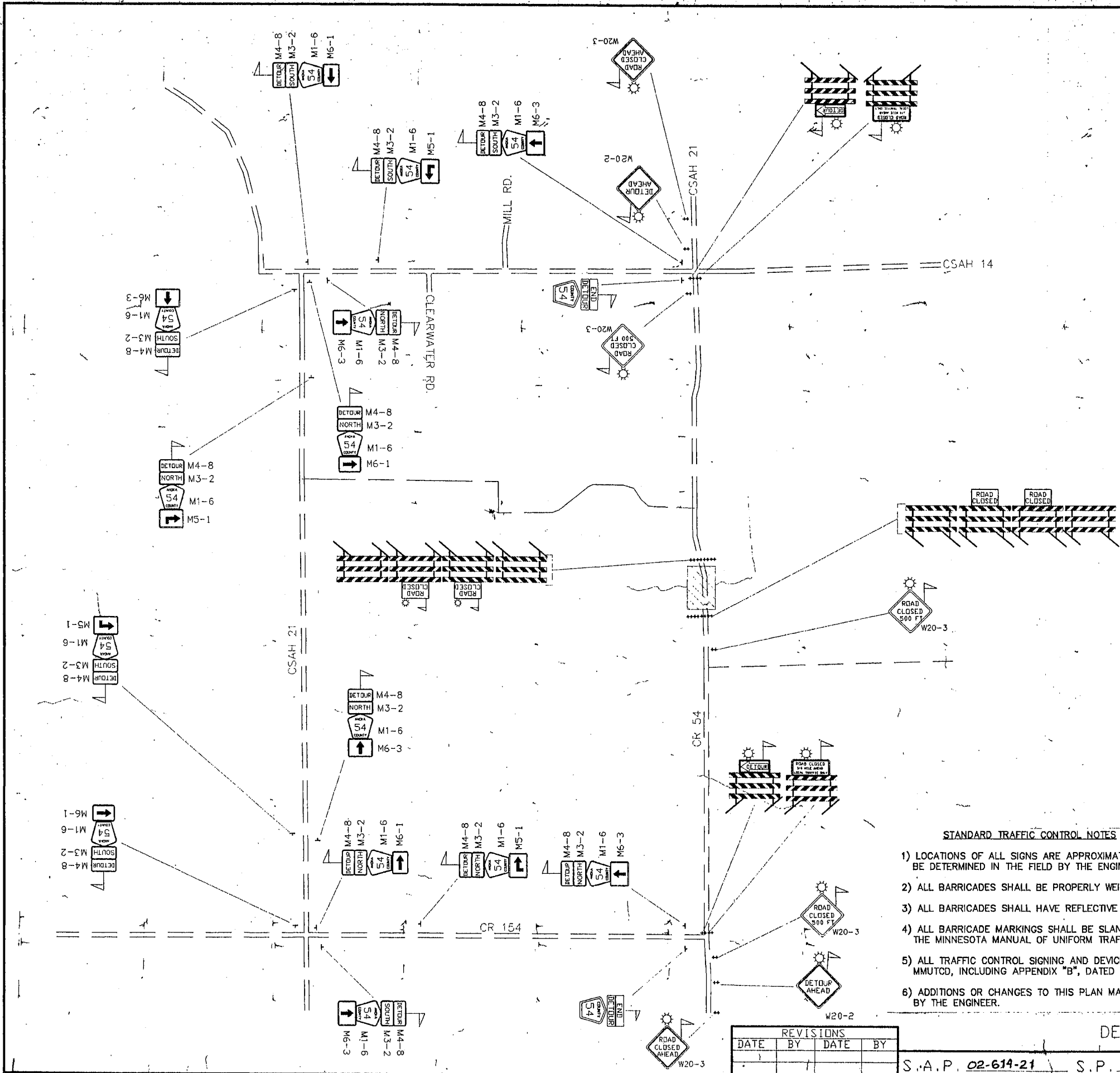


- STANDARD TRAFFIC CONTROL NOTES**
- 1) LOCATIONS OF ALL SIGNS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
 - 2) ALL BARRICADES SHALL BE PROPERLY WEIGHTED WITH SANDBAGS.
 - 3) ALL BARRICADES SHALL HAVE REFLECTIVE MATERIAL ON BOTH SIDES.
 - 4) ALL BARRICADE MARKINGS SHALL BE SLANTED IN ACCORDANCE WITH THE MINNESOTA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
 - 5) ALL TRAFFIC CONTROL SIGNING AND DEVICES SHALL CONFORM TO THE MMUTCD, INCLUDING APPENDIX "B", DATED NOVEMBER 1992.
 - 6) ADDITIONS OR CHANGES TO THIS PLAN MAY BE MADE AS DETERMINED BY THE ENGINEER.

M.U.T.C.D. CODE	SIZE	INSERT	QTY
W20-2	48" x 48"	ROAD CLOSED AHEAD 500 FT 1000 FT	2 0 0
W20-3	48" x 48"	ROAD CLOSED AHEAD 500 FT 1000 FT	2 3 0
M4-10L TYPE III	48" x 18" 8 FT.	BARRICADE	1
M4-10R TYPE III	48" x 18" 8 FT.	BARRICADE	1
R11-3 TYPE III	60" x 30" 8 FT	BARRICADE	1 1
R11-2 TYPE III	60" x 30" 8 FT	BARRICADE	4
TYPE III	8 FT	BARRICADE	4
M4-8 M3-2 M1-6	24" x 12" 24" x 12" 24" x 24"	DETOUR NORTH 54 COUNTY	M5-1R 2 M5-1L 0 M6-1L 2 M6-1R 0 M6-3 3
M4-8 M3-4 M1-6	24" x 12" 24" x 12" 24" x 24"	DETOUR NORTH 54 COUNTY	M5-1R 0 M5-1L 0 M6-1L 0 M6-1R 2 M6-3 3
