

5016

STATE OF OHIO
 DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS
 DIVISION OF HIGHWAYS
 BUREAU OF CONSTRUCTION

FREMONT · OAK - HARBOR · ROAD

I.C.H. 280 - SEC. "A" - PET. No. 4200
 SANDUSKY COUNTY
 RICE TOWNSHIP — MARCH, 1922.

File #164

CONVENTIONAL SIGNS

County Line	-----
Township Line	- - - - -
Section Line	- · - · -
Property Line not fenced	-----
Center Line	-----
City or Village Line	-----
Fence	— x — x — x — x —
Telephone or Telegraph	T T T T T T T
Steam Railroad	=====
Electric Line	-----

INDEX

Title Page	p. 1
Typical Cross Section	p. 2
Plans and Profile	p. 3-8
Cross Sections	p. 9-13
Structural Plans	p. 14-17
Summary	p. 18

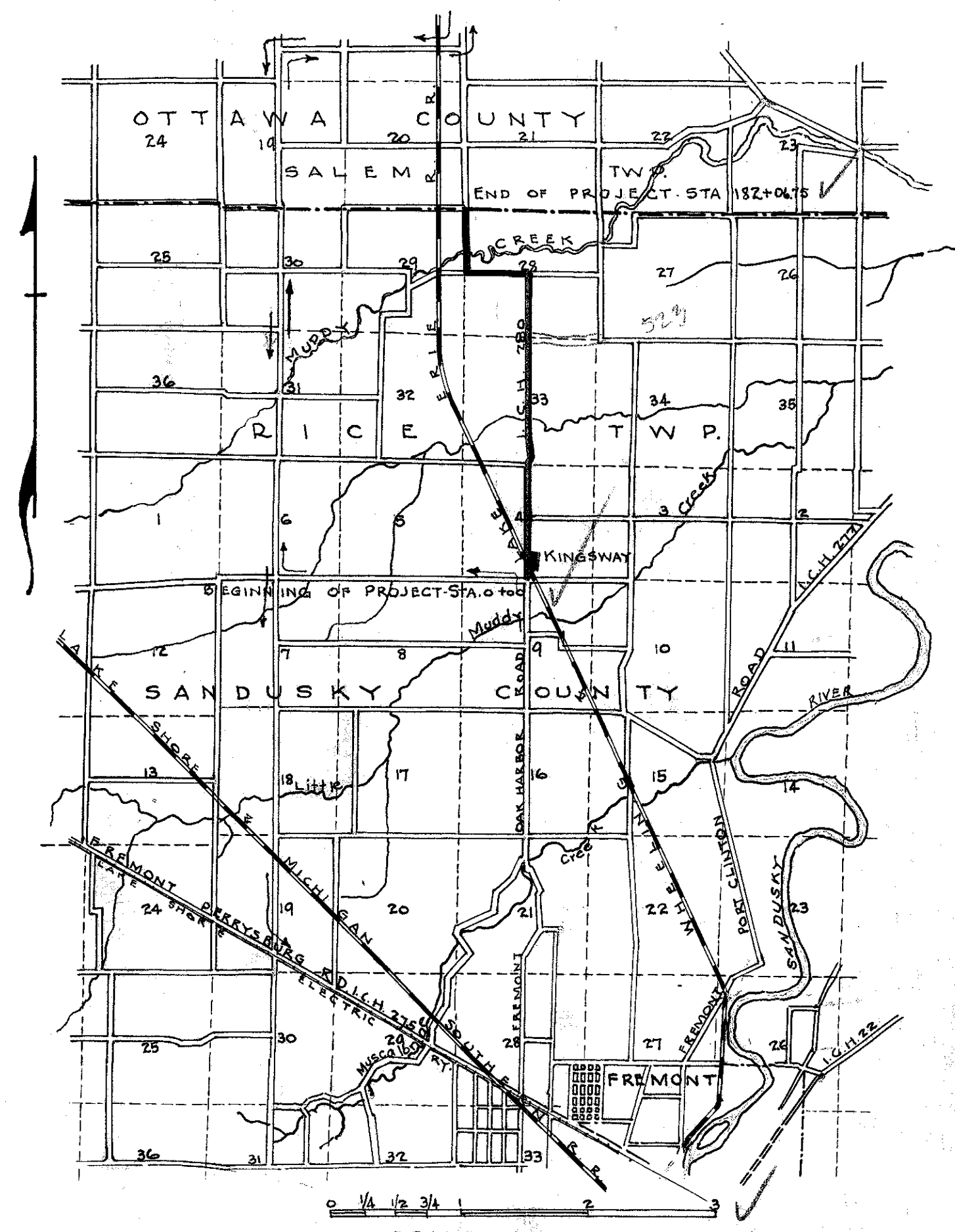
The Standard Specifications of the State of Ohio Division of Highways in force on date of contract will govern this improvement.

I hereby approve these plans and declare that the making of this improvement will require the closing to traffic of the highway and that detours will be provided as shown on the plan.

We, the Commissioners of Sandusky County hereby approve these plans and certify that the right-of-way is available for the construction, maintenance and repair of the above highway.

R. H. Rogers
H. J. Putnam
J. L. Clarke

Date 4-12-1922. County Commissioners.



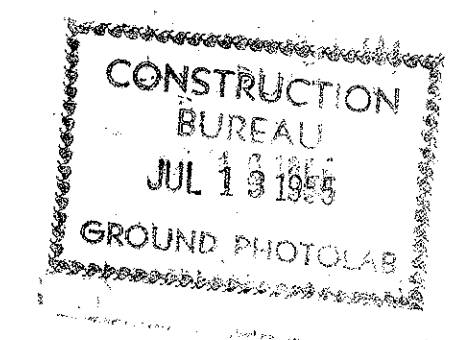
SCALE OF MILES

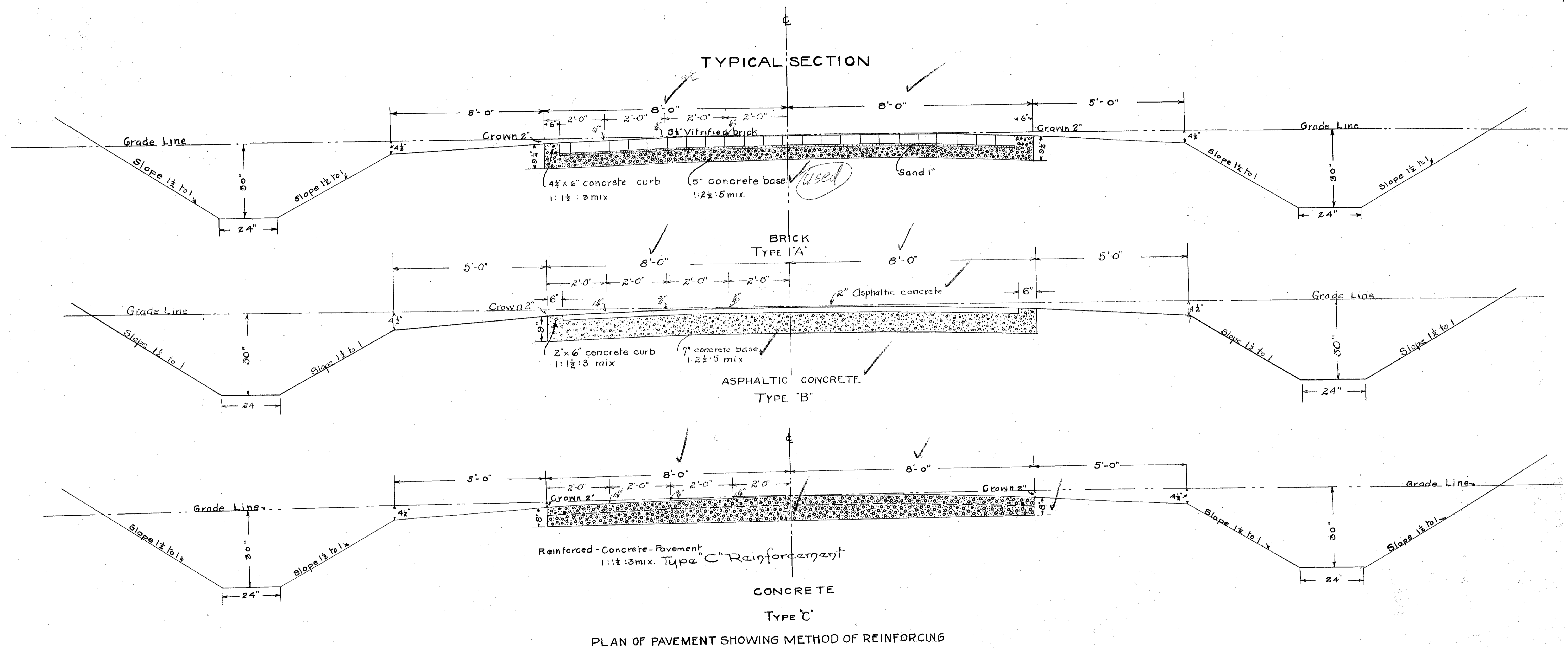
LOCATION PLAN

PORTION TO BE IMPROVED ————
 DETOURS SHOWN THUS ————

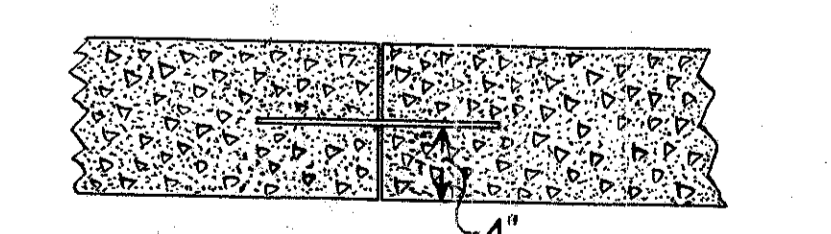
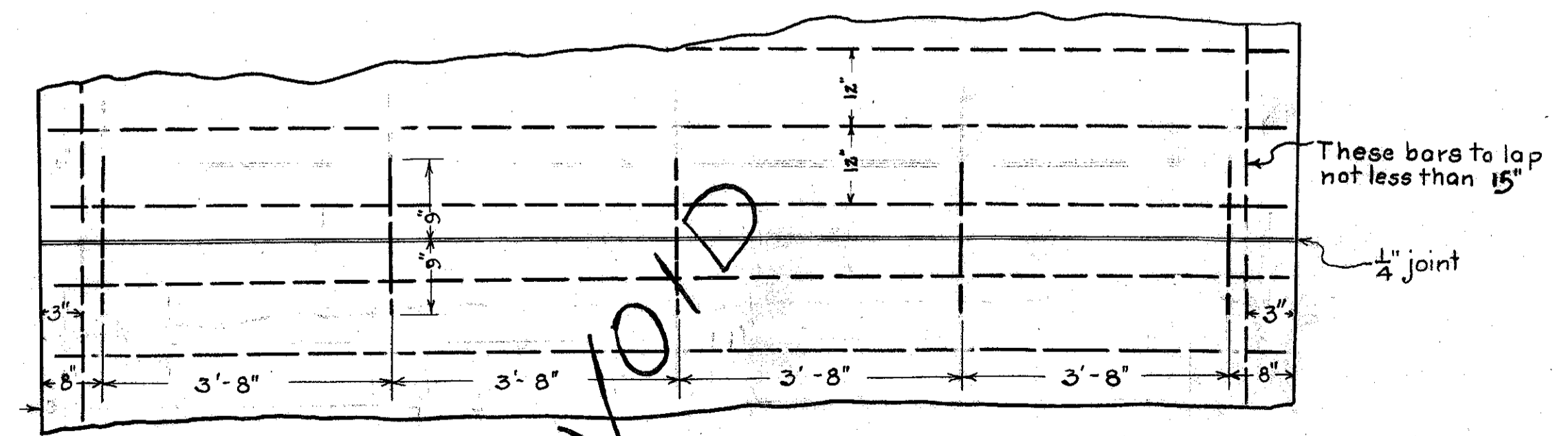
SCALES
 Plan 1" = 100' Profile (Vertical) 1" = 10'
 Cross Sections 1" = 5' Profile (Horizontal) 1" = 100'

Approved Date 4-15-1922 *L. H. Wisman* Resident Engineer
 Approved Date April 19 1922 *J. H. ...* Division Engineer
 Approved Date 6/2 1922 *J. H. ...* State Highway Engineer
 Approved Date 5/2 1922 *Lem C. Glenick* Director of Highways and Public Works



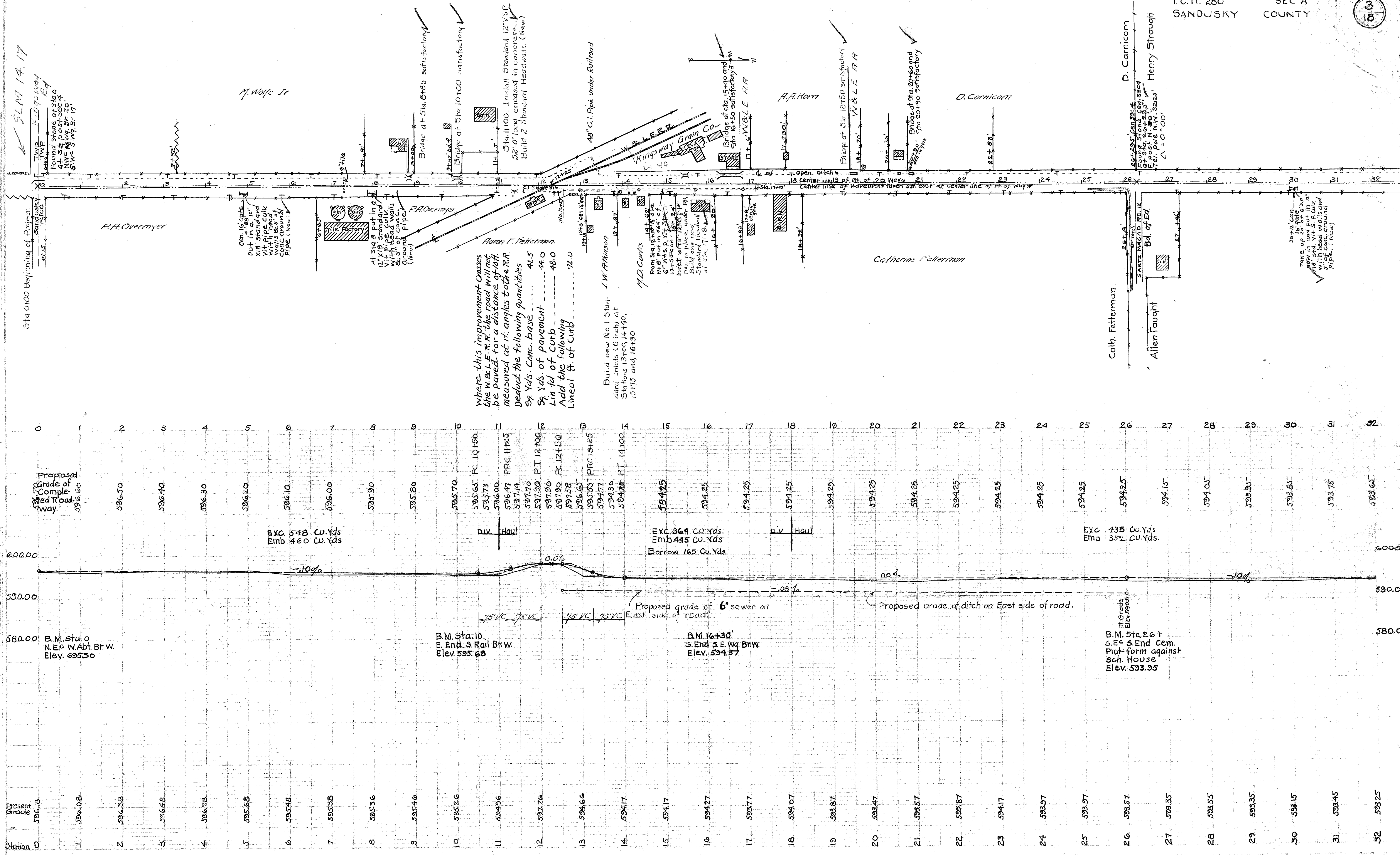


Note:- Excavation quantities calculated from cross-sections as plotted for Type "A" pavement. Excavation for Type "B" and Type "C" pavement is estimated to be the same as for Type "A".



All reinforcing bars to be 1/2" spaced as shown above.
Dowel bars to be 1/2" round 18" long and spaced as shown.
Dowel bars to be wrapped with one thickness of tar paper.

