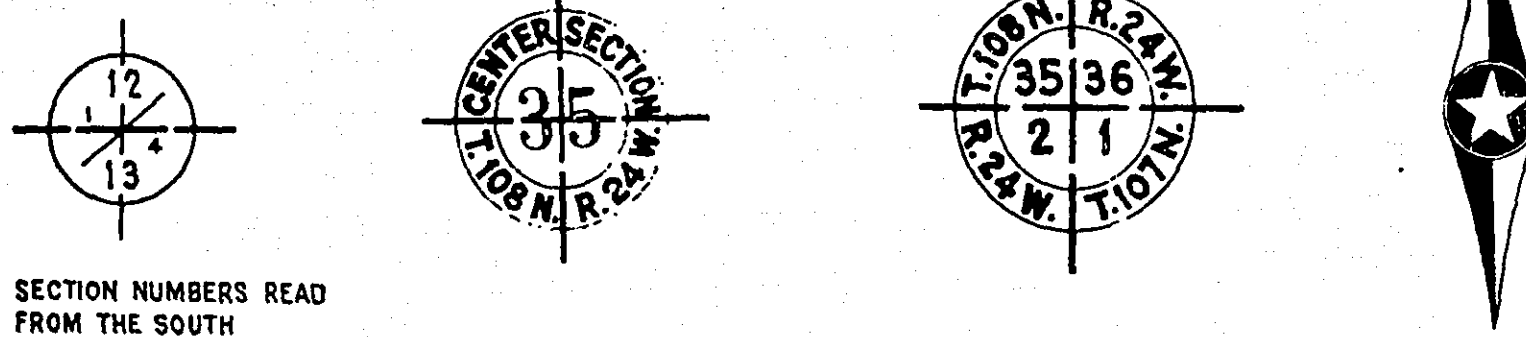


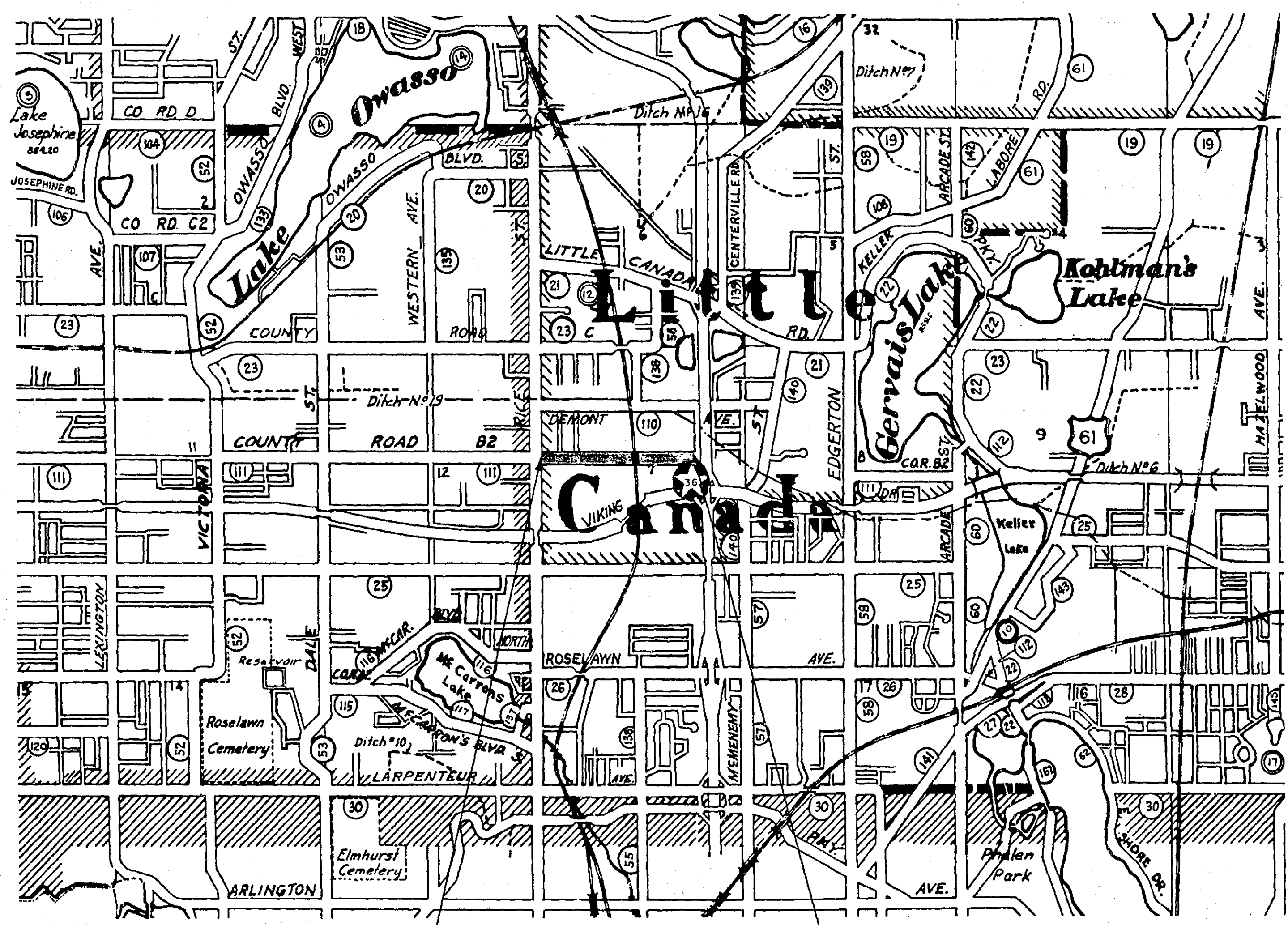
CONVENTIONAL SIGNS

STATE LINE	-----	TIMBER	-----
COUNTY LINE	-----	BRUSH	-----
TOWNSHIP OR RANGE LINE	-----	ORCHARD	-----
SECTION LINE	-----	ROCK LEDGE	-----
QUARTER LINE	-----	SAND	-----
SIXTEENTH LINE	-----	EDGE OF CUT	-----
RIGHT-OF-WAY LINE	-----	TOE OF EMBANKMENT	-----
PRESENT ROAD 7/8 LINE	-----	CATCH BASIN	-----
LIMITED ACCESS	-----	MANHOLE	-----
PROPERTY LINE (Except and Lines)	-----	DROP INLET	-----
VACATED PLATTED PROPERTY	-----	FIRE HYDRANT	-----
CORPORATE OR CITY LIMITS	-----	ARC LAMP	-----
TRUNK HIGHWAY CENTER LINE	-----	OTHER LAMPS (State Kind)	-----
RETAINING WALL	-----	RAILROAD CROSSING SIGN	-----
STEAM RAILROAD	-----	RAILROAD CROSSING BELL	-----
ELECTRIC RAILROAD	-----	ELECTRIC WARNING SIGN	-----
RAILROAD RIGHT-OF-WAY LINE	-----	CROSSING GATE	-----
CREEK	-----	CATTLE GUARD	-----
RAPIDS OR WATERFALL	-----	OVERHEAD (Highway Over)	-----
DRY RUN	-----	UNDERPASS (Highway Under)	-----
DRAINAGE DITCH	-----	ABUTMENT, WALL & PIER	-----
HIGH TENSION LINE	-----	BRIDGE	-----
POWER POLE LINE	-----	CULVERT	-----
TELEPHONE OR TELEGRAPH LINE	-----	BUILDING (One Story Frame)	-----
TELEPHONE CONDUIT	-----	C-CONCRETE S-STONE T-TILE B-BRICK ST-STUCCO	-----
GUARD RAIL	-----	IRON PIPE	-----
WIRE FENCE	-----	STONE MONUMENT	-----
RAILROAD SNOW FENCE	-----	WOOD STAKE OR HUB	-----
BOARD OR HIGHWAY SNOW FENCE	-----	MEANDER CORNER	-----
STONE WALL OR FENCE	-----		
GAS MAIN	-----		
WATER PIPE	-----		
SEWER PIPE	-----		
DRAIN TILE	-----		
GRAVEL PIT	-----		
SAND PIT	-----		
CLAY PIT	-----		
ROCK QUARRY	-----		
SPRINGS	-----		
MARSH	-----		



PIT DATA

PIT NO.	Located in
.....	Dead Haul
PIT NO.	Located in
.....	Dead Haul
PIT NO.	Located in
.....	Dead Haul
PIT NO.	Located in
.....	Dead Haul



BEG. OF PROJ. STA. 0+12
END OF PROJ. STA. 40+67

**OFFICE OF COUNTY ENGINEER
RAMSEY COUNTY**

CONSTRUCTION PLAN FOR GRADING AND SURFACING
COUNTY ROAD "B-2"
FROM: RICE ST. (T.H. 49) TO: T.H. 35E SERVICE LANE
12' EAST OF W. 1/4 COR. SEC. 7, T. 29 N., R. 22 W. 4055' EAST OF W. 1/4 COR. SEC. 7, T. 29 N., R. 22 W.

GROSS LENGTH	4055 FEET	0.768 MILES
BRIDGES-LENGTH	0 FEET	0 MILES
EXCEPTIONS-LENGTH	0 FEET	0 MILES
NET LENGTH	4055 FEET	0.768 MILES

INDEX

SHEET NO	DESCRIPTION
1	TITLE SHEET
2	TYPICAL SECTIONS & ESTIMATED QUANTITIES
3-4	PLAN & PROFILE SHEETS
5-14	CROSS SECTION SHEETS

SCALES

PLAN, 1 inch = 100 Feet
PROFILE, Horiz. 1 inch = 100 Feet. Vert. 1 inch = 10 Feet.
WORKING PLANS - Horiz. 1 inch = 100 Feet. Vert. 1 inch = 10 Feet.
LAYOUT, 1 inch = 2640 Feet

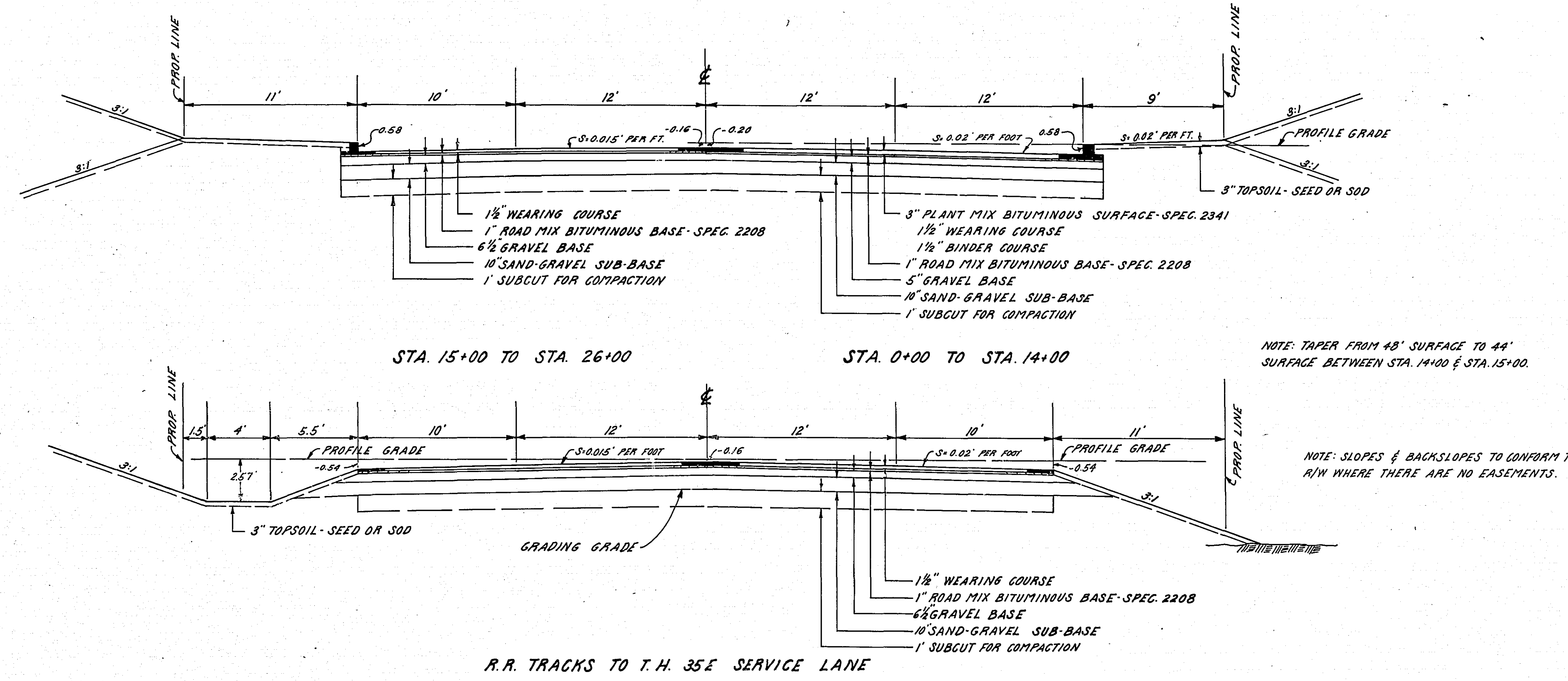
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Frank A. Anker REG. NO. 2042 DATE 4-22-63
ENGINEER

RECOMMENDED FOR APPROVAL *Dean R. Anker* DATE 4-22-63
COUNTY ENGINEER
APPROVED *Ed. C. McLaughlin* DATE 4-22-63
2ND VICE CHAIRMAN OF RAMSEY COUNTY BOARD

—SPECIFICATIONS—
THE "SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" DATED MAY 1, 1959 SHALL GOVERN.

