

RAMSEY COUNTY DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION PLAN: FOR FILTER BARRIER AND
TIMBER BAFFLE

LAKE PHALEN RESTORATION PROJECT E.P.A. S-804690020

PLANS SYMBOLS

STATE LINE	SPRINGS
COUNTY LINE	MARSH
TOWNSHIP OR RANGE LINE	TIMBER
SECTION LINE	ORCHARD
QUARTER LINE	BRUSH
SIXTEENTH LINE	NURSERY
RIGHT OF WAY LINE	CATCH BASIN
PRESENT RIGHT OF WAY LINE	FIRE HYDRANT
CONTROL OF ACCESS LINE	CATTLE GUARD
PROPERTY LINE (Except Land Lines)	OVERPASS (Highway Over)
VACATED PLATTED PROPERTY	UNDERPASS (Highway Under)
CORPORATE OR CITY LIMITS	BRIDGE
TRUNK HIGHWAY CENTER LINE	BUILDING (One Story Frame)
RETAINING WALL	F FRAME C CONCRETE
RAILROAD	S STONE T TILE
RAILROAD RIGHT OF WAY LINE	B BRICK ST STUCCO
RIVER OR CREEK	IRON PIPE OR ROD
DRY RUN	MONUMENT (STONE, CONCRETE, OR METAL)
DRAINAGE DITCH	WOODEN HUB
DRAIN TILE	GRAVEL PIT
CULVERT	SAND PIT
DROP INLET	BORROW PIT
GUARD RAIL	ROCK QUARRY
BARBED WIRE FENCE	
WOODEN WIRE FENCE	
CHAIN LINK FENCE	
RAILROAD SNOW FENCE	
STONE WALL OR FENCE	
HEDGE	
RAILROAD CROSSING SIGN	
RAILROAD CROSSING BELL	
ELECTRIC WARNING SIGN	
CROSSING GATE	
MEANDER CORNER	

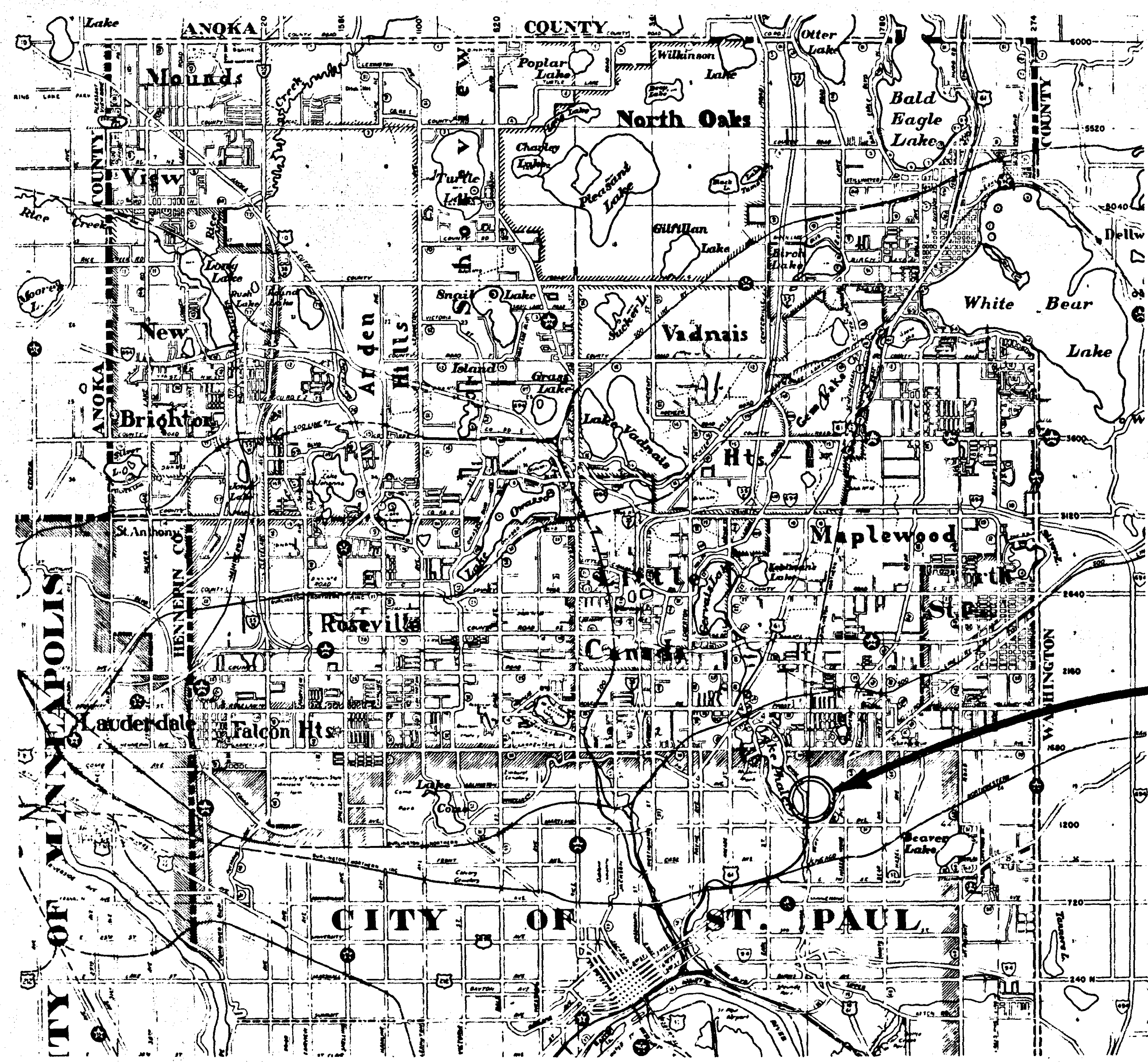
UTILITIES SYMBOLS

POWER POLE LINE	CONDUIT
TELEPHONE OR TELEGRAPH POLE LINE	TELEPHONE CABLE IN CONDUIT
JOINT TELEPHONE AND POWER ON POWER POLES	ELECTRIC CABLE IN CONDUIT
ANCHOR	TELEPHONE MANHOLE
STEEL TOWER	ELECTRIC MANHOLE
STREET LIGHT	BURNED TELEPHONE CABLE
PERESTAL (TELEPHONE CABLE TERMINAL)	BURNED ELECTRIC CABLE
GAS MAIN	AERIAL TELEPHONE CABLE
WATER MAIN	SEWER (SANITARY OR STORM)
	SEWER MANHOLE



PIT DATA

PIT NO. _____	Located in _____
PIT NO. _____	Located in _____



INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	PROFILE & DETAIL
3	PLAN & STATEMENT OF ESTIMATED QUANTITIES

PROJECT LOCATION

DESIGN SQUAD _____ DATE _____
 DRAWN BY: DLW DATE 7-22-82
 CHECKED BY: DLW DATE 7-22-82

I HEREBY CERTIFY THAT THIS PLAN 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.
 DATE 7-22-82 REG. NO. 11654 ENGR. Daniel G. Schmitt

RECOMMENDED FOR APPROVAL: PK DATE 7-22-82 RECOMMENDED FOR APPROVAL: W.C. Welch DATE 8-9-82
TRAFFIC ENGR COUNTY ENGINEER

RECOMMENDED FOR APPROVAL: DLW DATE 7-22-82 APPROVED: Robert A. Poth DATE 8-9-82
ENV ENGR CHAIRMAN OF THE RAMSEY COUNTY BOARD