SLM 14.17
Sta 0+00 Beginning of Project



Station	Present Grade	Proposed Grade of Roadway	Excavation/Embankment
0	596.18	596.60	
1	596.08	596.50	
2	596.38	596.40	
3	596.48	596.30	
4	596.28	596.20	
5	595.68	596.10	
6	595.48	596.00	
7	595.38	595.90	
8	595.36	595.80	
9	595.46	595.70	
10	595.26	595.65	Exc. 548 Cu. Yds Emb. 460 Cu. Yds
11	594.96	596.00	
12	592.76	597.90	
13	594.66	597.90	
14	594.17	594.25	
15	594.17	594.25	
16	594.27	594.25	
17	593.77	594.25	
18	594.07	594.25	
19	593.87	594.25	
20	593.47	594.25	
21	593.57	594.25	
22	593.87	594.25	
23	594.17	594.25	
24	593.97	594.25	
25	593.97	594.25	
26	593.57	594.25	
27	593.35	594.15	
28	593.55	594.05	
29	593.35	593.95	
30	593.15	593.65	
31	593.45	593.75	
32	593.25	593.65	

Where this improvement crosses the W. & L. F. R.R. the road will not be paved for a distance of 40 ft measured at rt. angles to the R.R. Deduct the following quantities:
 54 Yds. Conc. base 42.5
 54 Yds. of pavement 44.0
 Lin ft. of curb 48.0
 Add the following:
 Lineal ft. of curb 72.0

Build new No. 1 Station and Inlets (6 inch) at Stations 13+00, 14+40, 15+75 and 16+90

Proposed grade of 6" sewer on East side of road

Proposed grade of ditch on East side of road.

B.M. Sta. 26+ S.E.C. S. End Cem. Plat-form against Sch. House Elev. 593.95

B.M. Sta. 10 E. End S. Rail Br. W. Elev. 595.68

B.M. 16+30 S. End S.E. Wq. Br. W. Elev. 594.37

Ditch Grade Elev. 590.5

Exc. 548 Cu. Yds
Emb. 460 Cu. Yds

Exc. 369 Cu. Yds
Emb. 445 Cu. Yds
Borrow. 165 Cu. Yds

Exc. 435 Cu. Yds
Emb. 352 Cu. Yds

30+12 Cen. take up 16 gals. of oil now in and put in 18" std. vit. S.P. curb with head walls and pipe. (New)

P.A. Overmyer

M. Wolfe Jr

A.A. Horn

D. Carnicom

Cath. Fetterman

Allen Fought

Catherine Fetterman

J.W. Atkinson

M.D. Curtis

Kingsway Grain Co.

48" C.I. Pipe under Railroad

Sta. 11+00. Install Standard 12" VSP 32'-0" long encased in concrete. Build 2 Standard Headwalls. (New)

Bridge at Sta. 8+65 satisfactory

Bridge at Sta. 10+00 satisfactory

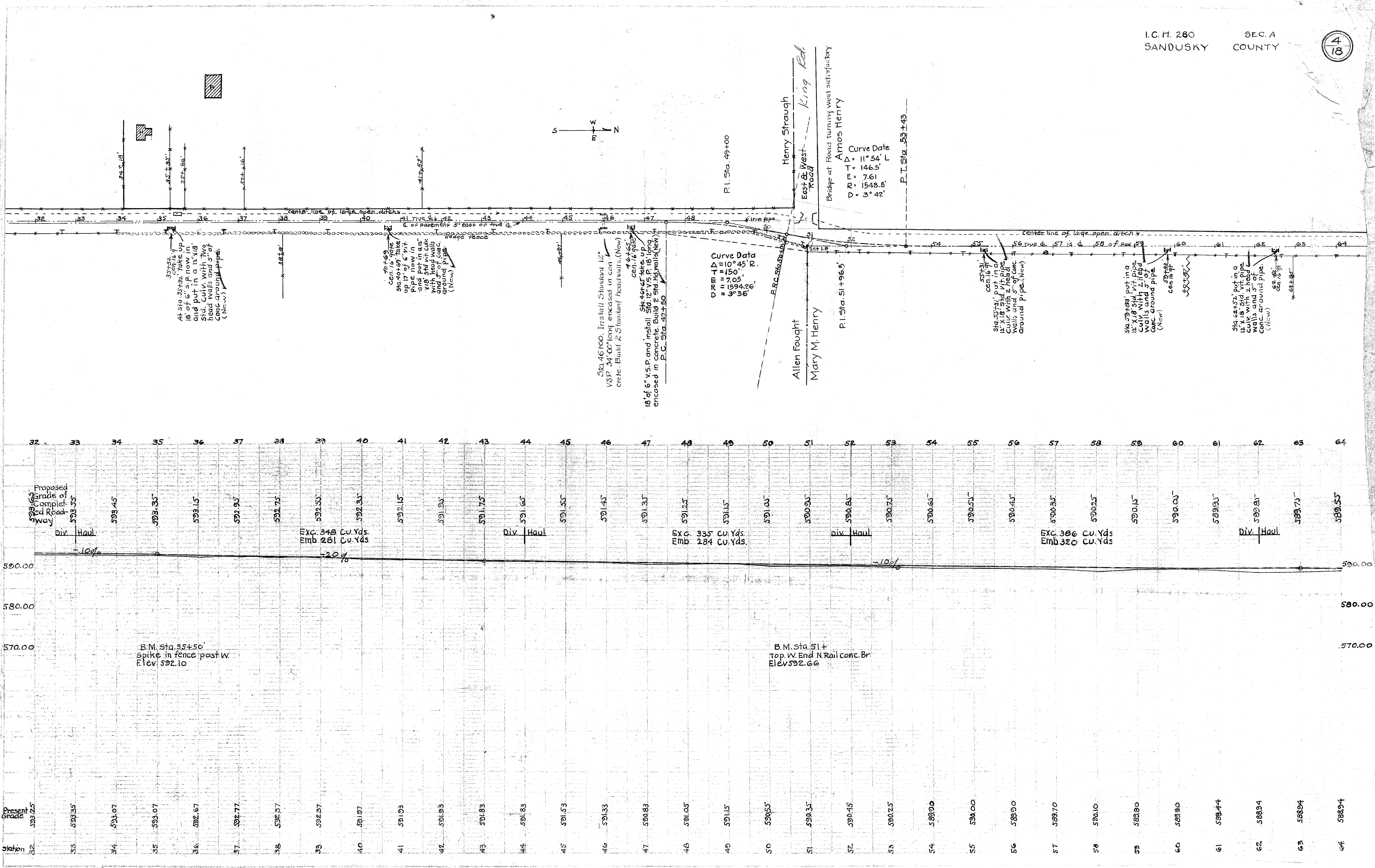
Bridge at Sta. 15+40 and Sta. 16+50 satisfactory

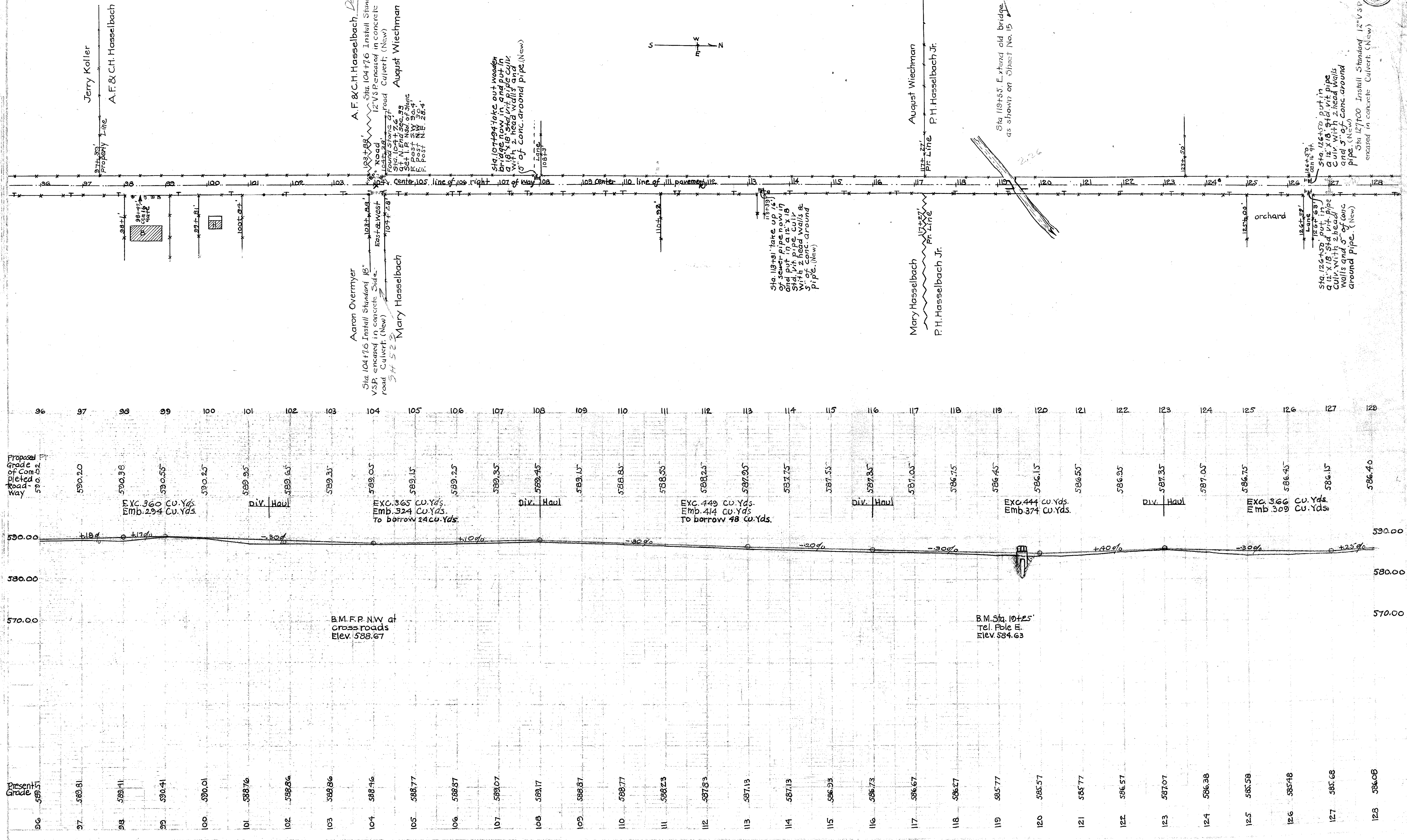
Bridge at Sta. 20+60 and Sta. 21+90 satisfactory

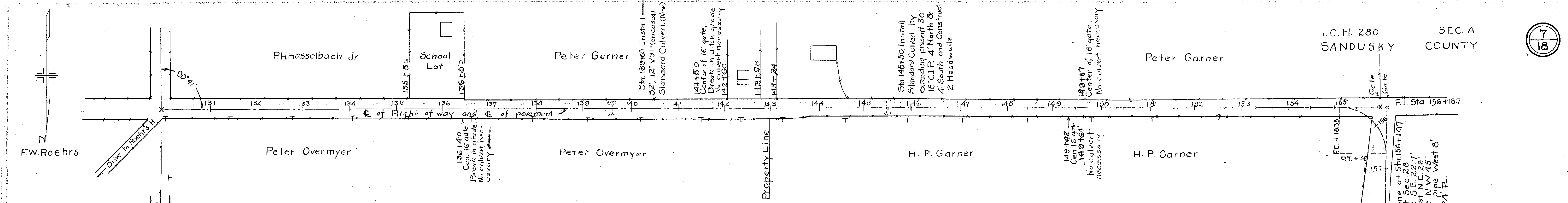
26+29.5' Cen. Sec. 4 Found Stone Cen. Sec. 4 Prop. N. 50° 00' E. Pole N.W. 32x33' Δ = 0° 00'

TWP Kingsway
Found Stone Cen. Sec. 4
Prop. N. 50° 00' E.
Pole N.W. 32x33'
Δ = 0° 00'

Sta. 0+00 Beginning of Project







Curve at Sta. 129+49.7 to Sta. 130+98.5
 PI = 130+48.5 R = 100'
 Δ = 89° 19' D = 60° 0'
 T = 98.84' L = 148.8'

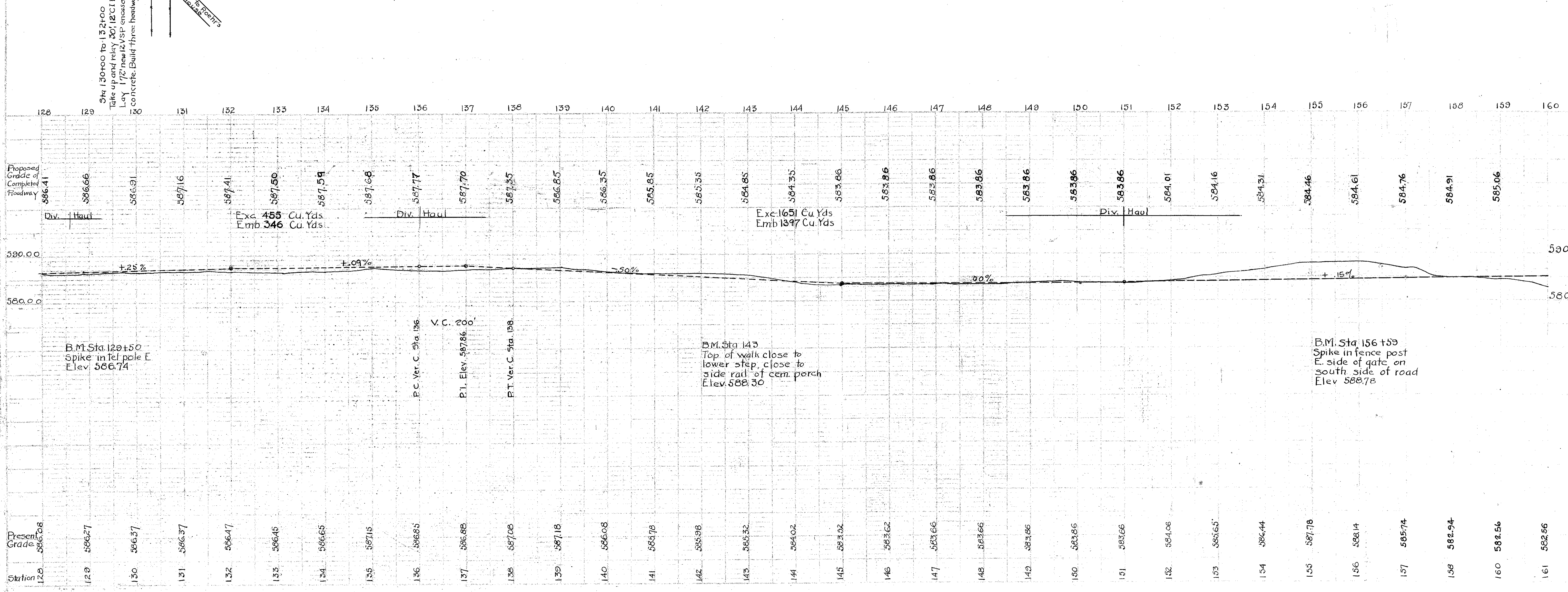
Left			Right		
Edge of Pavement	Width	Station	Grade Elevation	Width	Edge of Pavement
586.50	8'-0"	128+39.7	586.67	8'-0"	586.50
586.56	9'-6"	129+24.7	586.73	"	587.10
586.62	12'-4"	129+49.7	586.79	"	587.54
586.68	14'-10"	129+74.7	586.85	"	587.95
586.74	16'-00"	129+99.7	586.91	"	588.42
586.80	16'-00"	130+24.1	586.97	"	588.88
586.86	16'-00"	130+48.5	587.03	"	589.34
586.93	14'-10"	130+73.5	587.10	"	589.80
586.99	12'-4"	130+98.5	587.16	"	590.21
587.05	9'-6"	131+23.5	587.22	"	590.59
587.11	8'-0"	131+48.5	587.28	"	591.11

122.25 Cu. Yds. of extra pavement

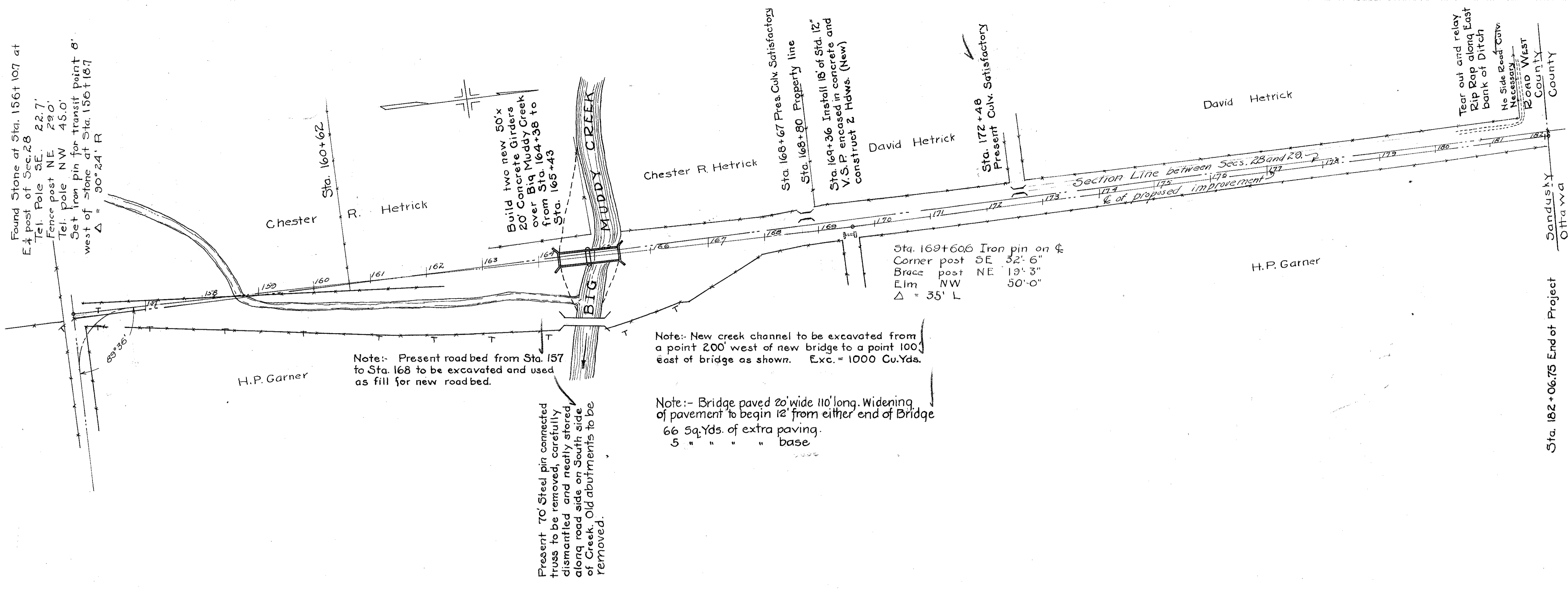
Curve at Sta. 155+18.35 to Sta. 156+69
 PI = 156+18.7 R = 100'
 Δ = 90° 24' D = 60° 0'
 T = 100.35' L = 150.65'