ESTIMATED QUANTITIES			
SPEC. NO.	DESCRIPTION	UNIT	TOTAL ESTIMATED QUANTITIES
2101.502	CLEARING	TREE	150
2101.507	GRUBBING	TREE	128
2104.501	REMOVE PORTABLE CULVERTS	LINEAR FOOT	116
2104.509	REMOVE GUARD RAIL	LINEAR FOOT	600
2104.510	REMOVE FENCE	LINEAR FOOT	1623
2105.501	CLASS A EXCAVATION	CUBIC YARDS	42,970
2130.501	WATER	(M) GALLONS	50
2201.526	GRAVEL SUB-BASE IN PLACE, CLASS 4	TON	10,550
2202.526	GRAVEL BASE IN PLACE, CLASS 5	TON	5,834
2208.501	BITUMINOUS MATERIAL FOR PRIME COAT	GALLON	6,500
2208.503	BITUMINOUS MATERIAL FOR MIXTURE	GALLON	13,000
2208.506	AGGREGATE	TON	1,180
2341.505	BITUMINOUS MATERIAL FOR FOG SEAL COAT	GALLON	2,115
2341.502	BITUMINOUS MATERIAL FOR TACK COAT	GALLON	1,073
2341.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	141.5
2341.511	BITUMINOUS MIXTURE (BINDER COURSE)	TON	700
2341.511	BITUMINOUS MIXTURE (WEARING COURSE)	TON	2,000
2341.531	AGGREGATE FOR FOG SEAL COAT	CUBIC YARD (V.M)	80
2501.522	F.F.I. R.C. PIPE ARCH CULVERTS - R=22 1/2", S=3/8"	LINEAR FOOT	48
2503.512-18	F.F.I. R.C. PIPE SEWER, CLASS II	LINEAR FOOT	156
2503.512-24	F.F.I. C.M. PIPE SEWER	LINEAR FOOT	34
2503.521	INSTALL CONCRETE PIPE SEWERS	LINEAR FOOT	116
2515.541	F.F.I. CONCRETE APRONS FOR S.C. PIPE SEWER-18"	APRON	1
2515.542	F.F.I. CONCRETE APRONS FOR S.G. PIPE ARCH-R22 1/2", S=3/8"	APRON	2
2506.506	CONSTRUCT MANHOLES, TYPE A OR C	LINEAR FOOT	12.3
2506.507	CONSTRUCT CATCH BASINS, DESIGN NO. 1	LINEAR FOOT	8.7
2506.507	CONSTRUCT CATCH BASINS, DESIGN NO. 2	LINEAR FOOT	19.9
2506.511	RECONSTRUCT MANHOLES	LINEAR FOOT	7
2506.516	F.F.I. CASTING ASSEMBLIES	ASSEMBLY	6
2506.521	INSTALL CASTING	ASSEMBLY	1
2535.501	BITUMINOUS CURB	LINEAR FOOT	5,051
2574.501	ROADSIDE SEEDING	ACRE	3
2574.511	SEED (CLASS 15)	POUND	360
2576.501	SODDING	SQUARE YARD	2,858

TYPICAL SECTIONS



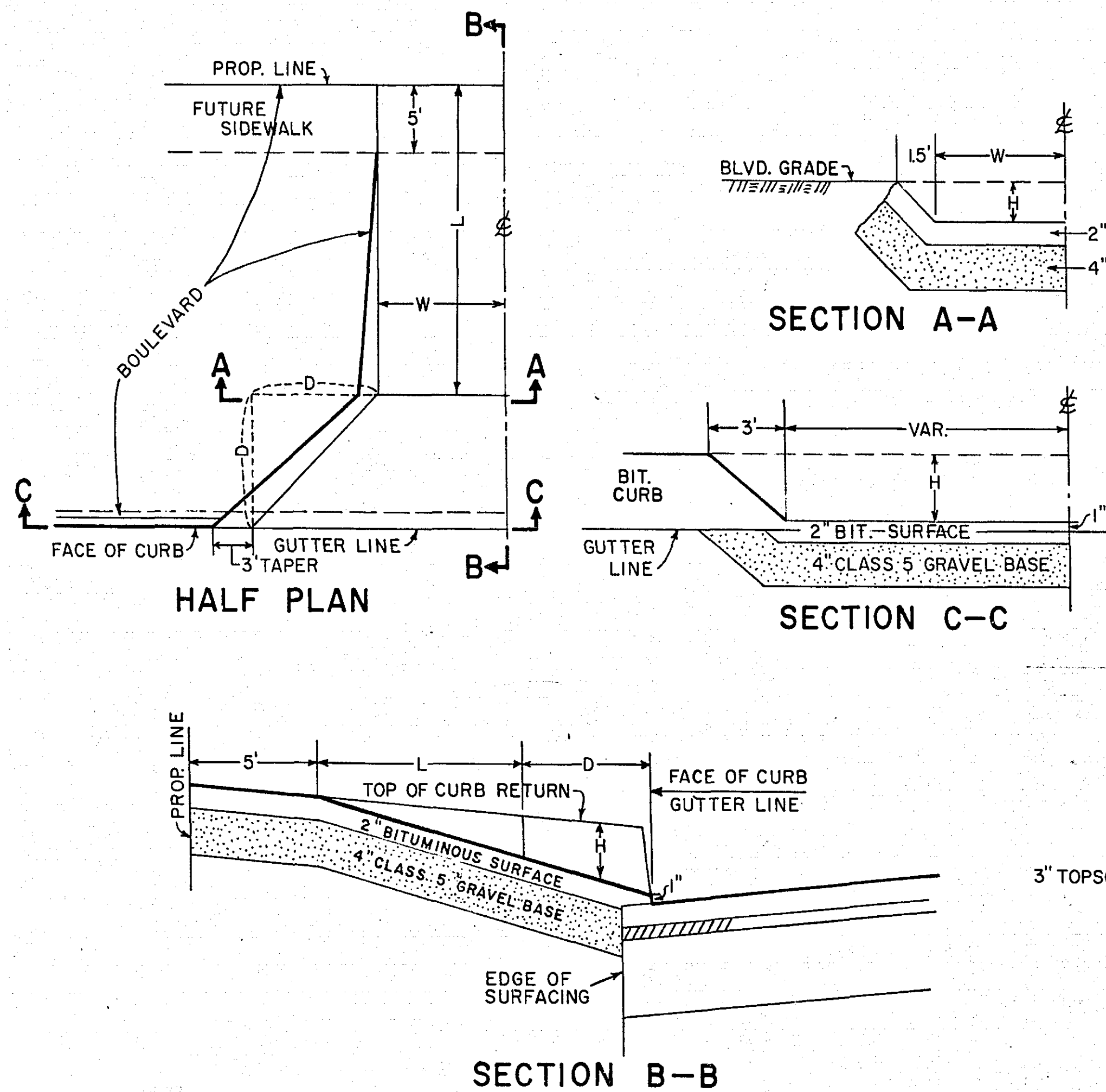
NOTE: TAPER FROM 48" SURFACE TO 44" SURFACE BETWEEN STA. 14+00 & STA. 15+00.

NOTE: SLOPES & BACKSLOPES TO CONFORM TO R/W WHERE THERE ARE NO EASEMENTS.

R.R. TRACKS TO T.H. 35E SERVICE LANE

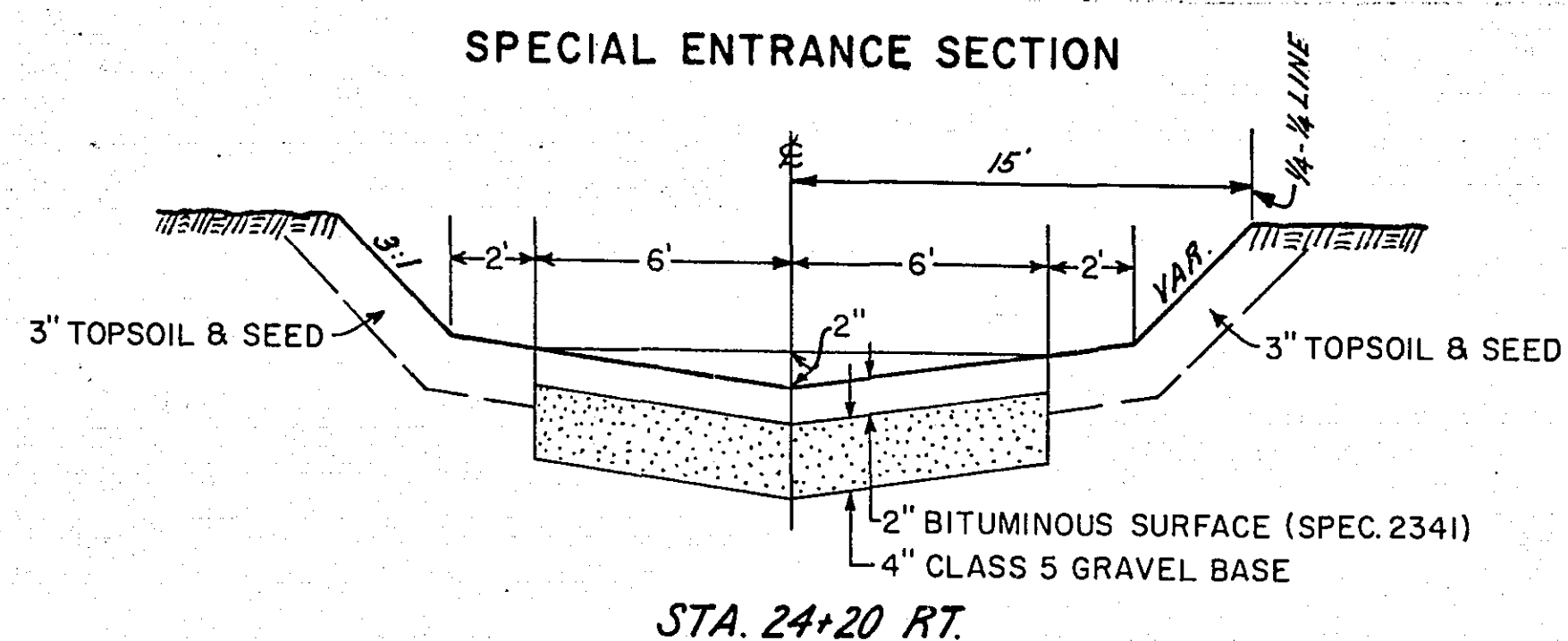
CATCH BASIN DESIGN NO. 2

BITUMINOUS ENTRANCE DETAILS

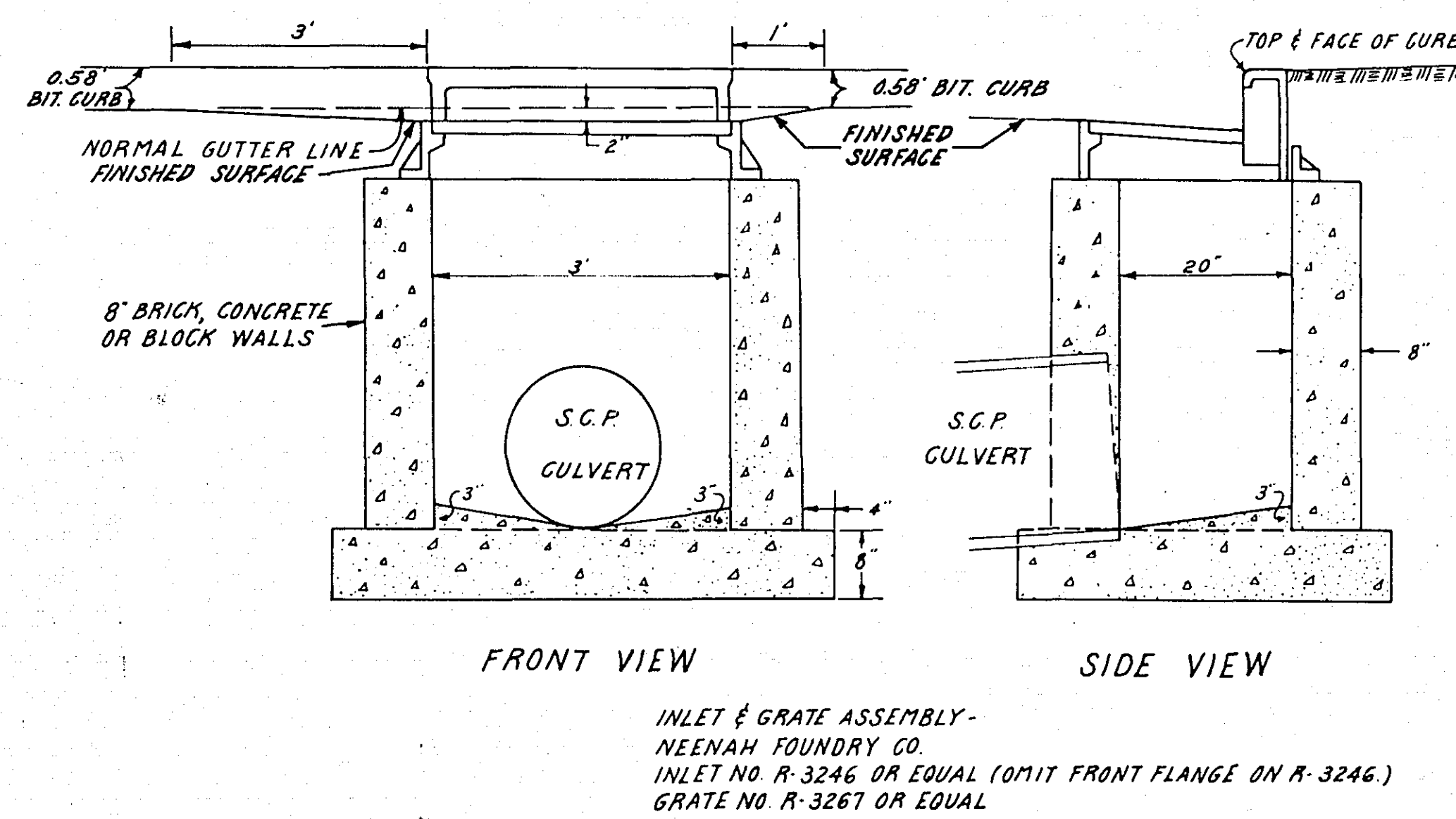


NOTE: PRIVATE ENTRANCE: W=6' D=5'
 COMMERCIAL ENTRANCE: W=11' D=10'
 ALLEY: W=EXISTING WIDTH D=10'
 L = TO BE DETERMINED BY ENGINEER DURING CONSTRUCTION.
 H = VARIABLE AS SHOWN IN SECTION B-B.

SPECIAL ENTRANCE SECTION

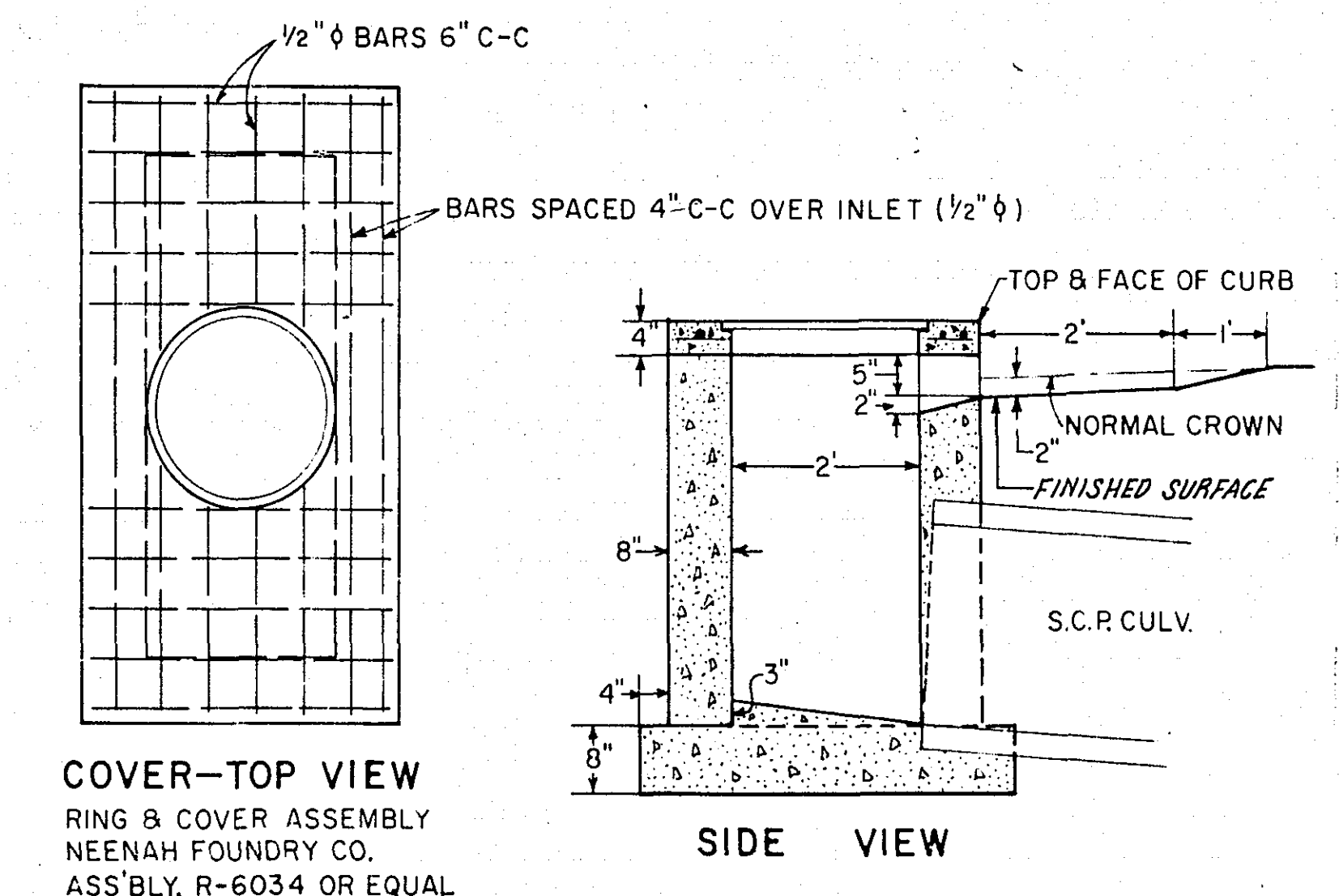


STA. 24+20 RT.



