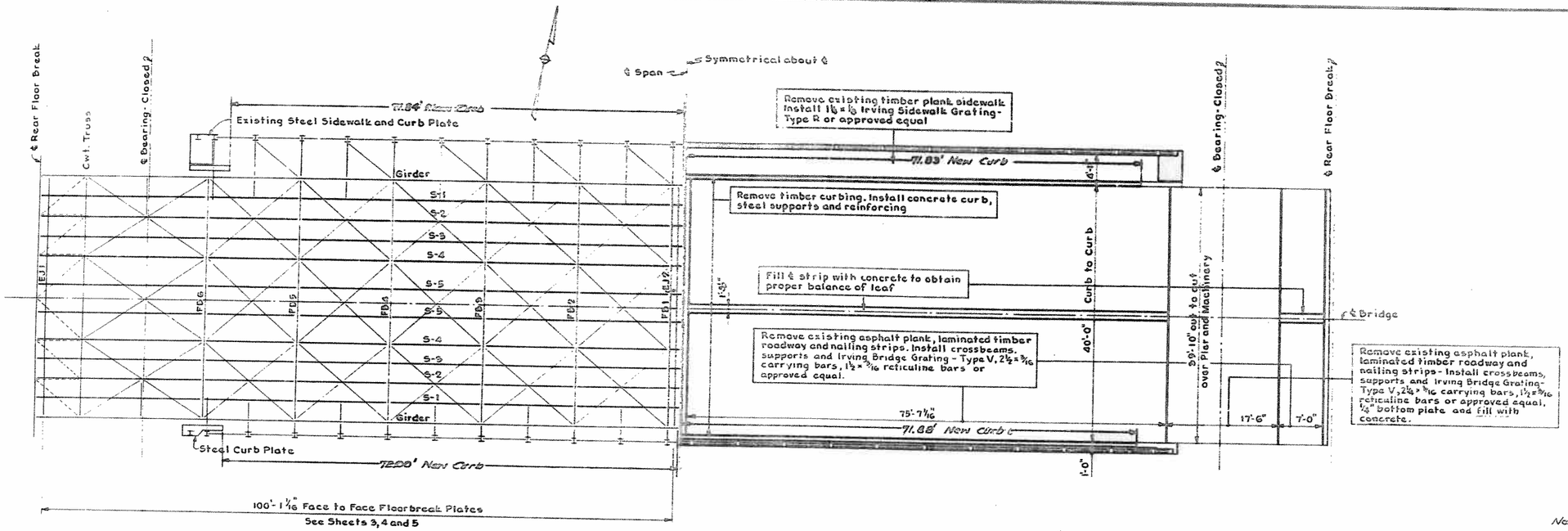
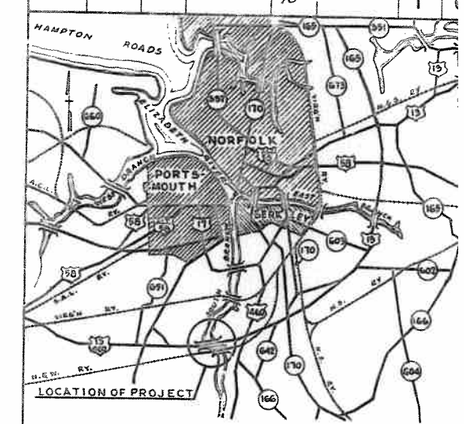


EXISTING FLOOR SYSTEM

NEW DECKING

PLAN
1"=10'

FED. ROAD DIST. NO.	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.	TO SH
				13		1	



VICINITY MAP

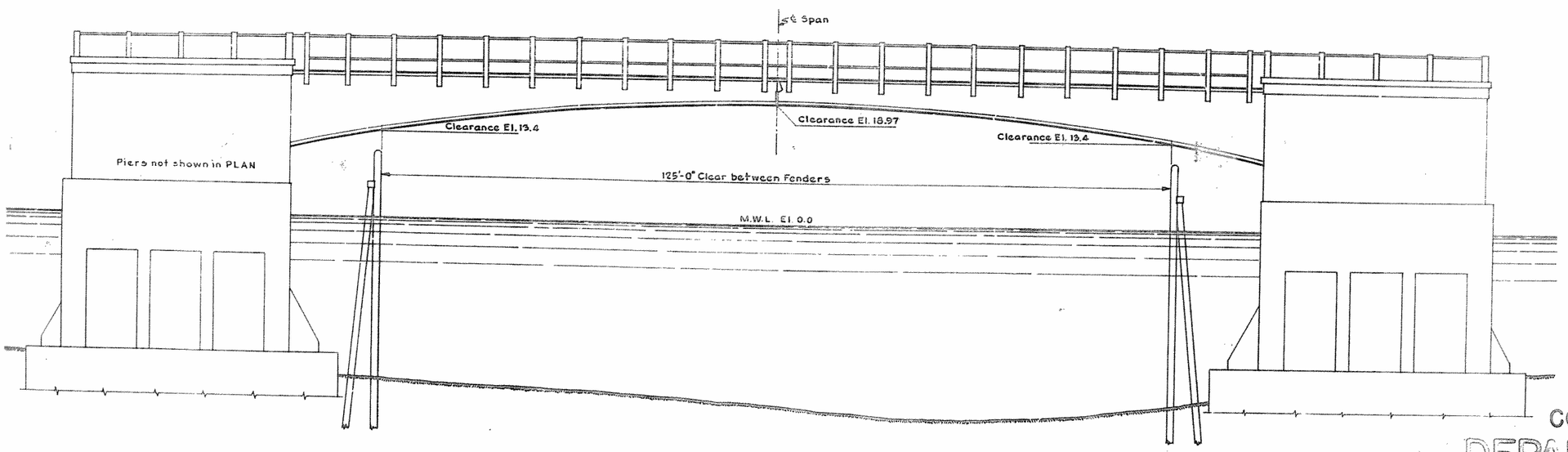
0 1 2 3 4 5
SCALE IN MILES

Note: Structural steel, reinforcing steel, bridge and sidewalk gratings, as listed below, will be furnished by the state and delivered to the bridge site by state forces.

