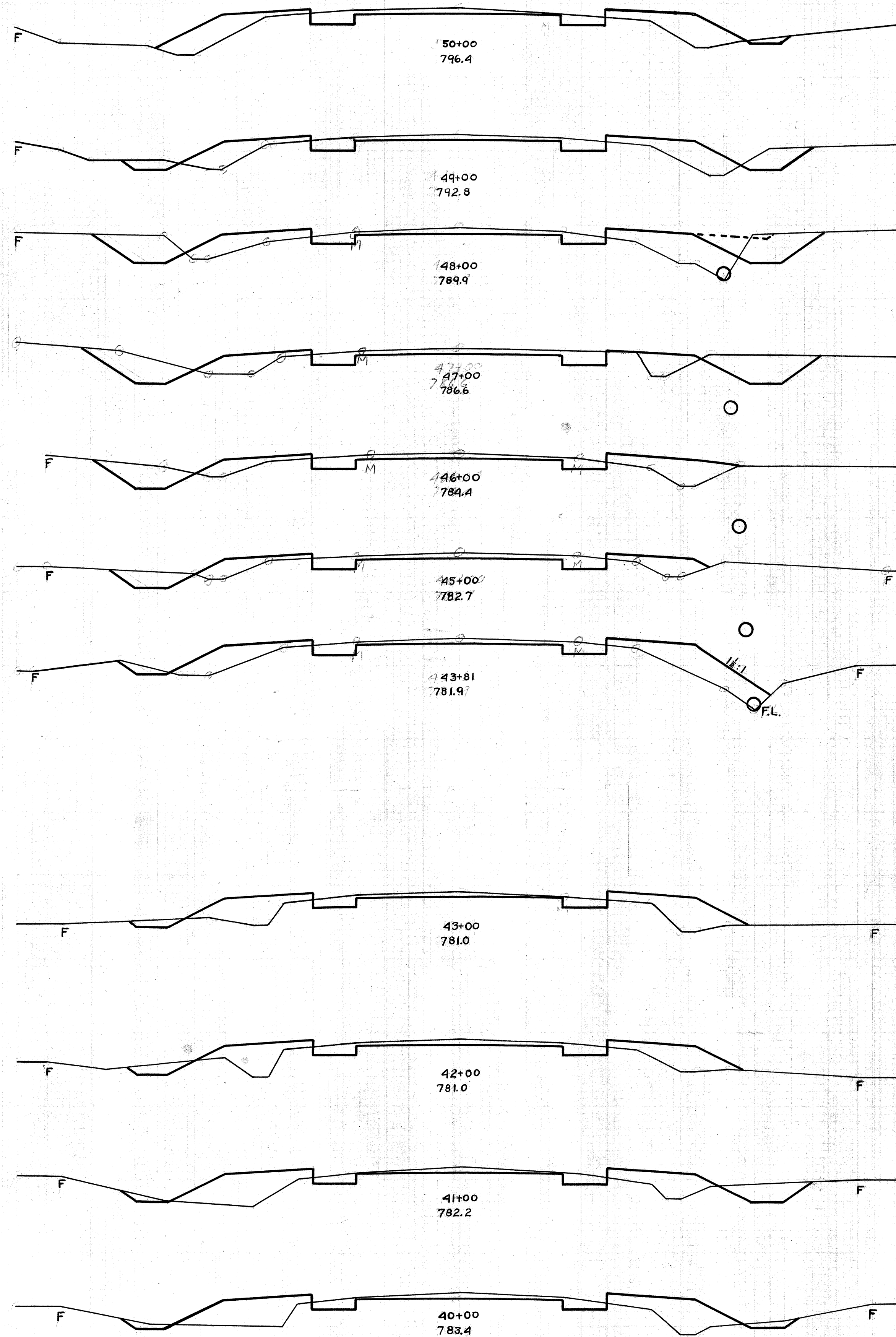


FED RD DIST NO	STATE	FED AID PROJECT	FISCAL YEAR
10	OHIO		

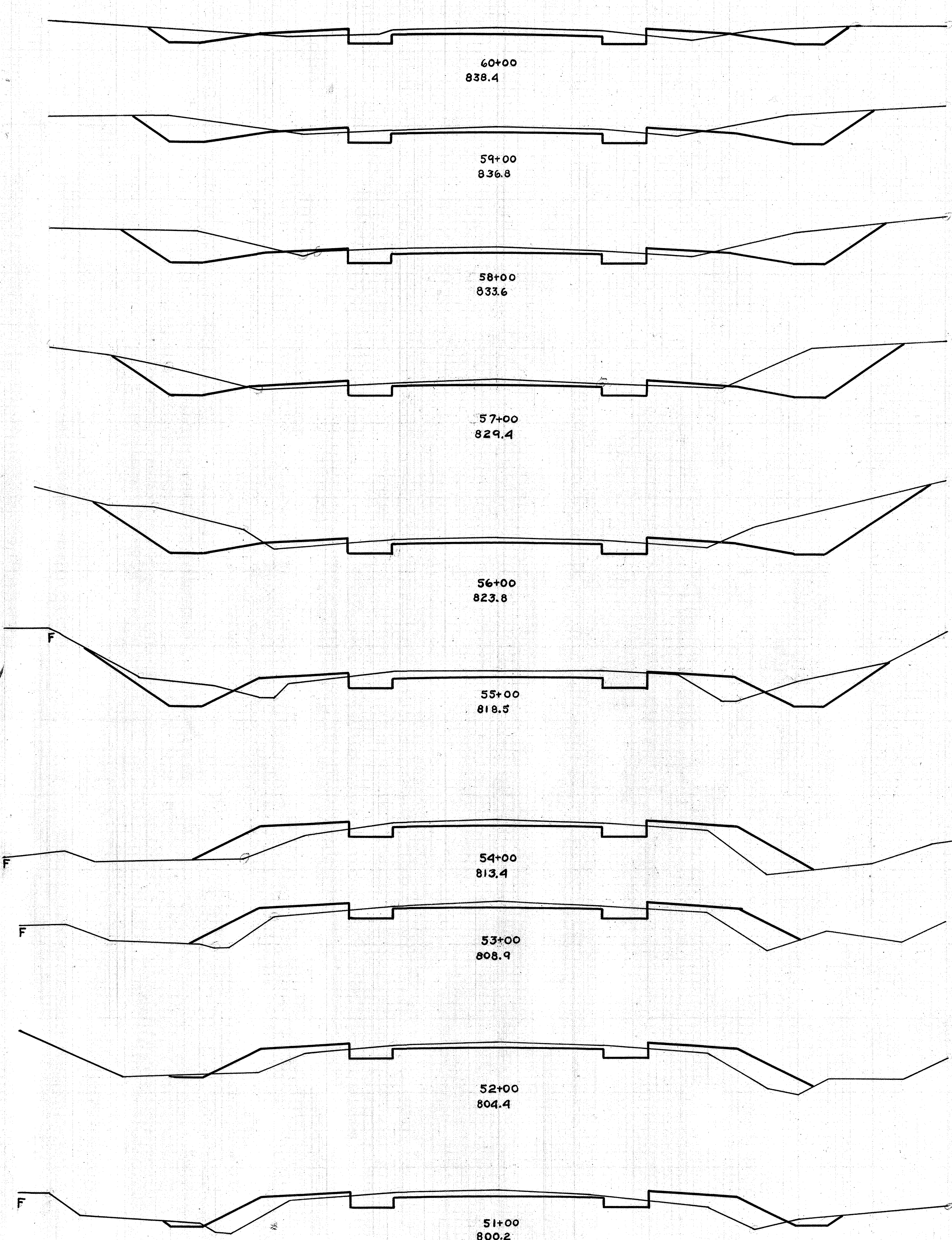
11
21

S.H. (I.C.H.) 288 SEC. R
LORAIN CO



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
5.4	21.0		
		28.3	70.4
9.9	17.0		
		56.1	69.4
20.4	20.5		
12.4	17.0		
		49.8	55.2
14.5	12.8		
		51.9	51.5
13.5	15.0		
		42.6	52.4
9.5	13.3		
		31.1	76.6
4.6	21.5		
4.6	23.5		
		12.9	60.4
4.0	22.1		
		17.2	79.8
5.3	18.3		
		26.3	75.2
8.9	22.3		
		26.5	86.7
5.4	24.5		
		23.1	89.8

EXC 3642 Cu Yds
Emb 8787
Emb 10984
Emb 125%
BORROW 7342



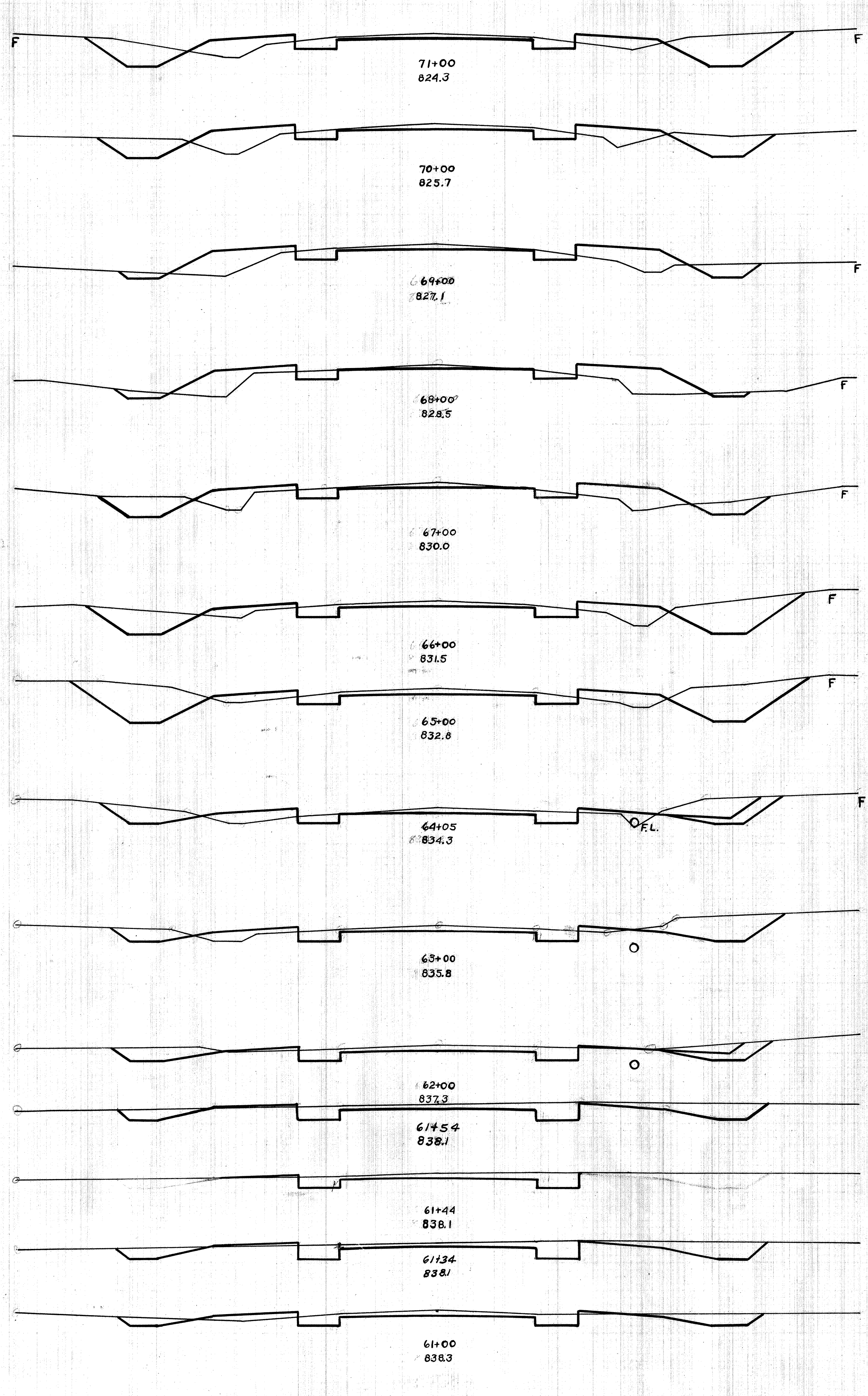
End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
			49.1
13.9	5.3		
		79.1	13.1
28.7	1.8		
		117.8	8.1
34.9	2.6		
		132.8	10.9
36.8	3.3		
		155.4	13.9
47.1	4.3		
		134.6	3.1
25.6	12.5		
		55.9	66.9
4.6	23.6		
		15.9	79.8
4.0	19.5		
		16.9	68.5
5.1	17.5		
		20.7	63.9
6.1	17.0		
		21.3	70.4