RECOMMENDED FOR APPROVAL: MDK DATE 7/22/82 APPROVED: _____ DATE _____
TRAFFIC ENGR

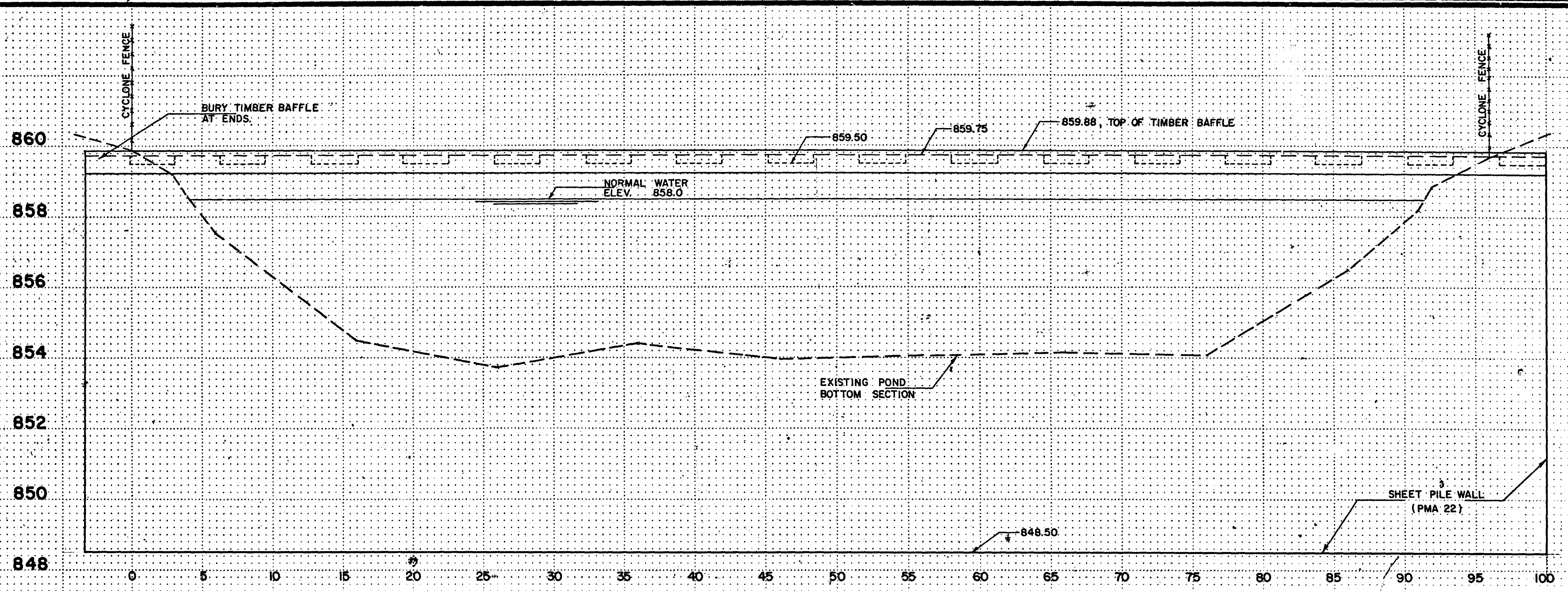
RECOMMENDED FOR APPROVAL: DLW DATE 7/22/82 APPROVED: _____ DATE _____
CONST. ENGR

RECOMMENDED FOR APPROVAL: LRF DATE 7-22-82
DESIGN ENGR

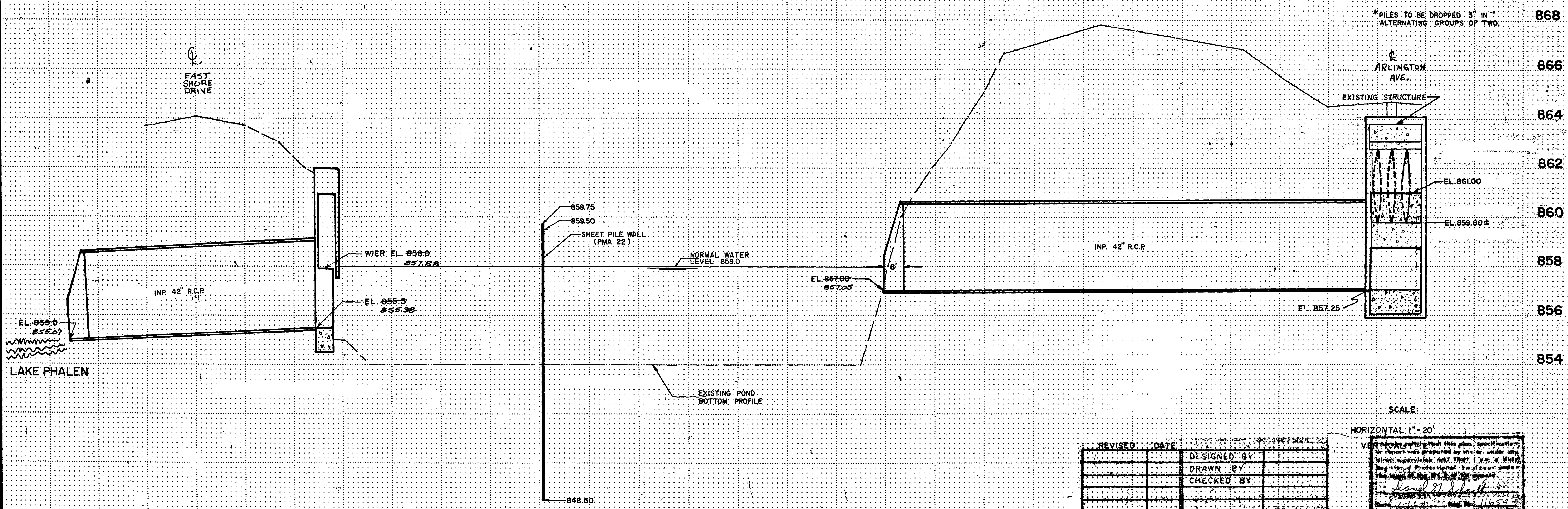
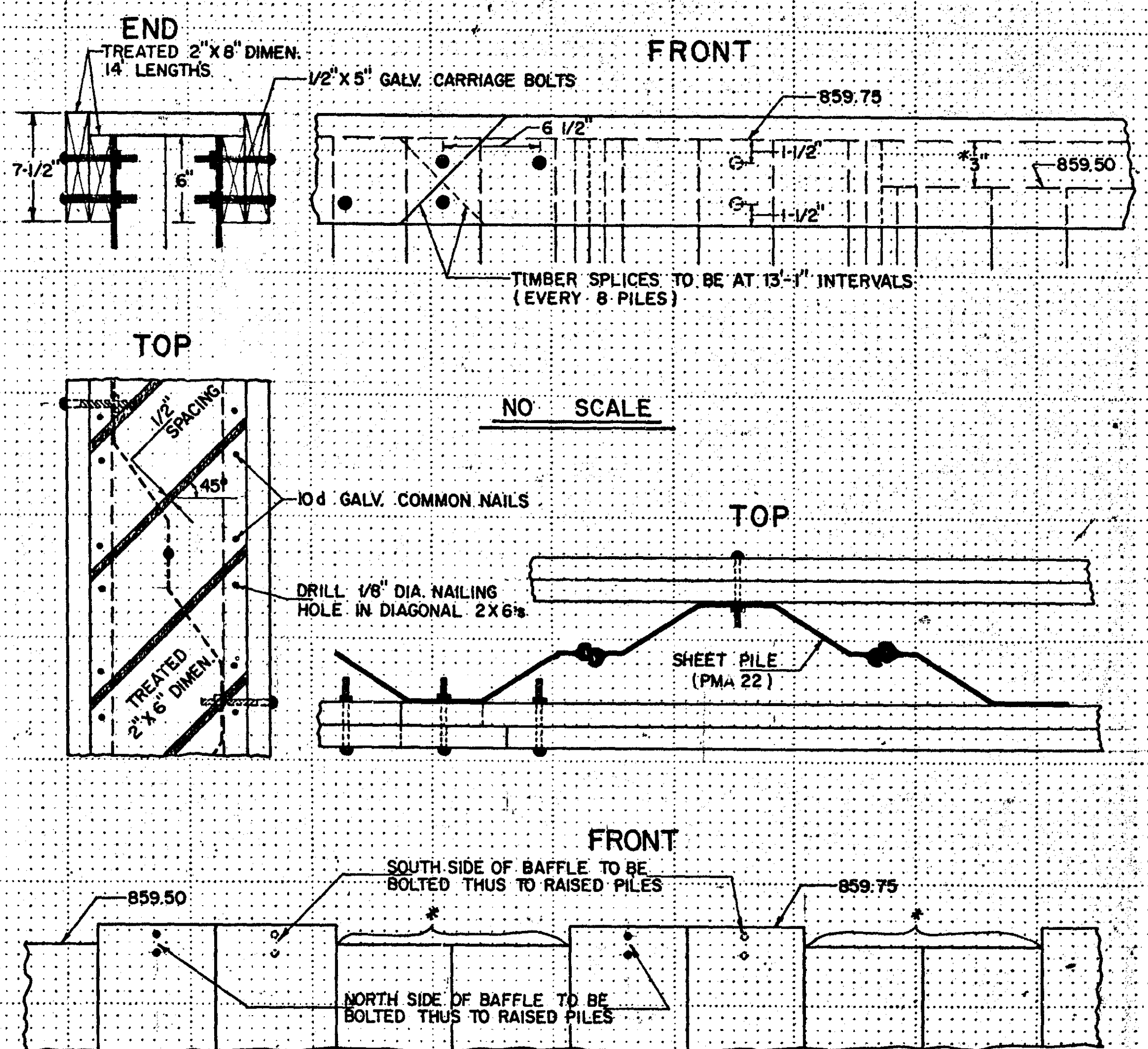
RECOMMENDED FOR APPROVAL: DLW DATE 7-22-82
PLANNING ENGR
 APPROVED: W. J. Phelan DATE 7-22-82
CORPORATE ENGR