ESTIMATED QUANTITIES

ITEM	UNIT	DESCRIPTION	QUANTITY
1	S.F.	Bridge Grating (Approx. 124,000 Lbs.)	8,100
2	S.F.	Sidewalk Grating (Approx. 8700 Lbs.)	610
3	L.F.	Concrete Curbs (Approx. 13.3 Cu.Yds.)	288 ~~200~~
4	LBS.	Structural Steel	150,000
5	C.Y.	Concrete for filling steel grid floor	8.6
6	LBS.	Reinforcing Steel	3095

See Special Provisions for other Lump Sum Bid items.



ELEVATION
1"=10'

GENERAL NOTES

Specifications: Construction and Materials - Virginia Department of Highways, 1947.
Design: A.A.S.H.O. 1944 - Loading H-20, Unit stresses for steel - A.A.S.H.O. + 1/9.
All dimensions shown on these plans are from shop drawings as approved for original construction of this bridge. The Contractor shall verify all dimensions in the field prior to shop fabrication of any parts that must be cut, coped or notched to clear existing bridge structure.
No adjustments to the center or rear break castings will be necessary since roadway crown has been maintained.
For Crossbeam spacing, Crossbeam Support Details see Sheets 3, 4 and 5.
For Typical Cross Sections see Sheet 2.
For Sidewalk and Curb Details see Sheets 2 and 4.
For Method of Construction see Sheet 6.
For required roadway traffic lanes during construction see Sheet 6

Work Order #1 } Rebuilding 3 Panels in Approach Spans
Repairs to Fender System
Reduction in painting Old Steel

Work Order #2 } Extra work on Draw Span

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF HIGHWAYS
PROPOSED BRIDGE REPAIRS
ROUTE 13 OVER SOUTHERN BRANCH - ELIZABETH RIVER
5 MI. FROM S.C.L. BERKLEY - NORFOLK CO.
FLOOR RENEWAL - GILMERTON BASCULE SPAN

Richmond, Va.

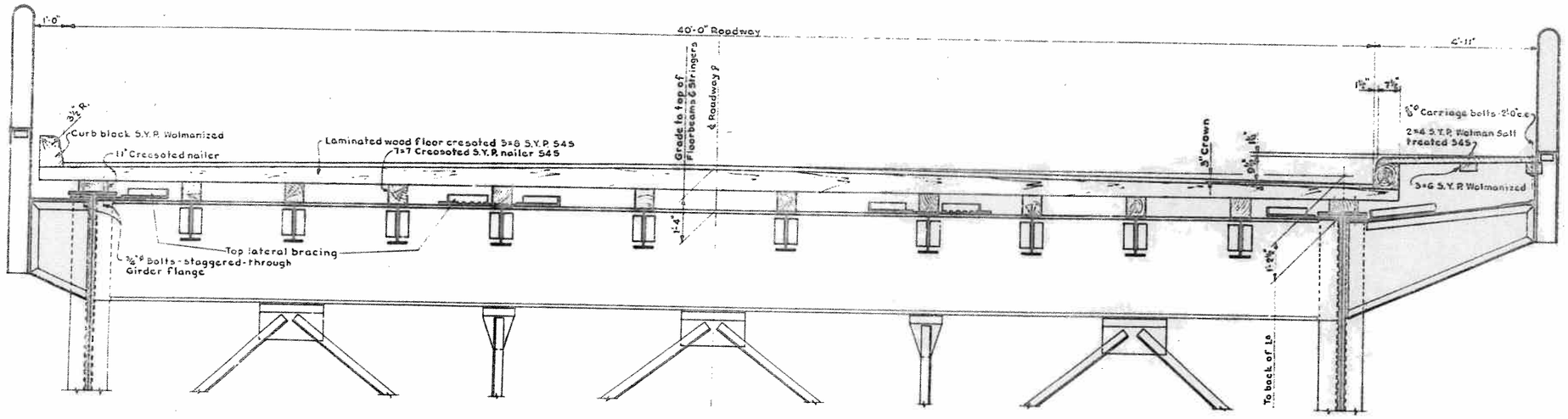
Recommended for Approval [signature]
Bridge Engineer

Approved [signature]

Submitted
J. E. Greiner Co.
By: R. A. Gilmore

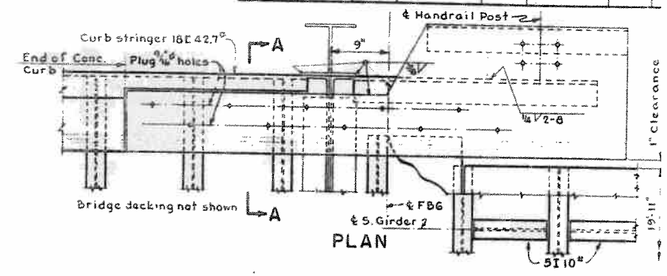
Made by: J. E. Greiner Co., Consulting Engineers, Baltimore, Md.

