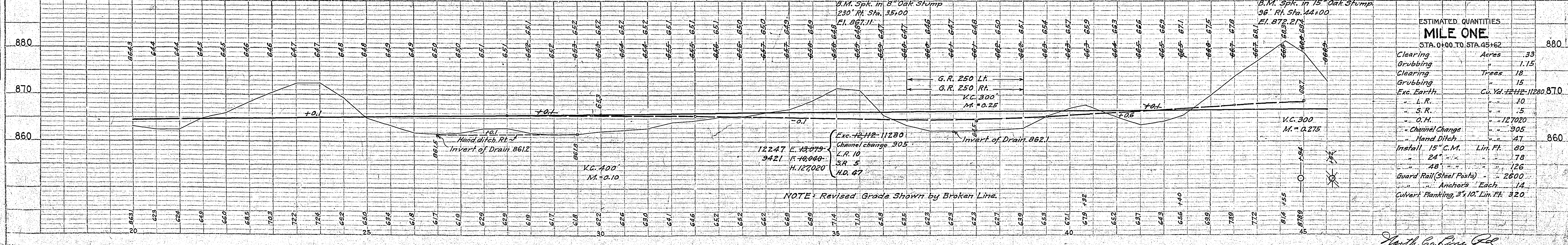
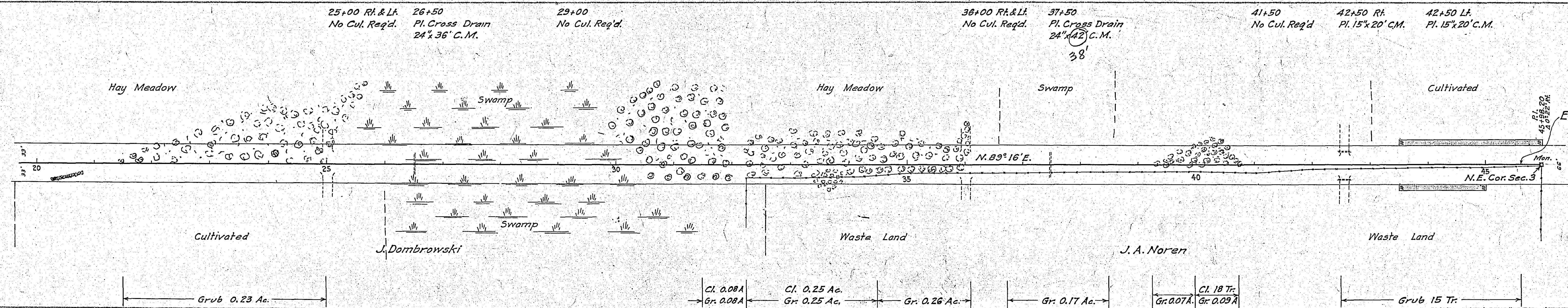
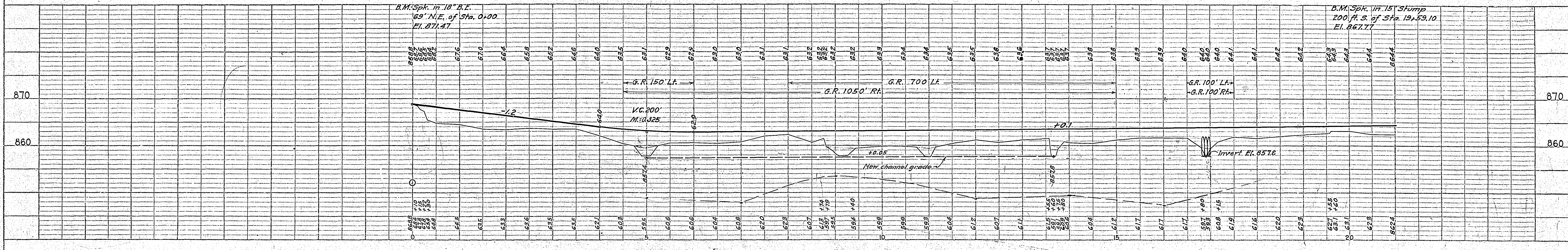
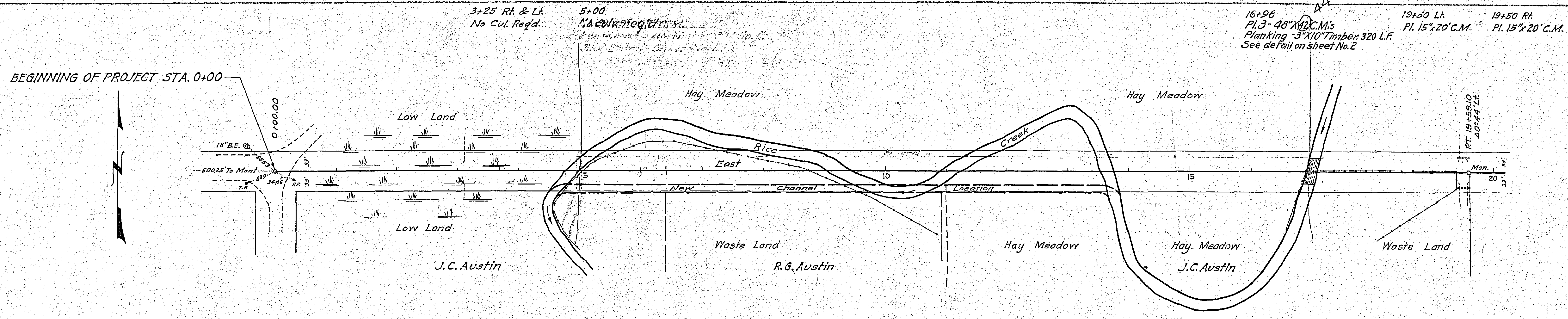


