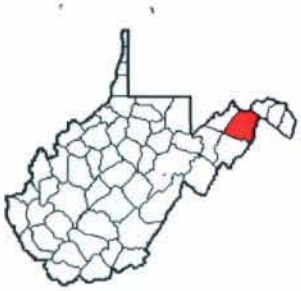
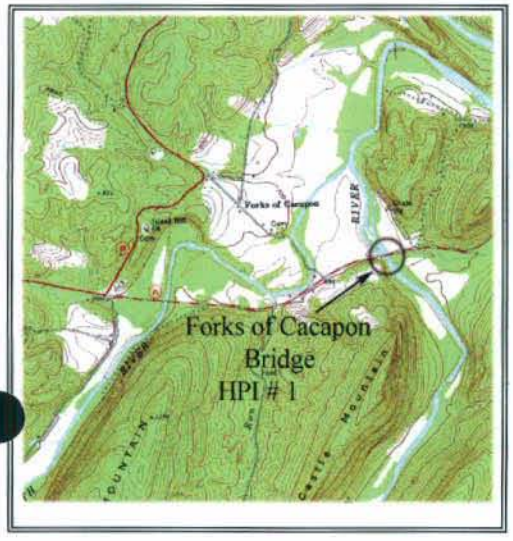
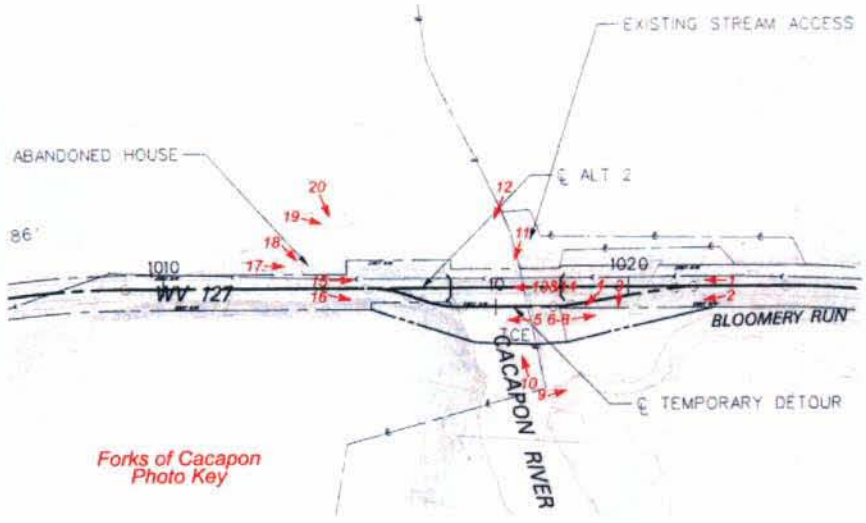
Internal Rating: _____



WEST VIRGINIA HISTORIC PROPERTY INVENTORY FORM

Street Address	**Common/Historic Name/Both**	**Field Survey #**	**Site # (SHPO Only)**
Located in Hampshire County along WV 127 at M.P. 1.40	☐ ☐ ☒ Forks of Cacapon Bridge Structure #10	HPI #1	HM-0795
Town or Community Forks of Cacapon, WV	**County** Hampshire County	**Negative No.**	**NR Listed Date**
Architect/Builder E.R. Mills	**Date of Construction** 1937	**Style** *(SHPO Only)*	
Exterior Siding / Materials Construction material: concrete and steel	**Roofing Material** Deck material: Concrete	**Foundation** Abutments: concrete Piers: concrete	
Property Use or Function Transportation	**UTM** Zone 17 NAD 1981 Easting 712,989 Northing 4,337,083		
Survey Organization & Date WVDOH September 1,2005	**Quadrangle Name** Largent		
	Part of What Survey / FR# Forks of Cacapon Bridge, State Project Number S314-127-1.40 00 Federal Project Number BR-0127(006)E (FR 06-138+1M)		





Name: Forks of Cacapon Bridge
Survey #: HPI #1
Survey / FR#: Forks of Cacapon Bridge Replacement: S314-127-1.40 00/BR-0127(006)E

Present Owners	**Owners Mailing Address**
WVDOT	Capitol Complex, Charleston, WV

Describe Setting

Unknown -- <1 Acres
☐ Archaeological Artifacts Present

The bridge is located in a very rural area and spans the Cacapon River. The bridge carries WV 127 over the Cacapon River, approximately 1 ½ miles east of the WV 127 and County Route 29 intersection. There is an abandoned house (structure #18) and a wood frame storage building (structure #19) near the job site.

Description of Buildings or Site (Original and Present) Stories Front Bays
See Continuation Sheet

Alterations ☑ Yes ☐ No If yes, describe
New flexbeam approach rails were installed in April of 1985.

Additions ☐ Yes ☑ No If yes, describe

Describe All Outbuildings
N/A

Statement of Significance:
See Continuation Sheet

Bibliographical References
WVDOH Bridge Files, Maintenance Division, October 1994 & 2004.
WVSHPO, Historic Property Inventory Form, Cultural Center, Charleston , WV, Jan. 1990
WVSHPO, HAER Inventory, Charleston, WV, Jan. 1976

Form Prepared By: **Date:** September 2,2005

Name/Organization: Sondra Mullins
Address: WV Division of Highways
Capitol Complex
Building 5, Rm. 463
Charleston, WV 25305

Phone #: 558-9487

WEST VIRGINIA HISTORIC PROPERTY FORM CONTINUATION SHEET

Name: Forks of Cacapon Bridge
Survey Number:
Project / FR#: Forks of Cacapon Bridge Replacement, S314-127-1.40 00/BR-0127(006)E

DESCRIPTION:

The existing bridge was built in 1937 and consists of a three span steel beam bridge spanning the Cacapon River. The builder was E. R. Mills from Charleston, West Virginia. The structure consists of two concrete abutments and two concrete piers. The bridge carries a 27' wide out to out cast in place reinforced concrete deck with an additional hot laid bituminous concrete (HLBC) wearing surface. Both approaches consists of 25' high shale fills extending some 300' in both directions. There are 4'4" wide additional gravel stabilized shoulders along each edge bringing the total approach roadway width to 31'. There are galvanized flexbeam rails and posts along each approach with wooden impact blocks in between. They overlap the concrete bridge parapets with adequate attachment. They terminate by flaring back with cable ties and treatments. The structure is 238'8" long and is 25' wide measuring from the insides of the railings. There are reinforced concrete open gothic parapets along each side. The travelway across the bridge has no sidewalks or shoulders. The curbs are reinforced concrete with the usable roadway width between them measuring 23'10-1/2" wide. It is approximately 20' from the bottom of the steel to the Cacapon River normal pool elevation. The bridge is located on a long tangent section of roadway with the nearest horizontal curve ending some 200' before abutment #1. The bridge is nearly level with a negative grade of 0.25%. There is no skew. There are no nearby intersections but a sportsman's access road and a concrete boat ramp begins 200' on the left from abutment #2 continuing back along the approach fill to the river. The Department of Natural Resources constructed the boat ramp in 2002-2003

STATEMENT OF SIGNIFIGANCE: The Forks of Cacapon Bridge is eligible for the National Register of Historic Places under Criterion C for master bridge builder, E.R. Mills.

STATE LEVEL HISTORIC DOCUMENTATION
FORKS OF CACAPON BRIDGE

Location: West Virginia Route 127, over Cacapon River
Forks of Cacapon
Hampshire County
West Virginia

USGS Largent Quadrangle

Date of Construction: 1937

Builder: E.R. Mills

Present Owner: West Virginia Department of Transportation
Division of Highways
1900 Kanawha Boulevard, Building 5, Room A-110
Charleston, WV 25305

Present Use: Transportation

Significance: The Forks of Cacapon Bridge is significant due to its association with a well known bridge builder.

Project Information: The project has been undertaken due to the poor condition of the structure. Any future deterioration of the bridge would result in its closure, the existing bridge warrants replacement. The documentation was undertaken in December 2006 in accordance with a Memorandum of Agreement among the West Virginia Department of Transportation, Federal Highway Administration and West Virginia State Historic Preservation Office. These measures are required prior to replacement of this National Register eligible structure.

Sondra L. Mullins, Historian
West Virginia Division of Highways
Charleston, WV 25305
January 2008

The Forks of Cacapon Bridge was built in 1937 by E.R. Mills of Charleston, WV. E.R. Mills began its operation in Kentucky and opened offices in Charleston in 1929. They continued to build bridges in West Virginia throughout the 1920's and 1930's. By 1941, the company was not awarded any new bridge contracts. After that the company seems to go out of business, they were no longer in the industrial directories put out by the WV Department of Labor.

The Forks of Cacapon Bridge consists of a three span steel beam bridge spanning the Cacapon River. The structure consists of two concrete abutments and two concrete piers. The bridge carries a 27' wide out to out cast in place reinforced concrete deck with an additional hot laid bituminous concrete (HLBC) wearing surface. Both approaches consists of 25' high shale fills extending some 300' in both directions. There are 4'4" wide additional gravel stabilized shoulders along each edge bringing the total approach roadway width to 31'. There are galvanized flexbeam rails and posts along each approach with wooden impact blocks in between. They overlap the concrete bridge parapets with adequate attachment. They terminate by flaring back with cable ties and treatments. The structure is 238'8" long and is 25' wide measuring from the insides of the railings. There are reinforced concrete open gothic parapets along each side. The travel way across the bridge has no sidewalks or shoulders. The curbs are reinforced concrete with the usable roadway width between them measuring 23'10-1/2" wide. It is approximately 20' from the bottom of the steel to the Cacapon River normal pool elevation. The bridge is located on a long tangent section of roadway with the nearest horizontal curve ending some 200' before abutment #1. The bridge is nearly level with a negative grade of 0.25%. There is no skew. There are no nearby intersections but a sportsman's access road and a concrete boat ramp begins 200' on the left from abutment #2 continuing back along the approach fill to the river. The Department of Natural Resources constructed the boat ramp in 2002-2003.

BIBLIOGRAPHY

Annual Report of the State Road Commission: For the Fiscal Year Ending June 30, 1941. Division of Public Relations, Charleston, WV, 1941.

Kell, Michael. West Virginia Bridge Builders History. Unpublished, No date.

United States Geological Survey. 1985. Largent 7.5 Topographic Quadrangle.

West Virginia Division of Culture and History. 2005 Hampshire County History. Historic Preservation Unit, WV Division of Culture and History, Charleston, W.V.

West Virginia Division of Highways, Bridge Files, Maintenance Division, Building 5, Capitol Complex, Charleston, West Virginia, June 2004.

West Virginia Division of Highways, Historic Property Inventory Form, Engineering Division, Building 5, Capitol Complex, Charleston, West Virginia, September 1, 2005.

STATE LEVEL HISTORIC DOCUMENTATION
INDEX TO PHOTOGRAPHS

Forks of Cacapon Bridge
West Virginia State Route 127
Cacapon River
Forks of Cacapon
Hampshire County, West Virginia

