

SHEET _____ of _____
 BY C. NEWHALL
 DATE _____

STATE OF OHIO
 DEPARTMENT OF HIGHWAYS
 BUREAU OF BRIDGES

SUMMIT COUNTY
 ROUTE 5 SEC. 12.31
 BR. NO. EXPRESSWAY PART I
 OVER AKRON SU-5-124
 Little Cuyahoga River
 FOOTING

PILE DATA FOR PIER No. 6, WEST PAD
 Type and Dia. of Pile 14 B.P. 73
 Make and Size No. of Hammer VULCAN C-50 Differential Acting
 Formula: "P" = $\frac{2F}{SF}$
 Pile Load Required 570.1 65 Tons & Preferably ROCK Tons
 Remarks _____

No.	Length Driven	Cut Off	Bearing Power (Tons)	Pay Length	REMARKS
1	90.61		84.0	79.52	32 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 8 - 50 11.00 USED IN PIER No. 6 PILE No. 193 EAST PAD 0.13 SQUARED UP TOP OF PILE WASTED.
2	99.22		71.5	80.47	22 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7 - 25 - 50 17.28 USED IN PIER No. 6 PILE No. 106 EAST PAD 2.20 CUT OFF NOT USED
3	98.13		76.0	80.53	28 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7-25-50 17.60 USED IN SOUTH ABUT. PILE No. 35
4	98.30		69.0	80.91	20 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7 - 24 - 50 16.64 USED IN PIER No. 6 PILE No. 33 1.12 CUT OFF NOT USED
5	96.23		69.0	82.55 80.55	20 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7 - 21 - 50 15.68 Used in Pier #6 Pile #51 West Pad
6	96.10		64.0	80.34	16 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7 -(19-24) - 50 15.76 USED ON PILE No. 63 PIER No. 6
7	80.10	NONE	77.5	80.10	30 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7 - 19 - 50
8	96.07		81.5	78.65	74 BLOWS/3 INCHES @ 108 BLOWS/MIN. DRIVEN 7 -(20-21)- 50 17.42 USED IN SOUTH ABUTMENT PILE No. 36
9	50.10		74.0	39.40	300 BLOWS/FOOT @ 102 BLOWS/MIN. DRIVEN 7 - 19 - 50 10.70 USED IN NORTH ABUTMENT PILE No. 7

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SUMMIT COUNTY
 ROUTE 5 SEC. 12.31
 BR. NO. EXPRESSWAY PART 1
 OVER AKRON

PILE DATA FOR PIER No. 6 WEST PAD FOOTING
 Type and Dia. of Pile 14 B.P. 73
 Make and Size No. of Hammer VULCAN C-50
 Formula: "P" = $\frac{2F}{S+0.1}$
 Pile Load Required 340.1 65 Tons & Preferably ROCK Tons
 Remarks _____

c.	Length Driven	Cut Off	Bearing Power (Tons)	Pay Length	REMARKS
BATTER 10	88.99		80.6	83.02	28 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 9 - 50
		5.87			USED IN PIER No. 6 EAST PAD PILE No. 184
		0.15			CUT OFF WASTED
11	86.11		76.4	80.21	35 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 7 - 50
		5.81			USED IN PILE No. 28 NORTH ABUTMENT
		0.13			CUT OFF WASTED
12	98.12		74.0	79.57	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7 - 25 - 50
		18.55			USED ON FILE No. 53 PIER No. 6 WEST PAD
13	98.18		69.0	79.88	20 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7 - 25 - 50
TEST LOADED		18.30			USED ON FILE No. 51 PIER No. 6
					TEST LENGTH FOR CONTRACTOR ONLY.
14	98.18		66.5	80.24	25 BLOWS/INCH @ 95 BLOWS/MIN. DRIVEN 7 - 24 - 50
		17.94			USED ON FILE No. 42 PIER No. 6 WEST PAD
6	90.10		67.0	67.31	16 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7 - 10 - 50
		15.70			USED ON FILE No. 43 PIER No. 6
7	81.10		76.5	67.10	20 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7 - 10 - 50
8	80.07		71.5	71.77	17 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7 - 10 - 50
9	80.07		71.5	71.77	17 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7 - 10 - 50
10	80.07		71.5	71.77	17 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7 - 10 - 50

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 OVER AKRON

PILE DATA FOR PIER No. 6 WEST PAD FOOTING
 Type and Dia. of Pile 14 B.P. 73
 Make and Size No. of Hammer VULCAN C-50
 Formula: "p" = $\frac{27}{540.1} \times 65$ Tons & Preferably ROCK Tons
 Pile Load Required _____
 Remarks THIS HAMMER NEVER HIT FAST ENOUGH TO GET RATED P.

No.	Length Driven	Cut Off	Bearing Power (Tons)	Pay Length	REMARKS
15	96.17		76.5	79.86	20 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 7 - 24 - 50
		16.31			ADDED TO PILE NO. 32 PIER No. 6
16	96.13		67.0	79.54	70 BLOWS/5 INCHES @ 108 BLOWS/MIN. DRIVEN 7 - 24 - 50
		16.59			ADDED TO PILE NO. 32 PIER No. 6 WEST PAD
17	96.18		78.0	79.50	41 BLOWS/1-1/2 INCH @ 104 BLOWS/MIN. DRIVEN 7 - 20 - 50
		16.68			USED ON PILE NO. 73 PIER No. 6 WEST PAD
18	80.50		82.0	65.40	25 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 7 - 19 - 50
		15.10			USED ON PILE NO. 62 PIER No. 6 WEST PAD
19	96.07		96.0	80.57	50 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 7 - 21 - 50
		15.50			USED ON PILE NO. 18 PIER No. 6 WEST PAD
20	88.10		74.0	84.90	30 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 9 - 50
		4.65			CUT OFF TAKEN AWAY
		0.15			CUT OFF WASTED
21	86.18		74.0	79.70	30 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 7 - 50
		6.39			USED IN PILE NO. 8 PIER No. 7
		0.13			CUT OFF WASTED

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SUMMIT COUNTY
 ROUTE 5 SEC. 12.31
 BR. NO. EXPRESSWAY PART I
 OVER AKRON

FILE DATA FOR PIER No. 6 WEST PAD FOOTING
 Type and Dia. of Pile 14 B.P. 73
 Make and Size No. of Hammer VULCAN C-50
 Formula: "P" = 2 F
 File Load Required 310.1 65 Tons & Preferably ROCK Tons
 Remarks STEAM PRESSURE 130% AND 2-1/2 INCH CONNECTION STILL NOT STRIKING FAST ENOUGH.

