

1957
Year

Job No. 06171
Changes _____

County
Bridge No.
Section
Location

FRANKLIN
FRA-62-0464
FRA-68-142
over under
SR 665

File No. FES-6
46-407D-065

00420

DESIGN BY _____

	RECON	AUGER	CORE	DRIVE ROD
By			H. P. RAY H. W. STEWART	SANDERS
Dates			2/28-3/4/57	2/20-2/4/57
No. of Holes or Soundings			2	4
Footage			66.0	140.0
Samples Tested			9	

SITE PLANS	
Date Rec'd	11-16-56
Revised Plan	

Topo Sheet _____

Transmittal Date 3-27-57

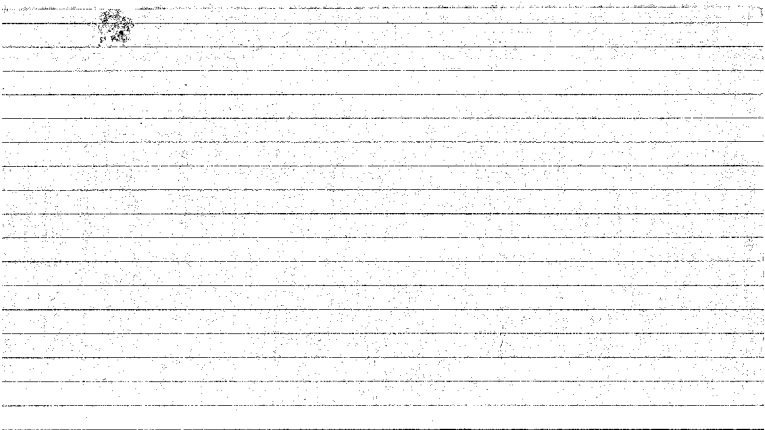
No. of Tracings _____ Filed with year _____

Revisions _____

Remarks _____

Refer To _____

Auger Data			Drive Rod		Core Data		
No. of Holes	Footage	Samples	No. of Soundings	Footage	No. of Holes	Footage	Samples
2	66.0	9	4	140.0	2	66.0	9



FIELD DATA - ROD PENETRATION

Location No. #3 County: FRANKLIN
PEAR Pier - Abut. Bridge No. FR. 62-2471
 Station: 27+22 Over: 62 UNDER
 Offset: 17' RT SR. 665
 Started: 2-20-57
 Completed: 2-21-57 Equipment: 20-0-20

DR Diameter 1.3125

Ground Line

Depth Feet	Penetration	Elevation	Proposed Footer
0		<u>839.2</u>	Water elev. <u>839.2</u>
5	2 3/16	<u>835.2</u>	5.8
	1 1/2	<u>834.2</u>	..
	1 13/16		6.9
	1 1/2		7.6
	1 3/4		7.0
	1 1/2		7.5
10	1 1/4	<u>829.2</u>	8.5
	1		9.6
	1 7/8		13 1/4 OVERNITE CK.
	1		9.6
15	1 7/8	<u>824.2</u>	10.3
	1 3/4		11.0
	1 1/4		9.6
	1 1/4		9.3
	1 1/4		10.0
20	1 1/4	<u>819.2</u>	10.5
	1 1/4		11.5
	1 1/4		..
	5/8		12.0
	5/8		..
	1 1/4		12.5
25	7/16	<u>814.2</u>	13.5

	<u>814.2</u>	15.0
	5/16	16.0
	1/4	18.0
	1/4	22.5 - 1/16 - 816.7
30	5/16	<u>809.2</u>
	3/16	17.0
	3/16	..
	3/16	..
	3/16	..
	1/8	19.0
35	1/8	<u>804.2</u>
	1/8	19.0
		Hole open to bottom
40		<u>799.2</u>
45		
50		
55		
60		

Rod Condition: All rods slightly bent
 Chief of Party Sanders

Party BALINT, Seaman, Ellings

FIELD DATA - ROD PENETRATION

Location No. 6 County: Franklin
 Middle Pier - Abut. Bridge No. 62-0964
 Station: 30+08 Over: Under S.R. 665
 Offset: 19' West
 Started: 2-21-57
 Completed: 2-21-57 Equipment: 210-20

