

BRIDGE RATING RECORD

BATCH ID
855

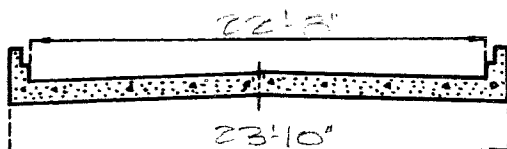
STR. SERIAL NO.
760

RATED BY Mayer
CHECKED BY 11

2 DISTRICT 9 3 COUNTY (110) Washington 5 RTE. A 8 BR. NO. Y 412
27 YEAR BUILT 1944 28 LANES ON BR. 2 31 DESIGN LOAD Unknown
STATION 249+60 34 SKEW Varies 42 TYPE SER. (ON) Highway
43 BRIDGE TYPE Box Culvert 42 TYPE SER. (UNDER) Waterway
45 THRU 49 SPAN LENGTHS: 13'-5" 5'-4" 8'-5"

51&52

ROADWAY WIDTHS (CURB TO CURB - OUT TO OUT):



ADDITIONAL COMMENTS: _____

RATING REFERENCE: BRIDGE NO. _____ COUNTY _____ DIST. _____

Material Assumed 100% Effective. || W.S. Overlay Assumed = 17 %

MATERIALS

CONCRETE			REINFORCING STEEL		STRUCTURAL STEEL	
fc=	psi. (Inv)		GRADE = YIELD (Fy) =		ASTM = YIELD (Fy) =	
fc=	psi. (Oper)					
fc=	psi. (Post)					
f'c=						
n=						

DATERATED			CONTROLLING ELEMENT			HAND CALCS. REQD.?	RATING		POSTING (.68)		
M	D	Y	MEMBER	SPAN	STRUCT.		Inv. (.55)	OP. (.75) TONS	H2O TONS	Mo4 TONS	Mo5 & SAFELOAD TONS

12-0743

CONT. CONC. SOLID SLAB SPANS (Box Culvert)

					NAME	SH.	1 OF 1
					Weimholt	DATE	02/13/96
Bridge	Rate		No. of				
No.	No.	County	Lines	DIST.	Spans	Description	
Ck. Y 412	X55760	Washington	15	9	3	13.4'-8.8'-8.5' Cont. Conc. Solid Slab Spans Box Culvert	
	110	049					
Year	1944				Clear Span +	13.40 ft	
Length	35.79	ft.			Wall Thickness =	0.917 ft. 0.9167 ft.	
Route	A				CI/CI Brg =	14.32 ft. Span 1	
Station	249+60.00				Clear Span +	8.80 ft	
WS	6	in WS	72	lbs.	Wall Thickness =	0.917 ft. 0.9167	
Live Load	Unk.				CI/CI Brg =	9.717 ft. Span 1	
Steel	33000	PSI			Roadway =	22.67 ft.	
Conc	3300	PSI			Curb =	0.917 ft.	
					O/O Curb =	24.5 ft	

There is no design information on this bridge.
D. L. Computations

WS	72 lbs x	22.7 ft	=	1632.00 lbs	
Curb	120.31688 lbs. x	2	=	240.63 lbs	
Rail	0.00 lbs. x	2	=	0.00 lbs	
				1872.64 lbs	
				76.43 lbs/ft	for 1/E
				371.39 lbs/ft	for E

AASHTO					
Live Load Dist. E = 4 + .06(S)	=	4.859	1/E =	0.2058	2 - Lane
		4.583	1/E =	0.2182	2 - Lane

Max	2 WL	=	2	=	0.0833	1 - Lane for 1/E
	24' Max Rdwy		24		0.4049	1 - Lane for E

12-0743

CONT. CONC. SOLID SLAB SPANS (Box Culvert)

NAME SH. 1 OF 1
Mayes DATE 01/26/96

Bridge Rate No. of
No. No. County Lines DIST.
Rate Y412 X55760 Washington 9
110

Spans Description
3 @ 13'5"-8'10"-8'5" Cont. Conc. Solid Slab Spans Box Culvert

Year 1944
Length 35.9583 ft.
Route A
Station 249+6000
WS 6 in. FWS 72 lbs. Roadway = 22.67 ft
Live Load Unknown O/O Curb = 24.5 ft
Steel default PSI
Conc default PSI