No.	Length Driven	Cut Off	Bearing Power (Tons)	Pay Length	REMARKS
22	98.29		74.0	79.70	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7 - 25 - 50 17.66 USED ON PILE No. 116 PIER No. 6 EAST PAD 0.93 USED ON PILE No. 32 PIER No. 6
23	98.03		69.0	80.04	20 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7 - 25 - 50 18.04 USED ON PILE No. 53 PIER No. 6 WEST PAD
24	98.27		71.5	81.29	22 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7 - 24 - 50 15.51 USED ON PILE No. 42 PIER No. 6 WEST PAD 2.20 CUT OFF WASTED
25	98.03		82.0	79.41	25 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 7 - (24-27) - 50 18.67 USED ON PILE No. 62 PIER No. 6 WEST PAD
26	96.20		66.5	80.01	25 BLOWS/INCH @ 95 BLOWS/MIN. DRIVEN 7 - 21 - 50 15.14 USED ON PILE No. 21 NORTH ABUTMENT 1.58 WASTED
27	80.90		86.5	80.03	30 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 7 - (19-21) - 50 1.30 CUT OFF WASTED
28	96.20		73.0	79.42	24 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7 - 21 - 50 16.78 USED ON PILE No. 27 PIER No. 6 WEST PAD

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 OVER AKRON

FILE DATA FOR PIER No. 6 WEST PAD FOOTING
 Type and Dia. of Pile 14 B.P. 73
 Make and Size No. of Hammer VULCAN C-50
 Formula: "p" = $\frac{2F}{S+0.1}$
 File Load Required 65 Tons & Preferably ROCK Tons
 Remarks _____

No.	Length Driven	Cut Off	Bearing Power (Tons)	Pay Length	REMARKS
29	50.05		78.0	39.27	433 BLOWS/ FOOT @ 100 BLOWS/MIN. DRIVEN 7 - 19 - 50 10.78 USED ON FILE No. 93 PIER No. 6 WEST PAD
30	88.67		74.0	83.18	30 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN - 7 - 19 - 50 BATTER 5.39 USED ON FILE No. 148 PIER No. 6 EAST PAD 0.15 CUT OFF WASTED
31	86.18		76.4	79.73	35 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 7 - 50 5.95 USED PIER No. 7 FILE No. 8 (SEE BELOW) 0.13 CUT OFF WASTED 0.62 CUT OFF WASTED
32	79.90		79.0	79.62	22 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 3 - 50 0.28 USED ON FILE No. 43 PIER No. 6 WEST PAD
33	83.68		74.0	79.41	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 2 - 50 4.27 USED ON FILE No. 106 PIER No. 6 EAST PAD
34	79.39		79.0	79.39	22 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 1 - 50 NONE
35	96.09		66.5	80.06	18 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7 - 31 - 50 16.03 USED ON FILE No. 73 PIER No. 6 WEST PAD

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 BR. NO. EXPRESSWAY PART-1
 OVER AKRON

PILE DATA FOR PIER No. 6 WEST PAD FOOTING
 Type and Dia. of Pile 14 R.P. 73
 Make and Size No. of Hammer VULCAN C-50
 Formula: "p" = 2 F
 File Load Required 510.1 65 Tons & Preferably Rock Tons
 Remarks _____

C.	Length Driven	Cut Off	Bearing Power (Tons)	Pay Length	REMARKS
36	96.08		66.5	79.76	18 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7 - 28 - 50
		15.49			USED ON PILE No. 20 NORTH ABUTMENT
37	96.13		82.0	79.58	25 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 7 - 27 - 50
		16.55			USED ON PIER No. 6 PILE No. 67
38	96.13		82.0	79.80	25 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 7 - 27 - 50
		16.33			USED ON PIER No. 6 PILE No. 67
39	98.18		76.5	80.45	20 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 7 - 26 - 50
		17.73			USED ON PIER No. 6 PILE No. 55 WEST PAD
40	88.15		74.0	82.94	30 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 9 - 50
		5.21			USED IN SOUTH ABUTMENT PILE No. 8
41	88.18		74.0	80.03	30 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 7 - 50
		8.06			USED ON PILE No. 174 PIER No. 6 EAST PAD
		0.13			WASTED CUT OFF
42	79.55		79.0	77.60	32 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 3 - 50
		2.92			
43	77.95		67.5	77.95	19 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 2 - 50
		NONE			

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COUNTY _____
 ROUTE SUMMIT SEC. 12.31
 BR. NO. _____
 OVER EXPRESSWAY PART I
ARRON

FILE DATA FOR PIER No. 6 WEST PAD FOOTING _____
 Type and Dia. of Pile 1 1/2" D.P. 73
 Make and Size No. of Hammer VULCAN C-50
 Formula: "p" = 2 F
 File Load Required 340.1 65 Tons & Preferably Rock Tons
 Remarks _____

