

THE STATE ROAD COMMISSION
OF WEST VIRGINIA

PLAN AND PROFILE FOR CONSTRUCTION
OF
STATE ROAD

PROJECT NO. 3334

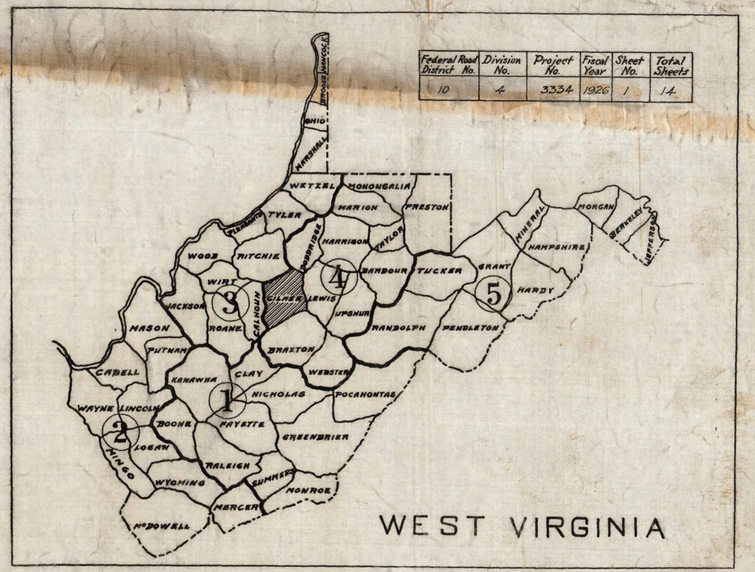
GLENVILLE DISTRICT GILMER COUNTY

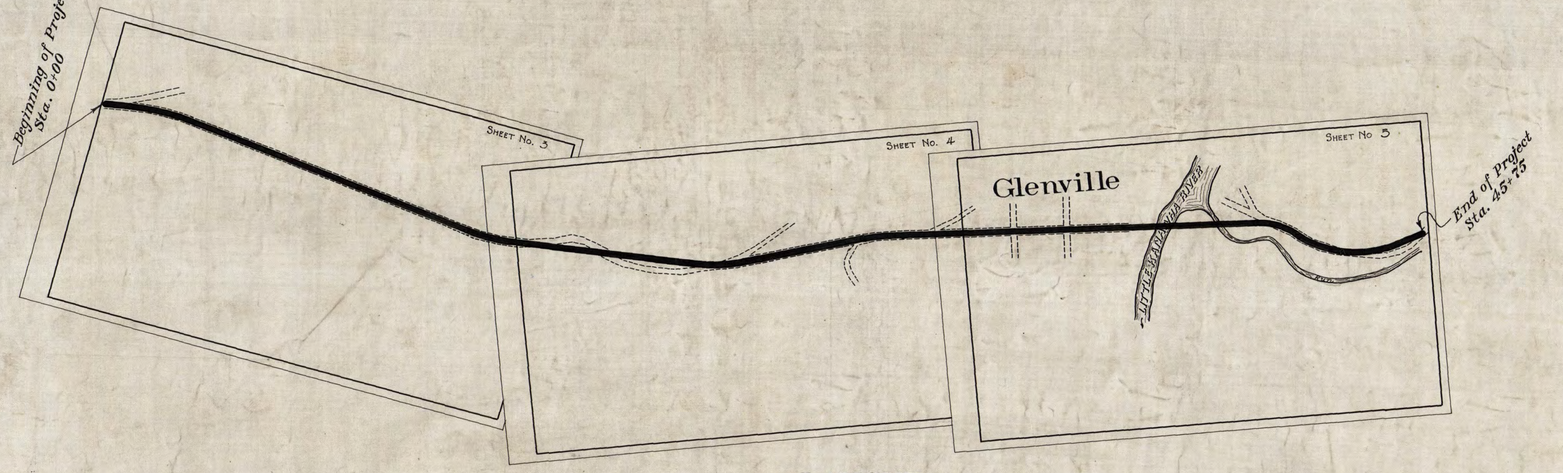
STREET-IN-GLENVILLE

Sta. 0+00 To Sta. 45+75

Length=0.866 Mi.

SCALES PLAN 1 IN. = 50'
PROFILE HOR. 1 IN. = 50' VERT. 1 IN. = 10'





LAYOUT
Scale: 1 In. 250 Ft.

CONVENTIONAL SIGNS

	State Line	Stone / Concrete	Wall
	County Line		Marsh
	Corporation Line		Hedge
	District Line		Drop Inlet
	Property Line		Bridge
	Fence Line		Present Culvert
	Guard Rail		Proposed
	Proposed Road		Telegraph Pole
	Traveled Road		Trolley Pole
	Railroad		Power Pole
	Electric Railway		Tree

PROJECT NO. 3334

RECOMMENDED FOR APPROVAL

DIVISION ENGINEER-STATE ROAD COMMISSION

OFFICE ENGINEER-STATE ROAD COMMISSION

APPROVED

CHAIRMAN-STATE ROAD COMMISSION

MEMBER-STATE ROAD COMMISSION

MEMBER-STATE ROAD COMMISSION

RECOMMENDED FOR APPROVAL

DIST. ENGINEER-OFFICE OF PUBLIC ROADS AND RURAL ENG.

CHIEF ENGINEER-OFFICE OF PUBLIC ROADS AND RURAL ENG.

APPROVED

SECRETARY OF AGRICULTURE-OFFICE OF PUBLIC ROADS AND RURAL ENG.

Div. No.	Proj. No.	F.A. No.	Fiscal Year	Quantities	Sheet No.	Total Sheets
4	3334		1926	Detail Est.	2	14

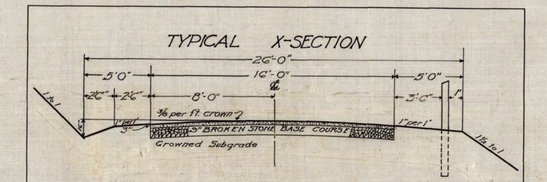
REINF. CONC. CULV. PIPE

STATION	SKEW	LENGTH FT. 18"	24"	36"	CONCRETE CU. YDS. A	B	EXCAV. CU. YDS. WET	DRY	HEAD-WALL R	L	INLET R	L	REMARKS
5+90		32'				3.0		12	1	1			
8+50		26'				2.5		20	1	1			
12+00		48'				4.0		15	1	1			
18+50			60'			6.0		20	1	1			
22+50	45°	36'				2.5		27	1	1			
25+50	45°	36'				2.8		16	1	1			
29+00		26'				2.2		20	1	1			
31+10		26'				1.5		22	1			1	
33+10		55'						33			1	1	
33+60		55'						40			1	1	
Totals		340'	60'			25.8		230					

BENCH MARKS

No.	ELEV.	DESCRIPTION
1	824.52	On W.O., 25' Rt. Sta. 0-20.
2	725.03	Outside Corner, Rt. end, Conc. Step, front Kidds Office, Sta. 32+60, 28' Rt.

