

CONVENTIONAL SIGNS & ABBREVIATIONS

STATE LINE.....	EXCAVATION.....	E
COUNTY LINE.....	EMBANKMENT.....	F
TOWNSHIP LINE.....	OVERHAUL.....	H
SECTION LINE.....	SURFACING.....	S
CITY, VILLAGE, OR BOROUGH.....	GUARD RAIL.....	GR
FENCE LINE.....	INTERSECTION ANGLE.....	Δ
RIGHT-OF-WAY LINE.....	RADIUS.....	R
TRAVELLED WAY.....	ELEVATION.....	EL
RAILROADS.....	VERTICAL CURVE.....	V.C.
RETAINING WALL.....	BENCH MARK.....	B.M.
BASE OF SURVEY LINE.....	SECTIONAL CONCRETE CULVERT.....	P.C.
LEVEE.....	CORRUGATED METAL CULVERT.....	C.M.
GRAVEL PIT.....	CULVERT HAUL.....	P.H.
SAND PIT.....	TON MILES.....	T.M.
CLAY PIT.....	PLACE.....	P
ROCK QUARRY.....	IN PLACE.....	INP
CULVERTS.....	REPLACE.....	REP
PLAIN.....	RIGHT.....	R
WITH FACEWALLS.....	LEFT.....	L
WITH WINGWALLS.....	HAND DITCHING.....	H.D.
DROP INLET.....	POINT OF CURVE.....	P.C.
POWER POLE LINE.....	POINT OF TANGENT.....	P.T.
TELEPHONE OR TELEGRAPH LINE.....	POINT OF INTERSECTION.....	P.I.
MARSH.....	SPECIAL EXCAVATION.....	S.E.
HEDGE, BUSH, OR TIMBER.....	SPECIAL FLOWING.....	S.P.
GROUND ELEVATION.....	TELEPHONE POLE.....	T.E.P.
GRADE ELEVATION.....		

STATE HIGHWAY DEPARTMENT
OF MINNESOTA
Plan and Profile of State Road No. 2

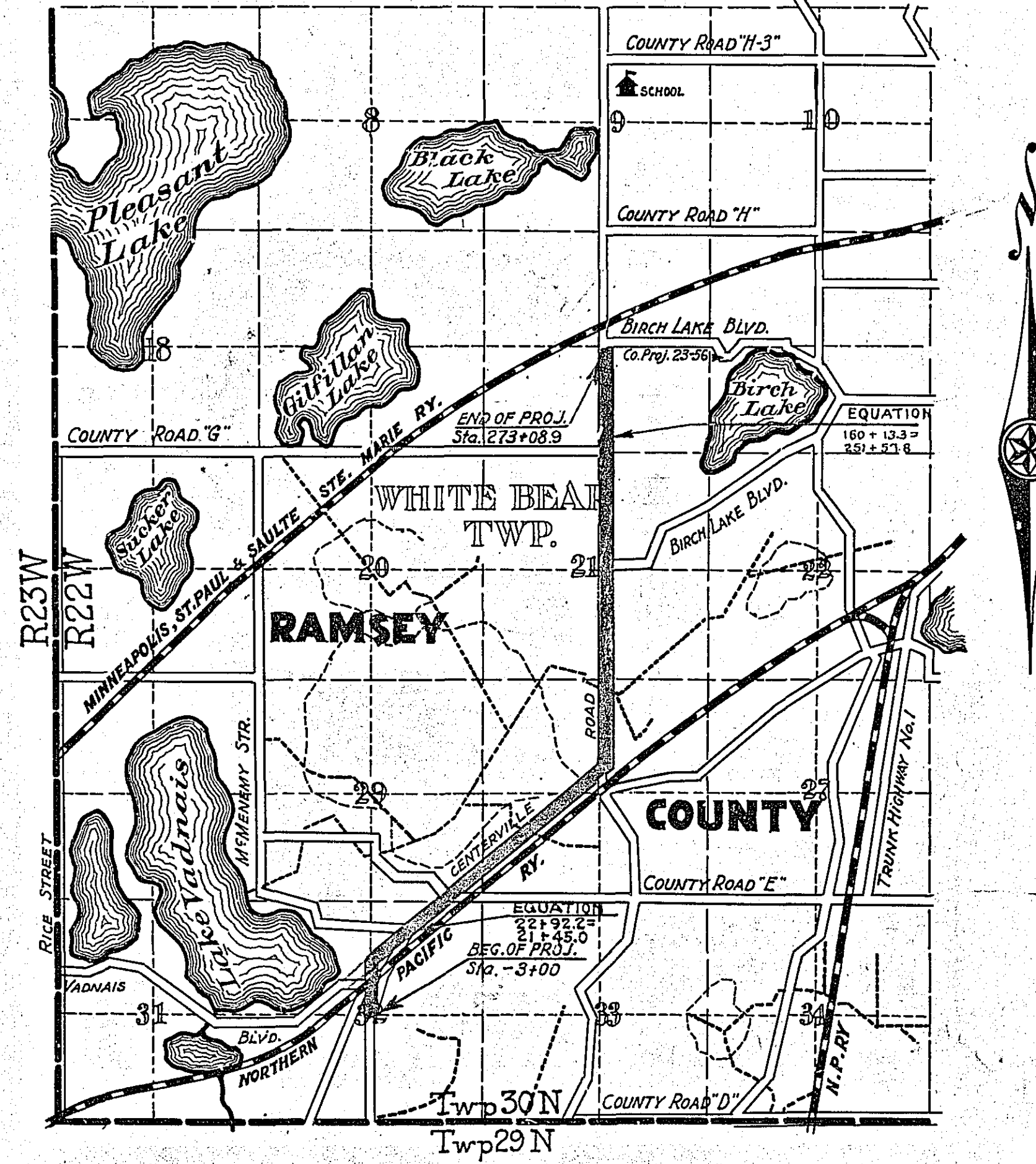
COUNTY OF RAMSEY

From a point 5074 feet S. of the Ctr. of Sec. 32 Twp. 30N-R22W To a point 1991 feet S. of the Ctr. of Sec. 16 Twp. 30N-R22W
Give proper reference to Sections, Township and Range

GROSS LENGTH..... 18,211.6 FEET 3.449 MILES
LENGTH OF EXCEPTIONS..... FEET..... MILES
NET LENGTH..... 18,211.6 FEET 3.449 MILES
PLAN, 1 Inch = 200 Feet
PROFILE, Horiz. 1 Inch = 200 Feet. Vert. 1 Inch = 20 Feet
WORKING PLANS { Horiz. 1 Inch = 100 Feet
 { Vert. 1 Inch = 10 Feet
 { Cross-Sections, 1 Inch = 10 Feet
LAYOUT
SCALE, 1 Inch = 1460 Feet

INDEX OF SHEETS

Sheet No. 1.	Title Sheet and Layout Map
" No. 2.	Typical Cross-Sections and Statement
" No. 3.	Plan and Profile, Sta. 3+00 to Sta. 33+13.4
" No. 4.	" " " " 33+13.4 " " 144+00
" No. 5.	" " " " 144+00 " " 273+08.9
" No. 6 to 12 incl.	Cross Sections
" No. 13	Miscellaneous Standards
" No. 13 A	Underpass



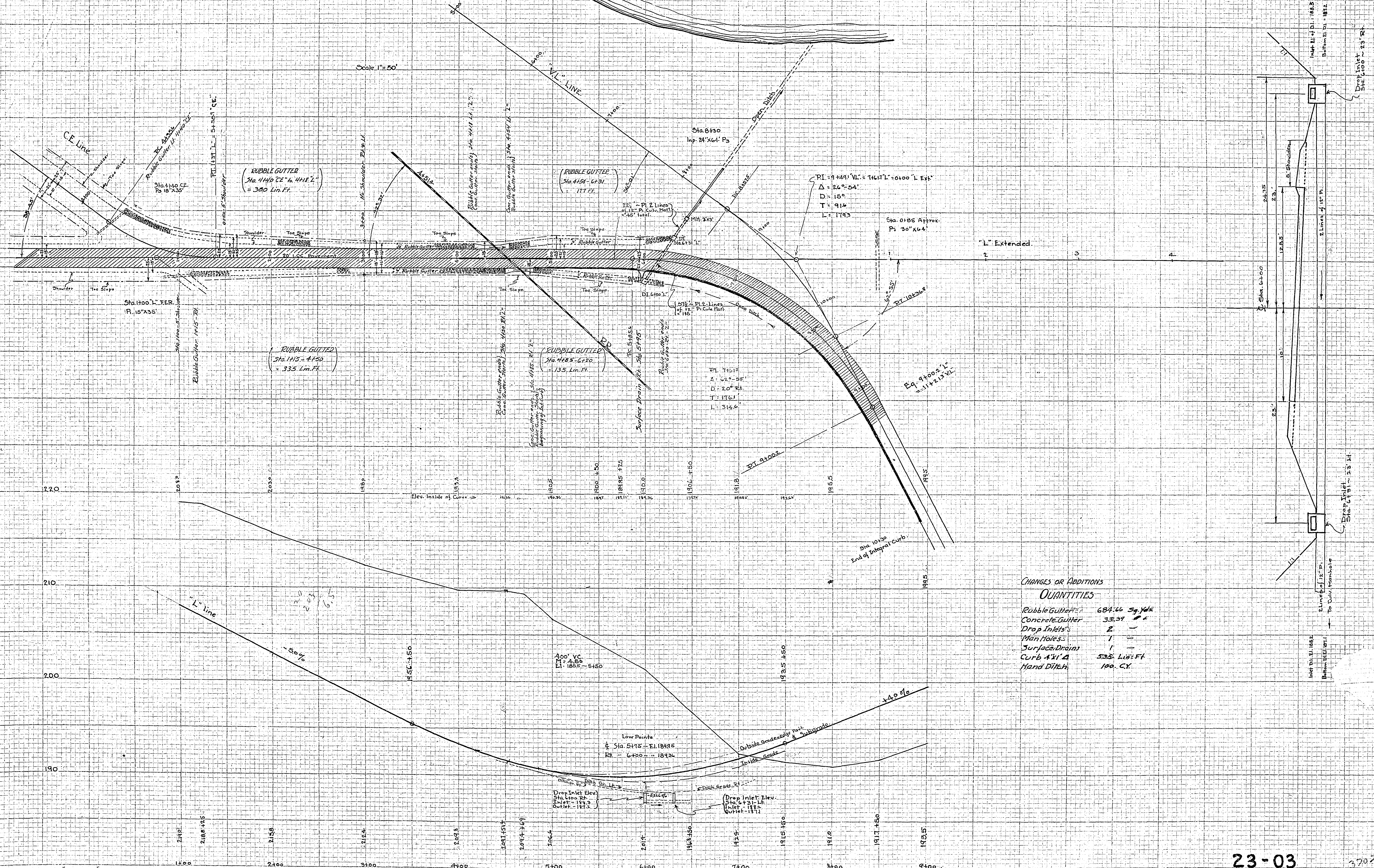
Planned by Paul N. Coates
HIGHWAY ENGINEER FOR Ramsey COUNTY.
Recommended for Approval _____ DIVISION ENGINEER
Recommended for Approval O. L. Kops CONSTRUCTION ENGINEER
Approved John S. Miller CHIEF ENGINEER & DEPUTY COMMISSIONER

Scale 1"=50'

VADNAIS LAKE

Scale 1"=50'

Scale 1"=50'