PLAN REVISIONS		
DATE	SHEET NO.	BY

THE 1978 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" SHALL GOVERN.



SCALE
 1" = 5' HORIZ.
 1" = 2' VERT.



SCALE:

HORIZONTAL 1" = 20'

REVISED	DATE	DESIGNED BY
		DRAWN BY
		CHECKED BY

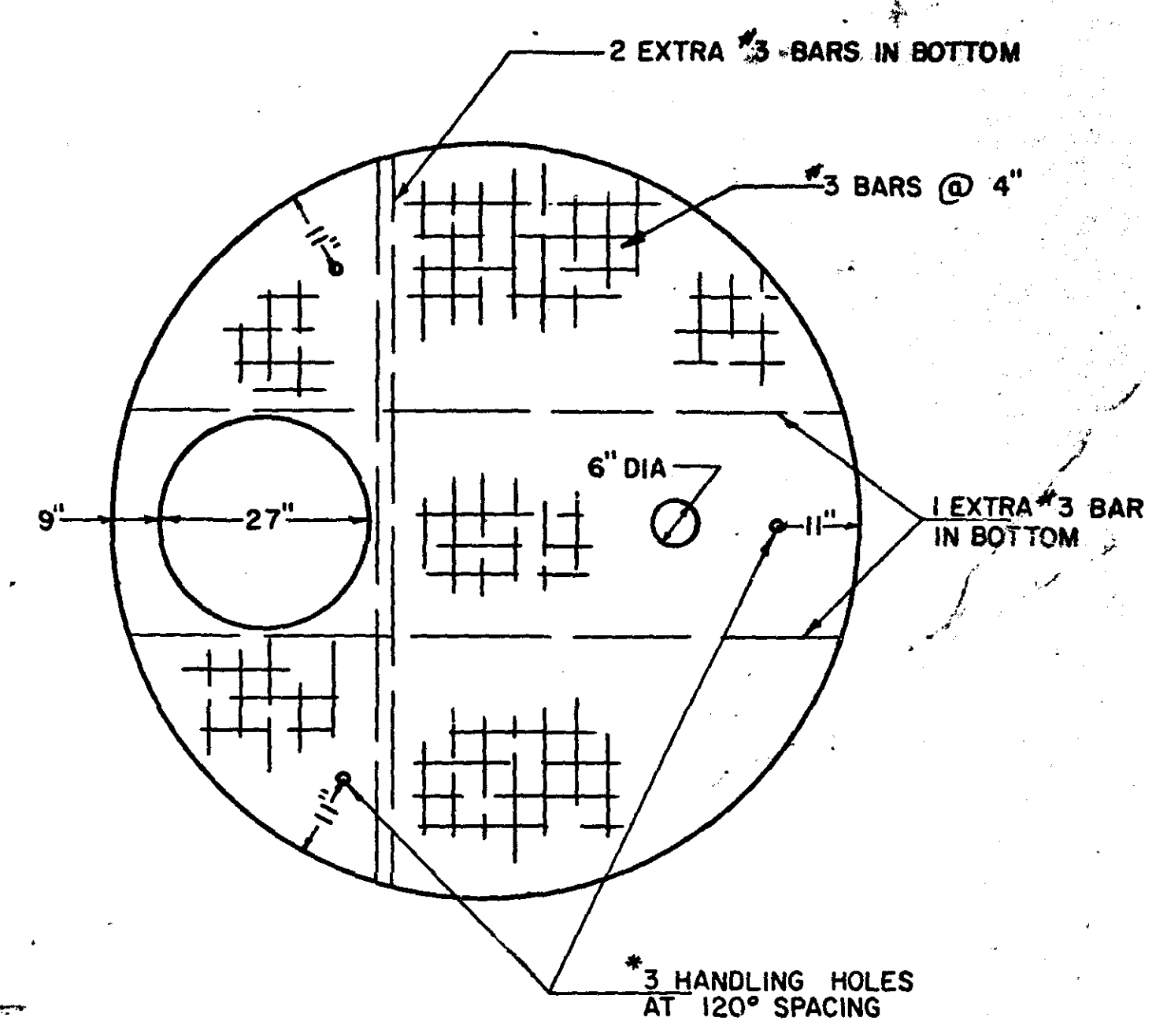
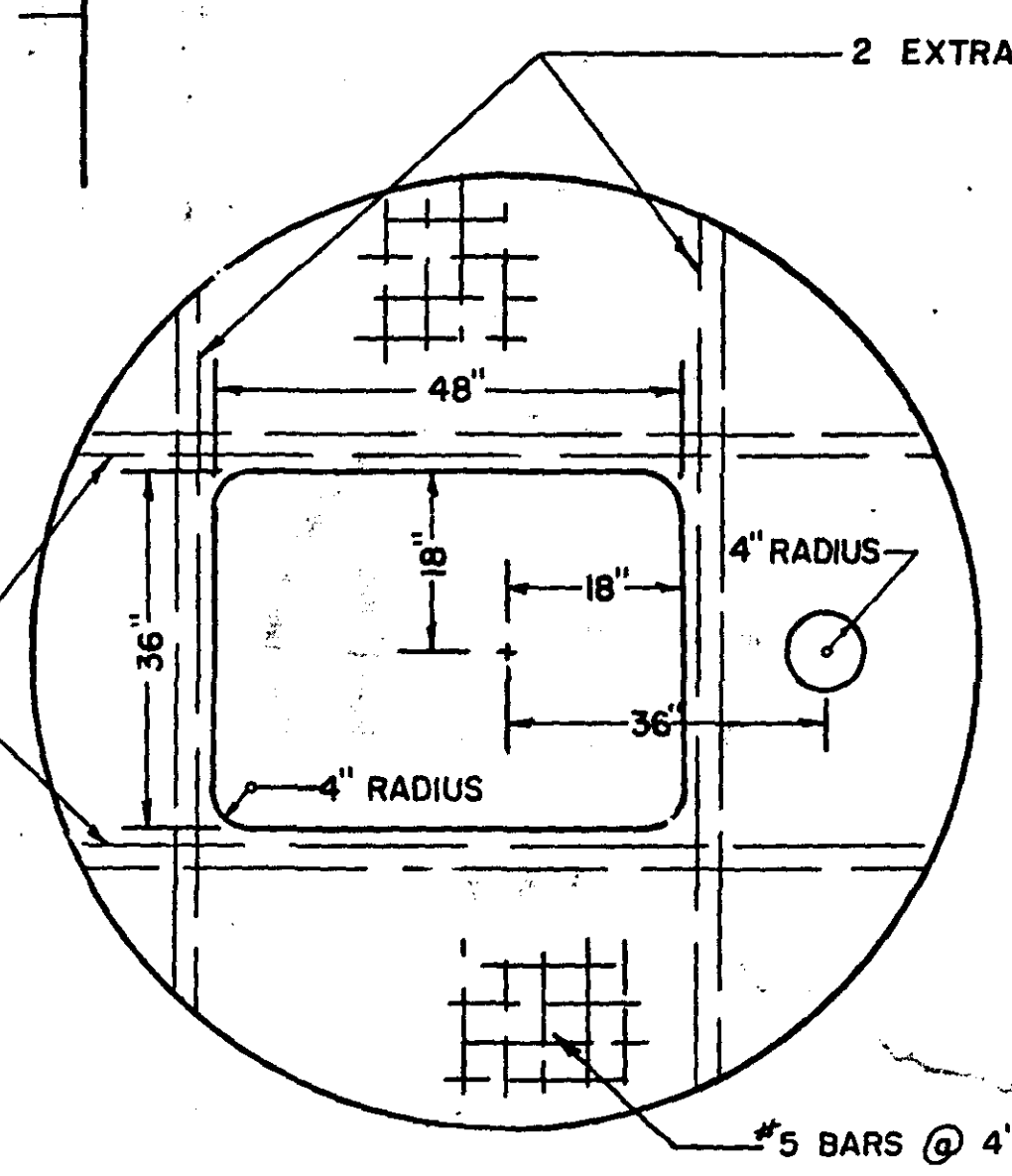
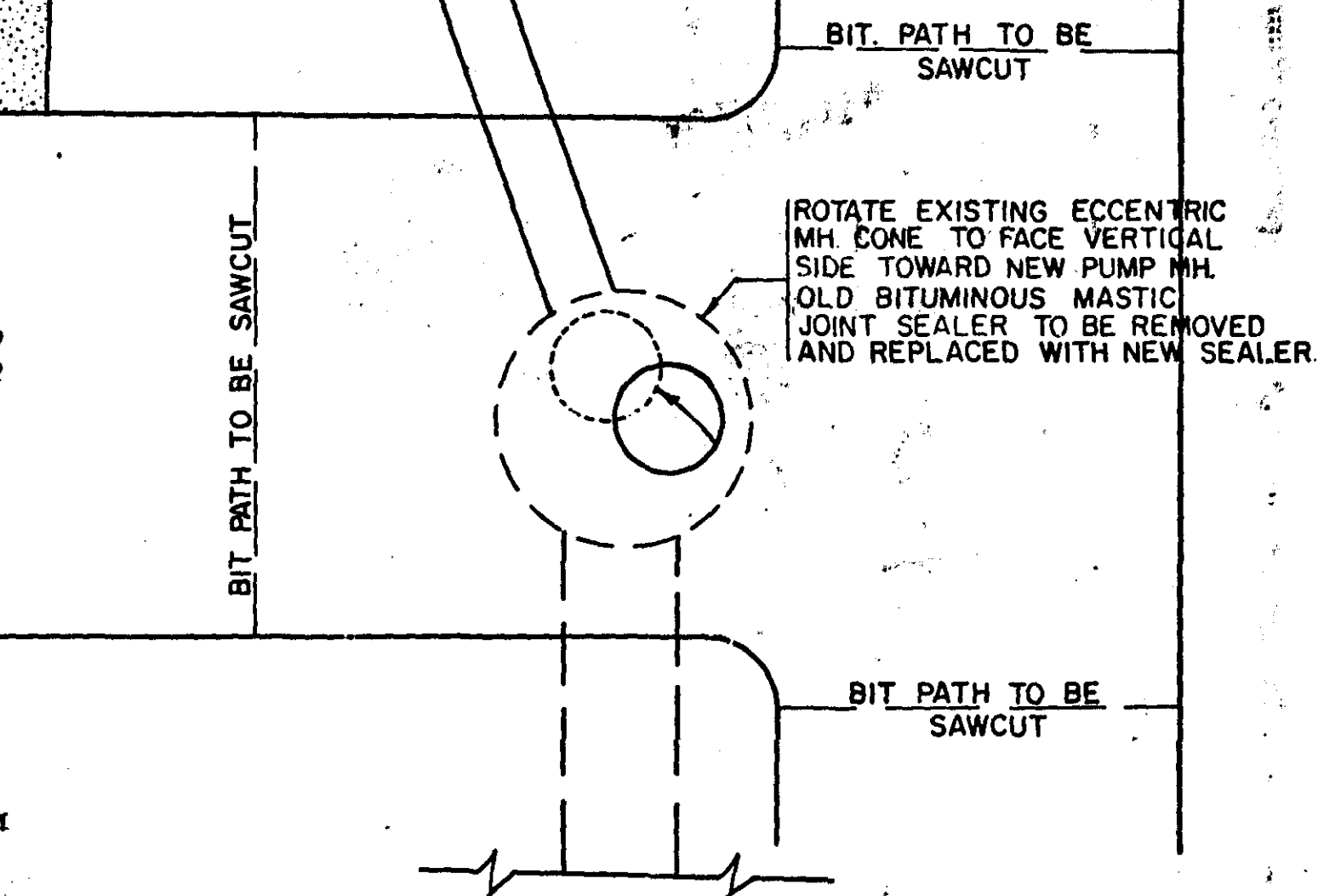
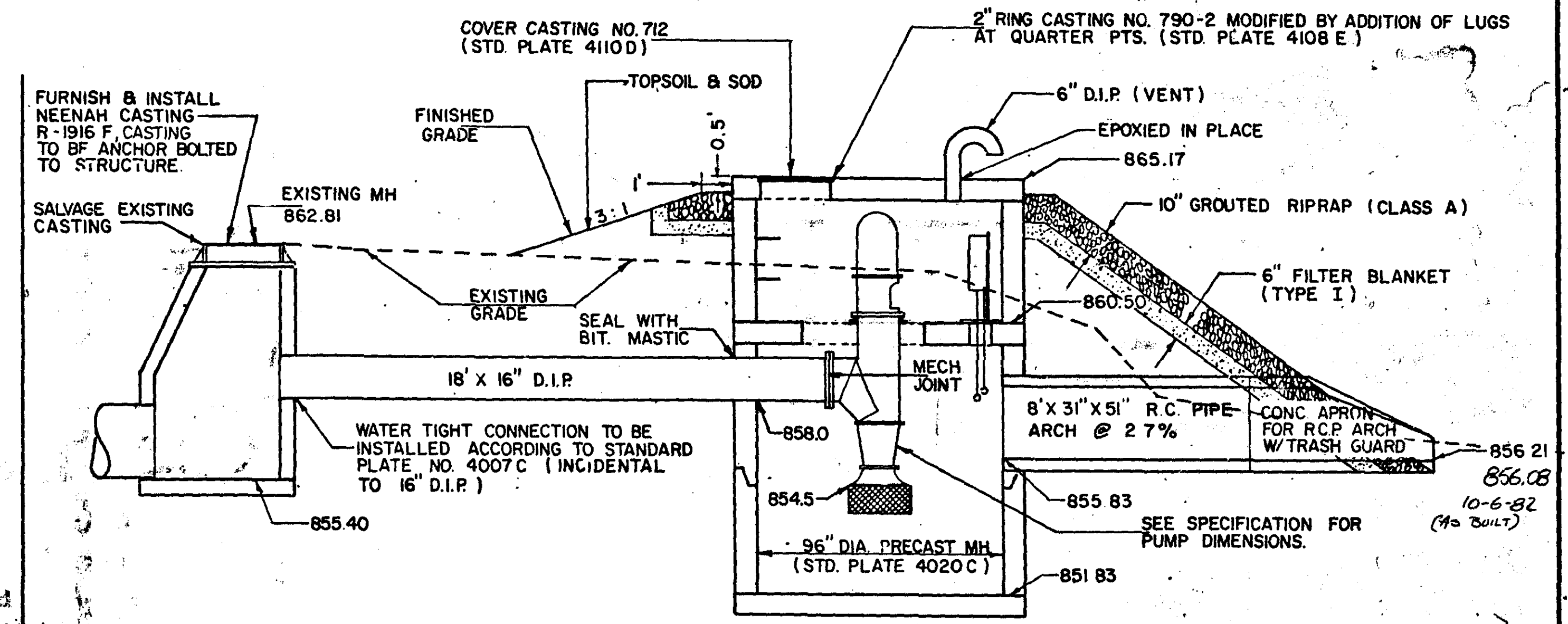