FED. ROAD DIST. NO.	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.	TOTAL SHEETS
				13		2	

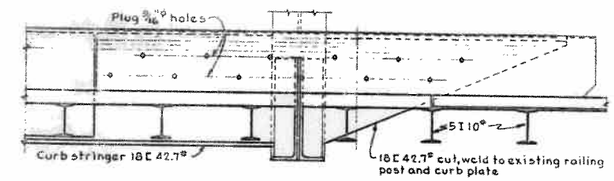


EXISTING CROSS SECTION AT FB5

1/2"=1'-0"



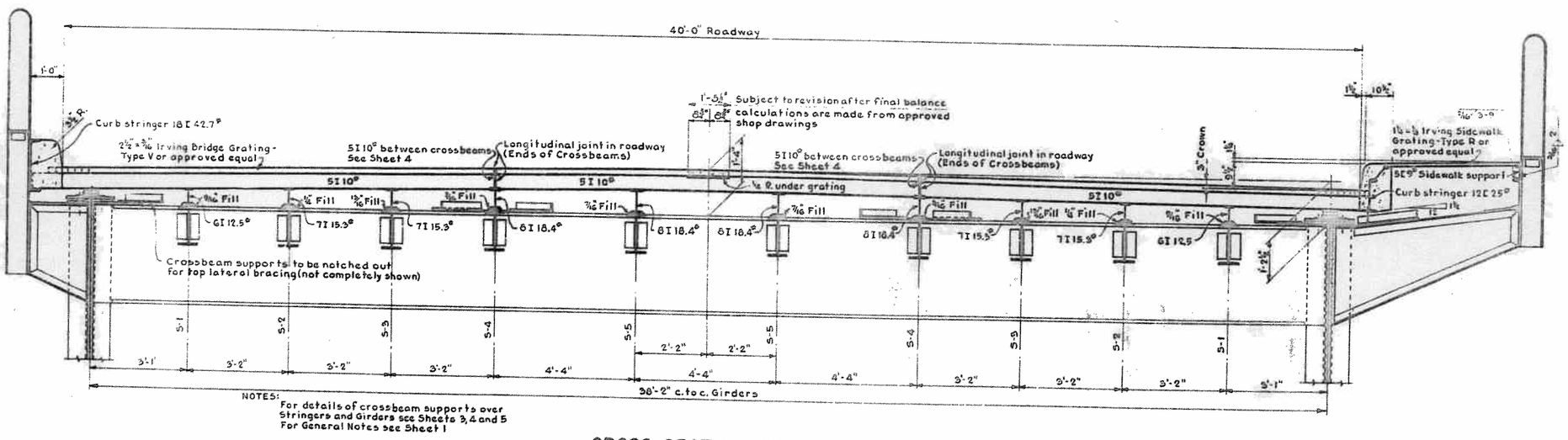
PLAN



ELEVATION

CURB PLATE DETAILS-SOUTH SIDE

1"=1'-0"

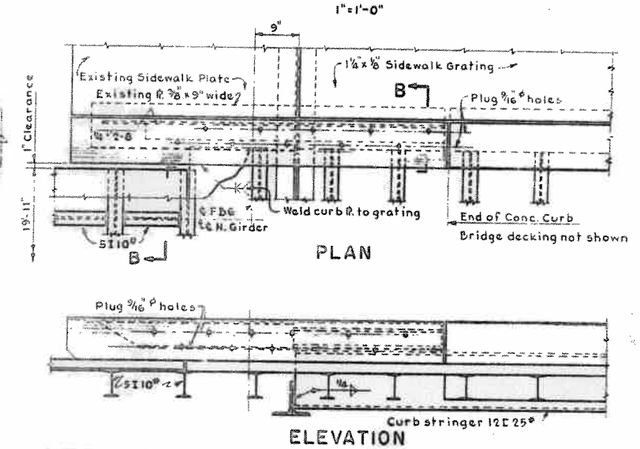


NOTES:
For details of crossbeam supports over Stringers and Girders see Sheets 3, 4 and 5
For General Notes see Sheet 1

CROSS SECTION AT FB5

(Showing New Flooring and Supports)

1/2"=1'-0"

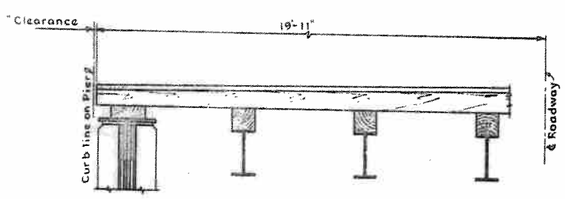


PLAN

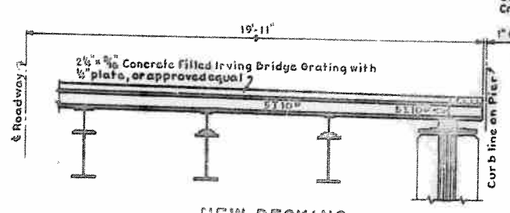
ELEVATION

CURB AND SIDEWALK PLATE DETAILS-NORTH SIDE

3/4"=1'-0"



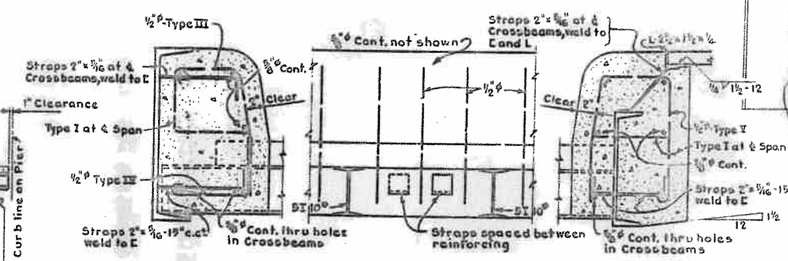
EXISTING



NEW DECKING

CROSS SECTION OVER PIER AND MACHINERY

1/2"=1'-0"

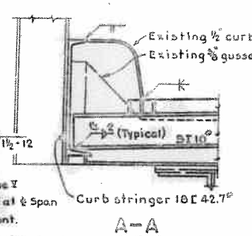


SOUTH CURB TYPICAL ELEVATION NORTH CURB

For Reinforcing Bar List and Placing Plan-see Sheet 6

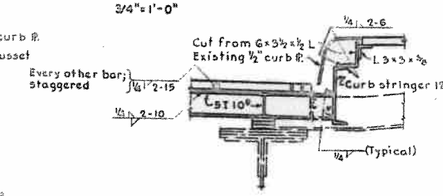
CURB REINFORCING DETAILS

1½"=1'-0"



A-A

1"=1'-0"



B-B

3/4"=1'-0"