TYPICAL X-SECTION



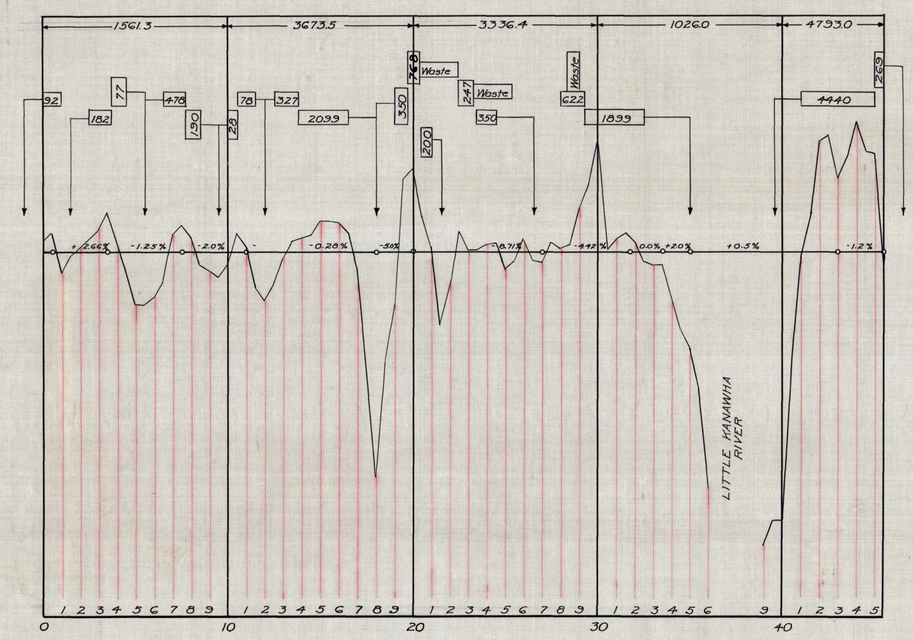
Stone equal to 6" in depth may be used in base course when placed by hand, as shown in section.

ESTIMATE OF QUANTITIES

ITEM No.	ITEM	AMOUNT
1	Clearing Rt. of Way	3,350 lin. ft.
2	Excavation, Unclassified	10,000 cu. yds.
4	" Dry	230 " "
8	"Class 'B' Concrete"	25 " "
16-c	18" Reinf. Conc. Culv. Pipe	340 lin. ft.
16-d	24" " " " "	60 " "
39	Broken Stone Base Course	1,550 Cu. yds.
50	Bituminous Macadam Surface Course	6,190 sq. yds.
51-a	Bituminous Material for Penetration Macadam, Oil Asphalt	18,570 gals
Alt. 51-b	" " " " " Bermudez "	18,570 gal

DIV. NO.	STATE PROJ. NO.	FED. AID PROJ. NO.	FISCAL YEAR	EARTHWORK CHART	SHEET NO.	TOTAL SHEETS
4	333A		1925	0+00 To 45+30	2-A	14

EARTHWORK CHART



LEGEND

Grade or Base Line

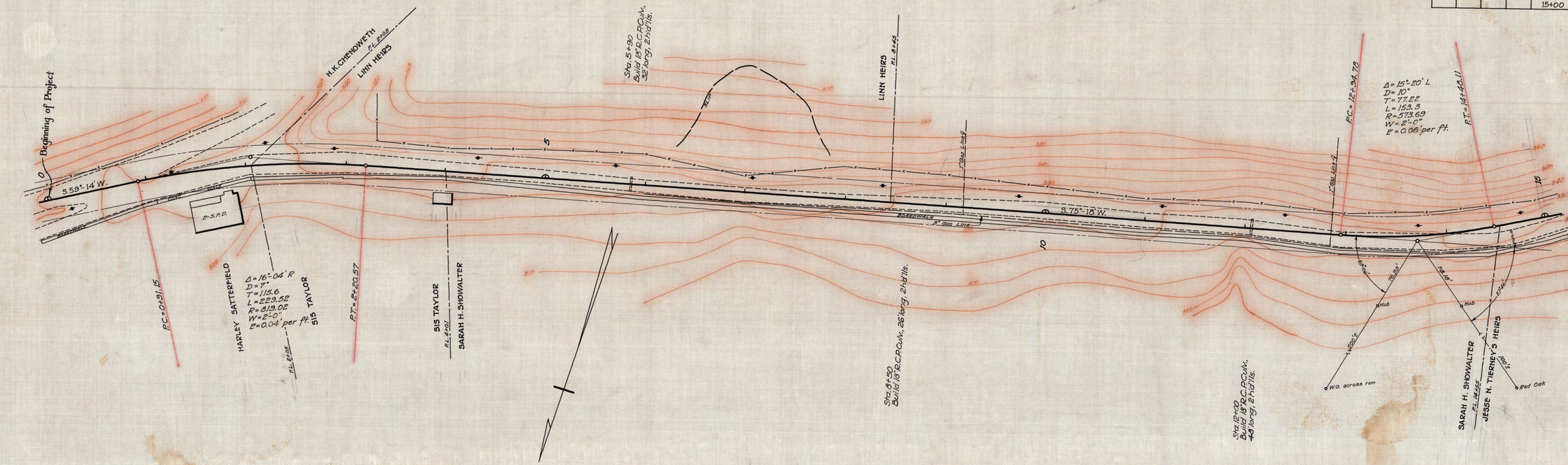
Ground Line

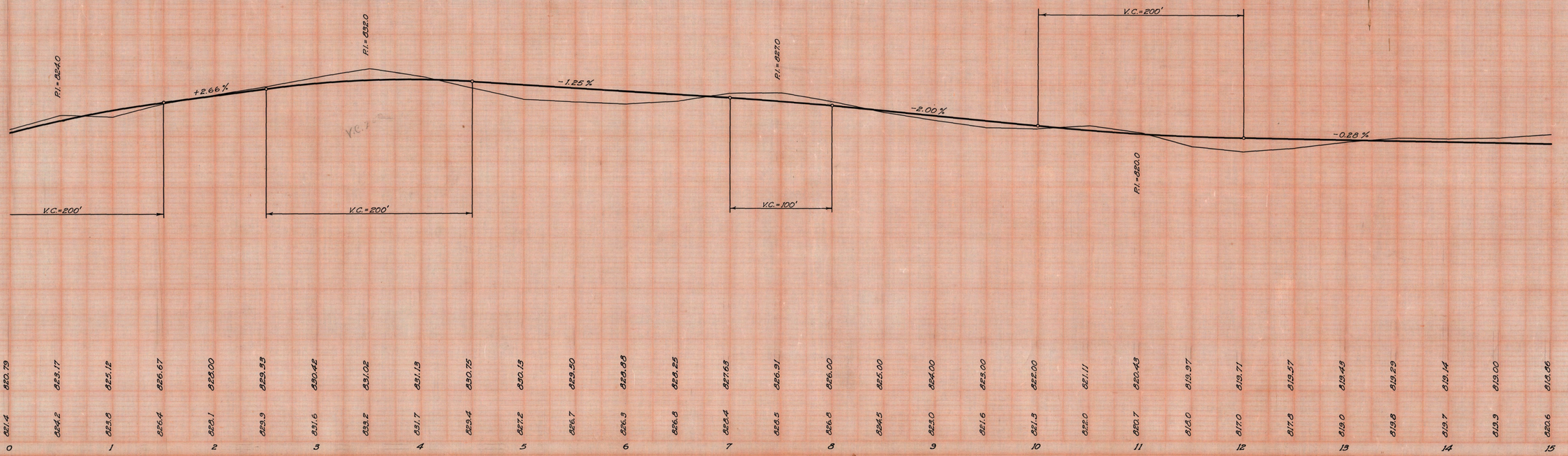
Scales: Hor. 1 In. = 400 Ft
Vert. 1 In. = 4 Ft.

All quantities are given in terms of Cubic Yards

Note: All borrow or waste to be made or distributed as directed by the Engineer in charge of the work.

Div. No.	State Proj. No.	Fed. Aid Proj. No.	Fiscal Year	Plan & Profile	Sheet No.	Total Sheet
4	3334		1925	0+00 to 15+00	3	14





2-5-Frame Hotel Bldg.