M4-6 M4-8 M1-6	24" x 12" 24" x 12" 24" x 24"	END DETOUR 54 COUNTY	2

REVISIONS			
DATE	BY	DATE	BY

DETOUR CR 54 (A)



M.U.T.C.D. CODE	SIZE	INSERT	QTY
W20-2	48' x 48'	AHEAD 500 FT 1000 FT	2 0 0
W20-3	48' x 48'	AHEAD 500 FT 1000 FT	2 3 0
M4-10L TYPE III	48' x 18' 8 FT.		1
M4-10R TYPE III	48' x 18' 8 FT.		1
R11-3 TYPE III	60' x 30' 8 FT	1/4	1 1
R11-2 TYPE III	60' x 30' 8 FT		4
TYPE III	8 FT		4
M4-8 M3-2 M1-6	24' x 12' 24' x 12' 24' x 24'	M5-1R M5-1L M6-1L M6-1R M6-3	2 0 2 0 3
M4-8 M3-4 M1-6	24' x 12' 24' x 12' 24' x 24'	M5-1R M5-1L M6-1L M6-1R M6-3	0 2 0 2 3
M4-6 M4-8 M1-6	24' x 12' 24' x 12' 24' x 24'	END DETOUR COUNTY 54	2

STANDARD TRAFFIC CONTROL NOTES

- 1) LOCATIONS OF ALL SIGNS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 2) ALL BARRICADES SHALL BE PROPERLY WEIGHTED WITH SANDBAGS.
- 3) ALL BARRICADES SHALL HAVE REFLECTIVE MATERIAL ON BOTH SIDES.
- 4) ALL BARRICADE MARKINGS SHALL BE SLANTED IN ACCORDANCE WITH THE MINNESOTA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- 5) ALL TRAFFIC CONTROL SIGNING AND DEVICES SHALL CONFORM TO THE MMUTCD, INCLUDING APPENDIX "B", DATED NOVEMBER 1992.
- 6) ADDITIONS OR CHANGES TO THIS PLAN MAY BE MADE AS DETERMINED BY THE ENGINEER.