Left			Right		
Edge of Pavement	Width	Station	Grade Elevation	Width	Edge of Pavement
584.25	8'-0"	154+68.4	584.41	8'-0"	584.25
584.57	"	154+93.4	584.45	2'-6"	584.29
584.97	"	155+18.4	584.49	12'-4"	584.33
585.44	"	155+43.4	584.52	14'-10"	584.36
585.91	"	155+68.4	584.56	16'-0"	584.40
585.96	"	156+00	584.61	16'-0"	584.43
585.99	"	156+19.0	584.64	16'-0"	584.48
585.60	"	156+44.0	584.68	14'-10"	584.52
585.19	"	156+69.0	584.71	12'-4"	584.55
584.87	"	156+94.0	584.75	9'-6"	584.59
584.63	"	157+19.0	584.79	8'-0"	584.63

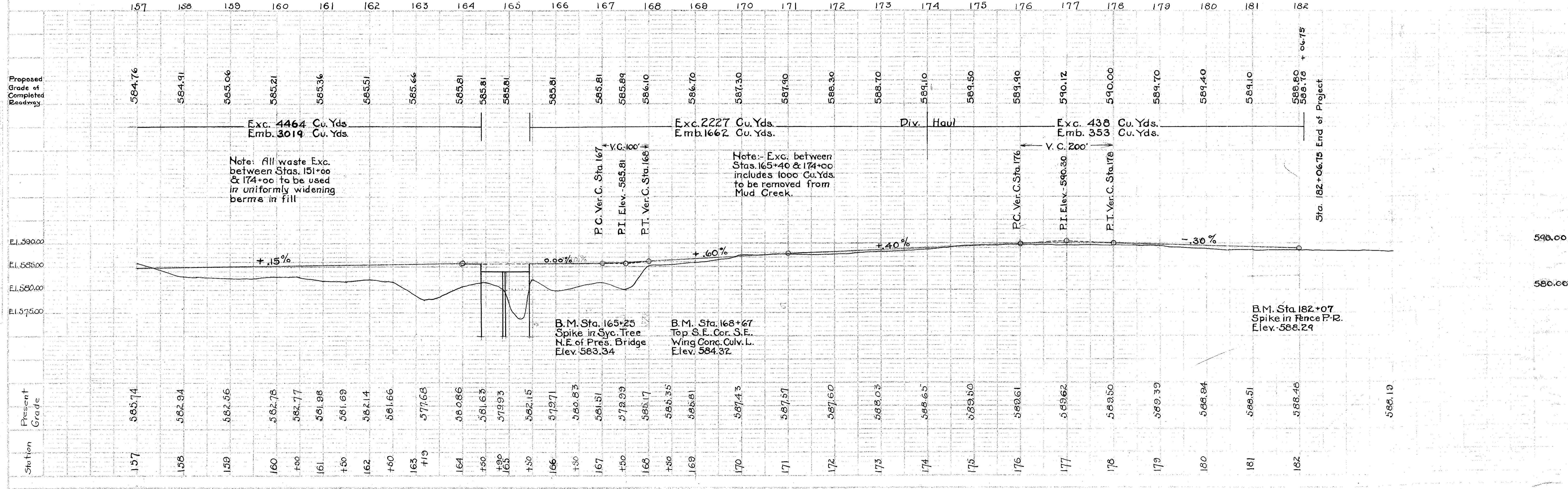
123.3 Cu. Yds. of extra pavement

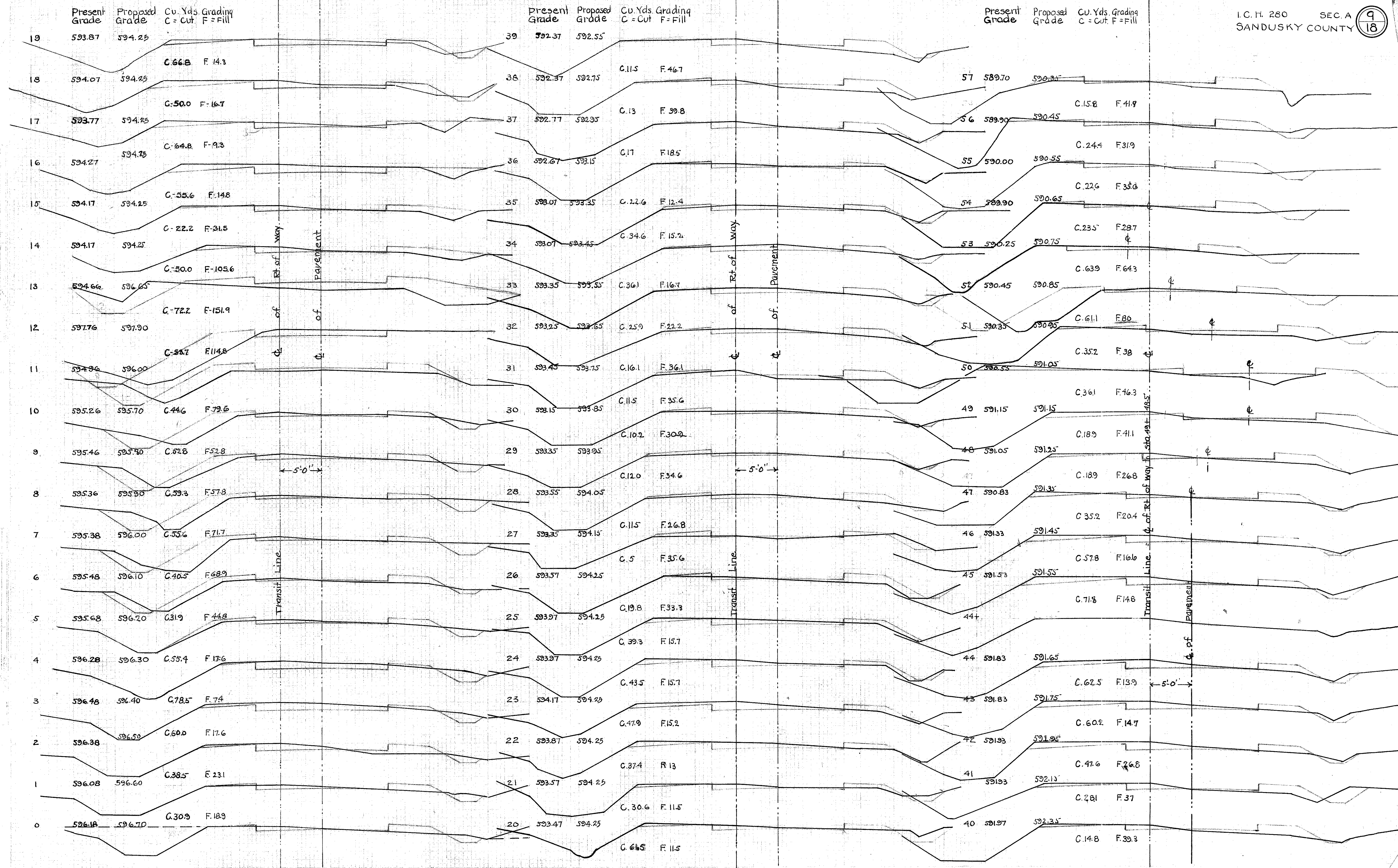


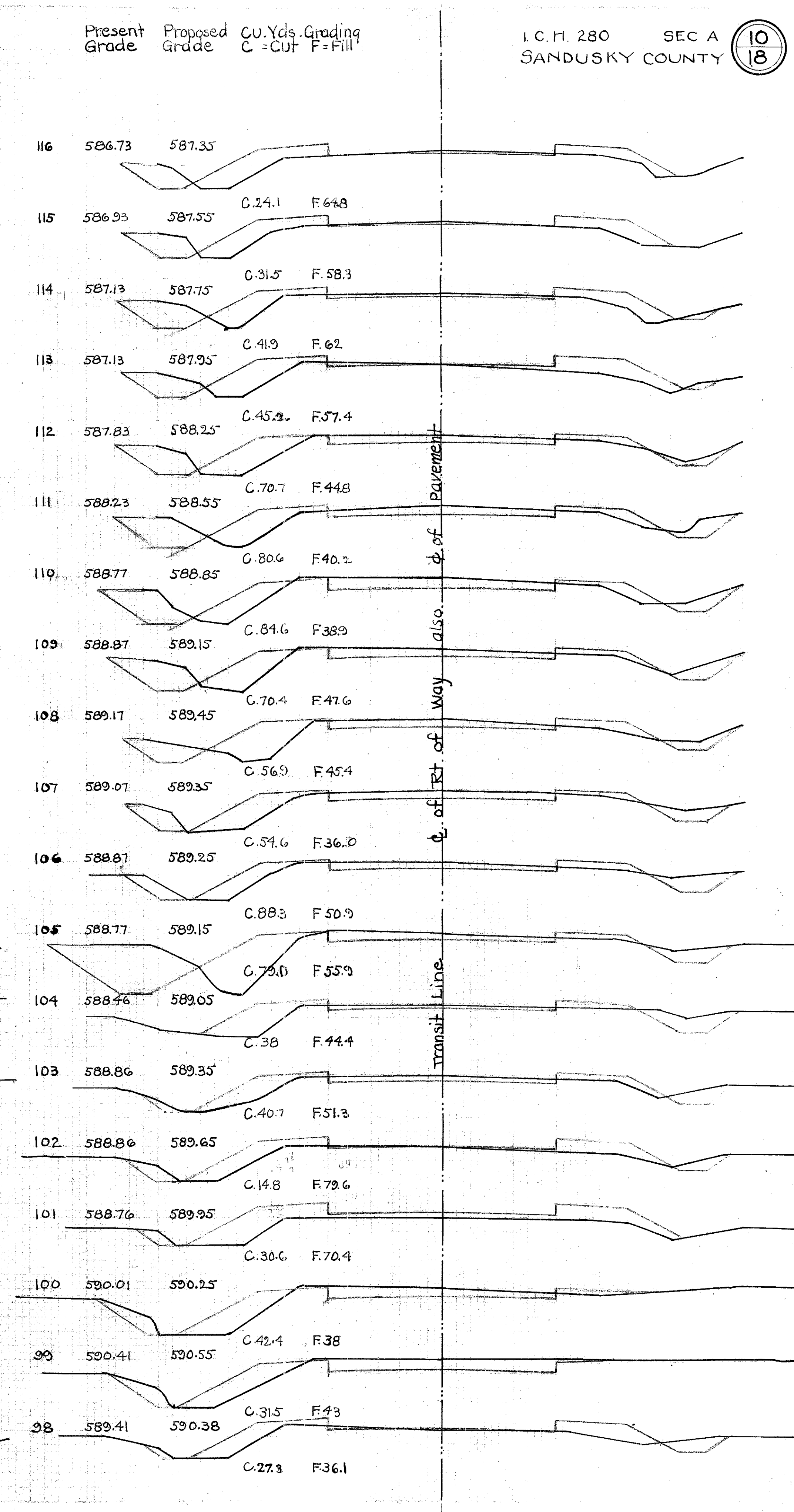
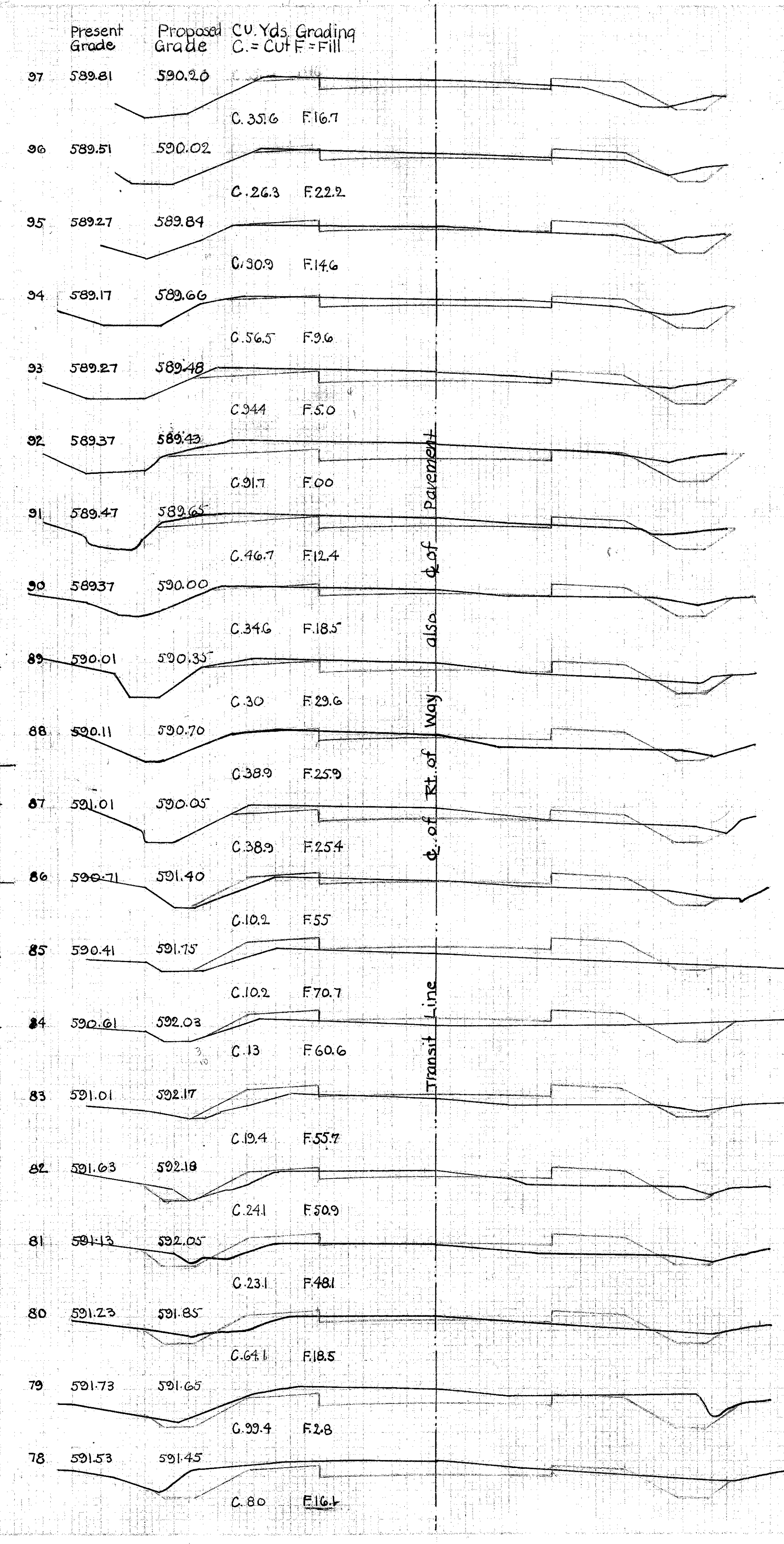
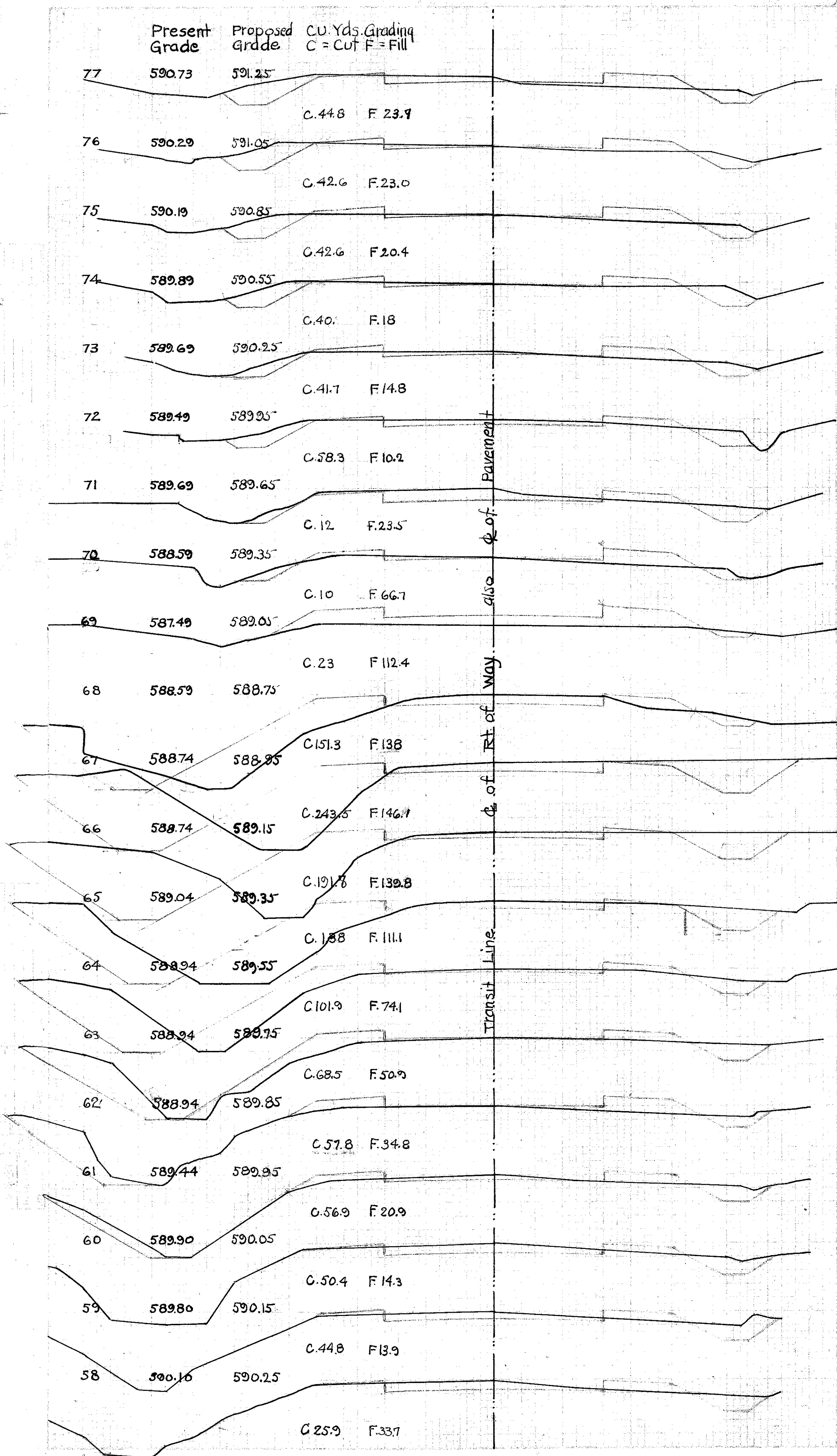
Station	Present Grade	Proposed Grade
128	586.08	586.41
129	586.27	586.66
130	586.37	586.91
131	586.37	587.16
132	586.47	587.41
133	586.45	587.50
134	586.65	587.59
135	587.15	587.68
136	586.85	587.77
137	586.88	587.70
138	587.08	587.35
139	587.18	586.85
140	586.08	586.35
141	583.78	585.85
142	583.98	585.35
143	583.32	584.85
144	584.02	584.35
145	583.32	583.86
146	583.62	583.86
147	583.66	583.86
148	583.66	583.86
149	583.86	583.86
150	583.86	583.86
151	583.66	583.86
152	584.06	584.01
153	585.65	584.16
154	586.44	584.31
155	587.78	584.46
156	588.14	584.61
157	585.74	584.76
158	582.94	584.91
160	582.56	585.06
161	582.56	585.06