CHANGES OR ADDITIONS

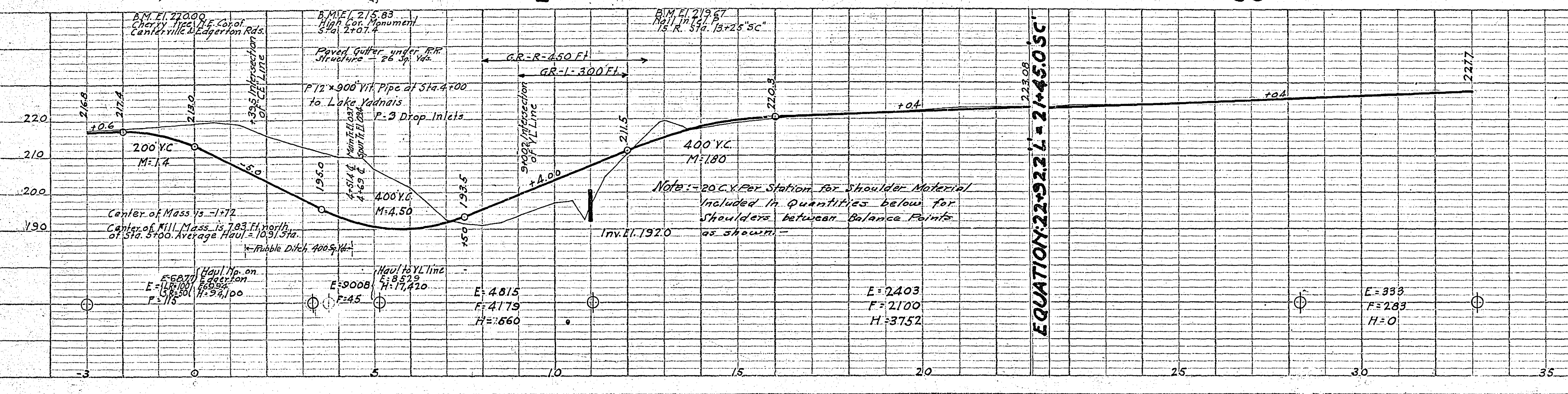
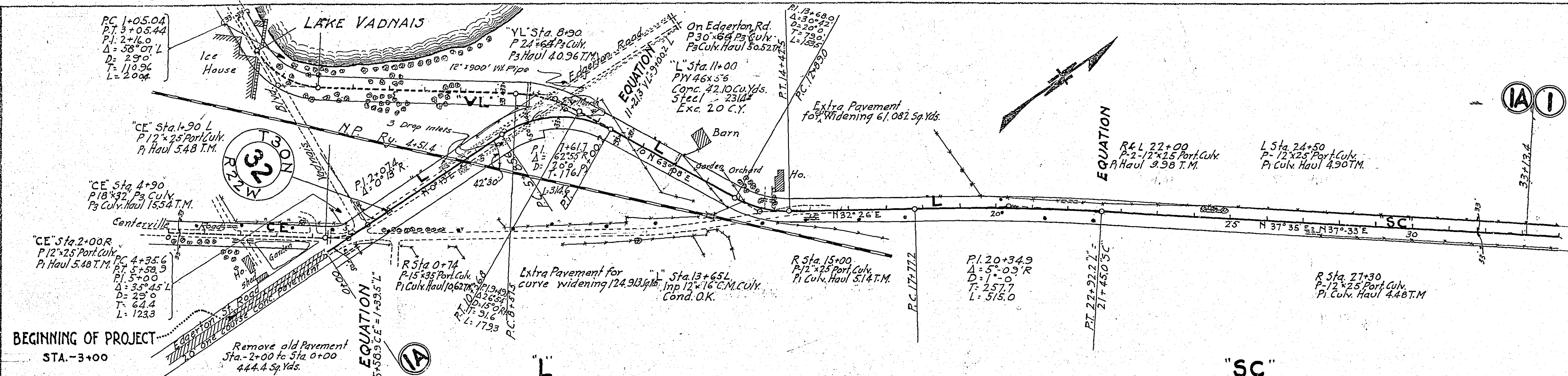
QUANTITIES

Rubble Gutter	687.46	Sq. Yds
Concrete Gutter	33.37	ft
Drop Inlets	2	-
Man Holes	1	-
Surface Drains	1	-
Curb 4'x1' A	535	Lin. Ft.
Hand Ditch	100	C.Y.

Note: See Detail Sheets for Details of Drop Inlets or Manhole

ENGINE DRAWING Co.
PROF. CROSS SECTION PAPER 10 x 10 - 1/4 INCH

ENGINE DRAWING Co.
PROF. CROSS SECTION PAPER 10 x 10 - 1/4 INCH



"L" LINE ESTIMATED QUANTITIES STA. 0+00 TO STA. 33+13.4

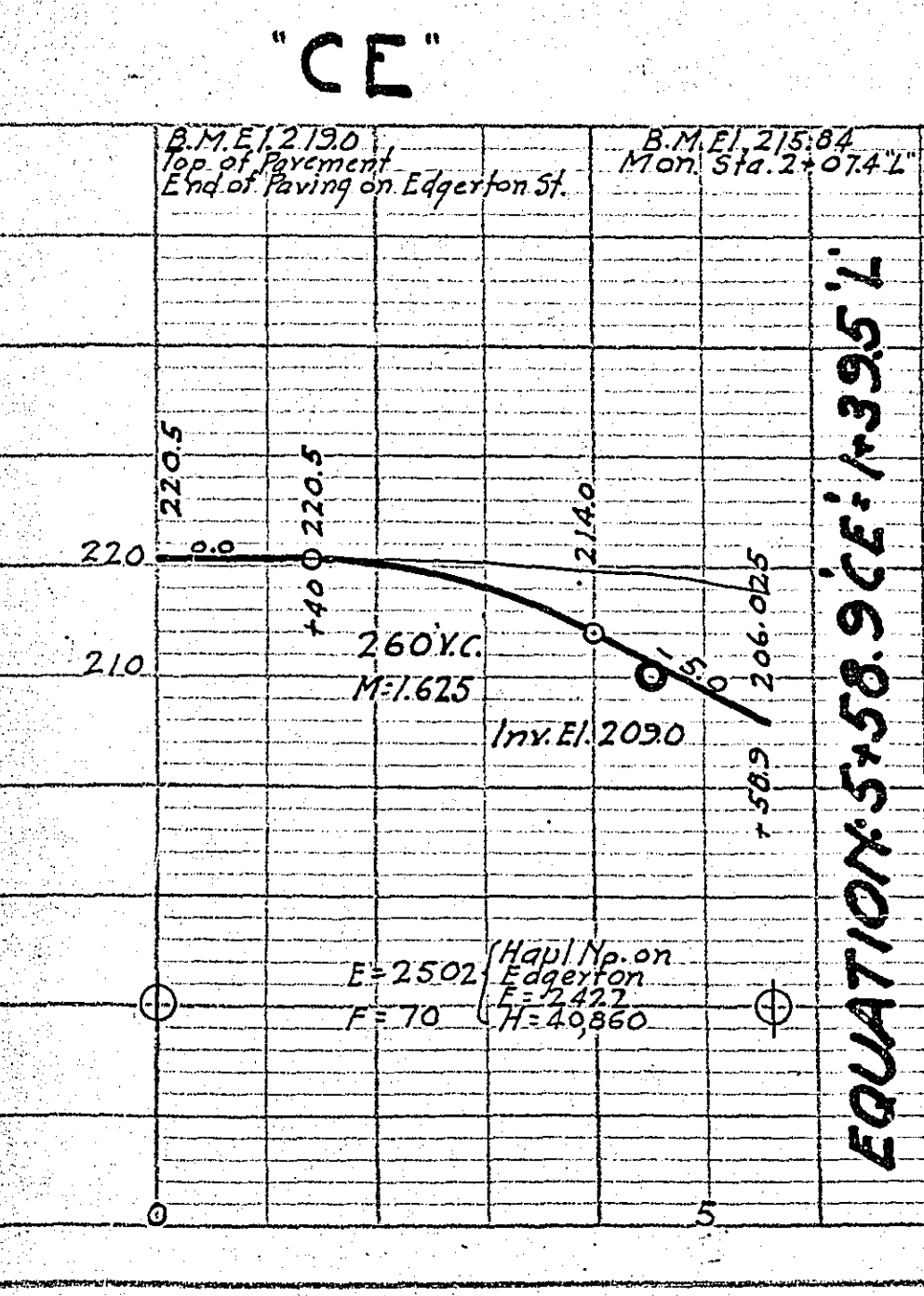
Exc.	234.36	Cu. Yds.
Guard Rail	115.83	Lm. Ft.
Port. Culv.	15.75	Lm. Ft.
Pa. Culv. Haul	15.75	T.M.
Pa. Culv.	30.68	Lm. Ft.
W. Culv. Concs	127.90	Lm. Ft.
Exc.	25.14	Cu. Yds.
Paving	7,652.0	Sq. Yds.
Integral Surface Drains	668.1	Lm. Ft.
Drop Inlets	9	
Removing old Pavement	444.4	Sq. Yds.
Grade Ditch Lining	400	Sq. Yds.
Final Gutter	56	

PLAN

SURVEYED	DATE
NOTED	BY
CHECKED	BY
BY	DATE

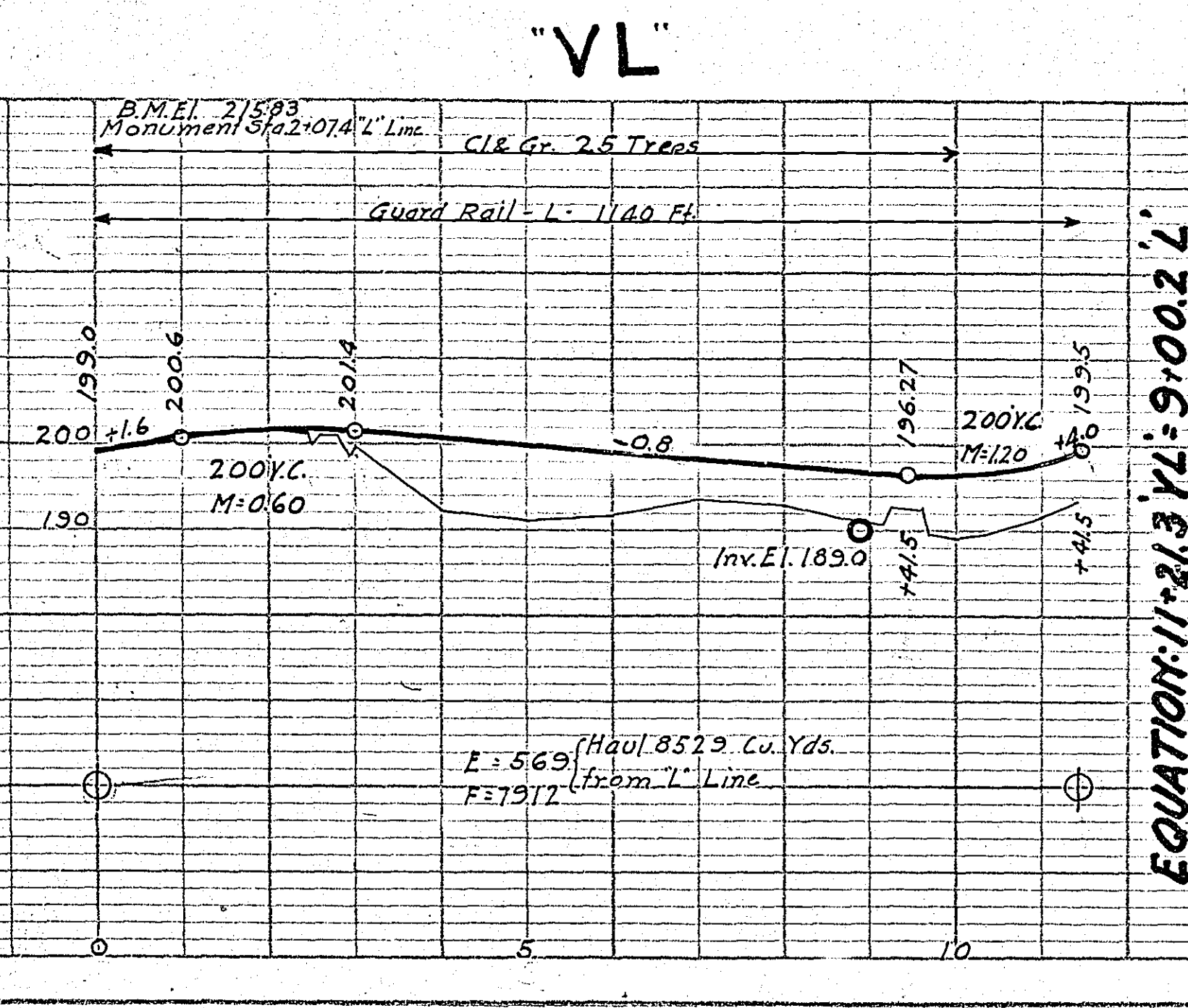
PROFILE

SURVEYED	DATE
NOTED	BY
CHECKED	BY
BY	DATE



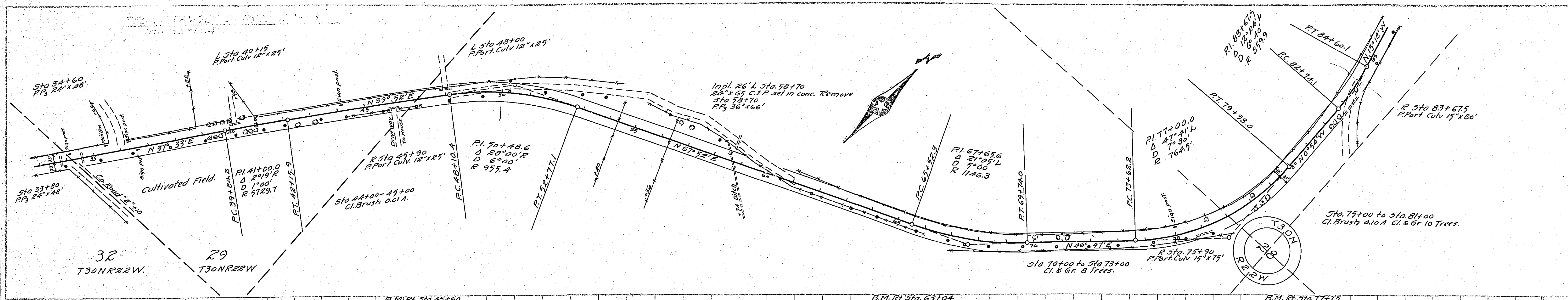
"CE" LINE ESTIMATED QUANTITIES STA. 0+00 TO STA. 5+58.9

Exc.	2502	Cu. Yds.
Port. Culv.	12.50	Lm. Ft.
Pa. Culv.	18.32	Lm. Ft.
W. Culv. Concs	18.32	Lm. Ft.
Exc.	18.32	Cu. Yds.