DATE	
BY	
REVISIONS	
PLANNED	
NOTE BOOK	
ALIGNMENT CHECKED	
AT. OF WAY CHECKED	
NO.	

DATE	
BY	
REVISIONS	
PLANNED	
NOTE BOOK	
GRADES CHECKED	
S. WAS NOTED	
STRUCTURE NORTH IN CHKO.	
NO.	

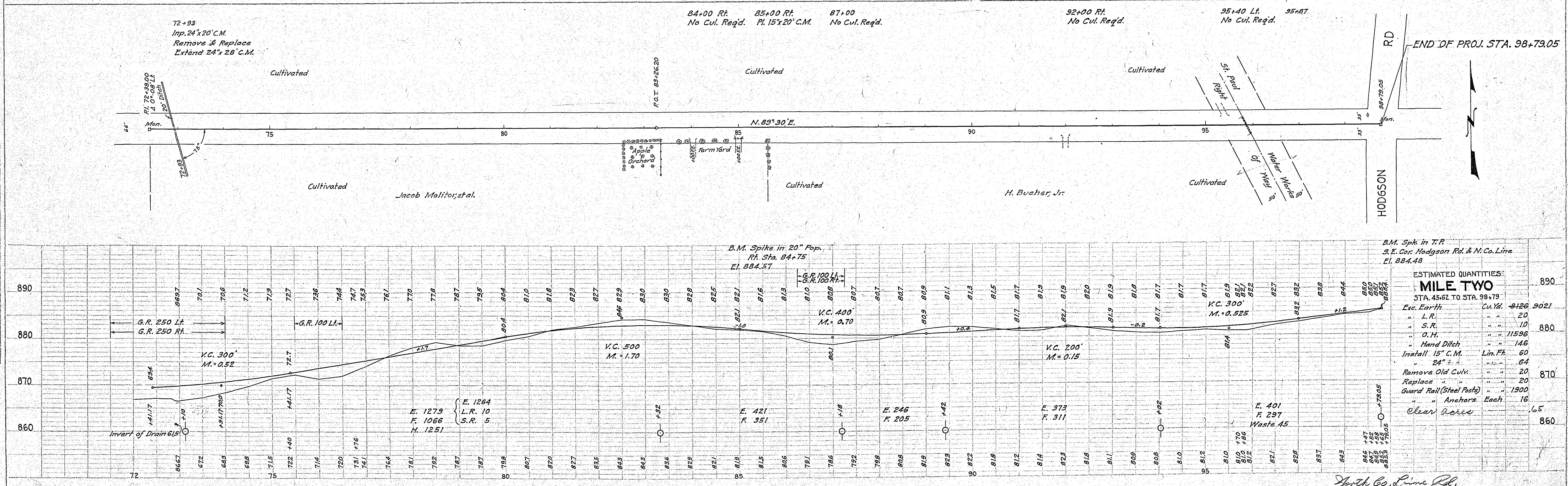
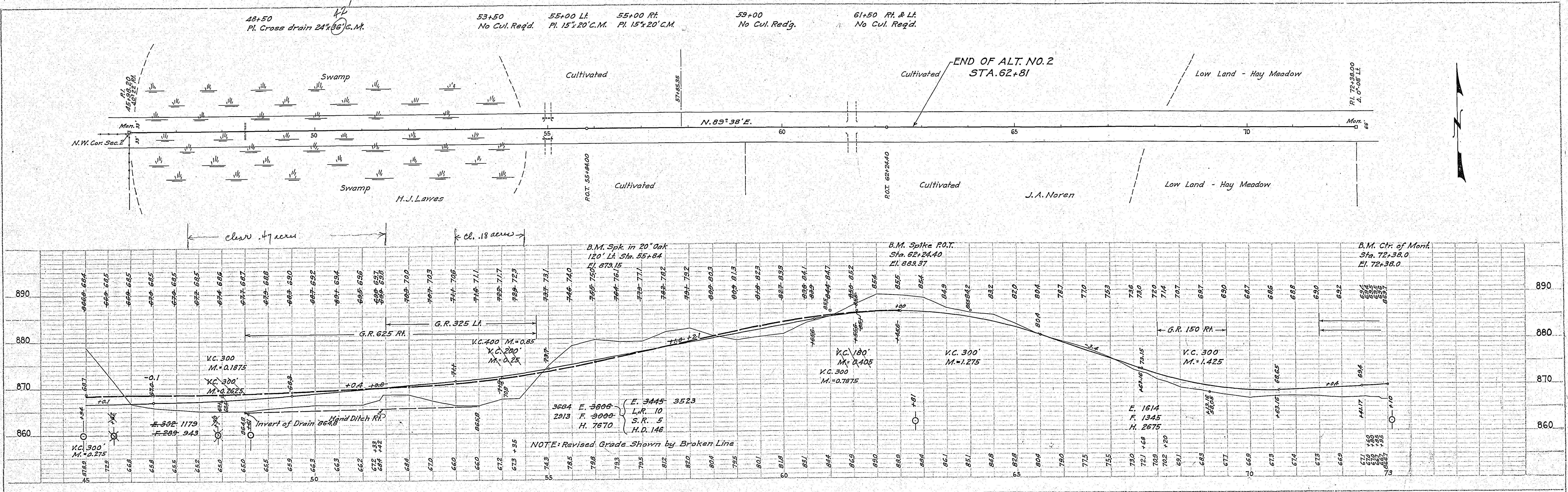