Found Stone on County Line at NW corner Sec 28. Sta 182+6.75
 Fence post E 26'-3"
 Walnut tree NW 39'-0"
 Corner post SW 38'-7"
 Set iron pin for transit point 6' East of Stone



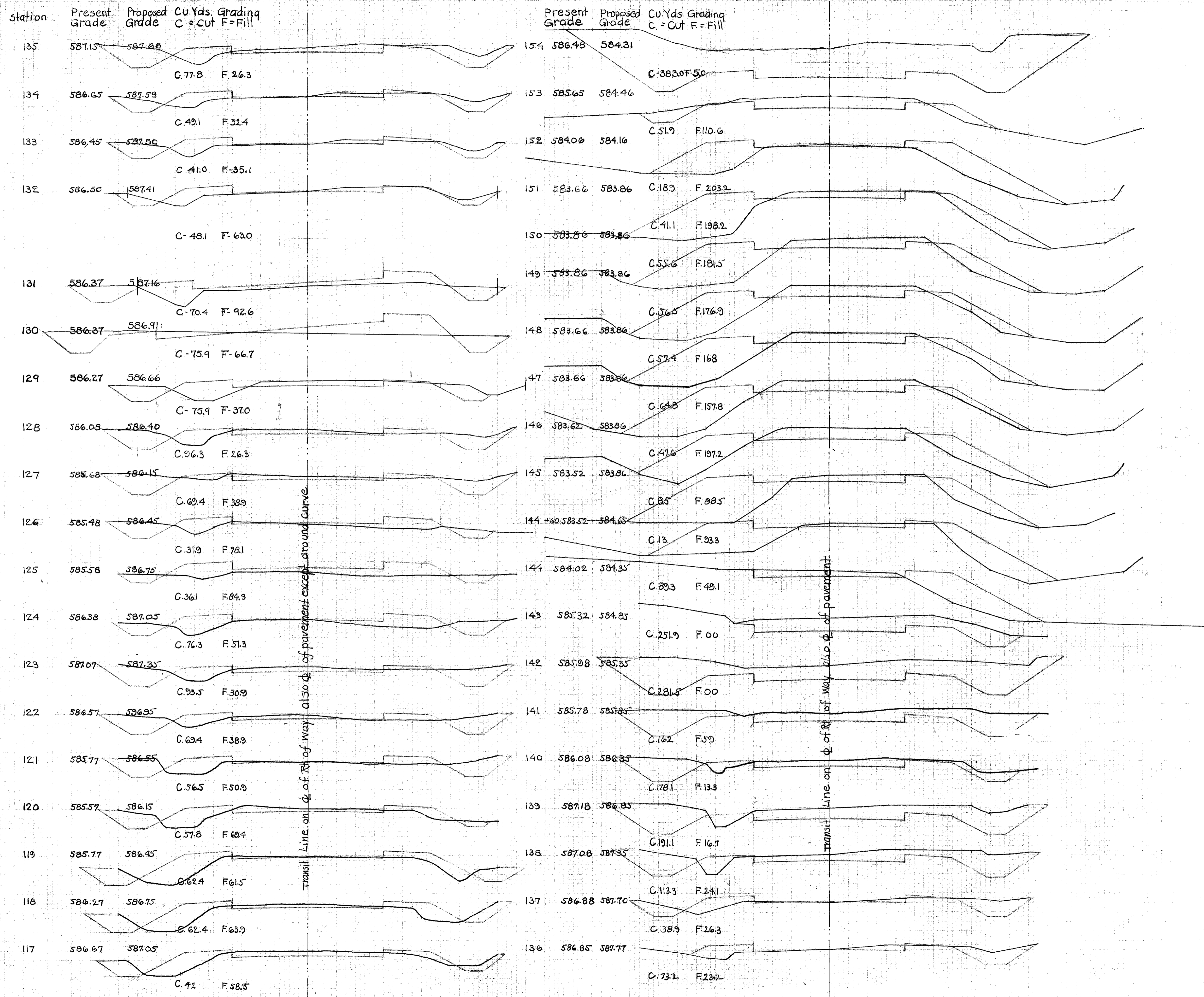




Transit Line
 also
 Q. of Rt. of Way

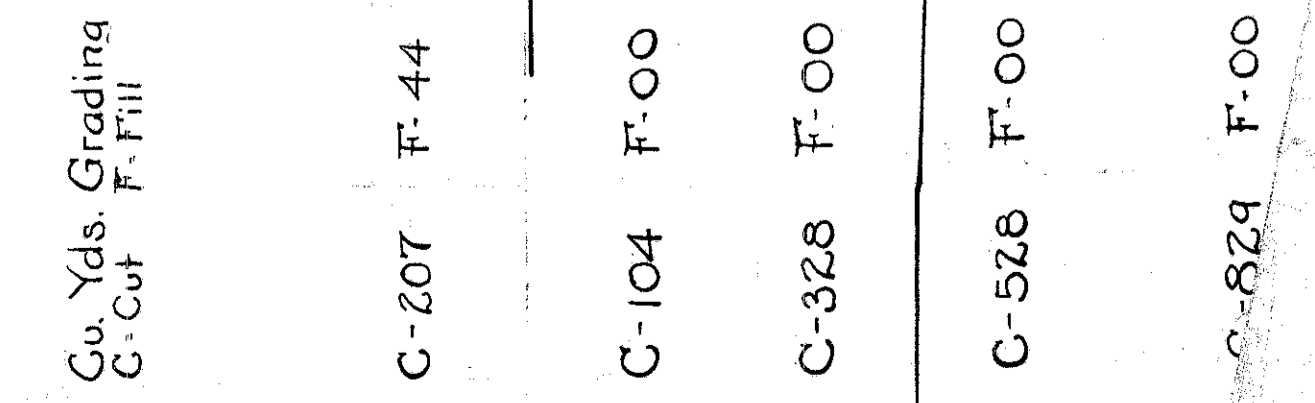
Transit Line
 also
 Q. of Rt. of Way

Transit Line
 also
 Q. of Rt. of Way



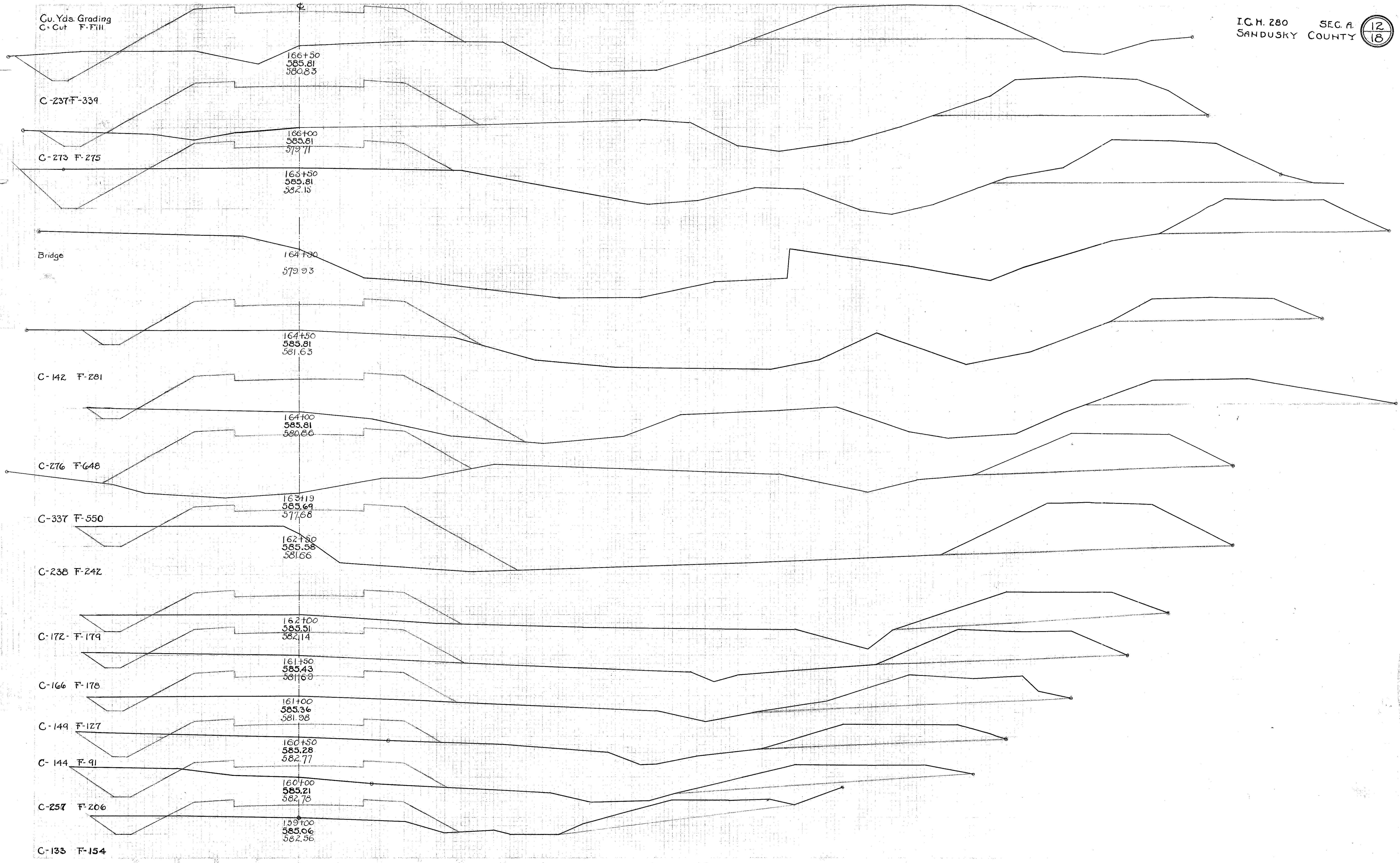
Transit Line on ϕ of R of way also ϕ of pavement except around curve

