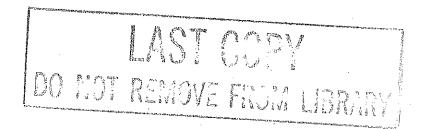
PROFILOMETER MEASUREMENT OF BRIDGE ROUGHNESS Second Progress Report

Research Laboratory Division Office of Testing and Research Research Project R-61 F-65 Research Report No. R-430



Michigan State Highway Department John C. Mackie, Commissioner Lansing, June 1963

PROFILOMETER MEASUREMENT OF BRIDGE ROUGHNESS Second Progress Report

This is the second progress report on profilometer measurement of the roughness of bridge decks. The first report (No. R-421) described the profilometer, the test procedure and analysis, and contained the results of the first group of measurements on 35 bridges. This report contains results on the measurement of 22 additional bridges, 12 of which were finished with a transverse finishing machine and 10 by hand finishing.

As mentioned in the first report, a tentative roughness classification for bridges has been established as follows:

Good

less than 100

Average

100-160

Poor

above 160

On the basis of this classification the 12 machine finished bridges separate as follows: 4 in good, 8 in average, and 0 in poor classifications, while the 10 hand finished bridges separate into 3, 7, and 0 in the same respective classifications. The 12 machine finished bridges represent a total of 96 bridge spans; 35, 57, and 4 fall into good, average, and poor classifications, respectively. For 10 hand finished bridges, a total of 78 spans, 26, 45, and 7 spans fall into the same respective classifications.

Explanation of Notation on Attached Data Sheets:

O. W. P. = Outer wheel path, I. W. P. = Inner wheel path.

Bridge Number Dual Structures (sep	لنديد ومبرج سمسه سطاسا فاغتناه فالمالية الكامك الخالجات			96 over Gr Yes XX	No [
Single Structure	Yes	No	XX			*************************************
Number of Spans	4		Machin	e Finished		Yes No XX
₩ Bound Road	way	DIS	STRICT 5		Date M	E 3-14-63 TeasuredW11/24/62
		Profi	lometer R	oughness	Value - R	inches per mile
Item	Length	Traffic		T TO THE TOTAL TOT	g Lane	
		O.W.P.	I.W.P.	O.W.P.	I.W.P.	Average
W Approach	100.0	92.1	123.0	99.3	106.1	104.5
Span 1	50.0	54.4	72.4	82,4	69.0	70.8
2	70.4	52.8	53.0	74.0	83.7	68.2
3	57.6	69.7	94.8	143.6	125.0	113.7
4	53.9	98.4	89.6	108.1	107.8	101.9
5						
6			-			
E Approach	100.0	99.0	117.2	156.1	193,2	147.8
Average	431.9	80.6	96.4	113.4	121.1	105.8
E Bound Road	way	r : :				
		Profi	lometer F	Coughness	Value - R	inches per mile
Item	Length	Traffic Lane		Passing Lane		
		O.W.P.	I.W.P.	O.W.P.	I.W.P.	Average
W Approach	100.0	96.1	99.6	105.3	103.0	100.8
Span 1	54.1	67.0	73.2	80.0	66.4	71.2
2	57.3	56.2	88.4	106.9	99.6	87.5
3	70.5	60.6	92.9	74.5	84.8	77.9
4	50.0	76.6	81.8	63.8	81.8	76.0
5			<u> </u>		02.0	
6						
E Approach	100.0	76.6	79.7	58.9	72,6	71.8
Average	431.9	74.6	87.0	81.8	85.4	82.2
Remarks Joints	and spans n	umbered fo	rom west	to east.		
					expansion	: #6 - steel expansion
7 - expansion; #8						·
oncrete approache						
Revised 4-24	-63 to includ	e E.B. Ro	adway.			
·						
					F	Report No. 2 - June

PROFILOMETER BRIDGE ROUGHNESS MEASUREMENTS

TEST RESULT TABULATION			
Research Project 61 F-65	111		, t

Bridge Number X01	of 25131	, Locat	ion <u>I 75</u>	over C &	O RR		Form	511		
Dual Structures (sep			,	Yes XX	No [
Single Structure Number of Spans	Yes 🗌	No		e Finished	,	Yes 🔲	No 🗵	X		
Number of Spans			Macilitie	Timbileu		LOB I	110 [22	=.a ·		
N Bound Road	vay	DIST	TRICT 5		Date Measured 5-7-63					
		Profi	lometer R	oughness \	Value - R	inches pe	r mile			
Item	Length	Traffic	Lane	Passin	g Lane	Cente	r Lane			
	J.	O.W.P.	I.W.P.	O.W.P.	I.W.P.	O.W.P.	I.W.P.	Avg.		
S Approach	100.0	86.8	74.0	81.8	82.4	82.4	94.0	83.4		
Span 1	74.3	100.9	78.9	106.6	106.2	100.6	108.4	100.2		
2	90.0	116.2	123.8	94.8	84.2	123.2	113.8	109.1		
3	65.4	96.5	91.6	115.4	66.2	84.8	88.0	90.4		
4										
5										
6		<u> </u>	<u> </u>							
N Approach	100.0	77.4	109.6	117.0	123.3	105.8	104.0	106.1		
Average	429.7	94.7	96.2	102.1	94.0	100.0	102.0	98.2		
	·	•								
S Bound Road	SBound Roadway									
		Profi	lometer R	oughness	Value - R	inches pe	r mile			
Item	Length	Traffic	c Lane	Passin	g Lane	Center Lane				
	· -	O.W.P.	I.W.P.	O.W.P.	I.W.P.	O.W.P.	I.W.P.	Avg.		
S Approach	100.0	100 0	100.0	199.0	115.0	100 1	100 0	105 0		
	100.0	126.2	103.8	122.8	115.9	139.1	160.0	127.8		
Span'1	74.3 90.0	114.8		85.6	95.2	85.3	84.2	95.9		
2	<u> </u>	98.0	98.9	118.5	114.2	91.5	108.6	105.0		
3	65,4	67.0	73.5	79.5	75.9	80.3	72.2	75.1		
5		<u> </u>	<u> </u>	<u> </u>	 					
6		<u> </u>	ļ	 				-		
N Approach	100.0	144.2	116.4	110.6	141 0	100 5	00 5	119.9		
Average	429.7	113.5	102.0	106.0	141.0	108.5	99.5 108.7	107.7		
Average		1 220,0	L	1 200.0		1 200.0	100.1	1701.0		
Remarks Joints	and spans nu	mbered fr	om south t	o north.	Joint #1, 2	2, & 3 - F	Expansion	<u>;</u> .		
#4 - Construction; #5	5 - Steel Exp	ansion; #6	- Expansi	on; #7 - Ce	onstructio	n #8, 9, 8	& 10 – Ex	pansion.		
Concrete appr	· · · · · · · · · · · · · · · · · · ·		,							
			,		-					
,										
	 			Re	port No.	2 - June	, 1963			
						, , , , , , , , , , , , , , , , , , ,		· · · · · · · · · · · · · · · · · · ·		