"VL" LINE ESTIMATED QUANTITIES STA. 0+00 TO STA. 11+41.5

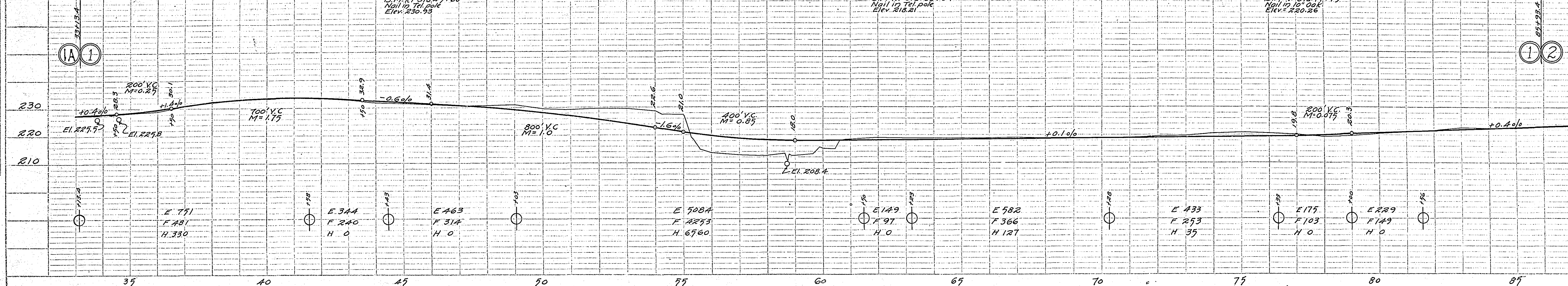
Exc.	25	Trees
Port. Culv.	569	Cu. Yds.
Pa. Culv. Haul	1140	Lm. Ft.
Pa. Culv.	24.64	Lm. Ft.
W. Culv. Concs	40.96	Lm. Ft.
Exc.	40.96	Cu. Yds.



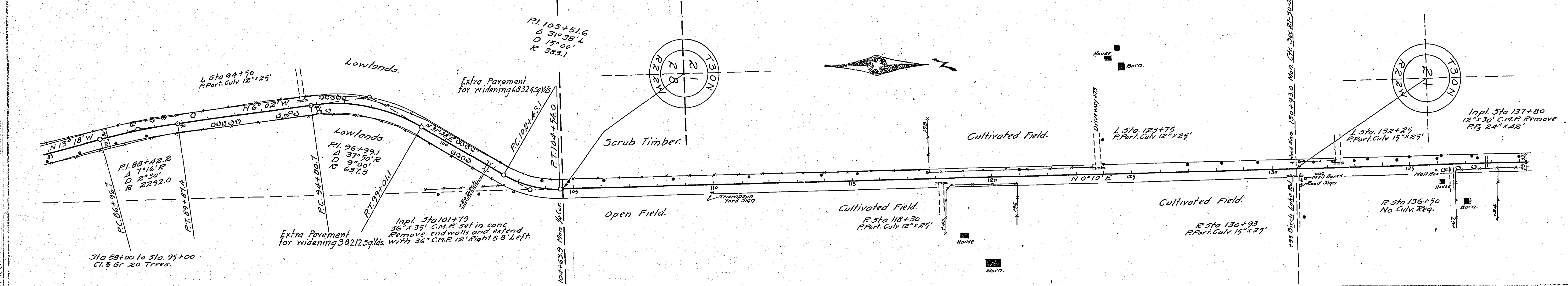
MILE ONE

STA 33+13.4 TO STA 81+56

ESTIMATED QUANTITIES	
Cl. Brush	0.11 A
Gr.	18 Trees
E	18 Trees
H	82.10 Cy
Part Culv	70.50 Lin. Ft.
Culv H	15" x 15" 29.17 T.M.
B Culv	24" x 36" 66 Lin. Ft.
B Culv H	137.94 T.M.
Guard Rail	0 Lin. Ft.
Paving	10,761.3 Sq. Yds.
Curbing	182.4 Lin. Ft.
Surface Drains	3



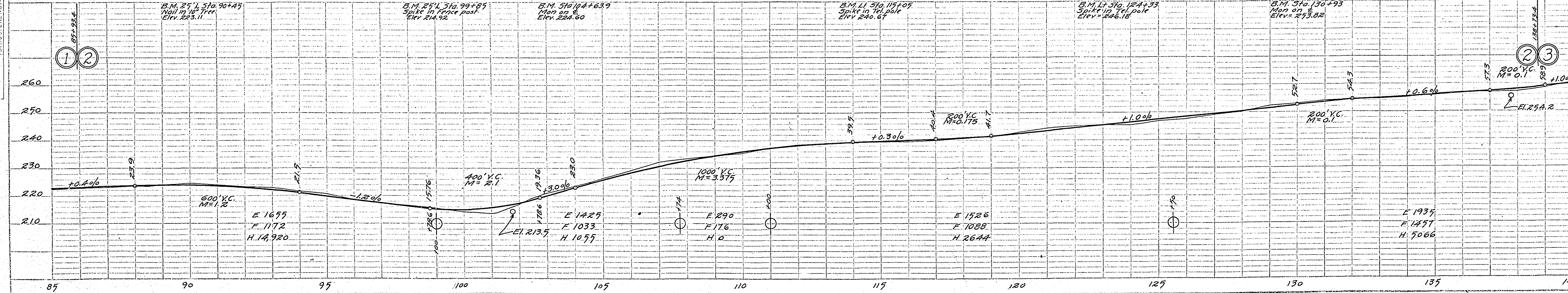
DATE: _____ BY: _____
 SURVEYED: _____
 PLOTTED: _____
 CHECKED: _____
 NOTE BOOK: _____
 NO. _____
 STRIP: _____



MILE TWO

STA 81+56.0 TO STA 144+00

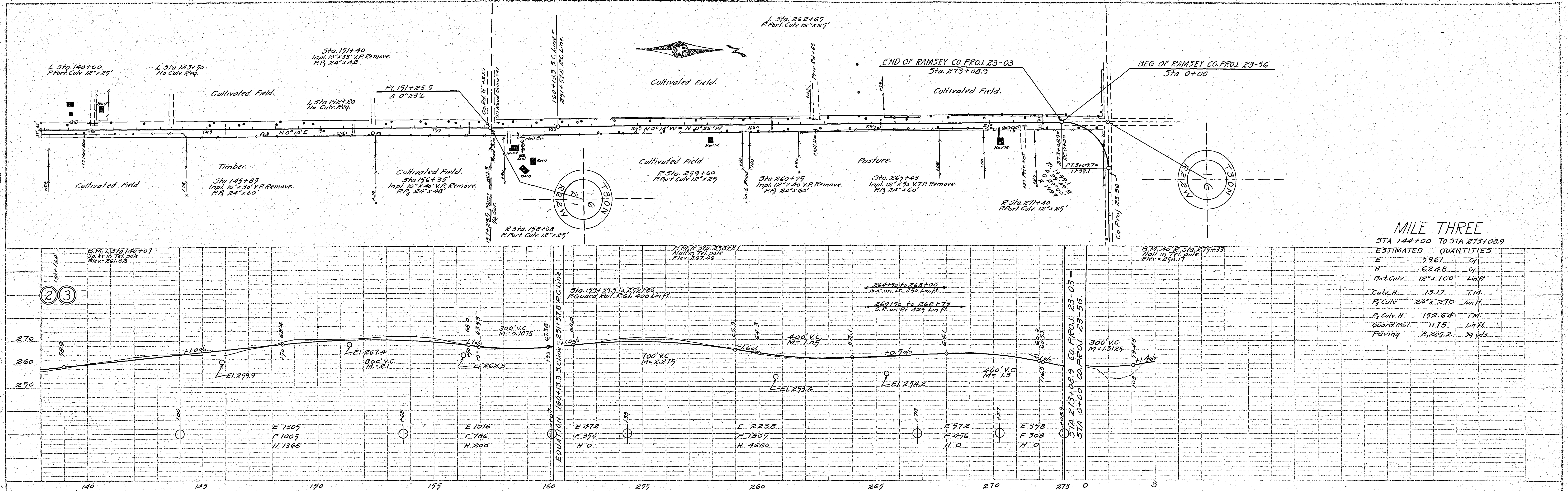
ESTIMATED QUANTITIES	
Cl.	20 Trees
Gr.	20 Trees
E	68.31 Cy
H	23,685 Cy
C.M. Culv	36" x 20" 1.17 Lin. Ft.
Part Culv	15" x 15" 1.17 Lin. Ft.
Culv H	44.65 T.M.
B Culv	24" x 42" 1.17 Lin. Ft.
B Culv H	27.02 T.M.
Guard Rail	0 Lin. Ft.
Paving	14,042.1 Sq. Yds.
Curbing	122.8 Lin. Ft.
Surface Drains	3