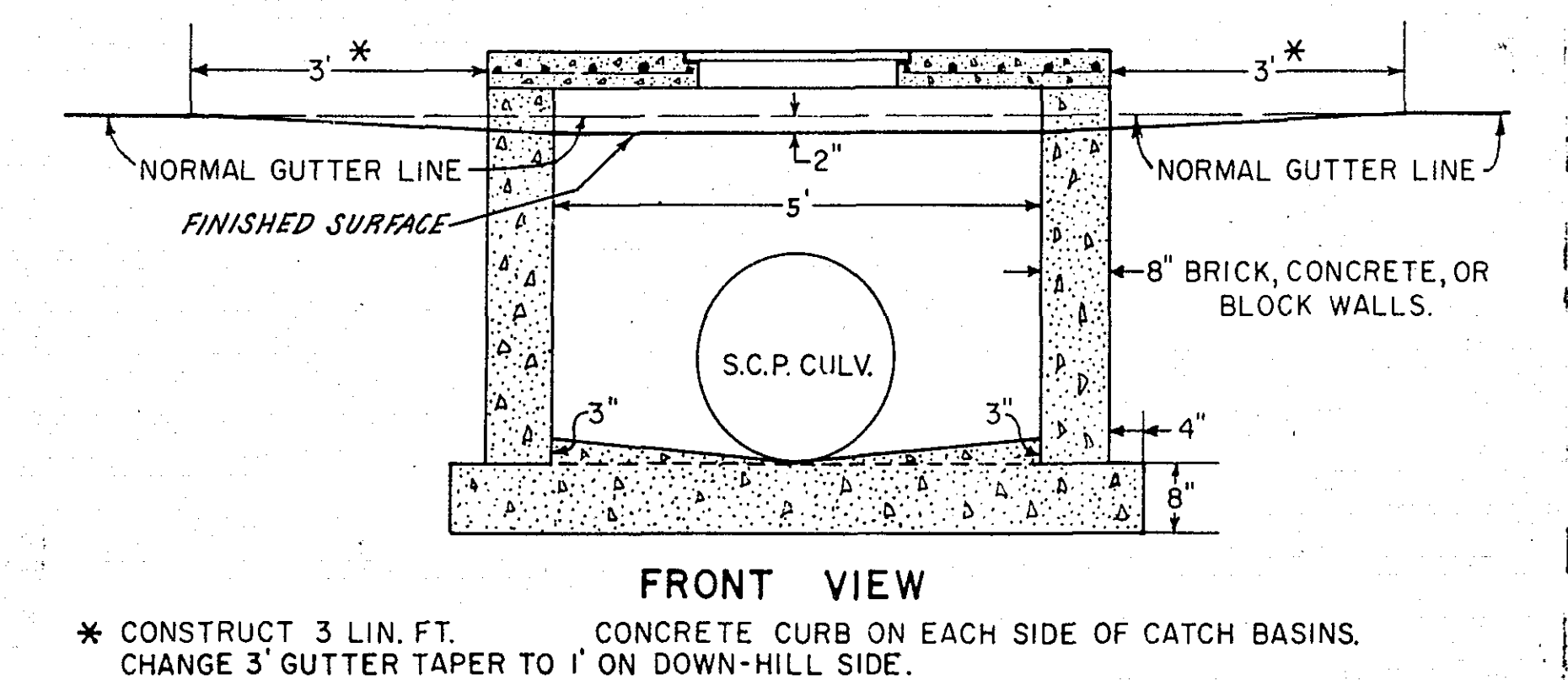
INLET & GRATE ASSEMBLY - NEENAH FOUNDRY CO. INLET NO. R-3246 OR EQUAL (10" IIT FRONT FLANGE ON R-3246.) GRATE NO. R-3267 OR EQUAL

CATCH BASIN DESIGN NO. 1



COVER-TOP VIEW
 RING & COVER ASSEMBLY NEENAH FOUNDRY CO. ASS'LY. R-6034 OR EQUAL

STANDARD DETAIL PLATES	
3000 B	REINFORCED CONCRETE PIPE
3014 A	REINFORCED CONCRETE PIPE-ARCH
3100 B	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3110	CONCRETE APRON FOR REINFORCED CONCRETE PIPE-ARCH
4000 D	MANHOLE OR CATCH BASIN
4002 C	MANHOLE OR CATCH BASIN
4101 A	RING CASTING FOR MANHOLE OR CATCH BASIN
4111 C	COVER CASTING FOR MANHOLE
4180 D	MANHOLE STEP CASTING
7065 B	BITUMINOUS CURB
7111 B	INSTALLATION OF CATCH BASIN CASTINGS
8000A & 8009	STANDARD BARRICADE
9102 A	SODDING AT PIPE CULVERT ENDS



* CONSTRUCT 3 LIN. FT. CONCRETE CURB ON EACH SIDE OF CATCH BASINS. CHANGE 3" GUTTER TAPER TO 1" ON DOWN-HILL SIDE.

PLAN
 QUANTITY
 CHECKED
 NO. 127
 NOTE BOOK
 ALGEBRAIC CHECKED
 BY W. H. CHOLEWICKI
 NO.

STA. 12+34 ±
 18" x 59" S.C. PIPE GULVERT.
 REMOVE AND INSTALL LT. AS SEWER
 BETWEEN STA. 26+36 AND STA. 27+41

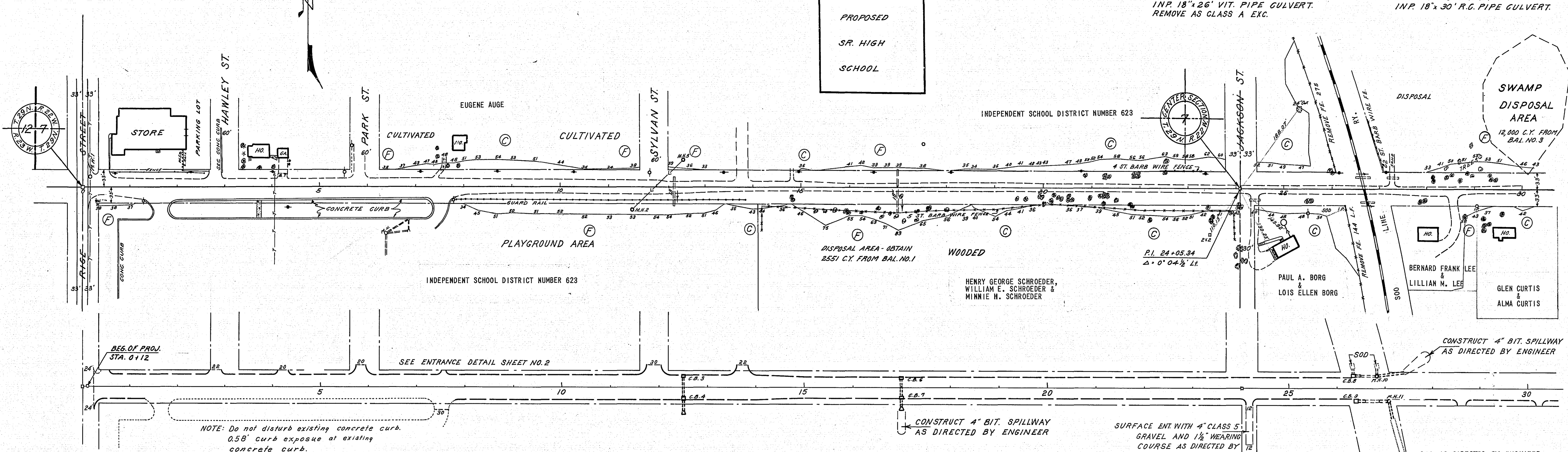
STA. 16+98 LT. 36' TO RT. 49'
 18" x 85" R.C. PIPE GULVERT.
 REMOVE B.L.F. AND INSTALL AS SEWER
 ABANDON REMAINDER - BRICK ENDS

STA. 24+47 RT. 21'
 18" x 20" C.M. PIPE GULVERT.
 REMOVE AS CLASS A EXC.

STA. 26+49 LT. 26'
 18" x 30" R.G. PIPE GULVERT.

STA. 27+13 LT. 26'
 18" x 26" VIT. PIPE GULVERT.
 REMOVE AS CLASS A EXC.

STA. 26+58 RT. 24'
 18" x 30" R.G. PIPE GULVERT.

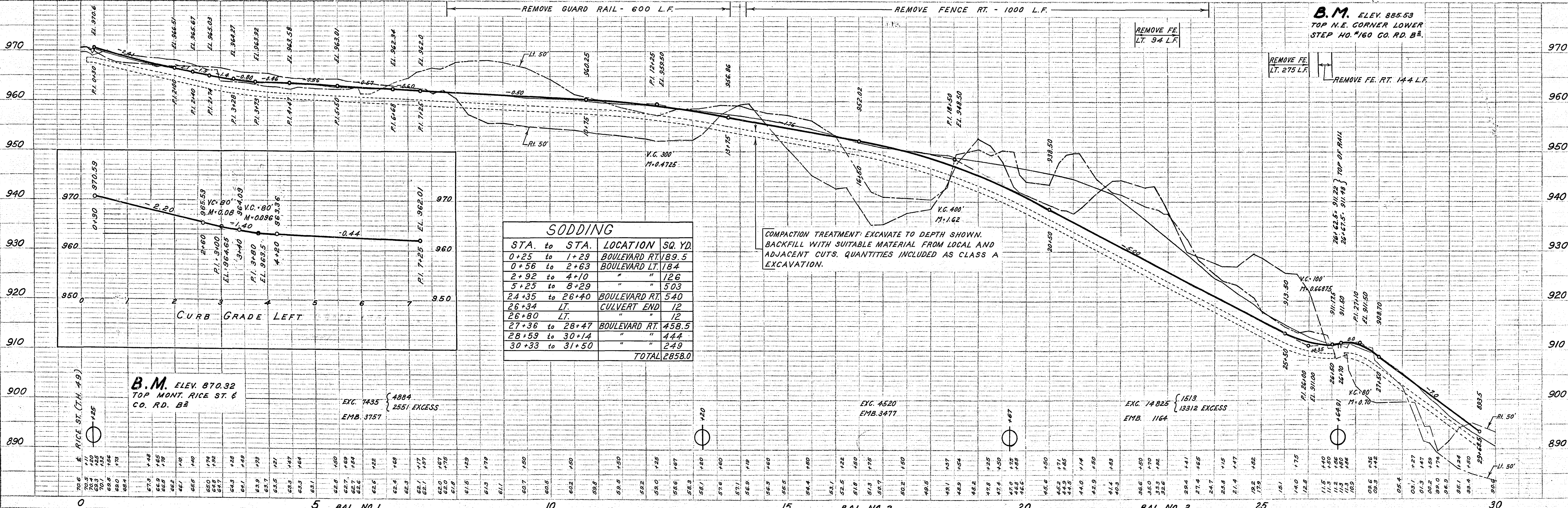


NOTE: Do not disturb existing concrete curb.
 0.58' curb exposure at existing
 concrete curb.

CONSTRUCT 4" BIT. SPILLWAY
 AS DIRECTED BY ENGINEER

SURFACE ENT. WITH 4" CLASS 5
 GRAVEL AND 1 1/2" WEARING
 COURSE AS DIRECTED BY
 THE ENGINEER.

SOD AS DIRECTED BY ENGINEER



COMPACTION TREATMENT: EXCAVATE TO DEPTH SHOWN.
 BACKFILL WITH SUITABLE MATERIAL FROM LOCAL AND
 ADJACENT CUTS. QUANTITIES INCLUDED AS CLASS A
 EXCAVATION.

PROFILE
 QUANTITY
 CHECKED
 NO. 127
 NOTE BOOK
 ALGEBRAIC CHECKED
 BY W. H. CHOLEWICKI
 NO.

CLEARING AND GRUBBING

STATION TO STATION	LOC.	CLEARING GRUBBING	
		TREE	TREE
7+00	8+00	LT	2
14+00	15+00	RT	3
17+00	18+00	RT	2
18+00	19+00	RT	3
19+00	20+00	RT	7
20+00	21+00	LT+RT	20
21+00	22+00	RT	2
22+00	23+00	LT	2
23+00	24+00	RT	2
25+91		LT	1
28+00	29+00	LT	23
29+00	30+00	LT	10
30+76		RT	1
31+00	32+00	RT	2
32+00	33+00	RT	2
33+00	34+00	RT	2
34+00	35+00	LT+RT	3
35+00	36+00	LT+RT	9
36+00	37+00	LT+RT	20
37+00	38+00	LT+RT	23
38+00	39+00	RT	8
39+00	40+00	RT	2
40+14		RT	2

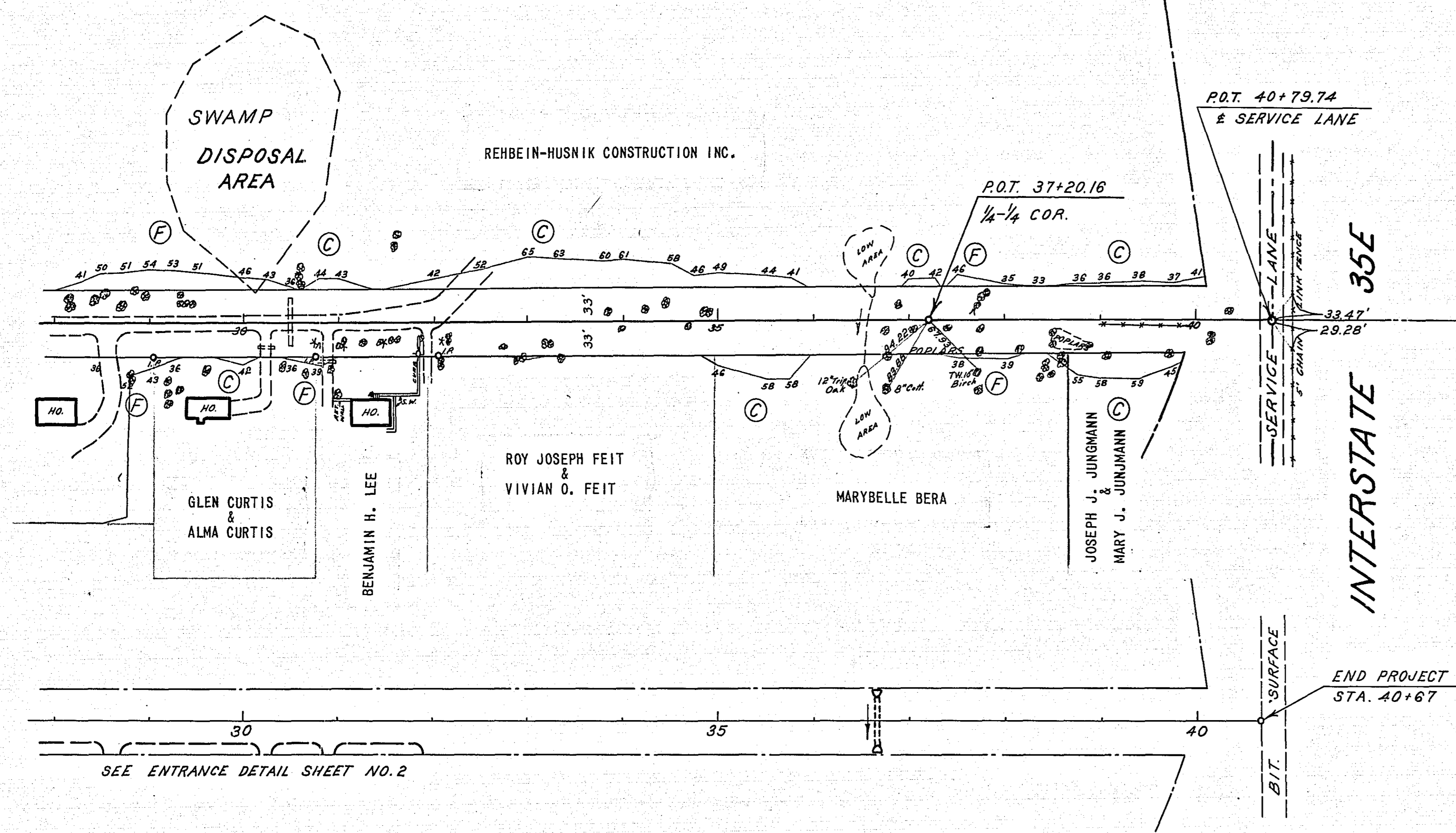
STA. 30+14 RT. 23'
INP. 12"x18" C.M. PIPE CULVERT.
REMOVE AS CLASS A EXC.