Bridge Number 50	of 25131	Locat	ion Grar	d Blanc Ro	oad over I	75 Form 511
Dual Structures (sep				Yes 🗀	No [
Single Structure	Yes x					
Number of Spans	4	····	Machin	e Finished	<i>P</i>	Yes No xx
		,		• • • •		
W Bound Road	way	DIST	TRICT 5		Date M	easured <u>5-7-63</u>
	: :	Profi	lometer R	oughness V	Value - R	inches per mile
Item	Length	Traffic	Lane	Passin	g Lane	
		O.W.P.	I.W.P.	O.W.P.	I.W.P.	Average
W Approach	100.0	150.8	162.6			156.8
Span 1	44.6	91.2	116,6	1		104.2
2	109.8	99.6	100.8	ŕ		100.0
3	109.7	109.0	116.7	·		112.6
4	45, 7	141.5	139.8			141. 0
5	,					
6						
E Approach	100.0	136.5	138.6	·		137.3
Average	509.8	122.0	128.7			125.4
**************************************		- Au	·			ой инстительности от пода на може в подавления в водительности от подавления в подавления в подавления в подавл В подавления в пода
E Bound Road	พดง					•
	,, _,	1				·
•	· '	Profi	lometer i	loughness	Value - R	inches per mile
	1			,		<u> </u>
Item	Length	Traffic	c Lane	T		
Item	Length	Traffic	Lane I.W.P.	Passin O.W.P.		Average
	Length			Passin	g Lane	
W_ Approach	100.0	O.W.P. 125.2	I.W.P. 172.1	Passin	g Lane	Average
W Approach Span' 1	100.0 44.6	O.W.P. 125.2 148.0	I.W.P. 172.1 119.6	Passin	g Lane	Average 148. 9 133. 8
W Approach Span'1 2	100.0 44.6 109.8	O.W.P. 125.2 148.0 104.8	I.W.P. 172.1 119.6 103.2	Passin	g Lane	Average 148.9 133.8 103.9
W Approach Span 1 2 3	100.0 44.6 109.8 109.7	O.W.P. 125.2 148.0 104.8 116.0	I.W.P. 172.1 119.6 103.2 123.7	Passin	g Lane	Average 148.9 133.8 103.9 119.8
W Approach Span'1 2 3 4	100.0 44.6 109.8	O.W.P. 125.2 148.0 104.8	I.W.P. 172.1 119.6 103.2	Passin	g Lane	Average 148.9 133.8 103.9
W Approach Span 1 2 3 4 5	100.0 44.6 109.8 109.7	O.W.P. 125.2 148.0 104.8 116.0	I.W.P. 172.1 119.6 103.2 123.7	Passin	g Lane	Average 148.9 133.8 103.9 119.8
	100.0 44.6 109.8 109.7	O.W.P. 125.2 148.0 104.8 116.0	I.W.P. 172.1 119.6 103.2 123.7	Passin	g Lane	Average 148.9 133.8 103.9 119.8
W Approach Span 1 2 3 4 5	100.0 44.6 109.8 109.7	O.W.P. 125.2 148.0 104.8 116.0	I.W.P. 172.1 119.6 103.2 123.7	Passin	g Lane	Average 148.9 133.8 103.9 119.8
	100.0 44.6 109.8 109.7 45.7	O.W.P. 125.2 148.0 104.8 116.0 100.0	I.W.P. 172.1 119.6 103.2 123.7 91.3	Passin	g Lane	Average 148.9 133.8 103.9 119.8 95.9
W_Approach Span'1 2 3 4 5 6 E Approach Average	100.0 44.6 109.8 109.7 45.7 100.0 509.8	O.W.P. 125.2 148.0 104.8 116.0 100.0 101.6 114.0	I.W.P. 172.1 119.6 103.2 123.7 91.3 139.6 128.7	Passin O.W.P.	g Lane I.W.P.	Average 148.9 133.8 103.9 119.8 95.9 120.4 121.3
W_Approach Span 1 2 3 4 5 6 E Approach Average RemarksJoints	100.0 44.6 109.8 109.7 45.7 100.0 509.8 and spans nur	O.W.P. 125.2 148.0 104.8 116.0 100.0 101.6 114.0 mbered from	I.W.P. 172.1 119.6 103.2 123.7 91.3 139.6 128.7 m west to	Passin O.W.P.	g Lane I.W.P.	Average 148.9 133.8 103.9 119.8 95.9 120.4 121.3 3, - Expansion;
W_Approach Span 1 2 3 4 5 6 E Approach Average RemarksJoints	100.0 44.6 109.8 109.7 45.7 100.0 509.8 and spans nur	O.W.P. 125.2 148.0 104.8 116.0 100.0 101.6 114.0 mbered from	I.W.P. 172.1 119.6 103.2 123.7 91.3 139.6 128.7 m west to	Passin O.W.P.	g Lane I.W.P.	Average 148.9 133.8 103.9 119.8 95.9 120.4 121.3
W_Approach Span 1 2 3 4 5 6 E Approach Average RemarksJoints	100.0 44.6 109.8 109.7 45.7 100.0 509.8 and spans nur	O.W.P. 125.2 148.0 104.8 116.0 100.0 101.6 114.0 mbered from	I.W.P. 172.1 119.6 103.2 123.7 91.3 139.6 128.7 m west to	Passin O.W.P.	g Lane I.W.P.	Average 148.9 133.8 103.9 119.8 95.9 120.4 121.3 3, - Expansion;
	100.0 44.6 109.8 109.7 45.7 100.0 509.8 and spans nur 5 - Steel Expansion.	O.W.P. 125.2 148.0 104.8 116.0 100.0 101.6 114.0 mbered from	I.W.P. 172.1 119.6 103.2 123.7 91.3 139.6 128.7 m west to	Passin O.W.P.	g Lane I.W.P.	Average 148.9 133.8 103.9 119.8 95.9 120.4 121.3 3, - Expansion;
W Approach Span 1 2 3 4 5 6 E Approach Average Remarks Joints #4 - Construction; #	100.0 44.6 109.8 109.7 45.7 100.0 509.8 and spans nur 5 - Steel Expansion.	O.W.P. 125.2 148.0 104.8 116.0 100.0 101.6 114.0 mbered from	I.W.P. 172.1 119.6 103.2 123.7 91.3 139.6 128.7 m west to	Passin O.W.P.	g Lane I.W.P.	Average 148.9 133.8 103.9 119.8 95.9 120.4 121.3 3, - Expansion;
	100.0 44.6 109.8 109.7 45.7 100.0 509.8 and spans nur 5 - Steel Expansion.	O.W.P. 125.2 148.0 104.8 116.0 100.0 101.6 114.0 mbered from	I.W.P. 172.1 119.6 103.2 123.7 91.3 139.6 128.7 m west to	Passin O.W.P.	g Lane I.W.P.	Average 148.9 133.8 103.9 119.8 95.9 120.4 121.3 3, - Expansion;
	100.0 44.6 109.8 109.7 45.7 100.0 509.8 and spans nur 5 - Steel Expansion.	O.W.P. 125.2 148.0 104.8 116.0 100.0 101.6 114.0 mbered from	I.W.P. 172.1 119.6 103.2 123.7 91.3 139.6 128.7 m west to	Passin O.W.P.	g Lane I.W.P. nt #1, 2, eel Expan	Average 148.9 133.8 103.9 119.8 95.9 120.4 121.3 3, - Expansion; sion; #8 - Construction
	100.0 44.6 109.8 109.7 45.7 100.0 509.8 and spans nur 5 - Steel Expansion.	O.W.P. 125.2 148.0 104.8 116.0 100.0 101.6 114.0 mbered from	I.W.P. 172.1 119.6 103.2 123.7 91.3 139.6 128.7 m west to	Passin O.W.P.	g Lane I.W.P. nt #1, 2, eel Expan	Average 148.9 133.8 103.9 119.8 95.9 120.4 121.3 3, - Expansion;