EXC 8340 Cu Yds
Emb 5664
Emb 7080
Emb 125%
WASTE 126.8

FED RD DIST NO	STATE	FED AID PROJECT	FISCAL YEAR
10	OHIO		

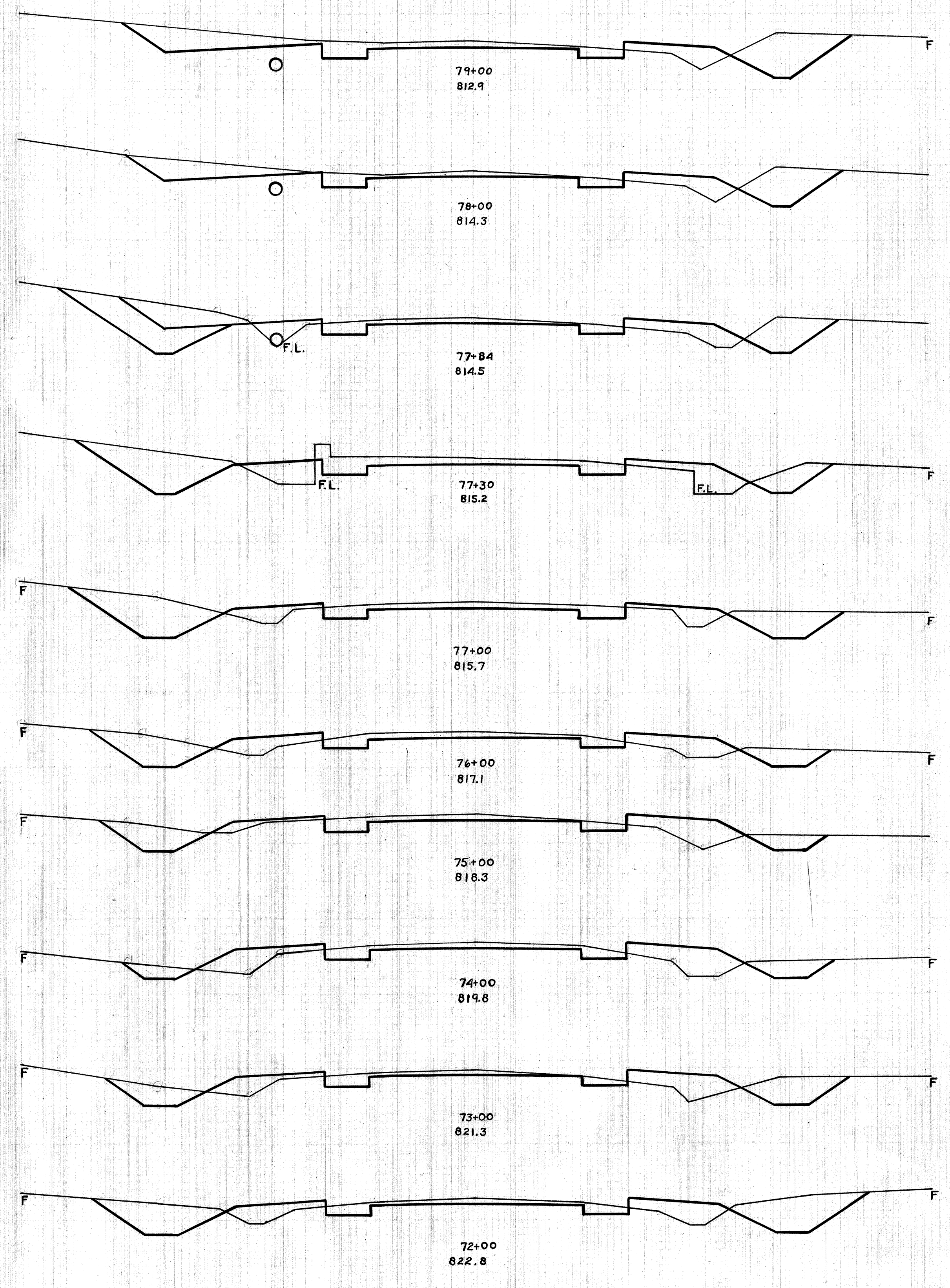
12
21

S.H. (I.C.H.) 288 SEC. R
LORAIN CO



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
24.6	12.0		
		73.9	47.8
15.3	13.8		
		46.1	53.5
9.6	17.8		
		29.1	68.1
6.1	19.0		
		34.1	63.0
12.3	15.0		
		75.6	43.5
28.5	8.5		
		123.7	26.1
38.3	5.6		
		103.5	21.5
20.5	6.6		
15.3	5.3		
		69.8	20.1
20.6	5.0		
		65.2	11.1
14.6	1.0		
18.1	1.0		
		31.5	1.1
18.9	0.3		
6.6	0.3		
		2.9	0.1
6.6	0.3		
		2.4	0.1
6.6	0.3		
18.9	0.3		
		19.8	1.3
12.6	1.8		

Exc 652.3 Cu Yds
Emb 322.6 " " " "
Limbs 400.3 " " " "
Waste 249.0 " " " "



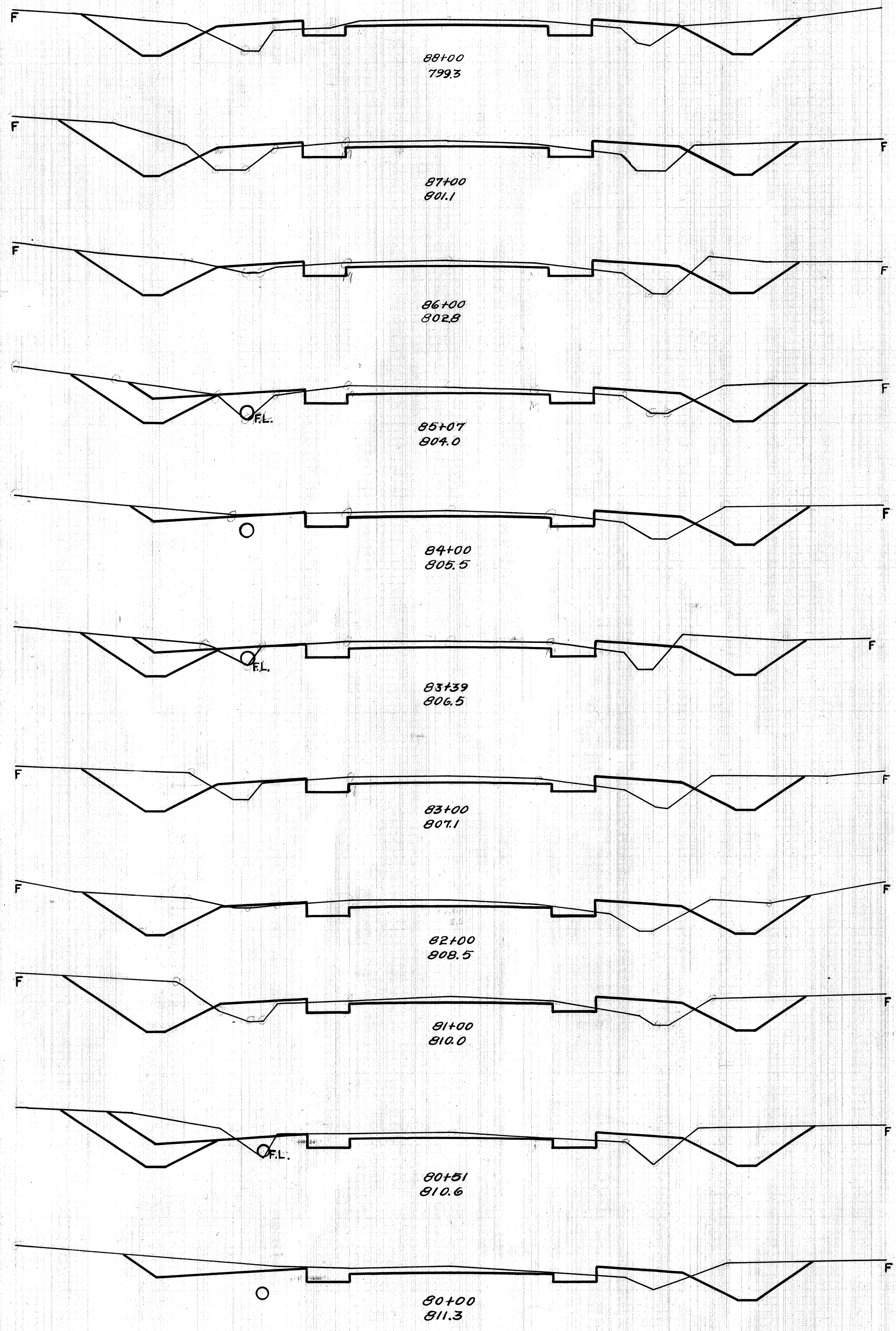
End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
		108.0	20.6
31.2	5.3		
		101.9	21.9
23.8	6.5		
		13.0	4.4
20.0	8.3		
33.5	10.5		
		63.1	21.8
29.6	11.3		
		33.2	10.5
30.1	7.6		
		92.0	38.1
19.6	13.0		
		63.7	44.4
14.8	11.0		
		48.5	54.3
11.4	18.3		
		56.5	57.6
19.1	12.8		
		90.2	45.2
29.6	11.6		
		100.4	43.7

Exc 844.4 Cu Yds
Emb 410.3 " " " "
Limbs 512.9 " " " "
Waste 331.5 " " " "

FED RD DIST NO	STATE	FED AID PROJECT	FISCAL YEAR
10	OHIO		

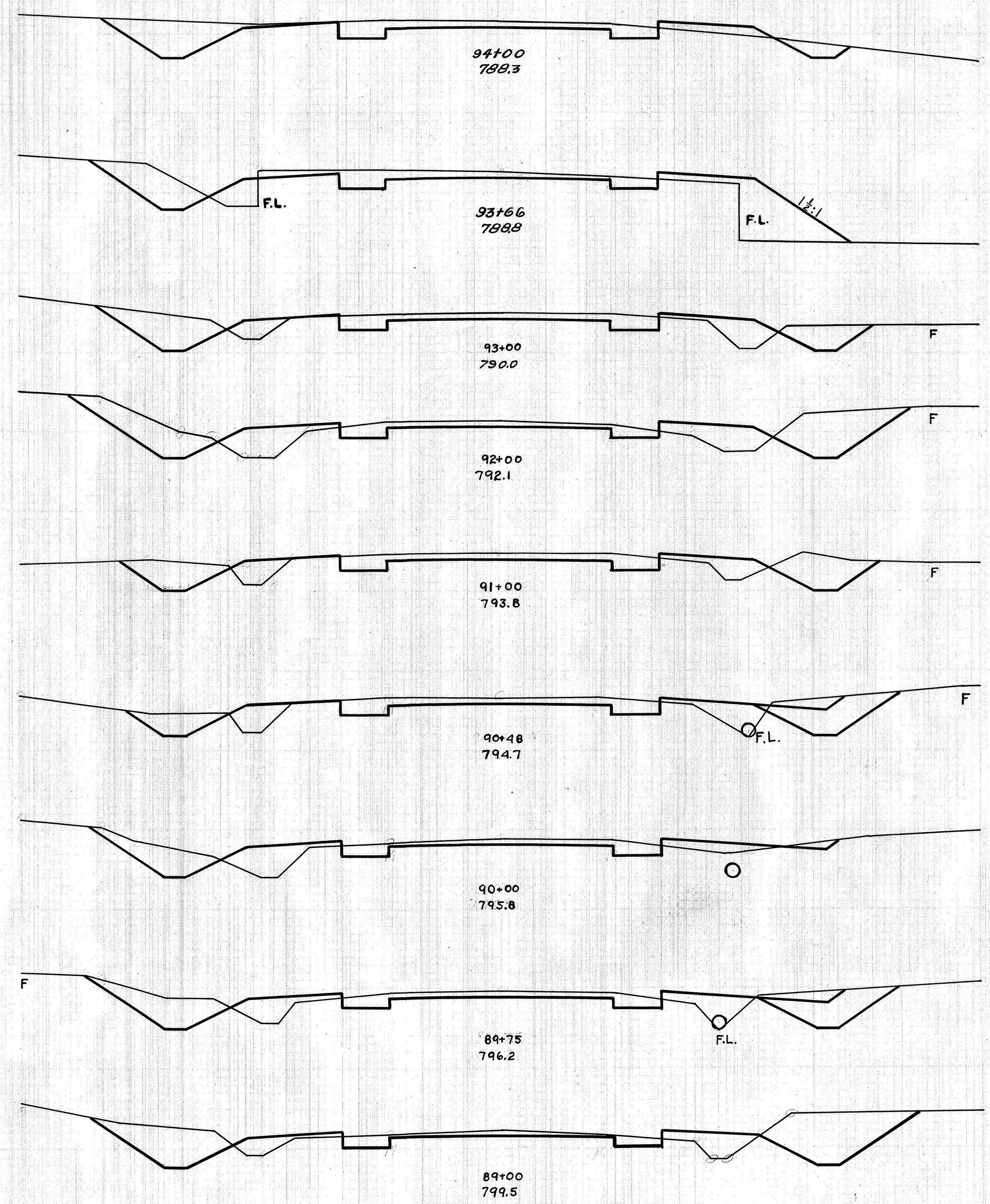
13
21

S.H. (I.C.H.) 288 SEC. P
LORAIN CO



End Area	Cu. Yds.	
	Cut	Fill
	120.2	37.0
26.1	12.5	
	103.0	44.9
29.5	12.8	
	110.7	39.1
30.3	8.3	
	105.5	31.5
31.0	10.0	
19.0	7.0	
	92.0	28.7
21.8	7.5	
	42.2	17.9
15.6	8.3	
27.1	10.3	
	42.2	14.7
31.3	10.0	
	108.5	42.2
27.3	12.8	
	112.8	48.3
33.6	13.3	
	69.3	20.5
42.8	9.3	
27.1	7.8	
	53.1	12.9
27.1	5.8	