DATE: _____ BY: _____
 SURVEYED: _____
 PLOTTED: _____
 CHECKED: _____
 NOTE BOOK: _____
 NO. _____
 STRIP: _____

DATE _____ BY _____
 SURVEYED _____
 PLOTTED _____
 NOTE BOOK _____
 NO. _____

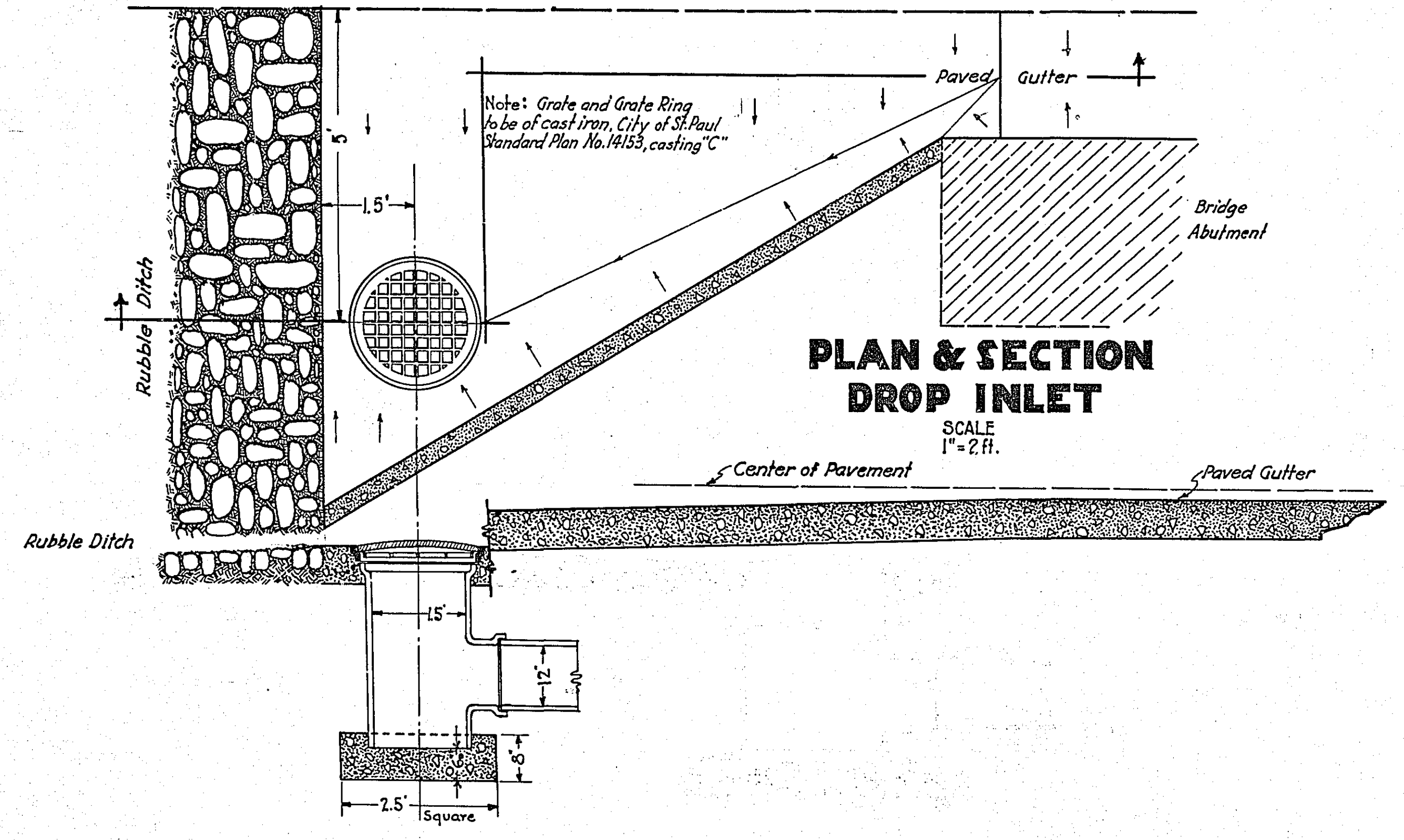
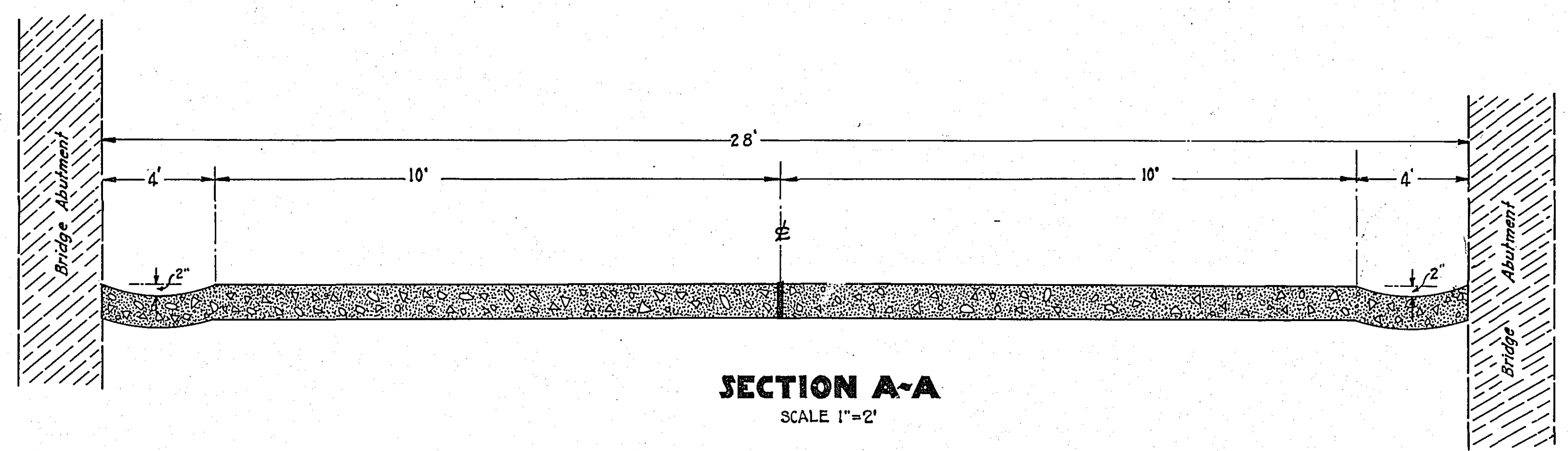
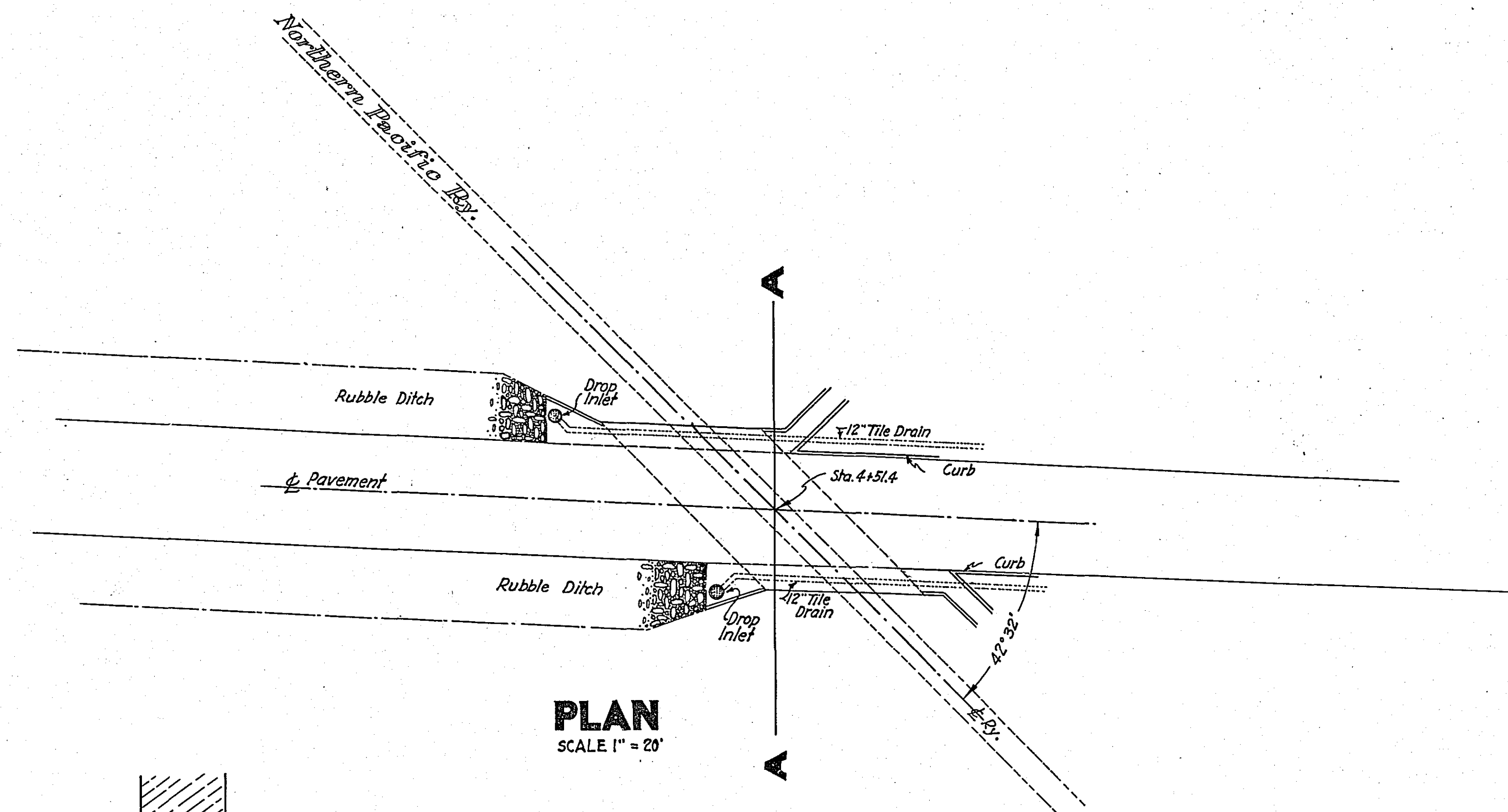
DATE _____ BY _____
 SURVEYED _____
 PLOTTED _____
 NOTE BOOK _____
 NO. _____



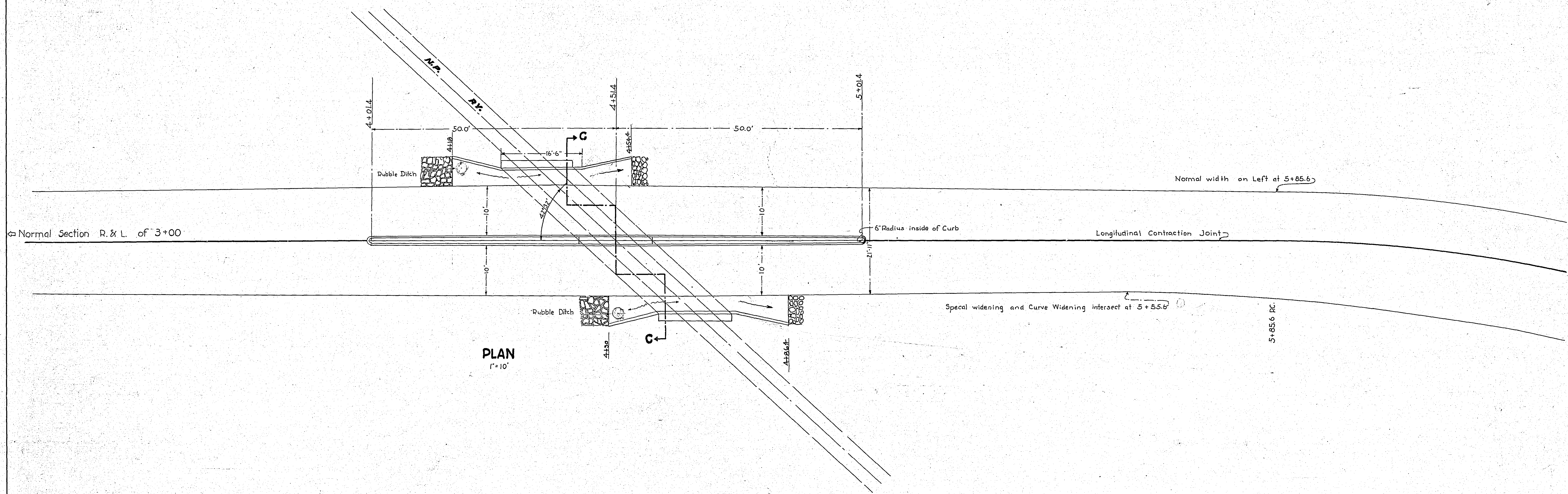
MILE THREE
 STA 144+00 TO STA 273+08.9

ESTIMATED	QUANTITIES
E	5961 Cy
H	6248 Cy
Part. Culv.	12' x 100 Lin ft.
Culv. H	13.17 T.M.
P. Culv.	22' x 270 Lin ft.
P. Culv. H	152.64 T.M.
Guard Rail	1175 Lin ft.
Paving	8,265.2 Sq yds.