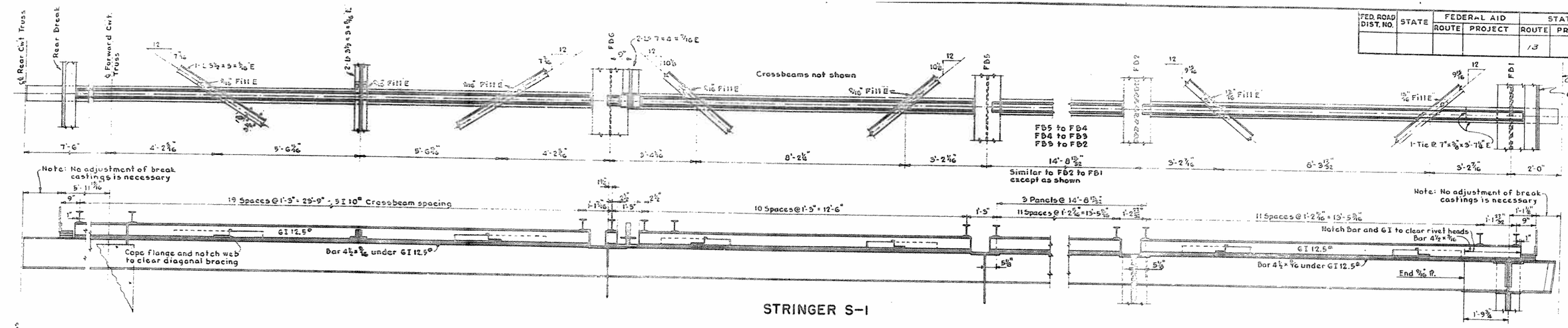
GILMERTON BASCULE BRIDGE

FLOOR RENEWAL

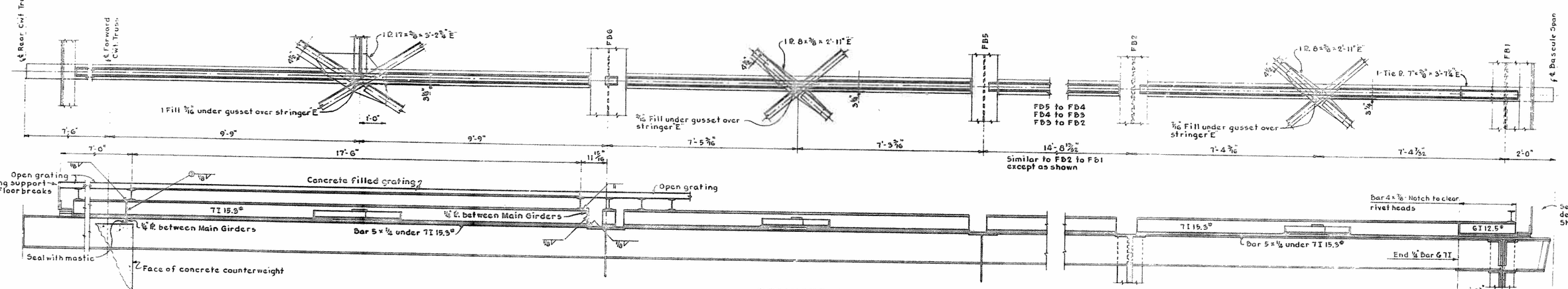
Virginia Department of Highways
Office of the Bridge Engineer

Made by: J.E. Greiner Co. Drawn by: W.V.W. Traced by: W.V.W.

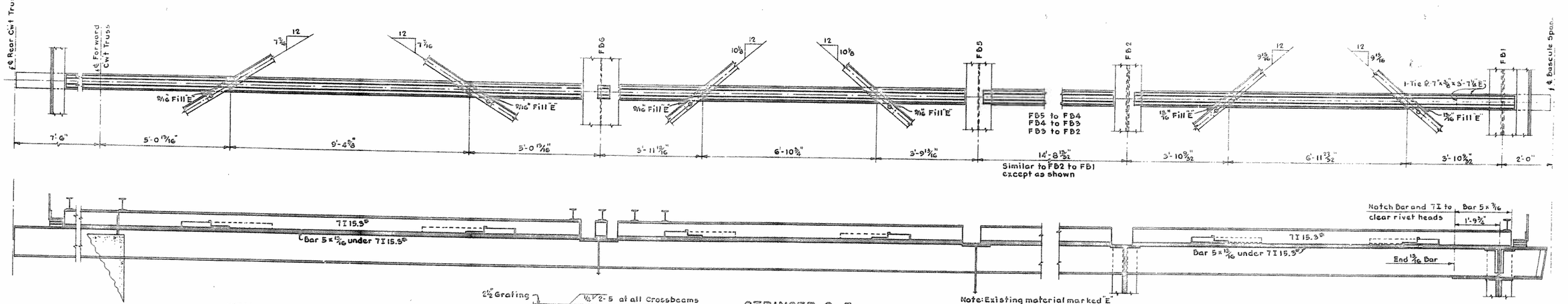
FED. ROAD DIST. NO.	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
				13		3



STRINGER S-1



STRINGER S-2

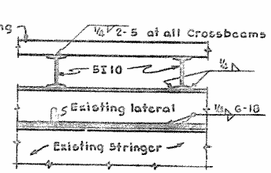


STRINGER S-3

1/8" = 1'-0"

NOTES:

For General Notes see Sheet 1
Crossbeam spacing shown for Stringer S-1 typical for all stringers and girders.
All diagonal bracing 3½×5×5/16 angles, (3" leg vertical)



TYPICAL WELDING DETAILS

1" = 1'-0"