Span 1 Length = 13.42 ft Wall Thickness = 11 in.
Span 2 Length = 8.83 ft
Span 3 length = 8.42 ft

D. L. Computations

FWS 72 lbs x 22.7 ft = 1632.00 lbs
Curb 120.3 lbs. x 2 = 240.60 lbs
- Outlets -136.7 lbs. x 6 / 36 ft = -22.81
1849.79 lbs
75.50 lbs/ft for 1/E
366.94 lbs/ft for E

AASHTO
Live Load Dist. E = 4 + .06(S) = 4.86 1/E = 0.2058 2 - Lane

Max 2 WL = 2 = 0.0833 1 - Lane for 1/E
24' Rdwy 24 0.4050 1 - Lane for E

Span	Length	Sec.	Slab Depth	Top Steel bars	Sq.Ins. Area	d	Bott Steel bars	Sq.Ins. Area	d
Span 1	14.3334 ft.								
Range 1	14.33 ft.	1	10.00 in	#6@7.5"	0.707	2.00 in	#6@9.0"	0.589	8.50 in
Span 2	9.74667 ft.								
Range 1	9.75 ft.	1	10.00 in	#6@7.5"	0.707	2.00 in	#6@9.0"	0.589	8.50 in
Span 3	9.33667 ft.								
Range 1	9.34 ft.	1	10.00 in	#6@7.5"	0.707	2.00 in	#6@9.0"	0.589	8.50 in

12-0743

RECEIVED

OCT - 1 1948

Bureau of Bridges

BRIDGE REPORT

ON STRUCTURES USED IN PLACE

1936 71. 01 90

THIS REPORT TO BE FILLED IN WITH INK OR TYPEWRITER

New Rate No X55760

COUNTY WASHINGTON PROJ. NO. Rt. SH STA. NO. 249+60.00 BRIDGE NO. Y412*ON ROAD FROM DE SOTO TO RICHWOODS IN RICHWOODSBRIDGE OVER RICHWOODS CREEK SEC. 32 TWP. 40N RG. 2EREPORTED BY JOHN A. KLINGENBERG DATE AUGUST 10, 1948

*GIVE ADJACENT TOWNS, EACH WAY, NOT TERMINAL POINTS OF ROUTE.

SUPERSTRUCTURE

TYPE OF STRUCTURE TRIPLE CONCRETE BOX

LENGTH OUT TO OUT OF PIER	WIDTH BETWEEN CURBS	WIDTH OF SIDEWALKS	DISTANCE GRADE TO LOW CONST.	DISTANCE GRADE TO HIGH WATER	DISTANCE GRADE TO STREAM BED	EXPANSION PROVISIONS
<u>35'-9 1/2"</u>	<u>22'-8"</u>	<u>NONE</u>	<u>10' 11"</u>	<u>-10' ✓</u>	<u>4'-10' ✓</u>	<u>NONE</u>

CLEARANCE DIMENSIONS		TYPE AND SIZE OF		DESCRIPTION OF FLOOR DRAINAGE	
HEIGHT MIN.	WIDTH MAX.	RAIL	CURB		
<u>✓</u>	<u>22'-8"</u>	<u>NONE</u>	<u>CONC. 11" HIGH 13" WIDE</u>	<u>CURB OPENINGS, 30" X 3 EACH SIDE OF BRIDGE</u>	

GENERAL CONDITION GOOD.