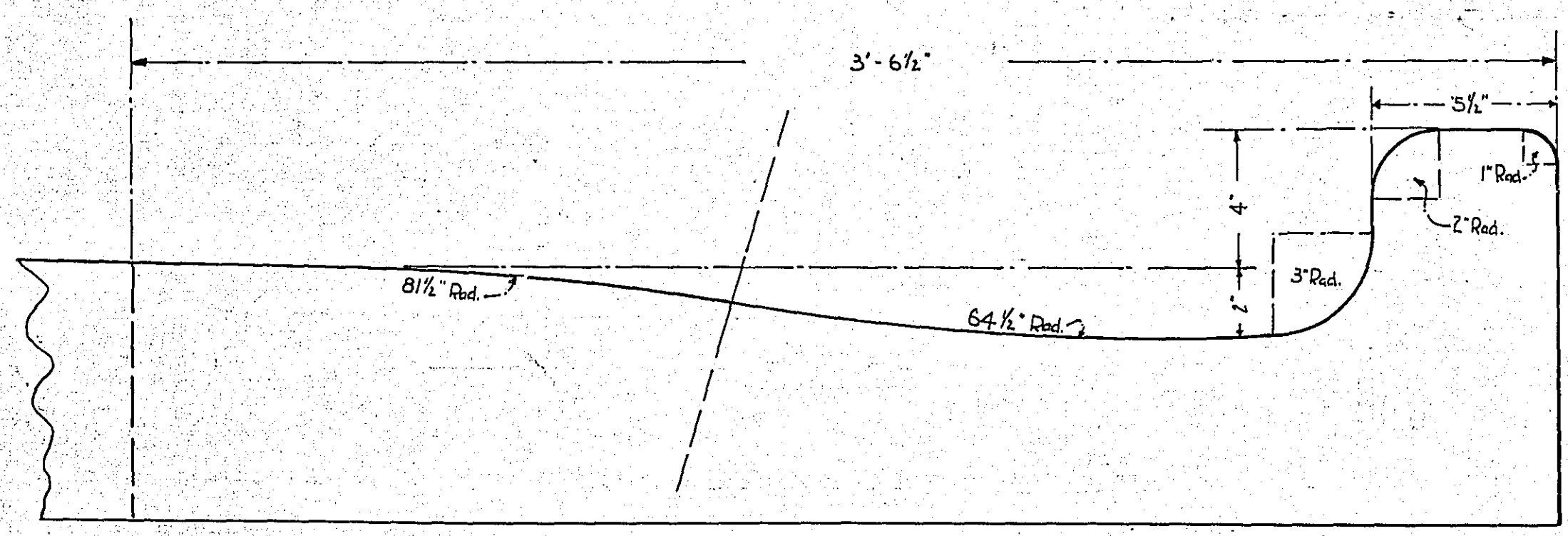
RECORDED
 211 1033



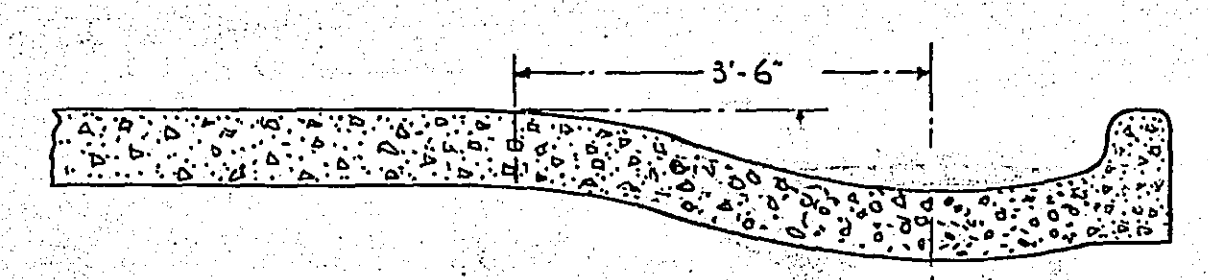
OFFICE OF
 RAMSEY COUNTY ENGINEER
 DETAIL PLAN
 PASS UNDER NORTHERN PACIFIC RY.
 COUNTY PROJ. 23-03
 STA. 4+51.4



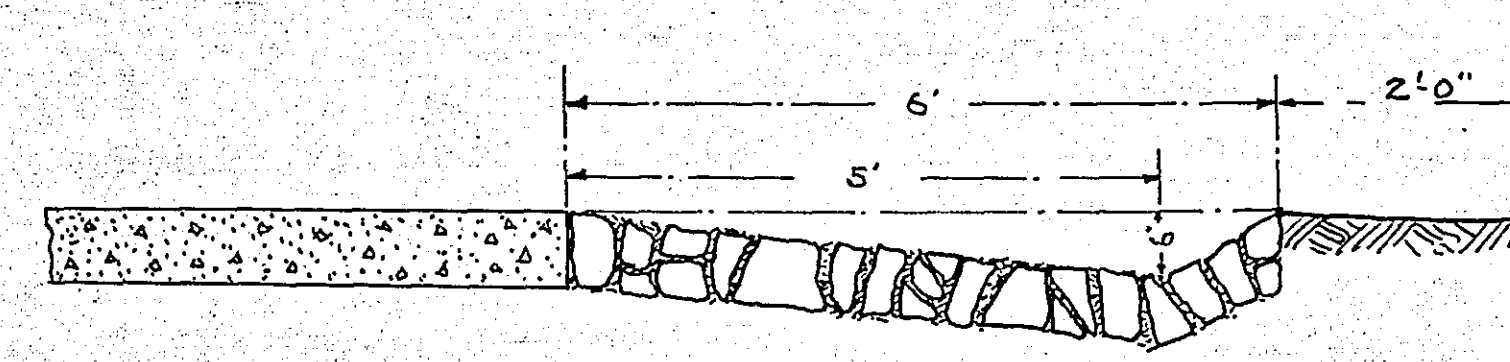
PLAN
1" = 10'



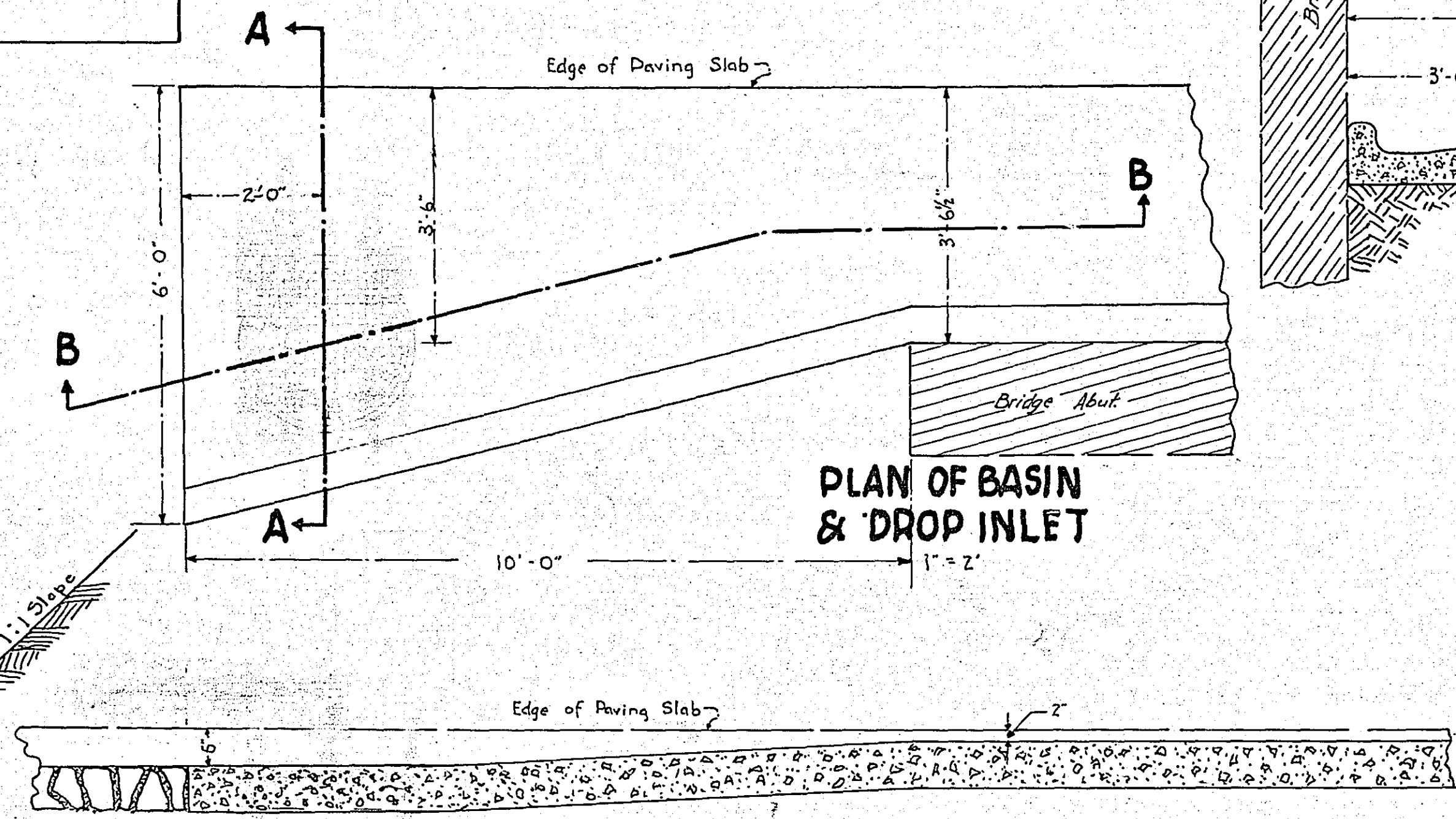
SECTION OF PAVED DITCH
1" = 5'



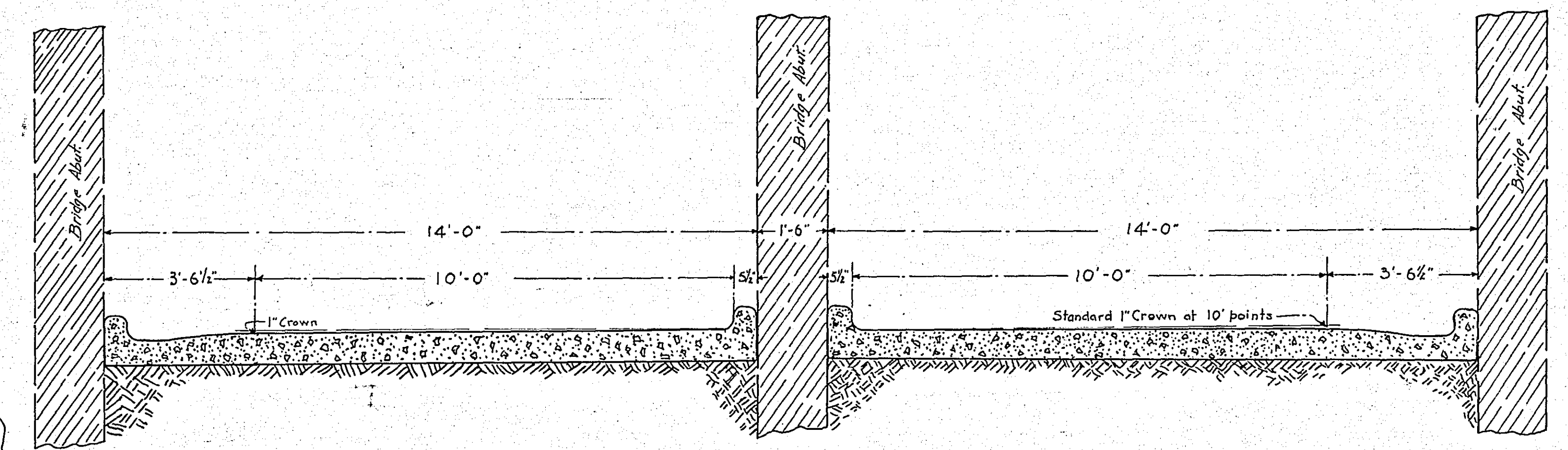
SECTION A-A
1" = 2'



SECTION OF RUBBLE DITCH
1" = 2'

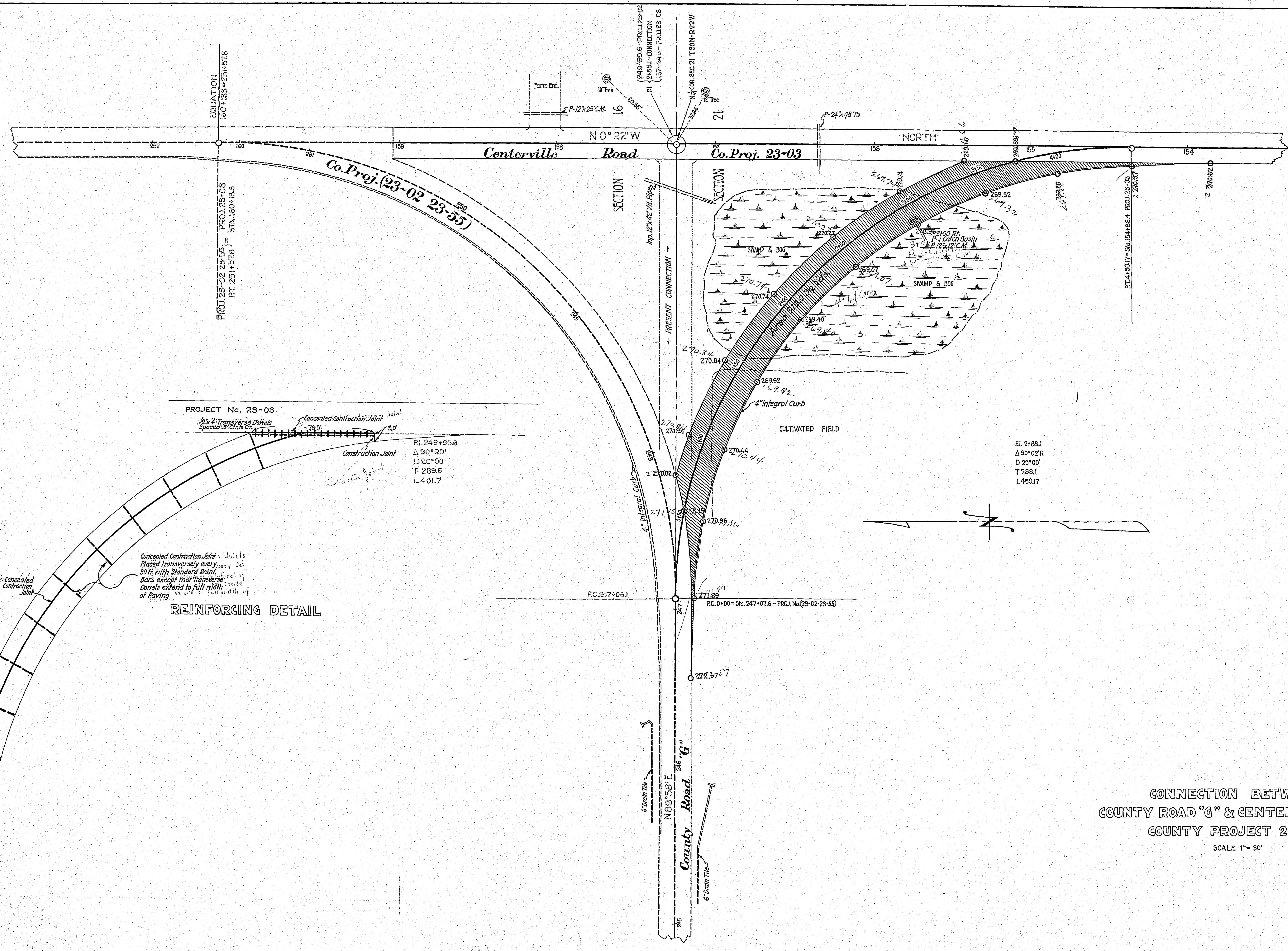


SECTION B-B
1" = 2'