STA. 30+89 RT. 38'
INP. 15"x20" C.M. PIPE CULVERT.
REMOVE AS CLASS A EXC.

STA. 30+50 ±
INP. 18"x49" S.C. PIPE CULVERT.
REMOVE AND INSTALL AS SEWER LT.
BETWEEN STA. 26+34 AND STA. 27+41

STA. 28+50 ENT. RT.
PLACE 4" CLASS 5 GRAVEL AND PRIME
COAT AS DIRECTED BY ENGINEER.

STA. 36+65 ±
F.#1. 48 L.F. S.C.P.-A CULVERT
F.#1. 2 CONC. APRONS FOR S.C.P.-ARCH
SIZE = R-22½", S-36½"

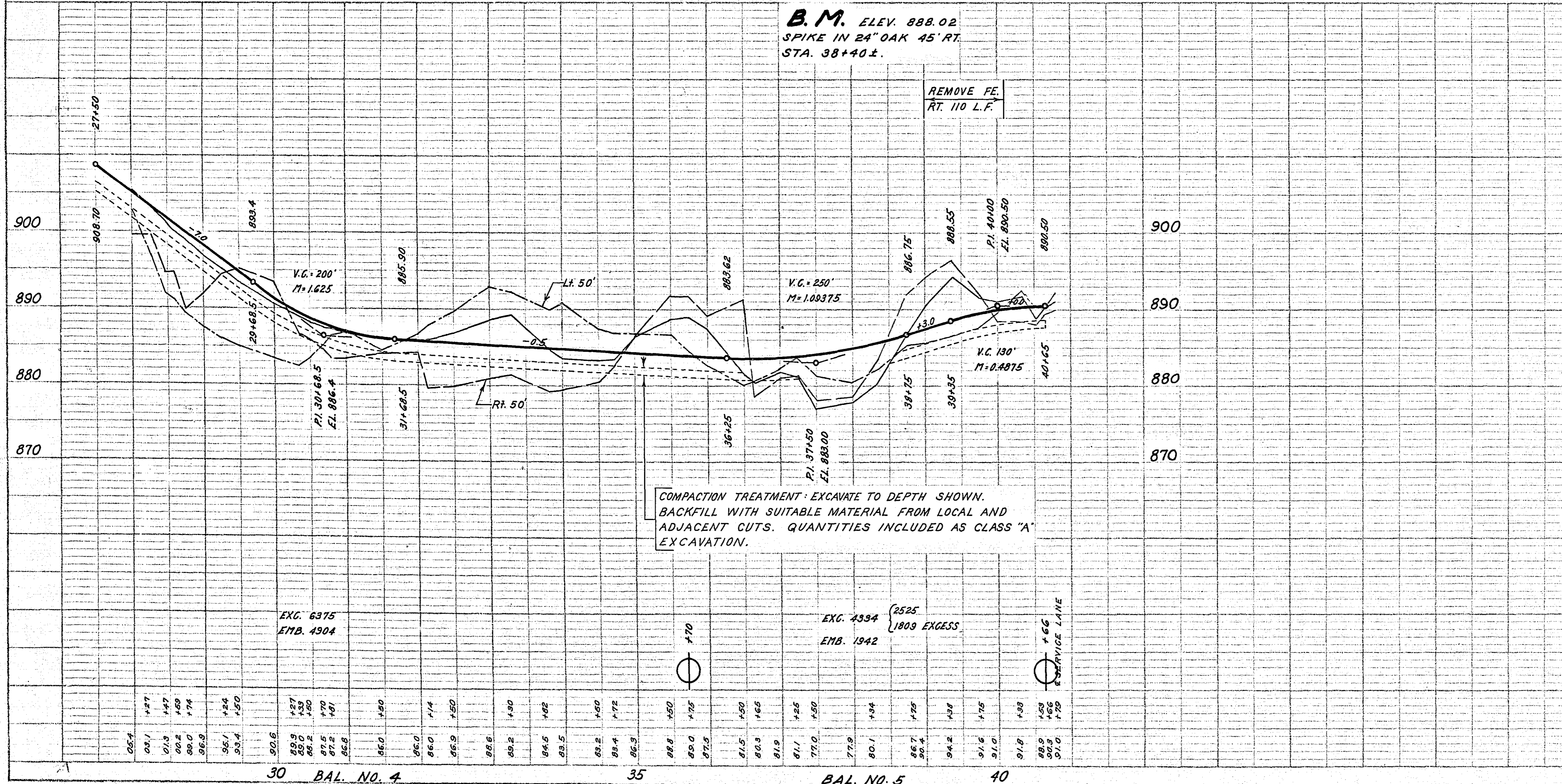


DRAINAGE STRUCTURES

STATION	LOC.	NO.	TYPE	DESIGN HEIGHT	CASTING LIN. FT. ASSEMBLY	ELEVATION G. RATE OR RING	INVERT	F.#1. REINFORCED CONC. PIPE SEWER	
								RECONSTRUCT M.H. OR C.B. LIN. FT.	TO STRUCTURE NO.
0+14	Lt. 20'	1	M.H.			970.19		O.K. LEAVE	
11+49	Rt. 44'	2	M.H.					7.0 - Raise 3'	
12+50	Lt. 21'	3	C.B.	2	4.5	958.03	954.00		4
12+50	Rt. 21'	4	C.B.	2	4.9	958.03	953.58		12+50 Rt. 55'
12+54	Lt. 54'	5	M.H.					O.K. LEAVE	
17+00	Lt. 21'	6	C.B.	2	5.0	950.34	945.6		43
17+00	Rt. 21'	7	C.B.	2	5.5	950.34	945.1		Rt. to End
26+34	Lt. 38'						907.54		12
26+34	Lt. 26'	8	C.B.	1	4.3	911.15	907.30		14
26+40	Rt. 24'	9	C.B.	1	4.4	911.17	907.43		18
26+80	Lt. 38'								12
26+80	Lt. 26'	10	M.H.	C	4.3	*1 910.86	906.59		60
26+88	Rt. 24'						905.98		20
27+08	Rt. 25'	11	M.H.	A	8.0	*1 910.20	902.20		34

* = 700-7
* = 712

B.M. ELEV. 888.02
SPIKE IN 24" OAK 45' RT.
STA. 38+40 ±



COMPACTION TREATMENT: EXCAVATE TO DEPTH SHOWN.
BACKFILL WITH SUITABLE MATERIAL FROM LOCAL AND
ADJACENT CUTS. QUANTITIES INCLUDED AS CLASS "A"
EXCAVATION.

EXC. 6375
EMB. 4304

EXC. 4334 (2525)
EMB. 1942 (1803 EXCESS)

6828

STATION-ELEVATION

±

EXCAVATION | EMBANKMENT

SUB TOTALS CU. YDS. | CU. YDS. SUB TOTALS

+65 66.9

84 34

+48 67.3

218 115

1 68.4

120 73

+73 69.0

75 48

+56 69.5

108 67

+32 70.1

42 18

+25 69.3

18 6

+20 70.4

0 0

+11 70.5

0 0

0+00 970.6

± Pipe St.

STATION-ELEVATION

±

EXCAVATION | EMBANKMENT

SUB TOTALS CU. YDS. | CU. YDS. SUB TOTALS

+49 64.1

111 41

+28 64.3

145 57

3 64.7

11 4

+98 64.7

32 11

+92 64.8

98 38

+74 65.0

192 63

+40 65.5

161 56

+10 66.1

51 19

2 66.2

115 41

+178 966.7

66 24

CROSS SECTIONS

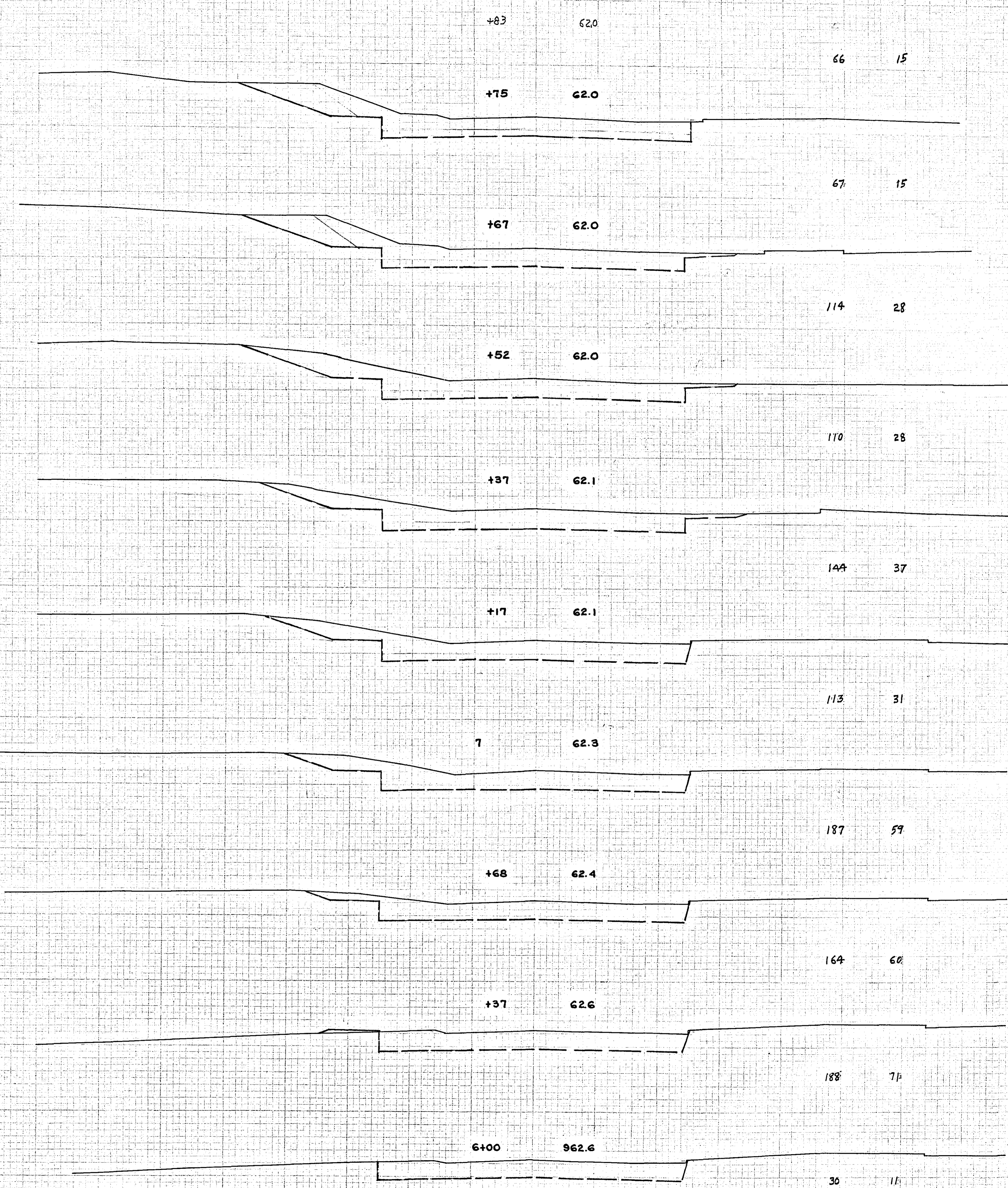
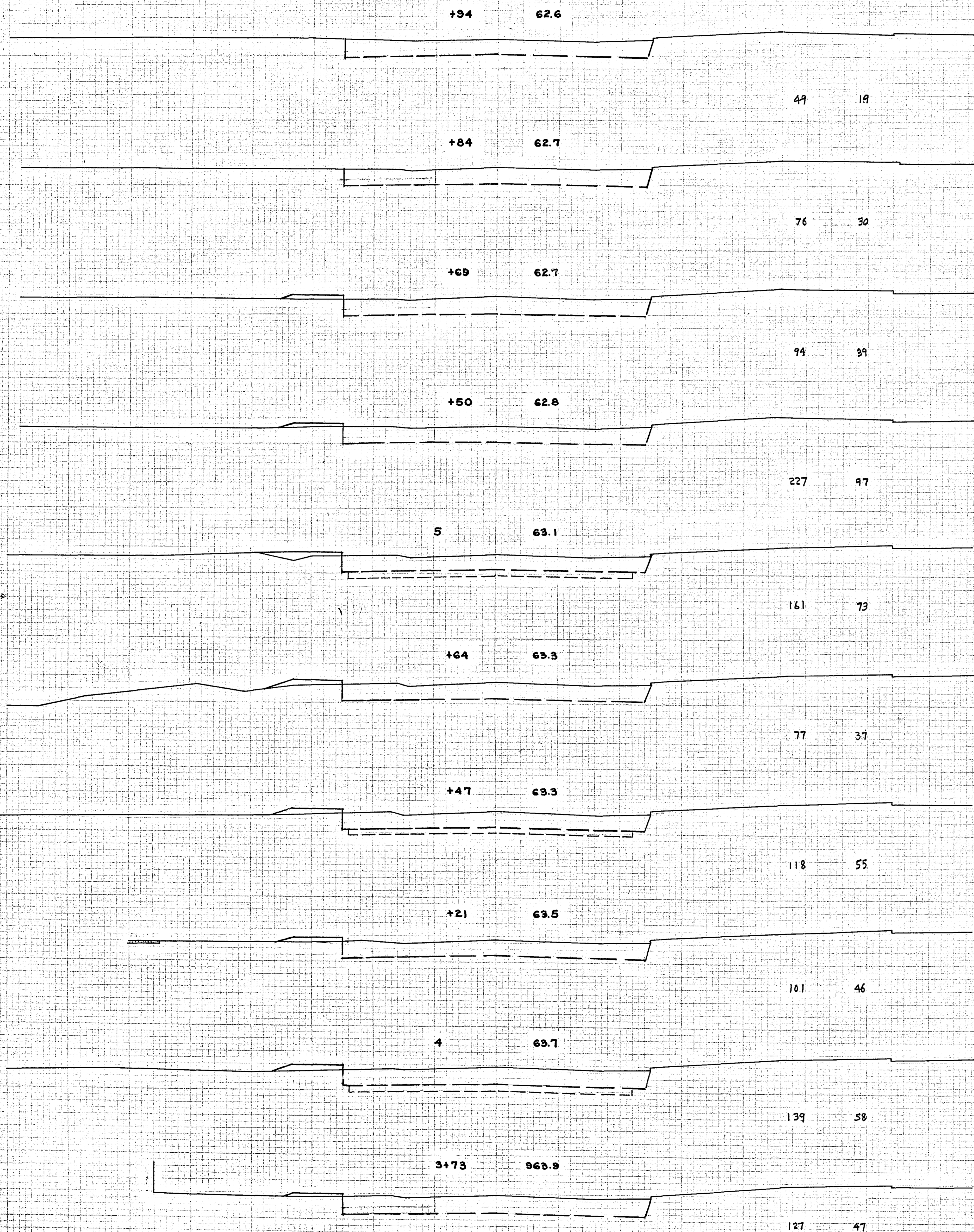
SCALE 1" = 10'