SUBSTRUCTURE

ABUTMENTS AND PIERS	MATERIAL	TYPE	TOP OF FOOTING TO BRIDGE SEAT	WIDTH OF BRIDGE SEAT	LENGTH OF BRIDGE SEAT	FOUNDATIONS (PIILING)	WINGS (LENGTHS, ANGLES, ETC.)
<u>4</u> WEST OR NORTH	<u>CONCRETE</u>	<u>STRAIGHT.</u>	<u>3'-6"</u>	<u>11"</u>	<u>24'-4"</u>	<u>SOLID ROCK</u>	<u>LT. WING 7'-00" LONG. ✓</u> <u>RT. WING 6'-5" LONG ✓</u>
<u>1</u> EAST OR SOUTH	<u>CONCRETE</u>	<u>1/2 LI ON LT.</u>	<u>3'-6"</u>	<u>11"</u>	<u>24'-0"</u>	<u>SOLID ROCK</u>	<u>LT. WING 7'-0" LONG. 45° SKW ✓</u> <u>RT. WING 5'-0" LONG ✓</u>
<u>2</u> PIER	<u>CONCRETE</u>	<u>STRAIGHT</u>	<u>3'-6"</u>	<u>11"</u>	<u>24'-0"</u>	<u>SOLID ROCK</u>	<u>LT. WING 1'-00" LONG ✓</u> <u>RT. WING 6'-1" LONG ✓</u>
<u>3</u> PIER	<u>CONCRETE</u>	<u>STRAIGHT.</u>	<u>3'-6"</u>	<u>11"</u>	<u>24'-0"</u>	<u>SOLID ROCK</u>	<u>LT. WING 1'-00" LONG ✓</u> <u>RT. WING 6'-1" LONG ✓</u>
PIER							