Garage

Tailor Shop

34+00

35+00

36+00

37+00

38+00

39+00

S 50°-42' W

RIVER

KANAWHA

LITTLE

Brook

698.3

699.1

696.8

700.2

701.2

698.5

697.8

A

B

C

D

E

F

G

H

I

J

K

L

L. KANAWHA

GLENVILLE

RIVER

Bridge Site

LOCATION SKETCH

P.C. 39+32.6

Δ=33°-50'
D=24°

Source of Materials

Shipping point - Gilmer Station, 13 miles, graded road or Weston, 26 mi., paved road.
Sandstone for masonry can be obtained locally.
Timber for piling
Several samples of stone within a radius of about 2 miles from Bridge Site have passed the test for Stone Masonry.
Ohio River Sand & Gravel to be used in all classes of concrete

B.M. Elev. 733.62

46'

139'

40'

23'

29'

5500 sq. ft.

STEEL BRIDGE 400' UPSTREAM

B.M., Bronze Tablet stamped "733 Grafton", in top stone of middle pier on east side of present bridge. Elev. 733.623

A

716.22 Sur.
697.22 Gr.S.
692.56

B

717.08 Sur.
697.08
693.08 Gr.S.
688.08

C

716.92 Sur.
697.42
693.42 Gr.S.
688.92
683.92

L

715.08 Surface
691.08 Gr.S.
685.08 Red Sh.
680.08 Gr.Sh.

D

703.32 Gravel
698.32 Clay
693.32 Sd.
684.32 Gr.S.
681.32
673.22

E

703.52 Gravel
698.52 Clay
693.52 Quicksand
690.52 Gr.S.
679.02 Red Shale
671.62

F

Gravel 701.62
697.62 Clay
688.62 Quicksand
684.62 Green Shale
679.62 Red Shale

G

718.07 Clay
698.07
694.07 Gr.S.
690.07 Red Shale
676.27

H

712.93 Clay
697.93
693.93 Quick sand & Boul.
688.93 Gr.S.
683.93 Red Shale
677.93

I

711.07 Clay
698.07
691.07 Q.S. & Boul.
685.07 Gr.S.
676.07

K

716.13 Clay
698.13
694.13 Q.S. & Boul.
687.13 Gr.S.
681.13
677.13

J

716.51 Clay
699.51
692.51 Quicksand & Boulders
687.51 Gr.S.
681.51 Green Shale
666.51 Red Shale

Datum for Borings

LEGEND

Soundings - ⊗
Borings - ⊗

- Abbreviations -

Green Sandstone = Gr.S.S.
Gray Shale + G.S.
Green " + Gr.S.
Red " + R.S.

+2%

El. Revised Grade = 733.5

El. High Water = 728.0

El. Low Water = 700.0

100' V.C.

0.0

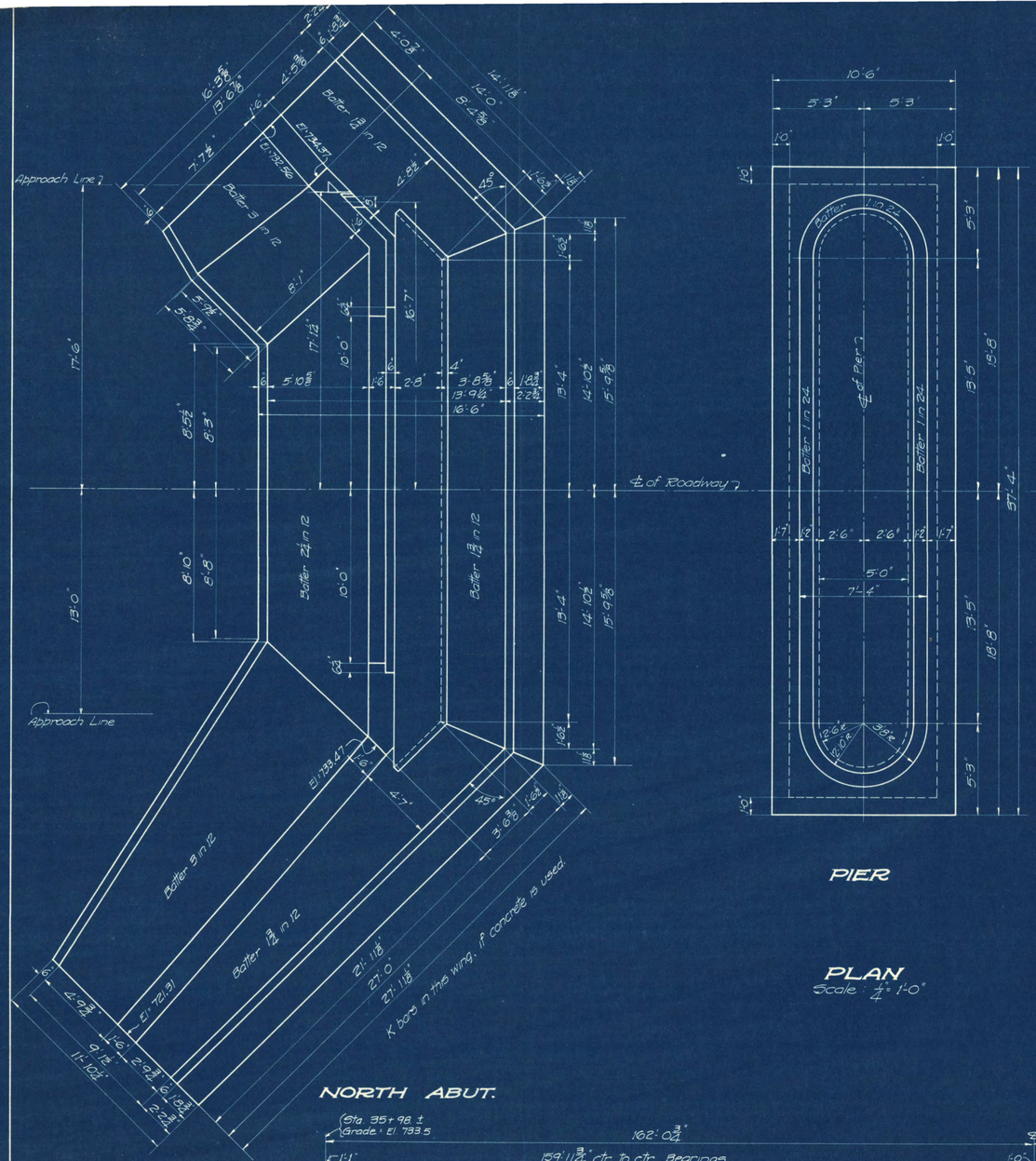
Sand bar covered with vegetation such as is commonly found in swamps, etc.
Completely submerged during rainy season.

PLAN & PROFILE OF BRIDGE SITE OVER LITTLE KANAWHA RIVER AT GLENNVILLE, GILMER CO. WEST VIRGINIA.