REVISIONS			
DATE	BY	DATE	BY

DETOUR CR 54 (B)










S.A.P. 02-614-21 S.P. C.P.

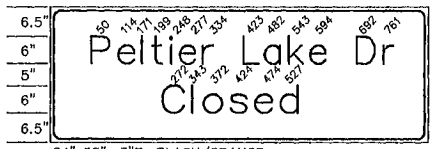


CONSTRUCTION ZONE



TYPE III BARRICADE

MESSAGE	SIGN NO.	SIZE	COLOR
 END DETOUR	M4-8a	24"x18"	BLACK ON ORANGE
 ROAD CLOSED AHEAD	W20-3	48"x48"	BLACK ON ORANGE
 DETOUR (WITH ARROW)	R4-9R	30"x24"	BLACK ON ORANGE
 PELTIER LAKE DR	D-2	42"x12"	BLACK ON ORANGE
 PELTIER LAKE DR Closed	D-1	84"x30"	BLACK ON ORANGE
 DETOUR (WITH ARROW)	R4-9T	30"x24"	BLACK ON ORANGE
 ROAD CLOSED	R11-2	48"x30"	BLACK ON WHITE
 DETOUR ARROW	M4-10	48"x18"	BLACK ON ORANGE
 ROAD-CLOSED	R11-2	48"x30"	BLACK ON WHITE
			MOUNTED ON TYPE III BARRICADE W/ TYPE A WARNING LIGHT

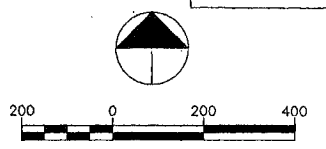


84"x30", 3"R. BLACK/ORANGE
 LINE 1 74.0:6"-4 1/2" E MOD.
 LINE 2 29.0:6"-4 1/2" E MOD.



42"x12", 1 1/2"R. BLACK/ORANGE
 LINE 1 33.6:4" B

1. DETOUR SIGNING SHALL CONFORM TO REQUIREMENTS OF MNDOT 2564, TRAFFIC SIGNS AND DEVICES, AND SHALL CONFORM TO THE MMUTCD, INCLUDING APPENDIX "B", DATED NOVEMBER 1992.
2. TYPE "D" SIGN PANELS SHALL HAVE A HIGH INTENSITY REFLECTORIZED BACKGROUND
3. EXACT SIGN LOCATIONS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER



M&E JUN 8 07:00:28 1994

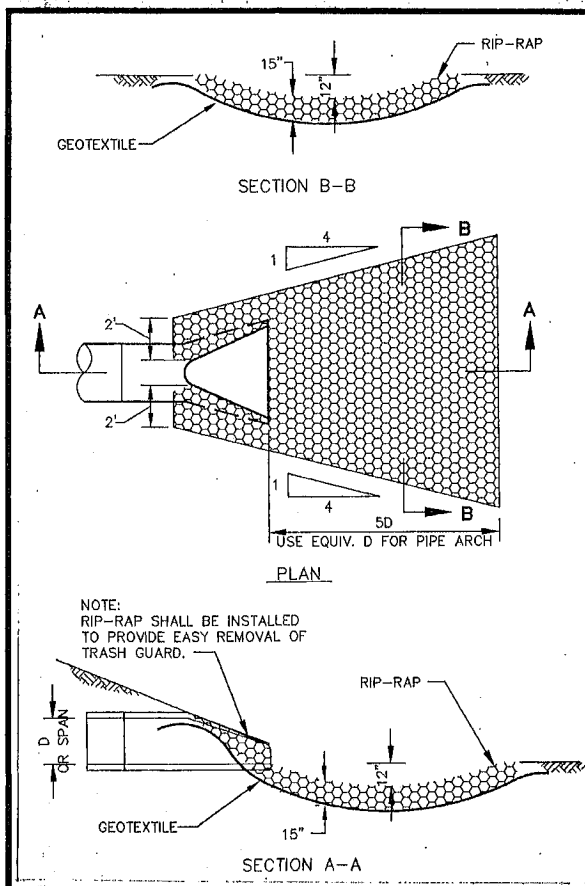
CV02304

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Dean A. Miller
 DATE 6/8/94 REG. NO. 18805

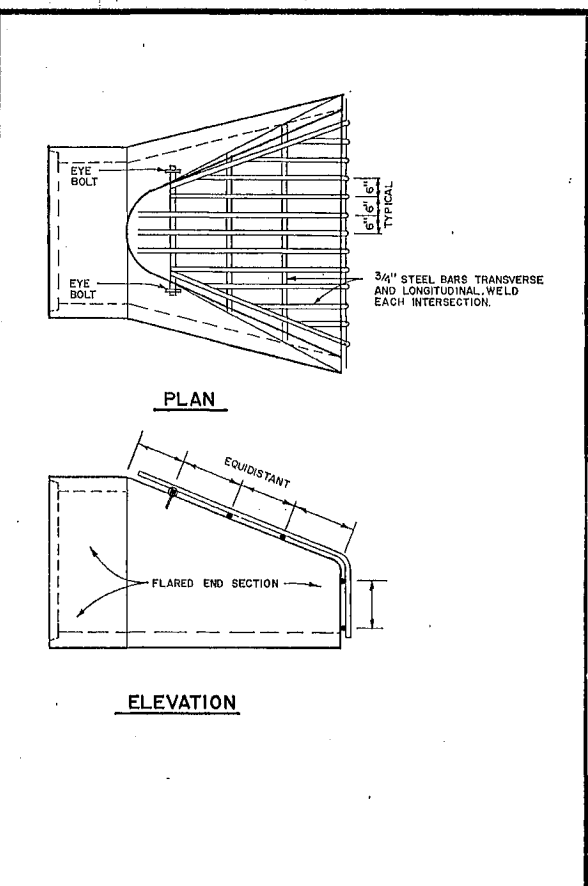
MS&A CONSULTING ENGINEERS
 Maier Stewart & Associates Inc.