STATION-ELEVATION
⊕

EXCAVATION | EMBANKMENT
SUB TOTALS CU. YDS. | CU. YDS. SUB TOTALS

STATION-ELEVATION
⊕

EXCAVATION | EMBANKMENT
SUB TOTALS CU. YDS. | CU. YDS. SUB TOTALS



LARSEN & TERRY
 CIVIL ENGINEERS
 1001 1/2 BROADWAY
 NEW YORK, N.Y. 10004
 PHONE 212-677-1000
 FACSIMILE 212-677-1001
 TELETYPE 212-677-1002

CROSS SECTIONS SCALE 1" = 10'

STATION-ELEVATION
⊕

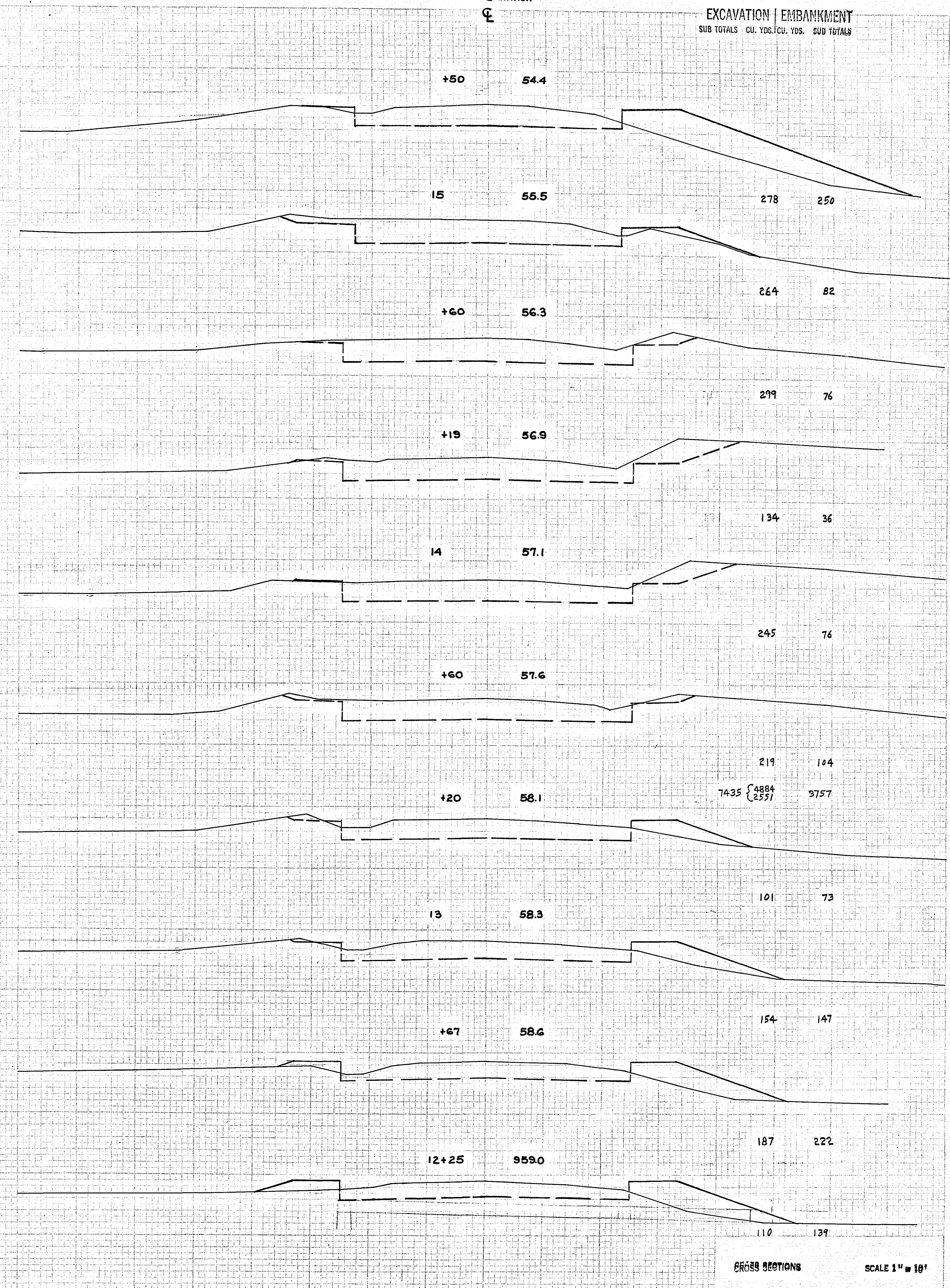
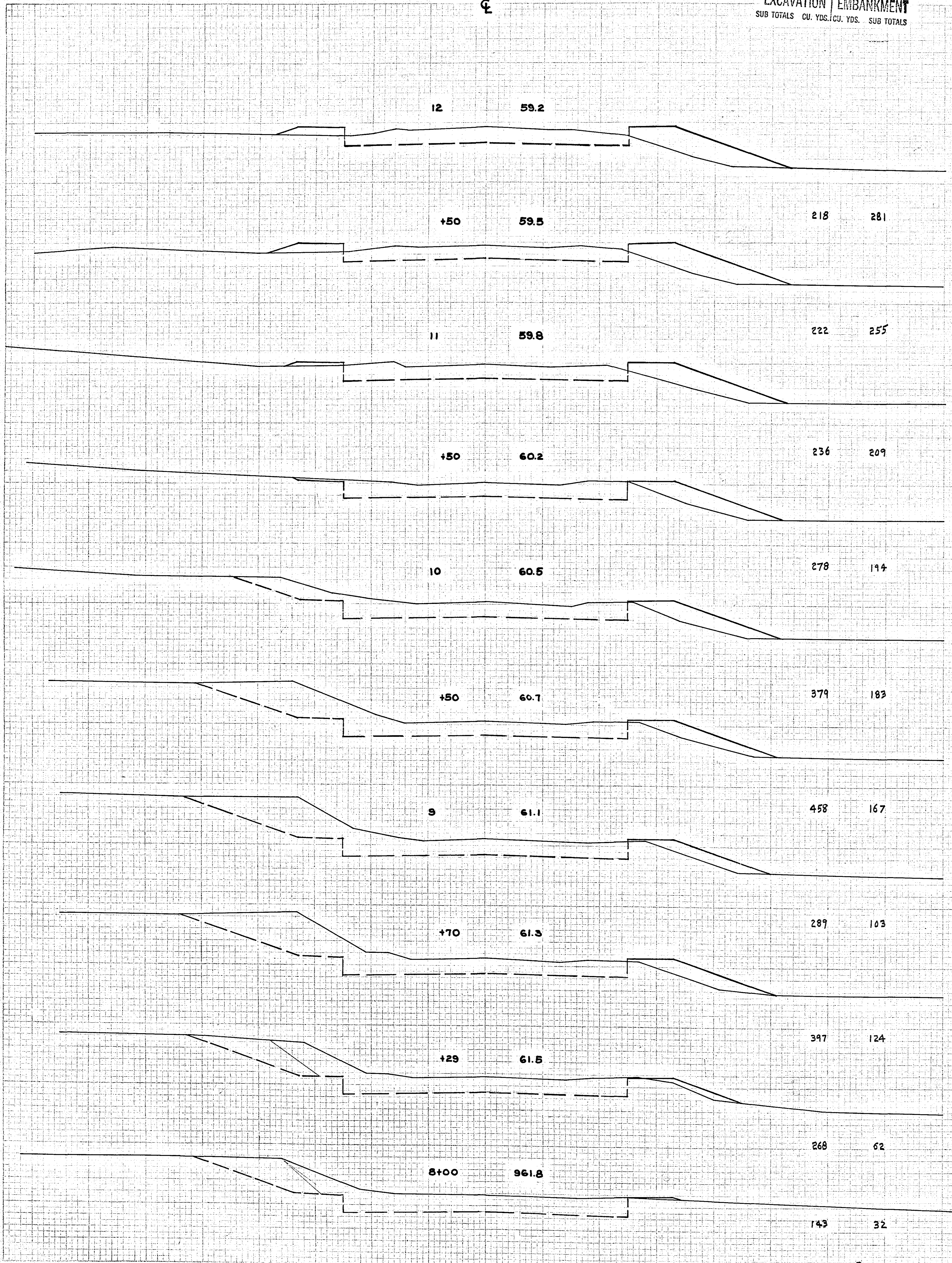
EXCAVATION | EMBANKMENT
SUB TOTALS CU. YDS. | CU. YDS. SUB TOTALS

STATION-ELEVATION
⊕

EXCAVATION | EMBANKMENT
SUB TOTALS CU. YDS. | CU. YDS. SUB TOTALS

DATE: 11/15/12
DRAWN BY: J. J. [unclear]
CHECKED BY: [unclear]
SCALE: 1" = 10'

NO. OF STATIONS: 14
TOTAL LENGTH: 1.4 MILES
PROJECT NO.: 63-111



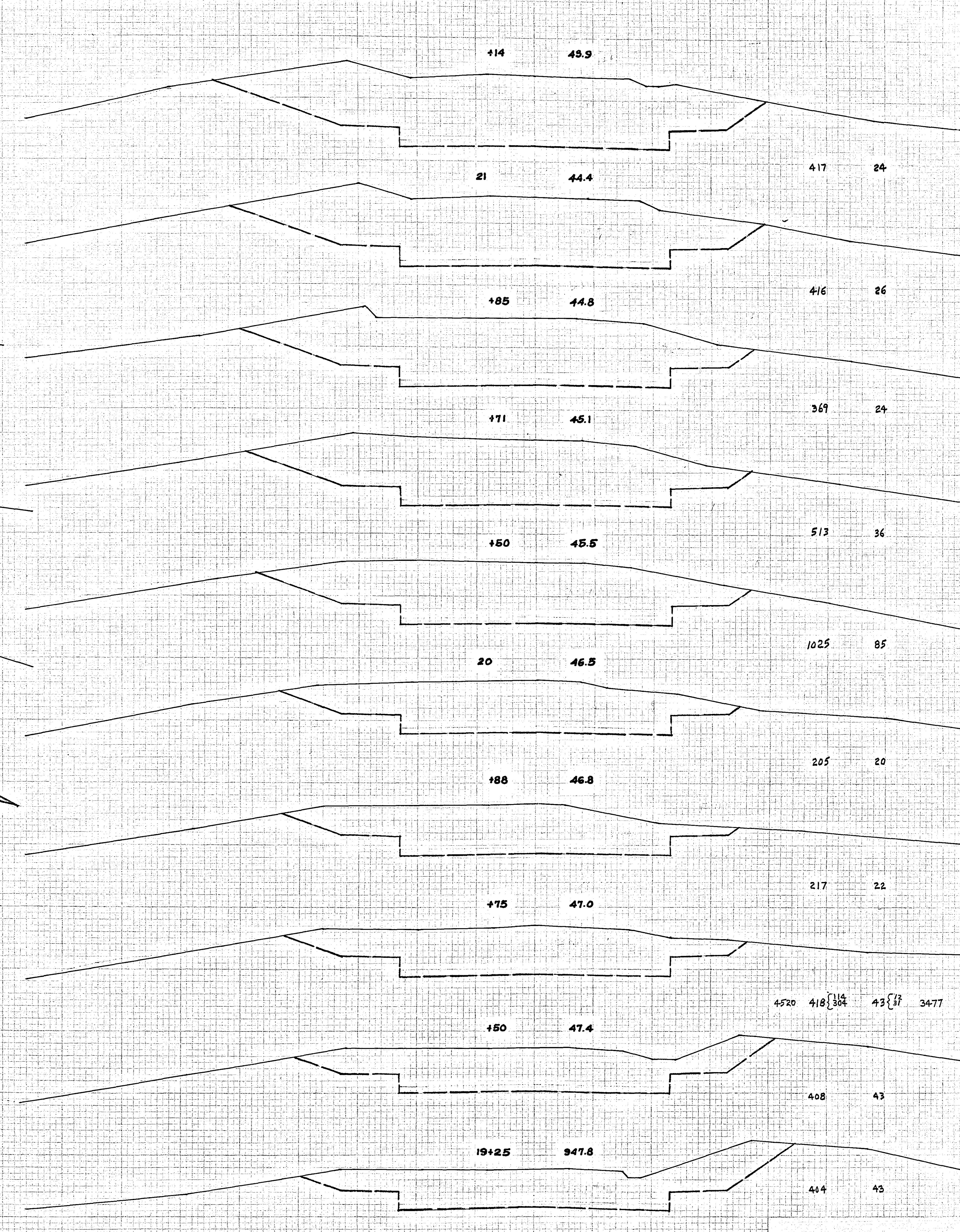
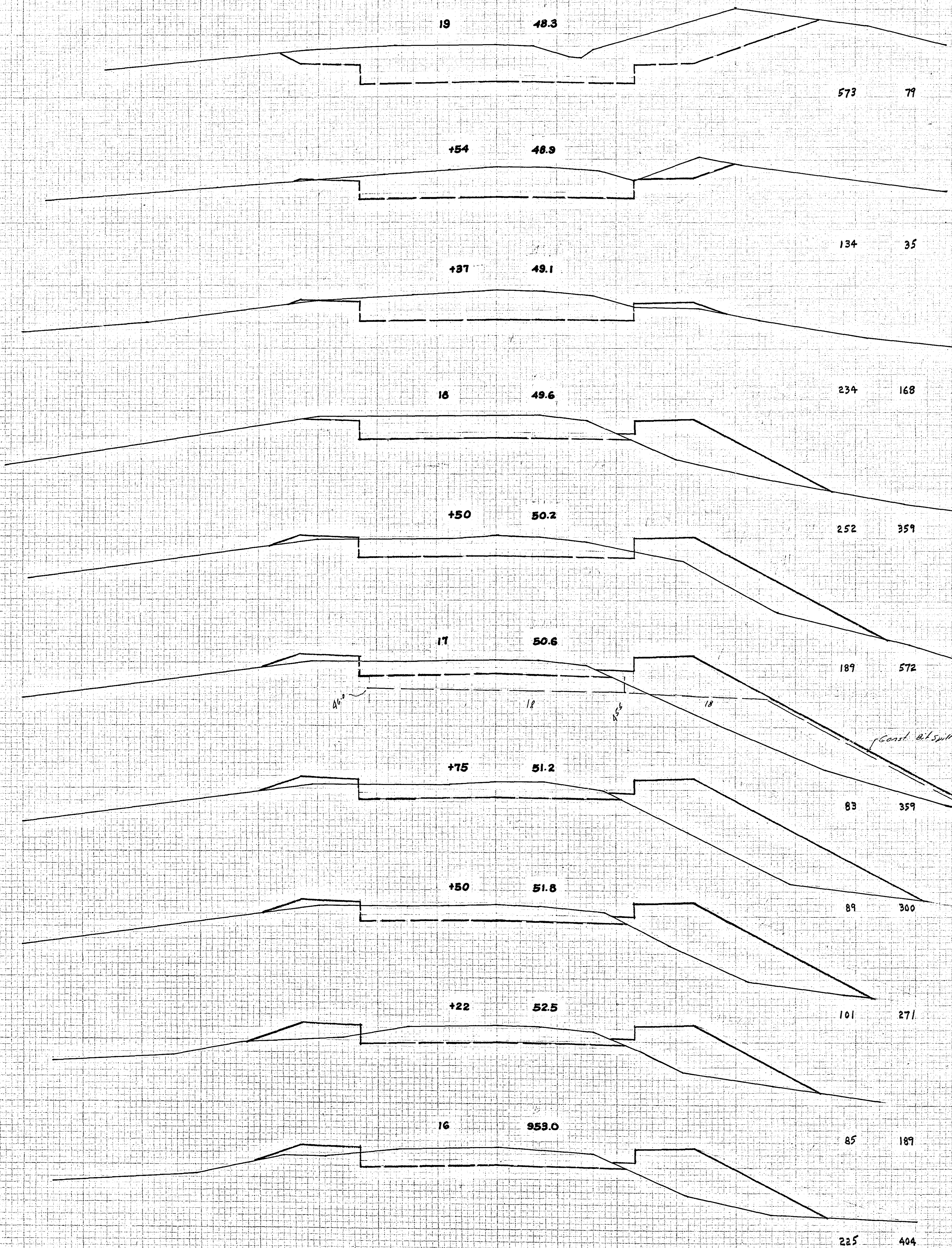
CROSS SECTIONS SCALE 1" = 10'

STATION-ELEVATION
C

EXCAVATION | EMBANKMENT
SUB TOTALS CU. YDS. | CU. YDS. SUB TOTALS

STATION-ELEVATION
C

EXCAVATION | EMBANKMENT
SUB TOTALS CU. YDS. | CU. YDS. SUB TOTALS



PROJECT: JAMES R. ...
 DRAWN BY: ...
 CHECKED BY: ...
 DATE: ...