Diameter 1.3125

Ground Line

Depth Feet	Penetration	Elevation	Proposed Footer
0		839.4	WATER LEVEL 839.4
5	1 7/16	835.4	7.8
	1 13/16	834.4	6.9
	1 5/8		7.3
	1 5/8		"
	1 1/4		8.5
	1 5/16		8.2
10	1 1/4	829.4	8.5
	1 1/2		9.6
	1 3/4		Hard at 12.7 loss on - 14.8
	1 1/2		11.0
	1 1/2		11.5
15	1 1/2	824.4	15.9 hard
	1 1/2		16.0
	1 1/2		13.5
	1 1/2		"
	1 1/2		"
20	1 5/8	819.4	12.0
	1 5/8		"
	1 1/2		13.5
	1 1/2		NO MAKE CLOSED 816.4
	1 1/4		16.0
25	3 1/16	814.4	17.0

Party Serson Balint Elkins

25	3 1/16	17.0	HIGH ZINC AL P. E. CO. 1/8"
	3 1/16	812.4	
	3 1/16	17.0	
	3 1/16	"	
30	3 1/16	809.4	
	1 1/8	18.0	
	3 1/16	17.0	
	3 1/16	"	
	1 1/8	18.0	
35	1 1/8	807.4	
		17.0	Hole 0
40		799.4	
45			
50			
55			
60			

Rod Condition: Paint P.D. 8' 12'
OTHER ROD DENT
 Chief of Party Sunders

FIELD DATA - ROD PENETRATION

Location No. 7 County: Franklin
 Front Pier Abut. Bridge No. LR-0469
 Station: 30+62 SP62 UNDER
 Offset: 17' Right S.R. 665
 Started: 2-20-57
 Completed: 2-20-57 Equipment: 21-0-20

Diameter 1.3125
 Ground Line

Depth in Feet	Penetration	Elevation	Proposed Footer
0		<u>837.7</u>	<u>WATER ELEV 831.7</u>
2	<u>3/8</u>	<u>839.7</u>	<u>5.9</u>
5	<u>7/8</u>	<u>833.7</u>	<u>2.0</u>
	<u>1/2</u>		<u>10.3</u>
	<u>1/4</u>		<u>9.3</u>
	<u>3/16</u>		<u>2.5</u>
10	<u>1 13/16</u>	<u>828.7</u>	<u>6.9</u>
	<u>1 3/8</u>		<u>7.0</u>
	<u>1 5/8</u>		<u>7.5</u>
	<u>1 1/4</u>		<u>7.5</u>
	<u>1 1/4</u>		<u>7.5</u>
15	<u>1 1/4</u>	<u>823.7</u>	<u>7.5</u>
	<u>1 3/16</u>		<u>8.7</u>
	<u>1/8</u>		<u>10.3</u>
	<u>7/8</u>		<u>11.5</u>
	<u>1 1/16</u>		<u>11.0</u>
20	<u>3/4</u>	<u>818.7</u>	<u>10.3</u>
	<u>7/8</u>		<u>13.0</u>
	<u>1/2</u>		<u>12.0</u>
	<u>5/8</u>		<u>11.0</u>
	<u>3/4</u>		<u>12.5</u>
25	<u>1 1/16</u>	<u>813.7</u>	

Party Baliat

25	<u>5/8</u>	<u>813.7</u>	<u>12.0</u>
	<u>1/2</u>		<u>13.0</u>
	<u>1/2</u>		<u>13.5</u>
30	<u>3/8</u>	<u>808.7</u>	<u>14.0</u>
	<u>3/4</u>		<u>15.0</u>
	<u>1/4</u>		<u>16.0</u>
	<u>3/16</u>		<u>17.0</u>
35	<u>1 1/8</u>	<u>803.7</u>	<u>19.0</u>
	<u>1/8</u>		<u>19.0</u>
40			
45			
50			
55			
60			

Rod Condition: 8' slightly bent 20' very badly bent.
 Chief of Party Sanders

FIELD DATA - ROD PENETRATION

Location No. #9 County: FRANKLIN
FRONT Pier ~~Area~~ Bridge No. FR-62-0464
 Station: 30-78 Over: U.S. 62 UNDER
 Offset: 17' 5" SR. 665
 Started: 2-20-57
 Completed: 2-20-57 Equipment: 31-0-21

OR Diameter 1.3125
 Ground Line

Proposed Footer

Depth in feet	Elevation	Penetration	Remarks
0	838.6		WATER 837.6
5	833.6	3/8	8.0
		3/8	8.7
		3/8	9.0
		5/16	8.2
		1/2	9.0
10	828.6	3/4	11.0
		7/8	10.3
		1" 1/8	7.1
		1" 1/8	9.0
		1" 1/4	9.3
15	823.6	3/4	12.5
		5/8	13.0
		5/16	13.0
		1/2	13.0
		5/8	13.0
20	818.6	1/2	11.5
		1/2	12.0
		9/16	12.5
		1/2	13.0
		5/8	13.0
25	813.6	1" 1/8	12.5