Scale 1" = 20'

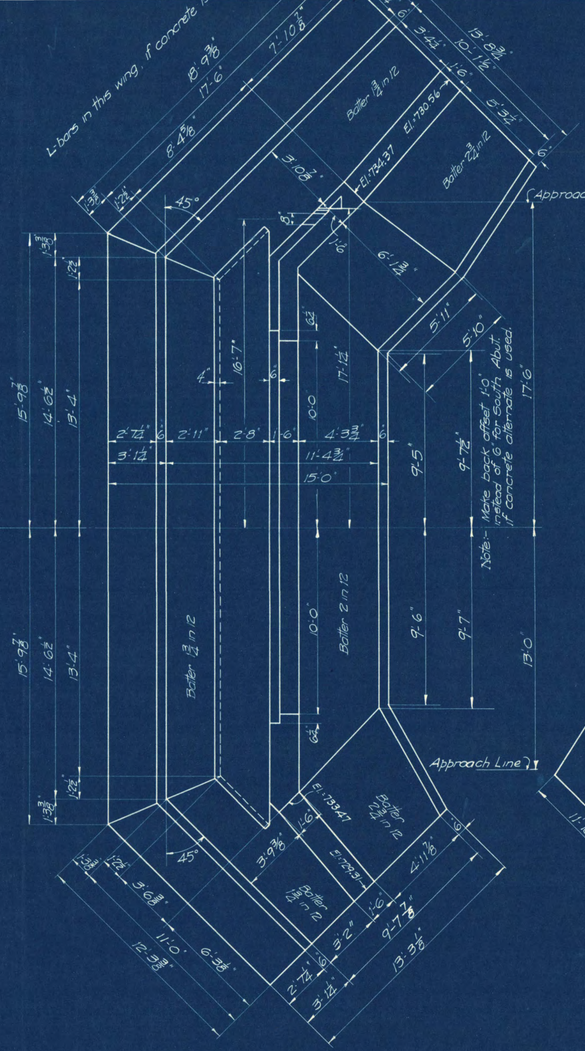
March 20, 1925.

| | | |

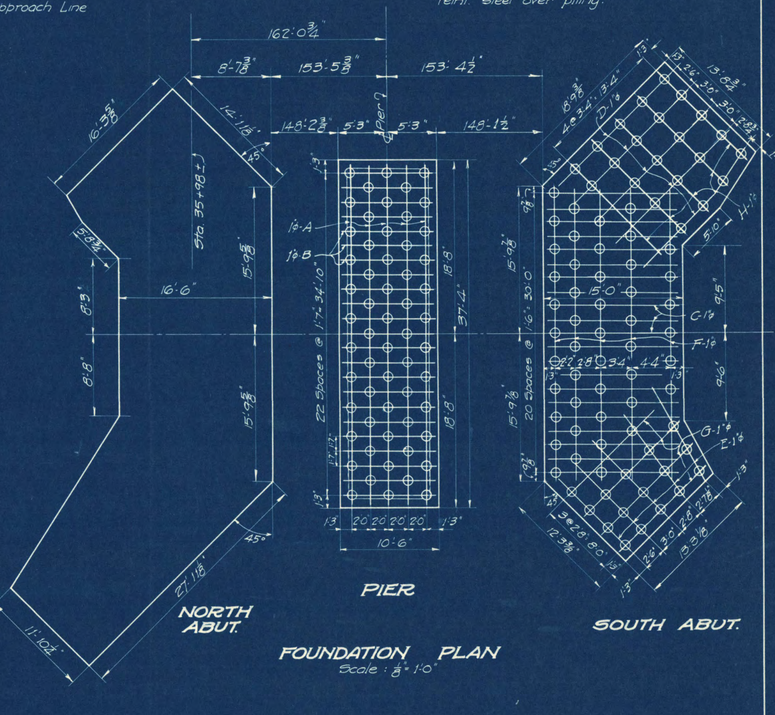


PLAN
Scale: 1/4" = 1'-0"

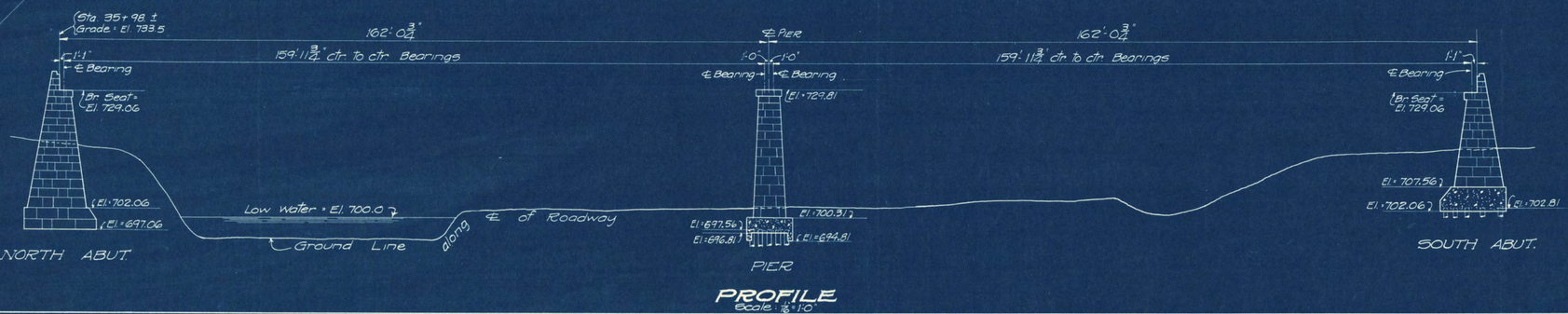
PIER



SOUTH ABUT.



FOUNDATION PLAN
Scale: 1/8" = 1'-0"



NORTH ABUT.

PIER

SOUTH ABUT.

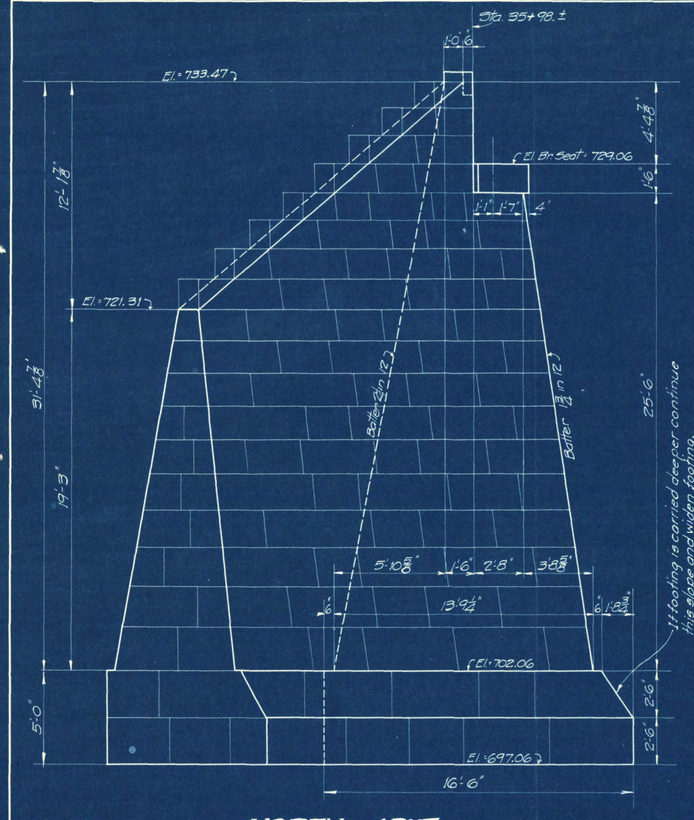
PROFILE
Scale: 1/8" = 1'-0"

SUBSTRUCTURE
STEEL THRU TRUSS
GLENVILLE BRIDGE
2 SPANS @ 159'-11 3/4" — 20'-0" ROADWAY — 1'-5'-0" SIDEWALK
ON
GLENVILLE - SPENCER ROAD
OVER
LITTLE KANAWHA RIVER
AT GLENVILLE
GILMER COUNTY
DESIGNED BY
STATE ROAD COMMISSION
CHARLESTON, W.VA.