SCALE: 1" = 10'
 SHEET NO. 8 OF 14 SHEETS

GROSS SECTIONS SCALE 1" = 10'

STATION-ELEVATION

EXCAVATION | EMBANKMENT

SUB TOTALS CU. YDS. CU. YDS. SUB TOTALS

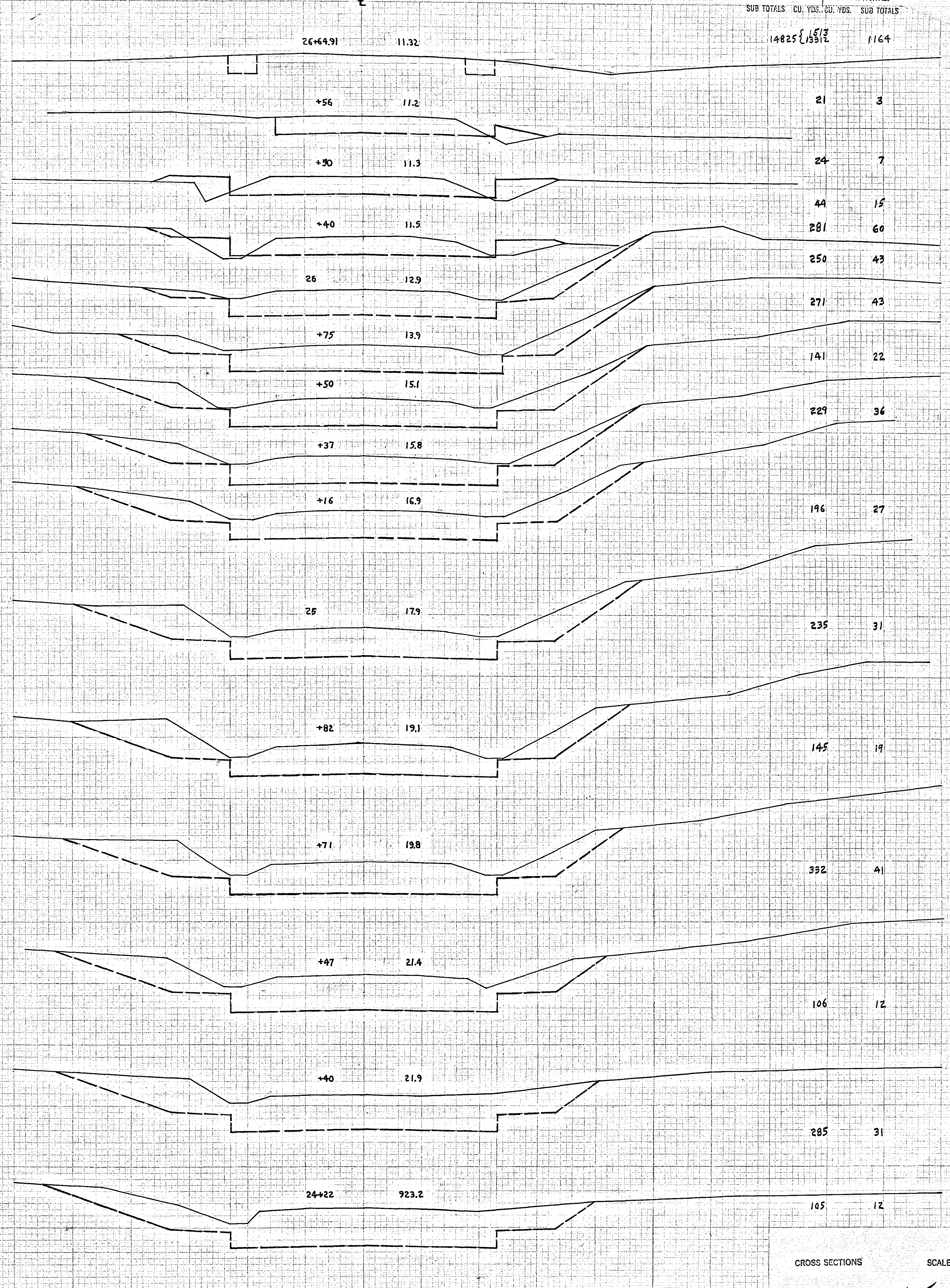
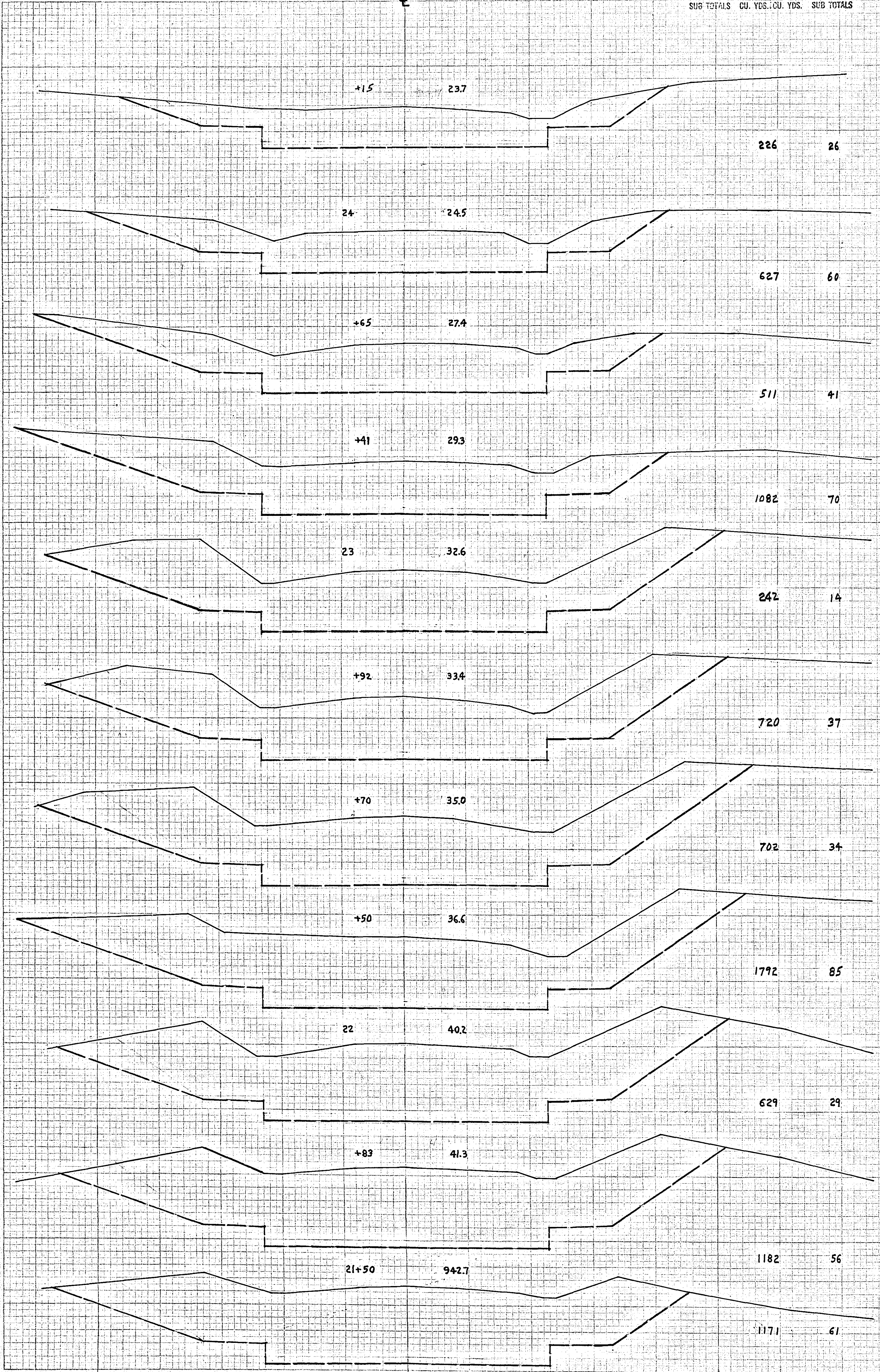
STATION-ELEVATION

EXCAVATION | EMBANKMENT

SUB TOTALS CU. YDS. CU. YDS. SUB TOTALS

NO. OF CHECKS
HOLE NO. 1
DATE 1/15/12
BY J. J. [unclear]

NO. OF CHECKS
HOLE NO. 2
DATE 1/15/12
BY J. J. [unclear]



CROSS SECTIONS SCALE 1" = 10'

STATION-ELEVATION
⊕

EXCAVATION | EMBANKMENT
SUB TOTALS CU. YDS. | CU. YDS. SUB TOTALS

STATION-ELEVATION
⊕

EXCAVATION | EMBANKMENT
SUB TOTALS CU. YDS. | CU. YDS. SUB TOTALS

+74 99.0

36 160

+59 00.2

33 110

+47 01.3

58 147

+27 03.1

94 139

28 05.4

240 305

+42 09.3

25 36

+36 09.6

27 10.9

137 226

+86 11.3

51 66

24+80 911.3

24 13

39 10

31 86.8

66 26

+81 87.2

+70 87.5

26 28

+50 88.2

43 82

+33 89.0

42 62

+27 89.3

17 13

30 90.6

79 52

+50 93.4

101 185

+24 95.1

38 169

29+00 896.9

39 222

51 296

SECTION CONT. ON SHEET 022

70

1/4" = 1' SEE PLAN

CROSS SECTIONS SCALE 1" = 10'

DATE: 10/1/50
BY: J. W. B. / J. W. B.
CHECKED: J. W. B. / J. W. B.
APPROVED: J. W. B. / J. W. B.

DATE: 10/1/50
BY: J. W. B. / J. W. B.
CHECKED: J. W. B. / J. W. B.
APPROVED: J. W. B. / J. W. B.

STATION-ELEVATION

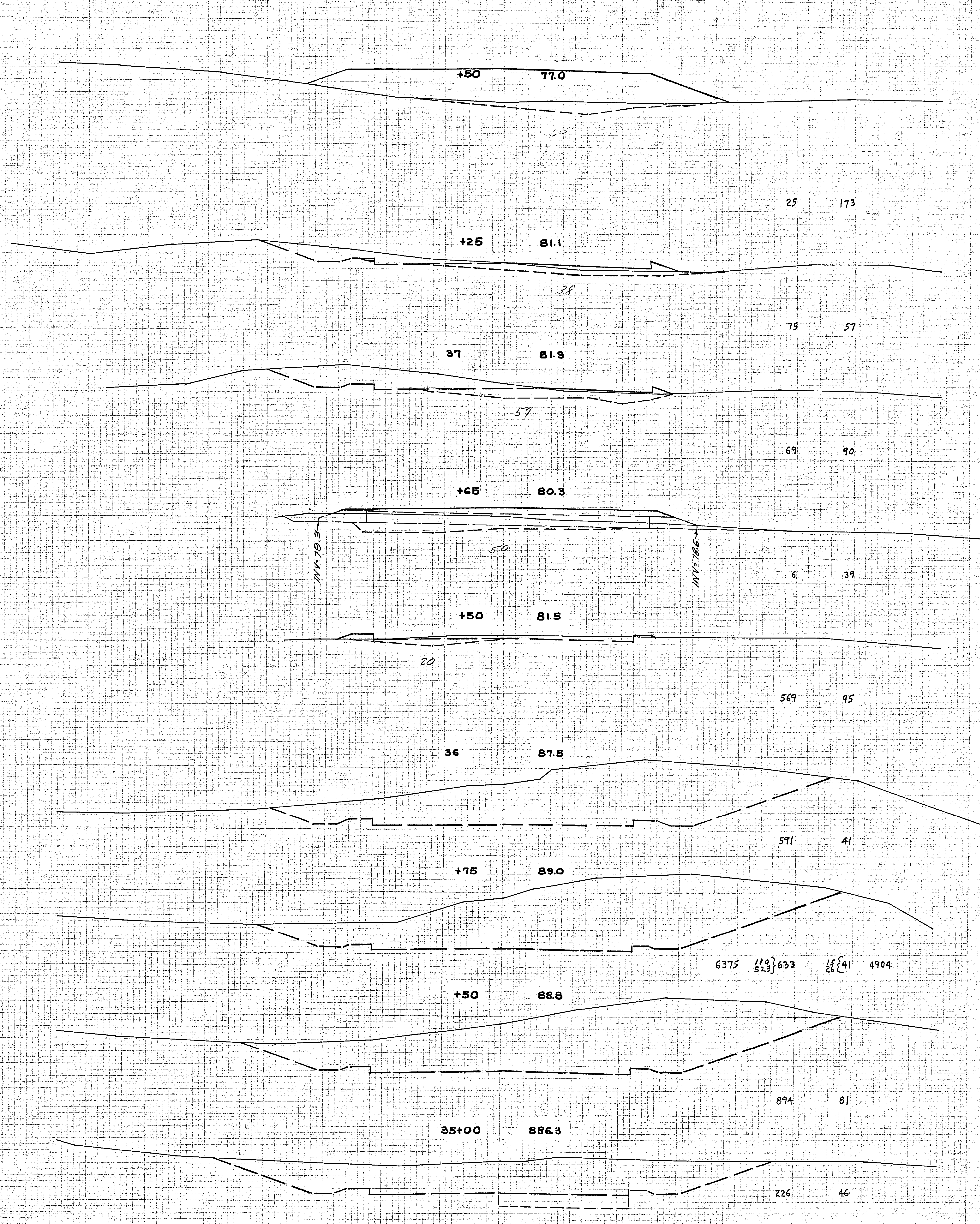
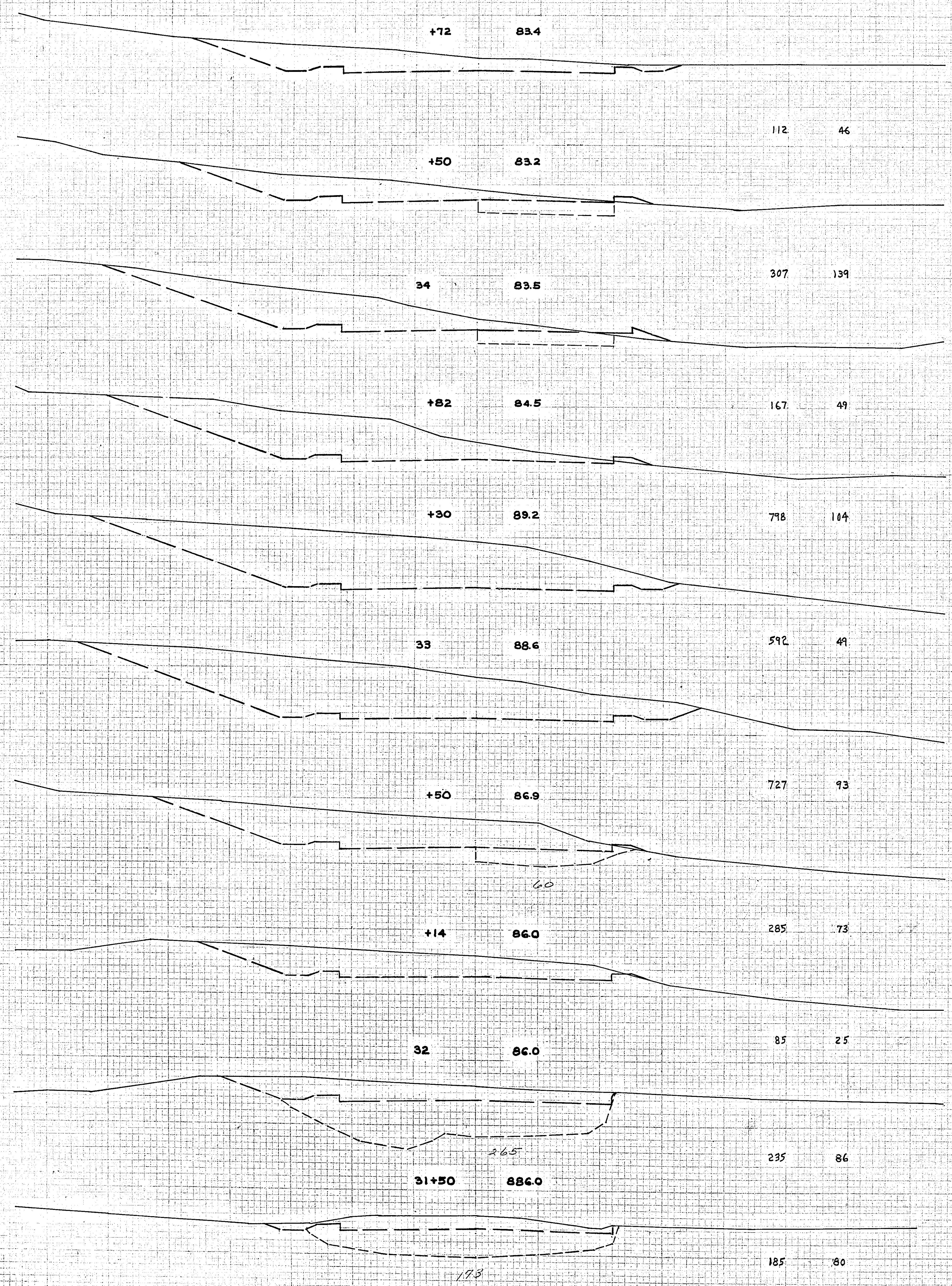
±