SECTION C-C
1" = 2 1/2'

OFFICE OF
RAMSEY COUNTY ENGINEER
DETAIL PLAN
PASS UNDER NORTHERN PACIFIC RY.
COUNTY PROJ. 23-03
STA. 4 + 51.4

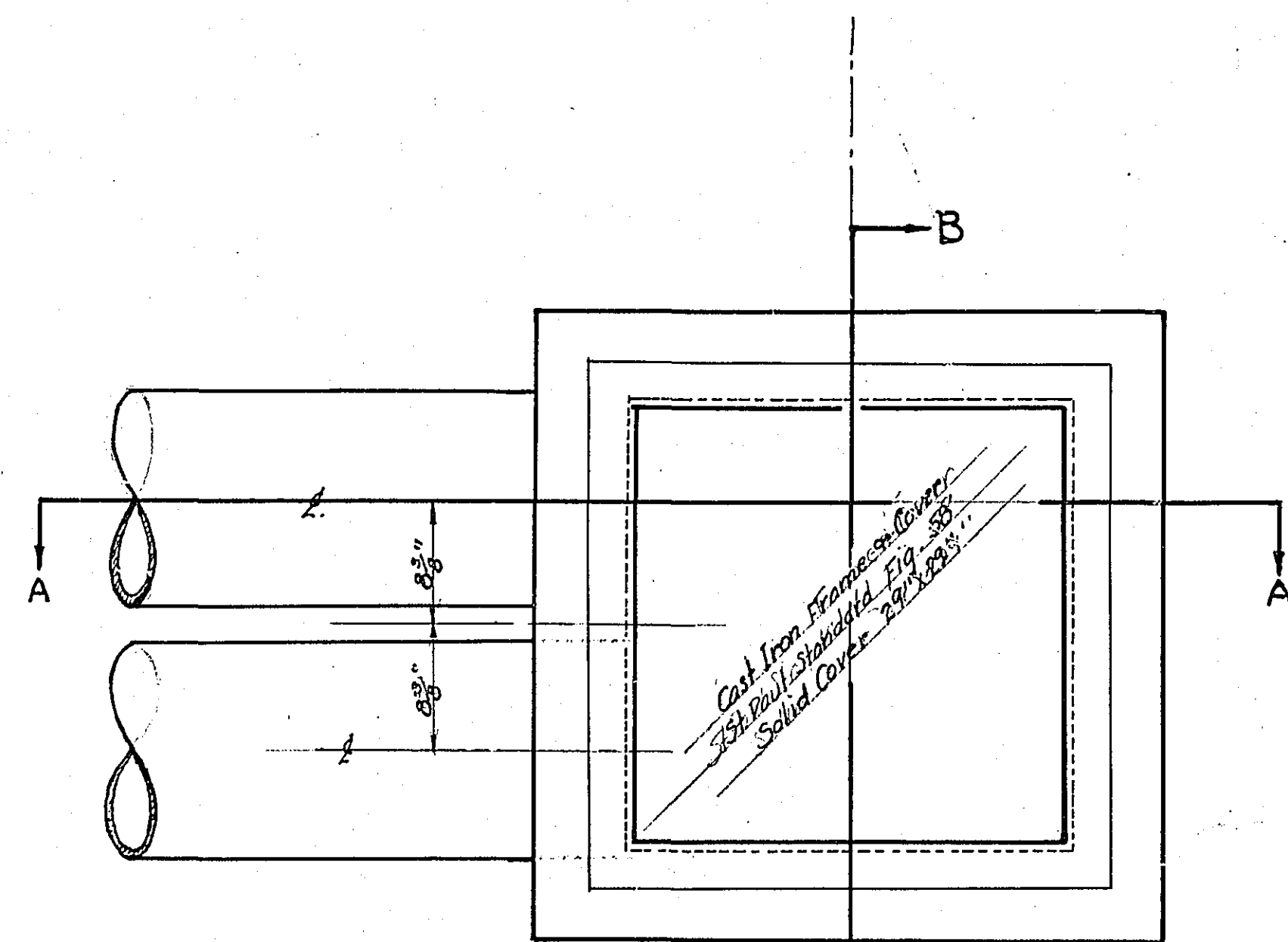


PROJECT No. 23-08
 2% Transverse Doweled
 Spaced 5' Ctr. to Ctr.
 Concealed Construction Joint
 Construction Joint
 R1. 249+95.6
 Δ 90° 20'
 D 20° 00'
 T 289.6
 L 461.7

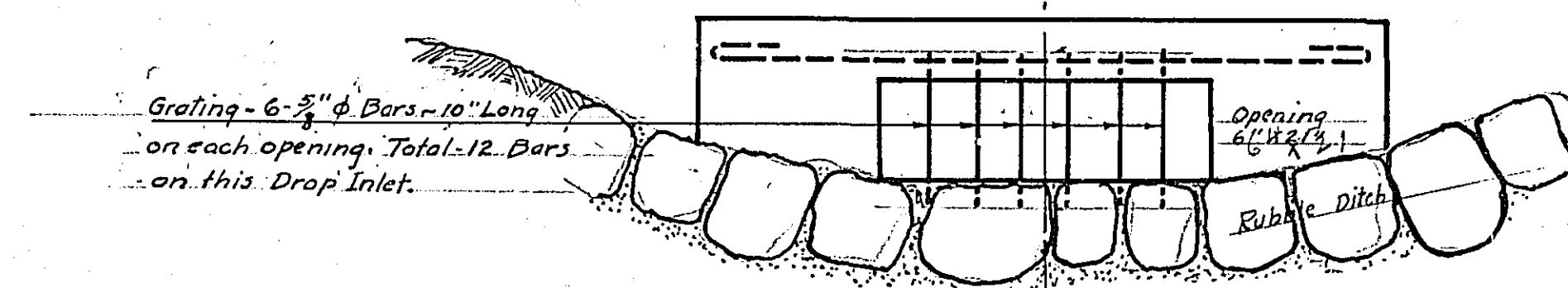
REINFORCING DETAIL
 Concealed Construction Joints
 Placed transversely every 20
 30 ft. with Standard Reinf.
 Bars except that Transverse
 Doweled extend to full width
 of Paving

R1. 2+88.1
 Δ 90° 02' R
 D 20° 00'
 T 288.1
 L 450.17

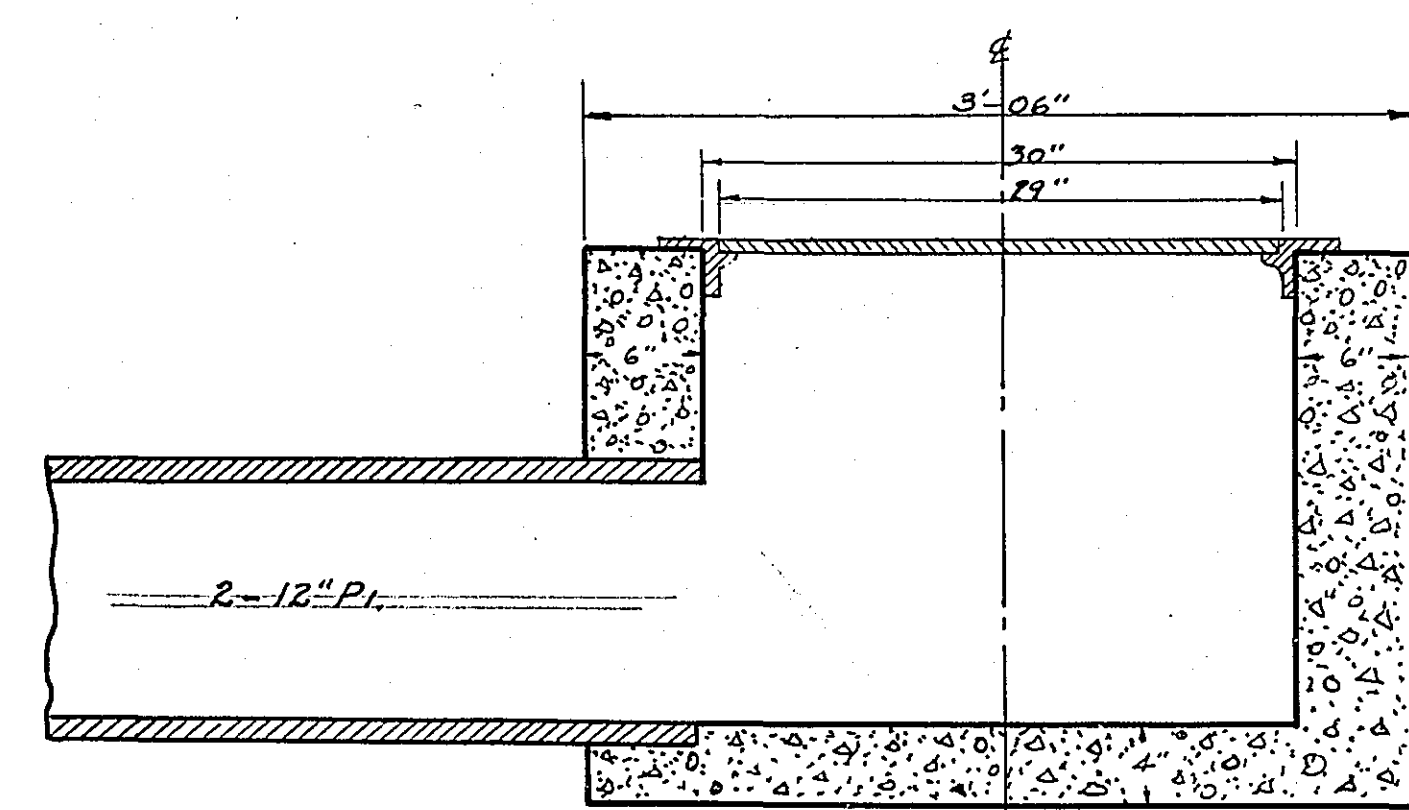
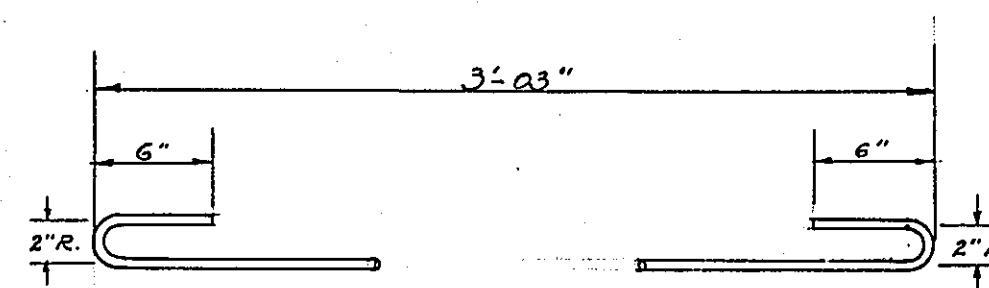
CONNECTION BETWEEN
 COUNTY ROAD "G" & CENTERVILLE ROAD
 COUNTY PROJECT 23-03
 SCALE 1" = 30'