 1959 SLOAN PLACE [612] 774-6021 ST. PAUL, MINNESOTA 55117

REVISIONS	DATE	DESCRIPTION	DESIGNED BY
	6/8/94	REVISED NOTE #1	BDM

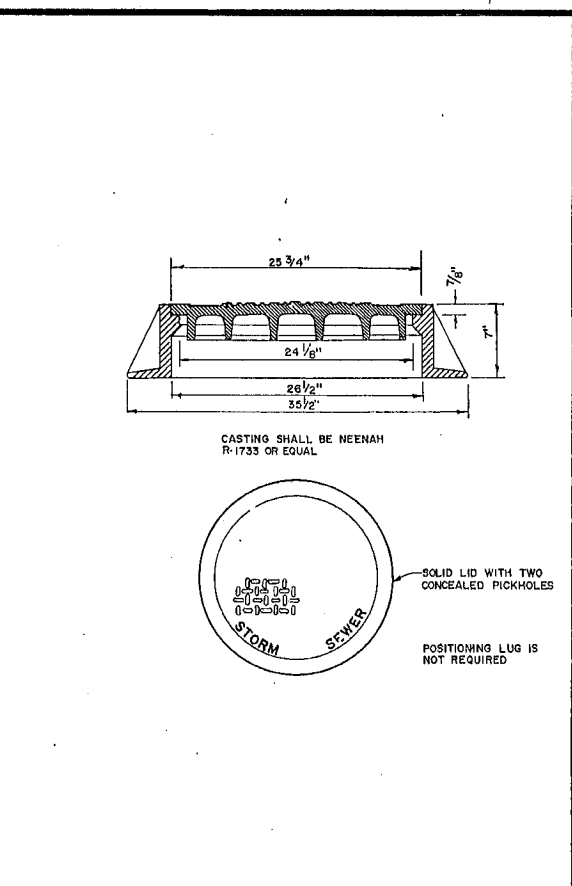
CITY OF CENTERVILLE
 DETOUR SIGNING PLAN
 PELTIER LAKE DRIVE
 S.A.P. 02-614-21
 DATE MAY 1994 SHEET 16 OF 17 SHEETS PROJECT NO. 260-023