Exc
Emb
Lim
Waste
62.56
21.67
27.09
35.47



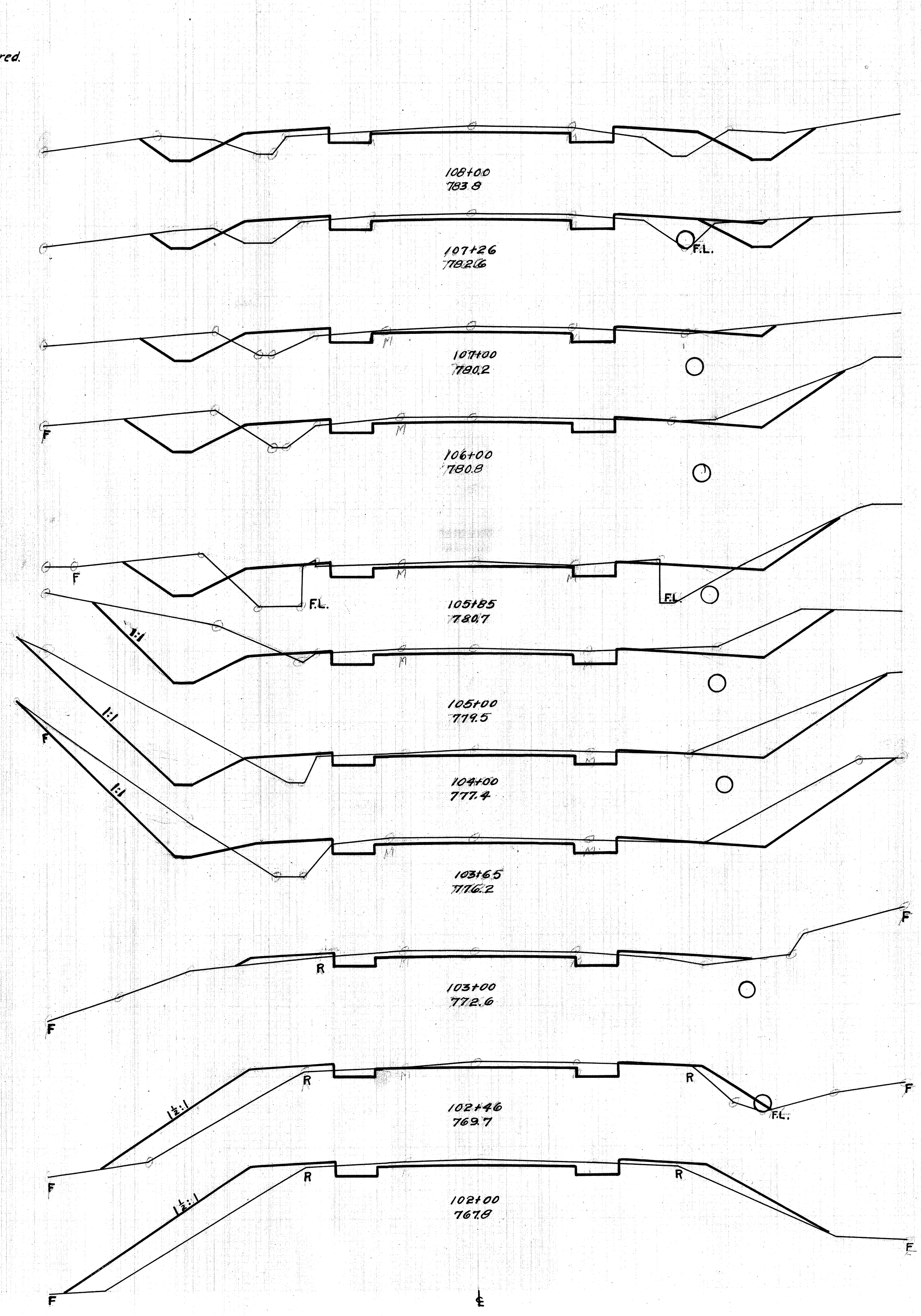
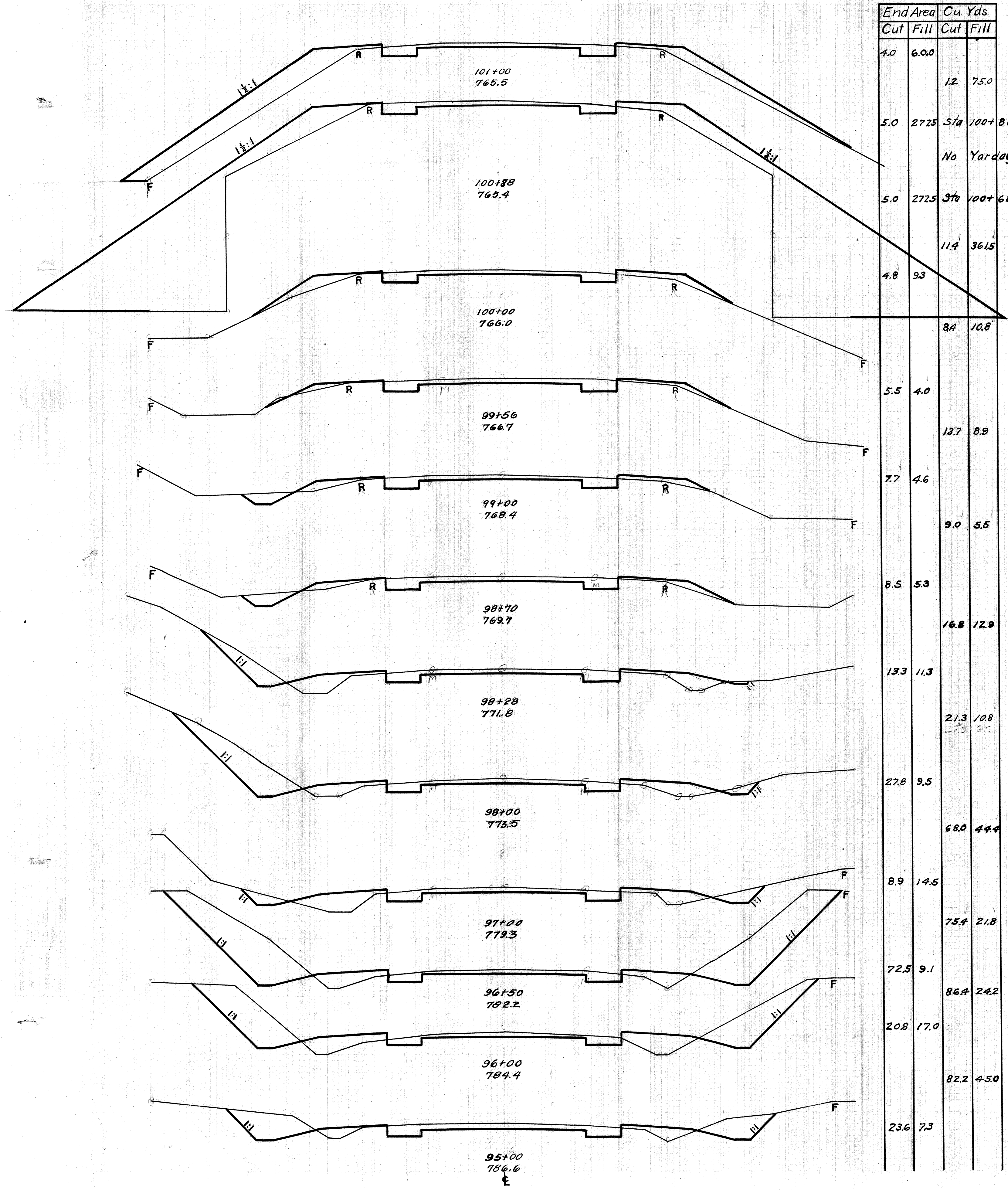
End Area	Cu. Yds.		
	Cut	Fill	
		82.2	19.1
20.8	3.0		
		22.5	16.9
15.0	23.8		
		43.4	42.9
20.8	11.3		
		97.2	50.2
32.0	15.8		
		99.6	50.6
21.8	11.5		
		4.0	24.0
19.8	13.5		
10.6	8.0		
		2.18	15.8
13.9	9.8		
		14.8	7.9
18.0	7.3		
26.3	10.6		
		90.6	25.1
38.8	7.5		

Exc
Emb
Lim
Waste
123.85
92.13
115.16
86.5

FED RD DIST NO	STATE	FED AID PROJECT	FISCAL YEAR
10	OHIO		

14
21

S.H. (I.C.H.) 288 SEC. R
LORAIN CO



Station	End Area		Cu. Yds.	
	Cut	Fill	Cut	Fill
102+00	4.0	27.6		
102+00	4.0	37.3		
102+00	7.2	64.8		
102+00	4.5	38.8		
102+00	15.7	183.0		