EXCAVATION | EMBANKMENT
SUB TOTALS CU. YDS. | CU. YDS. SUB TOTALS

STATION-ELEVATION

±

EXCAVATION | EMBANKMENT
SUB TOTALS CU. YDS. | CU. YDS. SUB TOTALS



CROSS SECTIONS SCALE 1" = 30'

STATION-ELEVATION

±

EXCAVATION | EMBANKMENT

SUB TOTALS CU. YDS. | CU. YDS. SUB TOTALS

STATION-ELEVATION

±

EXCAVATION | EMBANKMENT

SUB TOTALS CU. YDS. | CU. YDS. SUB TOTALS

+53 88.9

149 33

+33 91.8

337 54

40 91.0

257 41

+15 91.6

679 60

+38 94.2

828 62

39 90.4

349 41

+75 86.7

197 179

+34 80.1

0 334

38 877.9

0 596

+80 91.0

40+66 890.3

42,970 ✓ 15,244 ✓

SHEET # 10 DAYLIGHTING 5380 ✓
SHEET # 9 ENT. RIGHT 201 ✓
37,889 ✓

4334 ✓ 2525 ✓
1809 ✓

1942

36

11

57

21

CROSS SECTIONS

SCALE 1" = 10'

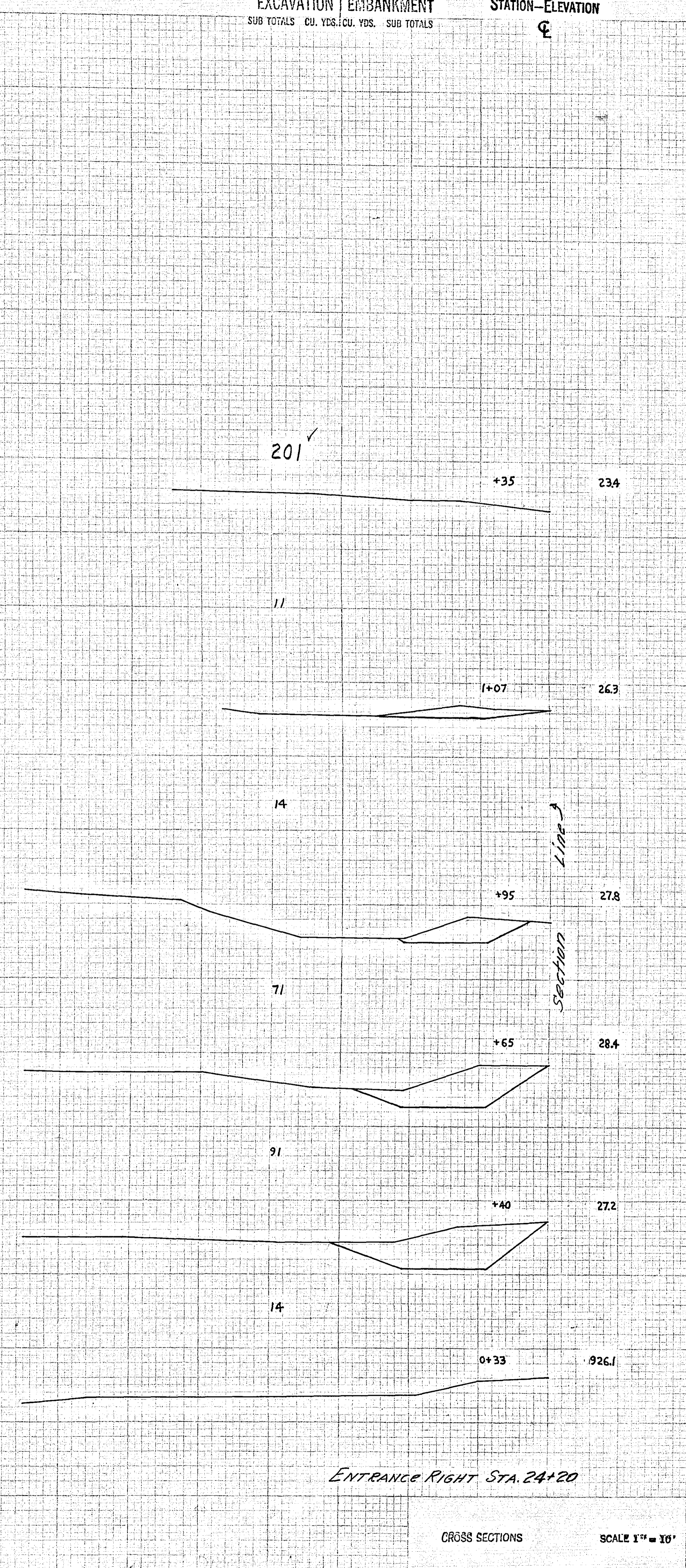
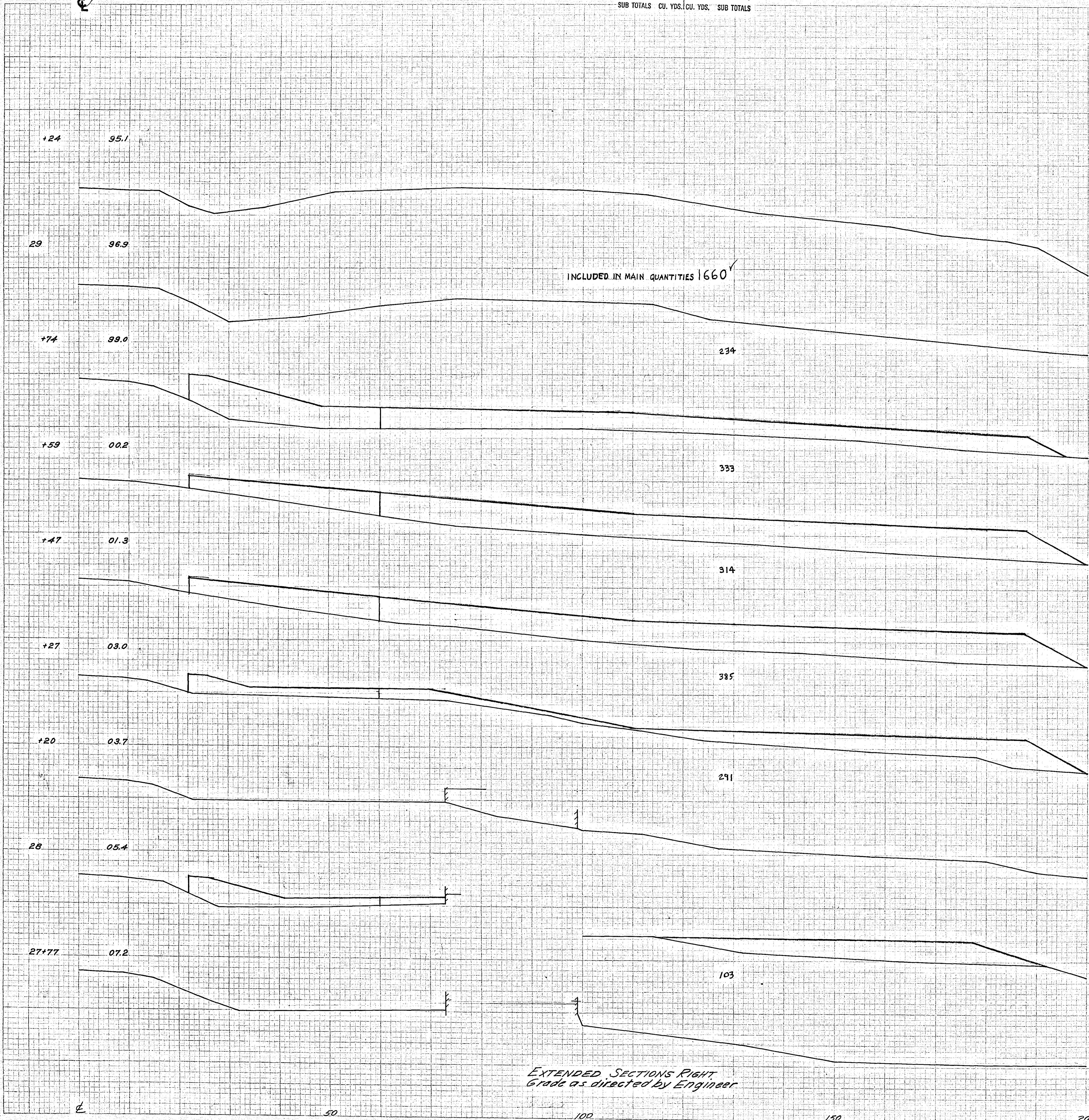
6828

DATE: 11/10/03
SCALE: 1" = 10'
PROJECT: 63-111
SHEET: 12 OF 14

DATE: 11/10/03
SCALE: 1" = 10'
PROJECT: 63-111
SHEET: 12 OF 14

NO. OF SHEETS
NO. OF BOOKS
SURVEY
DATE

NO. OF SHEETS
NO. OF BOOKS
SURVEY
DATE



EXTENDED SECTIONS RIGHT
Grade as directed by Engineer

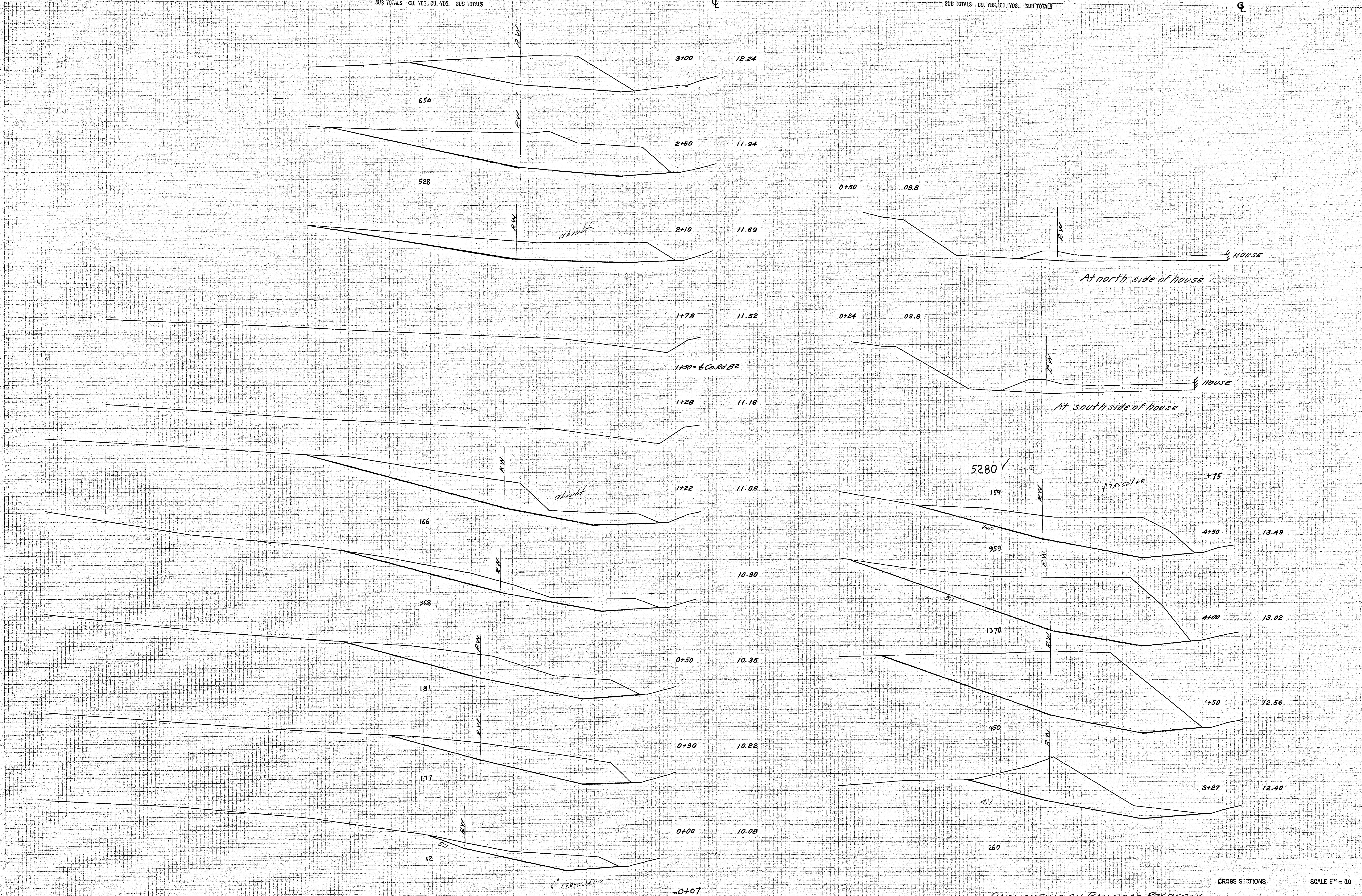
ENTRANCE RIGHT STA. 24+20

CROSS SECTIONS SCALE 1" = 10'