GENERAL CONDITION GOOD. - VERY ROUGH FINISH

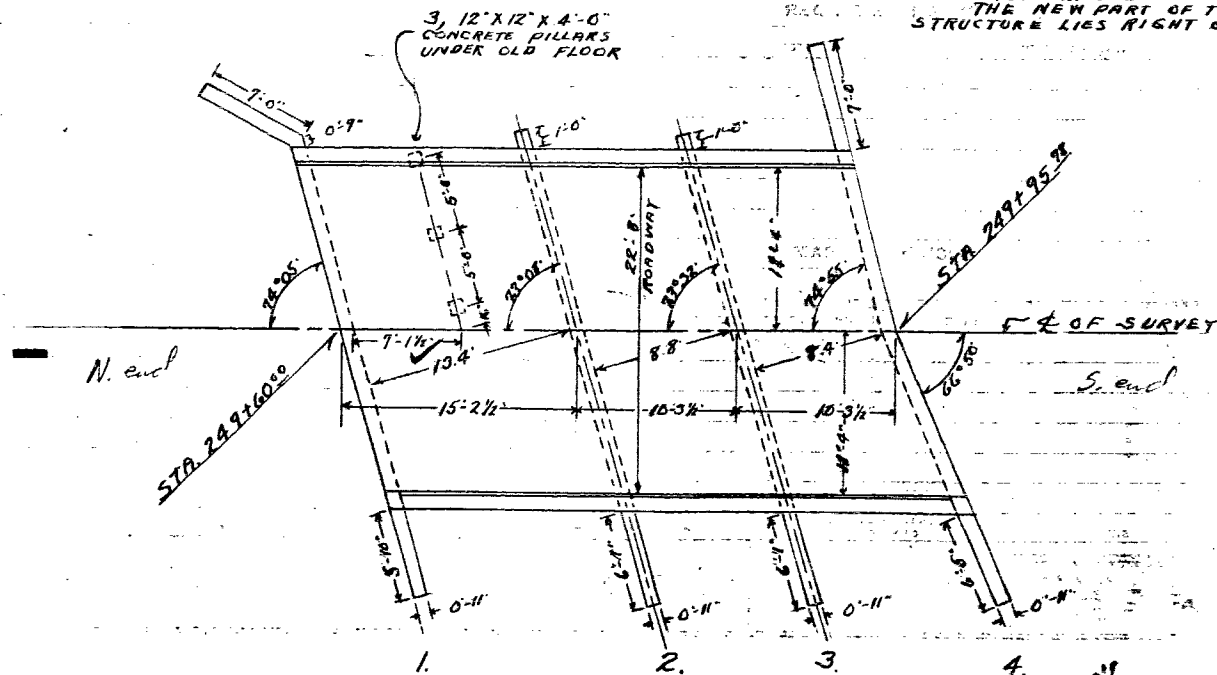
GENERAL INFORMATION

DATE BUILT 19. 7 BY WASHINGTON CO. FABRICATOR (IF STEEL BRIDGE) ✓CAN PLANS BE OBTAINED? No GIVE NAME AND ADDRESS ✓EXTREME HIGH WATER ELEV. 770.3 LOW WATER ELEV. 766.3 EL. FLOOR 771.1ALIGNMENT OF STRUCTURE STRAIGHT SKEW OF STRUCTURE SEE SKETCHSTREAM ALIGNMENT ABOVE STRUCTURE CROOKED BELOW STRUCTURE STRAIGHTRIP RAP NONE CHANNEL PROTECTION NONEWHAT IS EFFECTIVE WATERWAY UNDER BRIDGE, AT 90° WITH DIRECTION OF FLOW, BELOW EXTREME HIGH WATER 122.4 SQ. FT.DOES THIS WATERWAY CARRY ENTIRE FLOOD DISCHARGE? YESDOES DRIFT PASS SATISFACTORILY? YES DOES BRIDGE BACK UP WATER DURING FLOOD? NoIS THERE ANY INDICATION OF SCOUR AT PIERS OR ABUTMENTS? NoDRAINAGE AREA ABOVE BRIDGE SITE 1.4 SQ. MILES. HOW OBTAINED? Topography MapACHRACTER OF DRAINAGE AREA: FLAT, ROLLING, HILLY, OR MOUNTAINOUS HILLY

12-0743

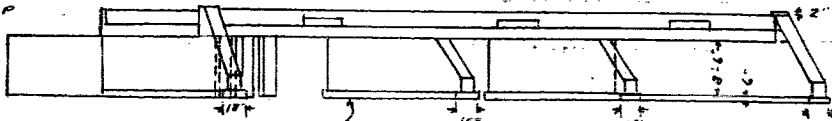
SKETCHES OF STRUCTURE

NOTE - E OF SURVEY IS ON THE DIVIDING JOINT BETWEEN THE OLD PART OF THE STRUCTURE AND THE NEW PART OF THE STRUCTURE. THE OLD PART OF THE STRUCTURE LIES LEFT OF E. THE NEW PART OF THE STRUCTURE LIES RIGHT OF E.



FLOOR ELEV. 771.1
FLOOR THICKNESS - 10"
CURB 11" HIGH
10" WIDE AT TOP
13" WIDE AT BOTTOM
3" BATTER ON INSIDE

3, WEEPHOLES 30" x 15" ON EACH SIDE FOR DRAINAGE



SOLID ROCK ELEV. 766.2

ALL FOOTINGS & PILLARS ARE ON SOLID ROCK AT ELEVATION 766.2
CLEAR OPENING AT 90° TO STREAM 122.4 Sq. Ft.
HIGH WATER ELEV 770.3 AT BOTTOM OF BRIDGE FLOOR

NOTES: SHOW ELEVATION AND PLAN OF STRUCTURE.
MAKE SKETCHES LARGE ENOUGH TO SHOW SIZES OF EACH MEMBER.
SKETCHES TO BE IN INK.
USE SEPARATE SHEETS FOR STRUCTURAL SKETCHES IF ADDITIONAL SPACE IS REQUIRED.

002503

CONCRETE AND STONE MASONRY BRIDGES

PAGE 3

CONCRETE SLAB

THICKNESS
OF SLAB

10"✓

CONCRETE GIRDER

WIDTH OF GIRDER	AT CENTER	DEPTH OF GIRDER	AT ENDS	THICKNESS OF FLOOR SLAB

ARCHES OR FRAMES

TYPE	SLAB RISE	MATERIAL				DEPTH OF FILL AT CROWN
CLEAR SPAN	RISE	CROWN THICKNESS	SPRING OR HAUNCH THICKNESS	BASE THICKNESS	FILLING MATERIAL	