Bridge Number S0	1 of 23151	, Locat	ion <u>Crie</u>	tz Road ov	er EB I 96	Form 511
Dual Structures (sep	arate for eac			Yes 🔲	No X	X
Single Structure	Yes 🛚	X No			; ;	
Number of Spans	3		Machine	e Finished		Yes xx No
N Bound Road	way	DIS	STRICT 8		Date M	easured 3-15-63
		Descri	lamatan D	analmaa a	Value Di	1
				T		nches per mile
Item	Length	Traffic	1	 	g Lane	Average
		O.W.P.	I.W.P.	O.W.P.	I.W.P.	
Approach						
Span 1	68.5	117.7	119.6			118.6
2	72.3	117.9	119.0			118.3
3	71.0	118.1	97.3			107.7
4						
5	·					
6			-			
Approach						
Average		118.0	112.3			115. 1
S Bound Road	way					
*		Profi	lometer F	Coughness	Value - R	nches per mile
Item	Length	Traffic Lane		Passin	g Lane	
		O.W.P.	I.W.P.	O.W.P.	I.W.P.	Average
Approach						
Span' 1	68.5	128.1	103.4			115, 5
. 2	72.3	179.6	91.3			135.8
3	71.0	96.9	91.0			94.2
4		·		,		
5						
6						·
Approach						
Average		138.1	95.0			116. 4
Average	<u> </u>	130.1	70.0			TTO. 4
				north. J	oint #1 - C	onstruction; #2 -
Expansion; #3 - Steel	Expansion;	4 - Const	ruction.		 	
Approaches too r	ough to run -	tar and c	hip.			
·						· · · · · · · · · · · · · · · · · · ·
					Report No	o. 2 - June, 1963

Bridge Number S0	2 of 23151	, Locat	ion <u>Criet</u>	z Road ove	r WB 196	Form 511
Dual Structures (sep				Yes 🗀	No 🔯	X
Single Structure	Yes 🛽	No [1 1		
Number of Spans	3		Machine	Finished	· · · · · · · · · · · · · · · · · · ·	Yes XX No
N Bound Road	way	DIS	TRICT 8		Date Me	easured 3-15-63
		Profi	lometer R	oughness \	/alue - R i	nches per mile
Item	Length				g Lane	
10CH1	Lough	O.W.P.	I.W.P.	O.W.P.		Average
Approach				,		
Span 1	82.7	136.9	142.4			139.8
2	80.0	160.4	97.7			129.4
3	69.5	148.7	134.9			141.6
4	,					
5						
6		·				
Approach						<u> </u>
Average	232.2	149.1	123.4			136.1
S Bound Road	wav		·			
	T	Profi	lometer B	oughness '	Value - Ri	nches per mile
				to a Piniop p	A TOTAL - TE I	monos por mino
Item	Length	Traffic		1	g Lane	nones por mile
Item	Length		Lane	1		Average
ItemApproach	Length	Traffic	Lane	Passin	g Lane	
Approach		Traffic	Lane	Passin	g Lane	Average
Approach Span 1	Length 82.7 80.0	Traffic	I.W.P.	Passin	g Lane	
Approach	82.7 80.0	Traffic O.W.P. 159.8 138.0	Lane I.W.P. 144.7 122.8	Passin	g Lane	Average 152.3 130.7
Approach Span 1 2 3	82.7	Traffic O.W.P.	Lane I.W.P. 144.7	Passin	g Lane	Average
Approach Span 1 2	82.7 80.0	Traffic O.W.P. 159.8 138.0	Lane I.W.P. 144.7 122.8	Passin	g Lane	Average 152.3 130.7
Approach Span 1 2 3 4	82.7 80.0	Traffic O.W.P. 159.8 138.0	Lane I.W.P. 144.7 122.8	Passin	g Lane	Average 152.3 130.7
Approach23456	82.7 80.0	Traffic O.W.P. 159.8 138.0	Lane I.W.P. 144.7 122.8	Passin	g Lane	Average 152.3 130.7
Approach Span 1 2 3 4 5 6 Approach	82.7 80.0 69.5	Traffic O.W.P. 159.8 138.0 110.7	Lane I.W.P. 144.7 122.8 120.2	Passin	g Lane	Average 152.3 130.7 115.1
Approach23456	82.7 80.0	Traffic O.W.P. 159.8 138.0	Lane I.W.P. 144.7 122.8	Passin	g Lane	Average 152.3 130.7
Approach Span 1 2 3 4 5 6 Approach Average Remarks _Joints a	82.7 80.0 69.5 232.2	159.8 138.0 110.7	Lane 1. W. P. 144. 7 122. 8 120. 2 128. 0 m south to	Passin O.W.P.	g Lane I.W.P.	Average 152.3 130.7 115.1
Approach Span 1 2 3 4 5 6 Approach Average	82.7 80.0 69.5 232.2	159.8 138.0 110.7	Lane 1. W. P. 144. 7 122. 8 120. 2 128. 0 m south to	Passin O.W.P.	g Lane I.W.P.	152.3 130.7 115.1
Approach Span 1 2 3 4 5 6 Approach Average Remarks _Joints a	82.7 80.0 69.5 232.2 and spans nur - Expansion	159.8 138.0 110.7 134.8 mbered from	Lane 1. W. P. 144. 7 122. 8 120. 2 128. 0 m south to	Passin O.W.P.	g Lane I.W.P.	152.3 130.7 115.1
Approach Span 1 2 3 4 5 6 Approach Average Remarks _Joints a Steel Expansion; #3	82.7 80.0 69.5 232.2 and spans nur - Expansion	159.8 138.0 110.7 134.8 mbered from	Lane 1. W. P. 144. 7 122. 8 120. 2 128. 0 m south to	Passin O.W.P.	g Lane I.W.P.	152.3 130.7 115.1
Approach Span 1 2 3 4 5 6 Approach Average Remarks _Joints a Steel Expansion; #3	82.7 80.0 69.5 232.2 and spans nur - Expansion	159.8 138.0 110.7 134.8 mbered from	Lane 1. W. P. 144. 7 122. 8 120. 2 128. 0 m south to	Passin O.W.P.	g Lane I.W.P.	152.3 130.7 115.1
Approach Span 1 2 3 4 5 6 Approach Average Remarks _Joints a Steel Expansion; #3	82.7 80.0 69.5 232.2 and spans nur - Expansion	159.8 138.0 110.7 134.8 mbered from	Lane 1. W. P. 144. 7 122. 8 120. 2 128. 0 m south to	Passin O.W.P.	g Lane I.W.P.	152.3 130.7 115.1
Approach Span 1 2 3 4 5 6 Approach Average Remarks _Joints a Steel Expansion; #3	82.7 80.0 69.5 232.2 and spans nur - Expansion	159.8 138.0 110.7 134.8 mbered from	Lane 1. W. P. 144. 7 122. 8 120. 2 128. 0 m south to	Passin O.W.P.	g Lane I.W.P. oint #1 - C	152.3 130.7 115.1