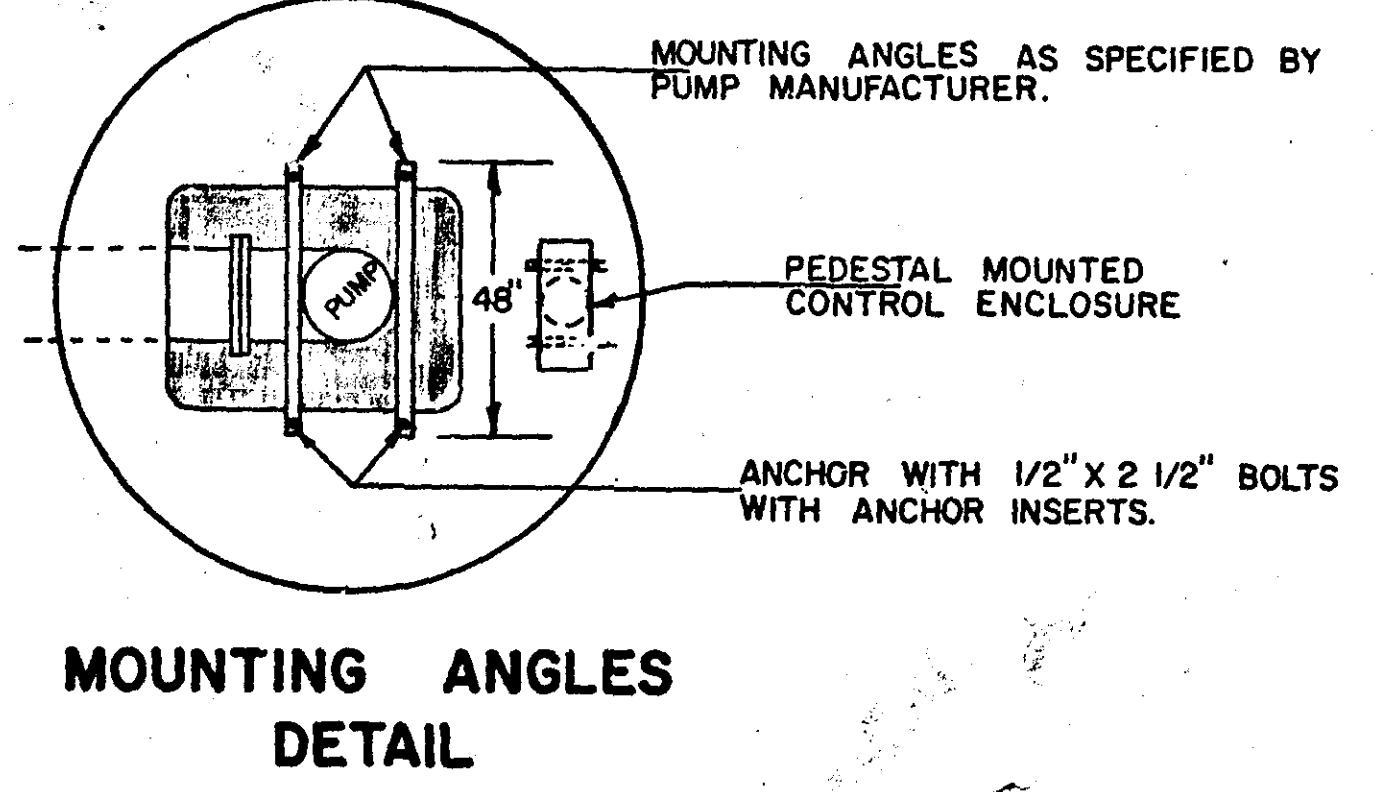
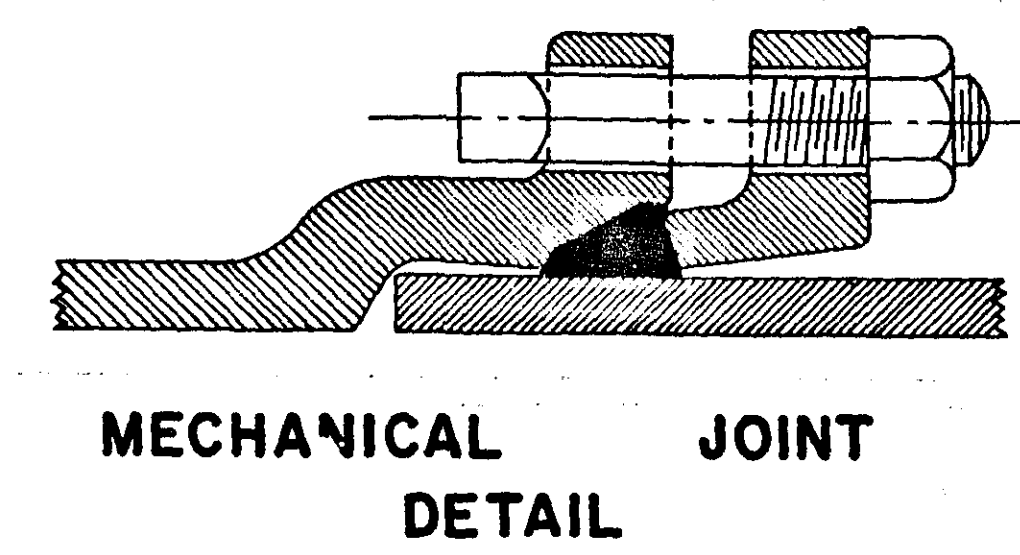
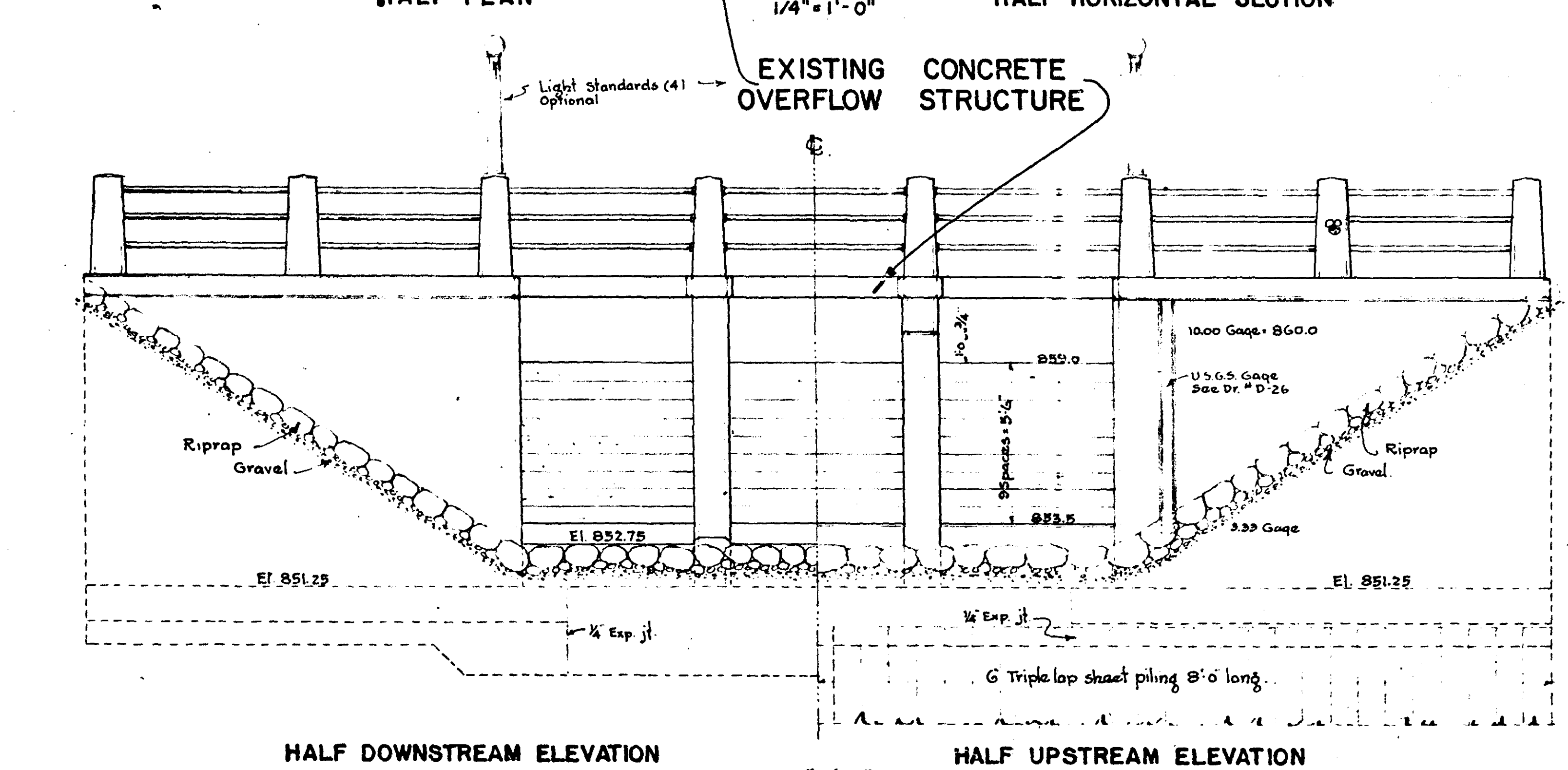
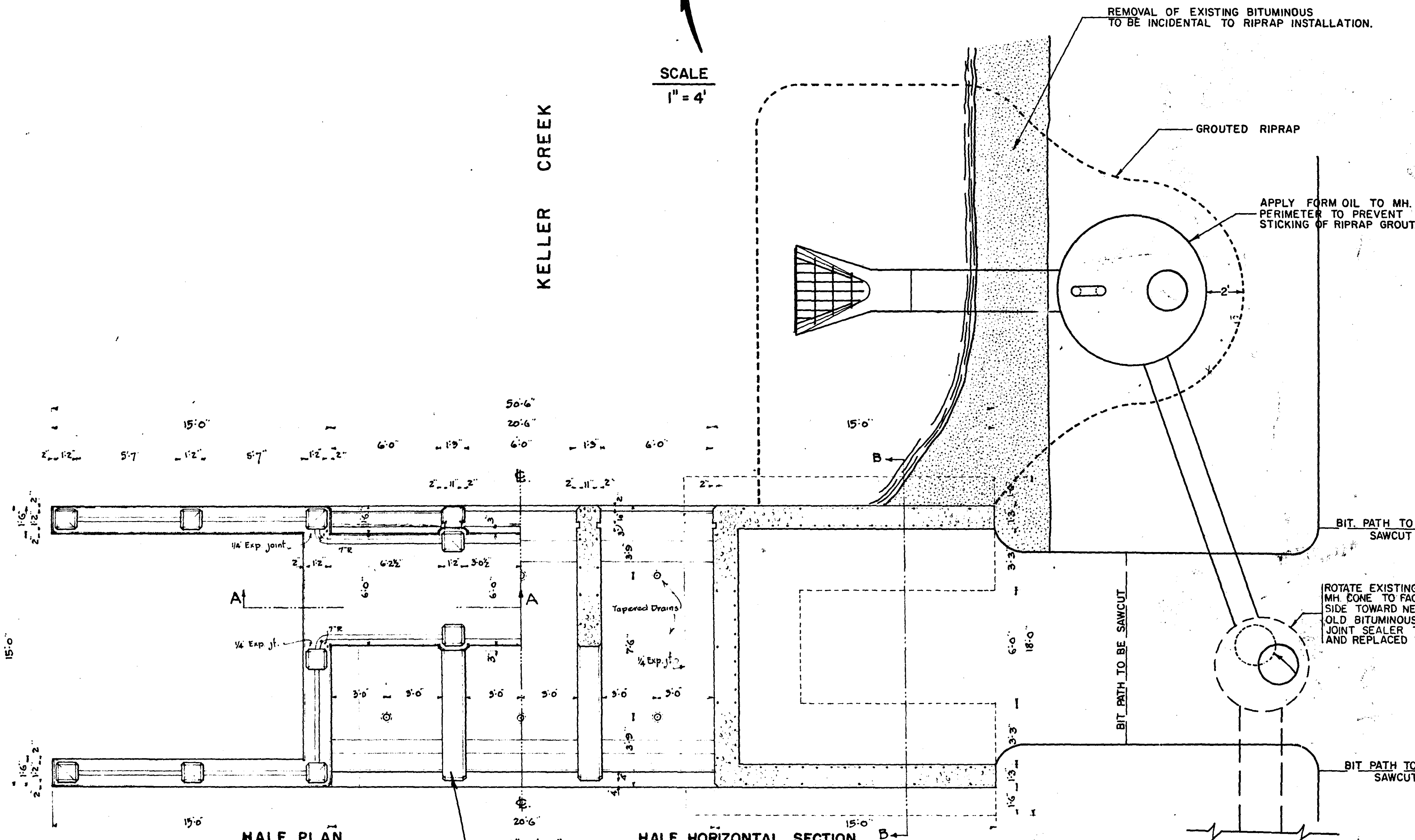
VERIFIED THAT THIS PLAN, SPECIFICATION, OR OTHER WORK PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A duly Registered Professional Engineer under the laws of the State of Missouri.
David J. [Signature]
 11654