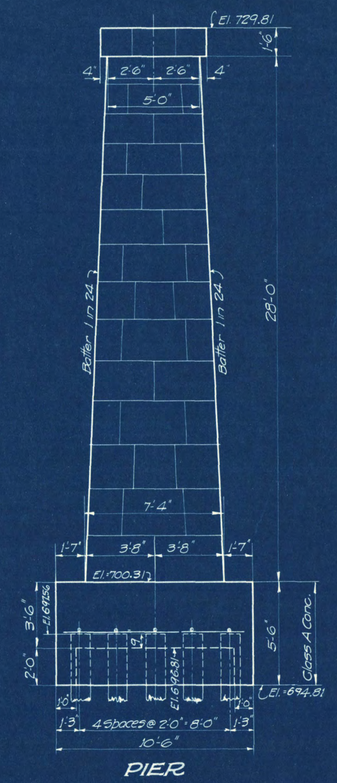
SCALE: AS SHOWN
DATE: MAY, 1929

PROJECT # 3334
SHEET # 2 OF 2

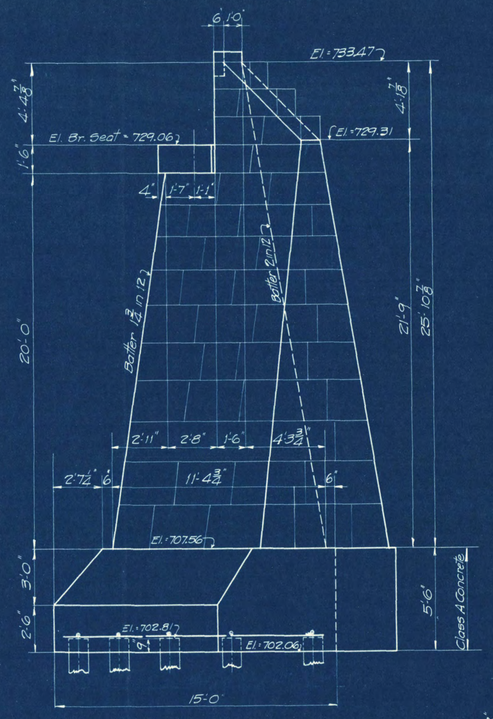
#1006



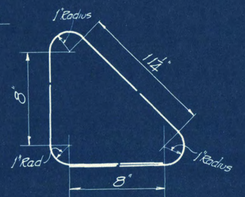
NORTH ABUT.



PIER



SOUTH ABUT.



J - BAR
(2 for each post hole)
(For conc. alternate)

NOTES

Alternate bids will be received on Concrete and Ashlar Masonry Substructure to be Ashlar stone masonry except below elevation of top of footing in pier and South abutment, which is to be Class A concrete or Substructure to be Class A concrete above elevations of bridge seat copings and Class B below these elevations.

If Ashlar Masonry is used make as shown on plans.

If Concrete is used make the width of curtain wall and top of wings 1'-0" instead of 1'-6", hold the width of footings for pier and South Abutment the same as shown for masonry, make width of footing for North Abutment 6" less. Keep all batters the same as shown on plans for masonry

Place Two 4" drains in each abutment, one in each short wing and two in long wing at about El. 711. for North Abutment and El. 709. for South Abutment

Extend 4" drains to toe of slope by means of French drains, excavation for same to be included in Item #1.

Contractor to submit a unit bid on Items shown in Estimate.

If footing of South Abut. is carried deeper a new foundation plan will be prepared by the Bridge Division.

Specifications by State Road Commission, June 1928.

BILL OF REINF. STEEL IF CONCRETE IS USED.

No	Letter	Size	Length
4	J	1/2" ø	31'6"
4	K	1" ø	32'0"
4	L	1" ø	17'0"

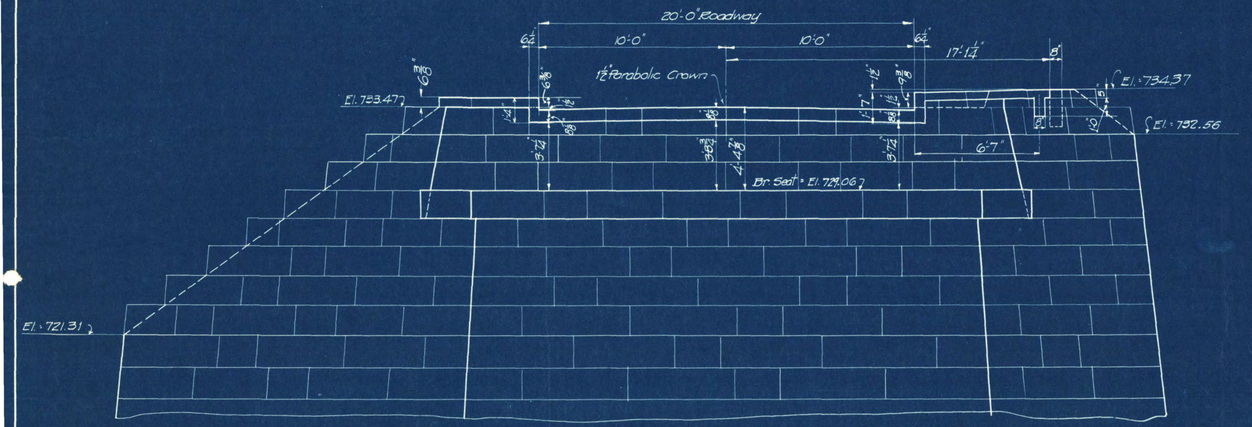
BILL OF REINF. STEEL IF ASHLAR MASONRY IS USED.

No	Letter	Size	Length
5	A	1" ø	37'0"
23	B	1" ø	10'2"
21	C	1" ø	14'8"
5	D	1" ø	17'0"
5	E	1" ø	11'0"
5	F	1" ø	31'6"
4	G	1" ø	13'0"
5	H	1" ø	13'6"

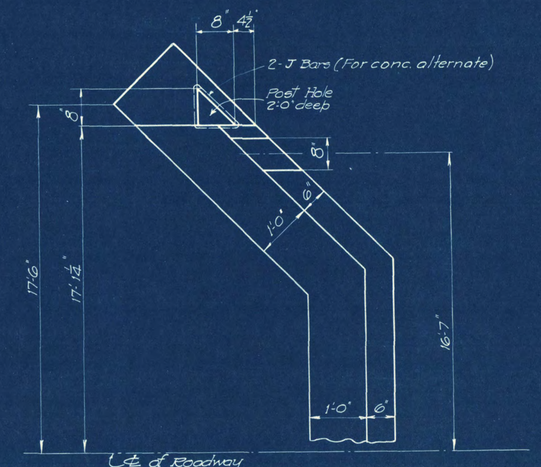
ESTIMATE

(1)	Dry excavation	1190 C.Y.
(2)	Wet excavation	170 C.Y.
(3)	Rock excavation	20 C.Y.
(4)	Timber piles (Assume 16'0")	2272 Lin. Ft.
(6)	Class A concrete	201 C.Y.
* (7)	Class B concrete	1275 C.Y.
(11)	Reinforcing steel	3050 Lbs.
(16)	Ashlar masonry	1187 C.Y.
* (29)	Class A concrete	54 C.Y.
* (30)	Reinforcing steel	540 Lbs.

*NOTE: Items 7, 29, & 30 are alternates for Items 6, 11, & 16.