Photographer: Sondra Mullins June 2006

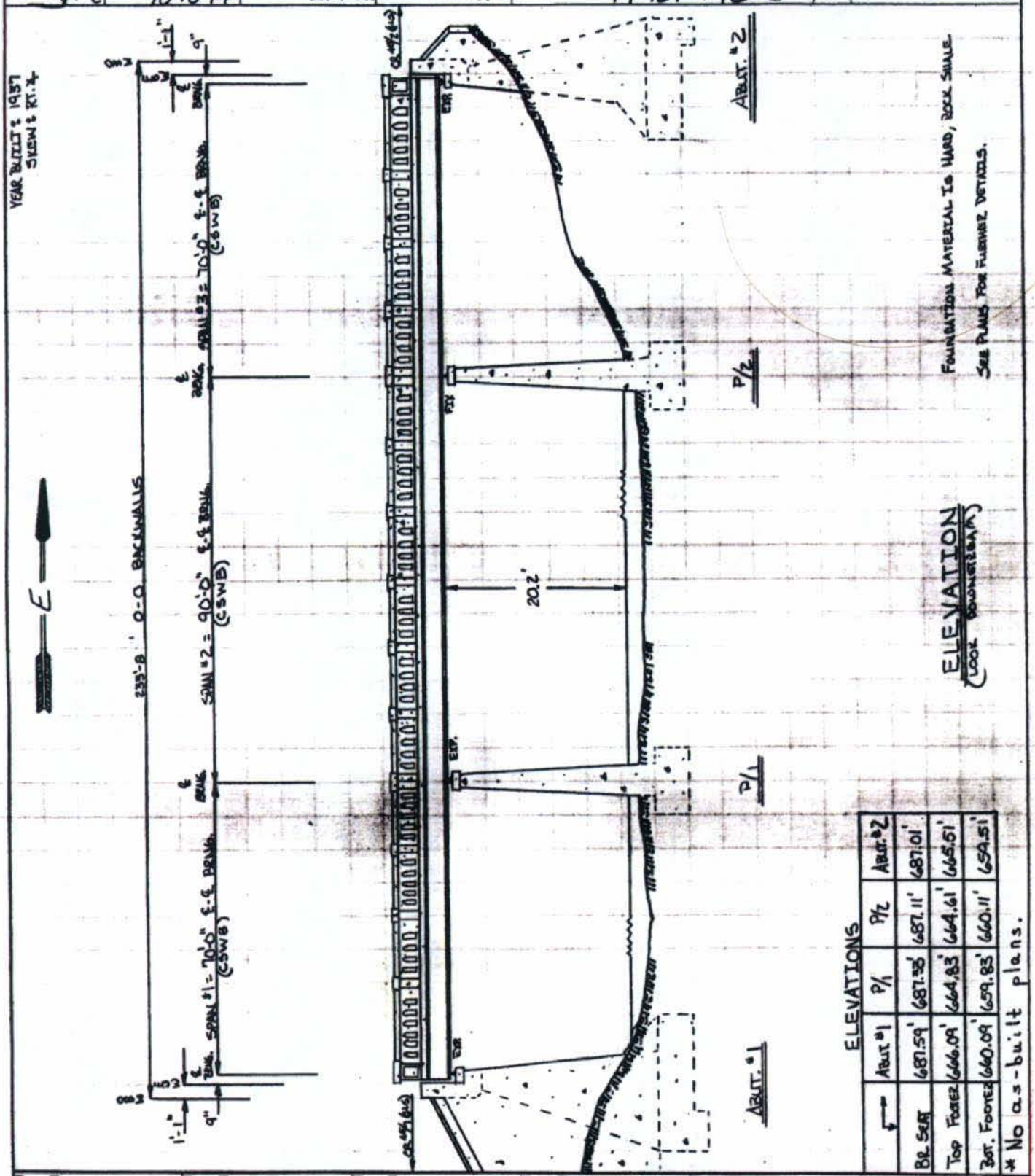
FORKS OF CACAPON-1	End View of structure looking East
FORKS OF CACAPON-2	Elevation View (Westside) looking downstream
FORKS OF CACAPON-3	View from Upstream side of bridge looking East
FORKS OF CACAPON-4	Elevation View looking downstream
FORKS OF CACAPON-5	Northside of Bridge looking downstream from Boat Ramp
FORKS OF CACAPON-6	Concrete Parapet Wall
FORKS OF CACAPON-7	Bridge Builder Plate on Abutment #2 downstream side
FORKS OF CACAPON-8	Bridge plaque on Abutment #1 upstream side
FORKS OF CACAPON-9	Photographic copy of original drawing (From of West Virginia Division of Highways Bridge Files, Charleston, West Virginia) Original plans for superstructure and substructure. Photographic copy of original drawing (From collection of West Virginia Division of Highways Bridge Files, Charleston, West Virginia) Original plans for piers and abutments.

WEST VIRGINIA DIVISION OF HIGHWAYS

Form DS-27
1-1-90

STRUCTURES DIVISION
GENERAL SKETCH SHEET

By:	Date:	Ckd By:	Date:	Bridge No.:	Sheet
[illegible]	10-18-94	L.W.M.	10/19/94	M-127-1.42 (1438)	15 of 20

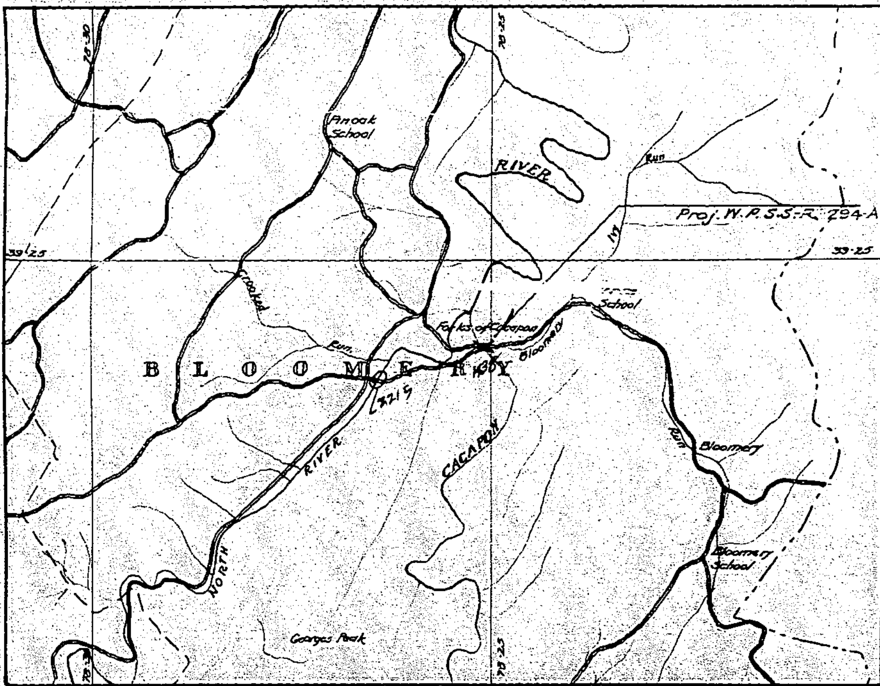


ELEVATIONS

	Abut #1	P/1	P/2	Abut #2
Bot. Seat	681.59'	687.35'	687.11'	687.01'
Top Footer	666.09'	664.83'	664.61'	665.51'
Bot. Footer	660.09'	659.83'	660.11'	659.51'

* No as-built plans.

Rev Date:	Rev Date:	Rev Date:	Rev Date:	Rev Date:	Rev Date:
By:	By:	By:	By:	By:	By:



SCALE 1/62500 — TRACED FROM U. S. G. S. HANGING ROCK-CAPON BRIDGE QUADRANGLE

THE STATE ROA
OF WEST

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FORKS OF CAC

Sta. 56+23.25 T
Length = 0.0
Plan 1 IN.=
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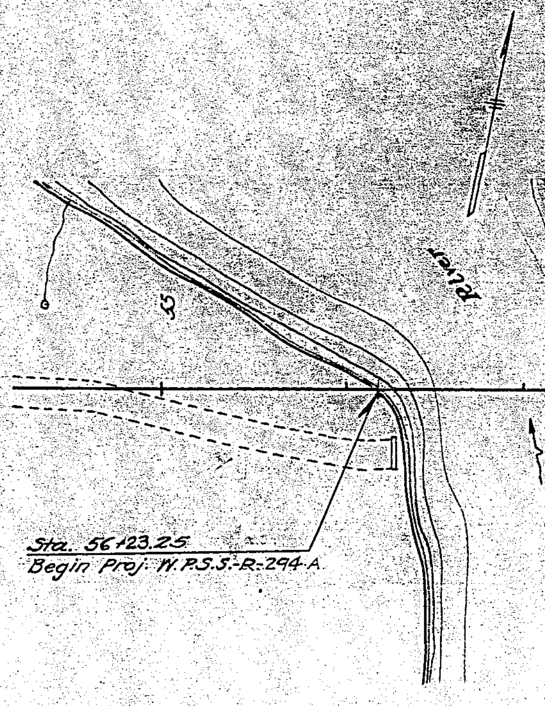


LAYOUT
SCALE 1 IN. = 550 FT

W. VA. ROUTE 45

PROJECT NO. W.P.S.S.-R-294-A

PREPARED & RECOMMENDED
E. C. Madden
ENGINEER OF PLANS & SURVEYS - STATE ROAD COMMISSION

REVIEWED

DISTRICT ENGINEER - STATE ROAD COMMISSION

RECOMMENDED FOR APPROVAL
Martinus A. Smith
CHIEF ENGINEER - STATE ROAD COMMISSION

APPROVED
STATE ROAD COMMISSIONER

APPROVED BY OFFICIAL ORDER OF THE STATE ROAD COMMISSION OF WEST VIRGINIA. ENTERED .... DAY OF 193

SECRETARY

CONVENTIONAL S

State Line
County Line
Corporation Line
District Line
Right of Way Line
Property Line
Fence Line }
Guard Rail }
Proposed Road
Traveled Road
Railroad
Electric Railway
Frame Dwelling

D COMMISSION
VIRGINIA

FOR CONSTRUCTION

ROAD

W. VA. ROUTE 45

. W.P.S.S.-R-294-A

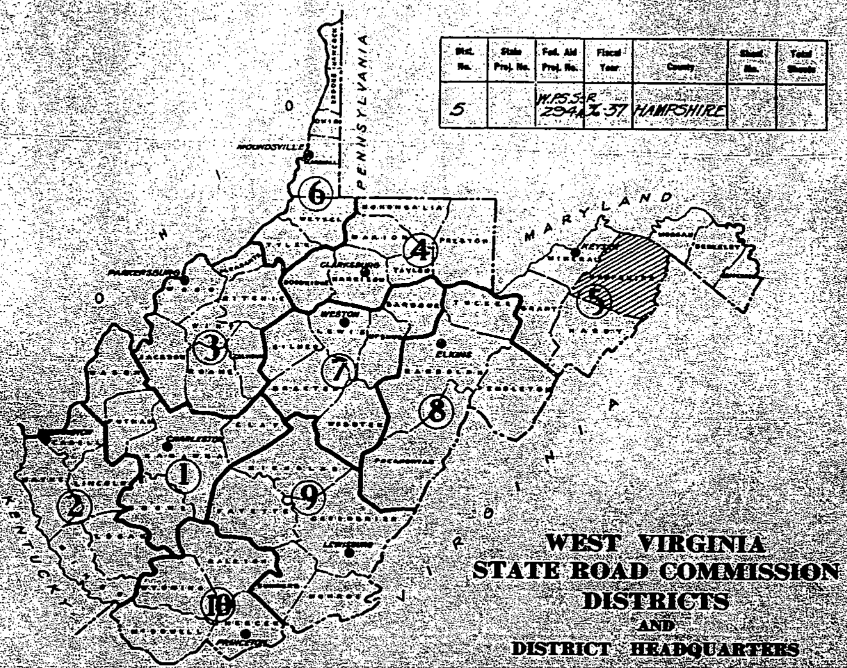
HAMPSHIRE COUNTY

APON BRIDGE

Sta. 58+56.75
4 Mi.

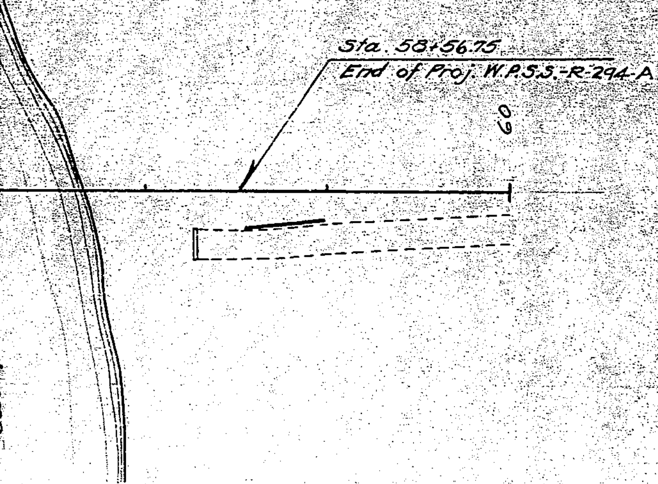
VERT. 1 IN.=

Dist. No.	State Proj. No.	Fed. Aid Proj. No.	Fiscal Year	County	Sheet No.	Total Sheets
5		W.P.S.S.-R-294-A	'37	HAMPSHIRE		



TYPE OF CONSTRUCTION

BRIDGE



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INDEX TO SHEETS

No.	Description
	Title Sheet
1 to 6	Bridge Plans
1438 A.	Bridge Situation Plan

PLANS COMPLETED August 1936

[redacted]

RECOMMENDED FOR APPROVAL

[redacted]

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

[redacted]