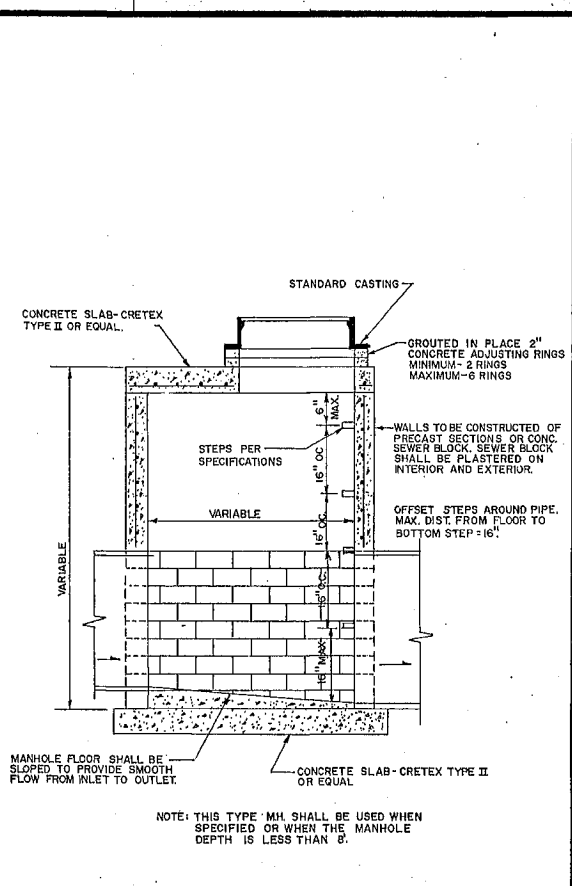
RIP-RAP INSTALLATION



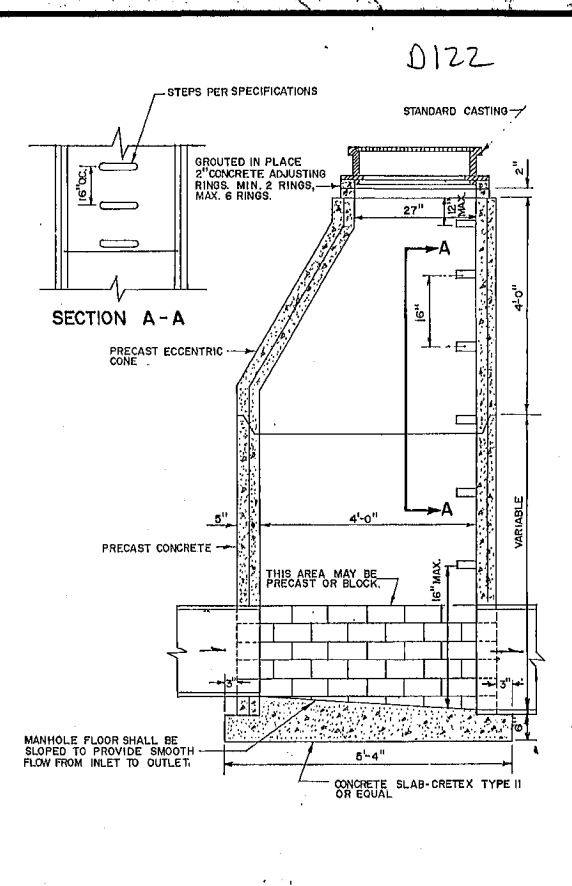
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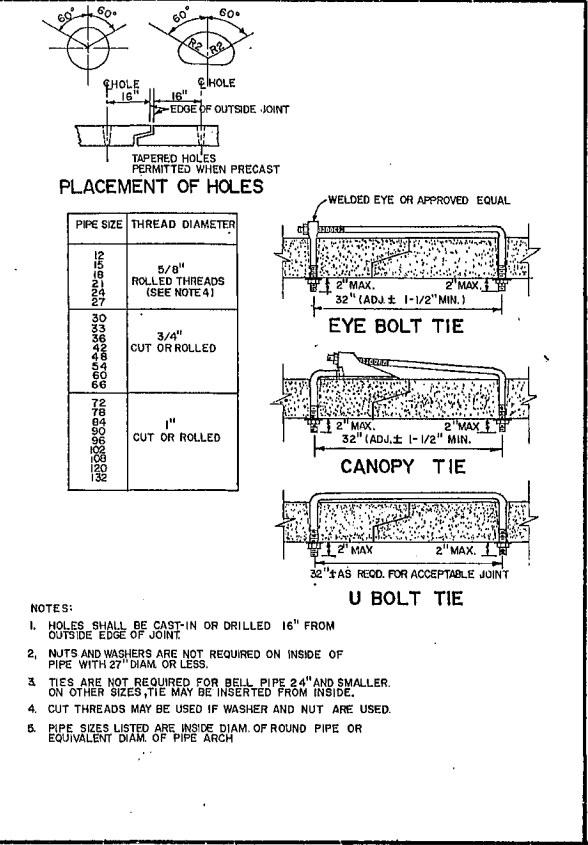
STANDARD MANHOLE CASTING