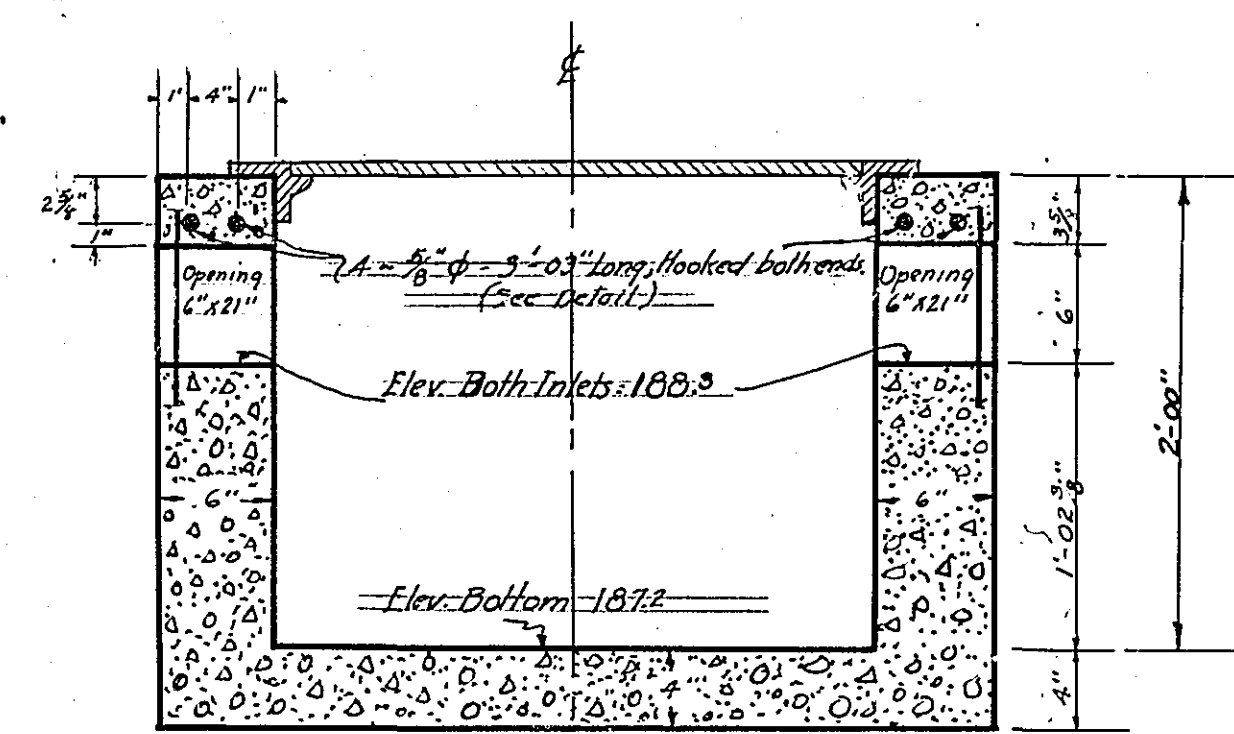
TOP VIEW



SIDE VIEW



SECTION A-A

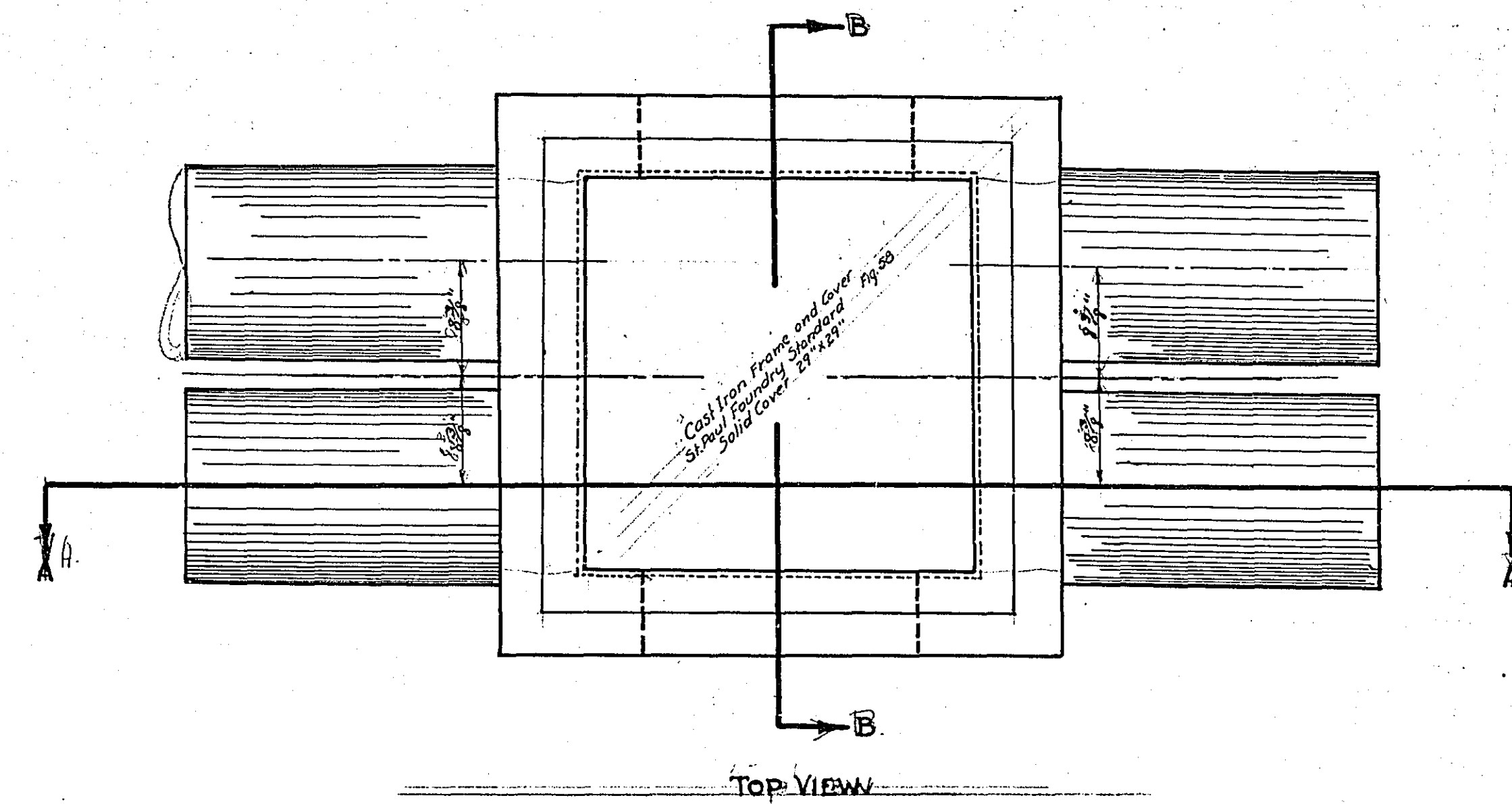
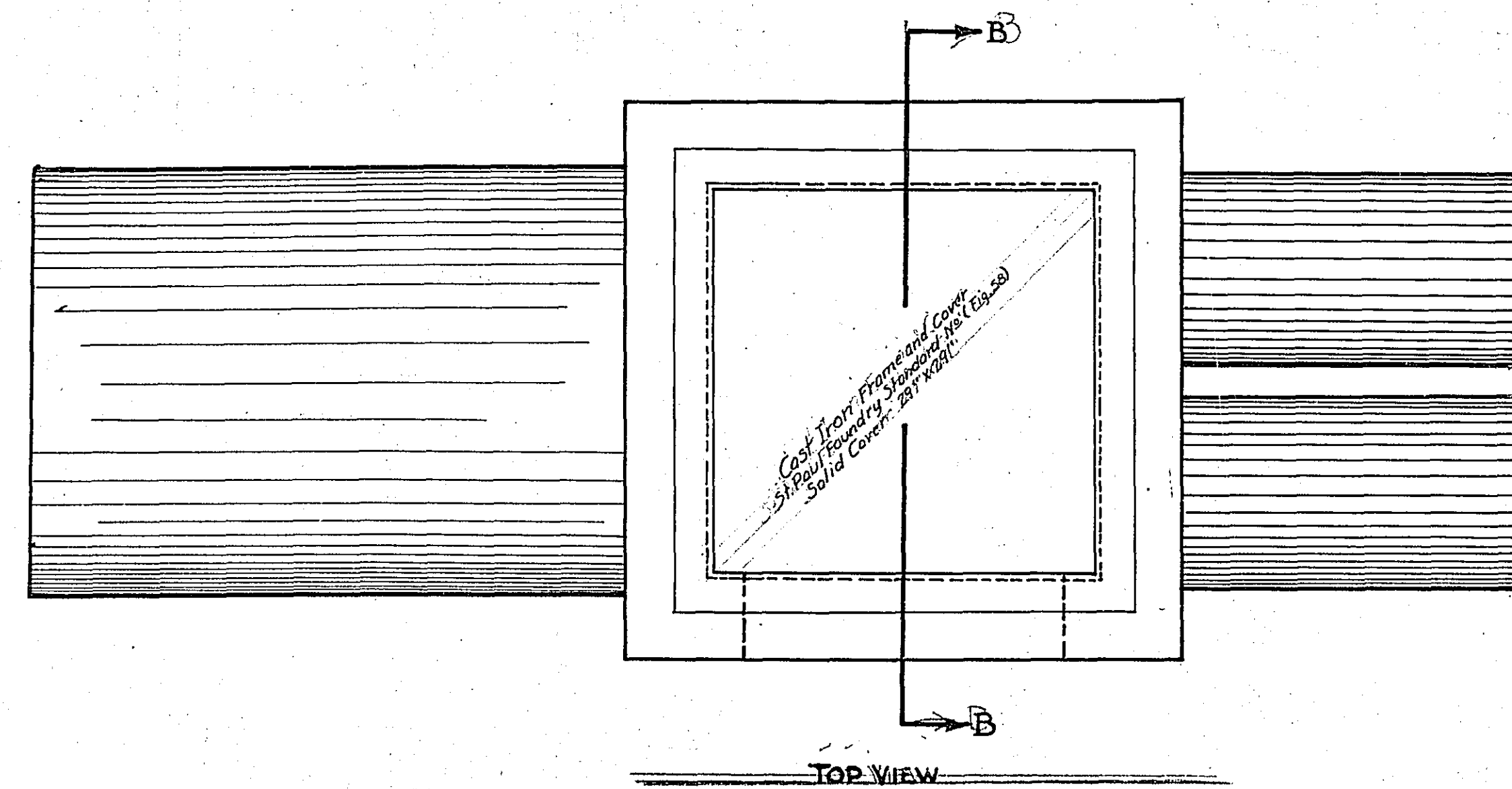