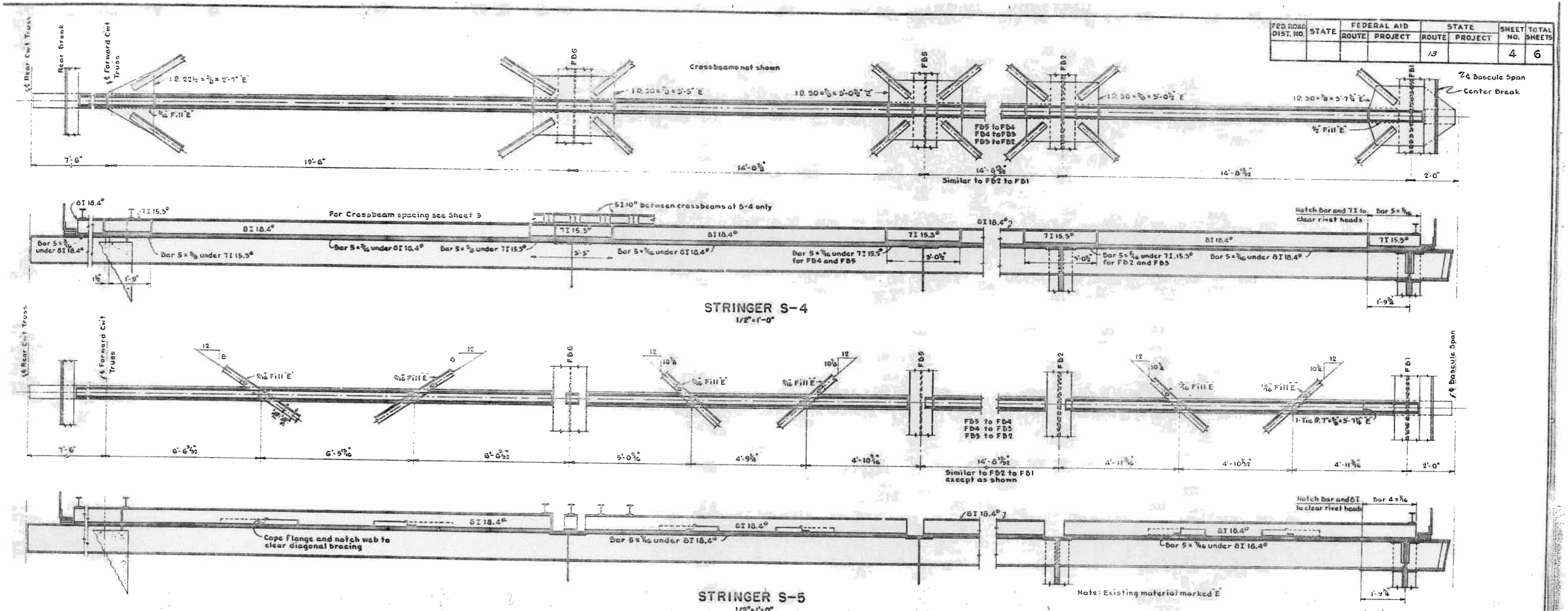
GILMERTON BASCULE BRIDGE
FLOOR RENEWAL

Virginia Department of Highways
Office of the Bridge Engineer
Richmond, Va. March, 1951

LXV-3A

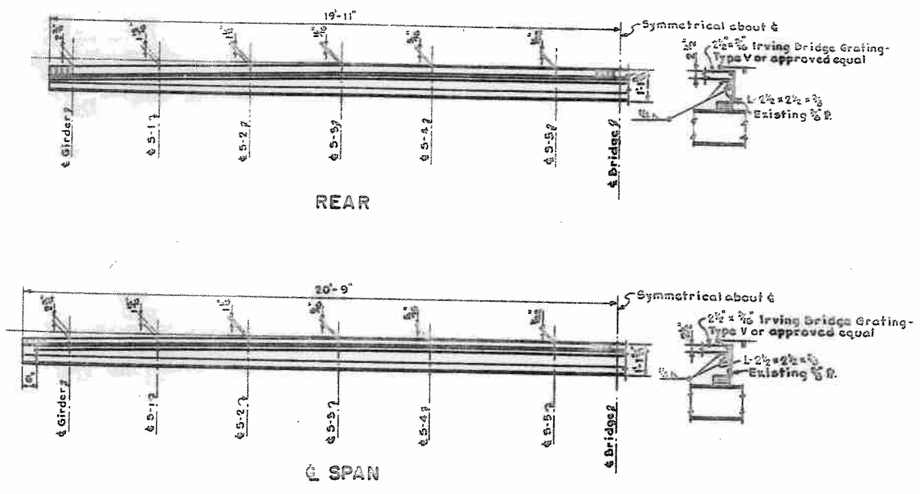
Made by: J.E. Greiner Co. Drawn by: W.M.W. Traced by: W.M.W. Checked by: E.C.

FED. ROAD DIST. NO.	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.	TOTAL SHEETS
				13		4	6



STRINGER S-4
1/2" = 1'-0"

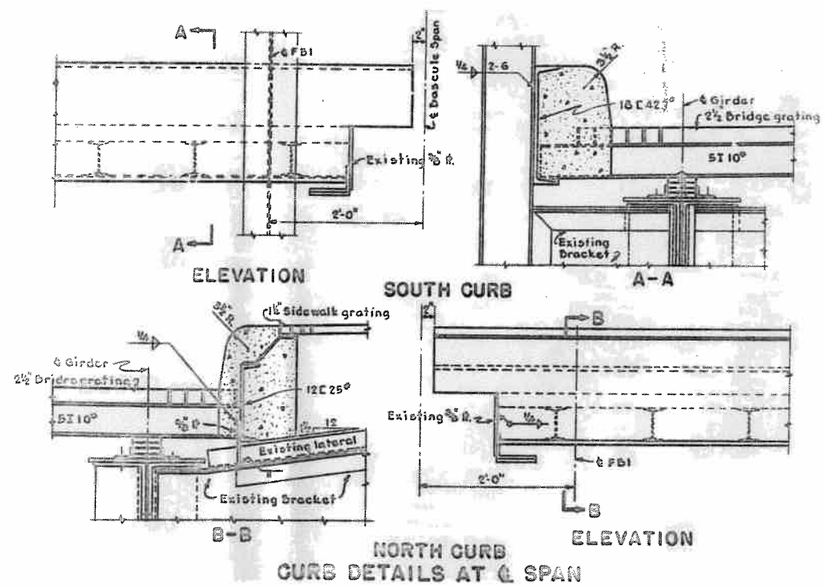
STRINGER S-5
1/2" = 1'-0"