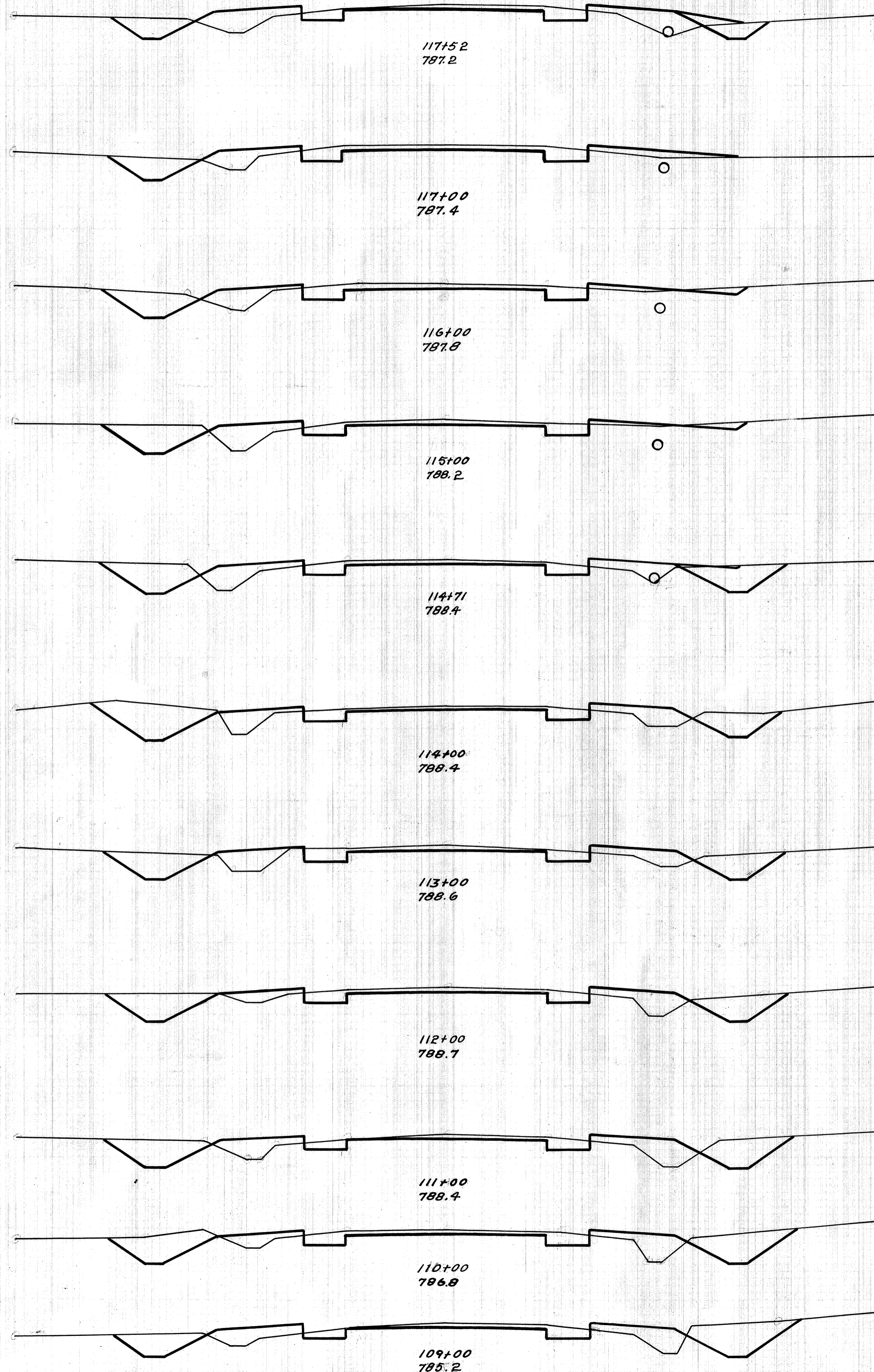
EXC
Emb
Limbs
Waste

95.89 Cu Yds
7.59
89.5
62.0

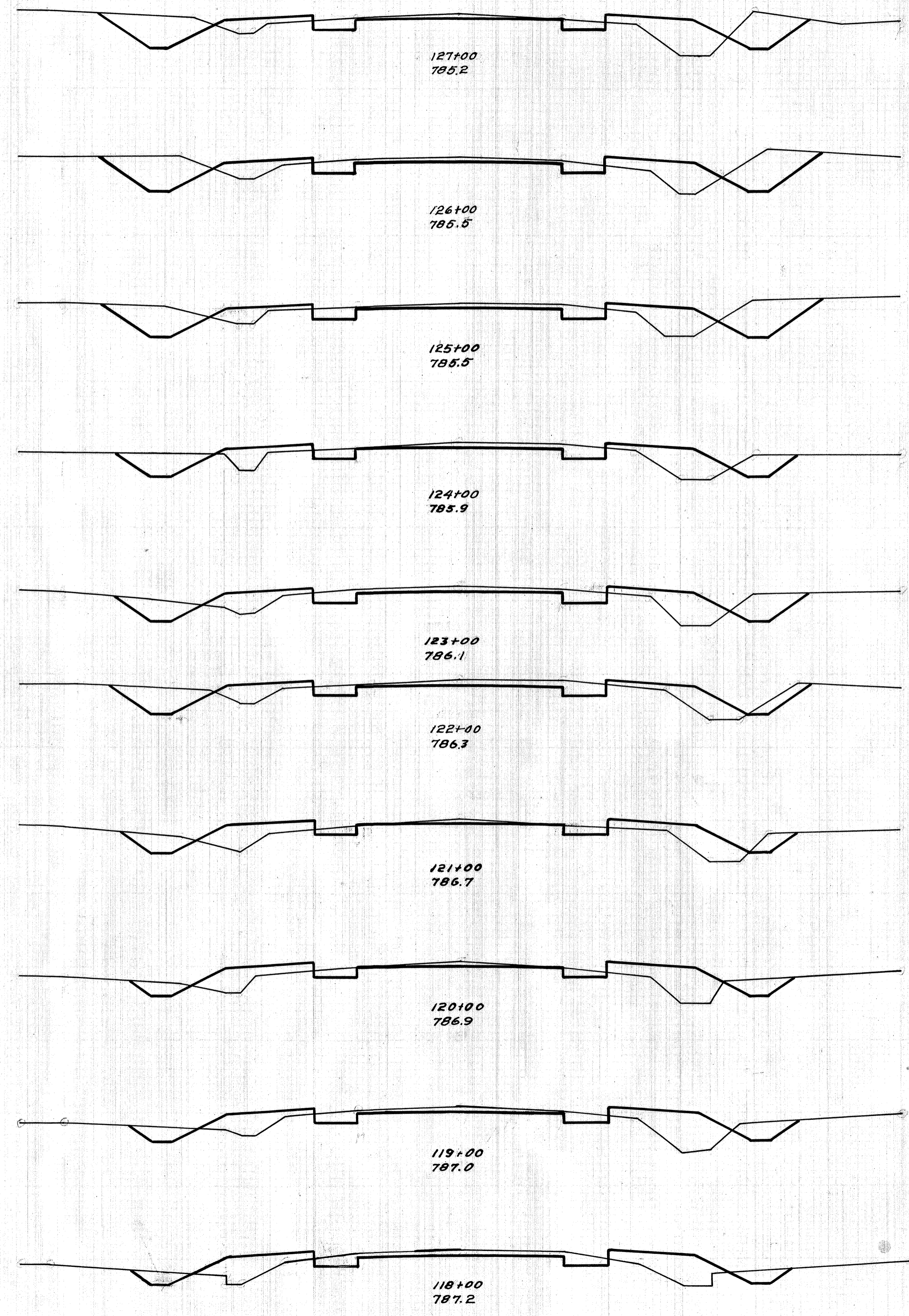
FED RD DIST NO	STATE	FED AID PROJECT	FISCAL YEAR
10	OHIO		

15
21

S.H. (I.C.H.) 288 SEC. P
LORAIN CO



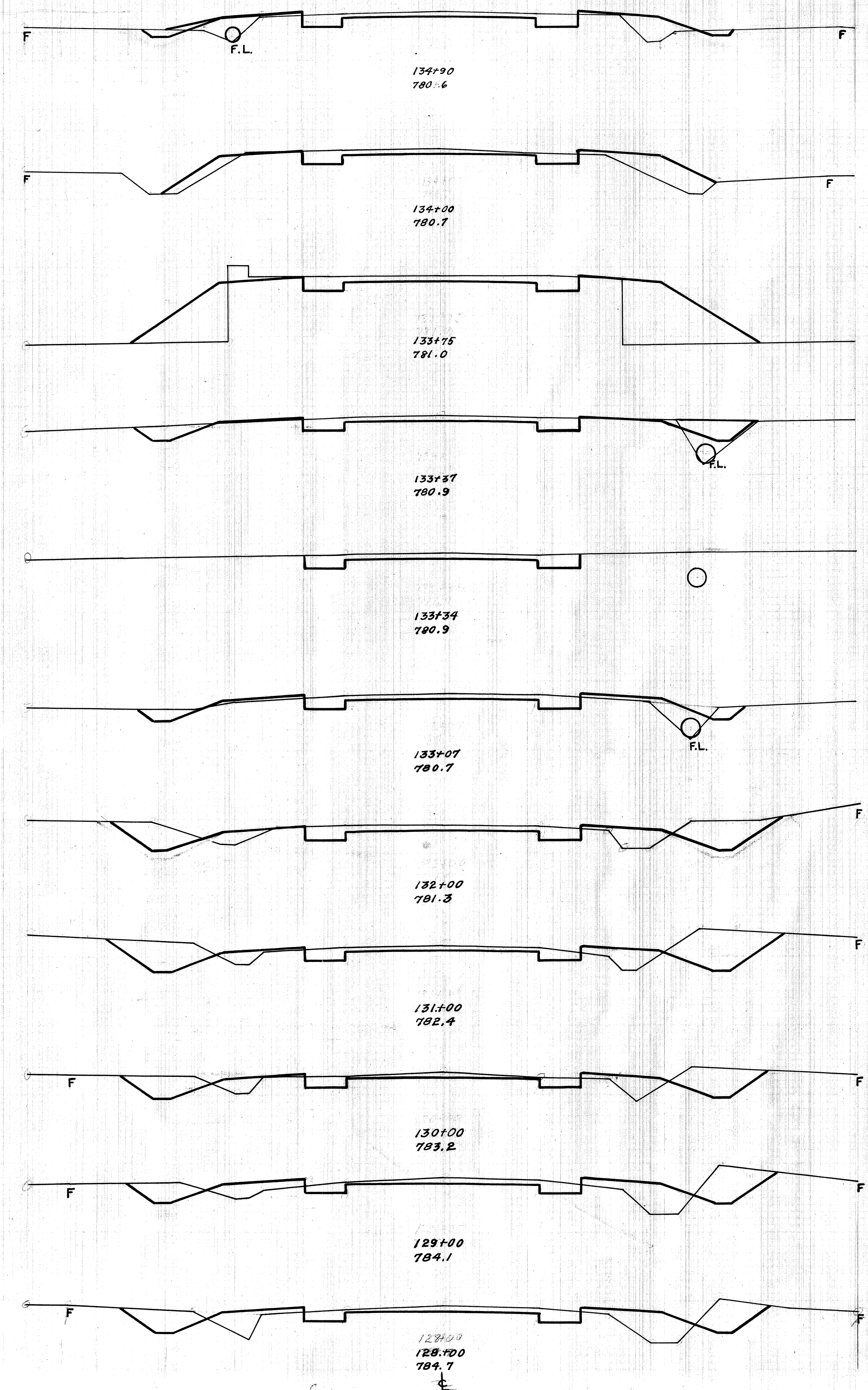
End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
10.1	14.0		
7.1	12.5		
	16.5	21.9	
10.0	10.3		
	43.5	30.9	
13.5	6.7		
	54.4	25.4	
15.9	7.3		
	15.8	8.8	
13.6	9.1		
21.3	9.8		
	74.7	17.8	
35.0	3.7		
	98.7	25.9	
17.7	10.3		
	68.5	36.9	
19.3	9.6		
	72.4	40.0	
19.8	12.0		
	74.6	41.1	
20.5	10.2		
	76.1	40.4	
20.6	11.6		



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
22.6	13.8		
	95.4	47.2	
28.9	11.7		
	98.7	43.7	
24.7	11.9		
	68.5	47.0	
12.6	13.5		
	50.4	53.9	
14.6	15.6		
	54.4	53.0	
14.8	13.0		
	45.2	57.0	
9.6	17.8		
	34.4	66.3	
9.0	18.0		
	36.5	68.5	
10.7	19.0		
	36.9	65.7	
9.2	16.5		
	17.1	27.1	