ESTIMATED QUANTITIES	
MILE ONE	
STA. 0+00 TO STA. 45+62	
Clearing	Acres 33
Grubbing	Acres 1.15
Clearing	Trees 18
Grubbing	Trees 15
Exc. Earth	Cu. Yds. 1242-1280
- L.R.	10
- S.R.	15
- O.H.	127020
- Channel Change	905
- Hand Ditch	47
Install 15" C.M.	Lin. Ft. 80
- 24"	18
- 48"	126
Guard Rail (Steel Posts)	2500
- Anchors	Each 14
Culvert Planking 3" x 10" Lin. Ft.	320

NOTE: Revised Grade Shown by Broken Line.

PLAN	REVISED	DATE
NO.	NO.	
BY	BY	
DATE	DATE	
PROJECT	PROJECT	
NOTE BOOK	NOTE BOOK	
ALIGNED CHECKED	ALIGNED CHECKED	
BY	BY	
DATE	DATE	
STRUCTURE	STRUCTURE	
NO.	NO.	

PROFILE	REVISED	DATE
NO.	NO.	
BY	BY	
DATE	DATE	
PROJECT	PROJECT	
NOTE BOOK	NOTE BOOK	
ALIGNED CHECKED	ALIGNED CHECKED	
BY	BY	
DATE	DATE	
STRUCTURE	STRUCTURE	
NO.	NO.	