Research	Laboratory Divisi	on		Researc	ch Project	61 F-65		
Bridge	Number S05	of 23152	, Locat	ion <u>Mt I</u>	lope over	[96	Form 511	
	tructures (sep				Yes 🔲	No 8	X.	
-,	Structure	Yes X	X No [, · · ·		
Numbe	r of Spans	4	_	Machine	e Finished		Yes XX No 🗌	
W	_ Bound Road	way	DIS	TRICT 8		Date M	Ieasured <u>3-14-63</u>	
			Profi	lometer R	oughness \	/alue - R	inches per mile	
•	Item	Length	Traffic	Lane	Passin	g Lane		
			O.W.P.	I.W.P.	O.W.P.	I.W.P.	Average	
W	_ Approach	50.0	223.4	147.8	; ;		185.9	
S	pan 1	36.8	95.4	86,8			91.8	
	2 ,	71.9	76.0	62,4			69.0	
	3	71.9	79.7	74.9		<u> </u>	77.1	
	4	36.8	165.0	152.8			159.3	
	5						<u> </u>	
	6						<u> </u>	
<u>E</u>	_ Approach	50.0	198.6	159.0			178.5	
A	verage		132.0	107.2			119.6	
<u>E</u>	Bound Road	way						
		·	Profi	lometer F	loughness	Value - R	inches per mile	
	Item	Length	Traffic	Lane	Passin	g Lane		
			O.W.P.	I.W.P.	O.W.P.	I.W.P.	Average	
w	Approach	50.0	144.6	88.7			116.2	
S	pan 1	36.8	73.2	57.4			66.0	
•	2	71.9	56.6	65.4			61.0	
	3	71.9	96.2	80.8			88.1	
	4	36.8	200.2	142.0			170.7	
	5							
	6							
E	_ Approach	50.0	111.4	63.4		-	87.6	
	Average		106.6	80.2	·		93.4	
				n West to	East. Joi	nt #1 - Co	onstruction; #2 -	
#3- #4 -	Expansion; #	5 - Construct	ion.					
	Bituminous a	pproaches.						
							·	
								
	•							
		·····			Repo	rt No. 2	- June 1963	

Bridge Number SC Dual Structures (sep Single Structure	arate for eac Yes 🗵	h roadway)	Yes 🔲	No K		
Number of Spans	4		Machin	e Finished		Yes No xx	
W Bound Road	way	DIS	STRICT 8		Date M	easured 3-16-63	
		Profi	lometer R	oughness	Value - Ri	nches per mile	
Item	Length	Traffic	Lane	Passir	g Lane		
		O.W.P.	I.W.P.	O.W.P.		Average	
Approach							
Span 1	35.0	212.9	198.0			204.4	
2	71.0	181.1	172.9			177.0	
. 3	71.0	137.6	125.6			131.6	
4	38.1	145.7	100.3			123.0	
5						·	
6							
Approach		<u> </u>					
Average		164.2	148.5			156.2	
E Bound Road	way						
		Profi	lometer R	oughness	Value - R	inches per mile	
Item	Length	Traffic	Lane	Passing Lane			
		O.W.P.	I.W.P.	O.W.P.	I.W.P.	Average	
Approach							
Span' 1	35.0	174.6	198.0			187.4	
. 2	71.0	136.8	148.0			142.8	
3	71.0	145.0	110.4			127.9	
4	38.1	112.6	107.0			109.8	
5							
6							
Approach							
Average		141.2	134.8		·	138.0	
Remarks Joints and Expansion; #5 - Co		bered fron	n West to	East. Joi	nt #1 - Co	nstruction, #2, 3, &	
Approaches ta	r and emp -	wo rough t	o run.				
OF THE OWNER OWNER OF THE OWNER OWNE							
						2 - June, 1963	

Bridge Number Sos						Form 511	
Dual Structures (seg Single Structure			,	Yes 🗀	No 🖸	L	
Number of Spans	-	x No	-	e Finished		72 T	
Mumber of Spans	<u> </u>		Machin	e rimsned		Yes No X	
S Bound Road	lway	DIS	STRICT 8		Date M	easured 4-6-63	
		Profi	lometer R	oughness	Value - R i	nches per mile	
Item	Length	Traffic	Lane	Passir	ig Lane		
		O.W.P.	I.W.P.	O.W.P.	I.W.P.	Average	
S Approach	50.0	150.5	115.1			133.1	
Span 1	36.3	124.4	157.1	,		141.1	
2	70.4	101.3	86.3			93.8	
3	70.4	120.8	117.4	<u> </u>		119.2	
4	36.1	138.2	109.0			122.9	
5							
6		<u> </u>	**************************************				
N Approach	50.0	156.8	138.8			147.8	
Average	313.2	129.3	117.1			123.2	
N Bound Road	way			11			
	į.	Profi	lometer R	oughness	Value - Ri	nches per mile	
Item	Length	Traffic Lane		Passin	g Lane		
**************************************		O.W.P.	I.W.P.	O.W.P.	I.W.P.	Average	
S Approach	50.0	144.7	124.1	V		134.1	
Span 1	36.3	234.2	181.8			208.0	
. 2	70.4	133.5	72.0			102.8	
3	70.4	111.0	81.4			96.0	
4	36.1	122.1	102.4			112.6	
5							
6							
N Approach	50.0	166.3	137.2			152.1	
Average	313.2	145.8	109.1			127.4	
Remarks Joints a				north. Jo	oint #1 - co	onstruction;	
	ous approach						
Dimilli	TOUD APPLUACE	100.				· · · · · · · · · · · · · · · · · · ·	
							
	<u> </u>					***************************************	

PROFILOMETER BRIDGE ROUGHNESS MEASUREMENTS

COI	KESU	Lil	TVD	UL	WITON	
Rese	earch	Pro	ject	61	F-65	

Bridge Number S06	6 of 33084	. Locati	on Phill	ips Road o	ver I 96	Form 511		
Dual Structures (separate for each roadway) Yes No XX								
Single Structure	Yes 🛚							
Number of Spans	4		Machine	Finished		Yes No XX		
N Bound Road	way	DIS	TRICT 8		Date M	easured 4-6-63		
		Profil	lometer R	oughness V	alue - R i	nches per mile		
Item	Length	Traffic	Lane	Passing	g Lane			
		O.W.P.	I.W.P.	O.W.P.	I.W.P.	Average		
S Approach	50.0	148.4	164.8	<u>.</u>		156.3		
Span 1	38.5	122.8	161.2			142.6		
2	71.9	69.4	80.4			74.9		
3	71.8	91.6	91.2			91,2		
4	36.1	142.6	130.2			136.0		
5								
6								
N Approach	50.0	172.6	141.0			156.3		
Average	318.3	117.8	121.0			119.4		
S Bound Road	way							
The state of the s		Profi	lometer F	Roughness	Value - R	inches per mile		
Item	Length	Traffic Lane		Passin	g Lane	A		
		O.W.P.	I.W.P.	O.W.P.	I.W.P.	Average		
S Approach	50.0	182.7	158.9	Ì.		171.1		
Span' 1	38.5	152.2	135.8			148.1		
2	71.9	90.0	69.8			80.8		
3	71.8	82.0	86.8			85.3		
4	36.1	149.2	173.3			160.9		
5								
6	<u> </u>	 	 	- 				
N Approach	50.0	172.1	202.2			185.9		
Average	318.3	129.9	128.2			130.1		
		_i		north To	int #1 C	longtmention, #2 2		
Remarks Joints a	na spans nun	nberea iroi	n south to	norun. ac)IIIL #1 - C	onstruction, #2, 5,		
<u>& #4 - Expansion; #5</u>	- Constructi	on.						
Bituminous a	pproaches.			··	······································			
						,		
				<u>. </u>				
					Report	Mo. 2 - June, 1963		