FRONT ELEVATION— NORTH ABUT.
Scale: 1/4" = 1'-0"

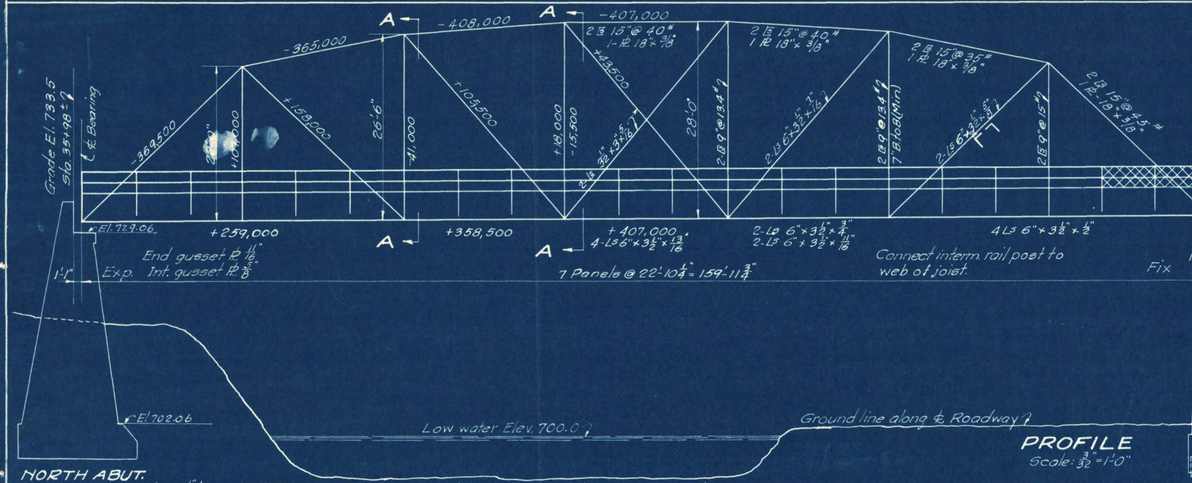


DETAIL OF END RAILING POST HOLE & SIDEWALK JOIST SLOTS
Scale: 3/4" = 1'-0"

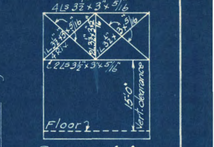
References —
For superstructure plan see SUPERSTRUCTURE # 1006
For SITUATION PLAN See # 1006 A.

SUBSTRUCTURE
STEEL THRU TRUSS
GLENVILLE BRIDGE
2 SPANS @ 157'-11 7/8" ~ 20'-0 ROADWAY ~ 1'-50" SIDEWALK
ON
GLENVILLE — SPENCER ROAD
OVER
LITTLE KANAWHA RIVER
AT GLENVILLE
GILMER COUNTY
DESIGNED BY
STATE ROAD COMMISSION
CHARLESTON, W.VA.

SCALE: AS SHOWN
DATE: MAY, 1929
PROJECT # 3334
SHEET # 1 OF 2
1006



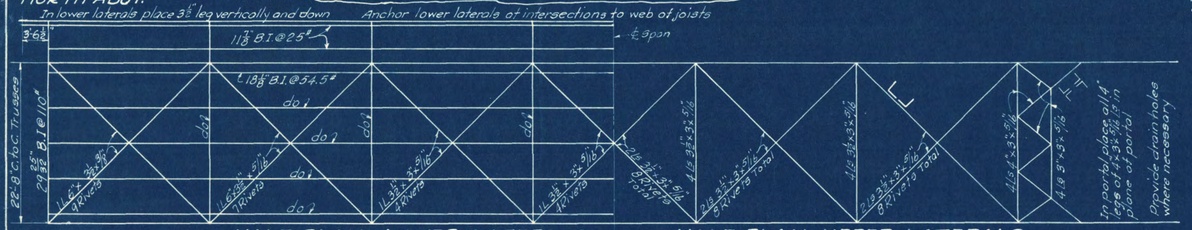
PROFILE
Scale: 3/32"=1'-0"



SECTION-A-A

NORTH ABUT.

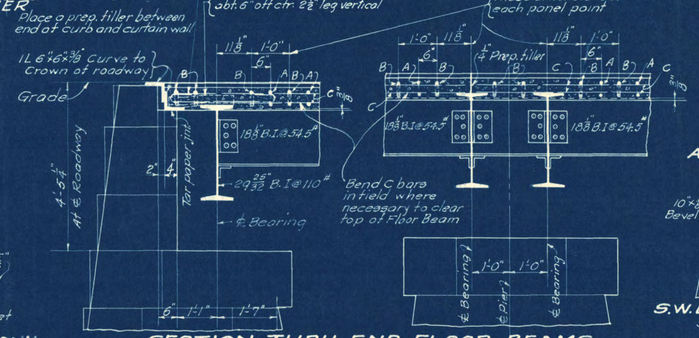
SOUTH ABUT.



HALF PLAN- LOWER LATERALS

HALF PLAN-UPPER LATERALS

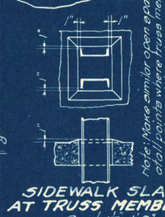
Scale: 3/32"=1'-0"



PIER

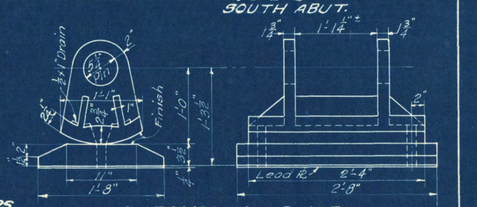
SECTION THRU END FLOOR BEAMS

Scale: 3/8"=1'-0"



SIDEWALK SLAB AT TRUSS MEMBERS

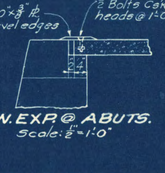
Scale: ½"=1'-0"



EXPANSION SHOE

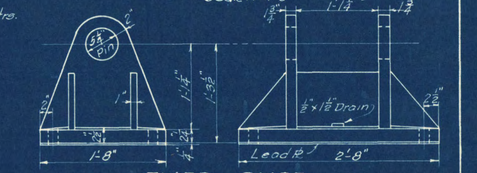
MATERIAL: CAST STEEL - 4 REQD

Scale: 1"=1'-0"



S.W. EXP. @ ABUTS.

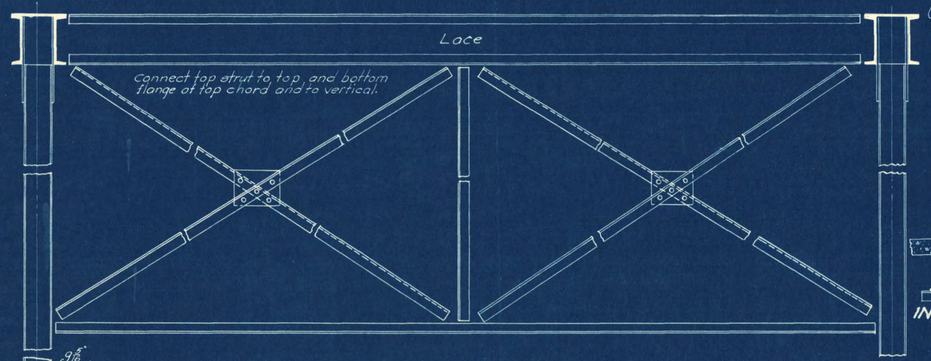
Scale: ½"=1'-0"



FIXED SHOE

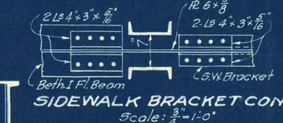
MATERIAL: CAST STEEL - 4 REQD.

Scale: 1"=1'-0"



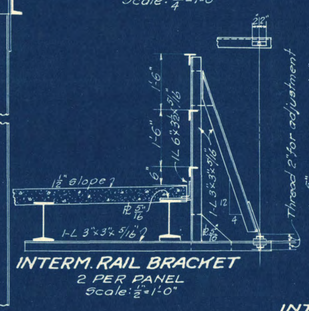
HALF SECTION

Scale: ½"=1'-0"



SIDEWALK BRACKET CONN.