Transit Line on ϕ of R of way also ϕ of pavement



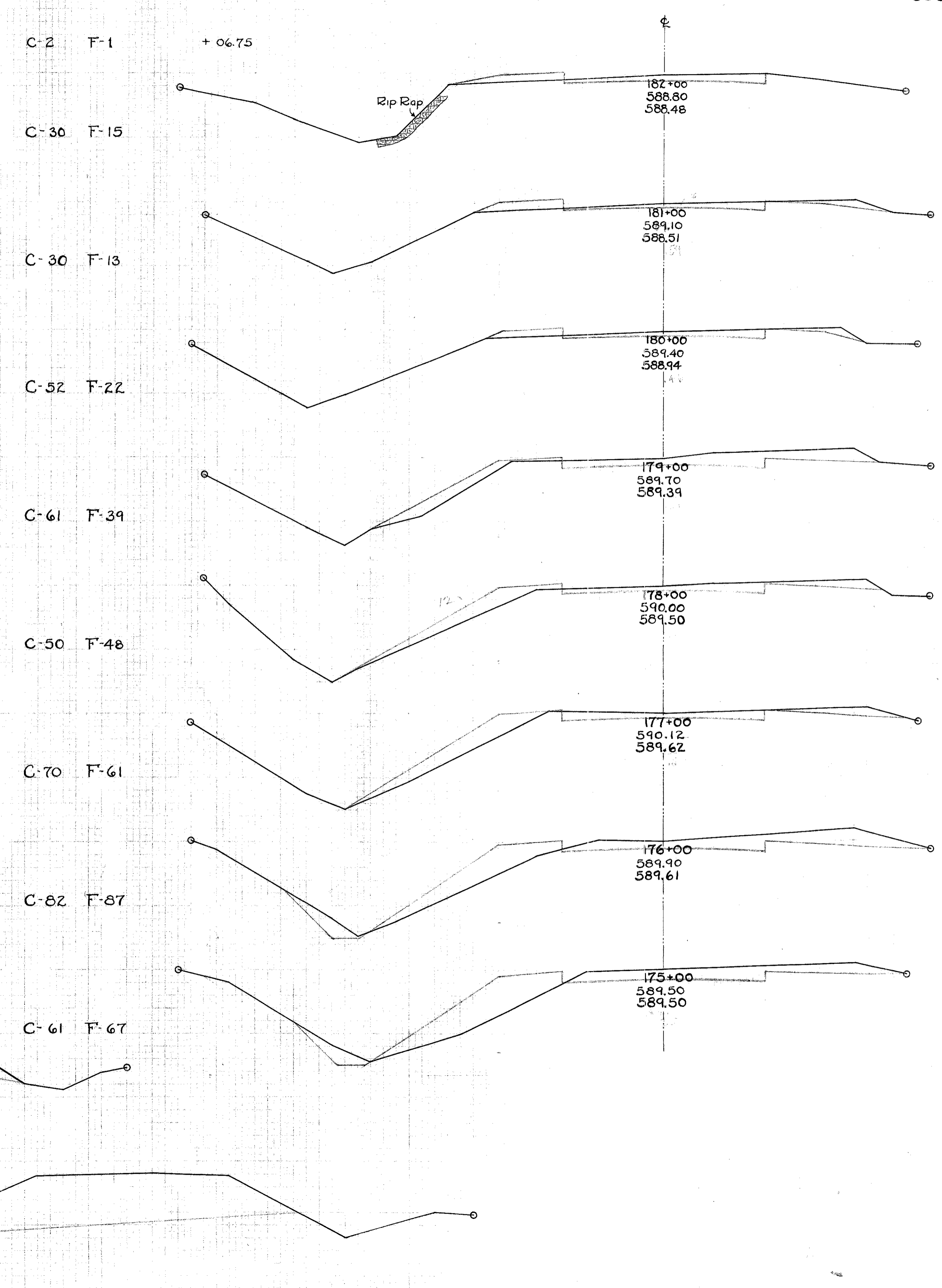
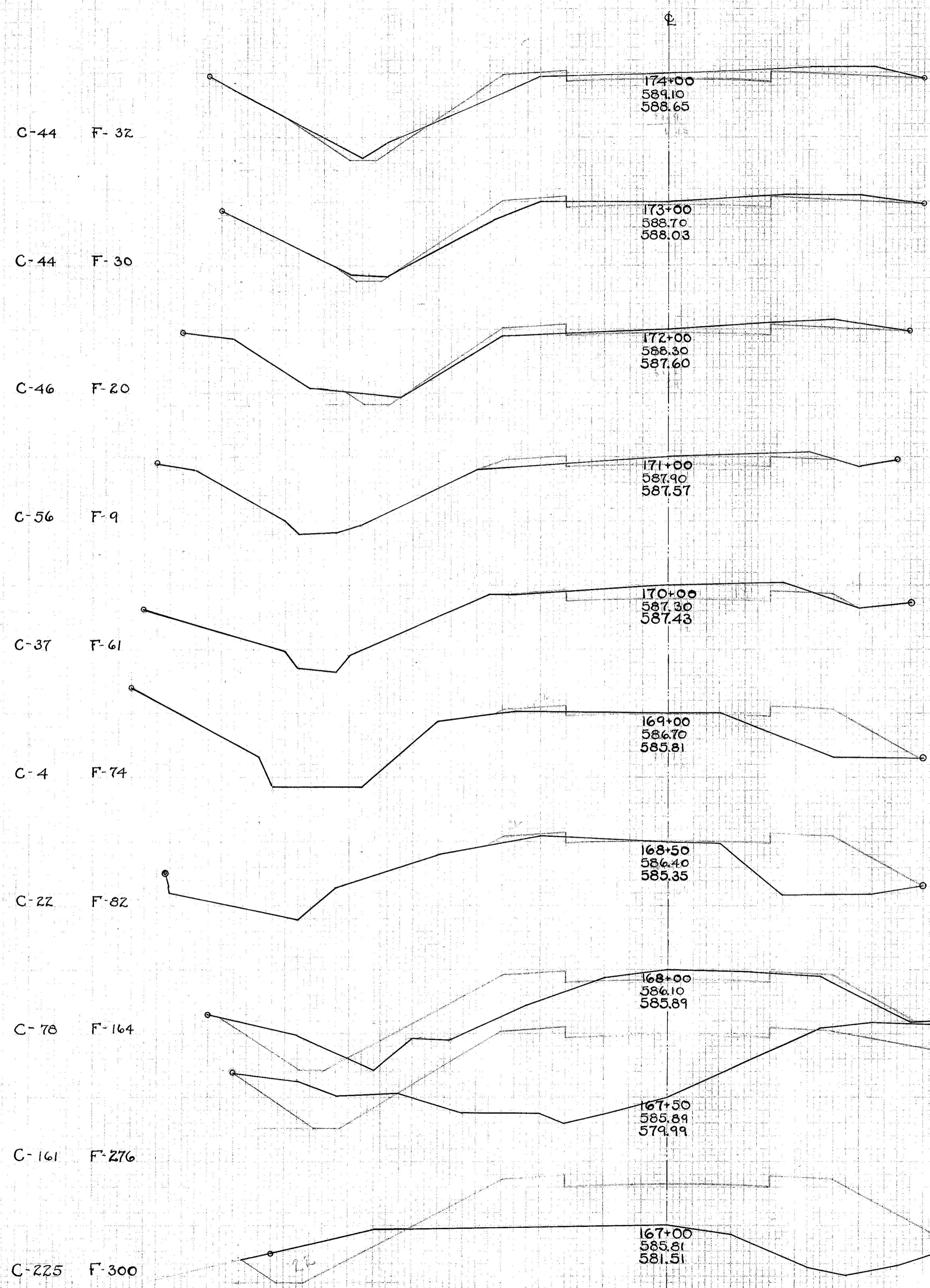
Cu. Yds. Grading
C = Cut F = Fill

Cu. Yds. Grading
 C-Cut F-Fill



Cu. Yds. Grading
C=Cut F=Fill

Cu. Yds. Grading
C=Cut F=Fill



PRIVATE CULVERT PLANS

Culvert at Sta. 4+88' E. sd. Property owner affected P.A. Overmyer Put in a standard 12" vit. pipe culv. with 5" of 1:3:6 conc. around pipe

Est. Quantities
Excavation 2 cu. yds
12" vit. pipe 18 lin. ft.
1:3:6 Conc. 1.8 cu. yds
1:2:4 Conc. 1.8 cu. yds
Steel: 8 A BRS 4'-6" lg. } 42 lbs
Steel: 12 B BRS 4'-6" lg. }

Culvert at Sta. 4+69' E. sd. Property owner affected Allen Fought Put in a standard 12" vit. pipe culv. with 5" of 1:3:6 conc. around pipe

Est. Quantities
Excavation 2 cu. yds
12" vit. pipe 18 lin. ft.
1:3:6 Conc. 1.8 cu. yds
1:2:4 Conc. 1.8 cu. yds
Steel: 8 A BRS 4'-6" lg. } 42 lbs
Steel: 12 B BRS 4'-6" lg. }

Culvert at Sta. 6+67' E. sd. Property owner affected Mary M. Henry Put in a standard 12" vit. pipe culv. with 5" of 1:3:6 conc. around pipe

Est. Quantities
Excavation 2 cu. yds
12" vit. pipe 18 lin. ft.
1:3:6 Conc. 1.8 cu. yds
1:2:4 Conc. 1.8 cu. yds
Steel: 8 A BRS 4'-6" lg. } 42 lbs
Steel: 12 B BRS 4'-6" lg. }

Culvert at Sta. 9+61' W. sd. Property owner affected Jerry Koller Put in a standard 18" vit. pipe culv. with 5" of 1:3:6 conc. around pipe

Est. Quantities
Excavation 25 cu. yds
18" vit. pipe 18 lin. ft.
1:3:6 Conc. 2.5 cu. yds
1:2:4 Conc. 2.4 cu. yds
Steel: 8 A BRS 5' lg. } 53 lbs
Steel: 12 B BRS 6'-0" lg. }

Culvert at Sta. 16+36 E. Side Property owner affected H. P. Garner Put in a Standard 12" Vit Pipe culv. with 5" of 1:3:6 conc. around pipe

Estimated Quantities
Excavation 2 Cu. Yds
12" VSP 18 lin. ft.
1:3:6 concrete 1.8 Cu. Yds
1:2:4 1.8
Steel 8 A BRS 4'-6" long } 42 Lbs
Steel 12 B BRS 4'-6" long }

Culvert at Sta. 8+00 E. sd. Property owner affected P.A. Overmyer Put in a standard 12" vit. pipe culv. with 5" of 1:3:6 Conc. around pipe

Est. Quantities
Excavation 2 cu. yds
12" vit. pipe 18 lin. ft.
1:3:6 Conc. 1.8 cu. yds
1:2:4 Conc. 1.8 cu. yds
Steel: 8 A BRS 4'-6" lg. } 42 lbs
Steel: 12 B BRS 4'-6" lg. }

Culvert at Sta. 4+65' E. sd. Property owner affected Allen Fought Put in a standard 12" vit. pipe culv. with 5" of 1:3:6 Conc. around pipe

Est. Quantities
Excavation 2 cu. yds
12" vit. pipe 18 lin. ft.
1:3:6 Conc. 1.8 cu. yds
1:2:4 Conc. 1.8 cu. yds
Steel: 8 A BRS 4'-6" lg. } 42 lbs
Steel: 12 B BRS 4'-6" lg. }

Culvert at Sta. 7+85 W. sd. Property owner affected Ambs Henry Put in a standard 12" vit. pipe culv. with 5" of 1:3:6 Conc. around pipe

Est. Quantities
Excavation 2 cu. yds
12" vit. pipe 18 lin. ft.
1:3:6 Conc. 1.8 cu. yds
1:2:4 Conc. 1.8 cu. yds
Steel: 8 A BRS 4'-6" lg. } 42 lbs
Steel: 12 B BRS 4'-6" lg. }

Culvert at Sta. 10+94' W. sd. Property owner affected August Weichman Put in a standard 18" vit. pipe culv. with 5" of 1:3:6 conc. around pipe

Est. Quantities
Excavation 3 cu. yds
18" vit. pipe 18 lin. ft.
1:3:6 Conc. 2.5 cu. yds
1:2:4 Conc. 2.4 cu. yds
Steel: 8 A BRS 5' lg. } 53 lbs
Steel: 12 B BRS 6'-0" lg. }

Note: Cast Iron Inlet Cover to be essentially the same and equally as strong as the one shown here

SECTION A-A

Note: Cross Section of the casing of the Inlet may be made either square or equal or circular.

CROSS SECTION

Sta. 12+55' to Sta. 17+19' Put in 12" vit. pipe sewer along East side. put 5" of 1:3:6 conc. around pipe from Sta. 12+99 to Sta. 13+13 Sta. 13+15 to Sta. 13+29 Sta. 14+32 to Sta. 14+40 Sta. 17+1 to Sta. 17+19 Build one Standard hdwl.

Est. Quantities
Excavation 50 cu. yds
6" vit. pipe 464 lin. ft.
1:3:6 Conc. 4.5 cu. yds
1:2:4 Conc. 10 cu. yds
Steel: 4 A BRS 4'-9" lg. } 25 lbs
Steel: 6 B BRS 5'-1 1/2" lg. }

Culvert at Sta. 5+31' E. sd. Property owner affected Mary Henry Put in a standard 12" vit. pipe culv. with 5" of 1:3:6 conc. around pipe

Est. Quantities
Excavation 2 cu. yds
12" vit. pipe 18 lin. ft.
1:3:6 Conc. 1.8 cu. yds
1:2:4 Conc. 1.8 cu. yds
Steel: 8 A BRS 4'-6" lg. } 42 lbs
Steel: 12 B BRS 4'-6" lg. }

Culvert at Sta. 7+53' E. sd. Property owner affected Mary M. Henry Put in a standard 12" vit. pipe culv. with 5" of 1:3:6 conc. around pipe

Est. Quantities
Excavation 2 cu. yds
12" vit. pipe 18 lin. ft.
1:3:6 Conc. 1.8 cu. yds
1:2:4 Conc. 1.8 cu. yds
Steel: 8 A BRS 4'-6" lg. } 42 lbs
Steel: 12 B BRS 4'-6" lg. }

Culvert at Sta. 11+31' E. sd. Property owner affected Mary Hasselbach Put in a standard 12" vit. pipe culv. with 5" of 1:3:6 conc. around pipe

Est. Quantities
Excavation 2 cu. yds
12" vit. pipe 18 lin. ft.
1:3:6 Conc. 1.8 cu. yds
1:2:4 Conc. 1.8 cu. yds
Steel: 8 A BRS 4'-6" lg. } 42 lbs
Steel: 12 B BRS 4'-6" lg. }

PLAN SIDE DITCH INLET

Stations 13+00, 14+40, 15+75 and 16+90

Culvert at Sta. 3+12' E. sd. Property owner affected Allen Fought Put in a standard 12" vit. pipe culv. with 5" of 1:3:6 Conc. around pipe

Est. Quantities
Excavation 2 cu. yds
12" vit. pipe 18 lin. ft.
1:3:6 Conc. 1.8 cu. yds
1:2:4 Conc. 1.8 cu. yds
Steel: 8 A BRS 4'-6" lg. } 42 lbs
Steel: 12 B BRS 4'-6" lg. }

Culvert at Sta. 5+93' E. sd. Property owner affected Mary Henry Put in a standard 12" vit. pipe culv. with 5" of 1:3:6 conc. around pipe

Est. Quantities
Excavation 2 cu. yds
12" vit. pipe 18 lin. ft.
1:3:6 Conc. 1.8 cu. yds
1:2:4 Conc. 1.8 cu. yds
Steel: 8 A BRS 4'-6" lg. } 42 lbs
Steel: 12 B BRS 4'-6" lg. }

Culvert at Sta. 7+60' W. sd. Property owner affected Albert Henry Put in a standard 12" vit. pipe culv. with 5" of 1:3:6 conc. around pipe

Est. Quantities
Excavation 2 cu. yds
12" vit. pipe 18 lin. ft.
1:3:6 Conc. 1.8 cu. yds
1:2:4 Conc. 1.8 cu. yds
Steel: 8 A BRS 4'-6" lg. } 42 lbs
Steel: 12 B BRS 4'-6" lg. }

Culvert at Sta. 12+50' E. sd. Property owner affected P.H. Hasselbach Jr. Put in a standard 12" vit. pipe culv. with 5" of 1:3:6 conc. around pipe

Est. Quantities
Excavation 2 cu. yds
12" vit. pipe 18 lin. ft.
1:3:6 Conc. 1.8 cu. yds
1:2:4 Conc. 1.8 cu. yds
Steel: 8 A BRS 4'-6" lg. } 42 lbs
Steel: 12 B BRS 4'-6" lg. }

Sta. 6+78

Concrete 1:3:6
Flange & Wash
Flange & Wash

ESTIMATED QUANTITIES
Excavation 30 cu. yds
1:3:6 Concrete 11.8 cu. yds
1:2:4 32.1 cu. yds
Steel 8 A BRS 4'-6" long } 42 lbs
Steel 12 B BRS 4'-6" long }

END ELEVATION

Culvert at Sta. 3+52' E. sd. Property owner affected Allen Fought Put in a standard 12" vit. pipe culv. with 5" of 1:3:6 conc. around pipe

Est. Quantities
Excavation 2 cu. yds
12" vit. pipe 18 lin. ft.
1:3:6 Conc. 1.8 cu. yds
1:2:4 Conc. 1.8 cu. yds
Steel: 8 A BRS 4'-6" lg. } 42 lbs
Steel: 12 B BRS 4'-6" lg. }

Culvert at Sta. 6+52' E. sd. Property owner affected Mary M. Henry Put in a standard 12" vit. pipe culv. with 5" of 1:3:6 conc. around pipe

Est. Quantities
Excavation 2 cu. yds
12" vit. pipe 18 lin. ft.
1:3:6 Conc. 1.8 cu. yds
1:2:4 Conc. 1.8 cu. yds
Steel: 8 A BRS 4'-6" lg. } 42 lbs
Steel: 12 B BRS 4'-6" lg. }

Culvert at Sta. 8+15' W. sd. Property owner affected Albert Henry Put in a standard 12" vit. pipe culv. with 5" of 1:3:6 conc. around pipe

Est. Quantities
Excavation 2 cu. yds
12" vit. pipe 18 lin. ft.
1:3:6 Conc. 1.8 cu. yds
1:2:4 Conc. 1.8 cu. yds
Steel: 8 A BRS 4'-6" lg. } 42 lbs
Steel: 12 B BRS 4'-6" lg. }

Culvert at Sta. 12+50' W. sd. Property owner affected P.H. Hasselbach Jr. Put in a standard 12" vit. pipe culv. with 5" of 1:3:6 conc. around pipe

Est. Quantities
Excavation 2 cu. yds
12" vit. pipe 18 lin. ft.
1:3:6 Conc. 1.8 cu. yds
1:2:4 Conc. 1.8 cu. yds
Steel: 8 A BRS 4'-6" lg. } 42 lbs
Steel: 12 B BRS 4'-6" lg. }