Bridge Number <u>S0</u>				ridian Roa	d over I 9	6 Form 511
Dual Structures (sep				Yes 🗀	No [XX
Single Structure	Yes 🛚	X No			,	
Number of Spans	4		Machin	e Finished		Yes xx No 🗌
S Bound Road	way	DIS	STRICT 8		Date M	leasured <u>4-2-63</u>
Profilometer Roughness Value - R inches per mile						
Item	Length	Traffic			g Lane	
•		O.W.P.	I.W.P.	O.W.P.		Average
S Approach	50.0	164.7	154. 7			100 0
Span 1	36.5	146.8	161.3			159.5 153.3
2	73.7	149.4	121.1		<u> </u>	135.4
. 3	73.7	86.7	80.6		-	89.8
4	36.4	107.3	136.4			121.8
5	·					121.0
6						
N Approach	50.0	183.8	213.4			198.5
Average	320.3	137.6	137.7			137.6
N Bound Roads	way					The state of the s
		Profi	lometer R	oughness	Value - R	inches per mile
Item	Length	Traffic	Lane	Passin	g Lane	
		O.W.P.	I.W.P.	O.W.P.	I.W.P.	Average
S Approach	50.0	79.8	97.2			
Span' 1	36.5	102.0	109.9			88.7
2	73.7	97.0	111.4	\ 		105.6
3	73.7	79.2	82.4			104.6
4	36.4	142.2				81.0
5	00, 1	142.2	129.8			136.3
6						
N Approach						
21pprouon	50.0	164.7	174.8			170.0
Average	320.3	106.4	114.2		-	110.4
		n south to	north. Jo	int #1 - Co	onstruction	n; #2, 3, & 4 -
Expansion; #5 - Cons	truction.		,			
Bituminous ap	proaches.					
						,
	-				Report 1	Vo. 2 - June, 1963

Bridge Number <u>S12</u>	of 33084	, Locat	ion <u>Willi</u>	amston Ro	ad over I	96 Form 511
Dual Structures (sep		h roadway))	Yes 🗀	No 🛭	
Single Structure	Yes X	x No			<i>,</i>	
Number of Spans	6	arun	Machine	e Finished	44	Yes No XX
S Bound Road	way	DIS	TRICT 8		Date M	easured <u>4-1-63</u>
		Profil	lometer R	oughness V		inches per mile
Item	Length	Traffic	**************************************	Passin		
100111	Length		I.W.P.		-	Average
		U. W. F.	1. W.P.	O.W.P.	1.W.P.	
S Approach	50	191.6	171.6			181.6
Span 1	35.5	154.6	142.8		CONTRACTOR OF THE CONTRACTOR O	148.7
2	68.5	87.1	72.0			79.4
3	66.0	70.4	64, 4			67.2
4	66.0	59.2	62.0			60.8
5	68.5	72.8	71.0			71.7
6	35.5	125.0	76.6			101.1
N Approach	50	231.8	157.8			194.3
Average		115.0	96.4			105.7
N Bound Road	vay			болоския место не сторинесур _{ент} уудуу		
		Profi	lometer R	oughness	Value - R	inches per mile
Item	Length	Traffic	Lane	Passin	g Lane	
	200.000	O.W.P.	I.W.P.	O.W.P.		Average
S Approach	F0 0	110.0				
	50.0	119.8	86.0	·		103.5
Span'1	35.5	104.1	106.8	<u> </u>		105.6
2	68.5	52.0	61.6	<u> </u>		57.0
3	66.0	59.6	66.4			63.2
4	66.0	61.6	51.2			56.0
5	68.5	73.2	111.0			92.5
6	35.5	162.2	89.2			124.9
N Approach	50.0	147.3	156.8			152.1
Average		89.5	87.9			88.7
Remarks <u>Joint #</u> Joints and spans num	1 - Construct			- Expansi	ion; #7 - C	construction.
Bituminous ap	proaches	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·			
	T	·				
		(
						_
					Donost 4-	. 2 - June, 1963
					webore MO	a 2 - Julie, 1703

•			ALCOCUL V	n Froject	01 F-00	•
Bridge Number S1	3 of 33084	, Locat	tion <u>Die</u>	tz Road o	ver I 36	Form 511
Dual Structures (sep				Yes 🔲	No x	X
Single Structure	Yes [XX No			7	
Number of Spans	4		Machin	e Finished		Yes XX No
S Bound Road	ha	, DIC	a Department		-	9 00 00
Bound Road	way	DR	STRICT 8		Date M	easured <u>3-28-63</u>
		Profi	lometer R	oughness	Value - Ri	inches per mile
Item	Length	Traffi	c Lane	Passin	g Lane	
		O.W.P.	I.W.P.	O.W.P.	I.W.P.	Average
S Approach						
Span 1	25 5	01.4	0.4.4			
2	35.5 70.6	81.4 58.7	94.4 63.6			87.7
3	70.6	62.6	89.2			61.0
4	35.5	46.4	87.1		†	75.9 66.8
5	33.0	10.1	01.4			
6	<u> </u>					
N Approach						
Average	212,2	61.5	00.0			FO. 0
	214.2	01.9	80.2		1	70.9
				•		·
N Bound Road	way					•
		Profi	lometer R	oughness	Value - R	inches per mile
Item	Length	Traffic	Lane	Passin	g Lane	
•		O.W.P.	I.W.P.	O.W.P.	I.W.P.	Average
S Approach						
Approach						
Span'1	35.5	58.4	72.6			65.8
2	70.6	78.4	86.0			81.9
3	70.6	73.8	92.9	<u> </u>		83.4
4	35.5	65,2	62.1	<u> </u>		63.6
5						·
6						
N Approach	1		İ			
				·		
Average	212.2	72.3	83.6		·	77.9
	<u></u>	·		to north	Toint #1	
Remarks Joints	and spans n	umbered fr		to north.	Joint #1 -	77.9 Construction; #2,
Remarks Joints 3, & 4 - Expansion;	and spans n #5 - Constru	umbered fr		to north.	Joint #1 -	
Remarks Joints	and spans n #5 - Constru	umbered fr		to north.	Joint #1 -	
Remarks Joints 3, & 4 - Expansion;	and spans n #5 - Constru	umbered fr		to north.	Joint #1 -	
Remarks Joints 3, & 4 - Expansion;	and spans n #5 - Constru	umbered fr		to north.	Joint #1 -	
Remarks Joints 3, & 4 - Expansion;	and spans n #5 - Constru	umbered fr		to north.		