Copy Equipment Form 21



SCALE
1" = 4'

KELLER CREEK

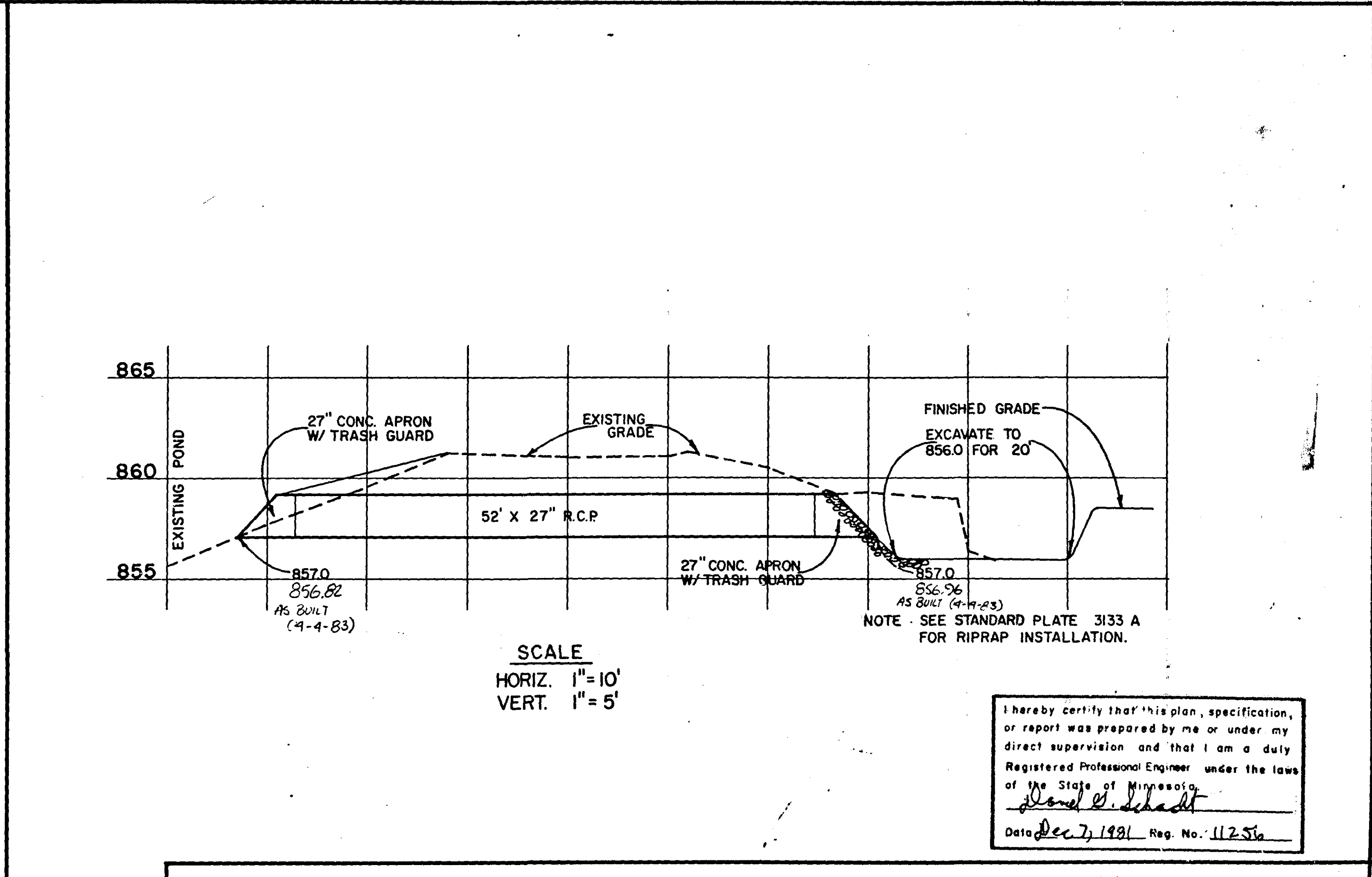
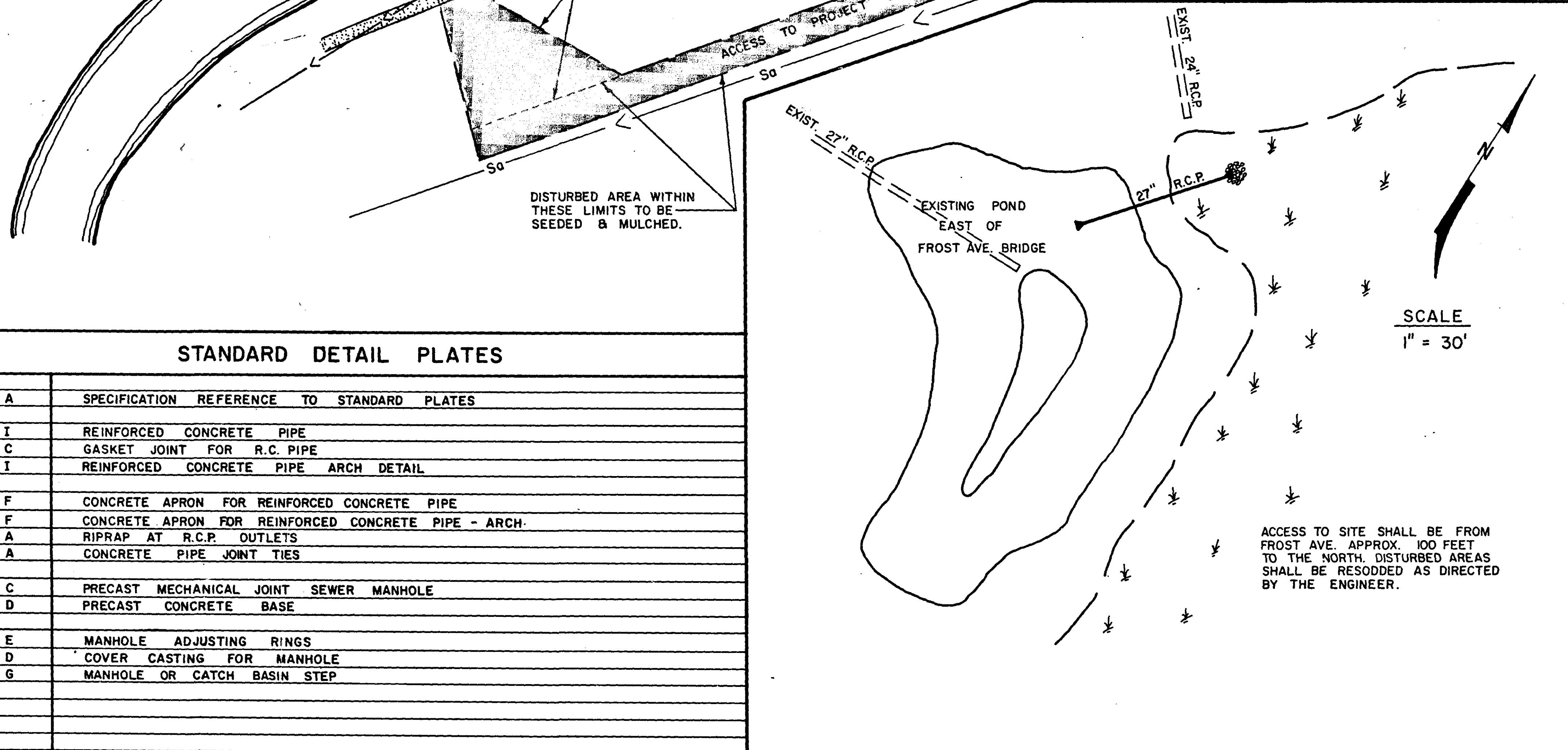
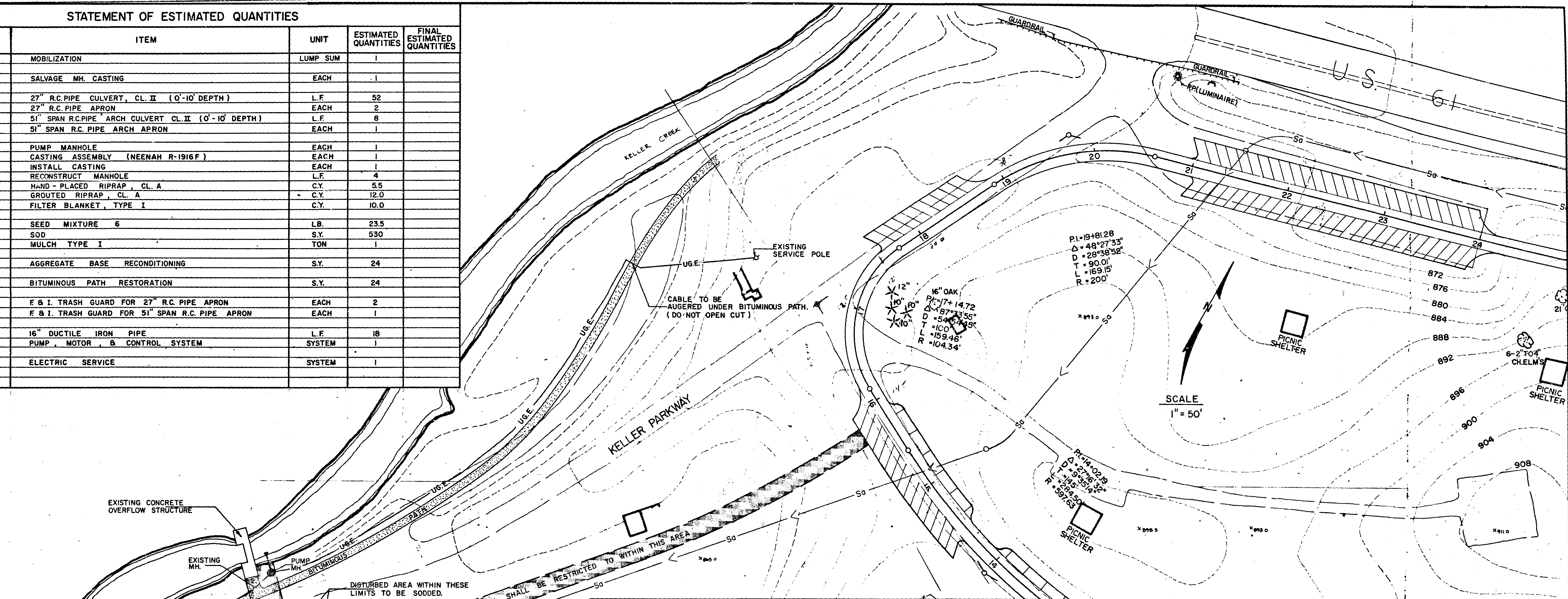