	Length Driven	Cut Off	Bearing Power (Tons)	Pay Length	REMARKS
44	80.15		73.5	79.29	18 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 1 - 50 0.86 USED IN SOUTH ABUTMENT PILE No. 18
45	79.70		71.0	79.52	22 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 1 - 50 0.27 WASTED
46	96.15		71.0	79.35	22 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7 - 31 - 50 16.80 USED ON PILE No. 34 PIER No. 6 WEST PAD
47	96.14		74.0	79.77	20 BLOWS/INCH @ 106 BLOWS/MIN. DRIVEN 7 - 27 - 50 15.90 USED ON PILE No. 29 NORTH ABUTMENT 0.70 WASTED
48	96.18		81.0	79.79	24 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 7 - 27 - 50 16.39 USED ON PILE No. 45 PIER No. 6 W. PAD
49	98.17		69.0	82.17	20 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7 - 26 - 50 16.00 USED ON PILE No. 44 PIER No. 6 WEST PAD
50	88.18		69.6	82.20	24 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 9 - 50 BATTER 5.88 USED ON PILE No. 193 PIER No. 6 0.15 CUT OFF WASTED
51	82.00		77.3	77.58	24 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 4 - 50 4.42 USED ON PILE No. 147 PIER No. 6

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 BR. NO. EXPRESSWAY PART 1
 OVER AKRON

PILE DATA FOR PIER No. 6 WEST PAD FOOTING
 Type and Dia. of Pile 14 B.P. 73
 Make and Size No. of Hammer VULCAN C-30
 Formula: "P" = $\frac{2F}{S+0.1}$
 File Load Required 65 Tons & Preferably ROCK Tons
 Remarks _____

No.	Length Driven	Cut Off	Bearing Power (Tons)	Pay Length	REMARKS
52	60.00			45.04	REFUSAL DRIVEN 5 - 1 - 50
		14.96			USED ON PILE No. 18 PIER No. 6 WEST PAD
53	82.68		72.5	77.32	17 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 3 - 50
		5.36			USED ON PILE No. 140 PIER No. 6 EAST PAD
54	96.07		86.5	78.05	30 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 2 - 50
		18.02			USED ON PILE No. 63 PIER No. 6 WEST PAD
55	80.87		77.5	79.62	30 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 1 - 50
		1.87			WASTED
56	96.08		76.0	79.00	28 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7 - 31 - 50
		17.08			USED ON PILE No. 55 PIER No. 6 WEST PAD
57	96.00		76.5	79.48	20 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 7 - 28 - 50
		16.52			USED ON PILE No. 34 PIER No. 6 WEST PAD
58	96.16		69.0	79.36	20 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7 - 27 - 50
		16.80			USED ON PILE No. 7 NORTH ABUTMENT
59	60.00	TEST PILE		No. PAY	REFUSAL
LUMP				PAID AS TEST PILE	DRIVEN 4 - 18 - 50
60	90.62		74.0	81.87	30 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 9 - 50
BATTER		8.65			USED ON PILE No. 174 PIER No. 6 EAST PAD
		0.15			WASTED

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SUMMIT COUNTY
 ROUTE 5 SEC. 12.31
 BR. NO. EXPRESSWAY PART I
 OVER ARRON

PILE DATA FOR PIER No. 6 WEST PAD FOOTING
 Type and Dia. of Pile 14 B.P. 13
 Make and Size No. of Hammer VULCAN C-50
 Formula: "P" = $\frac{2F}{S+0.1}$
 File Load Required 65 Tons & Preferably ROCK Tons
 Remarks _____

No.	Length Driven	Cut Off	Bearing Power (Tons)	Pay Length	REMARKS
61	82.06		70.6	76.63	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 4 - 50 5.43 USED ON PILE No. 119 PIER No. 6 WEST PAD
62	79.85	2.92	77.5	77.90	30 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 3 - 50
63	79.85	2.76	69.0	78.01	20 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 2 - 50
64	77.93	0.53 WASTED	69.0	77.58	22 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 2 - 50
65	77.90	NONE	82.0	77.90	25 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 1 - 50
66	96.10	18.13 USED ON PILE No. 44 PIER No. 6	73.5	77.97	18 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 7 - 31 - 50
67	78.94	0.70 USED ON PILE No. 94 PIER No. 6	73.5 77.5	78.24	30 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7 - 28 - 50
68	97.14	17.59 USED ON PILE No. 45 PIER No. 7 0.90 WASTED	76.5	78.95	20 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 7 - 27 - 50

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SUMMIT COUNTY
 ROUTE 5 SEC. 12.31
 BR. NO. EXPRESSWAY PART I
 OVER AKRON

PILE DATA FOR PIER No. 6 WEST PAD FOOTING
 Type and Dia. of Pile 14 B.P. 73
 Make and Size No. of Hammer VULCAN C-50
 Formula: "p" = 2 F
 Pile Load Required 340.1 65 Tons & Preferably ROCK Tons
 Remarks _____

No.	Length Driven	Cut Off	Bearing Power (Tons)	Pay Length	REMARKS
69	96.22		82.0	78.99	25 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 7 - 26 - 50
		17.23			USED ON FILE No. 45 PIER No. 6 WEST PAD
70	87.57		74.4	81.41	25 BLOWS/INCH @ 105 BLOWS/MIN. DRIVEN 8 - 9 - 50
BATTER		6.06			USED ON FILE No. 139 PIER No. 6 EAST PAD
		0.15			WASTED
71	81.98		77.3	79.11	24 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 4 - 50
		4.17)
		0.13			) WASTED SQUARED UP
72	96.16		72.5	76.94	23 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 3 - 50
		19.22			USED ON FILE No. 108 PIER No. 6 EAST PAD
73	78.78		80.5	76.99	23 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 2 - 50
		1.79			USED ON FILE No. 64 PIER No. 6
74	79.64		73.5	77.81	18 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 2 - 50
		2.75			
75	77.98		79.0	77.62	22 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 1 - 50
		0.54			WASTED
76	78.10		77.5	77.69	30 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7 - 31 - 50
		0.62			WASTED