Bridge Number <u>S04</u>	of 33085	, Locat	ion _Wal	lace Road	over I 96	Form 511		
Dual Structures (sep	arate for eac	h roadway)	Yes 🔲	No 8	X		
Single Structure	Yes 🗵	X No		•				
Number of Spans	6	•	Machin	e Finished		Yes xx No		
S Bound Road	way	DIS	STRICT 8		Data M	easured4-5-63		
		T	·		2200 111			
		Profi	Profilometer Roughness Value - R inches per mile					
Item	Length	Traffic	c Lane	Passin	g Lane			
		O.W.P.	I.W.P.	O.W.P.	I.W.P.	Average		
S Approach								
Span 1	35, 6	90.5	135.7			113.1		
2	59.0	114.6	102.4		, , , , , , , , , , , , , , , , , , , ,	108.3		
· 3	64.7	63.6	80.0			71.8		
4	65.0	67.8	72.6			69.8		
5	59.9	83.8	93.0			88,2		
6	35.6	154.2	146.8			147.1		
<u> </u>						<u> </u>		
Average	319.8	90.7	98.8			94.7		
N Bound Roady	vav				·			
		Profi	lometer R	oughness V	Value - R	inches per mile		
Item	Length	Traffic		Passing				
		O.W.P.	I.W.P.	O.W.P.	I.W.P.	Average		
					21 77 1 2 1			
<u>S</u> Approach								
Span' 1	35,6	125.4	150.8			139.0		
2	59.0	95.3	77.4			85.9		
3	64.7	103.2	66. 5			84.9		
4	65.0	106.8	64.6			86.1		
5	59.9	104.9	88.6			97.0		
6	35.6	140.2	192.8			166.4		
N Approach						100.1		
Average	319.8	109.4	96.0		-	102.7		
Remarks Joints ar		bered fron	n south to	north. Jo	int #1 - C	onstruction; #2 -		
3, 4, 5, & 6 - Expans	sion.							
Approaches - ta	r and chip, t	oo rough t	o read.					
				Re	eport No.	2 - June, 1963		

Bridge Number SC Dual Structures (sep	parate for eac	h roadway)	Road over Yes 🗀	US 23 No 5	Form 511	
Single Structure Number of Spans	(A)			e Finished		Yes No XX	
E Bound Road	way	DIS	TRICT 8	leasured <u>4-11-63</u>			
		Profi	lometer R	oughness	Value - R	inches per mile	
Item Length		Traffic		ĭ -	g Lane		
		O.W.P.	I.W.P.	O. W. P. I. W. P.		Average	
W Approach	50.0	121.0	127.8			124.6	
Span 1	39.0	138.8	149.6			143.5	
2	70.0	147.8	113, 9			131.2	
3	77.0	134.0	142.0		· · · · · · · · · · · · · · · · · · ·	137.8	
4	38.8	236.1	154.4			196.0	
5							
6							
EApproach	50.0	173.2	139, 9			156.3	
Average	324.8	153.8	135.8			144.9	
W Bound Road	way		÷	·			
Profilometer Roughness Value - R inches per mile							
Item	Length	Traffic	Lane	Passin	g Lane	W. Carlotte	
		O.W.P.	I.W.P.	O.W.P.	I.W.P.	Average	
W Approach	50.0	117.8	167.4			142.6	
Span' 1	39.0	127.2	152.3			139.4	
2	70.0	152.4	162.2			156.9	
3	77.0	112.4	132.0			122.1	
4	38.8	139.5	119.1			129.3	
5						140.0	
6						**************************************	
<u>E</u> Approach	50.0	165.2	81, 8			123.6	
Average	324.8	135.0	137.2			136.1	
Remarks <u>Joints</u> Expansion; #3 - Steel						onstruction; #2 -	
Bituminous	approaches.						
A STATE OF THE STA		· · · · · · · · · · · · · · · · · · ·					
				vam			
					Report Mo	. 2 - June, 1963	
					. 5,552 5		

Bridge Number <u>S0</u>	1 of 47014	, Locat	ion Sper	icer Road	over US 2	3 Form 511	
Dual Structures (seg	parate for eac	h roadway)	Yes 🔲	No 8		
Single Structure	Yes 🖸						
Number of Spans	4		Machin	e Finished		Yes XX No	
E Bound Road	way	DIS	STRICT 8		Date M	leasured 4-6-63	
	Statistical programme and the state of the s	1					
				T	Value - R inches per mile		
Item	Length	Traffic	1	1	g Lane	Average	
		O.W.P.	I.W.P.	O.W.P.	I.W.P.	Average	
W Approach	50.0	145.2	146.8			145.7	
Span 1	51.0	92.6	83.4			88.0	
2	76.4	191.4	132.4			161, 7	
3	75.2	160.4	128.5			144.6	
4	35.7	157.6	116.8			137.5	
5							
6				·			
E Approach	50.0	154.7	141.5			147.8	
Average	338.3	153.8	125, 9			139.8	
W Bound Road	way			·			
10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -		Profi	lometer R	oughness	Value - R	inches per mile	
Item	Length	Traffic	Lane	Passin	g Lane		
	110118,011	O.W.P.	I.W.P.	O.W.P.		Average	
W Approach	50.0	110.0					
	50.0	113.6	136.8			124.6	
Span'1	51.0	118.0	105.6			111.8	
2	76.4	139.6	125.1			132.7	
3	75.2	134.1	104.6			119.4	
4	35.7	112.4	130.2		· · · · · · · · · · · · · · · · · · ·	121.3	
5 6							
Approach	50.0	145.7	155, 2			150.0	
Average	338.3	129.3	124.3		· .	126.7	
Remarks Joints a						struction; #2 -	
Expansion; #3 - steel	Expansion; #	4 - Expans	sion; #5 -	Constructi	ion.		
Bituminous	approaches.						
	·····	····					
			·				

					Report 1	No. 2 - June, 1963	

Bridge Number <u>S02</u>	of 47065	, Locat	ion <u>M 59</u>	over I 96		Form 511	
Dual Structures (sep	arate for eac	h roadway		Yes 🔲	No 2	XX	
Single Structure	Yes X	X No			7 - 1 1		
Number of Spans	4		Machine	e Finished		Yes No xx	
N Bound Road	way	DIS	STRICT 8		Date M	easured 4-16-63	
				1		inches per mile	
Item	Length	Traffic	Lane	Passin	g Lane	A	
		O.W.P.	I.W.P.	O.W.P.	I.W.P.	Average	
S Approach	100.0	110.6	96, 1	· .		103.5	
Span 1	38.5	145.4	105.6			126.2	
2	80.2	127.4	99, 1			113,2	
3	81,6	133.0	97.7			115.2	
4	50.8	117.0	79.6			97.7	
5							
6						•	
N Approach	100.0	95.0	96.1			95.6	
Average	451.1	117.8	95.8			106.8	
S Bound Roadway							
		Profi	lometer R	oughness \	Value – R	inches per mile	
Item	Length	Traffic	Lane	Passin	g Lane		
		O.W.P.	I.W.P.	O.W.P.	I.W.P.	Average	
S Approach	100.0	120.9	132.8			126.7	
Span'1	38.5	186.5	196. 1			192.0	
2	80.2	126.1	95.5			110.6	
3	81.6	96.1	93.5			94.5	
: 4	50.8	117.5	113.8			115.4	
						140.1	
6							
N Approach	100.0	100.6	93.2			97.2	
Average	451.1	118.0	113.5			The transfer of the second	
		l	,	o north. J	oint #1, 2	115.7 , & 3 - Expansion;	
#4 - Construction; #5	- Expansion:	#6 - Steel	Expansio	n· #7 – Exi	pansion · #8	8 - Construction	
#9, 10, & 11 - Expans	,	110 01001		11.	Janibion, n	o - Constitution,	
	te approaches		·-··-·		······································		
Concre	w upproaches	··					
					Report 1	No. 2 - June, 1963	
· — — — — — — — — — — — — — — — — — — —							