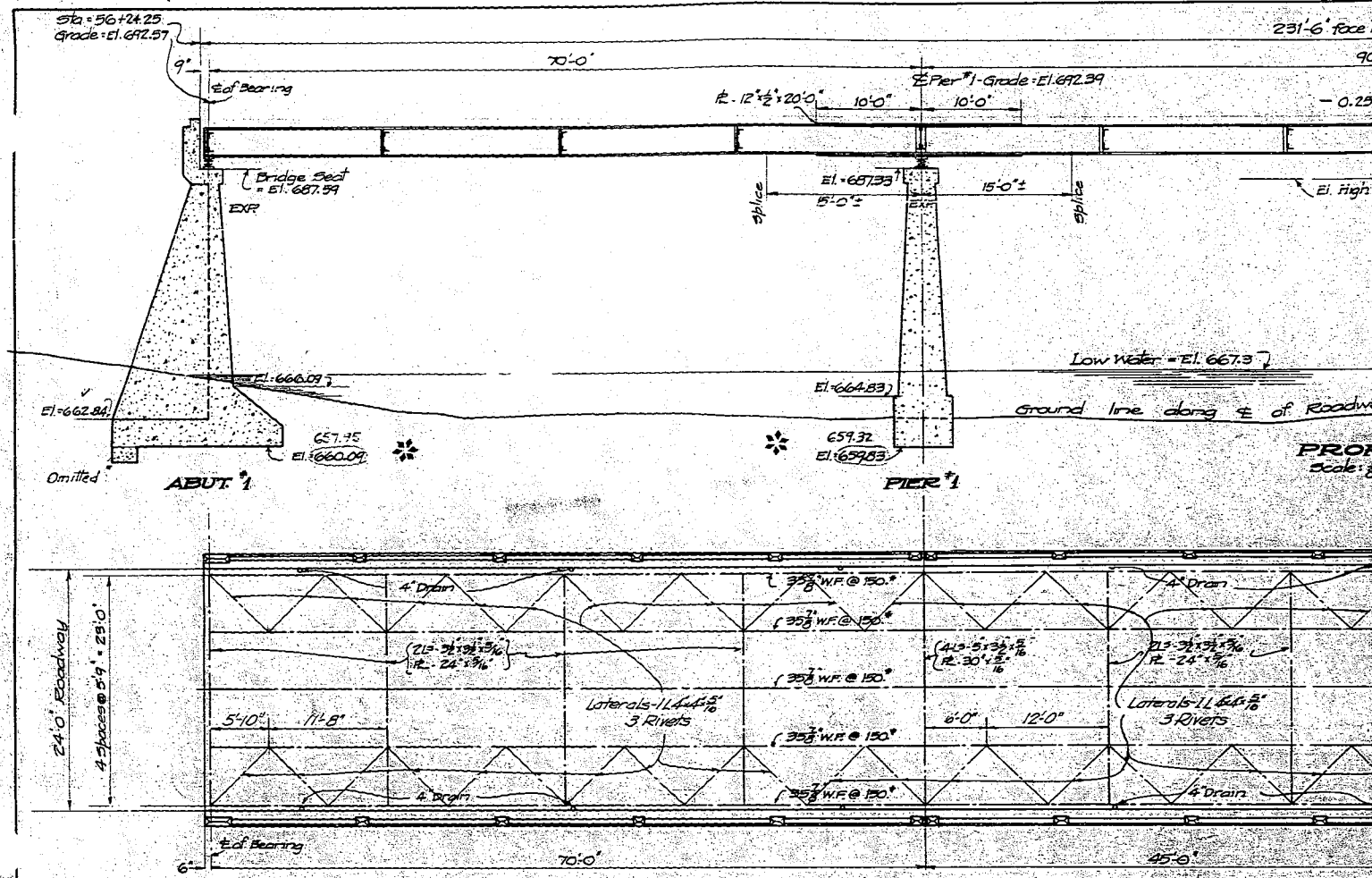
CHIEF ENGINEER - OFFICE OF PUBLIC ROADS AND RURAL ENG.

APPROVED

[redacted]

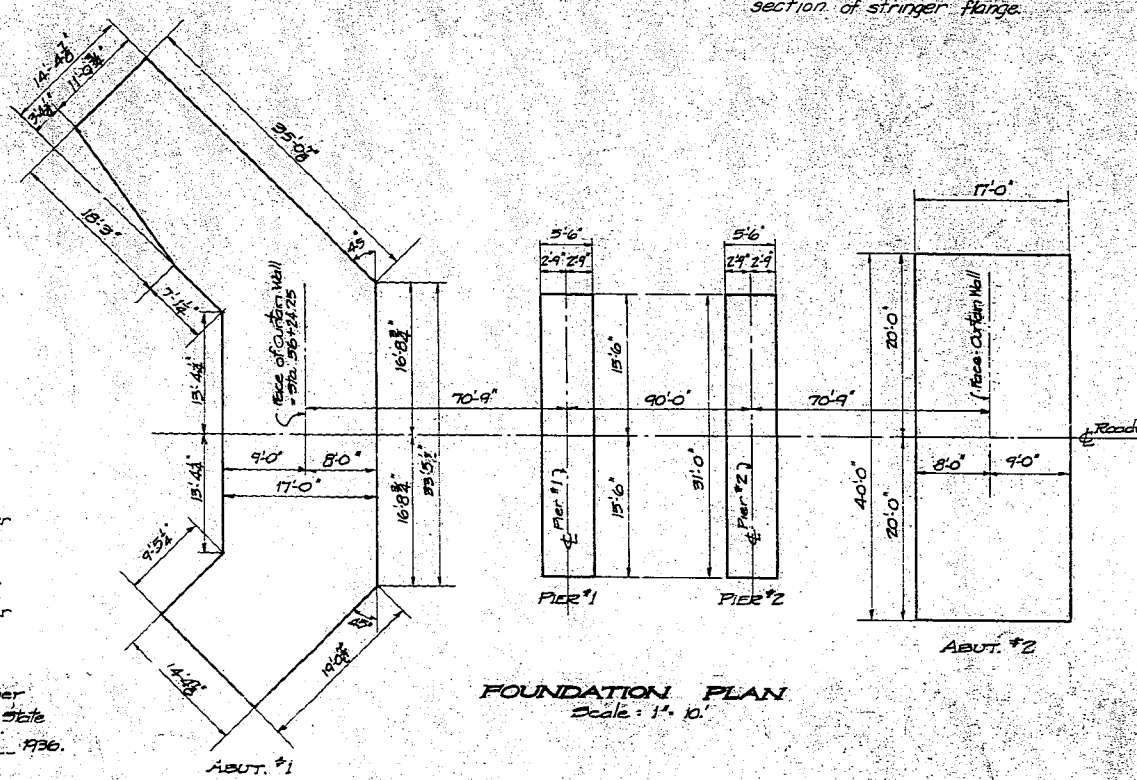
SECRETARY OF AGRICULTURE - OFFICE OF PUBLIC ROADS AND RURAL ENG.

1438



HALF PLAN
Scale: ⅛" - 1'-0"

Note: Laterals in plane of bottom flange only. Detail to deduct not more than one rivet hole for net section of stringer flange.



FOUNDATION PLAN
Scale: 1" - 10'

PRIMARY STATE ROUTE #45
PROJECT No. WP55-R 294-A

Prepared and Recommended:

_____
Bridge Engineer

Recommended for Approval:

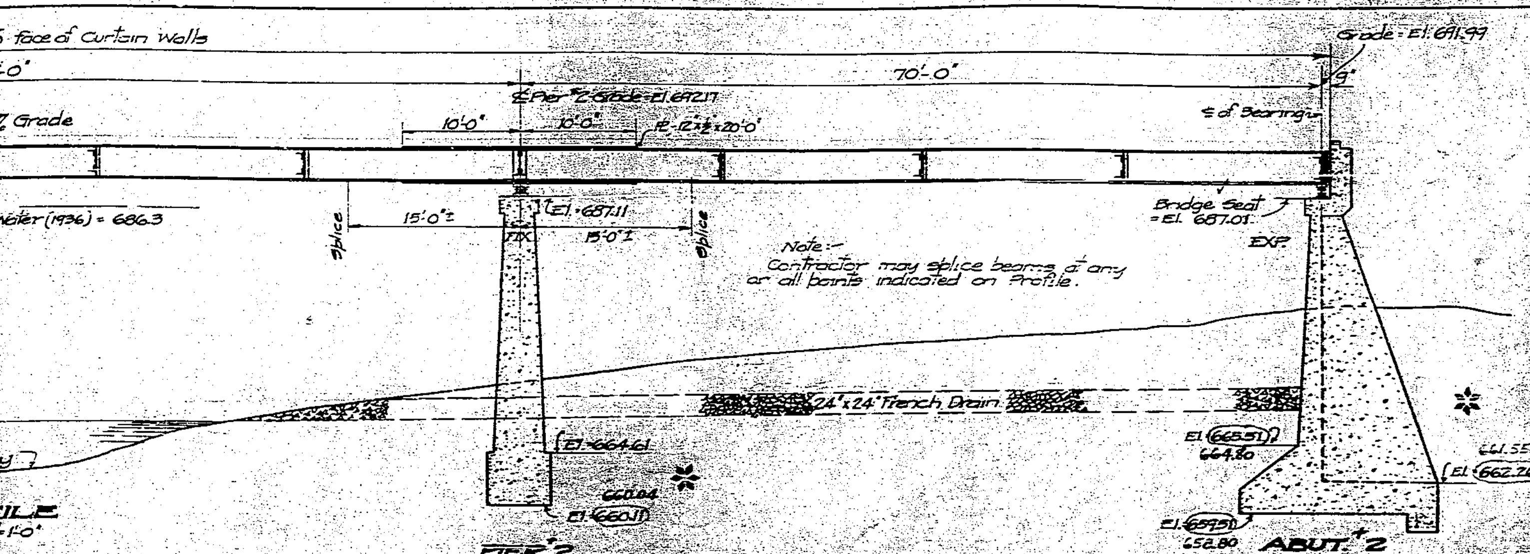
_____
Chief Engineer

Approved

_____
Commissioner

Approved by official order of the State Road Commission of West Virginia.
Entered the _____ day of _____ 1936.

_____
Secretary



NOTES

Concrete in superstructure shall be "Class A", except in railing which is to be "Class D."

Concrete in abutments shall be "Class A" and in piers shall be "Class B".

Reinforcing bars shall be made from new billet steel of intermediate grade.

All structural and rivet steel shall contain at least 0.2% copper.

Where prepared filler is called for use a filler similar to "Carey Elastite Rubber Expansion Joint" or "Servicized Cementone Expansion Joint", to be approved by the Engineer.

Bridge designed for H-15 live loading and a wearing surface of 25#/sq.ft. of roadway. The wearing surface is not to be included in this contract.

Place a four inch drain through abutments in each space between the counterforts and one through each counterfort. Drains to be placed at about Elev. 668 for Abut. #1 and at Elev. 669 for Abut. #2.

The backs of abutments from the base slab to within one foot of the top, counterforts and top of the base slab shall be waterproofed in accordance with Section #10 of Division II of the Specifications, except that the concrete protection course will not be applied. The Contractor will, however, be responsible for and must make good any damages to the waterproofing.

Allowable unit stresses for structural steel, rivet steel, and cast steel shall be increased 12½% over those given in the Specifications with a maximum of 15,000 #/sq.inch in axial compression.

Size of rivets to be ¾".

Shop drawings shall be in ink on tracing cloth and the tracings are to be delivered to the Commission upon completion of the contract.

The final coat of field paint shall be Aluminum according to the State Road Commission Specifications, dated December, 1936.

The Contractor shall submit a lump sum bid for the steel superstructure complete in place, excluding the concrete floor and railing, item 23, and a unit bid on all other items shown in the Estimate.

The unit bid on Class A concrete in the Superstructure shall include 4" drains, 16 oz. copper flashing and the prepared filler in the superstructure.

The unit bid on concrete railing shall not include reinforcing bars.

The unit bid on Class A Concrete in the substructure is to include the 4" drains and the copper flashing in the substructure.

Specifications by the State Road Commission, June 1928, with modifications and changes effective January, 1935.

Special provisions governing Works Program Highway and Flood Relief Funds, adopted by the State Road Comm. Nov. 10, 1936, will govern this project.

All concrete for the bridge shall be "Vibratory Concrete" in accordance with Amendment to Standard Specifications for Bridges, for vibratory concrete dated October, 1936.

The grading size for coarse aggregate of #6 for Class A Concrete, #26 for Class B Concrete and #16 for Class D Concrete in Road Specifications, 1935 will be accepted.

24"x24" French outlet drain, to be included in the price bid for Dry Excavation except the excavation is to be paid for as Dry Excavation. The pay width of trench for calculating this Dry Excavation shall be 2'-6".

ESTIMATE

Item	Description		Quantity	FINAL
①	Dry Excavation	=	540. Cu. Yds.	528.
②	Wet Excavation	=	667. Cu. Yds.	715.
③	Rock Excavation	=	70. Cu. Yds.	141.
⑤	Class A Concrete (Super.)	=	156.6 Cu. Yds.	164.9
⑥	Class A Concrete (Sub.)	=	501.7 Cu. Yds.	595.7
⑦	Class B Concrete	=	230.8 Cu. Yds.	238.4
⑩	Concrete Railing	=	461.7 Lin. Ft.	461.7
⑪	1¼"□ Reinf. Bars = 6,052.; 1⅛"□ = 2,179.; 1"□ = 11,754.; 1"φ = 4,945.; ¾"φ = 13,117.; ⅝"φ = 20,049.; ½"□ = 534.; ½"φ = 13,020.	=	71,650. Lbs.	71,679.
㉒	Steel Superstructure (Struc. Steel = 215,000.; Lead Pls. = 430.)		215,430. Lbs.	100 %
㉘	Bituminous Waterproofing	=	650. Sq. Yds.	650.