25	813.6	1/2	12.5
		1/2	13.5
		1/2	13.0
		3/8	140 HAMMER BOUNCING
30	808.6	5/16	15.0
		1/4	16.0
		1/4	"
		1/4	"
		3/16	17.0
35	803.6	1/8	19.0
40			
45			
50			
55			
60			

Party SEASON F. LUKINS

Red Condition: 12' ROM SLIGHTLY BENT
PAIN NOT GOOD
 Chief of Party SANLERS

FIELD DATA - SOIL LOG

Location No. 4 County: FRANKLIN

Rear Pier Bridge No. 0464

Station: 29+38 Over: _____

Offset: 17 Lt

Started: 2-28-57 Equipment: Core Drill

Completed: 3-4-57 Diameter _____

Proposed Footer: _____

Water Level: _____

Depth Feet	Log	Samples	Elevation	
0			840.1	Ground Line
				Lt. Brn Silt Clay
5				Granite Boulders
	Sample #1		834.1	Brn Clay, Lt. Sand & sm Gravel
10			830.1	
	Sample #2		36 Blw	
15			825.1	Grey Clay Silt
	Sample #3		36 Blw	sm Gravel
20			820.1	Brn Silty Clay & SAND
25				

26		
30		
35		
40		
45		
50		
55		
60		

Remarks: Hole Stopped 20'
CASING CAME UNSCREWED

Party _____

Chief of Party HORN

SUMMARY OF TESTS ON SOIL PROFILE SAMPLES

County, Rt. No. & Section

Fr-62-0464



Lab. No. So.	Field No.	Station	Depth in Feet	Mechanical Analysis					Physical Charact.			Density		SHL Class	Remarks
				Agg %	C Sand %	F Sand %	Silt %	Clay %	LL	PI	Water Cont. %	Opt.	Max. Dry Wt.		
59844	1	30+62 17Rt	5-6	20	8	13	29	30	28	11	24			A-6a	GRAVELLY SANDY CLAY
59845	2	"	11-12	17	12	14	34	23	19	6	12			A-4a	CLAY SANDY SILT
59846	3	"	21-22	42	5	9	21	23	25	11	11			A-6a	CLAY GLAUCOUS CLAY
59847	4	"	31-32	85	7	3	1	4	N	P	13			A-1a	GRAVEL
59848	5	"	36-37	44	7	12	28	9	N	P	14			A-4a	SILTY SANDY GRAVEL
59849	6	"	40-41	27	19	23	21	10	N	P	11			A-2-4	SILTY GRAVELLY SAND

FIWD. PIER

WILD LOG
CORE BORING
(STRUCTURE)

T.H. 7 SURF. EL. 939.0 CO. Ft. Sec. FRANKLIN-62
 Sta. 30+62 Offset 17' N Bridge No. 0464
 Date started 2/28/57 Finished 3/9/57 Water El. _____
 Crew MOUNTAIN DOMER SAWTHIE WORTH
 General Notes CASEINS 40' BOWLDERS FROM 3' TO 11'
CASEINS SETING ON BOWLDER AT 40'

Depth	Elev.	No. Blows	Sample No.	Water Color	Remarks
5. 6	834.0 833.0	23	#1	BROWN	BROWN CLAY SILT AND SAND WASH OUT SAME
11. 12	829.0 828.0	30	#2	BROWN TO GRAY	GRAY CLAY SANDY SILT WITH FINE GRAVEL WATER CHANGE AT 10' WASH OUT SAND SILT AND FINE GRAVEL
16. 17	823.0 823.0	37	LOSS	GRAY	WASH OUT SANDY SILT AND FINE GRAVEL
21. 22	818.0 818.0	39	#3	GRAY	GRAY CLAY SANDY SILT WITH FINE GRAVEL WASH OUT SAME
26. 27	813.0 813.0	35	LOSS	GRAY	GRAY SANDY SILT AND FINE GRAVEL, WASH OUT
31. 32	808.0 808.0	37	#4	GRAY	GRAY SAND AND GRAVEL WASH OUT SAME
36. 37	803.0 803.0	40	#5	GRAY	GRAY SAND AND GRAVEL WASH OUT SAME
40. 41	799.0 799.0	150	#6	GRAY	GRAY CLAY SANDY SILT WITH FINE GRAVEL WASH OUT SAME
41. 46	796 794.0 793.0	NONE	NO SAMPLE	GRAY BROWN	WATER CHANGED AT 42' WASH OUT BROWN SAND