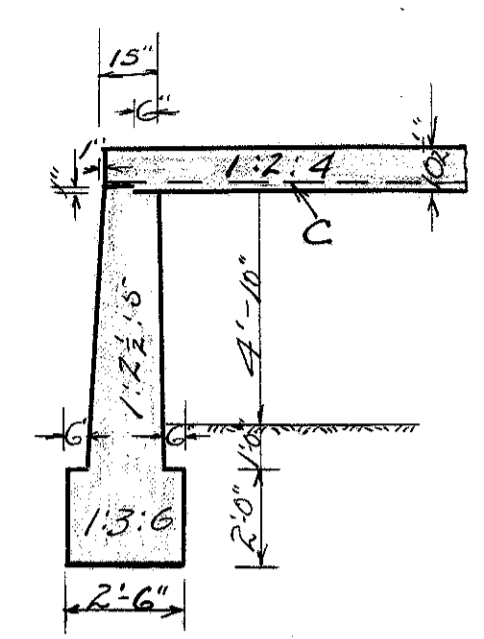
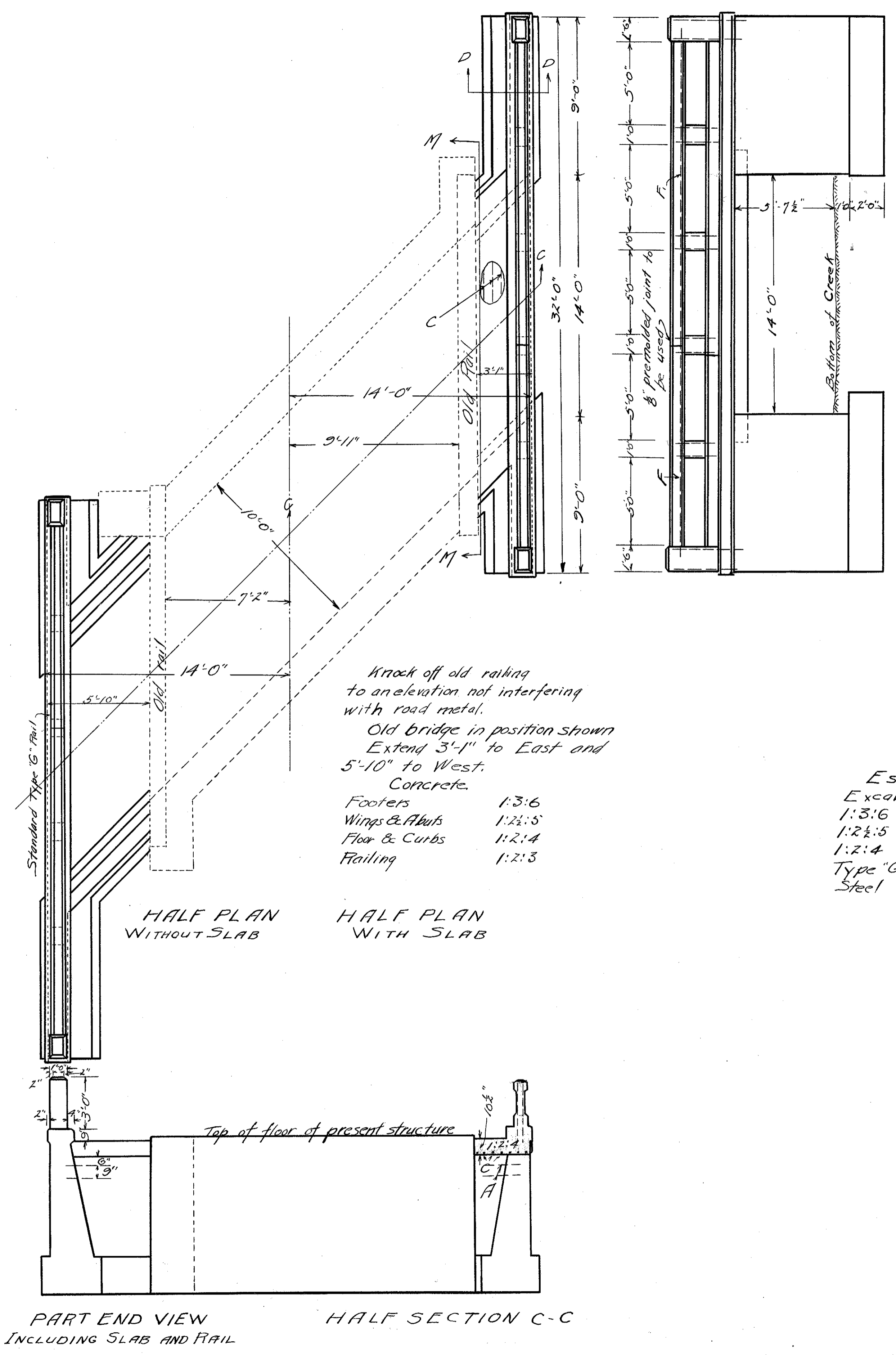
HALF PLAN M Without Slab With Slab

PART END VIEW

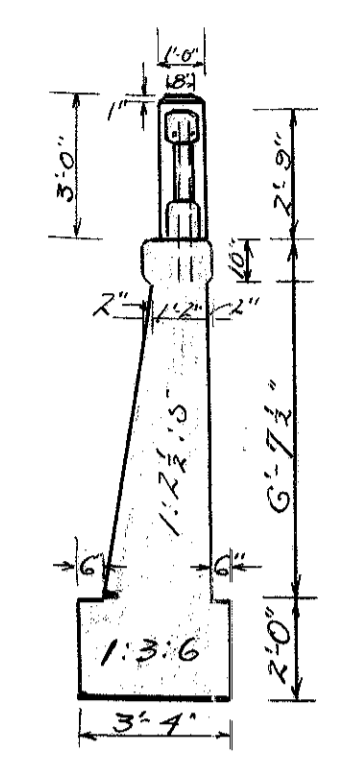
SEC. M-M

SEC. N-N

STATION 119+55



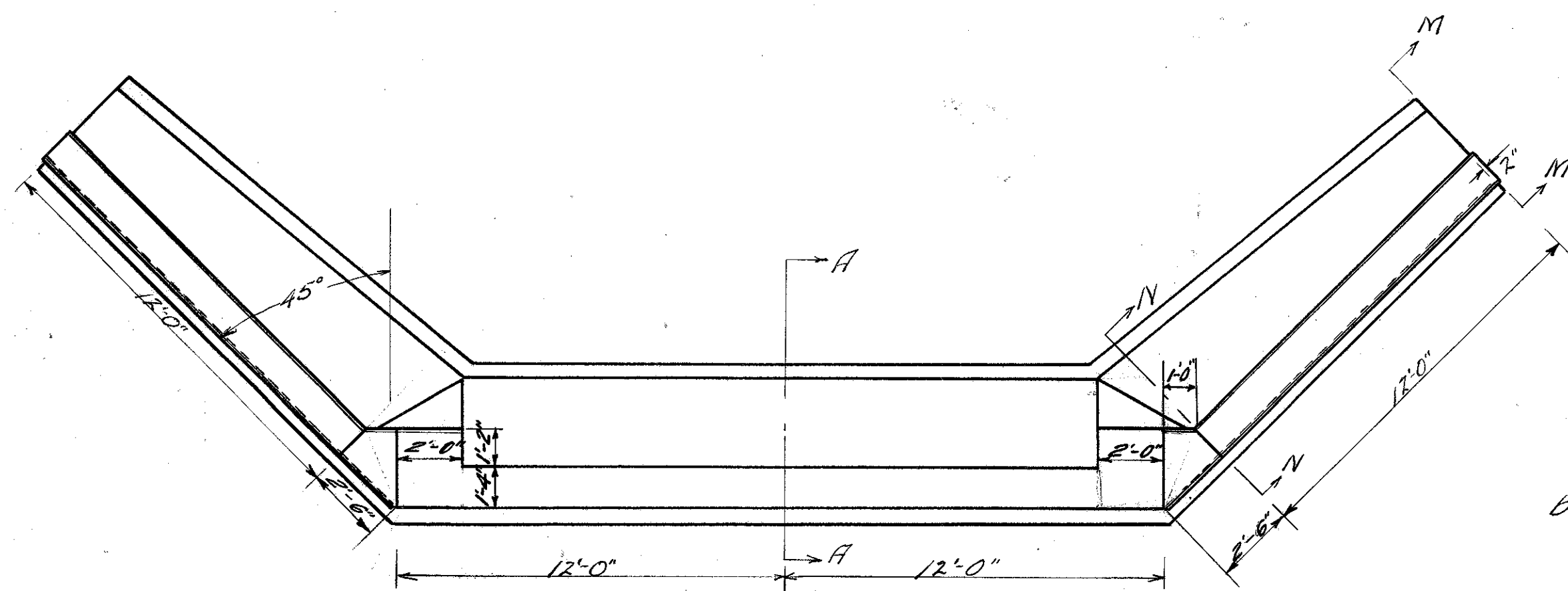
HALF SECTION M-M



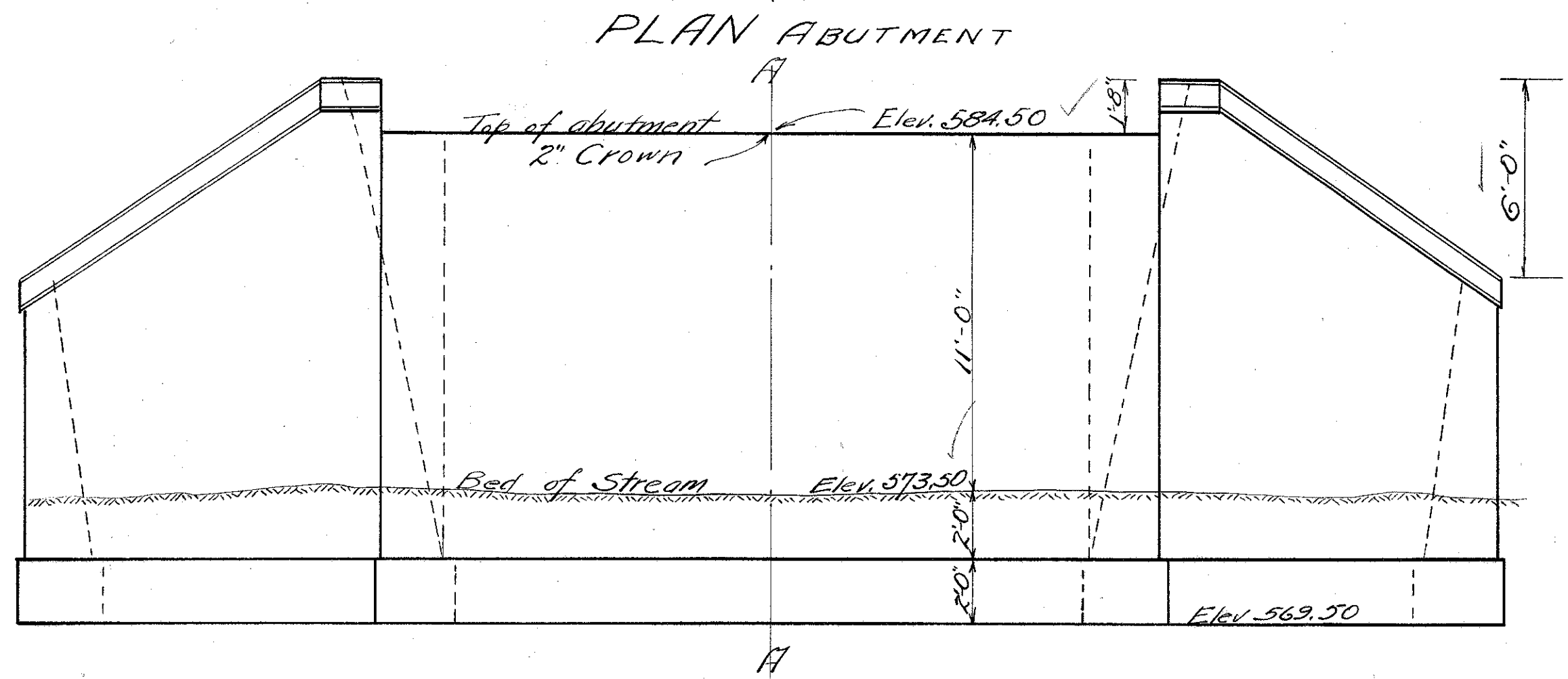
SECTION D-D

Steel					
Bar	No	Size	Length	Spacing	Weight
A	8	3/4"	5'-0"	As shown in wing	97
C	24	3/4"	17'-0"	6" c to c	779
F	4	3/8"	12'-10"	As shown in rail	24
F	4	"	17'-10"	" " " "	35
G	32	"	3'-6"	" " " "	54
K	16	"	4'-0"	" " " "	31
Total					1000

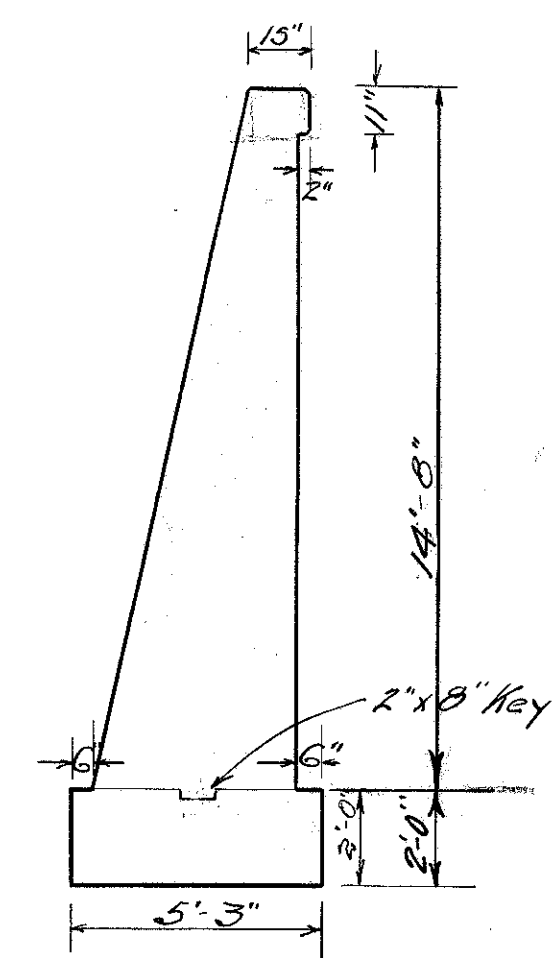
ESTIMATED QUANTITIES	
Excavation	18.0 Cu Yds
1:3:6 Concrete	11.0 " "
1:2 1/2:5 " "	20.2 " "
1:2:4 " "	8.4 " "
Type "G" railing	64 Lin. Ft.
Steel	1000 Lbs.



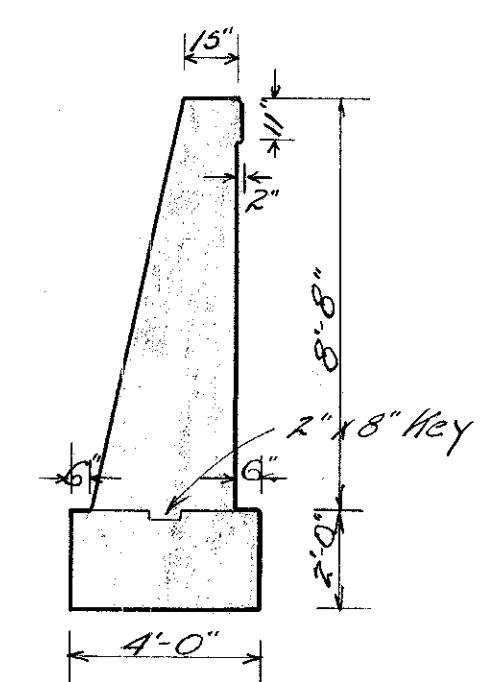
Use same plan for both abutments.