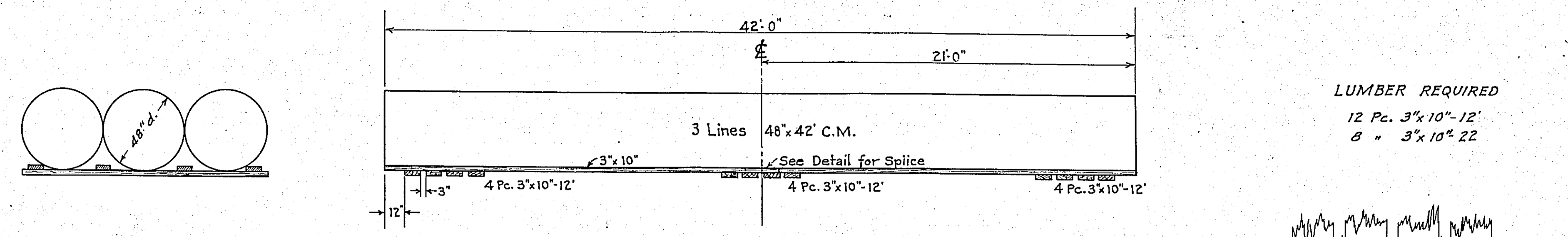


STATEMENT OF ESTIMATED QUANTITIES

CLASS	ITEM	UNIT	MILE ONE From 0+00 To 45+62	MILE TWO From 45+62 To 98+79	MILE From To	MILE From To	MILE From To	MILE From To	MILE From To	MILE From To	MILE From To	MILE From To	TOTAL ESTIMATED QUANTITIES
GRADING	1	Clearing	Trees	18									18
	2	Grubbing	Trees	15									15
	3	Clearing	Acres	.33									.33
	4	Grubbing	Acres	1.15									1.15
	5	Excavation	Earth	Cu. Yds.	12112	8126							20238
	6	Excavation	Loose Rock	Cu. Yds.	10	20							30
	7	Excavation	Solid Rock	Cu. Yds.	5	10							15
	8	Excavation	Overhaul	Cu. Yds.	127020	11596							138616
	9	Excavation	Special	Cu. Yds.	305								305
	10	Excavation	Hand Ditch	Cu. Yds.	47	146							193
	11	Install	12" C.M.	Lin. Ft.									
	12	Install	15" C.M.	Lin. Ft.	80	60							140
	13	Install	24" C.M.	Lin. Ft.	78	64							142
	14	Install	48" C.M.	Lin. Ft.	126								126
	15	Install	24" Culvert	Lin. Ft.									
	16	Install	36" Culvert	Lin. Ft.									
	17	Install	18" Ps	Lin. Ft.									
	18	Install	24" Ps	Lin. Ft.									
	19	Install	30" Ps	Lin. Ft.									
	20	Install	36" Ps	Lin. Ft.									
	21	Install	18" Ps	Lin. Ft.									
	22	Install	24" Ps	Lin. Ft.									
	23	Remove Old Culvert	Lin. Ft.		20								20
	24	Replace Old Culvert	Lin. Ft.		20								20
	25	Finishing and Seeding	100 Sq.Yds										
	26	Rubble Gutter	Cu. Yds.										
	27	Headwall Concrete	Cu. Yds.										
	28	Headwall Steel	Lbs.										
	29	Culvert Planking 3"x10"	Lin. Ft.	320									320
	30												
	31												
	32												
C.M. CULVERTS	1	Furnish 12" C.M.	Lin. Ft.										
	2	Furnish 15" C.M.	Lin. Ft.	80	60								140
	3	Furnish 24" C.M.	Lin. Ft.	78	64								142
	4	Furnish 48" C.M.	Lin. Ft.	126									126
	5	Furnish 24" Culvert	Lin. Ft.										
	6	Furnish 36" Culvert	Lin. Ft.										
	7	Furnish 12" C.M. Band	Each										
	8	Furnish 24" C.M. Band	Each		1								1
9													
10													
P ₃ CULVERTS	1	Furnish 18" P ₃	Lin. Ft.										
	2	Furnish 24" P ₃	Lin. Ft.										
	3	Furnish 30" P ₃	Lin. Ft.										
	4	Furnish 36" P ₃	Lin. Ft.										
	5												
GUARD RAIL	1	Guard Rail - Cable	Lin. Ft.	2600	1900								4500
	2	Guard Rail Anchors	Each	14	16								30
	3	Dummy Posts	Each										
	4												
SIDEWALKS AND CURBING	1	Concrete Curb - Straight	Lin. Ft.										
	2	Concrete Curb - Radius	Lin. Ft.										
	3	Remove Old Curb	Lin. Ft.										
	4	Remove Old Curb and Gutter	Lin. Ft.										
	5	Remove Old Sidewalk	Sq. Ft.										
	6	Replace Old Sidewalk	Sq. Ft.										
	7	Construct New Sidewalk	Sq. Ft.										
	8	Curb Inlet	Each										
	9	Catch Basin Complete	Each										
	10												
	11												
	12												
SEWER	1	12" Vitrified Sewer Pipe	Lin. Ft.										
	2	15" Vitrified Sewer Pipe	Lin. Ft.										
	3	18" Vitrified Sewer Pipe	Lin. Ft.										
	4	20" Vitrified Sewer Pipe	Lin. Ft.										
	5	24" Vitrified Sewer Pipe	Lin. Ft.										
	6	Manhole Complete	Each										
	7	Catch Basin Complete	Each										
8													
9													
10													
PAVEMENT	1	Pavement - 1 Course Conc.	Sq. Yds.										
	2	Pavement - Asphaltic Conc.	Sq. Yds.										
	3	Integral Curb 8"	Lin. Ft.										
	4	Integral Curb 12"	Lin. Ft.										
	5	Surface Drain	Each										
	6	Surface Drain Basin	Each										
	7	Shoulders - Earth	Lin. Ft.										
	8												
STRUCTURES	1	Concrete	Cu. Yds.										
	2	Reinforcing Steel	Lbs.										
	3	Excavation	Cu. Yds.										
	4	Piling	Lin. Ft.										
	5												
6													
7													
8													
9													
10													