**STATE OF OHIO
DEPARTMENT OF HIGHWAYS
TESTING LABORATORY**

SUMMARY OF SOIL TEST DATA

CO., RT NO., SEC. _____ FRANKLIN _____
 FRA-62-1.42 _____
 FRA-62-0464 _____
 US 62 UNDER S.R. 665 _____
 SHEET NO. 1 OF 2 SHEETS

SAMPLE NUMBER	LABORATORY NUMBER SQ-	PHYSICAL CHARACTERISTICS								WATER CONTENT	DESCRIPTION
		AGGREGATE RET. # 10	% COARSE SAND 2.0MM - 0.42MM	% FINE SAND 0.42MM - 0.075MM	% SILT 0.075MM - 0.005MM	% CLAY < 0.005MM	LIQUID LIMIT	PLASTICITY INDEX			
											CORE SAMPLES
1	59844	20	8	13	29	30	28	11	24		BR.GRAVELLY SANDY CLAY
2	59845	17	12	14	34	23	19	6	12		GRAY GRAVELLY SANDY SILT
3	59846	42	5	9	21	23	25	11	11		GRAY GRAVELLY CLAY
4	59847	35	7	3	1	4	NP	NP	13		GRAY GRAVEL
5	59848	44	7	12	28	9	NP	NP	14		GRAY SILTY SANDY GRAVEL
6	59849	27	19	23	21	10	NP	NP	11		GRAY SILTY GRAVELLY SAND
1	59852	41	15	11	15	18	29	13	26		BR.CLAYEY SANDY GRAVEL
2	59853	13	11	16	31	29	19	3	14		GRAY SANDY SILT
3	59854	23	12	17	30	18	18	4	11		BR.GRAVELLY SANDY SILT
											LOG OF WILLIAMS AUGER BORING
	STA 245+00	CL. S.E.	338.4								Depth
											0.0-0.4 SOD & BERM MAT'L.
5	52692	0	3	7	42	48	37	19	22		0.4-2.0 BROWN SILTY CLAY
6	52693	13	12	13	32	30	27	15	17		2.0-3.0 BROWN SANDY CLAY

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
TESTING LABORATORY

LOG OF BORING

CO., RT. NO., SEC. FWA-62-1.42 BRIDGE NO. FWA-62-0464
REAR PIER US 62 UNDER S.R. 665
LOCATION: T.H. 4 STA 20+38 OFFSET 12' LT. FED. NO. _____

ELEV.	DEPTH	NO. BLOWS	SAMPLE NO.	DESCRIPTION
340.1	0			
	2			BROWN SILTY CLAY
	4			
339.1	6	60	59852	INDICATION OF GRANITE BOULDERS BROWN CLAYEY SANDY GRAVEL
334.1	8			
	10	26	59853	GRAY SANDY SILT
	12			
	14			
325.1	16	36	59854	BROWN GRAVELLY SANDY SILT
	18			
	20			INDICATION OF BR. SILTY CLAY & SAND
320.1	22			BOTTOM OF HOLE
	24			
	26			
	28			
	30			
	32			
	34			
	36			

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
TESTING LABORATORY

LOG OF BORING

CO., RT. NO. SEC. FRA-62-1.42 BRIDGE NO. FRA-62-0464
ROBWARD PIER US 62 UNDER S.B. 665
 LOCATION: T.H. 7 STA. 30+62 OFFSET 17' RT. FED. NO. _____

ELEV.	DEPTH	NO. BLOWS	SAMPLE NO.	DESCRIPTION
839.0	0			
	2			
	4			
834.0	6	23	59844	BROWN GRAVELLY SANDY CLAY
	8			
	10			
828.0	12	30	59845	GRAY GRAVELLY SANDY SILT
	14			
823.0	16			
	18	37	-----	INDICATION OF SANDY SILT & FINE GRAVEL
	20			
813.0	22	39	59846	GRAY GRAVELLY CLAY
	24			
813.0	26			
	28	35	-----	INDICATION OF GRAY SANDY SILT & FINE GRAVEL
	30			
808.0	32	37	59847	GRAY GRAVEL
	34			
	36			

LOG OF BORING (CONTINUED)

BRIDGE NO. FBA-62-0464 T.H. ?