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 OVER AKRON

FILE DATA FOR PIER No. 6 WEST PIER FOOTING
 Type and Dia. of Pile 14 B.P. 73
 Make and Size No. of Hammer VULCAN C-50
 Formula: "p" = $\frac{2F}{L}$
 File Load Required 540.1 65 Tons & Preferably ROCK Tons
 Remarks _____

	Length Driven	Cut Off	Bearing Power (Tons)	Pay Length	REMARKS
77	78.19		77.5	78.01	30 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7 - 28 - 50
		0.27 WASTED			
78	78.13		76.5	78.13	20 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 7 - 27 - 50
		NONE			
79	98.10		74.0	77.98	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7 - 26 - 50
		20.12 USED ON PILE No. 157 PIER No. 6			
80	90.57		76.3	80.97	23 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 8 - 50
BATTER		9.50 USED ON PILE No. 164 PIER No. 6			
		0.15 WASTED			
81	83.70		68.2	76.98	110 BLOWS/5 INCHES @ 102 BLOWS/MIN. DRIVEN 8 - 7 - 50
		6.63 USED ON PILE No. 28 NORTH ABUTMENT			
		0.13			
82	96.17		76.5	76.61	20 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 3 - 50
		19.56 USED ON PILE No. 128 EAST PAD PIER No. 6			
83	77.19		73.5	76.82	18 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 2 - 50
		0.56 WASTED			
84	78.11		81.0	77.04	24 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 1 - 50
		1.07 USED ON PILE No. 83 WEST PAD PIER No. 6			

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COUNTY SUMMIT
 ROUTE SEC. 12-31
 BR. NO. 2
 OVER EXPRESSWAY PART-1
AKRON

PILE DATA FOR PIER No. 6 WEST PAD FOOTING
 Type and Dia. of Pile 14 B.P. 73
 Make and Size No. of Hammer VULCAN C-50
 Formula: "p" = 2 F
 Pile Load Required 340.1 65 Tons & Preferably ROCK Tons
 Remarks

No.	Length Driven	Cut Off	Bearing Power (Tons)	Pay Length	REMARKS
85	78.14		73.5	77.16	18 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 7 - 31 - 50 0.98 USED ON PILE NO. 92 PIER No. 6 WEST PAD
86	78.13		76.5	77.20	20 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 7 - (28-31) - 50 1.40 WASTED
87	78.15		76.5	77.72	20 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 7 - 28 - 50 0.64 WASTED
88	78.14		76.5	77.65	20 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 7 - 27 - 50 0.73 WASTED
89	98.13		71.5	79.63	22 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7 - 26 - 50 20.50 USED IN FALSEWORK AND NOT USED AGAIN.
90	88.20		75.4	81.00	22 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 7 - 50 BATTER 7.10 USED ON PILE NO. 164 EAST PAD PIER No. 6 0.15 CUT OFF
91	88.16		70.6	77.12	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 7 - 50 10.95 USED ON PILE NO. 184 EAST PAD PIER No. 6 0.13 CUT OFF
92	76.92		73.5	76.87	18 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 2 - 50 0.08 WASTED

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PILE DATA FOR PIER NO. 6 WEST PAD FOOTING
 Type and Dia. of Pile 14 B.P. 73
 Make and Size No. of Hammer VULCAN C-50
 Formula: "P" = 2 F
 File Load Required 340.1 65 Tons & Preferably ROCK Tons
 Remarks _____

o.	Length Driven	Cut Off	Bearing Power (Tons)	Pay Length	REMARKS
93	77.59		80.5	76.52	23 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 2 - 50
		1.60 WASTED			
94	76.75		76.5	76.75	20 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 1 - 50
		NONE			
95	78.40		77.5	77.38	21 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 7 - 31 - 50
		1.53			
96	78.00		82.0	75.94	25 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 7 - 28 - 50
		2.06 USED IN FILE NO. 45 PIER NO. 7			
97	78.03		76.5	77.49	20 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 7 - 28 - 50
		0.81 WASTED			
98	98.04		74.0	77.30	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7 - 27 - 50
		20.74 USED ON FILE NO. 93 PIER NO. 6 WEST PAD			
99	98.06		74.0	77.10	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 7 - 26 - 50
		20.96 USED ON FILE NO. 33 PIER NO. 6 WEST PAD			
100	88.23		75.0 75.9	81.42	22 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 8 - 50
		6.71 USED ON FILE NO. 154 PIER NO. 6 EAST PAD			
		0.15 WASTED			

SHEET _____ of _____
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STATE OF OHIO
 DEPARTMENT OF HIGHWAYS
 BUREAU OF BRIDGES

SUMMIT COUNTY
 ROUTE 5 SEC 12.31
 BR. NO. EXPRESSWAY PART 1
 OVER AKRON

FILE DATA FOR PIER No. 6 EAST WEST PAD FOOTING
 Type and Dia. of Pile 14 D.P. 73
 Make and Size No. of Hammer VULCAN C-50
 Formula: "P" = $\frac{2F}{3+0.1}$ 65 Tons & Preferably Rock Tons
 Remarks _____

No.	Length Driven	Cut Off	Bearing Power (Tons)	Pay Length	REMARKS
101	92.66		74.0	78.56	30 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 23 - 50 14.00 USED ON PILE No. 160 EAST PAD PIER No. 6 0.15 WASTED
102	83.87		72.5	77.72	23 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 22 - 50 6.15 USED IN SOUTH ABUTMENT PILE No. 52
103	83.84		74.0	77.68 77.66	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 22 - 50 6.18 USED ON PILE No. 52 SOUTH ABUTMENT
104	100.35		82.0 72.5	79.21	23 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 21 - 50 21.14 USED ON PILE No. 114 EAST PAD PIER No. 6
105	100.34		83.0	80.11	26 BLOWS/INCH @ 103 BLOWS/MIN. DRIVEN 8 - 21 - 50 20.23 USED ON PILE No. 115 EAST PAD PIER No. 6
106	81.68		65.5	80.22	24 BLOWS/INCH @ 95 BLOWS/MIN. DRIVEN 8 - 18 - 50 2.18
107	80.69		72.5	80.17	23 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 18 - 50 0.78
108	79.86		75.0	79.86	26 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 17 - 50 NONE