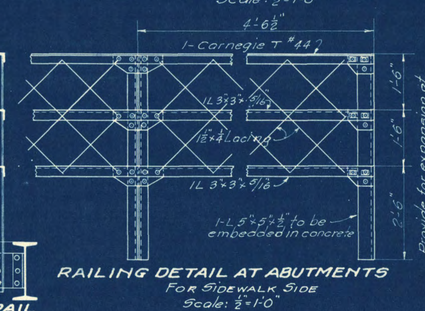
Scale: ¾"=1'-0"



INTERM. RAIL BRACKET

2 PER PANEL

Scale: ½"=1'-0"



RAILING DETAIL AT ABUTMENTS

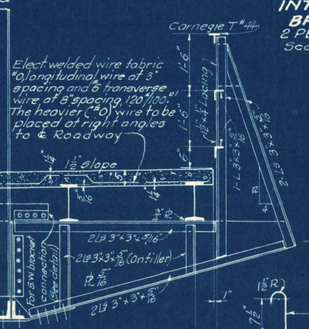
For Sidewalk Side

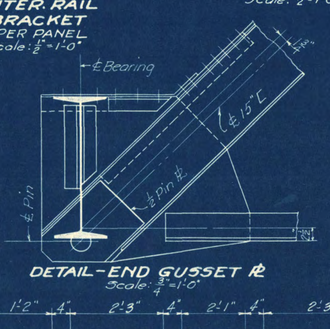
Scale: ½"=1'-0"

INTER. RAIL BRACKET

2 PER PANEL

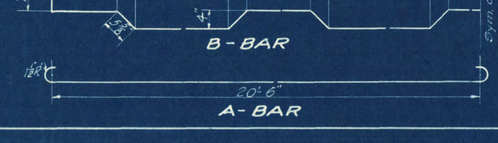
Scale: ½"=1'-0"





DETAIL-END GUSSET PL

Scale: ¾"=1'-0"



ASSUMED LOADINGS

LIVE LOAD: H15 Loading

DEAD LOAD: 2475 lbs. per lineal foot of truss.

Bridge designed for a wearing surface of 25 lbs. per sq. ft. of roadway not included in this contract.

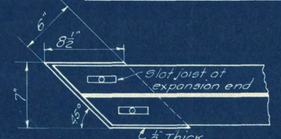
ESTIMATE

Structural steel	462000 Lbs.
Cast steel	7500 Lbs.
Sheet lead	520 Lbs.
Class A concrete	191 Cu. yds.
Reinf. steel	25400 Lbs.
Elect welded wire fabric	3330 Lbs.
Galv. curb guard	975 Lbs.

(22)

BILL OF REINFORCING STEEL

No.	Letter	Size	Length
589	A	⅜" ϕ	21'-6"
314	B	⅞" ϕ	23'-6"
190	C	1¼" ϕ	34'-0"
48	D	1¼" ϕ	4'-4"
Elect welded wire fabric #0 & #6			2775 sq. ft.
Galv. curb guard			650 Lin. ft.



MASONRY PLATE FOR S.W. JOISTS

Scale: 1½"=1'-0"

NOTES

Concrete in floor to be class A

The final coat of field paint to be aluminum graphite, to be approved by the Dept. of Tests. (See attached color card)

Contractor to submit a lump sum bid on steel superstructure complete in place, including floor.

Provide two ⅞" ϕ holes at 8" ctrs. in cover plate for State name plate.

Specifications by State Road Commission, June, 1928.

References:-
For substructure plan see Substructure #1006.
For Situation plan see #1006A.

SUPERSTRUCTURE STEEL THRU TRUSS GLENVILLE BRIDGE

2 SPANS @ 159'-11¾" - 20'-0 ROADWAY - 1'-5'-0 SIDEWALK

ON

GLENVILLE - SPENCER ROAD

OVER

LITTLE KANAWHA RIVER

AT GLENVILLE

GILMER COUNTY

DESIGNED BY

STATE ROAD COMMISSION

CHARLESTON, W.VA.

SCALE: As Shown
PROJECT #3394

DATE: May, 1929

#1006

2-S- Frame Hotel Bldg.

Garage

Tailor Shop

S 50°-42' W

34+00 35+00 36+00 37+00 38+00 39+00

RIVER KANAWHA LITTLE

Brook

P.C. 39+32.6

Δ=33°-50'
D=24°

LOCATION SKETCH

L. KANAWHA RIVER — GLENVILLE — Bridge Site

Source of Materials

Shipping point - Gilmer Station, 13 miles, graded road or Weston, 26 mi., paved road.
Sandstone for masonry can be obtained locally.
Timber for piling
Several samples of stone within a radius of about 2 miles from Bridge Site have passed the test for Stone Masonry.
Ohio River Sand & Gravel to be used in all classes of concrete

46' 139' 40'

B.M. Elev. 733.62

23' 29' 5500 sq. ft. 29' 18'

STEEL BRIDGE 400' UPSTREAM

B.M., Bronze Tablet stamped "733 Grafton", in top stone of middle pier on east side of present bridge.
Elev. 733.623

A B C L

D E F

G H I K J

LEGEND
Soundings - ⊗
Borings - ◎
- Abbreviations -
Green Sandstone = Gr.S.S.
Gray Shale = G.S.
Green " = Gr.S.
Red " = R.S.

Datum for Borings

+2%

100' V.C.

El. Revised Grade = 733.5

El. High Water = 728.0

El. Low Water = 700.0

Sand bar covered with vegetation such as is commonly found in swamps, etc.
Completely submerged during rainy season.

PLAN & PROFILE
OF
BRIDGE SITE
OVER
LITTLE KANAWHA RIVER
AT
GLENNVILLE, GILMER CO.
WEST VIRGINIA.

Scale 1"=20 March 20, 1925.

34 35 36 +12 +25 37 38 39 40

1006-A

STRUCTURE NOTATIONS CH. 40.

Div. No.	State Proj. No.	Fed. Aid Proj. No.	Fiscal Year	Plan & Profile	Sheet No.	Total Sheets
4	3334		1925	15+00 to 30+00	4	14

Sta. 18+50 Build 24" R.C.P.Culv. 60 long, 2 hd'lls.

Δ=17°-50' L
D=10°
T=30.69
L=179.67
R=573.69
W=2'-0"
E=0.06 per ft.

P.C.=20+62.36

P.T.=22+42.03

Sta. 22+50 Build 18" R.C.P.Culv. 36' long, 45° skew, 2 hd'lls.

Sta. 25+50 Build 18" R.C.P.Culv. 36' long, 45° skew, 2 hd'lls.

Sta. 29+00 Build 18" R.C.P.Culv., 26' long, 2 hd'lls.

Δ=8°-42' R
D=9°
T=47.55
L=94.81
R=637.27
W=2'-0"
E=0.05 per ft.

P.C.=26+61.15

P.T.=27+49.36

S. 42°-00' W.

S. 50°-42' W.

S. 53°-58' W.

ROADWAY

CONC. WALK

3" Gas Line

Hub

Tack in beach across Run

Barn

Hickory across Run

Small Walnut on Run bank

1-S.F.D.

JESSE N. TIERNEY'S HEIRS
Pt. 27+48

JAMES HARDMAN

JAMES HARDMAN
Pt. 15+58

A. F. BERKHOUSE

A. F. BERKHOUSE
Pt. 20+76

E. I. SINGLETON

E. I. SINGLETON
Pt. 22+58

CHARLES LEWIS

CHARLES LEWIS
Pt. 24+69

LORENTZ HEIRS

J.N. TIERNEY'S HEIRS
Pt. 27+35

J.N. TIERNEY'S HEIRS
GILMER CO. COURT HOUSE

LORENTZ HEIRS
Pt. 27+26

DR. J.E. EWING

E. I. SINGLETON
Pt. 29+00

MRS. J.A. CAIN
Pt. 29+12

J.F. POWELL

P.I.=813.0

P.I.=803.0

P.I.=747.0

-0.28 %

-5.00 %

-8.71 %

-4.42 %

V.C.=200'

V.C.=200'

V.C.=200'

Grade	813.86	813.71	813.57	813.43	813.29	813.25	816.82	815.21	813.00	810.27	807.07	803.41	799.29	794.93	790.57	786.21	781.86	777.50	773.14	768.79	764.43	760.07	755.71	751.63	748.07	745.06	742.53	740.37	738.16	735.95	733.74
Ground	820.6	820.4	820.2	819.4	817.1	811.0	804.2	803.0	803.9	814.4	811.5	805.8	793.5	791.0	788.8	787.0	782.0	777.6	773.5	768.4	763.7	759.5	756.6	750.9	747.3	745.9	742.7	740.7	740.3	739.7	739.5
	15		16		17		18		19		20		21		22		23		24		25		26		27		28		29		30

PROFILE
Inspected
Plotted
Sent Book
Checked
Traced
Approved

Div. No.	State Proj. No.	Fed. Aid Proj. No.	Fiscal Year	Plan & Profile	Sheet No.	Total Sheet
4	3334		1925	30+00 to 45+75	5	14

GLENVILLE

GLENVILLE GARAGE CO.