ELEV.	DEPTH	NO. BLOWS	SAMPLE NO.	DESCRIPTION
803.0				
	38	40	59848	GRAY SILTY SANDY GRAVEL
799.0	40			
	42	150	59849	GRAY SILTY GRAVELLY SAND
	44			
793.0	46			
	48			BOTTOM OF HOLE
	50			
	52			
	54			
	56			
	58			
	60			
	62			
	64			
	66			
	68			
	70			
	72			
	74			
	76			
	78			
	80			
	82			

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
AND
BUREAU OF BRIDGES

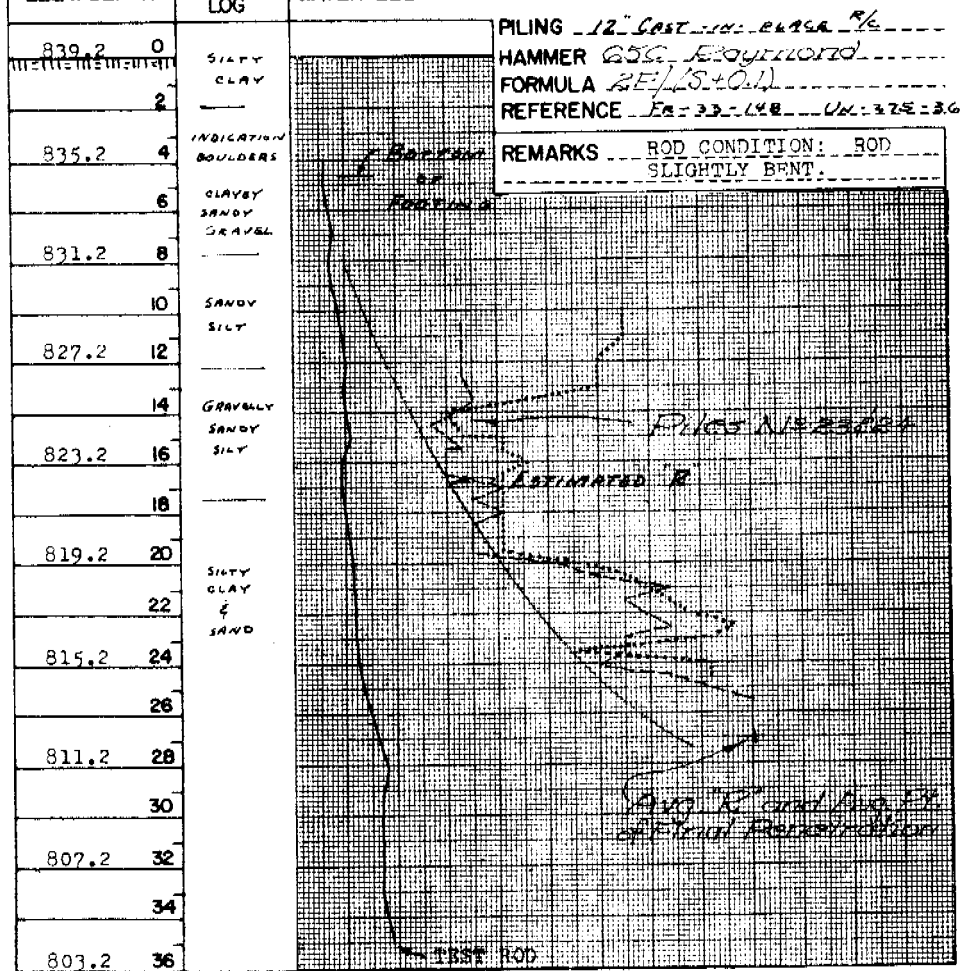
FOUNDATION DATA

CO. RT. NO. SEC. FRA-62-1.42
HEAD PIER

BRIDGE NO. FRA-62-0464
US 62 UNDER S.R. 665

LOCATION TH. 3 STA. 29+22 OFFSET 17' RT. FED. NO. F

ELEV. DEPTH SOIL LOG GND. ELEV. 839.2
WATER ELEV. 839.2 DATE 2-21-57