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STATE OF OHIO
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 BUREAU OF BRIDGES

SUMMIT COUNTY
 ROUTE 7 SEC. 12.31
 BR. NO. EXPRESSWAY PART I
 OVER ARRON

PILE DATA FOR PIER No. 6 EAST PAD FOOTING
 Type and Dial of Pile 14 B.P. 13
 Make and Size No. of Hammer VULCAN C-50
 Formula: "P" = $\frac{2F}{S+0.1}$ 65 Tons & Preferably Rock Tons
 File Load Required _____
 Remarks _____

No.	Length Driven	Cut Off	Bearing Power (Tons)	Pay Length	REMARKS
109	79.69		86.5	79.58	30 BLOWS/INCH @ 100 BLOWS/MIN. DRIVEN 8 - 17 - 50
		0.16			
110	98.08		72.5	81.13	28 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 24 - 50
BATTER		16.95	USED IN PIER No. 7 FILE No. 53		
111	90.13		74.0	78.85	30 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 23 - 50
		11.18	USED IN FILE No. 160 EAST PAD PIER No. 6		
		0.15			
112	111.23		82.5	77.71	40 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 23 - 50
		33.40	USED ON FILE No. 141 EAST PAD PIER No. 6		
		0.18			
113	100.12		75.0	77.72	26 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 17 - 50
		22.40	USED ON FILE No. 123 EAST PAD PIER No. 6		
114	81.26		75.5	77.83	27 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 21 - 50
		3.43	USED ON FILE No. 45 PIER No. 7		
115	80.32		78.5	78.93	28 BLOWS/INCH @ 104 BLOWS/MIN. DRIVEN 8 - 21 - 50
		2.08			

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STATE OF OHIO
 DEPARTMENT OF HIGHWAYS
 BUREAU OF BRIDGES

SUMMIT COUNTY
 ROUTE 5 SEC 12.31
 BR. NO. EXPRESSWAY PART 1
 OVER AKRON

PILE DATA FOR PIER NO. 6 EAST PAD FOOTING
 Type and Dia. of Pile 14 B.P. 73
 Make and Size No. of Hammer VULCAN C-50
 Formula: "p" = $\frac{2F}{S+0.1}$
 Pile Load Required 65 Tons & Preferably Rock Tons
 Remarks _____

No.	Length Driven	Cut Off	Bearing Power (Tons)	Pay Length	REMARKS
116	80.02		66.5	79.69	25 BLOWS/INCH @ 95 BLOWS/MIN. DRIVEN 8 - 18 - 50
		0.50 WASTED			
117	100.20		74.0	79.80	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 18 - 50
		20.40 USED ON PILE No. 127 PIER No. 6			
118	100.48		71.5	79.94	25 BLOWS/INCH @ 100 BLOWS/MIN. DRIVEN 8 - 17 - 50
		20.54 USED ON PILE No. 107 PIER No. 6 EAST PAD			
119	80.75		74.0	80.25	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 17 - 50
		0.75			
120	100.15		74.0	72.88	30 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 25 - 50
BATTER		27.27 USED ON PILE No. 53 PIER No. 7			
121	83.48		70.6	78.05	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 23 - 50
		5.33 USED ON PILE No. 21 SOUTH ABUTMENT			
		0.15			
122	110.18		72.5	76.91	24 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 23 - 50
		33.15 USED ON PILE No. 131 PIER No. 6			
		0.18			
123	82.51		71.5	76.64	22 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 22 - 50
		5.87 USED ON PILE No. 140 PIER No. 6			

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 BUREAU OF BRIDGES

SUMMIT COUNTY
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 BR. NO. EXPRESSWAY PART I
 OVER AKRON

PILE DATA FOR PIER No. 6 EAST PAD FOOTING
 Type and Dia. of Pile 14 B.P. 73
 Make and Size No. of Hammer VULCAN C-50
 Formula: "p" = 2 F
 Pile Load Required 540.1 65 Tons & Preferably ROCK Tons
 Remarks _____

	Length Driven	Cut Off	Bearing Power (Tons)	Pay Length	REMARKS
124	100.20		77.5	76.81	30 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 22 - 50
		23.39			USED ON PILE No. 133 PIER No. 6 EAST PAD
125	77.88		81.0	77.29	24 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 21 - 50
		0.88			USED ON PILE No. 107 PIER No. 6
126	80.08		72.5	78.13	23 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 21 - 50
		2.93			USED ON PILE No. 107 PIER No. 6 EAST PAD
127	80.50		72.5	79.91	28 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 17 - 50
		0.88			
128	79.71		74.0	79.71	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 18 - 50
		NONE			USED ON PILE No. 133 PIER No. 6
129	100.21		74.0	79.63	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 17 - 50
		20.58			USED ON PILE No. 138 EAST PAD PIER No. 6
130	92.67		77.2	80.67	24 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 24 - 50
		12.00			USED ON PILE No. 45 PIER No. 7
131	83.21		71.5	77.90	28 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 23 - 50
		5.21			USED ON PILE No. 140 EAST PAD PIER No. 6
		0.15			CUT OFF WASTED
132	110.18		81.0	76.58	36 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 21 - 50
		33.48			USED ON PILE No. 121 PIER No. 6 EAST PAD
		0.18			WASTED

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STATE OF OHIO
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 BR. NO. EXPRESSWAY PART I
 OVER AKRON