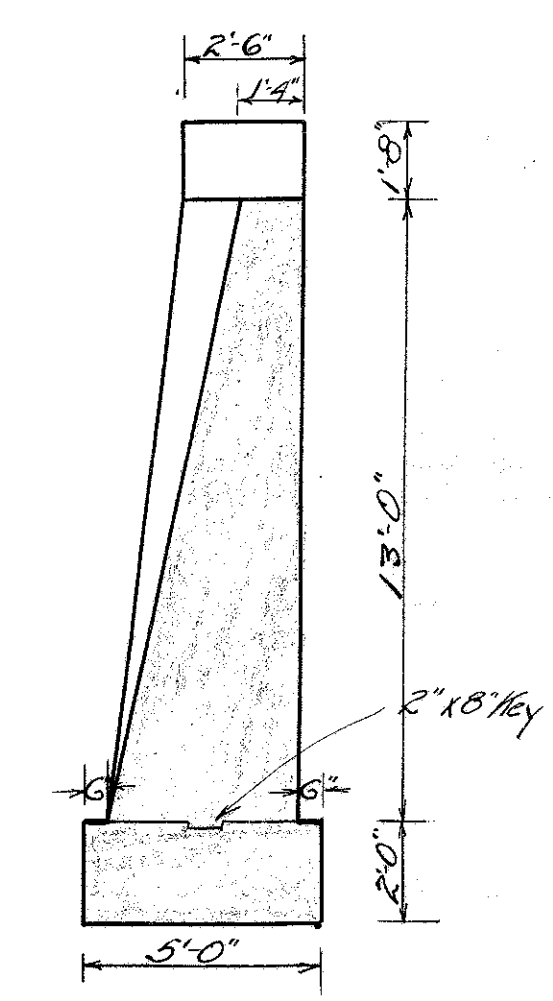
ELEVATION



SEC N-N



SEC M-M



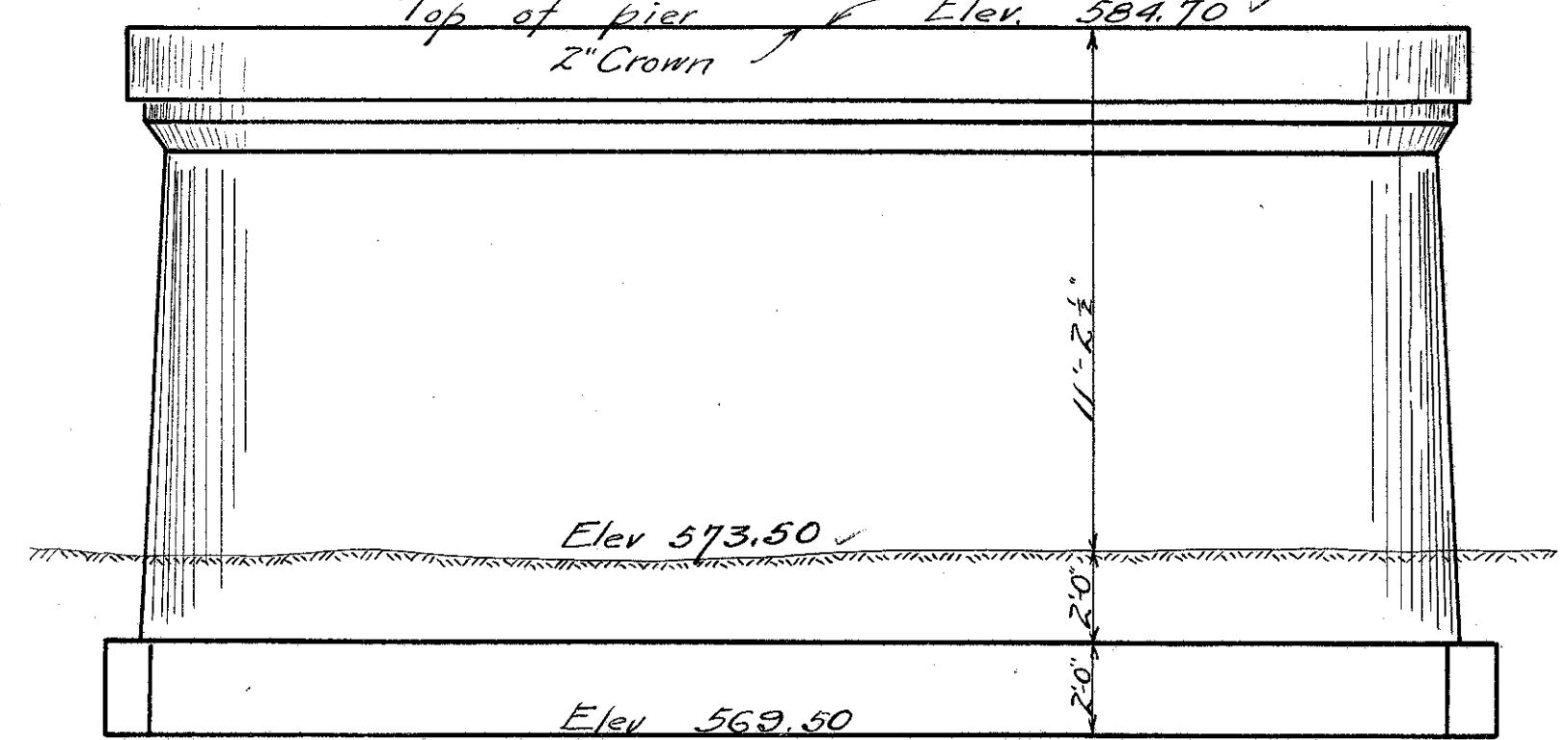
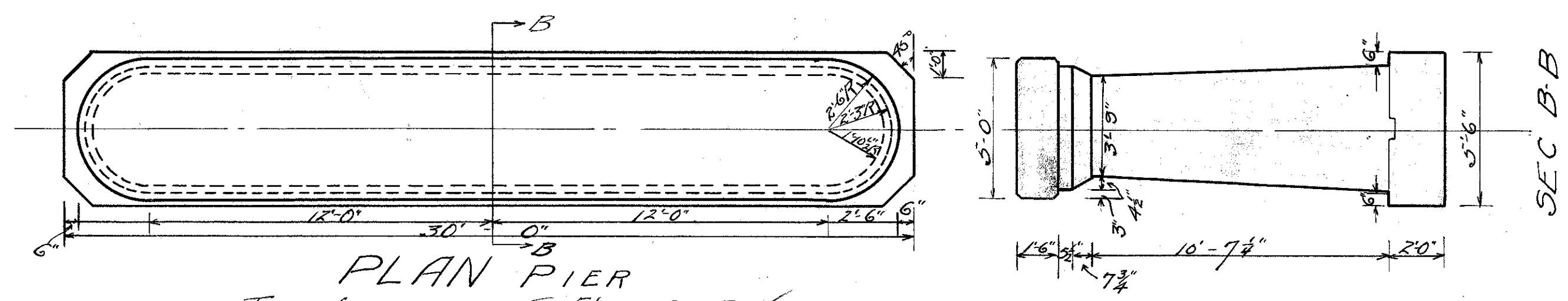
SEC A-A

All exposed edges to be chamfered as shown on detail

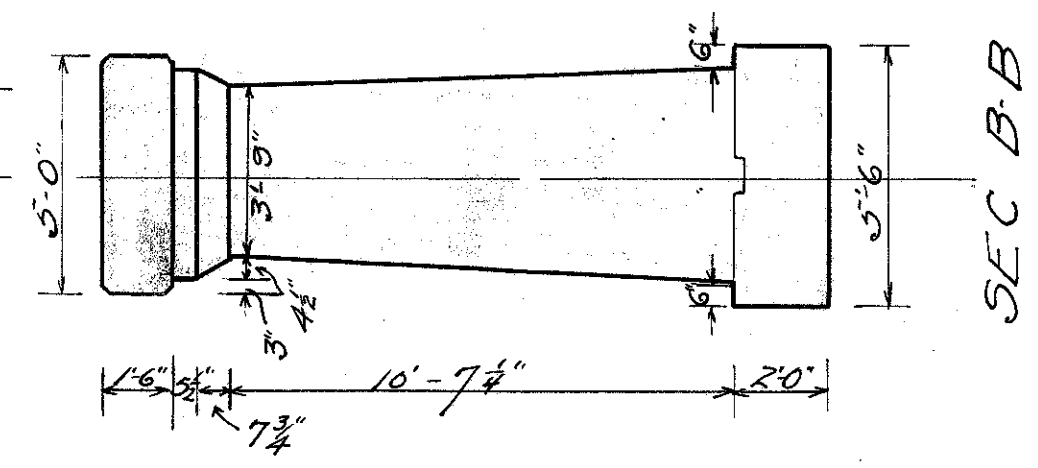
Concrete
Footers 1:3:6 Concrete
Wings & Abuts. 1:2 1/2:5 "

Estimated Quantities
Substructure.
Excavation 239 CU Yds
Concrete 1:3:6 47.7 " "
Concrete 1:2 1/2:5 170.2 " "

Note: This excavation is only for pier and abutments and wings.

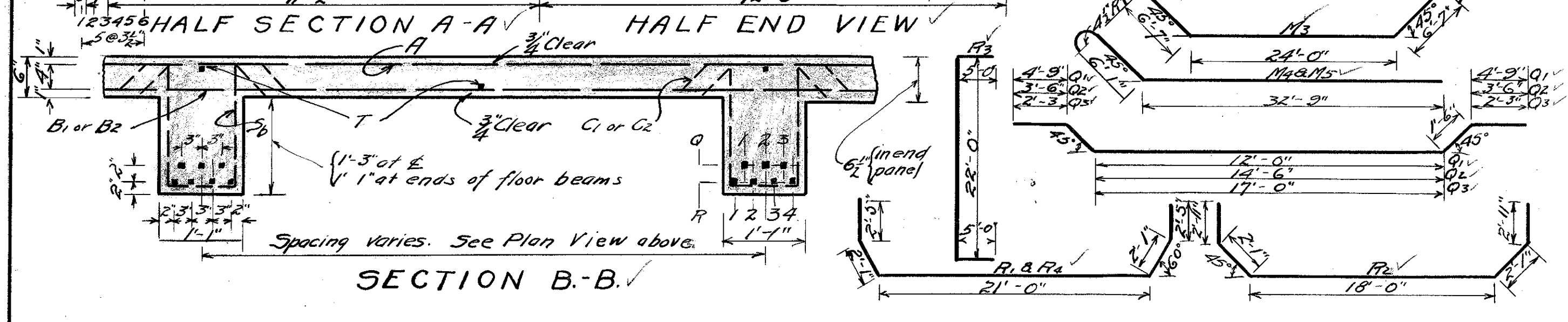
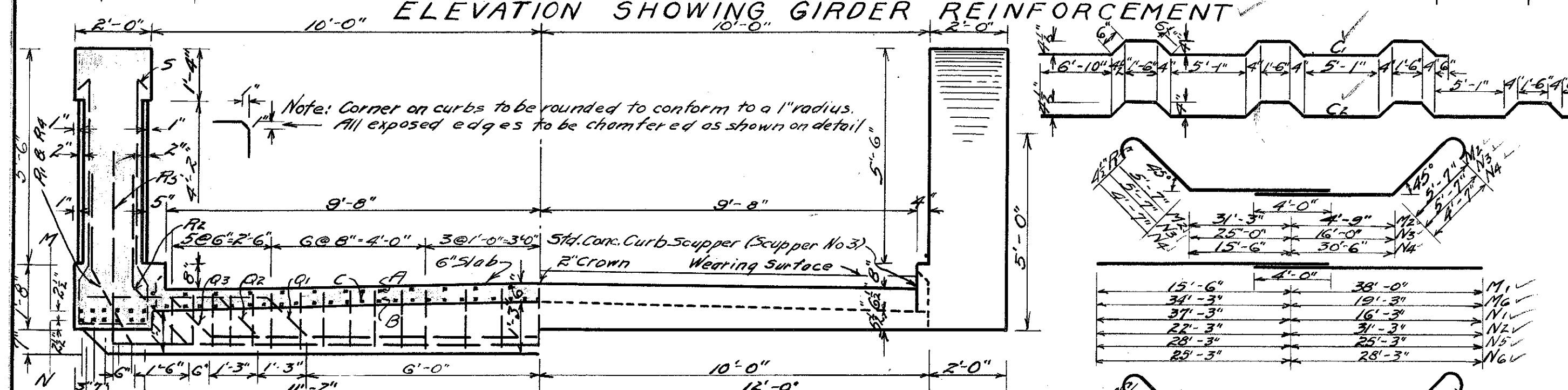
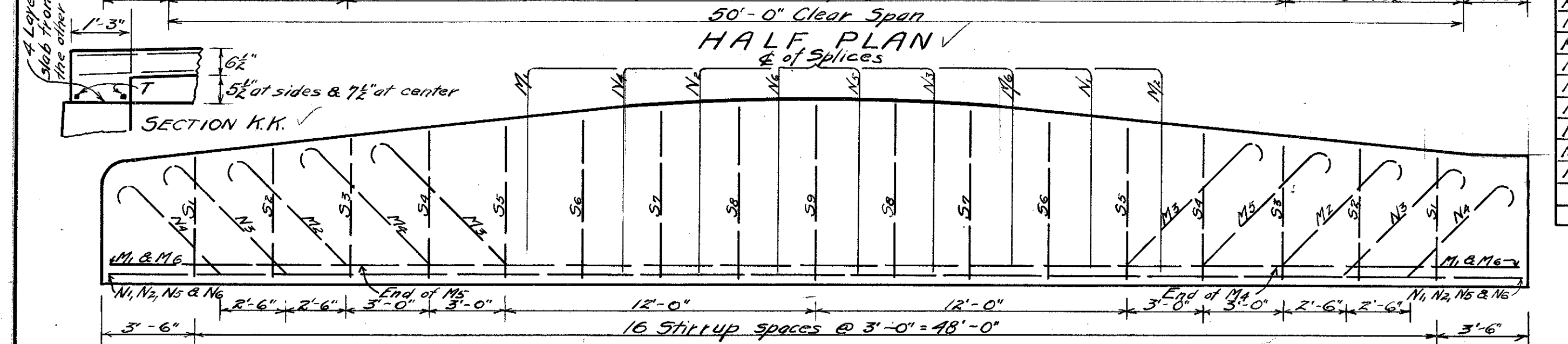
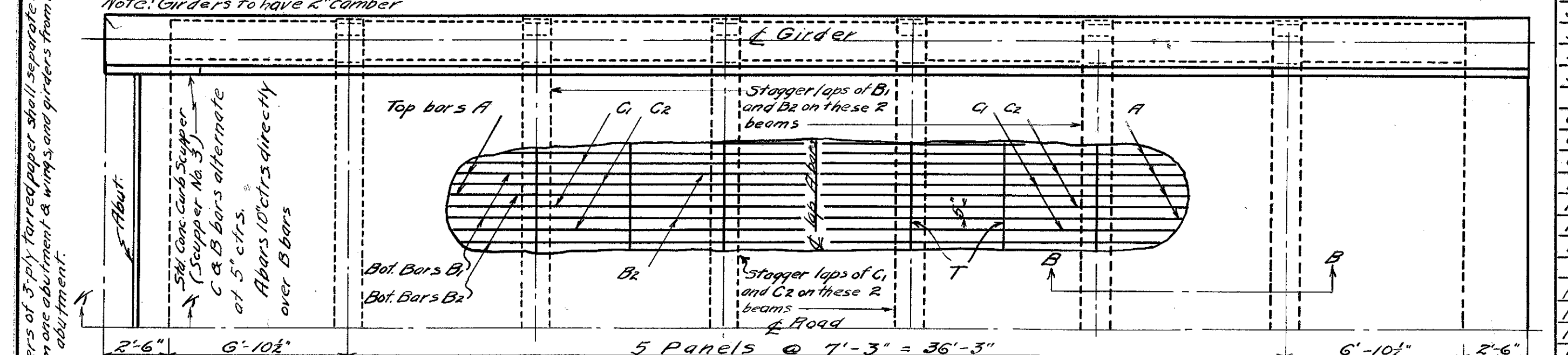
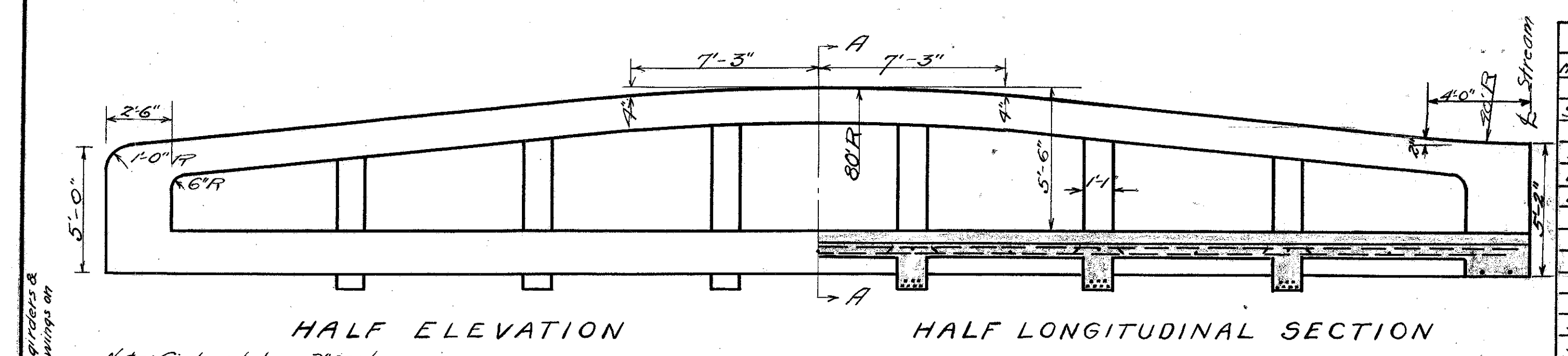