CAPACITY "R" IN THOUSANDS OF POUNDS

BY RC
DATE 2-22-57

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
AND
BUREAU OF BRIDGES

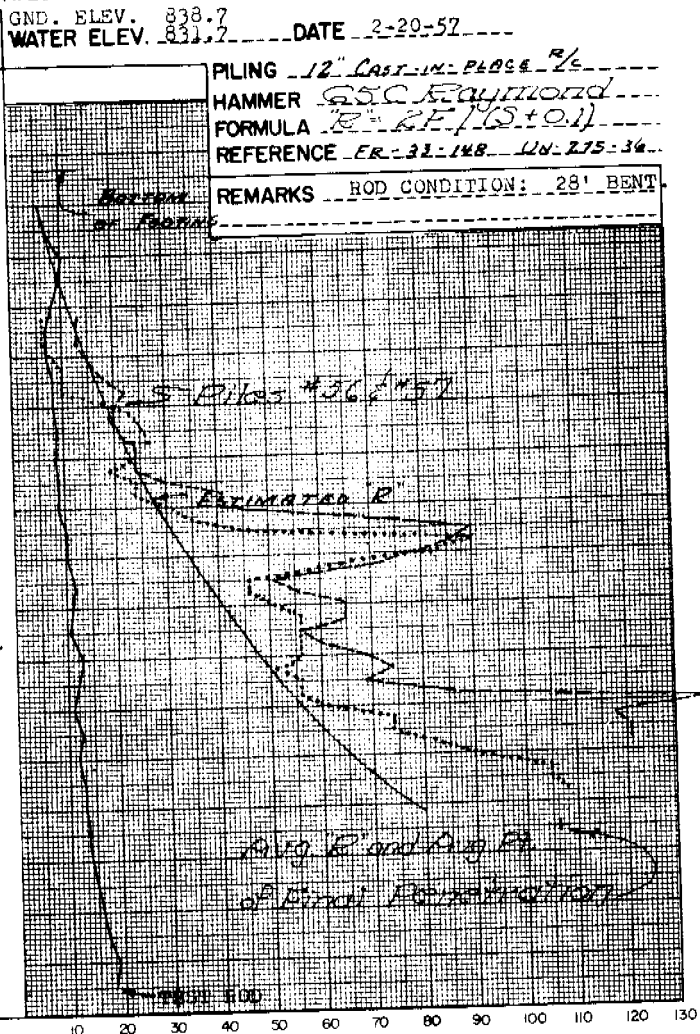
SHEET 7

FOUNDATION DATA

CO., RT. NO., SEC. PRA-62-1.42 BRIDGE NO. PRA-62-0464
FORWARD PIER US 62 UNDER S.R. 665

LOCATION TH. 7 STA. 30+62 OFFSET 12' RT. FED. NO. E-

ELEV.	DEPTH	SOIL LOG
838.7	0	
	2	
834.7	4	GRAVELLY SANDY CLAY
	6	
830.7	8	
	10	GRAVELLY SANDY SILT
826.7	12	
	14	
822.7	16	SANDY SILT & GRAVEL
	18	
818.7	20	
	22	GRAVELLY CLAY
814.7	24	
	26	
810.7	28	SANDY SILT & GRAVEL
	30	
806.7	32	GRAVEL
	34	
802.7	36	SILTY SANDY GRAVEL