PILE DATA FOR PIER No. 6 EAST PAD FOOTING
 Type and Dia. of Pile 14 B.P. 13
 Make and Size No. of Hammer VULCAN C-50
 Formula: "p" = 2 F
 Pile Load Required 310.1 65 Tons & Preferably Rock Tons
 Remarks _____

	Length Driven	Cut Off	Bearing Power (Tons)	Pay Length	REMARKS
133	83.54		71.5	78.50	22 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 21 - 50
		7.04 WASTED			
134	79.97		69.0	77.62	20 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 21 - 50
		3.52 WASTED			
135	109.16		86.5	77.44	30 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 21 - 50
					22.72 USED ON PILE No. 144 EAST PAD OF PIER No. 6
136	82.83		74.0	79.04	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 18 - 50
		5.69			
137	100.20		74.0	77.54	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 18 - 50
					22.66 USED ON PILE No. 136 EAST PAD PIER No. 6
138	80.75		72.5	79.25	24 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 18 - 50
		2.25			
139	79.69		82.0	79.69	25 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 17 - 50
		NONE			
140	80.32		69.2	80.32	23 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8-24-50
		NONE			
141	83.48		78.2	78.38	25 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 23 - 50
					5.00 USED ON PILE No. 140 PIER No. 6 EAST PAD
		0.15 CUT OFF			

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STATE OF OHIO
 DEPARTMENT OF HIGHWAYS
 BUREAU OF BRIDGES

SUMMIT COUNTY
 ROUTE 5 SEC. 12.31
 BR. NO. EXPRESSWAY PART I
 OVER AKRON

FILE DATA FOR PIER No. 6 EAST PAD FOOTING
 Type and Dia. of Pile 14 B.P. 73
 Make and Size No. of Hammer VULCAN C-50
 Formula: "P" = $\frac{2F}{3+0.1}$
 File Load Required 65 Tons & Preferably ROCK Tons
 Remarks _____

No.	Length Driven	Cut Off	Bearing Power (Tons)	Pay Length	REMARKS
142	100.19		79.0	76.44	32 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 21 - 50
		23.75			USED IN FILE NO. 102 PIER No. 6 EAST PAD
143	100.21		75.0	76.46	26 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 21 - 50
		23.75			USED ON FILE NO. 103 PIER No. 6 EAST PAD
144	82.83		70.0	76.59	21 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 21 - 50
		6.24			USED ON FILE NO. 140 EAST PAD PIER No. 6
145	73.16		76.0	77.39	28 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 18 - 50
		2.65			
146	81.03		72.5	76.46	24 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 18 - 50
		4.57			USED ON SOUTH ABUTMENT PILE No. 7
147	80.58		78.0	78.21	25 BLOWS/INCH @ 105 BLOWS/MIN. DRIVEN 8 - 18 - 50
		3.55			
148	77.35		74.0	77.35	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 18 - 50
		NONE			
149	79.81		74.0	77.56	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 17 - 50
		2.25			USED ON FILE NO. 116 PIER No. 6 EAST PAD
150	92.20		74.0	80.78	30 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 24 - 50
BATTER		11.32			USED ON FILE No. 45 PIER No. 7
		0.15			WASTED SQUARING UP
151	91.69		69.6	78.09	24 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 17 - 50
		13.50			USED ON FILE No. 139 PIER No. 6
		0.15			WASTED

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 BY C. NEWMAN
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 BUREAU OF BRIDGES

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 BR. NO. EXPRESSWAY PART 1
 OVER ARRON

PIER No. 6 EAST PAD FOOTING
 FILE DATA FOR
 Type and Dia. of Pile 14 D.P. 73
 Make and Size No. of Hammer VULCAN C-50
 Formula: "P" = $\frac{27}{5+0.1}$
 File Load Required 65 Tons & Preferably Rock Tons
 Remarks _____

No.	Length Driven	Cut Off	Bearing Power (Tons)	Pay Length	REMARKS
152	84.02		82.0	76.43	25 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 16 - 50 7.59 USED ON PILE No. 149 PIER No. 6
153	100.29		74.0	76.29	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 15 - 50 24.00 USED ON PILE No. 163 PIER No. 6 EAST PAD
154	76.77		69.0	76.39	20 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 15 - 50 0.57 WASTED
155	100.23		72.5	76.42	23 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 14 - 50 23.81 USED ON PILE No. 165 PIER No. 6
156	102.65		69.0	73.19	20 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 15 - 50 29.46 USED ON PILE No. 166 PIER No. 6 EAST PAD
157	80.17		82.0	77.64	25 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 11 - 50 3.80
158	86.13		71.0	74.95	22 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 11 - 50 11.18 USED ON PILE No. 185 PIER No. 6 EAST PAD
159	83.80		66.0	75.40	18 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 5 - 1 - 50 8.40 USED ON PILE No. 24 PIER No. 7
160 BATTER	75.17		69.2	75.07	24 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 24 - 50 0.15 CUT OFF WASTED

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 BUREAU OF BRIDGES

SUMMIT COUNTY
 ROUTE 5 SEC. 12.31
 BR. NO. EXPRESSWAY PART I
 OVER AKRON

PILE DATA FOR PIER No. 6 EAST PAD FOOTING
 Type and Dia. of Pile 14 B.P. 73
 Make and Size No. of Hammer VULCAN C-50
 Formula: "R" = $\frac{2F}{S+0.1}$
 Pile Load Required 65 Tons & preferably ROCK Tons
 Remarks _____