REAR

℄ SPAN

DETAILS AT FLOOR BREAKS
3/8" = 1'-0"



ELEVATION

SOUTH CURB

A-A

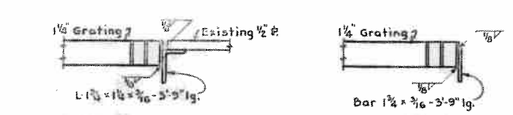
B-B

NORTH CURB

ELEVATION

CURB DETAILS AT ℄ SPAN

NOTES:
For General Notes see Sheet 1
For Crossbeam Spacing see Sheet 3
For Curb Reinforcing see Sheet 2
All diagonal bracing 3½ × 3 × 5/16 angles
For Typical Welding Details see Sheet 3



AT SIDEWALK BREAK

AT CENTER OF SPAN

EDGE SUPPORT DETAILS FOR SIDEWALK
3" = 1'-0"

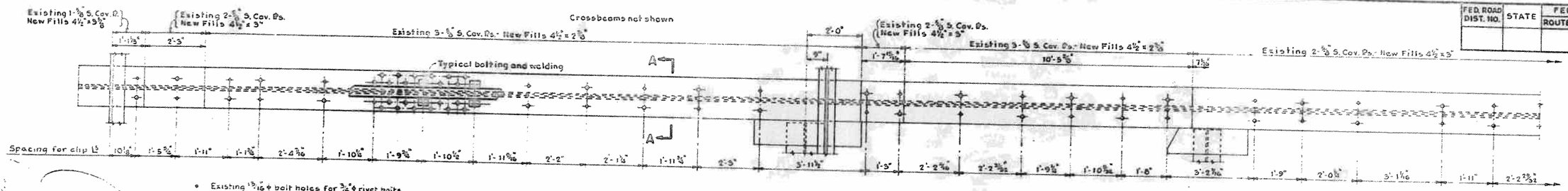
GILMERTON BASCULE BRIDGE
FLOOR RENEWAL

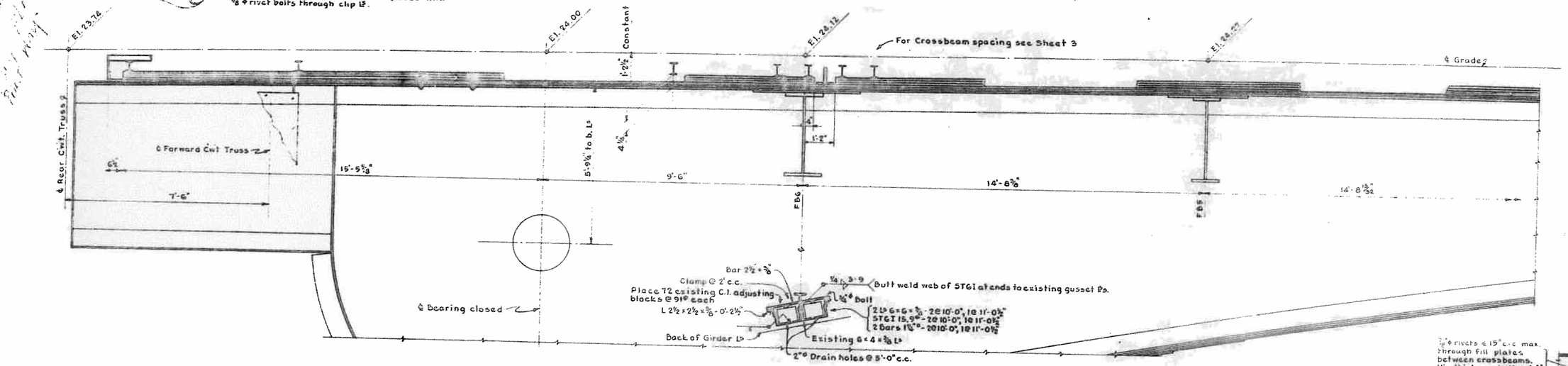
Virginia Department of Highways
Office of the Bridge Engineer
Richmond, Va. March 1951

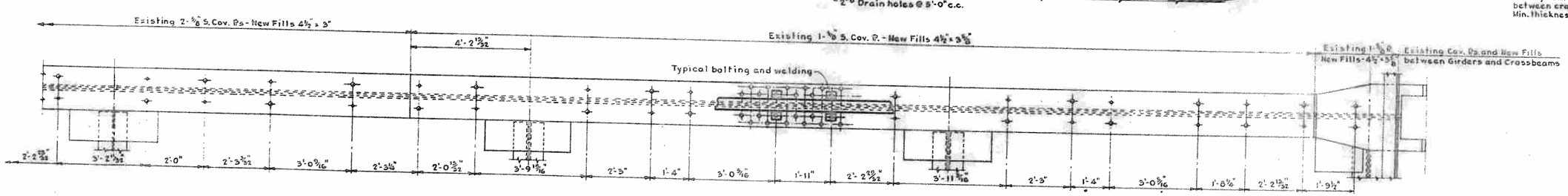
LXV-3A

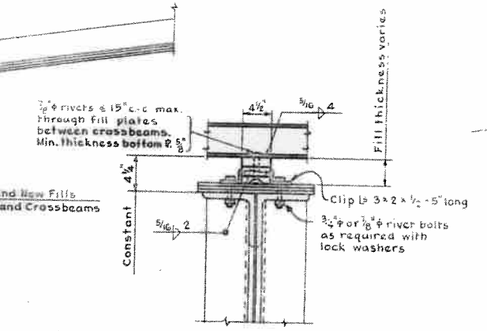
J.E. Greiner Co. Drawn by: W.V.W. Traced by: W.V.W. Checked by: E.G.