CAPACITY "R" IN THOUSANDS OF POUNDS

BY RC
DATE 3-27-57

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
AND
BUREAU OF BRIDGES

SHEET 6

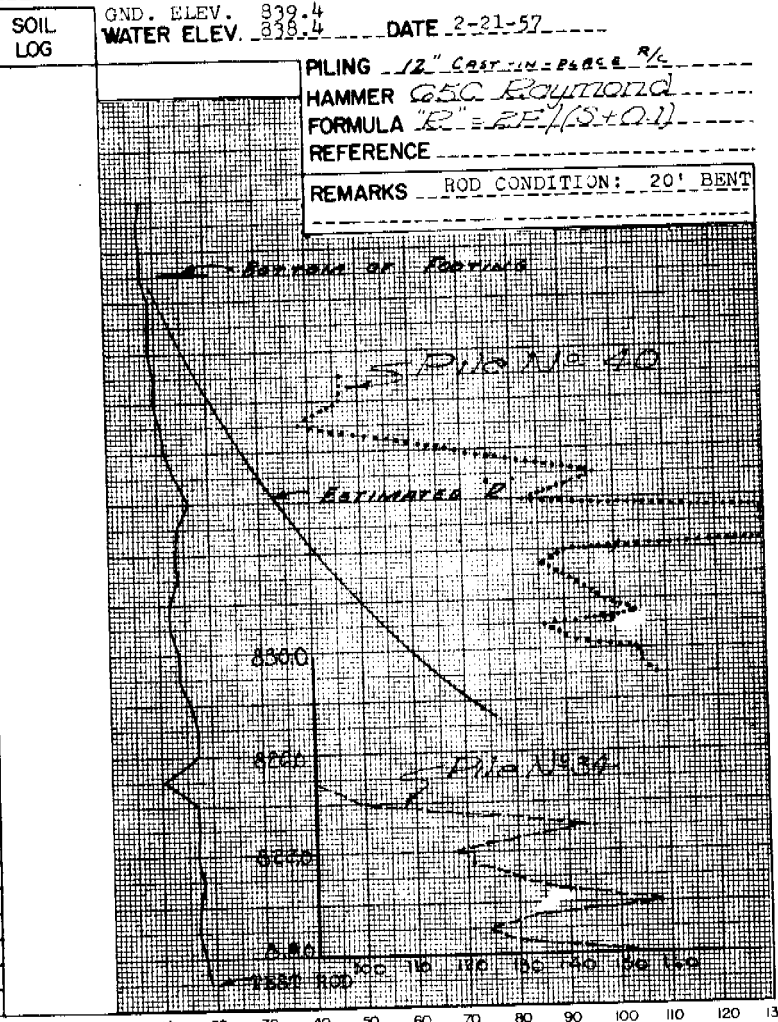
FOUNDATION DATA

CO. RT. NO., SEC. FRA-62-1,42 BRIDGE NO. FRA-62-0464
CENTER PIER US 62 UNDER S.R. 665

LOCATION TH. 6 STA. 30+08 OFFSET 19' LT. FED. NO. E-

ELEV. GND. ELEV. 839.4 DATE 2-21-57
WATER ELEV. 838.4

ELEV.	DEPTH	SOIL LOG
839.4	0	
	2	
835.4	4	
	6	
831.4	8	
	10	
827.4	12	
	14	
823.4	16	
	18	
819.4	20	
	22	
815.4	24	
	26	
811.4	28	
	30	
807.4	32	
	34	
803.4	36	



PLING 12" Cast in place
HAMMER G50 Raymond
FORMULA "R" = 2E / (S + 0.1)
REFERENCE

REMARKS ROD CONDITION: 20' BENT

CAPACITY "R" IN THOUSANDS OF POUNDS
BY R.C.
DATE 3-21-57

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
AND
BUREAU OF BRIDGES

FORM 8

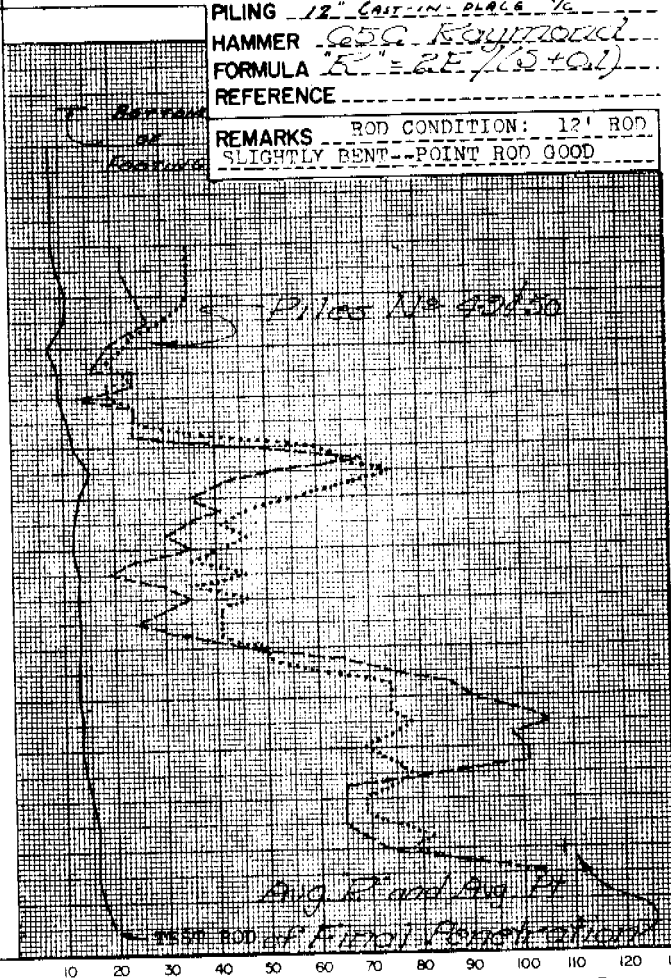
FOUNDATION DATA

CO., RT. NO. SEC. FRA-62-1.42 BRIDGE NO. FRA-62-0464
FORWARD PIER US 62 UNDER S.R. 665

LOCATION TH. 8 STA. 30+78 OFFSET 17' LT. FED. NO. F-

GND. ELEV. 838.6 DATE 2-20-57
WATER ELEV. 837.6

ELEV.	DEPTH	SOIL LOG
838.6	0	
	2	
834.6	4	
	6	
830.6	8	
	10	
826.6	12	
	14	
822.6	16	
	18	
818.6	20	
	22	
814.6	24	
	26	
810.6	28	
	30	
806.6	32	
	34	
802.6	36	