Pile No.	Length Driven*	Cut Off	Bearing Power (Tons)	Pay Length	REMARKS
161	90.14		70.6	78.27	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 16 - 50
		11.77	USED ON PILE No. 148 PIER No. 6 EAST PAD		
		0.15	CUT OFF WASTED		
162	86.42		74.0	76.40	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 16 - 50
		10.02	USED ON PILE 18 NORTH ABUTMENT		
163	84.10		74.0	76.15	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 15 - 50
		7.95	USED ON PILE No. 145 PIER No. 6 EAST PAD		
164	76.63		80.0	76.46	23 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 15 - 50
		0.17	USED ON PILE No. 148 PIER No. 6		
165	83.96		74.0	76.08	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 14 - 50
		7.88	USED ON PILE No. 109 PIER No. 6 EAST PAD		
166	89.57		80.0	74.47	23 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 14 - 50
		17.10			
167	102.77		76.0	75.87	28 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 11 - 50
		26.90	USED ON PILE No. 177 PIER No. 6 EAST PAD		
168	78.43		76.0	76.35	28 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 11 - 50
		2.08	USED ON PILE No. 109 PIER No. 6 EAST PAD		
169	90.27		74.0	71.95	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 10 - 50
		18.32	USED ON PILE No. 168 PIER No. 6 EAST PAD		

*Total of all lengths placed in leads

SHEET _____ of _____
 BY C. NEWMALL
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 BR. NO. EXPRESSWAY PART I
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PILE DATA FOR PIER No. 6 EAST PAD FOOTING
 Type and Dia. of Pile 14 B.P. 73
 Make and Size No. of Hammer VULCAN C-50
 Formula: "R" = 2 F
 File Load Required 5+0.1 65 Tons & preferably ROCK Tons
 Remarks _____

File No.	Length Driven*	Cut Off	Bearing Power (Tons)	Pay Length	REMARKS
170	80.29		74.4	76.69	31 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 24 - 50
		5.40			
171	91.70		70.6	78.19	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 16 - 50
		13.41	USED ON PILE No. 119 EAST PAD PIER No. 6		
		0.15	CUT OFF WASTED		
172	86.32		72.0	76.78	45 BLOWS/2 INCHES @ 102 BLOWS/MIN. DRIVEN 8 - 16 - 50
		8.92	USED ON PILE No. 20 NORTH ABUTMENT		
		0.93	WASTED		
173	77.91		74.0	76.73	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 16 - 50
		1.77			
174	76.83		74.0	76.33	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 15 - 50
		0.50	USED ON PILE No. 108 PIER No. 6 EAST PAD		
175	102.46		73.0	76.34	24 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 15 - 50
		26.12	USED ON PILE No. 194 PIER No. 6 EAST PAD		
176	77.96		71.0	76.03	22 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 14 - 50
		1.93	USED ON PILE No. 125 PIER No. 6 EAST PAD		
177	87.03		86.5	76.03	30 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 14 - 50
		11.00	USED ON PILE No. 173 PIER No. 6 EAST PAD		

*Total of all lengths placed in leads

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 BY C. NEWHALL
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 BUREAU OF BRIDGES

SUMMIT COUNTY
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 OVER AKRON

PILE DATA FOR PIER No. 6 EAST PAD FOOTING
 Type and Dia. of Pile NM 14 B.P. 73
 Make and Size No. of Hammer VULCAN C-50
 Formula: "R" = $\frac{2F}{S+0.1}$
 File Load Required 65 Tons & preferably ROCK Tons
 Remarks _____

File No.	Length Driven*	Cut Off	Bearing Power (Tons)	Pay Length	REMARKS
178	89.20		87.5	75.17	32 BLOWS/MIN. @ 108 BLOWS/MIN. DRIVEN 8 - 11 - 50
		14.03	USED IN NORTH	ABUTMENT PILE No. 10	
179	87.16		74.0	75.20	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 10 - 50
		11.96	USED ON PILE No. 185	PIER No. 6 EAST PAD	
180	80.14		73.5	73.55	29 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 23 - 50
		6.59	USED ON PILE No. 45	PIER No. 7	
181	90.23		78.2	78.03	25 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 16 - 50
		12.10	USED ON PILE No. 149	PIER No. 6 EAST PAD	
		0.15	WASTED		
182	102.58		82.0	76.36	25 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 16 - 50
		26.22	USED ON PILE No. 172	PIER No. 6 EAST PAD	
183	100.22		80.0	76.32	34 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 15 - 50
		23.90	USED ON PILE No. 152	EAST PAD PIER No. 6	
184	76.87		82.0	76.49	25 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 15 - 50
		0.57			
185	83.26		72.5	76.48	24 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 14 - 50
		6.78	USED ON PILE No. 173	EAST PAD PIER No. 6	
186	86.61		74.0	76.71	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 14 - 50
		9.90	USED ON PILE No. 154	EAST PAD PIER No. 6	

*Total of all lengths placed in leads

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 BUREAU OF BRIDGES

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 BR. NO. EXPRESSWAY PART I
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FILE DATA FOR PIER No. 6 EAST PAD FOOTING
 Type and Dia. of Pile 14 B.P. 73
 Make and Size No. of Hammer VULCAN C-50
 Formula: "R" = $\frac{2 F}{S+0.1}$
 Pile Load Required 65 Tons & preferably Rock Tons
 Remarks _____

File No.	Length Driven*	Cut Off	Bearing Power (Tons)	Pay Length	REMARKS
187	83.33		71.0	75.15	22 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 11 - 50
		8.18	USED ON FILE No. 30 SOUTH ABUTMENT		
188	76.51		73.0	74.84	24 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 11 - 50
		1.67	USED ON FILE 119 EAST PAD PIER No. 6		
189	90.81		76.0	71.96	28 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 10 - 50
		18.85	USED ON FILE No. 197 EAST PAD PIER No. 6		
190	93.05		75.4	75.89	22 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 24 - 50
		19.16	CONTRACTOR USED THIS PIECE		
191	90.19		78.2	79.02	25 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 16 - 50
		11.07	USED ON FILE No. 145 EAST PAD PIER No. 6		
		20.15			
192	102.70		82.0	76.40	25 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 15 - 50
		26.30	USED ON FILE No. 162 EAST PAD PIER No. 6		
193	77.01		73.0	77.01	24 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 15 - 50
		NONE			
194	86.23		75.0	76.53	26 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 15 - 50
		9.70	USED IN FILE No. 109 EAST PAD PIER No. 6		
195	77.08		74.0	77.08	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 14 - 50
		NONE			