CONCRETE BOX TYPE

SIZE	LENGTH BACK TO BACK OF HEADWALLS	SHOULDER WIDTH	FILL AT CENTER LINE	FLOOR—CONCRETE OR ROCK
CONCRETE TRIPLE 13' x 4' BOX 8' x 4' 8' x 4'	24'	22'-8"	NONE	CONCRETE

TIMBER BRIDGES

STRINGERS

ACTUAL SIZE	SPACING	NO. OF LINES	SPECIES AND TREATMENT	HOW SUPPORTED	LAPPED OR BUTTED

FLOOR

TYPE	SIZE OR THICKNESS	SPECIES AND TREATMENT	HOW FASTENED TO STRINGERS OR CROSS BEAMS	HOW LAID			CROSS BEAMS	
				TRANSV.	LONG.	DIAG.	SIZE	SPACING

12-U/43

BRIDGE INSPECTION REPORT

FORM NO. B-702R

COUNTY *Washington* ROUTE NUMBER *H* BRIDGE NUMBER *1* DESIGN NUMBER *Y412*
 DATE OF INSPECTION *4-6-48* INSPECTION MADE BY *A. F. White*
 TYPE OF SUPERSTR. *2-8'5" x 4'4" x 13'5" x 4' concrete* TYPE OF SUBSTR. *concrete walls*

SUPERSTRUCTURE

1 TYPE AND CONDITION OF FLOOR AND WEARING SURFACE *concrete fair*
 2 CONDITION OF DRAINAGE *cut outlets good*
 3 CONDITION OF RAILING, CURBS, ETC. *curb good 7 ft. H.R.*
 4 CONDITION OF MAIN MEMBERS (TRUSSES, GIRDERS, BEAMS, ARCHES) *good*
 5 CONDITION OF FLOOR BEAMS AND CONNECTIONS *-*
 6 CONDITION OF JOISTS AND CONNECTIONS *-*
 7 CONDITION OF PAINT AND EXTENT OF CORROSION *-*

NO EXPANSION DEVICES AND SUPERSTRUCTURE SUPPORTS

8 ARE THEY FUNCTIONING PROPERLY 9 DO THEY REQUIRE 10 IS PROPER EXPANSION SPACE PROVIDED
 ROLLERS ROCKERS SLIDING PLATES CLEANING PAINTING OILING W. OR N. ABUT. E. OR S. ABUT. PIERS
 YES NO YES NO YES NO YES NO YES NO YES NO YES NO YES NO YES NO

11 DESCRIBE ANY DAMAGE TO STRUCTURE BY COLLISION, OVERLOADING, OR OTHER CAUSES *None*

SUBSTRUCTURE

	MATERIAL	CONDITION	IS THERE ANY									
			SETTLING	SLIDING	TILTING	CRACKING	UNDERMINING	DISINTEGRATING				
			YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
12 W. OR N. ABUTMENT	<i>Conc.</i>	<i>good</i>										
13 E. OR S. ABUTMENT												
14 PIER												
15 PIER												
16 PIER												
17 PIER												
18 PIER												

19 DESCRIBE IN DETAIL THE LOCATION, EXTENT, AND CAUSE OF ANY UNSATISFACTORY CONDITION LISTED ABOVE *None*

all beams on solid rock

20 IF A SKEWED STRUCTURE, HAS THE SUPERSTRUCTURE MOVED TRANSVERSELY? *No*

21 CONDITION OF RIPRAP *None*

22 DESCRIBE DAMAGE, IF ANY, TO BACKWALLS AND WINGS *no damage*

GENERAL

23 ARE PROPER EXPANSION JOINTS PROVIDED IN RIGID PAVEMENT TO PROTECT STRUCTURE? *gravel road*
 24 CONDITION OF STREAM CHANNEL AT, ABOVE, AND BELOW BRIDGE SITE *good below lane above*
 25 HAVE THE FOLLOWING REPAIRS, RECOMMENDED LAST YEAR, BEEN MADE? *Rock showing in left rd*

water gate on right end catches drift

26 REMARKS *Visibility good - align poor curves at each end. grade good on West. fair on East. fair grade of concrete*

(SEE REVERSE SIDE)

12-0743