PILING 12" CAST-IRON PLATE 7/8
HAMMER GSC Raymond
FORMULA "R" = 2E / (S + 0.1)
REFERENCE _____
REMARKS ROD CONDITION: 12' ROD
SLIGHTLY BENT--POINT ROD GOOD

CAPACITY "R" IN THOUSANDS OF POUNDS BY RS DATE 3-21-57

June 28, 1957

File 413-4-1
Fra

C. H. Altvater, Assistant Engineer of
Bridges - Preliminary Design

#6

Franklin

Raymond A. Grover, Foundation Engineer

FRA-62-1.42

Bridge Foundation Investigation Report

FRA-62-0464
Under SR 665
58B
K-
06171

Between the dates of February 20 and March 4, 1957, four rod penetration tests and a "standard penetration test" at two locations were made at the above proposed structure site. The field and laboratory operations of the investigations were performed by State Highway Testing Laboratory.

This bridge site will be located on a gently rolling till plain formed on relatively thick glacial drift. No test penetrated to the underlying limestone bedrock.

The rod penetration curves, and the soil data which were reported by the Testing Laboratory are shown on the attached sheets.

The recommendations for the foundation design are as follows:

1. The footings for both abutments shall be seated in the embankment fill four feet below the earth benches. Piling will not be required for the abutments. The maximum allowable bearing power of the soil should be considered as 2 1/2 tons per square foot.
2. Each pier footing shall be placed on 12" cast-in-place reinforced concrete piles driven to a bearing capacity of 35 tons per pile.
3. Consideration was given to placing the pier footings on spread footings without using the cast-in-place piles. In order to place the footings on a firm subsoil at a depth so as not to be affected by seasonal changes, the footings would need to be placed at a lower elevation. Therefore, it seems more desirable to place the footings on piling and eliminate the deeper excavations involving sheeting and cofferdams.

-2-

C. H. Altvater
6-28-57

4. The estimated average pay length of the piles for the piers are as follows:

rear pier	-	23 feet
center pier	-	20 feet
forward pier	-	25 feet.

Raymond A. Grover

RAO:bn

Encls. (8)

cc: Merle I. Johnson	(Attach.)
Ralph V. Wood	(Attach.)
Neil Mason ✓	(Attach.)
August Schofer	(Attach.)
H. W. Lochner & Co.	(Attach.)
B. P. I. File	



March 27, 1957

C. H. Altwater

Mr. Harry Overman, Engineer of Bridges

R. H. Litchizer, Engineer of Tests Per: H. E. Mason

Report of Bridge Foundation Investigation
FRA-62-0464 US 62 Under SR 665

File: 13-4-1
Franklin

Transmitted herewith are the results of the foundation investigation made at the above structure site as well as the log of a Williams auger boring made in this vicinity at the time of the soil profile investigation. Drive rod soundings and drive sample borings were made between February 20 and March 4, 1957.

The site is located on a gently rolling till plain formed on relatively thick glacial drift. Underlying bedrock is limestone of the Columbus formation, however it is at such depth as to have no influence on the foundation design.

Tests show the drift to be relatively uniform across the site, bouldery, dense, and essentially unyielding in the vicinity of proposed footer elevation and below. In general soundings and borings were terminated because of high penetration resistance. The boring at location 4 was discontinued because of encounter with a boulder. No test penetrated to bedrock.

R. H. Litchizer
Engineer of Tests

Per H. E. Mason
H. E. Mason
Assistant Engineer

MEMORANDUM

Encl.

cc: G. W. Alsdorf (1) Attn: R. V. Wood (No encl.)
H. W. Lochner and Co. Attn: Ed Vana
150 N. Wacker Drive
Chicago, Illinois
File (1)
Found (3)

November 16, 1956

R. R. Litehiser, Engineer of Tests

#6

J. G. Joslin, Soils Engineer

Franklin

D. H. Overman, Engineer of Bridges

FRA-62-1.42

Raymond A. Grover, Foundation Engr.

FRA-62-0464
Under S. R. 665REQUEST FOR INVESTIGATION OF
BRIDGE FOUNDATION CONDITIONSF-
58B
06171

The Soil Section of the Testing Laboratory is hereby requested to make test borings and soundings to determine the subsoil conditions existing at the above structure site. The data thus obtained is to be forwarded to this office for use in the structural design.

The recommended locations for the proposed tests have been shown by station and offset on one copy of the four attached prints of the site plan.

Request for location and elevation stakes to be sent to:

H. W. Lochner & Co.
150 N. Wacker Dr.
Chicago, Illinois

Raymond A. Grover

RAG:rm

Enc. 4 Site Plans
cc: N. Mason
C. H. Altvater
B. F. I. File