Reference - For Situation Plan see #1428-A

FORKS OF CACAPON BRIDGE

2-70 and 1-90 STEEL I BEAM SPANS, 24' ROADWAY

ON

PRIMARY STATE ROUTE #45

FORKS of CACAPON-MARTINSBURG ROAD

OVER

CACAPON RIVER

NEAR

FORKS of CACAPON

HAMPSHIRE CO. W. VA.

DESIGNED BY

STATE ROAD COMMISSION

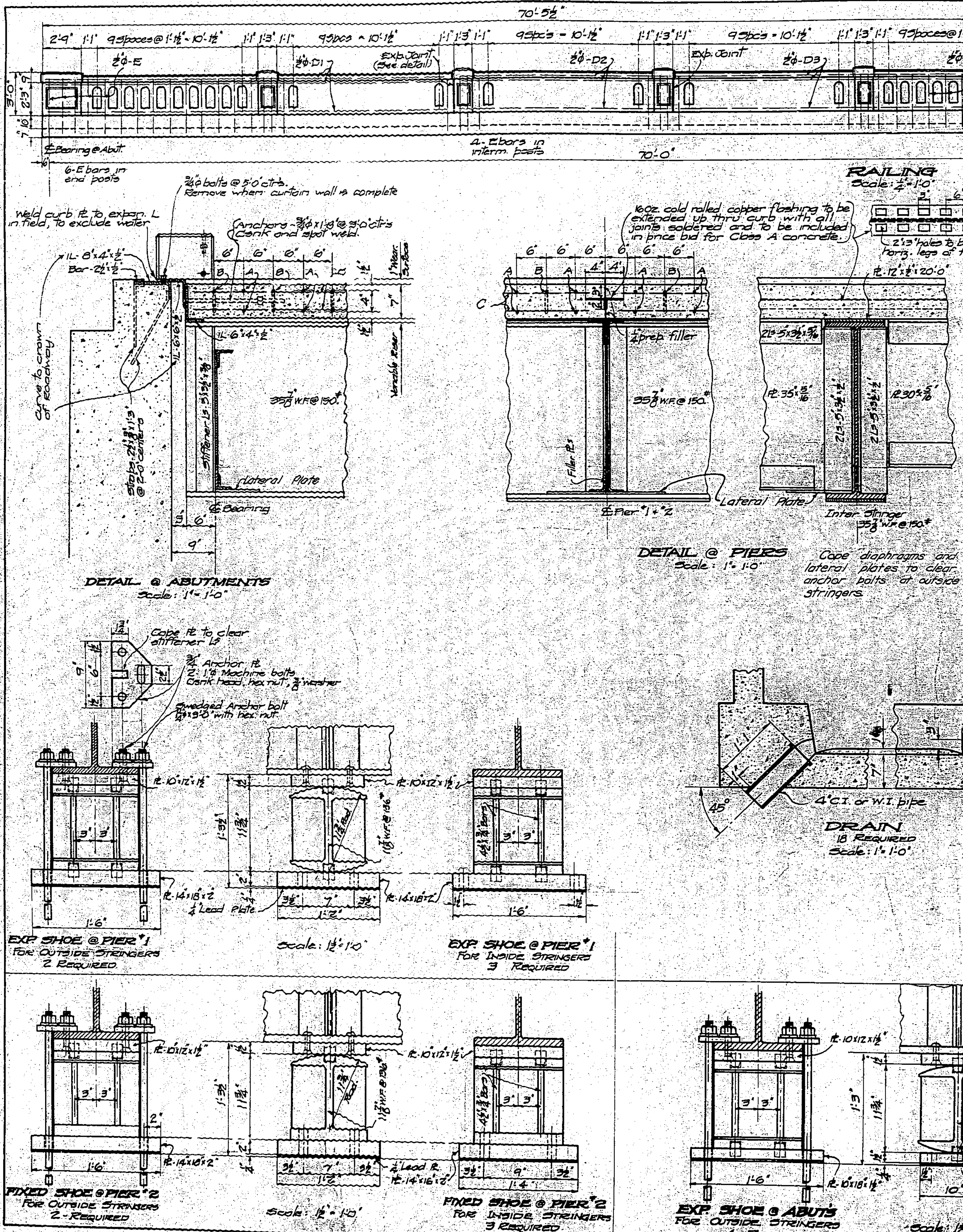
CHARLESTON, W. VA.

Scale: As Noted — August 1936

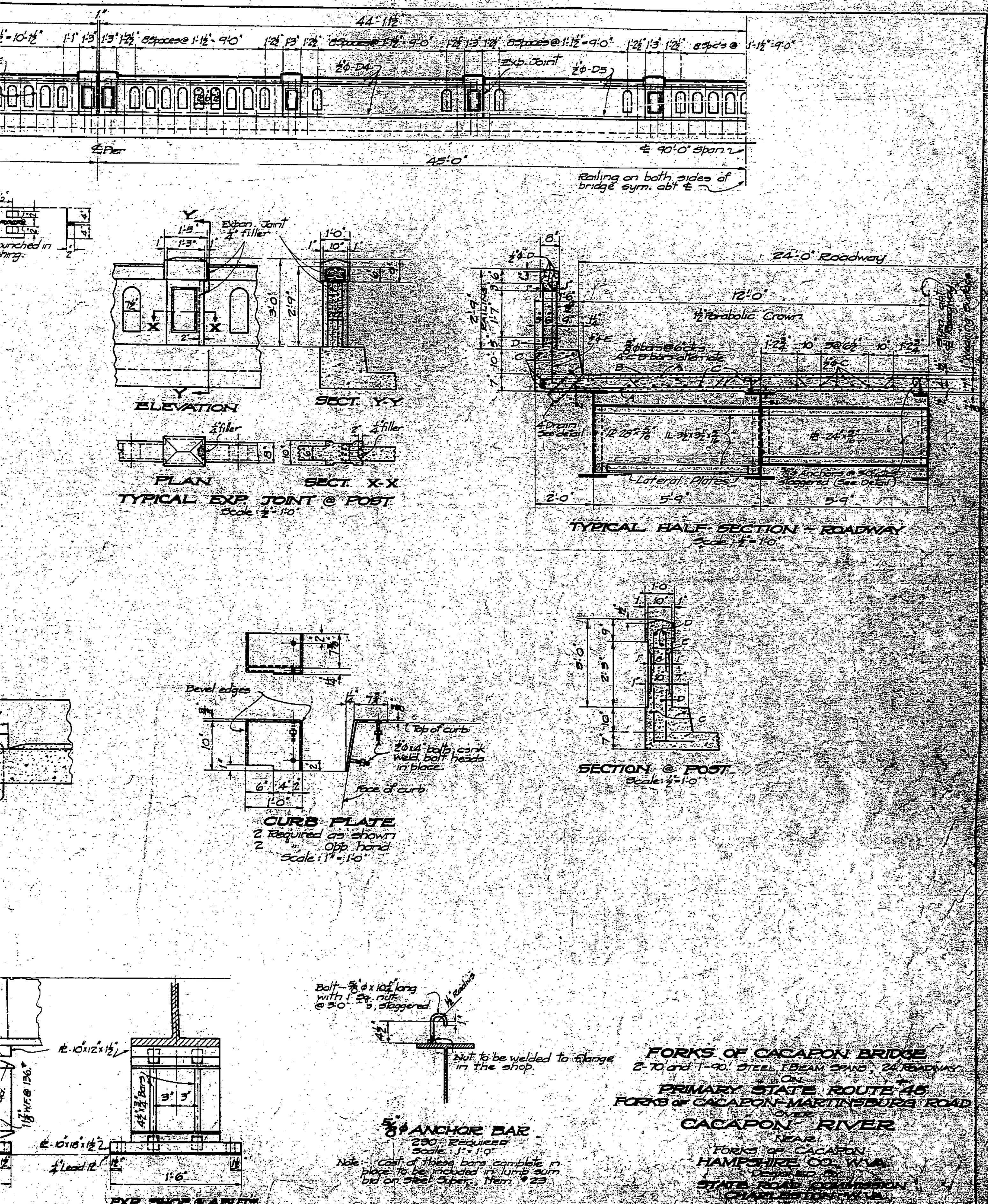
Project WPSS-12-094-A

Revised March 21, 1938 to show structure as built

Revised 12/1/36



70'-5½"
2'-9" 1'-1" 9 spaces @ 1'-1½" = 10'-1½" 1'-1" 1'-3" 1'-1" 9 spcs = 10'-1½" 1'-1" 1'-3" 1'-1" 9 spcs = 10'-1½" 1'-1" 1'-3" 1'-1" 9 spcs = 10'-1½" 1'-1" 1'-3" 1'-1" 9 spaces @ 1
½"φ-E
½"φ-D1
Exp. Joint (See detail)
½"φ-D2
Exp. Joint
½"φ-D3
℄ Bearing @ Abut.
4-E bars in interm. posts
70'-0"
6-E bars in end posts
RAILING
Scale: ¼" = 1'-0"
¾"φ bolts @ 5'-0" ctrs. Remove when curtain wall is complete
Weld curb ℞ to expan. L in field, to exclude water
Anchors - ¾"φ x 1'-8" @ 3'-0" ctrs. Csnk and spot weld.
1L-8"x4"x½"
Bar-2½"x½"
1" Wear. Surface
1L-6"x4"x½"
Curve to crown of Roadway
Stirrups-2½"x⅜"x1'-3" @ 2'-0" centers
Stiffener Ls-5"x3½"x⅜"
35⅞" W.F. @ 150#
Variable Riser
Lateral Plate
℄ Bearing
DETAIL @ ABUTMENTS
Scale: 1" = 1'-0"
16 oz. cold rolled copper flashing to be extended up thru curb with all joints soldered and to be included in price bid for Class A concrete.
¼" prep. filler
35⅞" W.F. @ 150#
Filler ℞s
Lateral Plate
℄ Pier #1 + #2
2'-3" holes to b... horiz. legs of ...
℞-12"x½"x20'-0"
2Ls-5"x3½"x5/16"
℞-35"x5/16"
℞-30"x5/16"
Inter. Stringer 35⅞" W.F. @ 150#
DETAIL @ PIERS
Scale: 1" = 1'-0"
Cope diaphragms and lateral plates to clear anchor bolts at outside stringers.
Cope ℞ to clear stiffener Ls
¾" Anchor ℞
2-1⅛" Machine bolts Csnk head, hex nut, ⅞" washer
Swedged Anchor bolt 1¼"x3'-0" with hex nut
℞-10"x12"x1½"
℞-14"x18"x2"
¼" Lead Plate
℞-14"x18"x2"
Scale: 1½" = 1'-0"
EXP. SHOE @ PIER #1
For Outside Stringers
2 Required.
EXP. SHOE @ PIER #1
For Inside Stringers
3 Required
4" C.I. or W.I. pipe
45°
DRAIN
18 Required
Scale: 1" = 1'-0"
℞-10"x12"x1½"
℞-14"x18"x2"
¼" Lead ℞.
℞-14"x16"x2"
FIXED SHOE @ PIER #2
For Outside Stringers
2-Required
Scale: 1½" = 1'-0"
FIXED SHOE @ PIER #2
For Inside Stringers
3 Required
℞-10"x12"x1½"
℞-10"x18"x1½"
EXP. SHOE @ ABUTS
For Outside Stringers
4-Required



FORKS OF CACAPON BRIDGE

2-70' and 1-90' Steel I Beam Spans, 24' Roadway

On

PRIMARY STATE ROUTE 45

FORKS OF CACAPON-MARTINSBURG ROAD

Over

CACAPON RIVER

Near

Forks of Cacapon

HAMPSHIRE CO. W.VA.