I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Daniel D. Scholt
Date Dec 7, 1981 Reg. No. 11256

* NOTE: TOP SLAB SHALL BE FURNISHED WITH HANDLING HOLES. HANDLING HOOKS WILL NOT BE ACCEPTED.

STATEMENT OF ESTIMATED QUANTITIES

ITEM NO.	ITEM	UNIT	ESTIMATED QUANTITIES	FINAL ESTIMATED QUANTITIES
2021.501	MOBILIZATION	LUMP SUM	1	
2104.523	SALVAGE MH. CASTING	EACH	1	
2501.511	27" R.C. PIPE CULVERT, CL. II (0'-10' DEPTH)	L.F.	52	
2501.515	27" R.C. PIPE APRON	EACH	2	
2501.521	51" SPAN R.C. PIPE ARCH CULVERT CL. II (0'-10' DEPTH)	L.F.	8	
2501.525	51" SPAN R.C. PIPE ARCH APRON	EACH	1	
2506.506	PUMP MANHOLE	EACH	1	
2506.516	CASTING ASSEMBLY (NEENAH R-1916F)	EACH	1	
2506.521	INSTALL CASTING	EACH	1	
2506.511	RECONSTRUCT MANHOLE	L.F.	4	
2511.502	HAND-PLACED RIPRAP, CL. A	C.Y.	5.5	
2511.503	GROUTED RIPRAP, CL. A	C.Y.	12.0	
2511.504	FILTER BLANKET, TYPE I	C.Y.	10.0	
2575.502	SEED MIXTURE 6	L.B.	23.5	
2575.505	SOD	S.Y.	530	
2575.511	MULCH TYPE I	TON	1	
231.604	AGGREGATE BASE RECONDITIONING	S.Y.	24	
341.601	BITUMINOUS PATH RESTORATION	S.Y.	24	
503.602	F & I. TRASH GUARD FOR 27" R.C. PIPE APRON	EACH	2	
503.602	F & I. TRASH GUARD FOR 51" SPAN R.C. PIPE APRON	EACH	1	
504.603	16" DUCTILE IRON PIPE	L.F.	18	
504.604	PUMP, MOTOR, & CONTROL SYSTEM	SYSTEM	1	
545.604	ELECTRIC SERVICE	SYSTEM	1	



STANDARD DETAIL PLATES

0003 A	SPECIFICATION REFERENCE TO STANDARD PLATES
3000 I	REINFORCED CONCRETE PIPE
3006 C	GASKET JOINT FOR R.C. PIPE
3014 I	REINFORCED CONCRETE PIPE ARCH DETAIL
3100 F	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3110 F	CONCRETE APRON FOR REINFORCED CONCRETE PIPE - ARCH.
3133 A	RIPRAP AT R.C.P. OUTLETS
3145 A	CONCRETE PIPE JOINT TIES
4007 C	PRECAST MECHANICAL JOINT SEWER MANHOLE
4011 D	PRECAST CONCRETE BASE
4108 E	MANHOLE ADJUSTING RINGS
4110 D	COVER CASTING FOR MANHOLE
4180 G	MANHOLE OR CATCH BASIN STEP

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.
Donald E. Schadt
 Date Dec 7, 1991 Reg. No. 11256