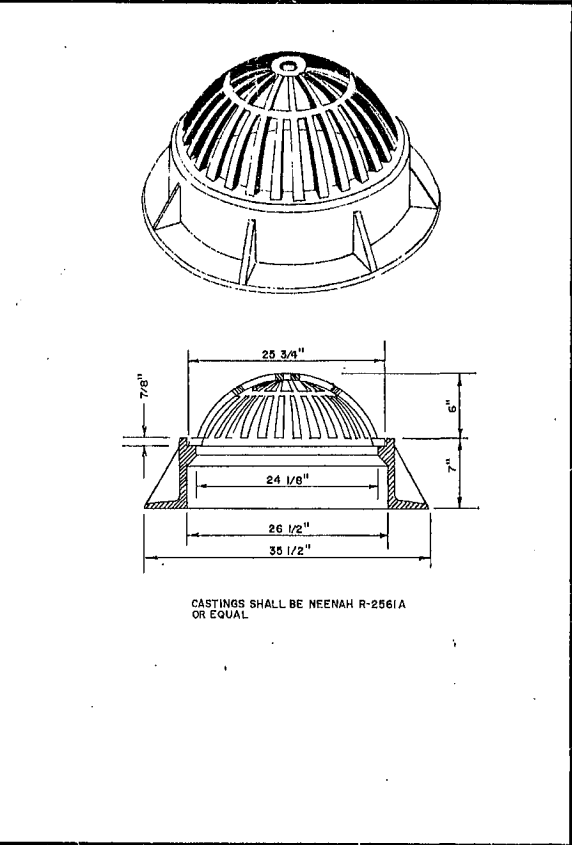
SLAB-TOP MANHOLE



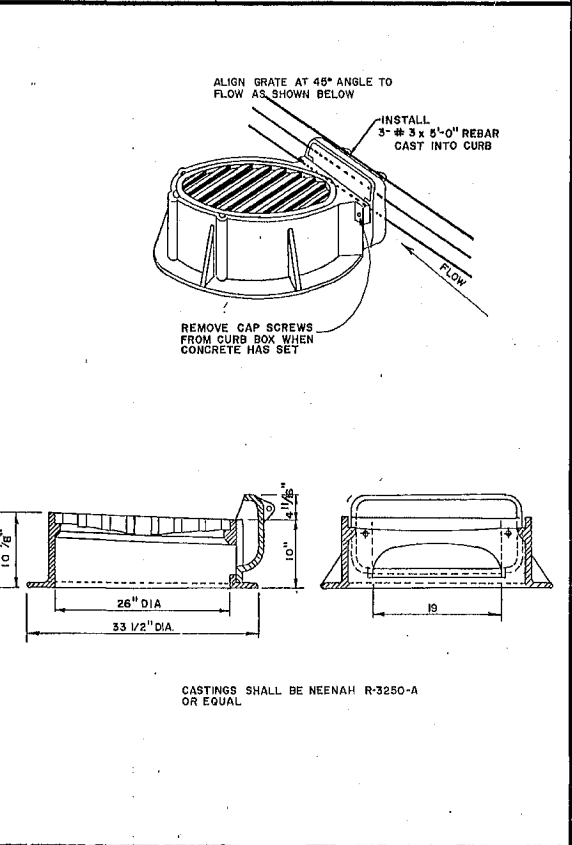
STANDARD MANHOLE



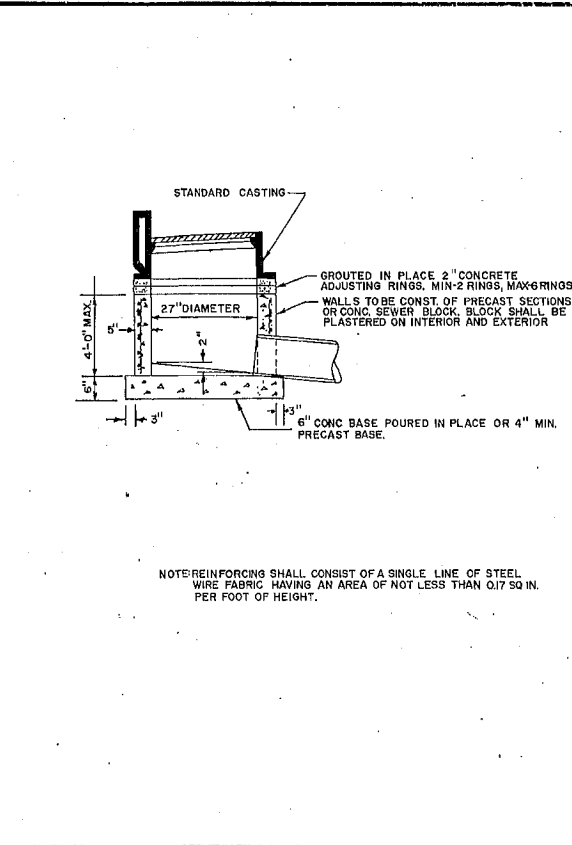
CONCRETE PIPE JOINT TIES



BEEHIVE CASTING



STANDARD INLET CASTING



SHALLOW CATCH BASIN

MS&A CONSULTING ENGINEERS
Maier Stewart & Associates Inc.
 1959 SLOAN PLACE (612) 774-6021 ST. PAUL, MINNESOTA 55117

DATE	DESCRIPTION	DESIGNED
		CHECKED
		DRAWN MRJ
		GRAPHIC SCALE
		0 HORIZ. NONE
		0 VERT.

CITY OF CENTERVILLE
CLEARWATER CREEK IMPROVEMENTS
STORM SEWER DETAILS
 S.A.P. 02:614-21
 DATE SHEET 17 OF 17 SHEETS PROJECT NO. 260-023