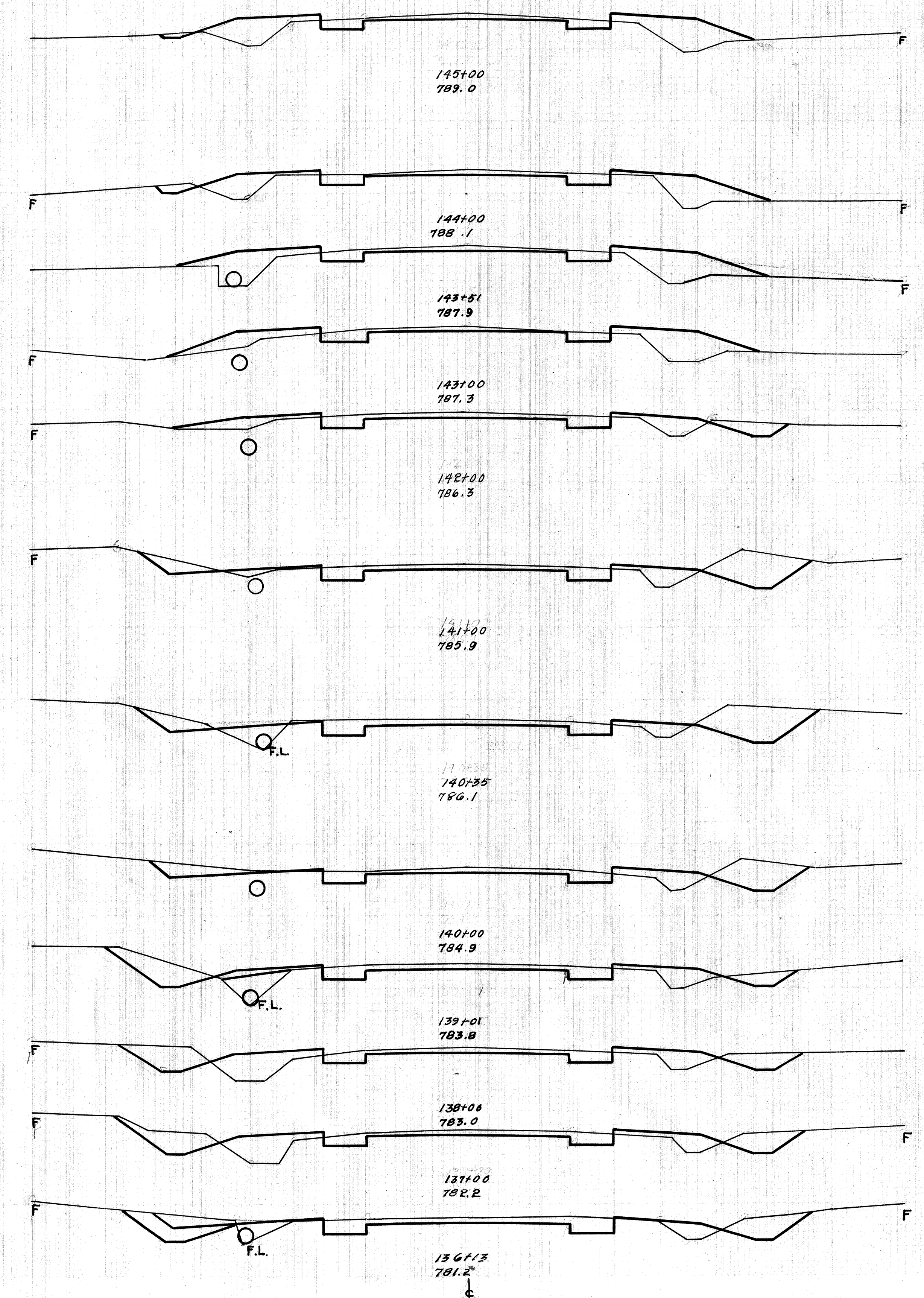
Exc
Cmb
Cmb+2.5%
Waste

84.11
66.01
86.51
16.0



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
6.3	8.0		
6.8	9.0		
		17.2	41.7
3.5	16.0		
		4.8	28.7
6.9	46.0		
		14.2	36.4
13.3	5.8		
5.0	1.5		
		0.6	0.1
5.3	0.0		
		4.2	2.2
5.0	4.3		
8.8	7.8		
		59.1	33.3
21.0	9.0		
		94.4	35.0
30.0	9.9		
		95.9	32.8
21.8	7.8		
		75.7	42.2
19.1	15.0		
		71.3	52.8
19.5	13.5		
		78.0	50.6

Exc 5198 Cu Yds
Emb 3559
Emb 25% 4447
Waste 70.7



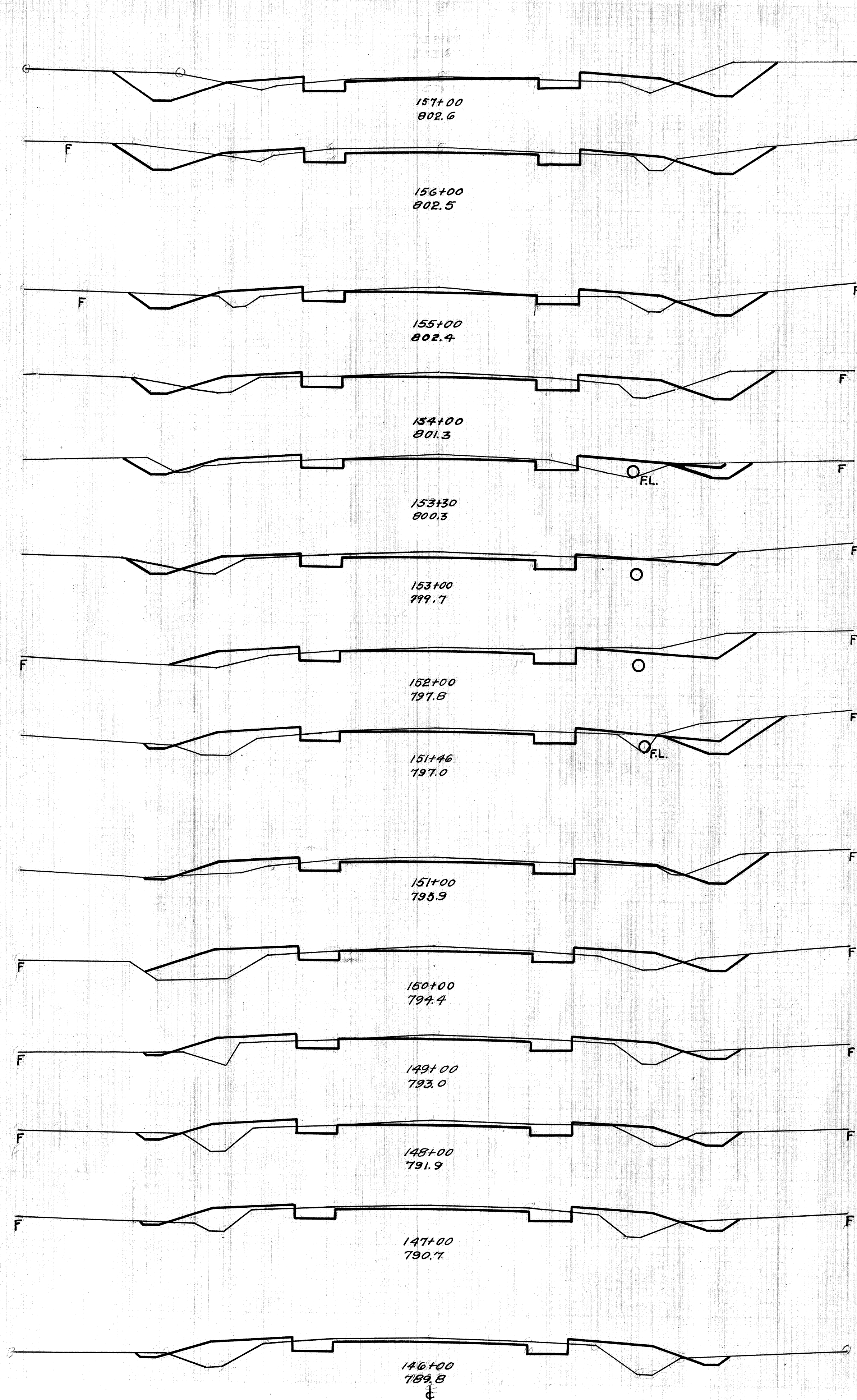
End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
4.1	20.0		
		18.7	63.1
6.0	14.1		
		9.9	32.1
4.9	21.3		
4.6	18.0		
		8.7	33.0
4.6	17.0		
		31.3	47.8
12.3	8.8		
		56.1	27.4
18.1	6.0		
		49.2	10.9
22.8	3.0		
		25.6	5.3
16.6	5.1		
		47.1	24.1
9.3	8.0		
15.0	12.0		
		59.1	4.64
16.6	12.8		
		63.1	4.41
17.5	11.0		
		63.6	2.82
22.0	6.5		
16.0	3.0		
		50.8	25.0

Exc 4832 Cu Yds
Emb 3874
Emb 25% 4842
Borrow 1.0

FED RD DIST NO	STATE	FED AID PROJECT	FISCAL YEAR
10	OHIO		

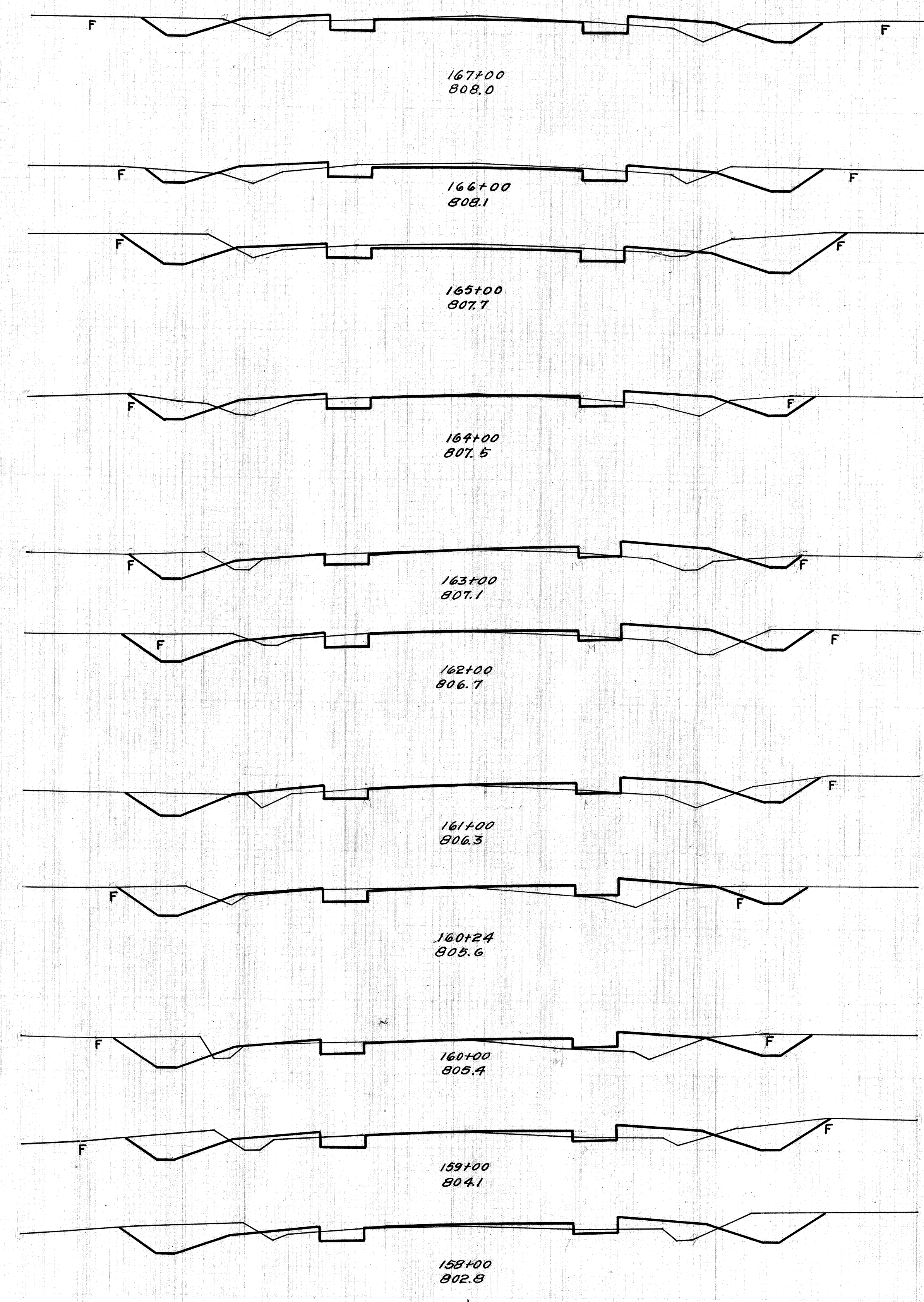
17
21

S.H.(I.C.H) 288 SEC. P
LORAIN CO.