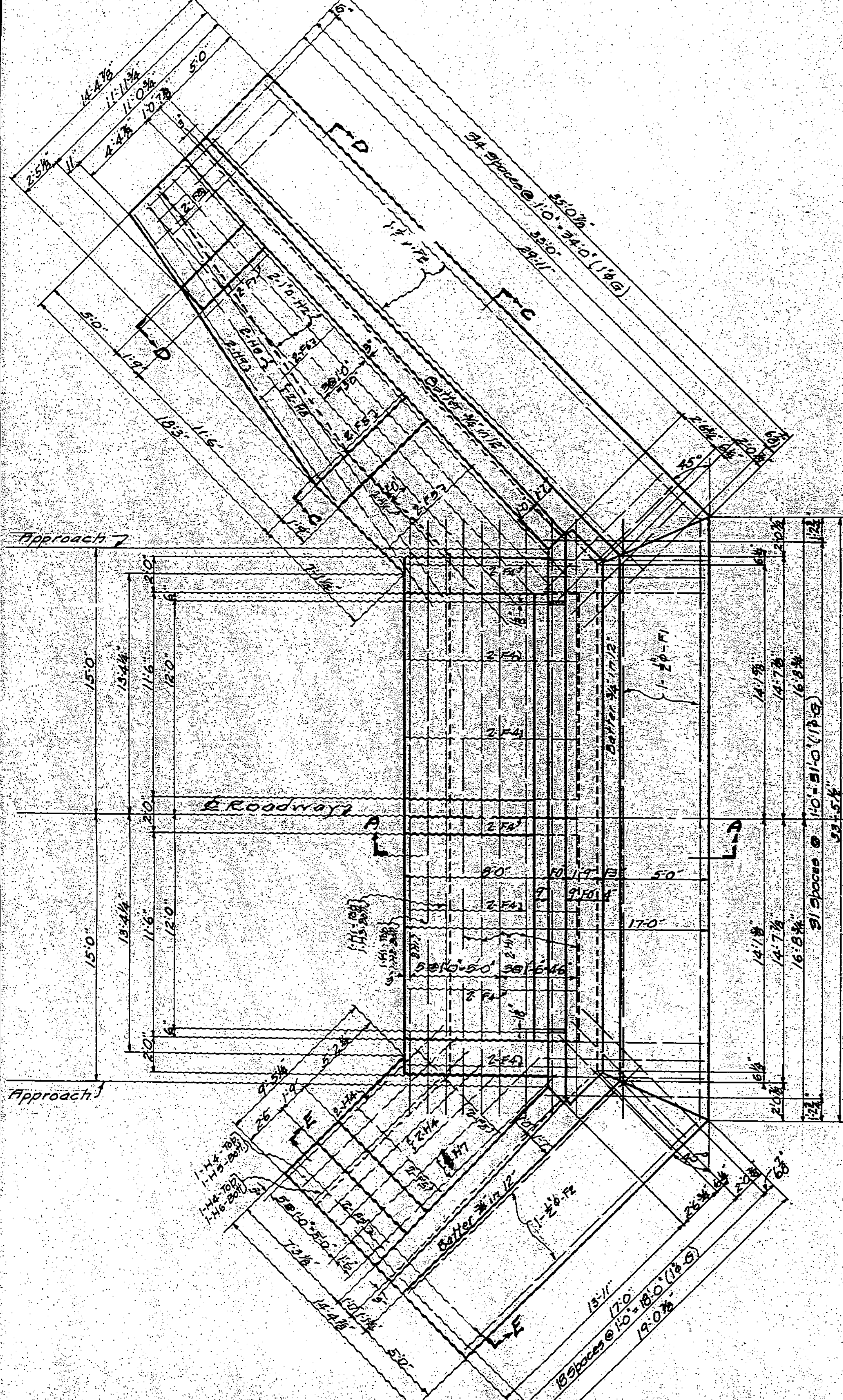
Designed by

STATE ROAD COMMISSION

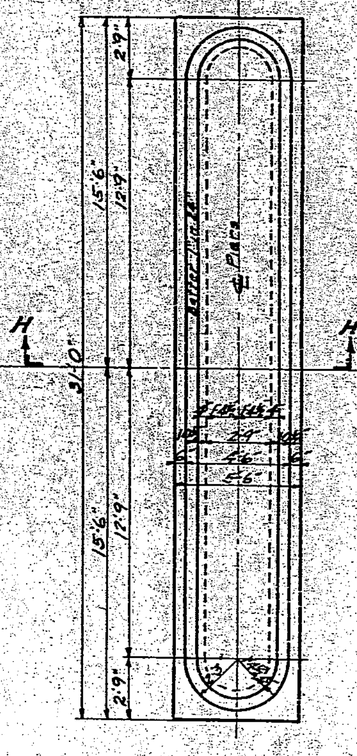
CHARLESTON, W.VA.

Scale: As Noted — August 1936

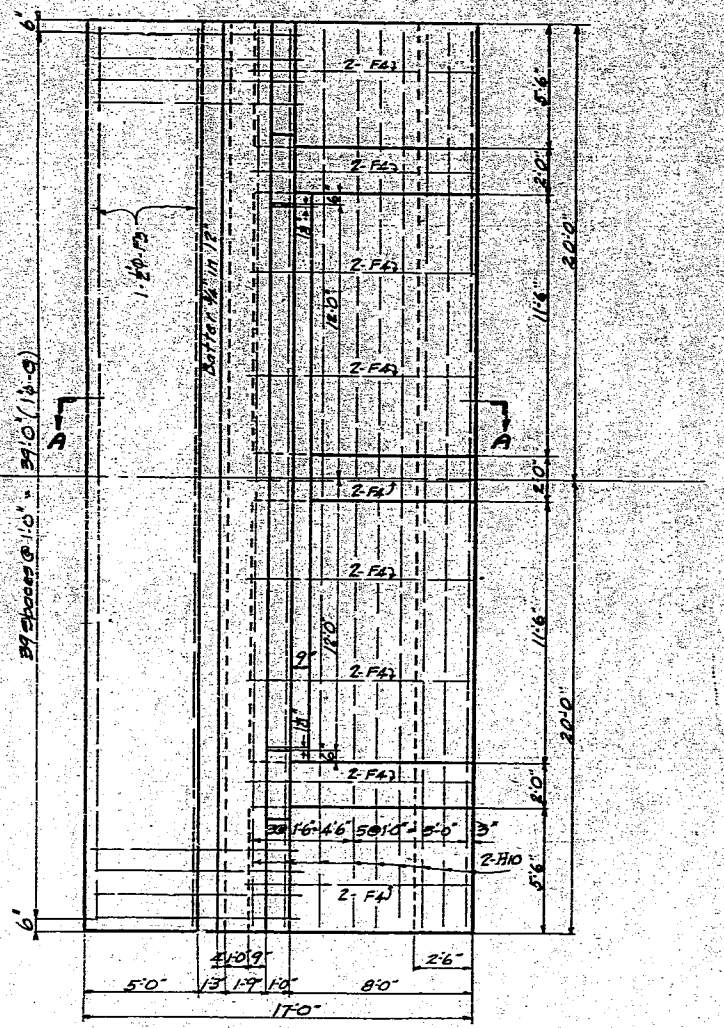
Project W.P.S.3-E-244-A — Sheet #2 of 6 — #1438



ABUTMENT #1
Scale: ¼" = 1'-0"



PIERS #1 & 2



ABUTMENT # 2

Scale: ½"-1'-0"

FORKS OF CACAPON BRIDGE

2-70' and 1-90' STEEL I BEAM SPANS, 24' ROADWAY

ON

PRIMARY STATE ROUTE 45

FORKS of CACAPON-MARTINSBURG ROAD

OVER

CACAPON RIVER

NEAR

FORKS OF CACAPON

HAMPSHIRE CO. W.VA.

DESIGNED BY

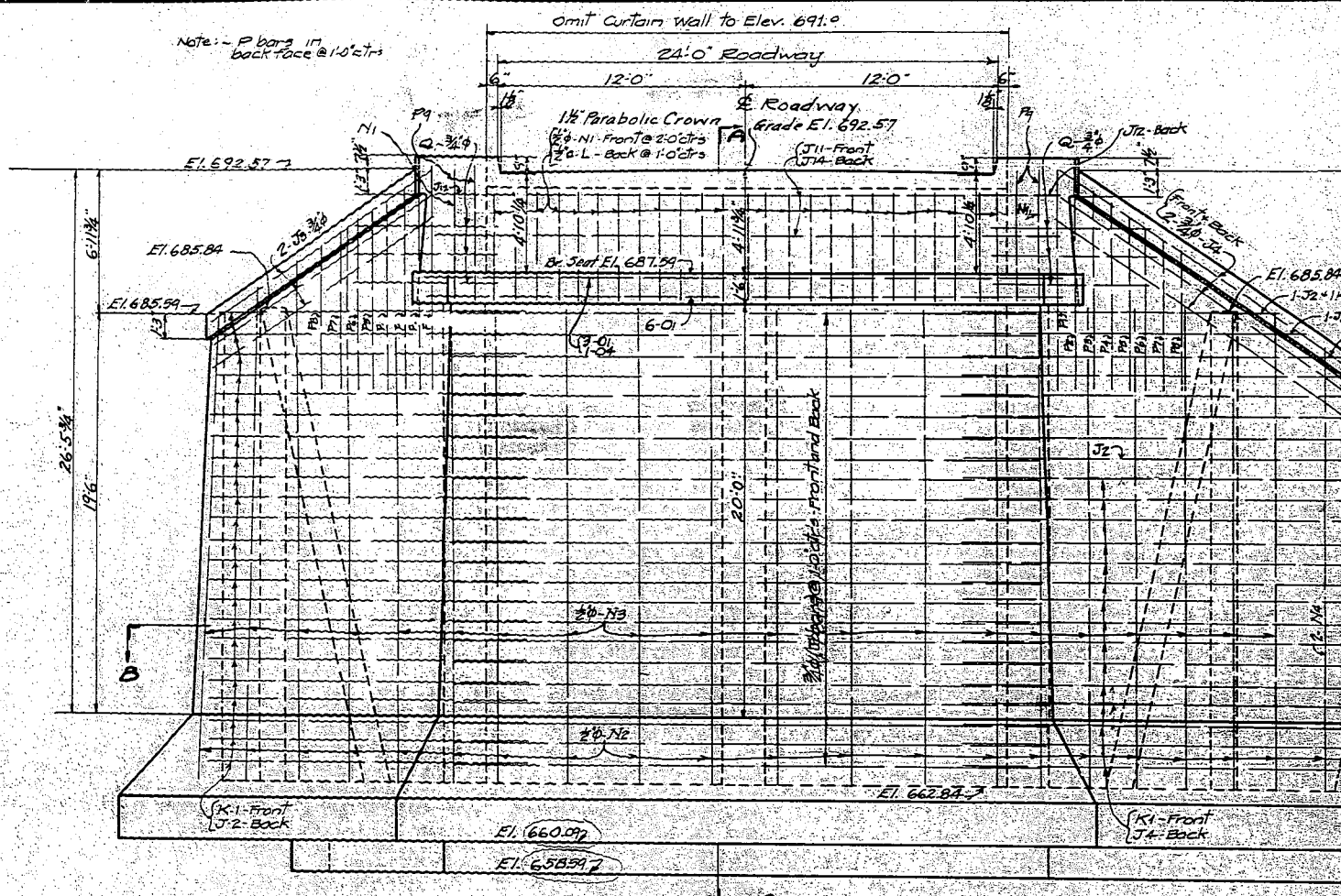
STATE ROAD COMMISSION

CHARLESTON, W.VA.