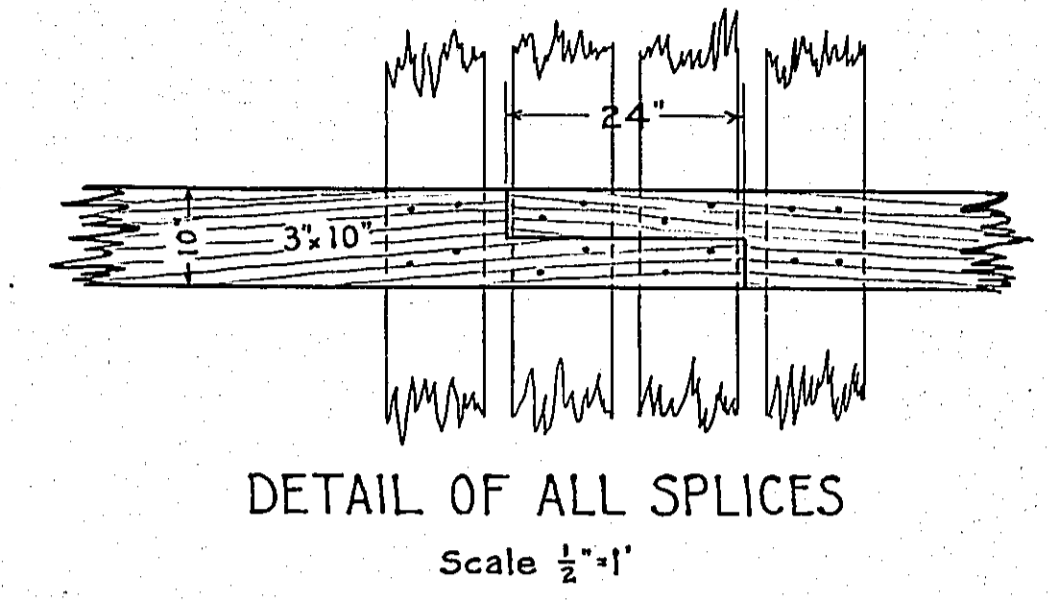
NOTE: ALL CULVERT MATERIAL TO BE DELIVERED TO THE JOB BY MATERIAL CONTRACTOR

DETAILS

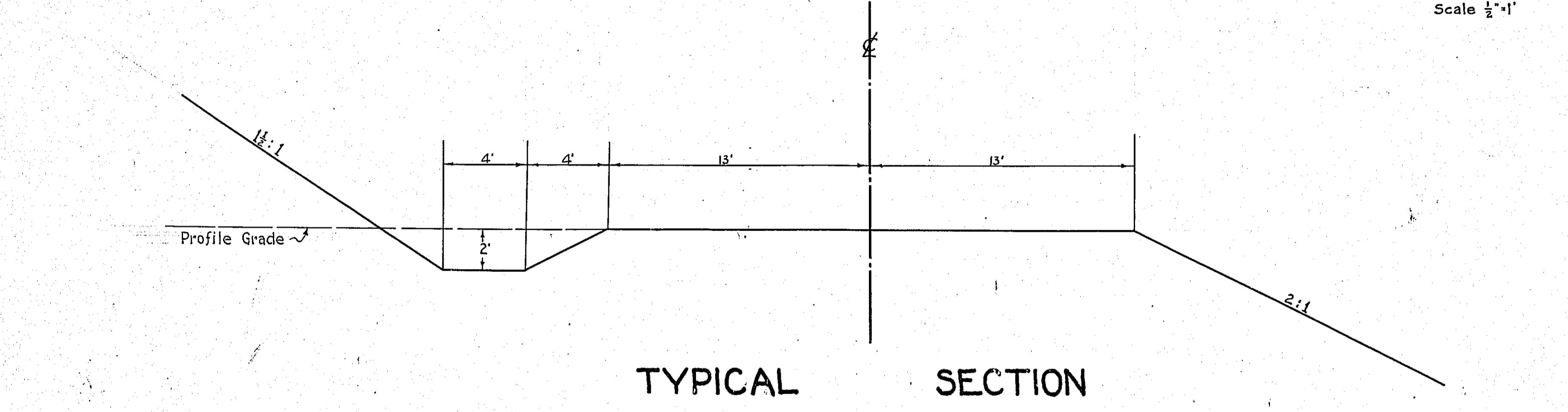


LUMBER REQUIRED
12 Pcs. 3"x10"-12"
8 " 3"x10" 22

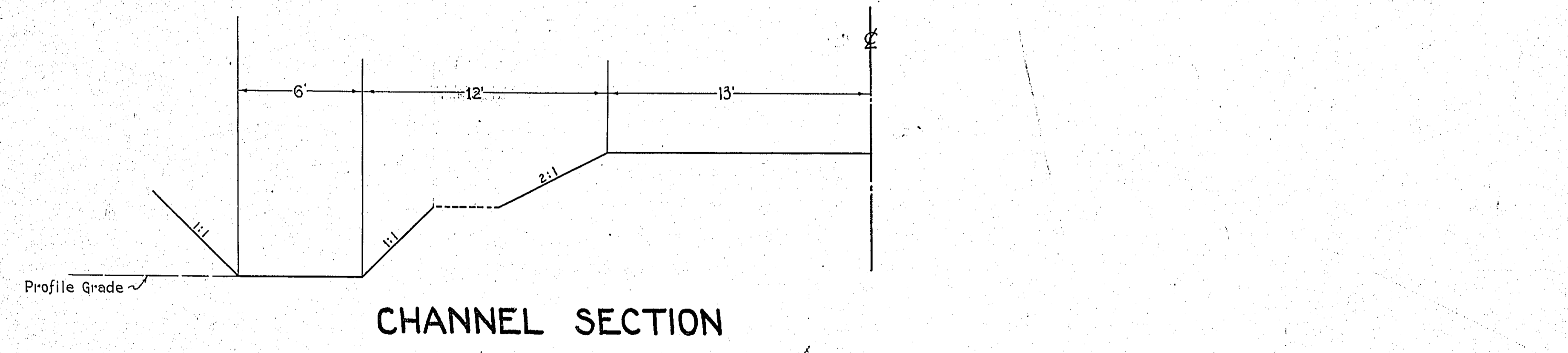
DETAIL OF CULVERT PLANKING, STA. 16+98



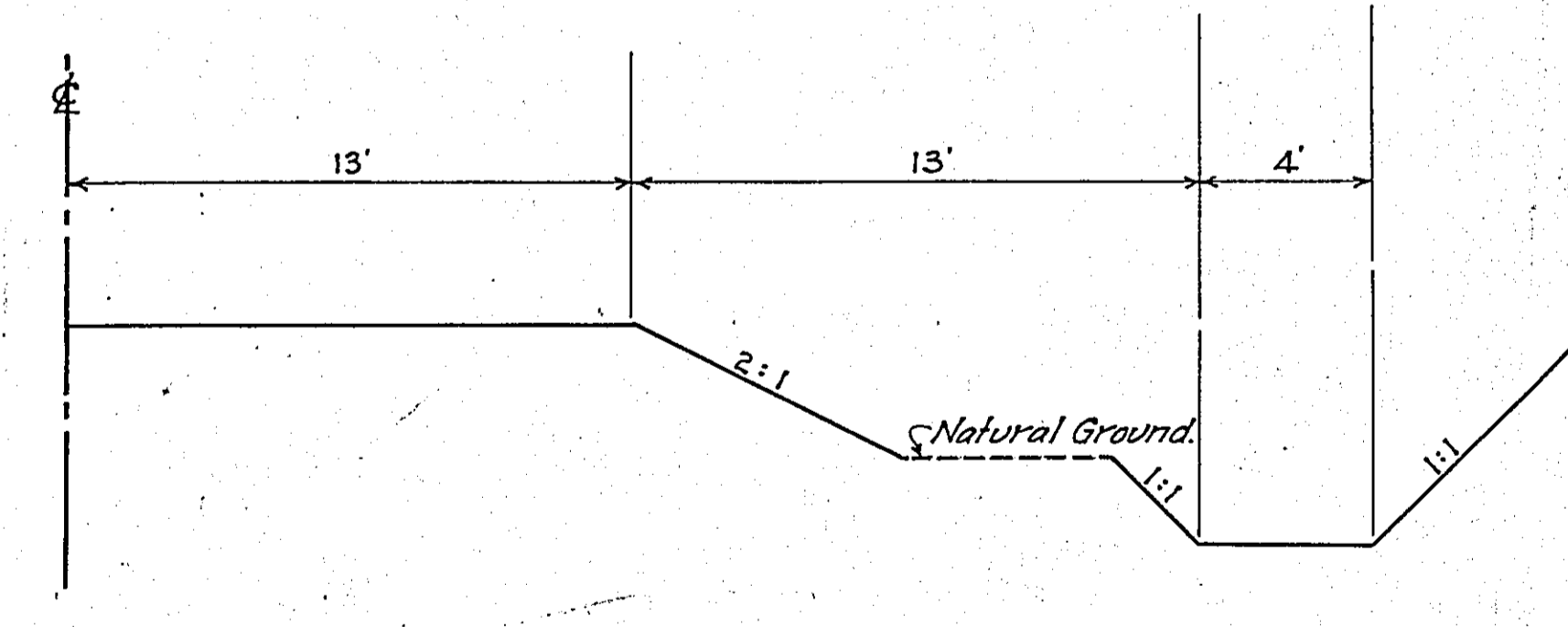
DETAIL OF ALL SPLICES
Scale 1/2"=1'



TYPICAL SECTION



CHANNEL SECTION



SPECIAL DITCH SECTION
LOCATED AS SHOWN ON SHEETS 3 AND 4

Note: All slopes to conform to R.O.W. as shown on the plans.

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	.....	A
RIGHT-OF-WAY LINE	-----	RADIUS	.....	R
TRAVELLED WAY	-----	ELEVATION	.....	EI
RAILROADS	-----	VERTICAL CURVE	.....	VC
RETAINING WALL	-----	BENCH MARK	.....	B.M.
BASE OR 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 FACE WALLS	.....	LEFT	.....	L
WITH WING WALLS	.....	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	.....	SE
HEDGE, BRUSH, OR TIMBER	.....	SPECIAL FLOWING	.....	S.P.
GROUND ELEVATION	.....	TELEPHONE POLE	.....	Tel.P.
GRADE ELEVATION	.....		

OFFICE OF COUNTY SURVEYOR

RAMSEY COUNTY

Plan and Profile of County Project No. 34-M 20

From A point which is 680.25 feet East of the N.W. Cor. Sec. 3-30-23 To The N.E. Cor. of Sec. 2-30-23