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
23.4	5.3		
		800	20.6
19.8	5.8		
		589	283
12.0	9.5		
		437	40.4
11.6	12.3		
		27.1	27.9
9.3	9.2		
6.5	8.0		
		8.6	7.0
9.0	4.6		
		40.4	18.6
12.8	6.0		
		23.6	15.1
10.8	9.1		
17.8	11.1		
		24.9	14.6
11.4	6.0		
		34.6	46.9
7.3	19.3		
		23.3	58.5
5.3	12.3		
		23.3	44.6
7.3	11.8		
		2.72	48.9
7.4	14.6		
		22.6	60.9
4.8	18.3		
		16.3	70.9

Exc
Emb
Emb+55%
Borrow



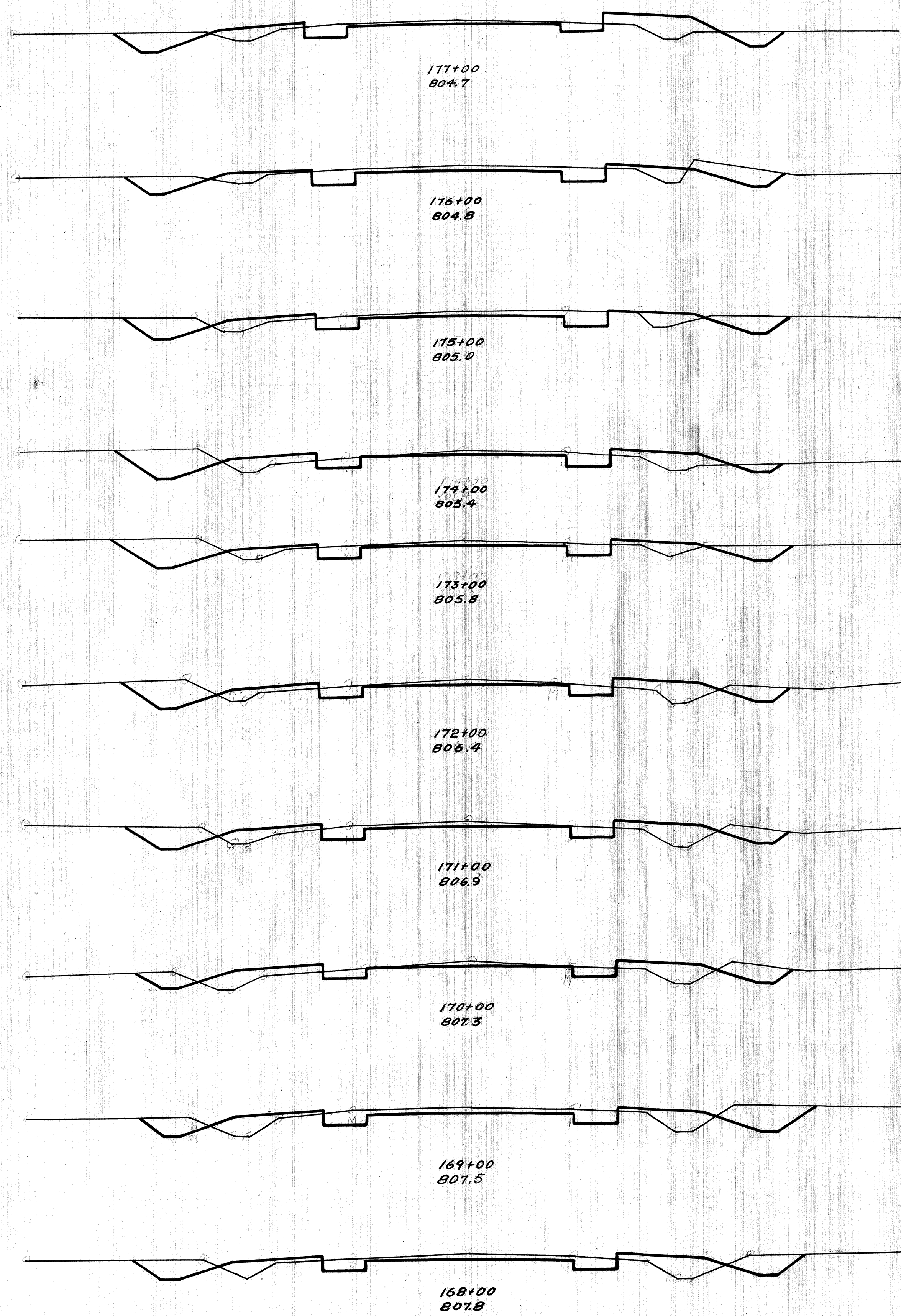
End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
13.6	8.4		
		57.7	28.5
14.3	7.0		
		82.6	19.4
30.3	3.5		
		82.6	23.1
14.3	9.0		
		46.1	36.1
10.6	10.5		
		45.2	38.8
13.8	11.0		
		48.8	42.2
12.6	11.8		
		40.7	26.1
16.3	6.8		
		15.0	6.5
17.5	7.8		
		68.1	26.5
19.3	6.5		
		77.0	22.2
22.3	5.5		
		84.6	20.0

Exc
Emb
Emb+55%
Waste

FED RD DIST NO	STATE	FED AID PROJECT	FISCAL YEAR
10	OHIO		

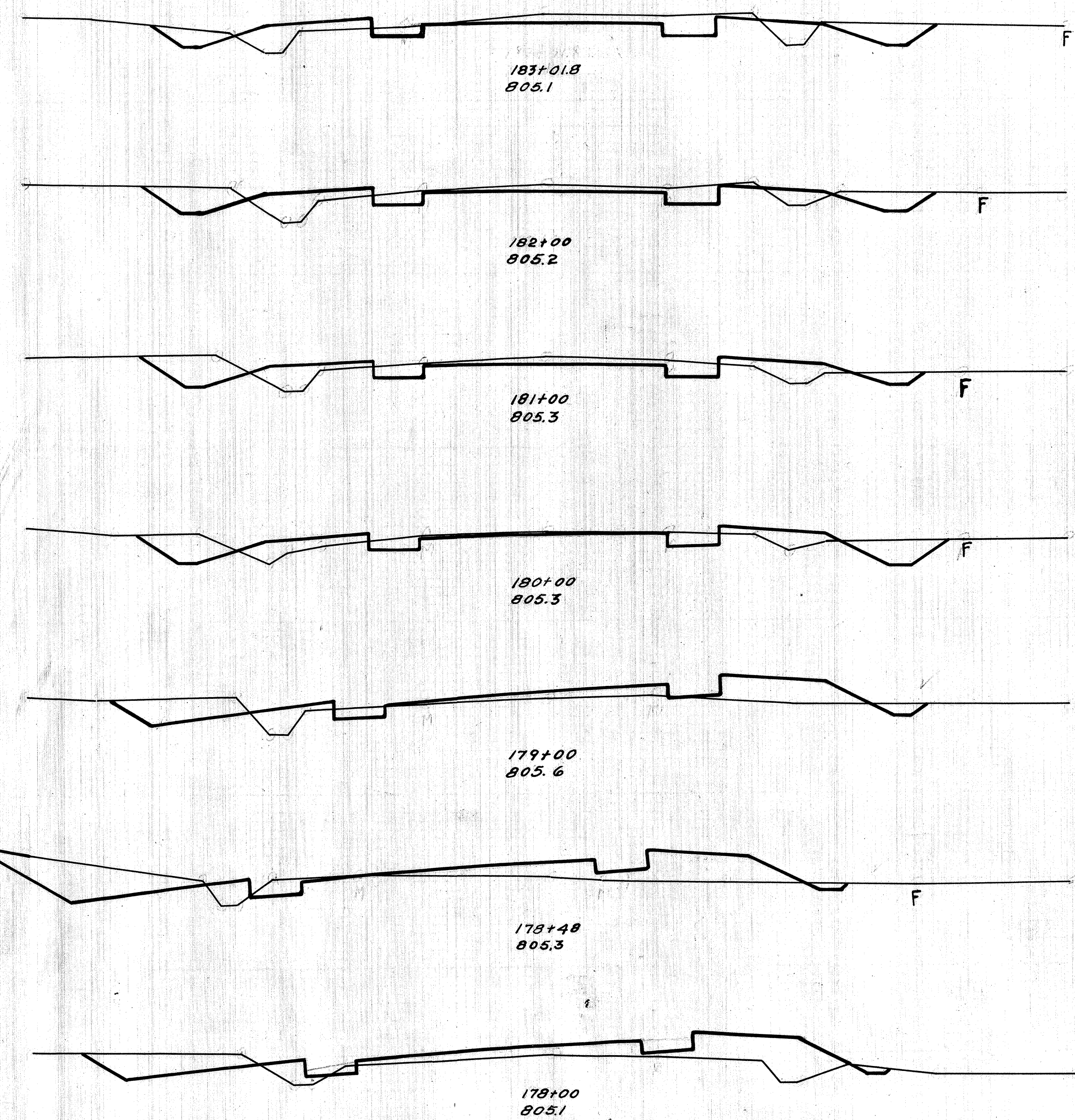
18
21

S.H.(I.C.H) 288 SEC.P
LORAIN CO.



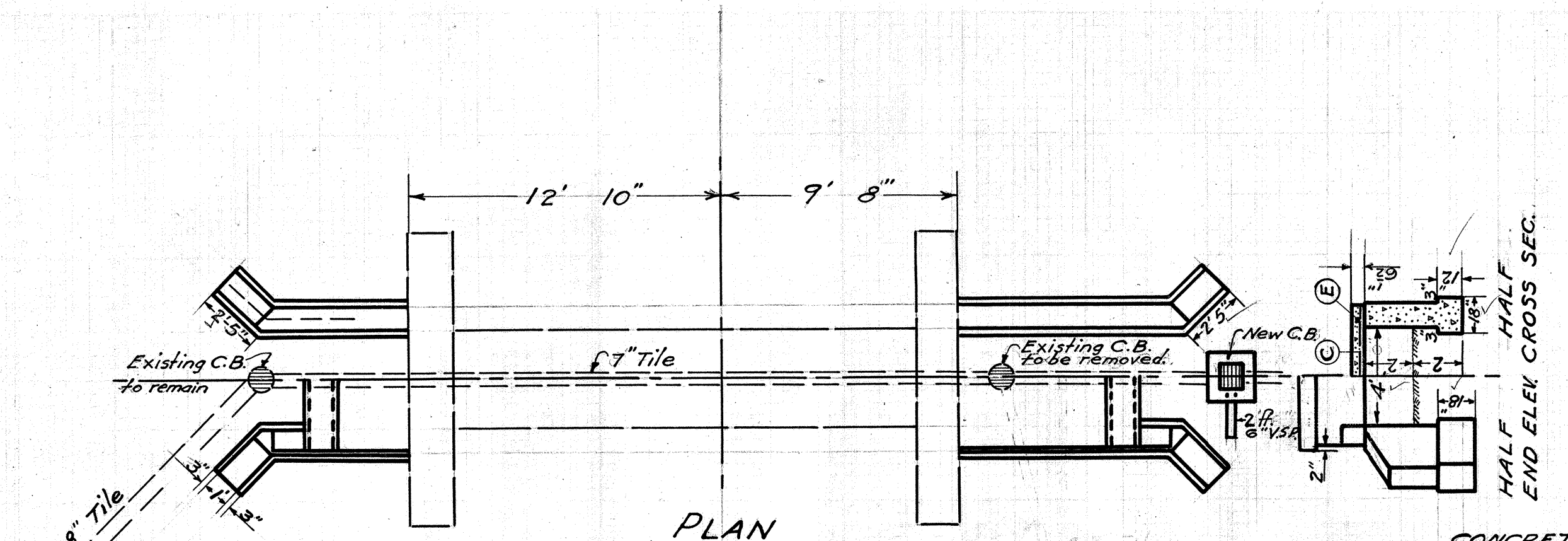
End Area	Cu Yds
Cut	Fill
13.8	8.5
539	25.9
15.3	5.5
569	21.9
15.4	6.3
515	28.3
12.4	9.0
554	27.8
17.5	6.0
609	2.80
15.4	9.1
524	38.1
12.9	11.8
431	40.9
10.4	10.6
504	35.9
16.8	8.8
593	33.9
15.2	9.5
533	33.1

Exc 492.5 Cu Yds
Emb 266.2 " "
Emb 257.0 " "
Waste 99.7 " "



End Area	Cu Yds
Cut	Fill
12.0	12.3
507	40.7
14.9	9.3
49.8	32.2
12.0	10.8
50.6	37.8
15.3	9.6
46.1	43.7
9.8	14.0
29.6	26.8
21.0	13.8
28.3	26.3
10.8	15.8

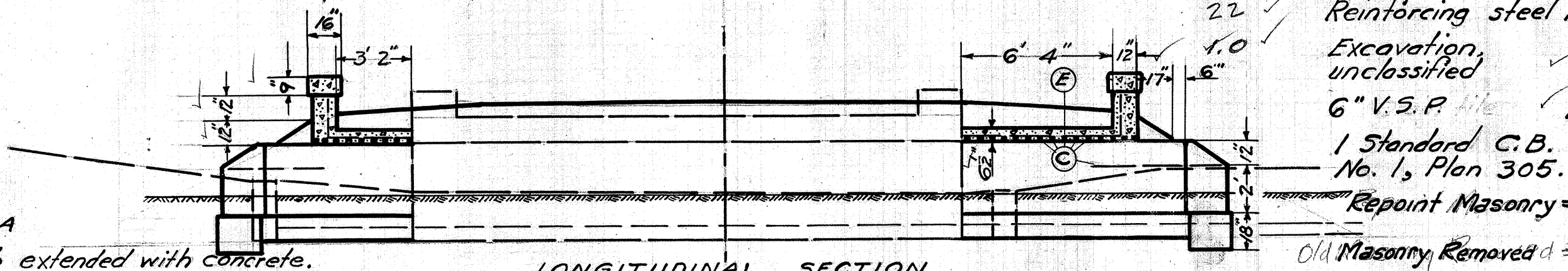
Exc 4830 Cu Yds
Emb 3336 " "
Emb 257.0 " "
Waste 460 " "



PLAN

CONCRETE
Walls & wings 1:6 1/2
Slab & curbs 1:5 1/2

County-State ESTIMATED QUANTITIES
0.23 ✓ 1:5 1/2 concrete 2.6 cu.yds.
0.67 ✓ 1:6 1/2 " 6.65 "
22 Reinforcing steel 146 #
4.0 Excavation unclassified 13 cu.yds.
6" V.S.P. 2 lin. ft.
1 Standard C.B. complete
No. 1, Plan 305.
Repoint Masonry = 10 Sq.Yds.
Old Masonry Removed = 2 Cu.Yds.