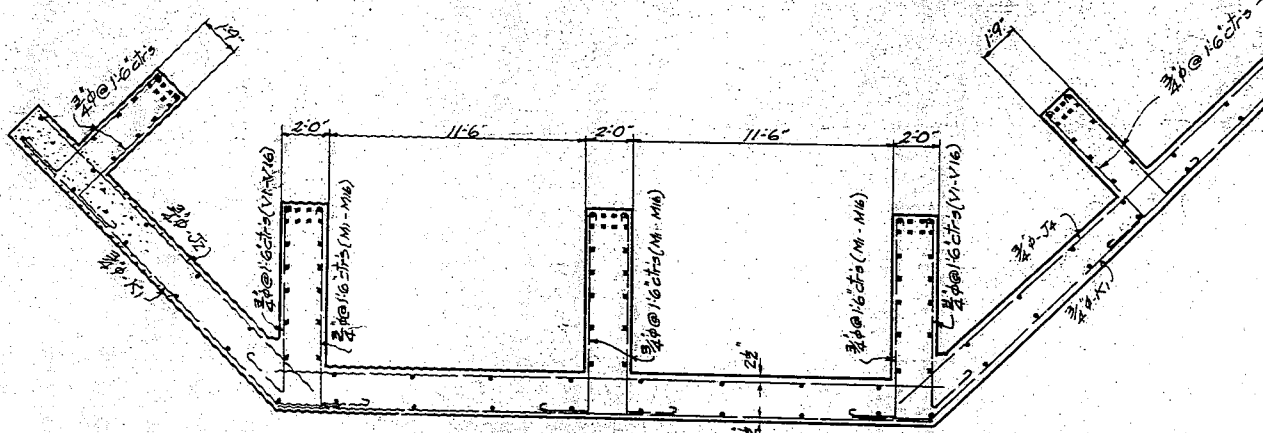
SCALE: AS NOTED AUGUST, 1936

PROJECT: W.P.S.S. 2-254-A SHEET 5 OF 6 SHEETS 1438

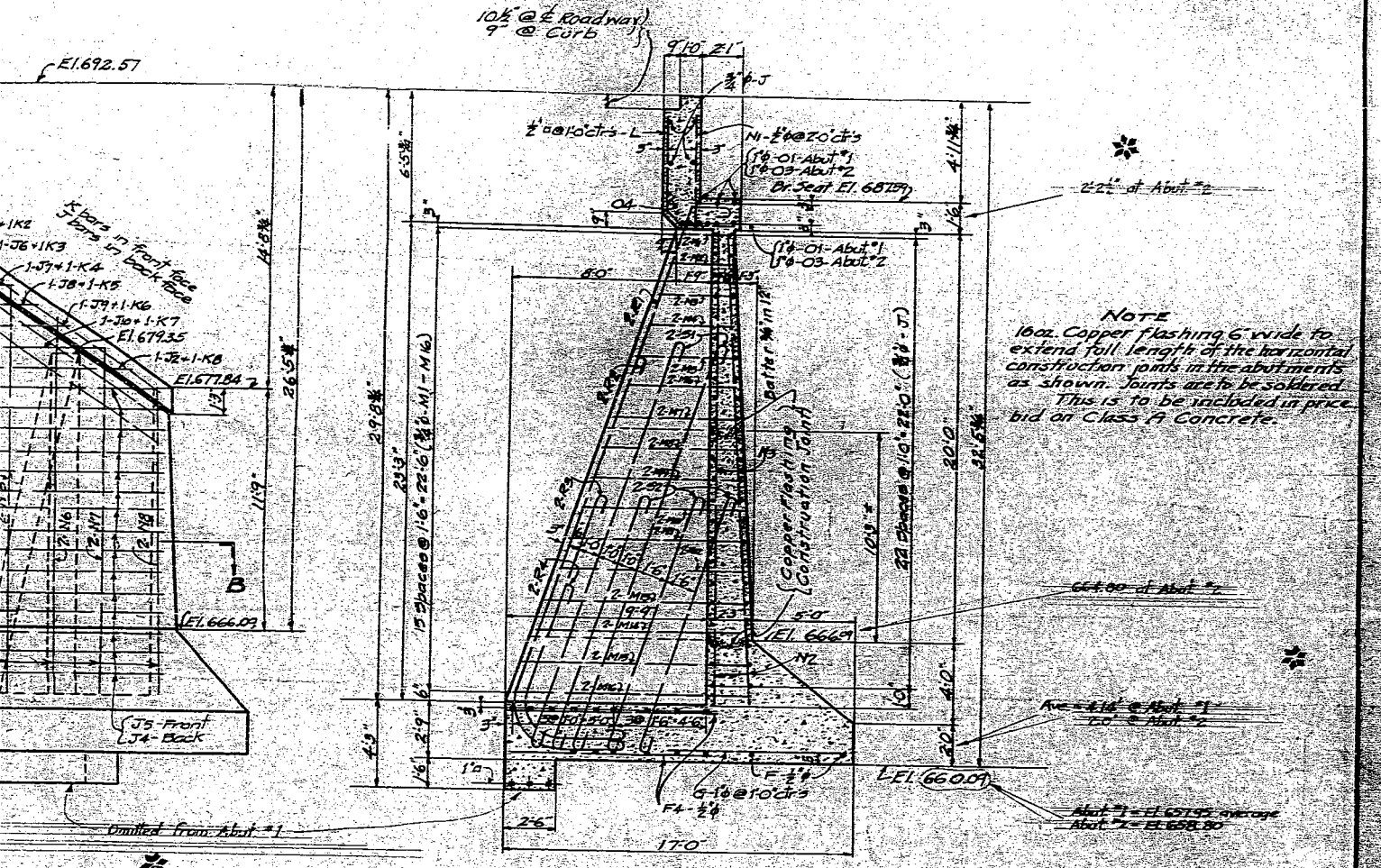
M.E.R.



FRONT ELEVATION - ABUTMENT #1
Scale: ½" = 1'-0"



SECTION - BB - ABUTMENT #1
Scale: ½" = 1'-0"



SECTION AA - ABUTMENTS #1 & 2

Scale: ½" = 1'0"

Note:-
All elevations shown are for Abut. #1.

FORKS OF CACAPON BRIDGE

2 - 70' and 1 - 90' - Steel I Beam Spans, 24' Roadway

ON

PRIMARY STATE ROUTE #15
FORKS OF CACAPON - MARTINSBURG ROAD

OVER

CACAPON RIVER

NEAR

FORKS OF CACAPON
HAMPSHIRE CO., W. VA.

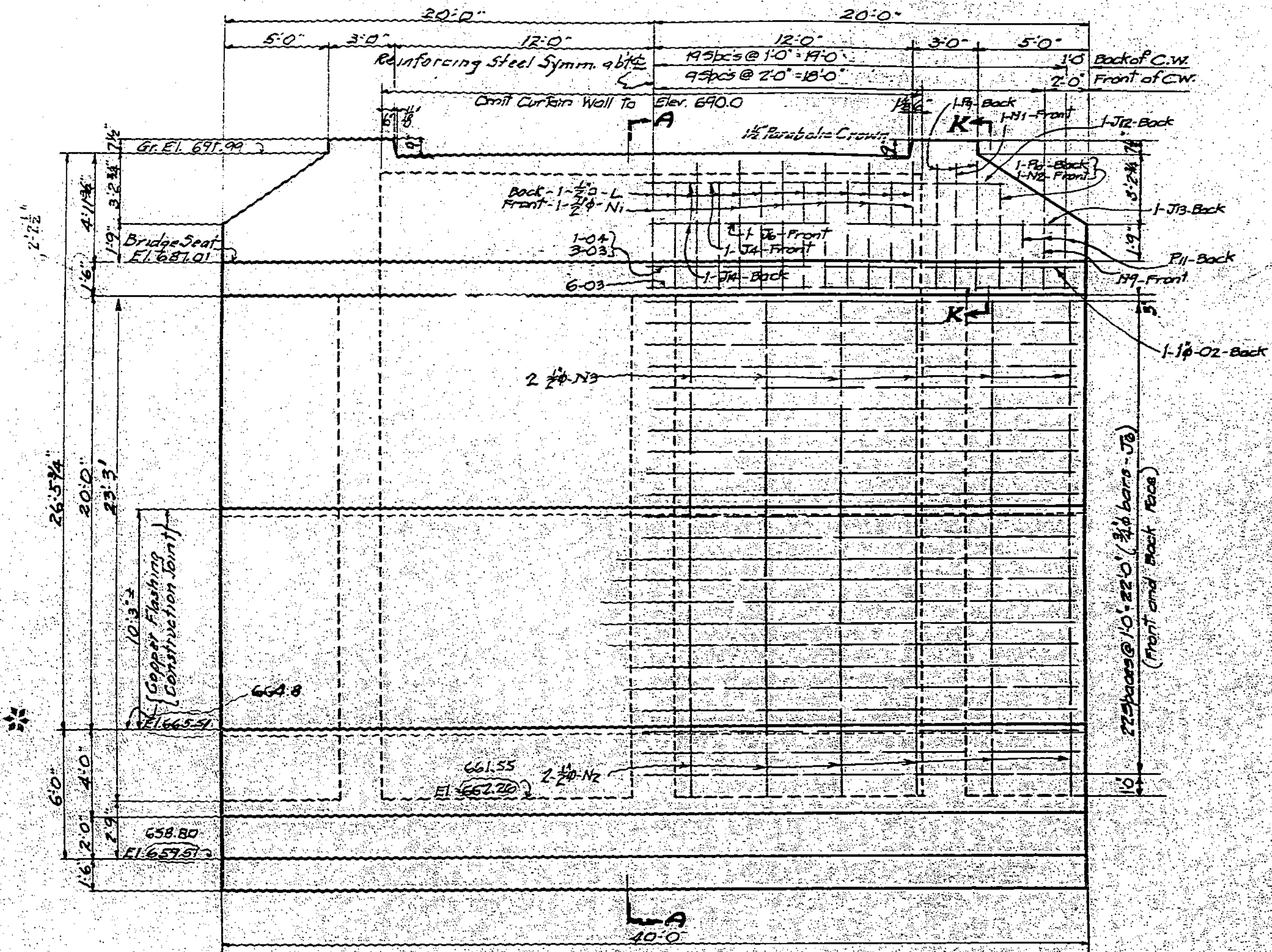
Designed by
STATE ROAD COMMISSION
CHARLESTON, W. VA.

Revised March 21, 1938 to show structure as built

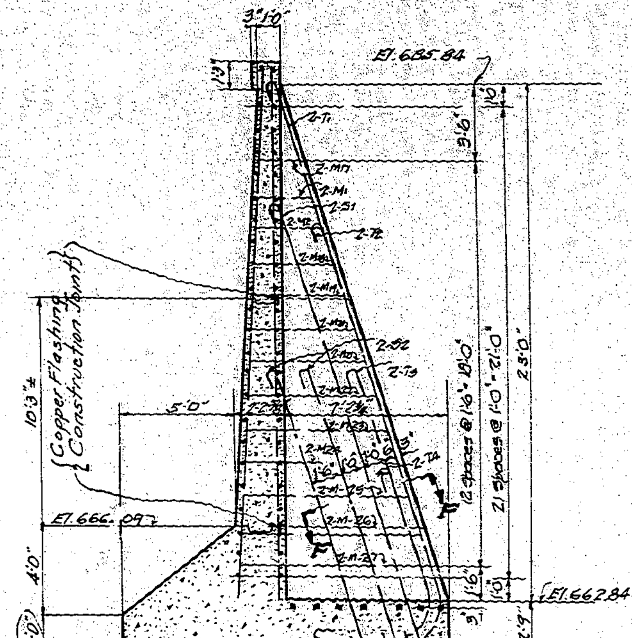
Scale: As Noted
Project: W.P.S.S.-R-294-A

August 1936
Sheet #4 of 6 Sheets
#1438

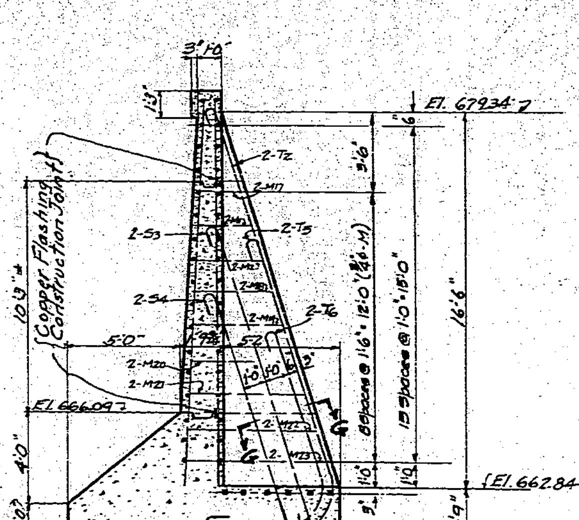
MEN.