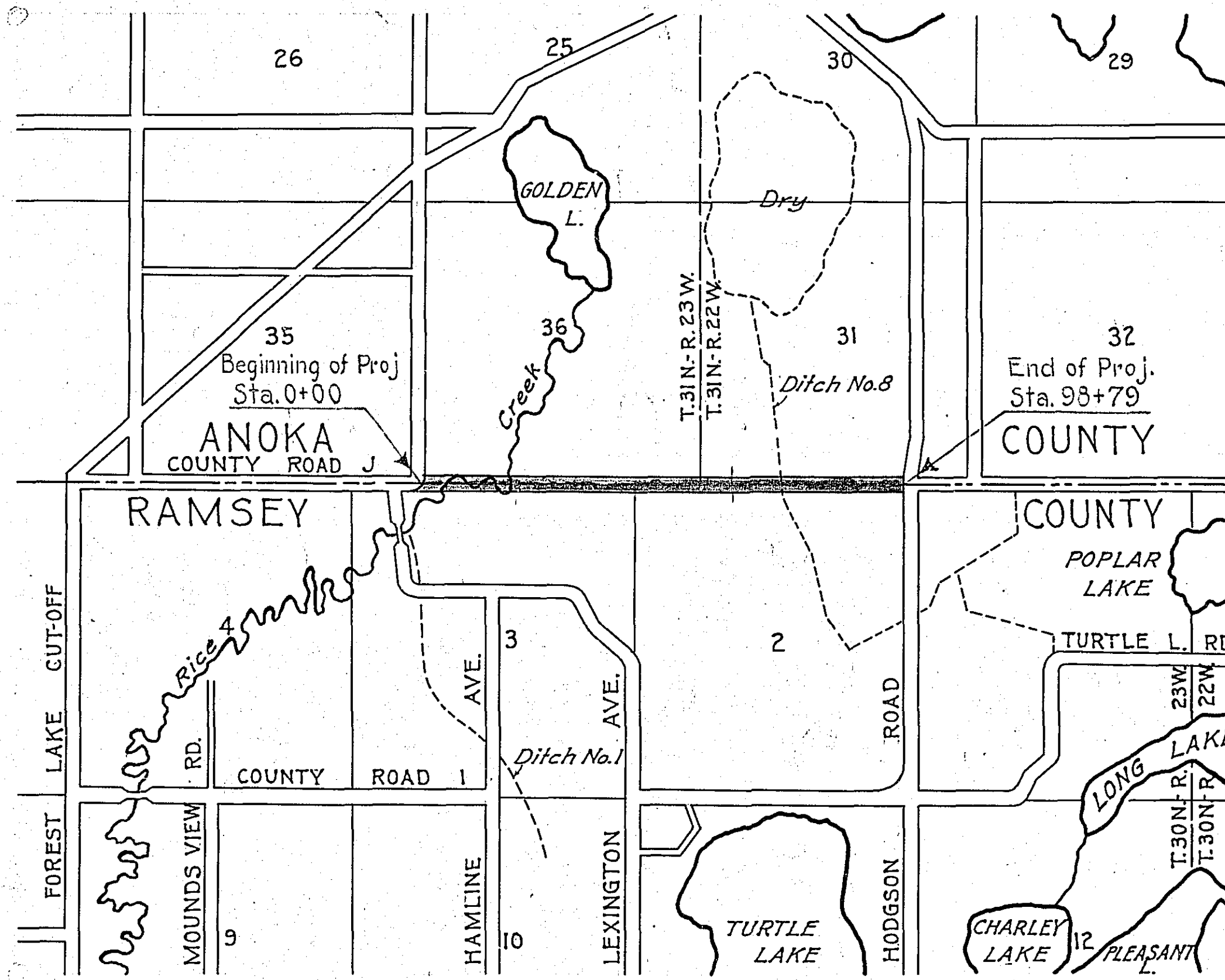
GROSS LENGTH 9879.0 FEET 1.87 MILES
LENGTH OF EXCEPTIONS FEET MILES
NET LENGTH 9879.0 FEET 1.87 MILES

PLAN, 1 Inch = 100 Feet
PROFILE, Horz. 1 Inch = 100 Feet, Vert. 1 Inch = 10 Feet
WORKING PLANS { Horz. 1 Inch = 10 Feet
Vert. 1 Inch = 10 Feet
Cross-Sections, 1 Inch = 10 Feet

LAYOUT
SCALE, 1 Inch = 2640 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. 0+00 to Sta. 45+62
- " No. 4. Plan and Profile Sta. 45+62 to Sta. 98+79
- " No. 5 to 10. Cross-Sections



Date of Resolution for Preparation of Plans Dec. 19, 1933

Planned by *M. W. Carley* ASSISTANT ENGINEER

Recommended for Approval *D. F. Santavirta* ASSISTANT ENGINEER

Plans Approved and Recommended for Consideration *Carl H. Coates* COUNTY SURVEYOR

Approved by County Board 1/6 1934 *H. N. Zeeman* CHAIRMAN OF COUNTY BOARD

APPROVED *H. H. Okilva* CHAIRMAN MOUNDS VIEW TWP. BOARD