Sta 31+10 Build 18" R.C.P.Culv. 26'10"Sq. Headwall, 1 Inlet.

Sta 33+10 and 33+60 Build 2-18" R.C.P.Culv. length 55' each, 4 Inlets.

GILMER CO. COURT HOUSE

ROBERT MAGEE

1-3 R.P. GARAGE

1-3 R.P. SHOP

1-3 BRICK GARAGE

STREET

LEE GAINER & BLAIR GAINER

2-3 F.P. HOTEL

1-3 F.P. GAR.

1-3 F.P. SHED

CONC. WALK

3" GAS LINE

S. 50°-42' W.

1-3 F.P.D.

2-3 F.P. STORE

1-3 F.P. OFFICE

1-3 F.P. POOL ROOM

COURT ALLEY

MAIN

J. F. POWELL

O. B. McCARTNEY

FLOYD FURR

S. A. HAYES

BLAINE WILSON & CHARLES LORENTZ

S. A. HAYES & A. L. HOLT'S HEIRS

LITTLE KANAWHA RIVER

GEORGE CAIN

Large Sycamore on River bank

Apple Tree on top of bank

Δ = 54°-28' L
D = 16°
T = 184.97
L = 340.6
R = 359.26
W = 2°-0"
E = 0.07' per ft.

P.C. = 41+58.9

P.T. = 44+73.5

End of Project Sta. 45+75

S. 20°-04' W.

Δ = 33°-50' R
D = 24°
T = 73.4
L = 141.3
R = 240.49
W = 2°-6"
E = 0.09' per ft.

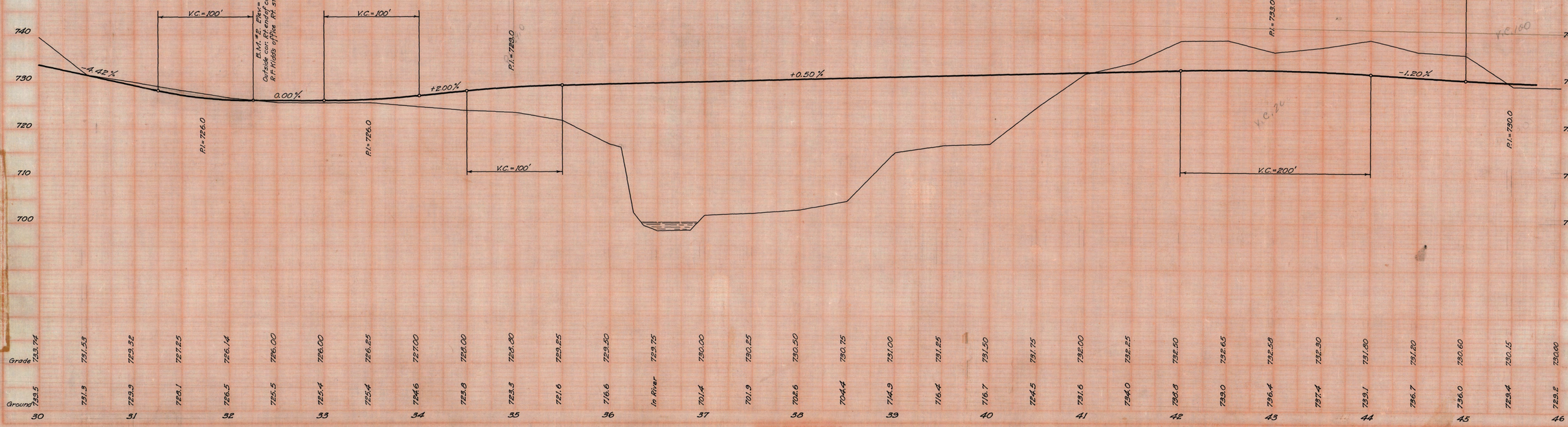
P.C. = 39+82.6

P.T. = 41+23.97

Tack in double Gum

Tack in leaning Apple Tree

Run



Dist No.	State Project	Fed Aid Proj No.	Fiscal Year	County	Sheet No.	Total Sheets
5	5346		1945 / 1946	Hardin	6	

PLAN
SURVEYED BY
PLOTTED
NOTE BOOK ALIGNMENT CHECKED
NO. RT. OF WAY CHECKED
DATE

PROFILE
SURVEYED BY
PLOTTED
NOTE BOOK GRADES CHECKED
NO. R. R. CROSSINGS
STRUCTURE NOTATIONS CHKD.
DATE

PLATE - PLAN PROFILE C.E. & F. K. STANDARD
KEUFFEL & ESSER CO., NEW YORK
K & E DC No. 346-PC

Dist. No.	State Proj. No.	Fed. Aid Proj. No.	Fiscal Year	County	Sheet No.	Total Sheets
5	5346		1945 1946	Hardy	7	

PLAN
FIELD BOOK NO. 2004-A
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
BY
DATE

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
B.M.'s NOTED
STRUCTURE NOTES CHECKED
NOTE BOOK
NO.
BY
DATE

330+00 N.M.
340+00
350+00
Arthur
Mitchell
POT 336+61.7
POT 341+50.00
PI = 345+51.00
Δ = 28° 43' Lt
D = 10° 00'
T = 147.20'
L = 286.47'
E = 9.17'
R = 573.70'
POST 345+60.00
POST 347+16.7
POT 339+23.00
360+00 N.M.
366+00
547° 30' W
36" CMP
15" CMP
6" Pine
8" Pine
10" Pine
12" Pine
Beech
Pine
Oak
Hickory
Maple
42" to 24" Locust
36" to 15" Sycamore
Begin Accessory Line
Sta 342+50
End Proj. 5346
S 52° 00' W
Sta 338+56 P.T.
Sta 339+30 P.C.C.
Sta 342+20 P.C.C.
Sta 338+88 P.C.C.
Sta 347+28.23 P.C.
PI = 341+67.53
Δ = 16° 47' Rt.
D = 10° 00'
T = 339.30'
L = 676.35'
R = 573.70'
E = 99.9'
Rock
Rock Outcrop
Rock Ledge
Rock Face
Boulder
Boulder 2' Rock above ground
Boulder 3' Rock above ground
2" Oak
24" Oak
30" Oak
36" Oak
Stump
Fence
Barb Wire Fence
Wire Fence
Log
Log Fence
Log Fence Post
Stone Fence
Stone Wall
Stone Fence Post
Stone Wall Post
Concrete Fence Post
Concrete Wall
Concrete Wall Post
Iron Fence
Iron Fence Post
Iron Wall
Iron Wall Post
Wood Fence
Wood Fence Post
Wood Wall
Wood Wall Post
Wire Fence
Wire Fence Post
Wire Wall
Wire Wall Post
Wire Fence Post
Wire Wall Post
Wire Fence
Wire Wall