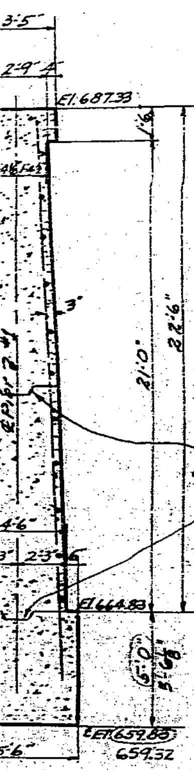
FRONT ELEVATION ABUTMENT #2
Scale: 1/4" = 1'-0"



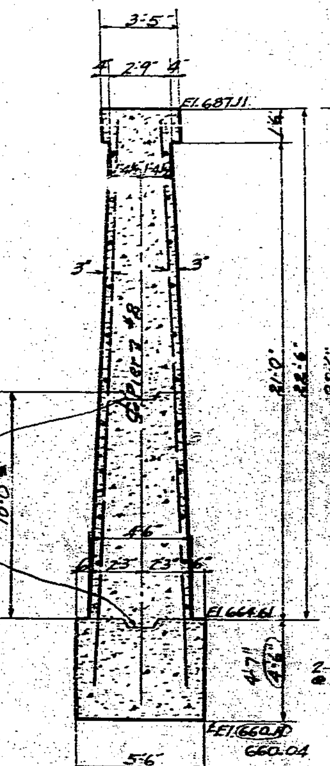
SECTION CC
SECTION EE OPP HAND
Scale: 1/4" = 1'-0"



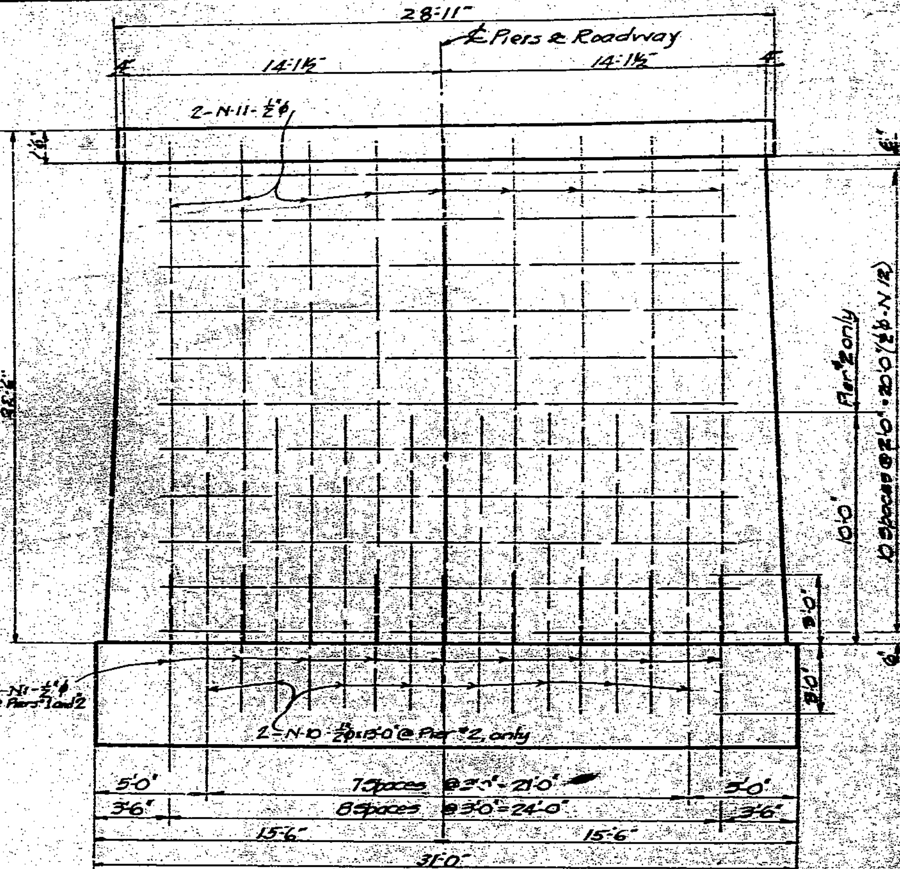
SECTION DD
Scale: 1/4" = 1'-0"



SECT. HH PIER 1



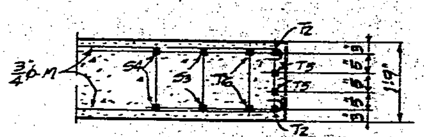
SECT. HH PIER 2



FRONT ELEVATION PIERS #1 & 2
Scale ¼" = 1'-0"

Note:—
All construction joints are to have ½" V grooves on exposed surfaces.

TION FF
Scale: ½" = 1'-0"



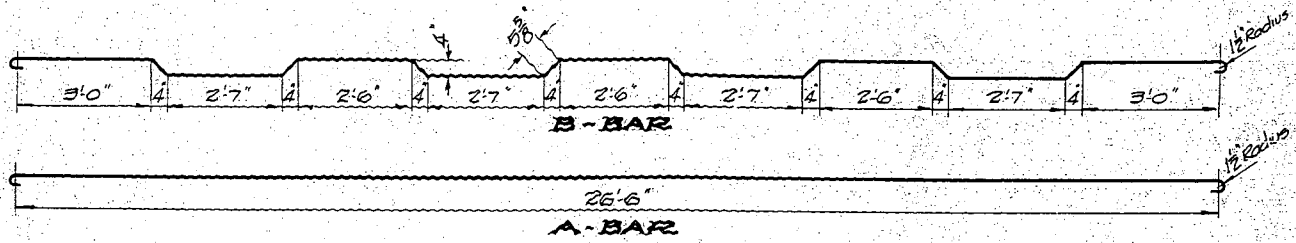
SECTION GG
Scale: ½" = 1'-0"

ON KK
Scale: ½" = 1'-0"

✱ Revised March 21, 1938 to show structure as built
Revised 12/17/36

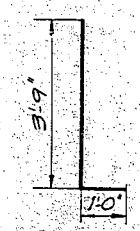
FORKS OF CACAPON BRIDGE
2-70' and 1-90' Steel I Beam Spans, 24' Roadway
On
PRIMARY STATE ROUTE #45
FORKS OF CACAPON–MARTINSBURG ROAD
Over
CACAPON RIVER
Near
FORKS OF CACAPON
HAMPSHIRE CO. W. VA.
Designed by
STATE ROAD COMMISSION
CHARLESTON W. VA.

Scale: As Noted
August, 1936
Project: WPSS-2784-A
Sheet #5 of 6
#1438

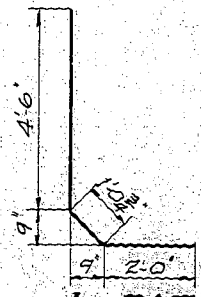


B-BAR

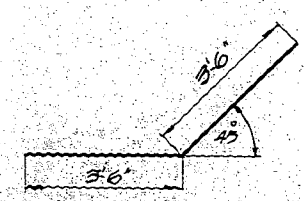
A-BAR



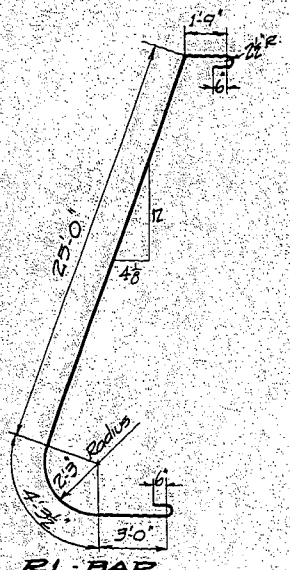
E-BAR



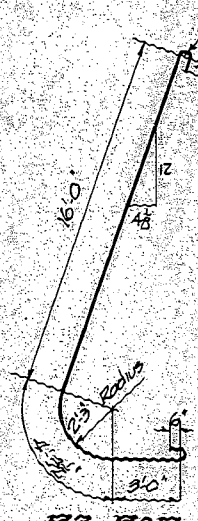
L-BAR



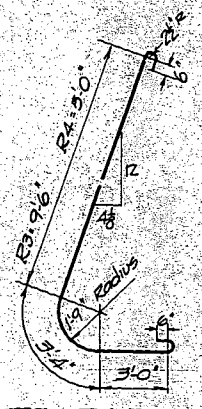
Q-BAR



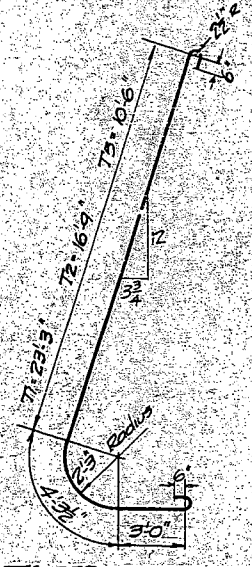
R1-BAR



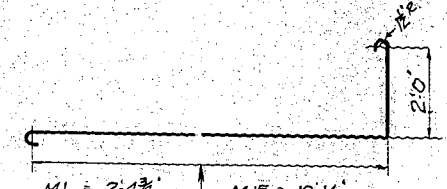
R2-BAR



R3 & R4 BARS



T1, T2 & T3 BARS

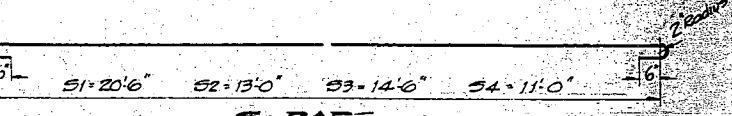


M1 = 2'-4¾"	M15 = 10'-11"
M2 = 2'-11½"	M16 = 11'-6½"
M3 = 3'-7½"	M17 = 1'-10"
M4 = 4'-2½"	M18 = 3'-6½"
M5 = 4'-10"	M19 = 4'-1"
M6 = 5'-5½"	M20 = 4'-7¾"
M7 = 6'-0½"	M21 = 5'-2½"
M8 = 6'-8"	M22 = 5'-9½"
M9 = 7'-3"	M23 = 6'-4"
M10 = 7'-10½"	M24 = 6'-10¾"
M11 = 8'-5¾"	M25 = 7'-5½"
M12 = 9'-1"	M26 = 8'-0¼"
M13 = 9'-8½"	M27 = 8'-7"
M14 = 10'-4"	

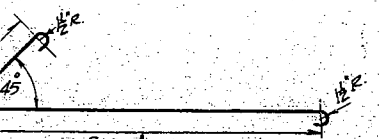
M-BARS

K1 = 16'-5"	K5 = 24'-0"
K2 = 18'-0"	K6 = 26'-0"
K3 = 20'-0"	K7 = 28'-0"
K4 = 22'-0"	K8 = 30'-0"

K BARS

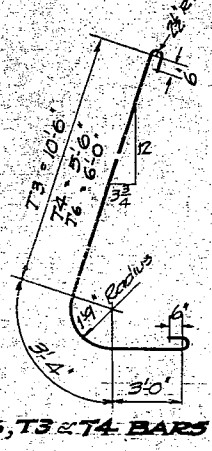


S- BARS



V1 = 2'4¾"	V9 = 7'3"
V2 = 3'0"	V10 = 7'10½"
V3 = 3'7½"	V11 = 8'5¾"
V4 = 4'2½"	V12 = 9'1"
V5 = 4'10"	V13 = 9'8½"
V6 = 5'5½"	V14 = 10'4"
V7 = 6'0½"	V15 = 10'11"
V8 = 6'8"	V16 = 11'6½"