LONGITUDINAL SECTION

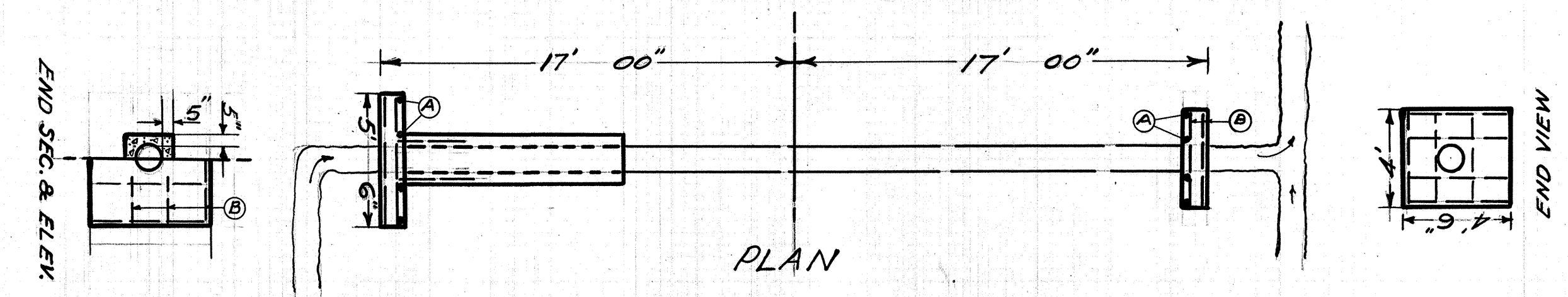
STEEL LIST

Bars	Size	Length	Spacing	No.
C	1/2"	5' 6"	6"	28
E-N. end	"	5' 2"	"	2
E-S. end	"	8' 4"	"	2

CULVERT DATA

Type: Stone Slab extended with concrete.
Size: 4' x 2' x 34'
Work reqd: Extend roadway 3' 2" on north end and 6' 4" on south end using State Hwy. Dept. design Standard Plan No. 301.
One Standard Catch Basin, No. 1, Plan 305. Point up old masonry.

Sta. 11+00



PLAN

STEEL LIST

Bars	Size	Length	No.
North Wall			
A	1/2"	4' 6"	4
B	"	5' 0"	6
South Wall			
A	1/2"	4' 0"	4
B	"	3' 6"	4

CONCRETE
Headwalls 1:5 1/2 mix.
Barrel 1:8: " "

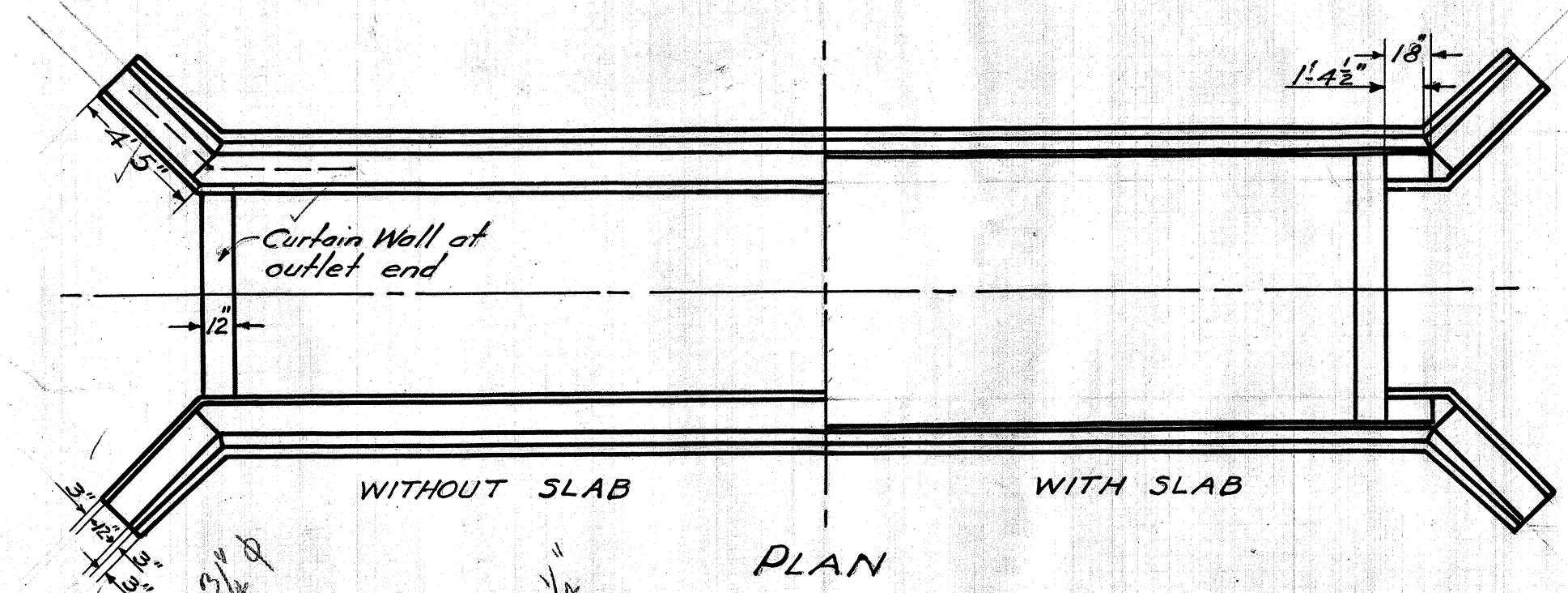
County-State ESTIMATED QUANTITIES
0.21 ✓ 1:5 1/2 concrete 1.65 cu.yds.
1:8: " 1.0 " "
Reinforcing steel 53 lbs.
20 lin. ft. 12" V.S.P. 10 lin. ft.
0.5 cu.yd. Excavation unclassified 11 cu.yds.
Relay 12" C.I.P. 24 lin. ft.
Remove old masonry 1.6 Cu.Yds.

CULVERT DATA

Type: C.I.P. extended with V.S.P. encased.
Size: 12" x 34'
Work reqd: Lower C.I.P. and shift 3' to south. Extend north end 10' with 12" V.S.P. encased in concrete. Build two Standard Headwalls. Plan 300

LONGITUDINAL SECTION

Sta 77+30



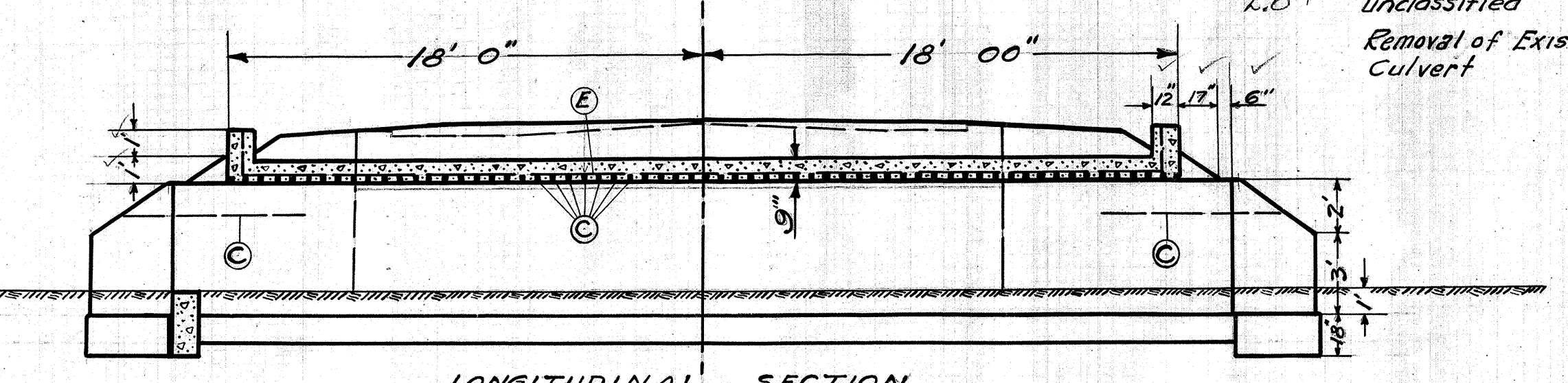
PLAN

CONCRETE
Walls & Wings 1:6 1/2
Slab & Curbs 1:5 1/2

County-State ESTIMATED QUANTITIES
.49 ✓ 1:5 1/2 concrete 9.8 cu.yds.
1.18 ✓ 1:6 1/2 " 28.6 " "
62 (42) Reinforcing steel 1175 lbs.
2.0 Excavation unclassified 56 cu.yds.
Removal of Existing Culvert 1

STEEL LIST

Bars	Size	Length	Spacing	No.
C	3/4"	8' 6"	5 1/4"	87
E	1/2"	38' 0"	"	2

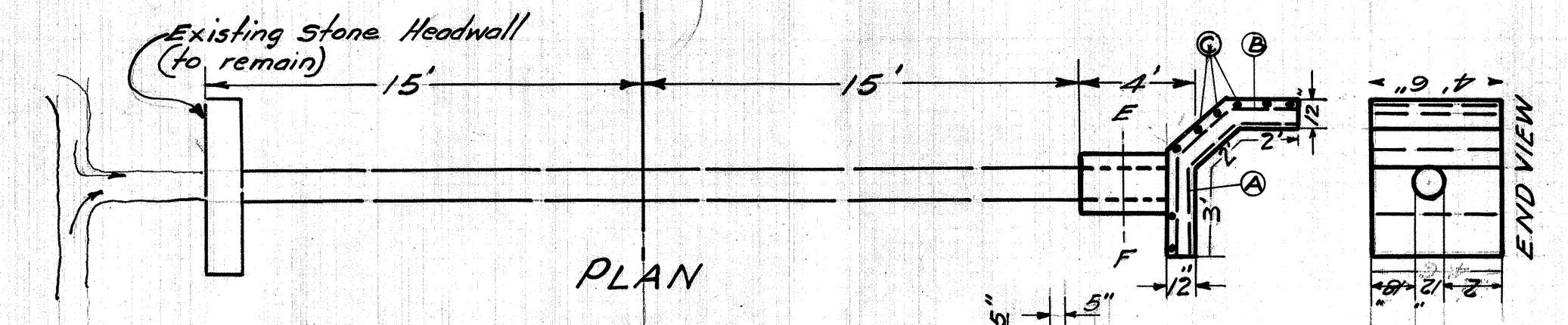


LONGITUDINAL SECTION

CULVERT DATA

Type: Concrete Slab
Size: 7' x 4' x 36'
Work Reqd: Remove old stone slab culvert and build new concrete slab culvert. State Hwy. Standard Plan 301

Sta. 43+69



PLAN

STEEL LIST

Bars	Size	Length	No.
A	1/2"	7' 0"	1
B	"	8' 0"	1
C	"	4' 0"	8

CONCRETE
Headwall 1:5 1/2 mix.
Barrel 1:8: " "

County-State ESTIMATED QUANTITIES
0.21 ✓ 1:5 1/2 concrete 1.33 cu.yds.
1:8: " 1.33 " "
2.0 Reinforcing steel 30 lbs.
4 lin. ft. 12" V.S.P. 4 lin. ft.
0.5 Excavation 1 cu.yd.
Remove old masonry 1.0 Cu.Yds.