ELEVATION

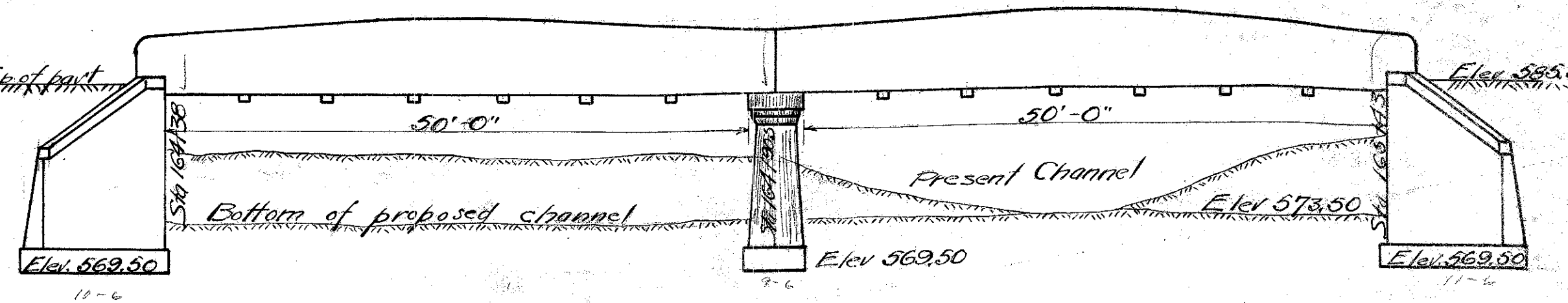
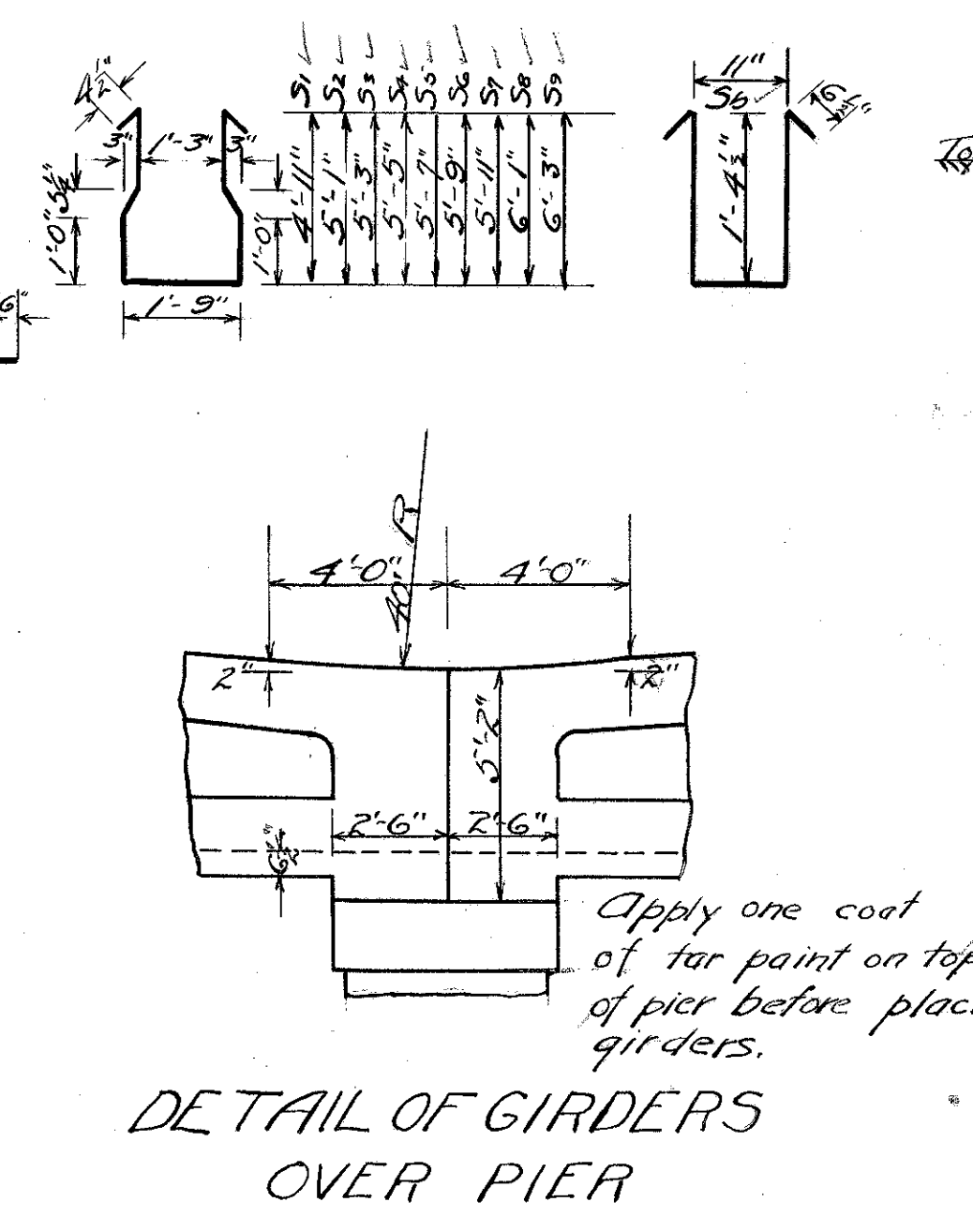
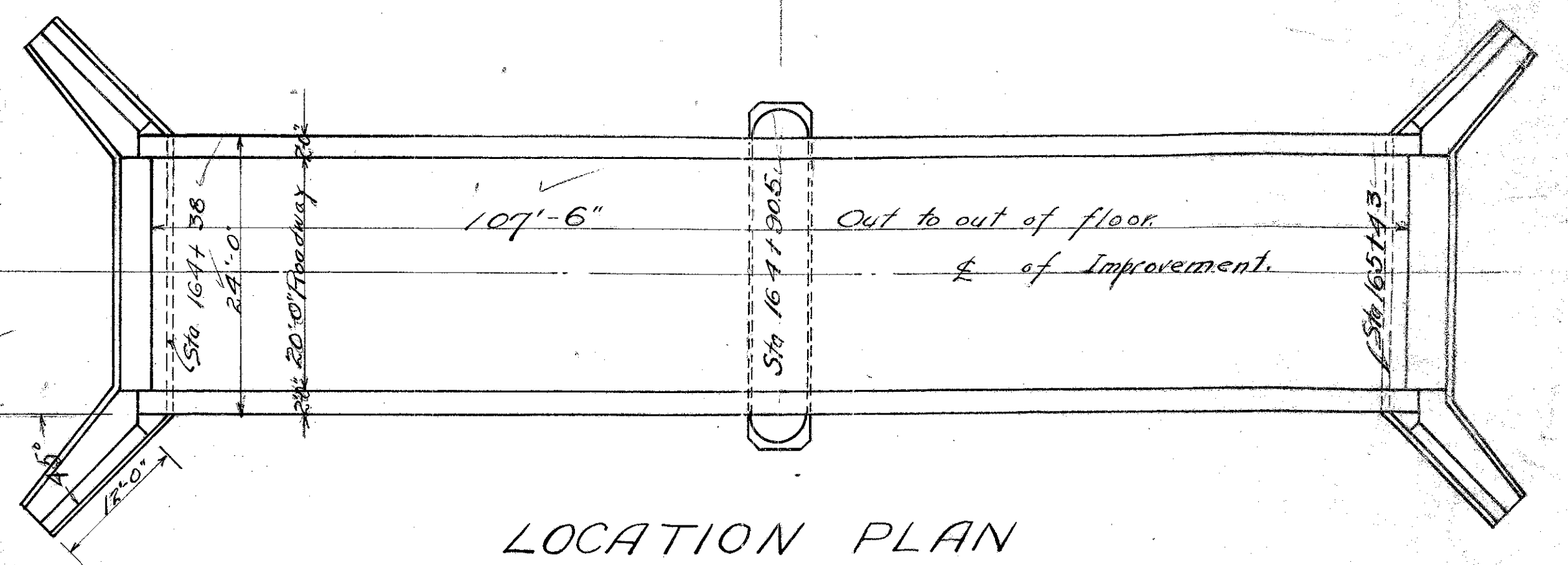


SEC B-B

SUBSTRUCTURE PLAN
of
Two 50'x20' CONCRETE GIRDERS
Over
BIG MUDDY CREEK
I.C.H. "280, SEC. A" STA. 164+905
SANDUSKY COUNTY, OHIO



MARK NO	SIZE	LENGTH	REMARKS	LOCATION	WEIGHT
T	3/4"	23'-6"	Straight	Slab & slab rests	533.0
Sb	3/8"	4'-9"	Bent	Beams	1104.2
Weight of 3/8" bars 1638.0					
A	100 #	27'-0"	Straight	Top of slab	2295.0
B	50 #	16'-0"	"	Bottom of slab	680.0
Bz	50 #	38'-0"	"	"	1615.0
C	48 #	25'-0"	Bent from top	"	1040.0
Cz	48 #	32'-6"	To bottom of slab	"	1326.0
S1	8 #	12'-6"	Bent	Girders	85.0
S2	8 #	12'-10"	"	"	87.2
S3	8 #	13'-2"	"	"	89.6
S4	8 #	13'-6"	"	"	91.8
S5	8 #	13'-10"	"	"	94.0
S6	8 #	14'-2"	"	"	96.4
S7	8 #	14'-6"	"	"	98.6
S8	8 #	14'-10"	"	"	100.8
S9	8 #	15'-2"	"	"	103.2
Weight of 8 # bars 1167.6					
Q1	12 #	24'-6"	Bent	Beams	999.6
Q2	12 #	24'-6"	"	"	999.6
Q3	12 #	24'-6"	"	"	999.6
R1	12 #	30'-0"	"	"	1224.0
R2	12 #	28'-0"	"	"	1182.4
R3	12 #	32'-0"	"	"	1303.6
R4	12 #	30'-0"	"	"	1224.0
Weight of 12 # bars 7824.0					
M1	4 #	18'-6"	Straight	Girders	688.0
M2	4 #	18'-6"	Bent	"	688.0
M3	4 #	39'-6"	"	"	679.4
M4	4 #	40'-0"	"	"	688.0
M5	4 #	40'-0"	"	"	688.0
M6	4 #	36'-3"	Straight	"	623.6
N1	4 #	38'-3"	"	"	652.6
N2	4 #	38'-3"	"	"	652.6
N3	4 #	38'-3"	"	"	652.6
N4	4 #	38'-3"	"	"	652.6
N5	4 #	38'-3"	"	"	652.6
N6	4 #	38'-3"	"	"	652.6
Weight of 4 # bars 10072.0					
Total Weight of bars 28290.4					



Velocity of Stream 3.5 Ft. per sec.
 Soil at bottom of footers - Blue Clay.
 High water elevation 583.20
 Low water elevation 575.00

Estimated Quantities
 Superstructure
 Concrete 12.4 147. CuYds. ✓
 Steel Reinforcing 28290.4 Lbs. ✓

SUPERSTRUCTURE PLAN
 OF
 Two 50'x20' CONCRETE GIRDERS
 Over
 Big MUDDY CREEK
 I.C.H "280, SEC. A" STA. 164+90.5
 SANDUSKY COUNTY, OHIO

These drawings for South Span
 Reverse and use for North Span

I.C. R. 280
SANDUSKY
DECATUR COUNTY

BRIDGE AND CULVERT SUMMARY

(UNDER 20' SPAN)

STATION	TYPE	SIZE	EXCA- VATION CU. Yds	CONCRETE				STEEL Reinforc. lbs.	CAST IRON PIPE		VIT SEWER P.		Type G' Railing lin. ft.	Remarks
				1:3:6	1:2 1/2:5	1:2:4	12"		18"	12"	18"			
				CU. Yds	CU. Yds	CU. Yds						Relaid Lin. ft.		
11+00	Vit S.P.	12"	8.3	3.2		2.0	45			32			Construct 5td. 12" V.S.P. encased Culvert and 2 5td. Hdws.	
46+00	Vit S.P.	12"	6.2	3.5		2.0	45			34			" " 12" " " " " 2 " "	
65+50	Vit S.P.	12"	7.5	3.5		2.0	45			34			" " 12" " " " " 2 " "	
119+55	Conc. Slab	10' x 42'	18.0	11.0	20.2	8.4	1000					64	Extend present culvert	
92+00	Vit S.P.	12"	7.5	3.7		2.0	45			36			Construct 5td. 12" V.S.P. encased Culvert and 2 5td. Hdws.	
104+7.6	Vit S.P.	12"	2.0	2.6		2.6	45			26			Construct 5td. Side Road Cul. 12" enc. " 2 " "	
104+7.6	Vit S.P.	18"	2.0	3.7		3.3	55				26		" " " " 18" " " 2 " "	
68+10	Conc. Slab	20' x 46'	75.0	22.0	50.9	27.8	3288					85	" " Slab bridge 20' Span, 26' roadway	
127+00	Vit S.P.	12"	7.0	3.0		2.0	45			30			Construct 5td. 12" V.S.P. encased Culvert and 2 5td. Hdws.	
130+00	Vit S.P.	12"	35.0	18.3		3.6	68	30		172			Relay 30'-12" C.I.P. Const. 5td. 12" V.S.P. enc. and 3 " "	
139+66	Vit S.P.	12"	8.0	3.2		2.0	45			32			Construct 5td. 12" V.S.P. encased Culvert and 2 5td. "	
145+50	Vit S.P.	18"	1.5	.9		2.7	55				8		Const 5td. 18" V.S. Penc. 4' each end present pipe 8 2. " "	
TOTALS			178.0	78.6	71.1	60.4	4781	30		396	34	149		

(OVER 20 FT. SPAN)

STATION	TYPE	SIZE	EXCAVATION	CONCRETE			STEEL					REMARKS
				1:3:6	1:2 1/2:5	1:2:4						
				CU. Yds	CU. Yds	CU. Yds	lbs.					
164+90	Two Girders	50' span 20' Road	239	47.7	170.2	147.	28290					Construct 2 Abutments and 1 Pier and Two Std. 50' Girders 20' Roadway. Remove old bridge and abutments.

Type "A"
Excavation ----- 15735 Cu. Yds.
Excavation ----- 103 Cu. Yds.
Concrete Base ----- 32340 Sq. Yds.
Brick Pavement ----- 30612 Sq. Yds.
Asphalt Filler ----- 30612 Sq. Yds.
Concrete Curb ----- 36248 Lin. Ft.

Type "B"
Excavation ----- 15735 Cu. Yds.
Excavation ----- 103 Cu. Yds.
Concrete Base ----- 32340 Sq. Yds.
Bit. Conc. Pavement ----- 30368 Sq. Yds.
Plain Conc. Pav. ----- 244 Sq. Yds.
Concrete Curb ----- 36248 Lin. Ft.

PRIVATE CULVERT SUMMARY

STATION	TYPE	SIZE	Dist. Rt. or L. of C.	ELEVATIONS		EXCA- VATION CU. Yds	CONCRETE			STEEL Reinfor. Cin. g. Lbs.	VIT SEWER P.			No. 1 Std. 6" Inlet.	REMARKS
				Flow line upper end	Flow line Lower end		1:3:6	1:2:4	12"		6"	18"			
							CU. Yds	CU. Yds	CU. Yds		New Lin. ft.	New Lin. ft.	New Lin. ft.		
4+88'	Vit. S.P.	12"	18' R	593.75	593.65	2	1.8	1.8	42	18				Height of Hdwr. to be 6" less than Std.	
8+00'	Vit. S.P.	12"	18' R	593.45	593.35	2	1.8	1.8	42	18				" " " " " " " " " "	
12+55' to 17+19'	Vit. S.P.	6"	18' R	592.00	591.20	3.5		1.0	25		464		4	Headwall to be same as for 12" pipe (Std.)	
30+12'	Vit. S.P.	12"	18' R	591.40	591.30	2	1.8	1.8	42	18				Remove 30'-6" V.S.P. Hdwr. Height to be 6" less than Std.	
35+32'	Vit. S.P.	12"	18' R	590.85	590.75	2	1.8	1.8	42	18				Remove 18'-6" V.S.P. Hdwr. height to be 6" less than Std.	
40+69'	Vit. S.P.	12"	18' R	589.80	589.70	2	1.8	1.8	42	18				" " " " " " " " " "	
46+65'	Vit. S.P.	12"	18' R	588.95	588.85	2	1.8	1.8	42	18				" " " " " " " " " "	
55+31'	Vit. S.P.	12"	18' R	586.55	586.45	2	1.8	1.8	42	18				" " " " " " " " " "	
59+83'	Vit. S.P.	12"	18' R	587.60	587.50	2	1.8	1.8	42	18				" " " " " " " " " "	
62+52'	Vit. S.P.	12"	18' R	587.25	587.15	2	1.8	1.8	42	18				" " " " " " " " " "	
69+67'	Vit. S.P.	12"	18' R	586.80	586.70	2	1.8	1.8	42	18				" " " " " " " " " "	
70+85'	Vit. S.P.	12"	18' L	587.15	587.05	2	1.8	1.8	42	18				Remove 26'-6" V.S.P. " " " " " " " " " "	
73+53'	Vit. S.P.	12"	18' R	587.95	587.85	2	1.8	1.8	42	18				" " " " " " " " " "	
77+60'	Vit. S.P.	12"	18' L	588.90	588.80	2	1.8	1.8	42	18				" " " " " " " " " "	
84+15'	Vit. S.P.	12"	18' L	589.55	589.45	2	1.8	1.8	42	18				Remove 20'-6" Tile " " " " " " " " " "	
95+61'	Vit. S.P.	18"	19' L	587.05	586.95	2	2.5	2.4	53			18		Remove old wood Cul. " " " " " " " " " "	
107+94'	Vit. S.P.	18"	19' L	586.65	586.55	3	2.5	2.4	53			18		Remove " " " " " " " " " "	
113+31'	Vit. S.P.	12"	18' R	585.45	585.35	2	1.8	1.8	42	18				Remove 16' of 6" V.S.P. " " " " " " " " " "	
126+50'	Vit. S.P.	12"	18' R	583.85	583.75	2	1.8	1.8	42	18				" " " " " " " " " "	
126+50'	Vit. S.P.	12"	18' L	583.85	583.75	2	1.8	1.8	42	18	1:2 1/2:5			" " " " " " " " " "	
67+8	Slab	10' x 6'	27' L	582.50	582.40	30	11.8	7.9	880			32.1		Remove old abutments & Plank top. Const. new Cul.	
169+36	Vit. S.P.	12"	20' R			2	1.8	1.8	42	18				Headwall height to be 6" less than Std.	
TOTALS						103	49.2	46.1	1767	324	32.1	464	36	4	

Type "C"
Excavation ----- 15735 Cu. Yds.
Excavation ----- 103 Cu. Yds.
Concrete Pavement ----- 32340 Sq. Yds.
Plain Conc. Pav. ----- 244 Sq. Yds.

V.P. 10-C-10