Bridge Number X03	3 of 47065	, Locat	ion <u>196</u>	over C & C	RR	Form 511		
Dual Structures (sep	arate for eac	h roadway)	1	Yes XX	No [
Single Structure	Yes 🗌] No[
Number of Spans	3	-	Machine	e Finished		Yes 🔀 No 🗌		
W Bound Road	way	DIST	CRICT 8		Date Measured 4-25-63			
		Dwafil	Profilometer Roughness Value - R inches per mile					
				T		inches per mile		
Item	Length	Traffic	Lane	Passin	g Lane	Average		
		O.W.P.	I.W.P.	O.W.P.	I.W.P.	Average		
W Approach	100.0	98.5	77.4	66.0	51.7	73.4		
Span 1	65.2	96.0	125.9	94.0	85.0	100.4		
2	64.2	125.8	148.0	93.4	85.5	113.5		
3	65.2	153.1	115.4	96.0	97.2	115.0		
4								
5								
6								
E Approach	100.0	91.9	72.4	58.9	90.6	78.1		
Average	394.6	109.8	101.9	78.2	80.0	92.5		
E Bound Roadway								
		Profi	lometer R	oughness	Value - R	inches per mile		
Item	Length	Traffic	Lane	Passin	g Lane			
200111		O.W.P.	I.W.P.	O.W.P.	I.W.P.	Average		
717						primitikasi isine membendi memene er yangu permitirakan dilambi mediki abid Milabi Milabi Milabi Milabi Milabi I		
W Approach	100.0	82.9	72.0	57.8	71.3	70.8		
Span'1	6 8.2	80.9	99.4	132.4	133.2	111, 5		
2	67.3	160.4	143.2	184.8	175.3	166.3		
3	67.3	102.0	134.5	134.2	135.7	126.3		
4								
5								
6								
E Approach	100.0	73.6	77.1	96.1	81.3	81.8		
Average	402.8	96.4	100.2	114.0	112.4	105.8		
Remarks Joints	and spans nur	nbered fro	m west to	east. Joi	nts #1, 2,	& 3 - Expansion;		
#4 - Construction; #	5 - Steel Exp	ansion: #6	- Expansi	ion: #7 - C	onstructio:	n: #8. 9. & 10 -		
Expansion.			,					
Concrete Ap	proaches.	· · · · · · · · · · · · · · · · · · ·						
								
					 ,			
								
					Report No	o. 2 - June, 1963		

	Bridge Number SC	9 of 47065	, Locat	ion Doi	rr Rd. ove	r I 96	Form 511		
	Dual Structures (sep	arate for eac	h roadway)	Yes 📋	No [2			
	Single Structure	Yes 🖸		•					
	Number of Spans	4		Machin	e Finished		Yes X No		
	S Bound Road	way	DIS	STRICT 8		Date M	easured 4-15-63		
941				·					
				Profilometer Roughness Value - R inches per mile					
	Item	Length	Traffic	Traffic Lane		g Lane	A		
			O.W.P.	I.W.P.	O.W.P.	I.W.P.	Average		
	Approach								
_	Span 1	40.7	124.2	136.3			131.1		
	2	91.6	118.4	133.7			126.2		
	3	90.4	132.6	119.2			126.2		
	4	40.8	131.6	103.2	† 		117.0		
	5						111.V		
	6		†				**************************************		
*****	Approach								
_	A								
	Average	263.5	125.8	124.6			125.2		
	37 1 1								
-	N Bound Roady	vay	·	10 0000000 and the control of the co					
Profilometer Roughness Value - R inches per mile						nches per mile			
Item Length			Traffic	Lane	Passin	g Lane			
	·		O.W.P.	I.W.P.	O.W.P.	I.W.P.	Average		
	Approach								
	Span' 1	40.7	133.8	90.6			110 0		
	2	91.6	110.4	86.2			112.2		
	3	90.4	113.0	97.6			98.0		
_	4	V-1					105.1		
	5	40.8	141.0	$\underline{95.4}$			118.7		
-	6								
_	Approach		· · · · · · · · · · · · · · · · · · ·	***					
	Approach						•		
	Average	263.5	118.0	92.0			104.9		
	Remarks Joints	s and spans n	umbered f	rom south	to north.	Joint #1 -	expansion:		
	#2 - steel expans		····						
	Grave	el approaches	not run.						
							· · · · · · · · · · · · · · · · · · ·		
						· · · · · · · · · · · · · · · · · · ·			
									
		·····			R	eport No.	2 - June, 1963		
									

Bridge Number S02	of 47066	, Locat	ion <u>Nich</u>	olson Road	l over I 96	Form 511
Dual Structures (sep	arate for eac	h roadway)	Yes 🔲	No §	
Single Structure	Yes	X No				
Number of Spans	4		Machin	e Finished		Yes xx No
S Bound Road	way	DIS	STRICT 8		Date M	leasured <u>4-5-63</u>
der er er kallen og dyggen i der fliche finde dem kjemming og som til de flike i de kommen som frim for gegen gag pretiserer		Profi	lometer R	oughness 1	VTD	inches per mile
74.0	Nr 13.	Traffic		1		I I I I I I I I I I I I I I I I I I I
Item	Length		T		g Lane	Average
		O.W.P.	I.W.P.	O.W.P.	I.W.P.	
S Approach	50.0	194.3	126.2			160.5
Span 1	39,5	81.6	120.3	C CONTROL OF THE PARTY OF THE P	MICHAEL MICHAEL MANAGEMENT AND	101.6
2	78.0	62.0	62.6			62.3
3	76,8	79.8	88.7			83.9
4	39.5	87.6	86.2			86.9
5						
6						
N Approach	50.0	140.4	202.8			171.1
Average	333.8	103.0	108.8			105.8
N Bound Roady	way					
	/ANN	Profi	lometer R	oughness	Value - R	inches per mile
Item	Length	Traffic	Lane	Passin	g Lane	
		O.W.P.	I.W.P.	O.W.P.	I.W.P.	Average
S Approach	50.0	141.0	104.6	,		122.5
Span'1	39.5	77.5	114.2			96.2
2	78.0	57.2	68.4			63.0
3	76.8	81.1	89.8			85.2
4	39.5	74.8	80.2			77.5
5						
6						
N Approach	50.0	207 5	207 5			0.07.0
	50.0	207.5	207.5			207.0
Average	333.8	102.2	106.4			104.4
						Construction; #2 -
Expansion; #3 - Steel	Expansion;	#4 – Expan	sion; #5 -	Construct	ion.	
Bituminous a	approaches.					·
						· · · · · · · · · · · · · · · · · · ·
					Report No	. 2 - June, 1963