CULVERT DATA

Type: C.I. extended with V.S.P. encased
Size: 12" x 34'
Work reqd: Extend south end 4' with V.S.P. encased in concrete. Build one Standard Side Road Headwall. Plan 300

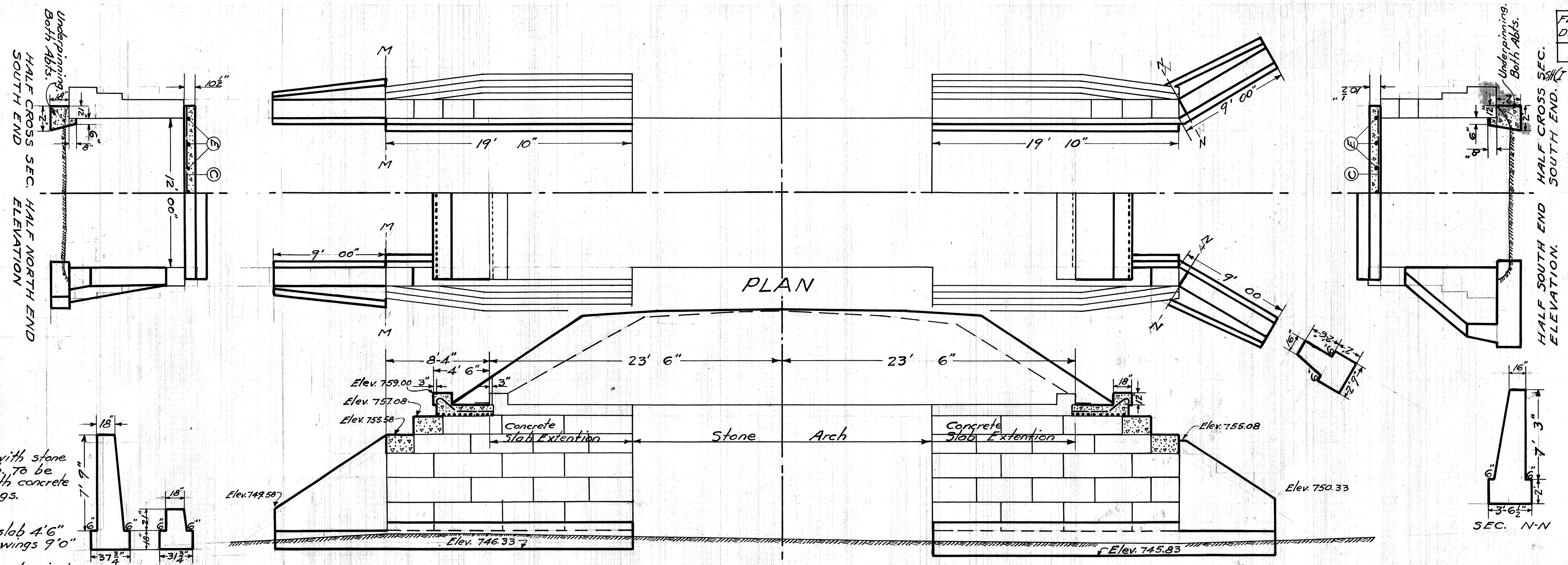
LONGITUDINAL SECTION

Sta 93+66

FED. RD DIST. NO.	STATE	FED. AID PROJECT	FISCAL YEAR
10	OHIO		1927

20
21

(C.H.) 288 SEC. P.
LORAIN CO.



CONCRETE
Slab & curbs 1:5 1/2
Walls 1:6 1/2
Footings & Underpinning 1:8

County + State ESTIMATED QUANTITIES

0.91	1:5 1/2 concrete	56 cu yds.
1.6 1/2	"	173.0 "
0.3	1:8 "	17.3 "
114	Reinforcing steel	510 lbs.
0.5	Excavation, unclassified	17 cu yds.
	Channel Excavation	50 Cu. Yds.
	Repair old masonry	120 Sp. Yds.

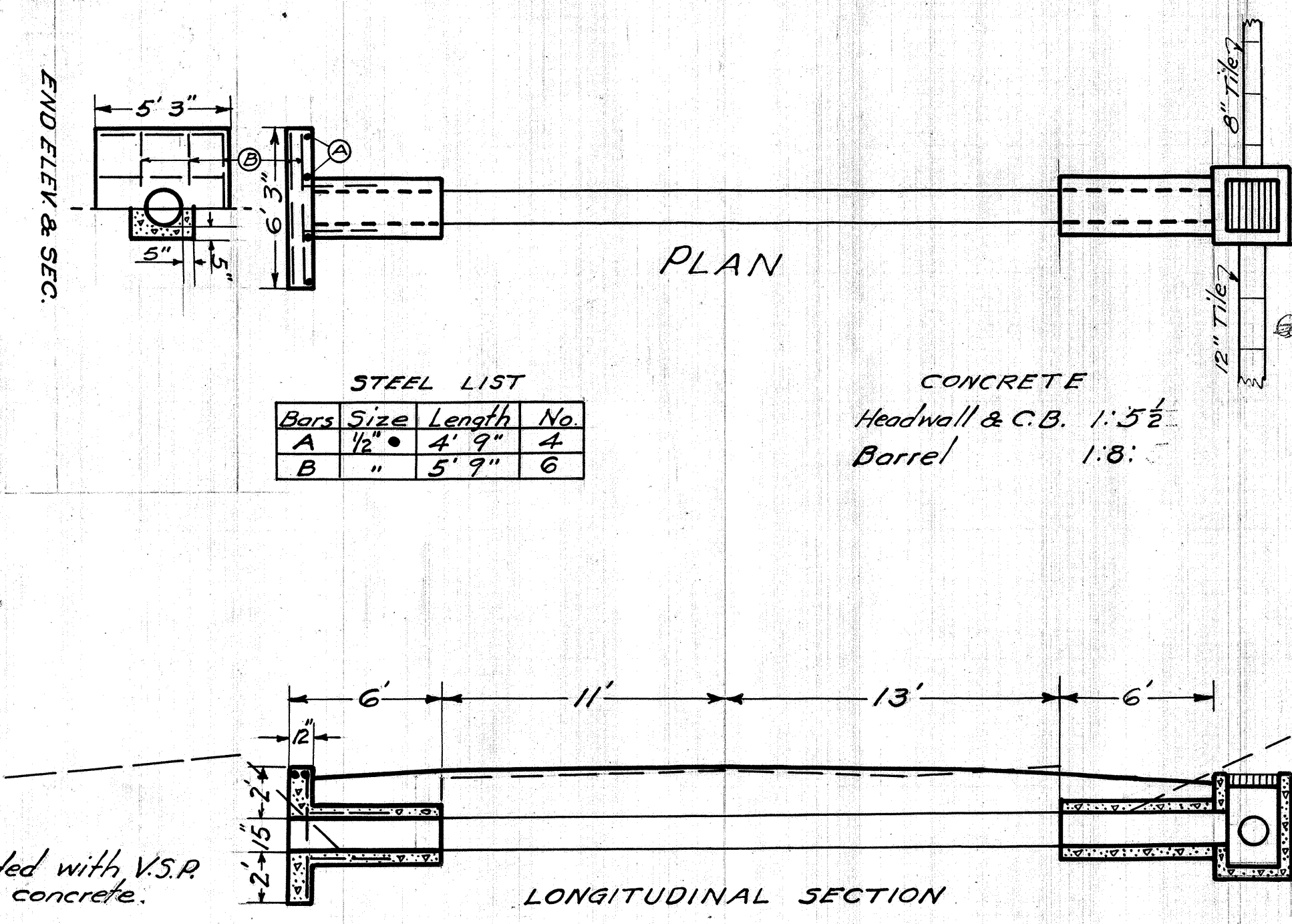
CULVERT DATA

Type: Stone Arch extended with stone walls & concrete slab, to be further extended with concrete slab & concrete wings.
Size: 12' x 56'
Work reqd: Extend cover slab 4' 6" at each end & wings 9' 0" at each end. Place concrete underpinning SEC. M-M END SEC. under old walls from ends back to arch portion. Point up all stone masonry, clean out channel at south end of culvert (100 ft)

STEEL LIST

Bars	Size	Length	Spacing	No.	Wt.
C	3/4" φ	14' 00"	5 1/2"	22	463 Lb.
F	1/2" φ	5' 00"	24"	14	47 "

Sta 100+78



ESTIMATED QUANTITIES

1.5 1/2	concrete	1.15 cu yds.
1:8	"	1.43 "
	Reinforcing steel	35 lbs.
	15" V.S.P.	12 lin. ft.
	One Standard C.B. complete	
	Excavation	7 cu yds.
	Channel Excavation	10.0 Cu. Yds.
	Remove old masonry	2.0 "

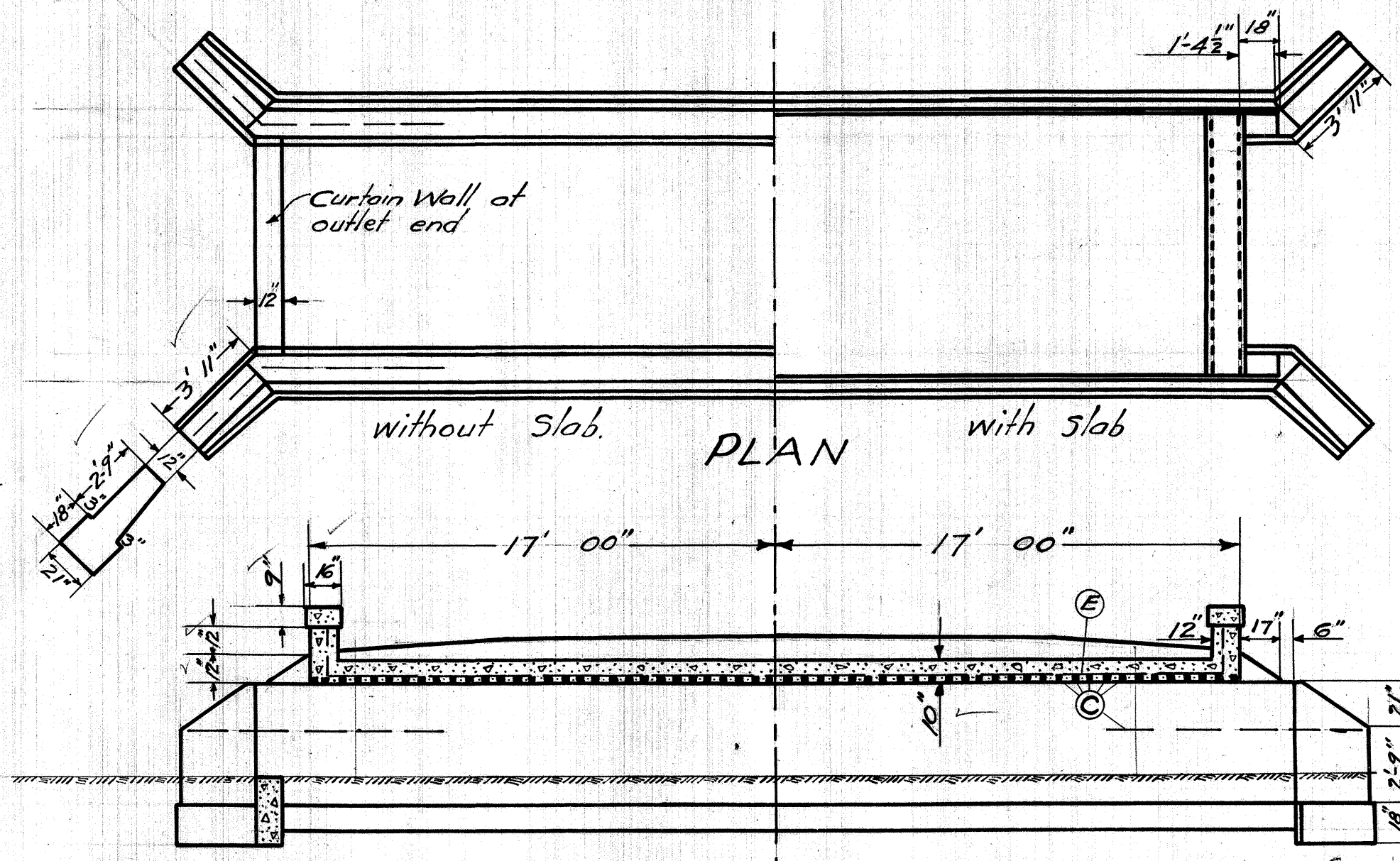
CULVERT DATA

Type: C.I. Extended with V.S.P. encased in concrete.
Size: 15' x 36'
Work reqd: Extend each end 6' lin. ft. with V.S.P. encased in concrete. Connect south end to C.B. and build headwall on north end. Clean out old pipe. Clean out open ditch 50' beyond north end of culvert.

Sta. 105+85

CULVERT DATA

Type: Concrete Slab
Size: 8' x 3' 6" x 34'
Work reqd: Remove old stone slab culvert. Replace with new concrete slab. State Hwy. Standard Plan No. 301



STEEL LIST

Bars	Size	Length	Spacing	No.	Wt.
C	3/4" φ	9' 6"	5"	86	1206
F	1/2" φ	36' 0"		2	

County + State ESTIMATED QUANTITIES

1.60	1:5 1/2 concrete	12.05 cu yds.
1.07	1:6 1/2 "	24.5 "
146	Reinforcing steel	1286 lbs.
3.0	Excavation unclassified	56 cu yds.
	Removal of Existing Culvert	1

Sta. 133+75