FED. ROAD DIST. NO.	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
				13		5



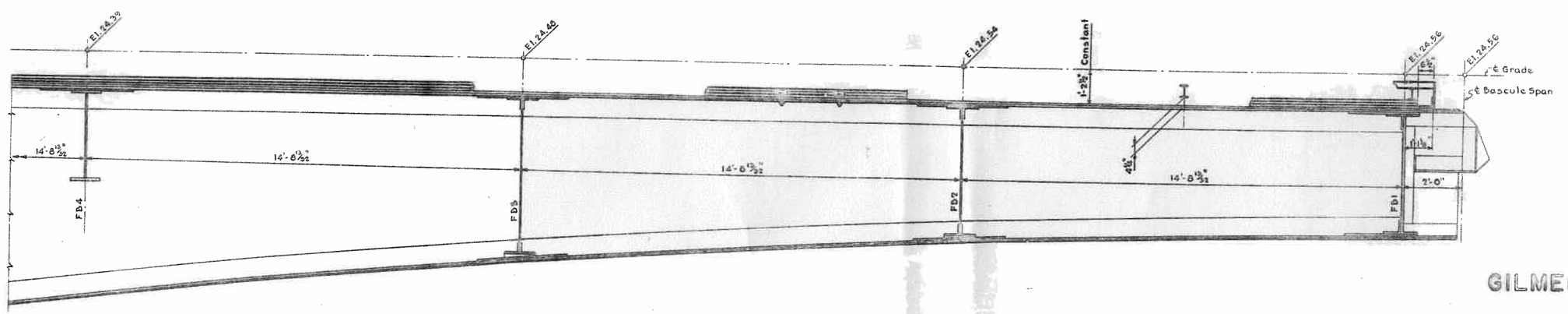






A–A
1" = 1'-0"

NOTES:
For General Notes see Sheet 1
Main Girder material is Silicon Steel. Welding to Silicon Steel must not be done



GIRDER DETAILS
1/8" = 1'-0"

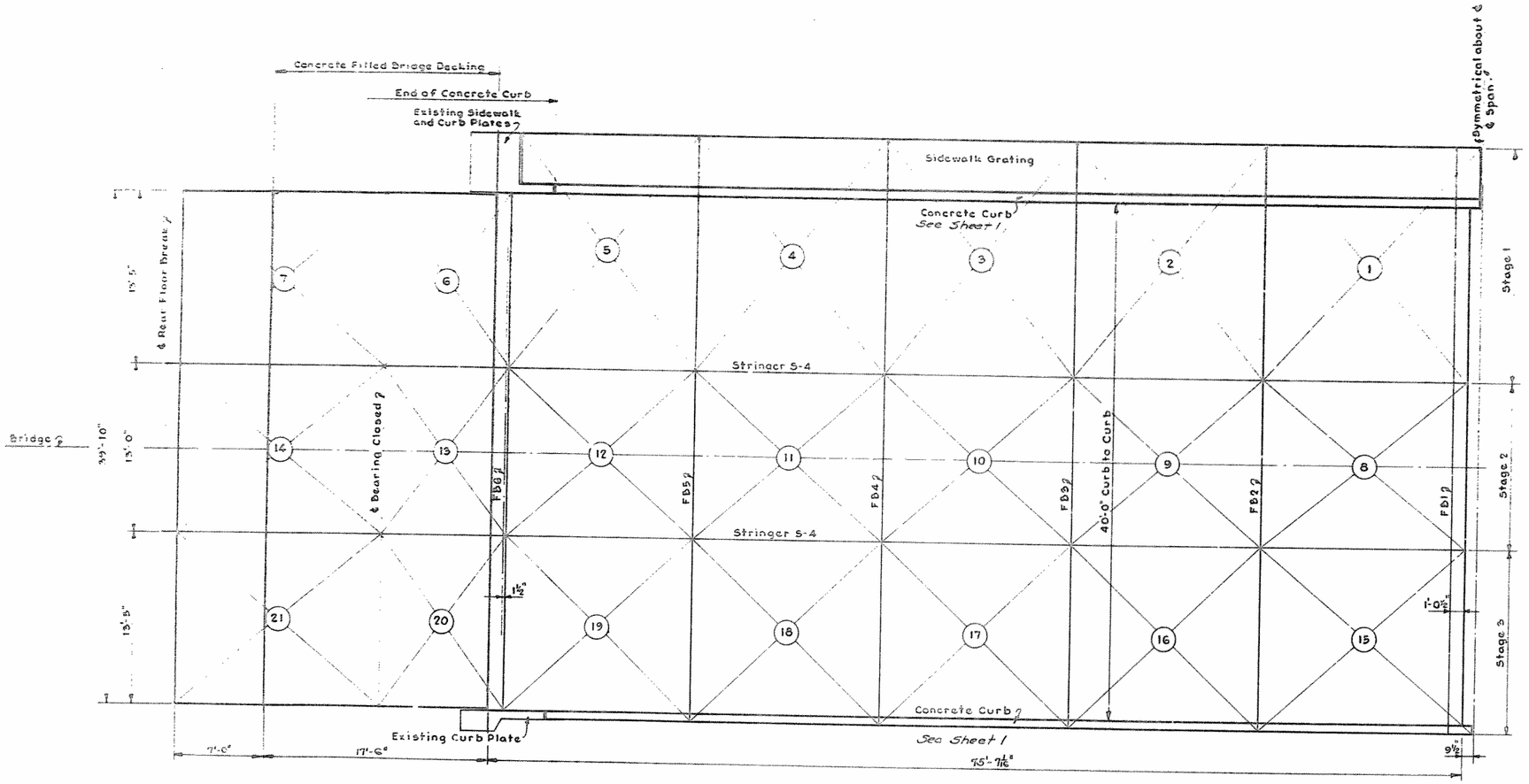
GILMERTON BASCULE BRIDGE
FLOOR RENEWAL

Virginia Department of Highways
Office of the Bridge Engineer
Richmond, Va. March, 1951

LXV-3A

Made by: J.E. Greiner Co. Drawn by: W.V.W. Traced by: W.V.W. Checked by: P.C.