6828

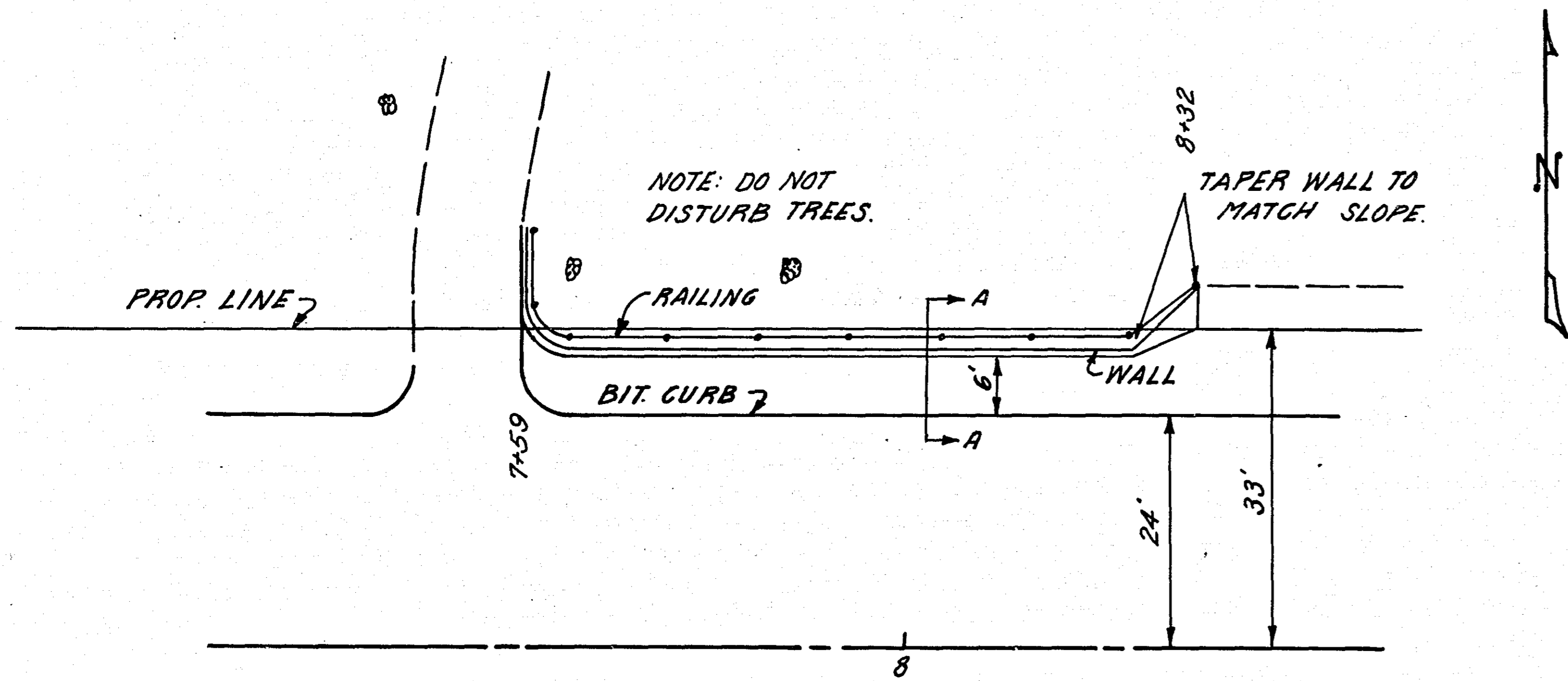
NO.	DATE
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2	10/1/51
3	10/1/51
4	10/1/51
5	10/1/51
6	10/1/51
7	10/1/51
8	10/1/51
9	10/1/51
10	10/1/51

NO.	DATE
1	10/1/51
2	10/1/51
3	10/1/51
4	10/1/51
5	10/1/51
6	10/1/51
7	10/1/51
8	10/1/51
9	10/1/51
10	10/1/51



CROSS SECTIONS SCALE 1" = 10'

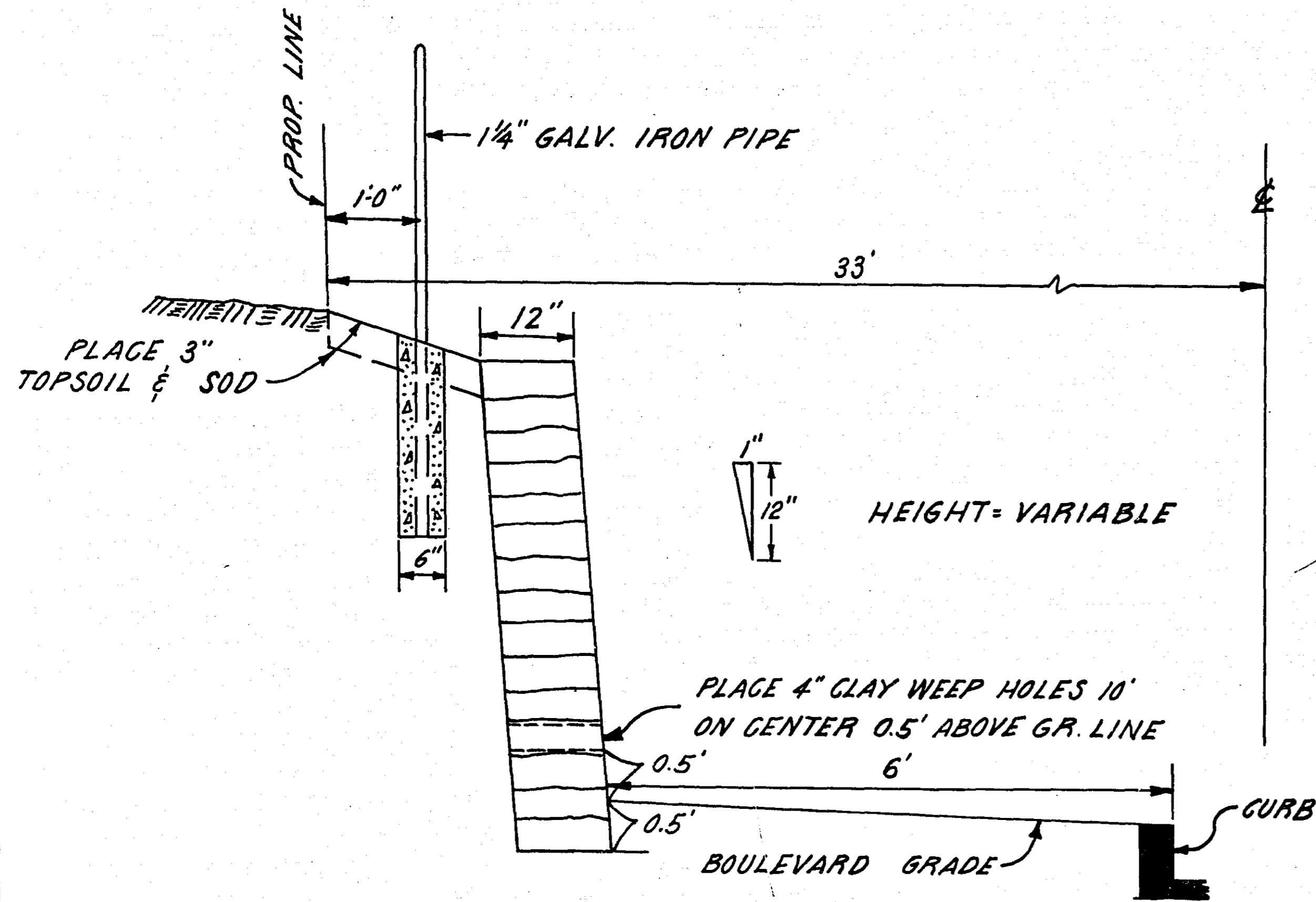
6828



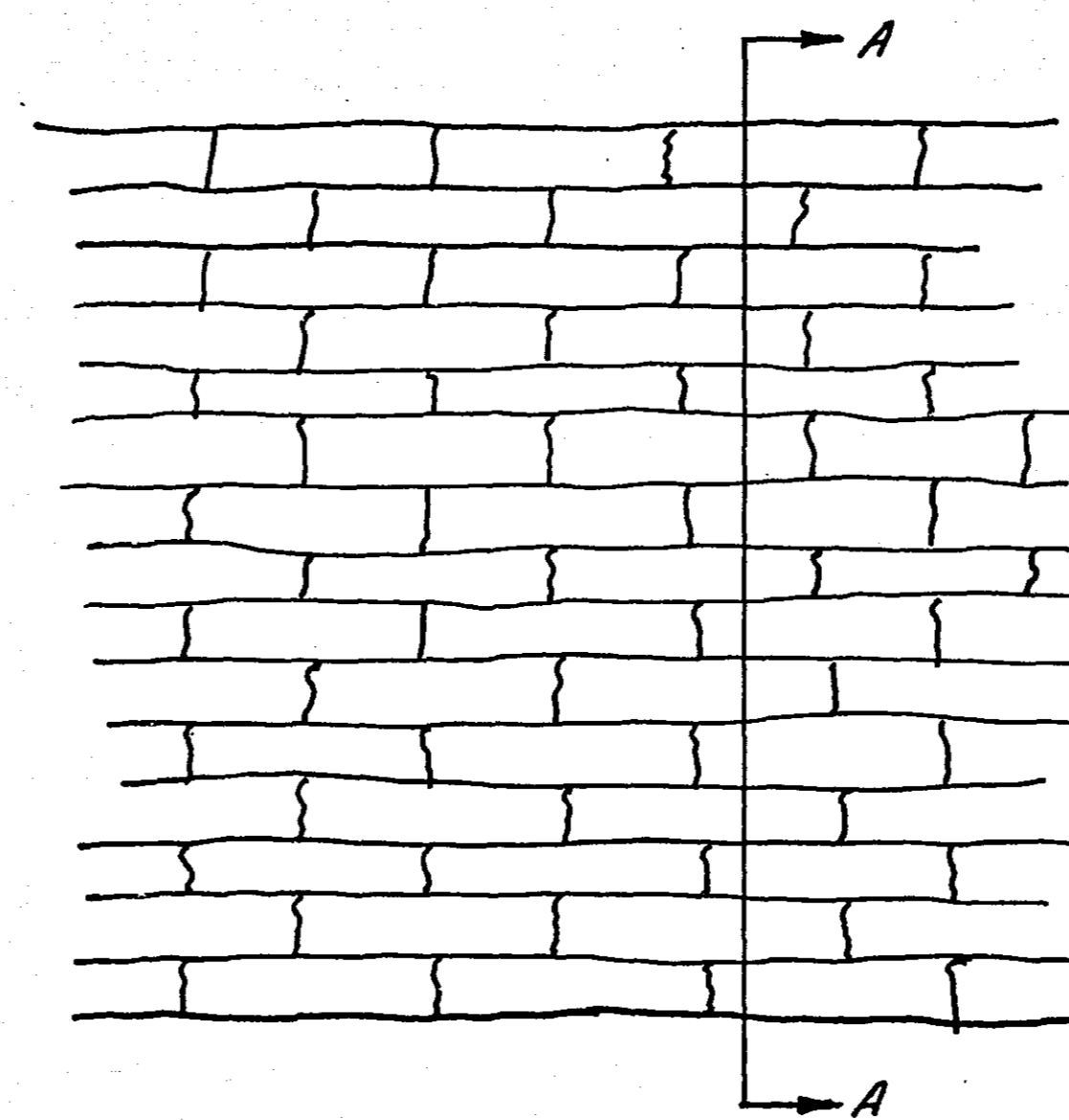
PLAN
SCALE: 1"=50'

MORTAR RUBBLE MASONRY WALL

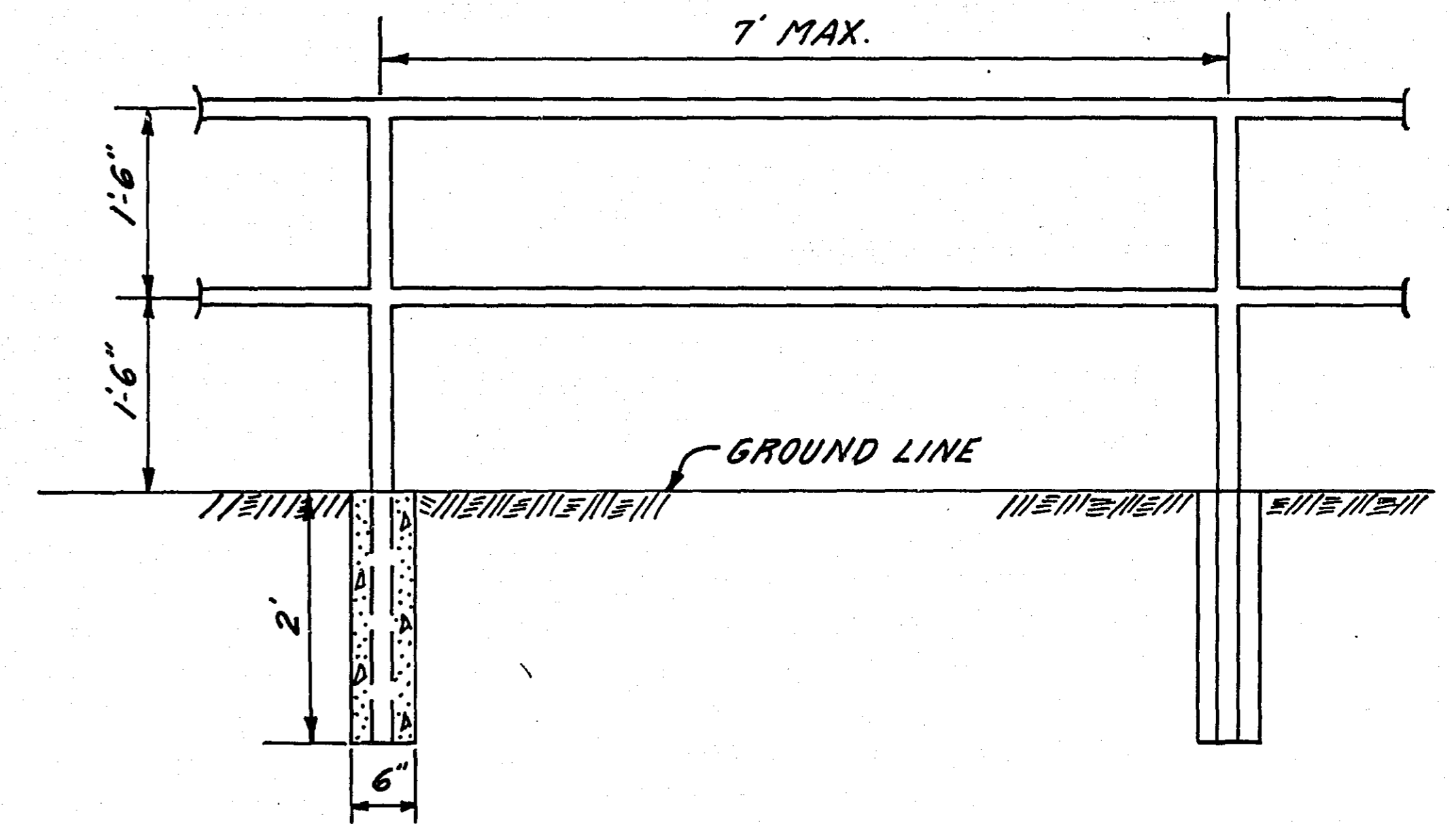
LT. STA. 7+59 TO LT. STA. 8+32
DRAWING FOR SUPPLEMENTAL AGREEMENT NO.1
COUNTY PROJECT NO. 63-111



SECTION A-A
SCALE: 1"=2'



FRONT VIEW
SCALE: 1"=2'



RAILING DETAIL
SCALE: 1"=2'

6828

Sheet 14A