V- BARS



T6, T3 & T4 BARS

BILL OF REINFORCING STEEL

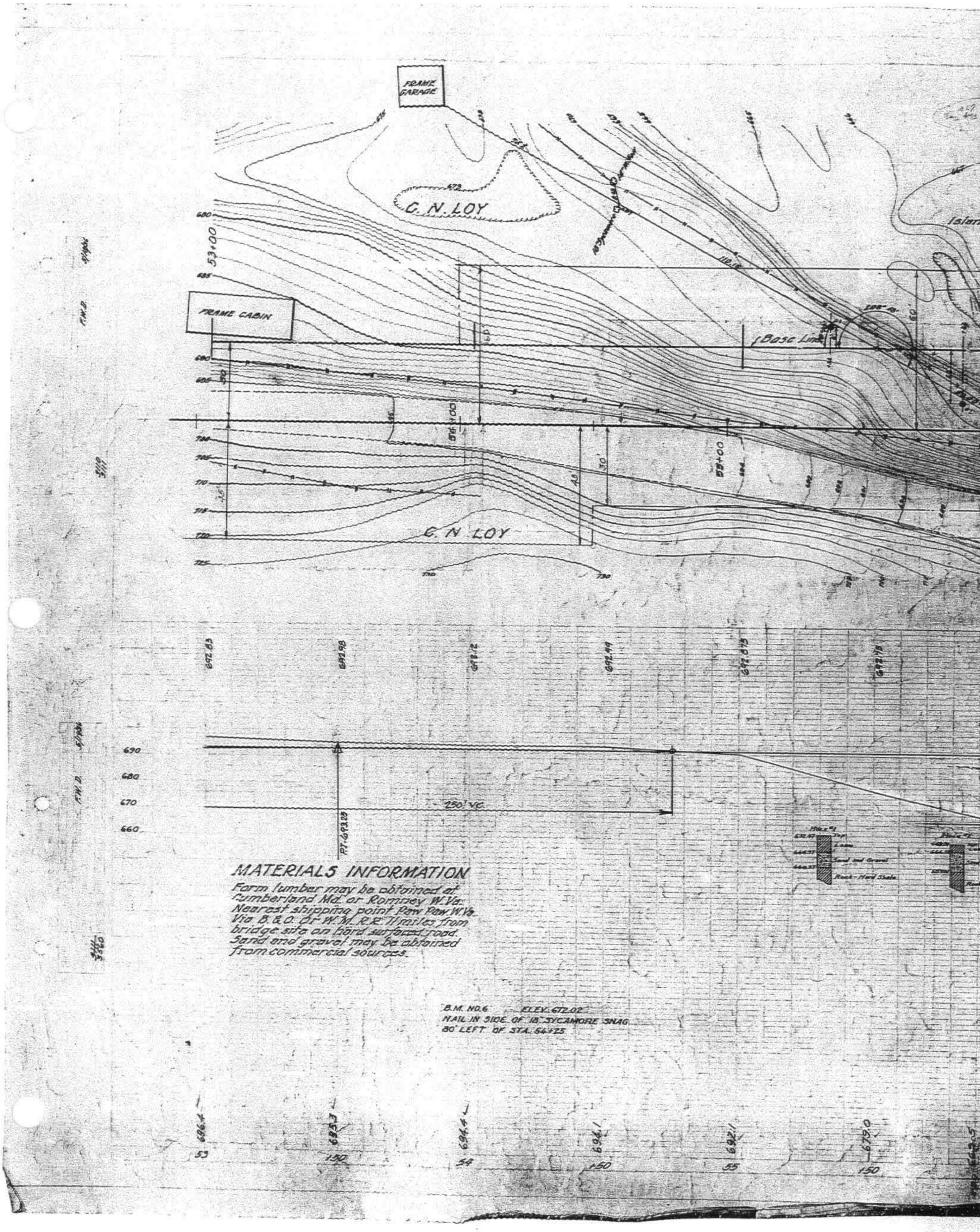
No.	Letter	Size	Length
461	A	⅜"ϕ	27'6"
229	B	⅝"ϕ	28'7"
410	C	½"ϕ	24'9"
16	D-1	½"ϕ	29'3"
16	D-2	½"ϕ	14'6"
16	D-3	½"ϕ	26'9"
16	D-4	½"ϕ	26'0"
8	D-5	½"ϕ	36'3"
528	E	½"ϕ	4'9"
4	F-1	½"ϕ	17'9"
6	F-2	½"ϕ	18'3"
4	F-3	½"ϕ	20'9"
32	F-4	½"ϕ	9'9"
10	F-5	½"ϕ	6'9"
3	F-6	½"ϕ	6'0"
2	F-7	½"ϕ	5'6"
2	F-8	½"ϕ	4'6"
127	G	1"ϕ	9'0"
32	H-1	1" □	18'9"
18	H-2	1" □	17'3"
2	H-3	1" □	16'6"
8	H-4	1" □	12'0"
1	H-5	1" □	11'0"
2	H-6	1" □	10'0"
4	H-7	1" □	14'6"
8	H-8	1" □	16'0"
2	H-9	1" □	20'0"
36	H-10	1" □	21'6"
2	H-11	1" □	16'0"
46	J-1	¾"ϕ	28'3"
26	J-2	¾"ϕ	17'6"
6	J-3	¾"ϕ	15'0"
44	J-4	¾"ϕ	18'0"
16	J-5	¾"ϕ	19'0"
95	J-6	¾"ϕ	21'0"
1	J-7	¾"ϕ	23'0"
1	J-8	¾"ϕ	25'0"
1	J-9	¾"ϕ	27'0"
1	J-10	¾"ϕ	29'0"
2	J-11	¾"ϕ	30'0"
5	J-12	¾"ϕ	1'0"
2	J-13	¾"ϕ	30'0"
4	J-14	¾"ϕ	24'0"
39	K-1	⅞"ϕ	19'11"
1	K-2	⅞"ϕ	21'6"
1	K-3	⅞"ϕ	23'6"
1	K-4	⅞"ϕ	25'6"
1	K-5	⅞"ϕ	27'6"
1	K-6	⅞"ϕ	29'6"
1	K-7	⅞"ϕ	31'6"
1	K-8	⅞"ϕ	33'6"
50	L	½" □	7'7"
16	M-1	¾"ϕ	5'5"
16	M-2	¾"ϕ	6'0"
10	M-3	¾"ϕ	6'8"
10	M-4	¾"ϕ	7'3"
10	M-5	¾"ϕ	7'10"
10	M-6	¾"ϕ	8'6"
10	M-7	¾"ϕ	9'1"
10	M-8	¾"ϕ	9'8"
10	M-9	¾"ϕ	10'3"
10	M-10	¾"ϕ	10'11"
10	M-11	¾"ϕ	11'6"
10	M-12	¾"ϕ	12'1"
10	M-13	¾"ϕ	12'9"
10	M-14	¾"ϕ	13'4"
10	M-15	¾"ϕ	13'11"
10	M-16	¾"ϕ	14'7"
6	M-17	¾"ϕ	15'10"
6	M-18	¾"ϕ	6'1"
6	M-19	¾"ϕ	7'1"

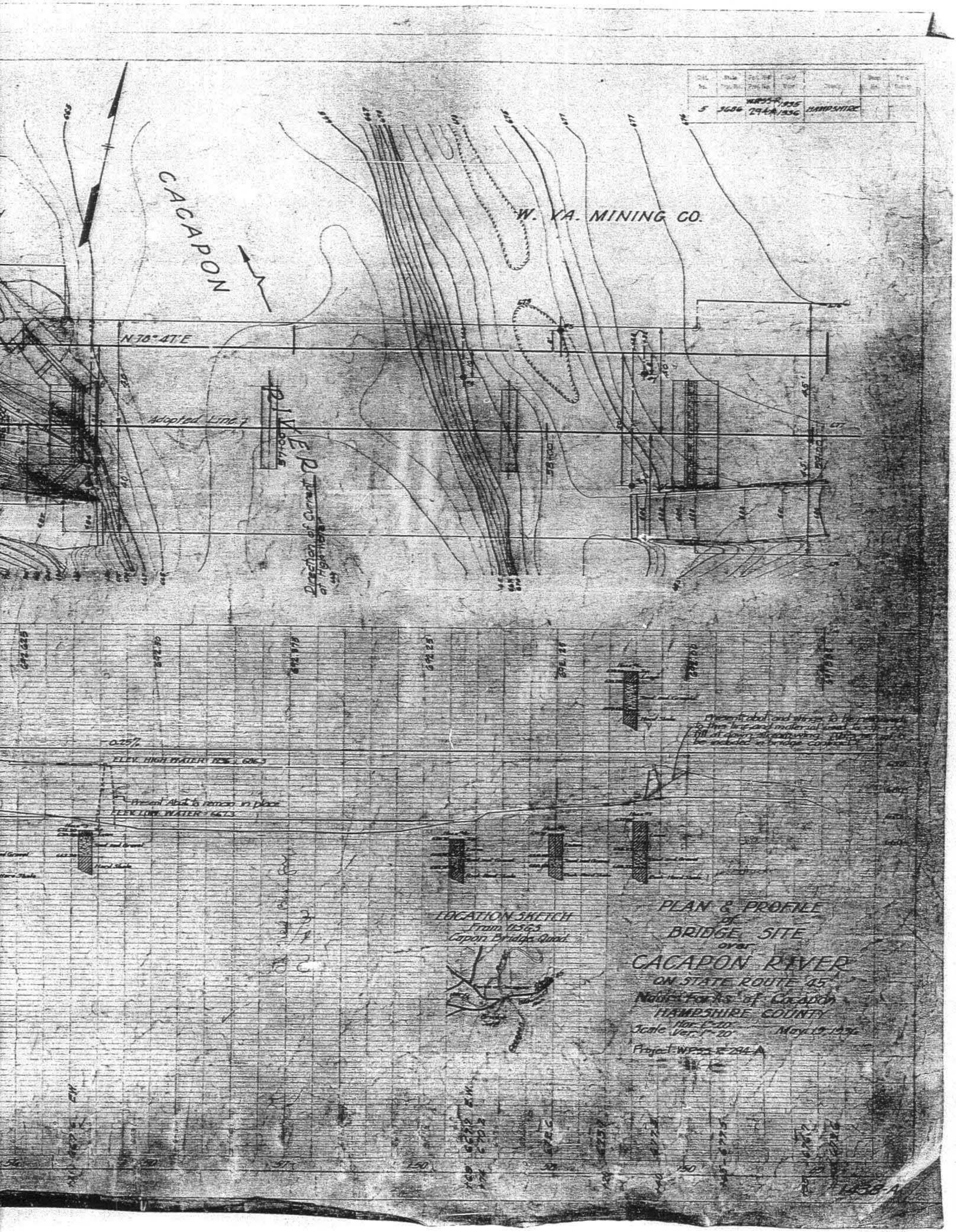
No.	Letter	Size	Length
6	M-20	¾"ϕ	7'8"
6	M-21	¾"ϕ	8'3"
6	M-22	¾"ϕ	8'10"
6	M-23	¾"ϕ	9'4"
4	M-24	¾"ϕ	9'11"
4	M-25	¾"ϕ	10'6"
4	M-26	¾"ϕ	11'1"
4	M-27	¾"ϕ	11'7"
66	N-1	½"ϕ	6'0"
76	N-2	½"ϕ	5'3"
64	N-3	½"ϕ	19'9"
2	N-4	½"ϕ	18'0"
2	N-5	½"ϕ	16'6"
2	N-6	½"ϕ	15'0"
2	N-7	½"ϕ	13'6"
2	N-8	½"ϕ	11'6"
2	N-9	½"ϕ	3'6"
16	N-10	½"ϕ	13'0"
36	N-11	½"ϕ	22'0"
44	N-12	½"ϕ	25'6"
9	O-1	1"ϕ	28'0"
2	O-2	1"ϕ	11'0"
18	O-3	1"ϕ	21'6"
2	O-4	1"ϕ	14'0"
2	P-1	½" □	10'9"
2	P-2	½" □	10'3"
2	P-3	½" □	9'9"
2	P-4	½" □	9'3"
2	P-5	½" □	8'9"
2	P-6	½" □	8'3"
2	P-7	½" □	7'9"
2	P-8	½" □	7'3"
11	P-9	½" □	6'9"
2	P-10	½" □	5'3"
6	P-11	½" □	3'6"
6	Q	¾"ϕ	7'0"
12	R-1	1¼" □	36'3"
12	R-2	1¼" □	25'8"
12	R-3	1¼" □	18'2"
13	R-4	1¼" □	13'8"
28	S-1	1" □	22'7"
44	S-2	1" □	15'1"
2	S-3	1" □	16'7"
2	S-4	1" □	13'4"
4	T-1	1¼" □	32'10"
6	T-2	1¼" □	26'4"
4	T-3	1¼" □	18'2"
5	T-4	1¼" □	18'2"
2	T-5	1¼" □	20'1"
2	T-6	1¼" □	14'8"
2	V-1	¾"ϕ	5'9"
2	V-2	¾"ϕ	6'4"
2	V-3	¾"ϕ	7'0"
2	V-4	¾"ϕ	7'7"
2	V-5	¾"ϕ	8'2"
2	V-6	¾"ϕ	8'10"
2	V-7	¾"ϕ	9'5"
2	V-8	¾"ϕ	10'0"
2	V-9	¾"ϕ	10'7"
2	V-10	¾"ϕ	11'3"
2	V-11	¾"ϕ	11'10"
2	V-12	¾"ϕ	12'5"
2	V-13	¾"ϕ	13'1"
2	V-14	¾"ϕ	13'8"
2	V-15	¾"ϕ	14'3"
2	V-16	¾"ϕ	14'11"

FORKS OF CACAPON BRIDGE
2-70' and 1-90' Steel I Beam Spans, 24' Roadway
ON
PRIMARY STATE ROUTE #45
FORKS of CACAPON-MARTINSBURG ROAD
OVER
CACAPON RIVER
NEAR
FORKS OF CACAPON
HAMPSHIRE CO., W.VA.
Designed By
STATE ROAD COMMISSION
CHARLESTON, W.VA.

Scale: As Noted — August 1936
Project: W.P.55-R-294-A — Sheet 6 of 6 — #1438

JEM


FRAME GARAGE
C. N. LOY
FRAME CABIN
Base Line
53+00
54+00
55+00
C. N LOY
Island
692.83
692.98
693.12
692.99
692.875
692.73
690
680
670
660
250' V.C.
P.T. 693.25
MATERIALS INFORMATION
Form lumber may be obtained at Cumberland Md. or Romney W. Va. Nearest shipping point Paw Paw W. Va. Via B. & O. Or W. M. R.R. 11 miles from bridge site on hard surfaced road. Sand and gravel may be obtained from commercial sources.
B.M. NO. 6 ELEV. 672.02
NAIL IN SIDE OF 18" SYCAMORE SNAG
80' LEFT OF STA. 64+25
Sand and Gravel
Rock-Hard Shale
686.4
693.3
694.4
694.1
692.1
679.0
53
+50
54
+50
55
+50


5
3686
WPS-55-R 294-A
1935 1936
HAMPSHIRE
CACAPON
W. VA. MINING CO.
N 78° 47' E
Adopted Line
RIVER
Direction of Current at High Water
-0.25%
ELEV. HIGH WATER 1936 = 686.3
Present Abut. to remain in place
ELEV. LOW WATER = 667.3
LOCATION SKETCH
From U.S.G.S.
Capon Bridge Quad.
PLAN & PROFILE
of
BRIDGE SITE
over
CACAPON RIVER
ON STATE ROUTE 45
North Forks of Cacapon
HAMPSHIRE COUNTY
Scale Hor. 1"=20' Ver. 1"=20'
May 19, 1936
Project WPS-55-R-294-A


ERECTED BY
E. R. MILLS
CHARLESTON, W. VA.
1937