Bridge Number S0	4 of 47066	, Locat	ion Fow	lerville Ro	ad over I	96 Form 511	
Dual Structures (sep				Yes 🗀	No 🗵		
Single Structure	Yes	X No					
Number of Spans	4		Machine	e Finished		Yes 🔯 No 🗌	
				•			
N Bound Road	way	DIST	TRICT 8	easured <u>4-16-63</u>			
		Profi	Profilometer Roughness Value - R inches per mi				
Item	Length	Traffic	Lane	Passin	g Lane		
		O.W.P.	I.W.P.	O.W.P.	I.W.P.	Average	
S Approach	50.0	154.7	126.7			140.4	
Span 1	36.7	119.4	87.0			103.6	
2	81.5	116.6	105.9			111.4	
3	82.8	108.4	110.6	·		109.7	
4	36.6	139.2	108.2			124.1	
5							
6				<u> </u>			
N Approach	50.0	176.9	146.2			161.6	
Average	337.6	131.9	114.4			123. 1	
S Bound Road	way					- 44.07	
Profilometer Roughness Value - R inches per mile							
Item	Length	Traffic	Lane	Passin	g Lane		
		O.W.P.	.W.P. I.W.P. O.W.P. I		I.W.P.	Average	
S Approach	50.0	119.3	112.4			116.2	
Span'1	36.7	143.2	106.4			125.2	
2	81.5	91.3	75.4			83.6	
3	82.8	120.2	137.4			128.8	
4	36.6	162.3	142.8			152.9	
5	-						
6							
N Approach	50.0	144.2	92.4			118.3	
Average	337.6	123.8	109.3			116.5	
Remarks Joints	and spans nu	mbered fro	m south t	o north. J	oint #1 - 0	Construction;	
#2 - Expansion; #3 -	Steel Expans	sion; #4 - I	Expansion	; #5 - Cons	truction.		
Bituminous	approaches.					,	
					-		
	<u> </u>	····			······································		
*							
				Danant -	‡2 – J une 1	1062	
				report 3	⊤⊿ – June .	1909	

Dual Structures (sep	arate for eac	h roadway)	over Yes XX	Huron Rive	er & NYC RR Form 511	
Single Structure Number of Spans		No		e Finished	• • • • • • • • • • • • • • • • • • •	Yes XX No S: 3-30-63	
N Bound Roady	vay	DIS	DISTRICT 8 Date Measure				
		Profi	lometer R	oughness	Value - R i	nches per mile	
Item	Length	Traffic	c Lane	Passin	g Lane		
		O.W.P.	I.W.P.	O.W.P.	I.W.P.	Average	
S Approach	100.0	133.3	117.0	125.9	117.8	123.6	
Span 1	79.6	162.8	133.6	158.2	183.0	159.2	
2	89.2	161.0	117.2	122.2	142.4	135.5	
3	106.0	107.6	92.4	121.5	112.1	108.6	
4	109.0	95.0	87.0	85.8	102.7	92.5	
5	89,1	186.1	130.4	107.8	156.2	145.2	
6			·				
N Approach	100.0	110.1	142.0	119.8	156.'0	132.0	
Average	672.9	133.8	115.8	118.8	136.4	126.1	
SBound Roadway							
		Profi	lometer R	oughness '	Value - R	inches per mile	
Thomas	Tomoskh	Traffic		1	g Lane		
Item	Length	O.W.P.	I.W.P.	O.W.P.	I.W.P.	Average	
Approach	100.0	134.4	133.6	110.9	120.4	124.6	
Span'1	79.7	138.2	134.2	96.4	142.8	127.9	
2	89.0	134.1	103.5	136.5	127.6	125.2	
3	108.5	119.2	111.6	108.2	114.4	113.4	
4	107.0	113.2	119.4	134.4	139,6	126.8	
5	89.3	140.7	154.6	175.3	158.2	157.3	
6							
Approach	100.0	100.4	126.0	109.6	118.0	111.9	
Average	673,5	124.8	125.6	124.2	130.8	126.3	
Remarks Spans and	joints numb	ered from	south to n	orth. Join	nt #1 & 2 -	Expansion; #3-	
Construction; #4 - Ex	oansion; #5 -	Steel Exp	ansion; #6	- Plane o	f weakness	s; #7 - Steel Expansion;	
#8 - Construction; #9		nsion.	·			-	
Concrete approa	ches.		·	· · · · · · · · · · · · · · · · · · ·		<u> </u>	
					Roport No	. 2 - June, 1963	
					Vehor C NO	a 2 - Julie, 1700	

Bridge Number S10 of 63173 , Location I 75 NB over US 10 Form 511										
Dual Structures (sep	parate for eac	h roadway		Yes 🔲	No 🛚	X				
Single Structure Number of Spans		X No	ALTERNATION OF THE PERSON OF T	e Finished		7700	NT. Series			
rumber or spans		umo .	Machine	e ringneu		Yes 🔲	No XX			
N Bound Road	way	DIS	STRICT 9		Date M	easured	5-7-63			
		Profi	lometer R	oughness V	/alue - R	inches per	mile			
Item	Length	Traffic	Lane	Passin	g Lane	Center	Lane	A		
		O.W.P.	I.W.P.	O.W.P.	I.W.P.	O.W.P.	I.W.P.	Avg.		
S Approach	100.0	74.7	64.4	112.5	88.7	97.7	84.5	87.1		
Span 1	52.8	146.0	109.0	152.0	127.5	108.5	190.0	139.0		
2	91.6	128.0	75.0	130.2	142.1	95.1	109.8	113.6		
3	84.6	139.2	137.3	118.2	142.3	124.2	146.6	134.8		
<u>. 4</u>	71.2	148.7	148.3	103.4	<u> 105.7</u>	132.4	130.2	128.3		
5 6										
		<u> </u>								
N Approach	100.0	82.4	88.2	131.2	109.3	102.2	100.3	102.4		
Average	500.2	115.0	100.1	123.4	118.2	108.7	120.5	113.4		
Bound Roadway										
Profilometer Roughness Value - R inches per mile										
Item	Length	Traffic Lane Passing Lane					esrono.			
Item	Longui	O.W.P.	I.W.P.	O.W.P.			rage			
Arranaah			,		2.5 77 4.2.			and the same of th		
Approach										
Span' 1										
2										
3						TANK		~~		
4	4									
5	4							_		
6										
Approach		·						<u> </u>		
Average		·	_		,					
Remarks Joints	and spans nun	nbered fro	m south to	north. J	oint #1, 2,	, & 3 – Ex	pansion;			
#4 - Construction; #	5 - Steel Exr	nansion #f	- Expans	ion·#7 - :	Steel Exna	ngion•#8				
			TIVhana	2-722, # 1 - 1	COCCI TIVDA	LIDAVII, T C	·			
Construction; #9, 10					2 -					
No joints at ir	ntersection of	Span 1 an	a 2 or at i	ntersection	n of Span 3	3 and 4.				
Concrete appr	coaches.									
		.,		FY	anamt N-) _ T	1062			
	Report No. 2 - June, 1963									