FED. ROAD DIST. NO.	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.	TOTAL SHEETS
				13		6	6

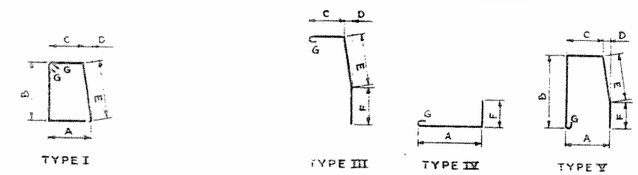


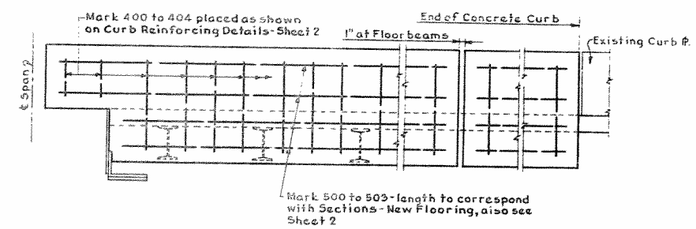
SUGGESTED CONSTRUCTION BY SECTIONS-NEW FLOORING

3/16"=1'-0"

BAR LIST

No.	Mark	Size	Length	Type	A	B	C	D	E	F	G
8	400	½"ϕ	2'-6¼"	I	7⅝"	5"	6⅛"	3¼"	5¼"		3"
340	402	½"ϕ	1'-10"	III			6⅞"	1⅛"	7⅛"	5"	3"
340	403	½"ϕ	1'-3"	IV	8"					5"	3"
340	404	½"ϕ	2'-10"	V	8"	12"	6⅛"	1⅛"	7⅛"	5"	3"
14	500	⅝"ϕ	15'-11½"	Str.							
10	501	⅝"ϕ	15'-4⅝"	"							
72	502	⅝"ϕ	14'-3⅝"	"							
24	503	⅝"ϕ	10'-10⅝"	"							



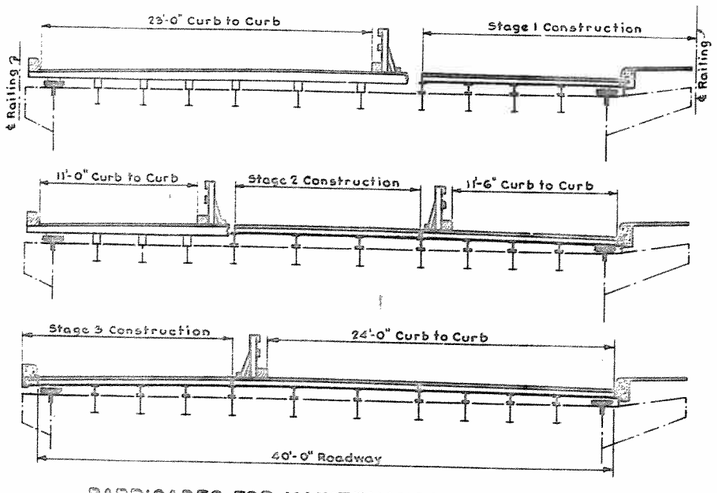


PLACING DIAGRAM

(No Scale)

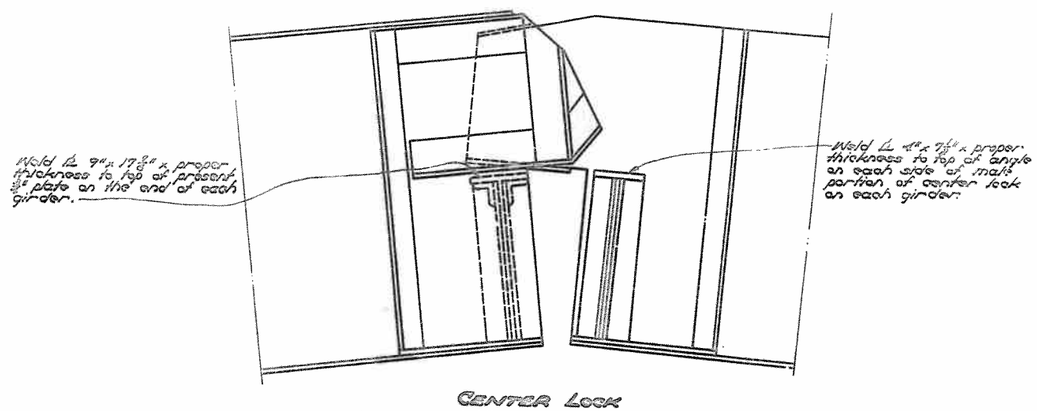
NOTES:

For General Notes see Sheet 1
Numbers circled indicate sequence of removing and replacing floor, curb and sidewalk.
Sections as indicated may be further sub-divided into sections consisting of crossbeams and grating.
All roadway grating splices transverse to the center line of roadway shall be the streamlined type shown for Irving Grating or approved equal.



BARRICADES FOR MAINTENANCE OF TRAFFIC

3/16"=1'-0"



CENTER LOCK

Contractor to determine the proper thickness of plates required to replace metal lost through wear.

Approximate weight of lks is 45 lbs. which is not included in weights shown on sheet No. 1.

GILMERTON BASCULE BRIDGE
FLOOR RENEWAL

Virginia Department of Highways
Office of the Bridge Engineer
Richmond, Va. March 1951

LXV-3A

J.E. Greiner Co. Drawn by: W.S.M. Traced by: W.W.W. Checked by: F.G.