SECTION B-B

DROP INLET

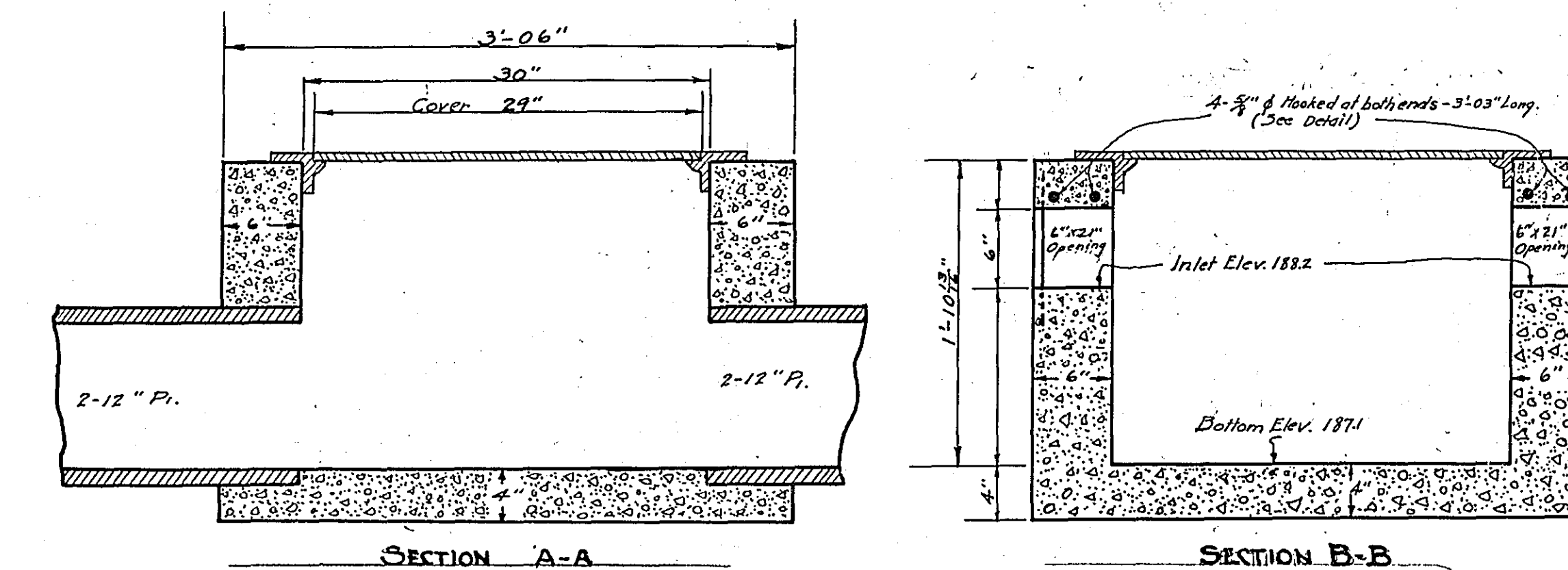
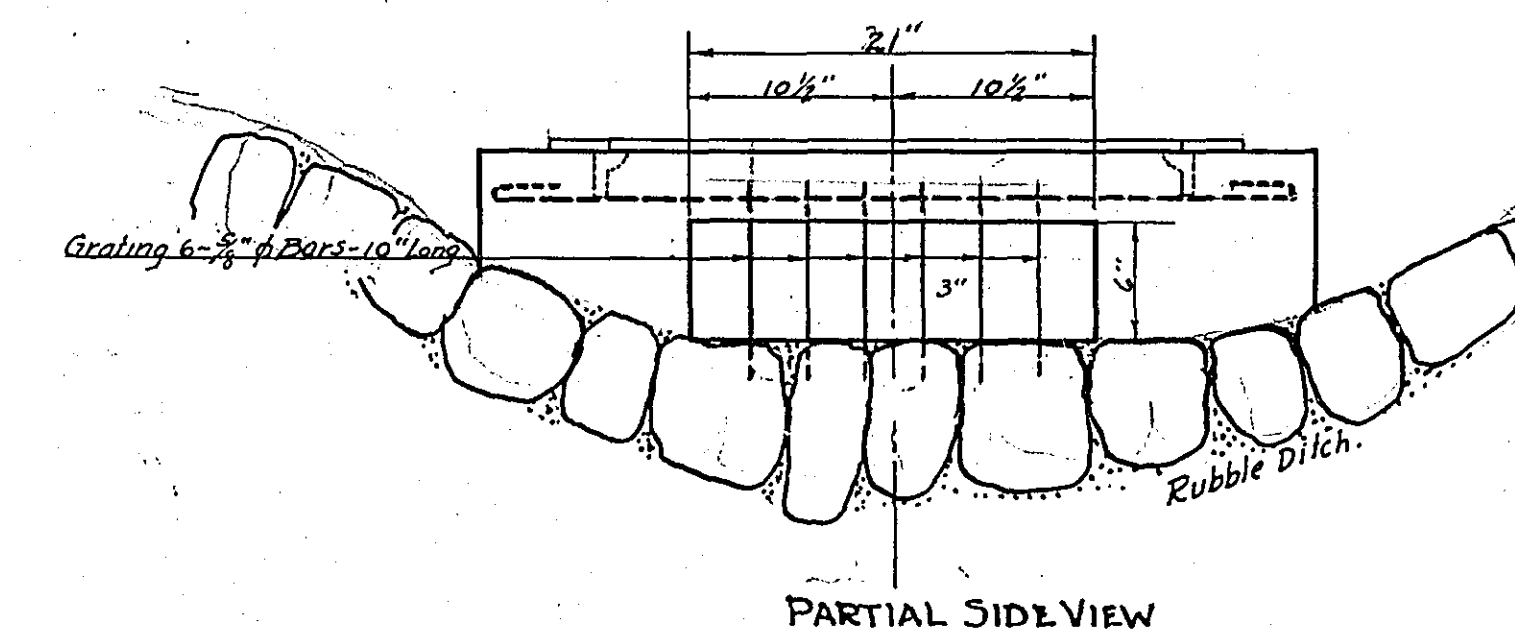
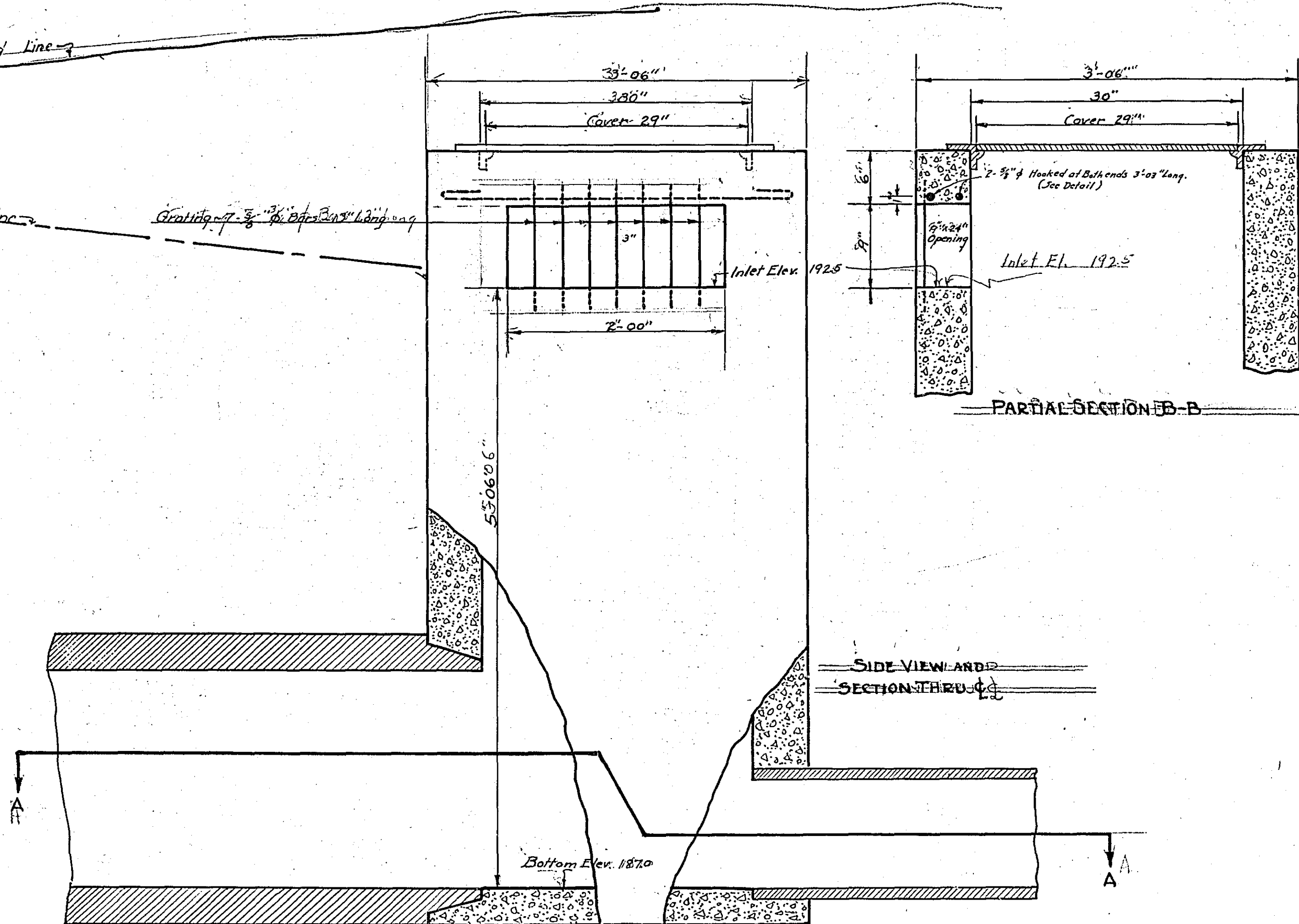
Sta. 6+00 ± 1' Line 23' Rt.
Scale 1" = 1'

BILL OF MATERIAL	
KIND OF MATERIAL	QUANTITY
Concrete	14.48 Cu Ft.
Steel (Reinforcing)	107 lbs.
Steel (Grating)	10 lbs.
C.I. Frame & Cover	1



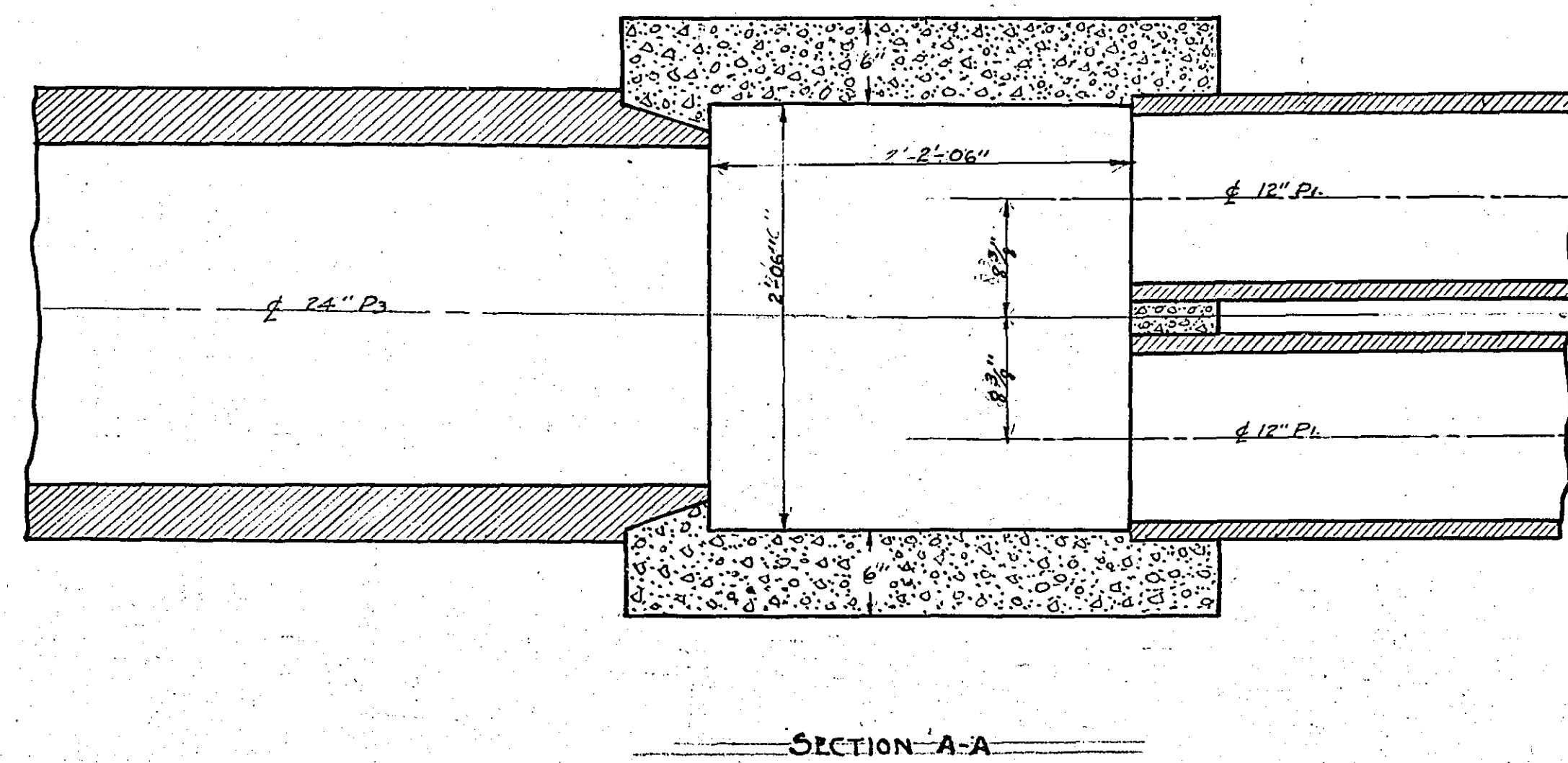
MANHOLE
 Sta. 6+30.71 Line 23-Lt.
 Scale: 1"=1'

BILL OF MATERIAL	
Kind of Material	Quantity
Concrete	78.5 Cu. Ft.
Reinforcing Steel	5.5 lbs.
Reinforcing Steel (Gratings)	9.7 lbs.
Cast Iron Frame + Cover (Fig. 58)	1



DROP INLET
 Sta. 6+31.1 Line 23-Lt.
 Scale: 1"=1'

BILL OF MATERIAL	
Kind of Material	Quantity
Concrete	19.6 Cu. Ft.
Reinforcing Steel	10.1 lbs.
Reinforcing Steel (Grating)	10 "
Cast Iron Frame + Cover (Fig. 58)	1



DETAILS OF DRAINAGE SYSTEM
 COUNTY PROJECT NO. 23-03