*Total of all lengths placed in leads

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 BY C. NEWHALL
 DATE _____

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 BUREAU OF BRIDGES

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 ROUTE 5 SEC. 12.31
 BR. NO. EXPRESSWAY PART I
 OVER AKRON

FILE DATA FOR PIER No. 6 EAST PAD FOOTING
 Type and Dia. of Pile 14 B.P. 73
 Make and Size No. of Hammer VULCAN C-50
 Formula: "R" = $\frac{2F}{S+0.1}$
 File Load Required 65 Tons & preferably Rock Tons
 Remarks _____

File No.	Length Driven*	Cut Off	Bearing Power (Tons)	Pay Length	REMARKS
196	102.76		74.0	76.22	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 14 - 50
		26.54	USED ON PILE No. 186 PIER No. 6 EAST PAD		
197	79.05		80.0	76.26	23 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 11 - 50
		4.18			
198	90.72		79.0	74.35	22 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 11 - 50
		16.37	USED ON PILE No. 188 PIER No. 6 EAST PAD		
199	99.67		74.0	76.45	25 BLOWS/INCH @ 102 BLOWS/MIN. DRIVEN 8 - 10 - 50
		23.22	USED ON PILE No. 187 PIER No. 6 EAST PAD		
200	74.90		80.6	74.90	28 BLOWS/INCH @ 108 BLOWS/MIN. DRIVEN 8 - 24 - 50
		NONE			

*Total of all lengths placed in leads

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

DRIVING LOG OF PILE NO. 8 IN No. 6 PIER III SUMMIT COUNTY

Station 38+11.45 Offset 60.37 Ft. 111 - L. S.R. NO. 5 SEC. 12.31
Date Driven 7-20-50 Hammer VULCAN C-50 Differential Acting
Type of Pile 14" H 73# BR. NO. EXPRESSWAY PART I
Ground El. 916.00 File Cap. El. 917.00

Formula: $R = \frac{2-F}{S+0.1}$

~~OVER~~ AKRON SU-5-124

Little Cuyahoga River

Depth	Blows	S	H	F	R	Remarks
1						
2						
3						
4						
5	6	2.00				
6						
7						
8						
9						
10	8 $\frac{90}{1m}$	1.50				90 Blows per minute
11						
12						
13						
14						
15	12 $\frac{90}{1m}$	1.00				"
16						
17						
18						
19						
20	15 $\frac{90}{1m}$	.800				"
21						
22						
23						
24						
25						
26						
27						
28						
29						
30	28 $\frac{96}{1m}$	.429		9400	35,500	96 "
31						
32						
33						
34						
35						
36	30 $\frac{108}{1m}$	.400		11500	46,000	108 "
37	30 "	.400		11500	46,000	"
38	32 "	.375		11500	49,000	"
39	34 "	.353		11500	51,000	"
40	35 "	.343		11500	52,000	"
41	35 $\frac{102}{1m}$	.343		10330	45,500	102 "

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

DRIVING LOG OF PILE NO. 8 IN No. 6 PIER 1111. SUNNIT COUNTY

Station 38+11.45 Offset 60.37 **WEST RISE PAD** Ft. 1111 - L. S.R. NO. 5 SEC. 12.31
Date Driven 7-20-50 Hammer VULCAN C-50
Type of Pile 14" H 73 BR. NO. EXPRESSWAY PART I
Ground El. 916.00 File Cap. El. 917.00
OVER AKRON

Formula: $R = \frac{2 \cdot F}{S + 0.1}$

Depth	Blows	S	H	F	R	Remarks
42	34 ¹⁰²	.353		45,000	45,000	102 Blows per minute
43	35 "	.343			45,500	"
44	39 "	.308			49,500	"
45	41 "	.293			51,500	"
46	43 "	.279			53,000	"
47	Weld 2:55 7-21-50					
48						
49	60	.200			48,700	"
50	54	.222			64,200	"
51	52	.231			62,400	"
52	55	.218			65,000	"
53	45	.267			56,200	"
54						
55	37	.324			60,800	"
56	42	.286			53,500	"
57	50	.240			60,800	"
58	42	.286			53,500	"
59	41	.293			51,500	"
60	43	.279			53,000	"
61	47	.255			58,200	"
62	54	.222			64,200	"
63	69	.174				
64	81	.148				
65	70	.171				
66	81	.148				
67	76	.158				
68	61	.197				
69	50	.240				
70	54	.222				
71	49	.245				
72	52	.231				
73	52	.231				
74	50	.240				
75	57	.211				
76	83	.145				
77	80	.150				
78	76	.158				
79	66	.182				
80	93	.129				
81	74	.240			160,000	"
	in 3" 108		Cut off	17.40		

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

DRIVING LOG OF PILE NO. 18 IN No. 6 PIER A/III SUNNY COUNTY

Station 38+14.95 Offset 60.37 Ft. H/H L. S.R. NO. 5 SEC. 12.31
Date Driven 7-19-50 Hammer VULCAN C-50 Differential Acting
Type of Pile 14" H 73# BR. NO. MAIN VIADUCT
Ground El. 916.00 File Cap. El. 917.00 EXPRESSWAY PART I
OVER AKRON SU-5-124

Formula: $R = \frac{x \cdot F}{S + 0.1}$

Little Cuyahoga River

Depth	Blows	S	H	F	R	Remarks
1	0					
2	0					
3	3	4.00				
4	5	2.40				
5	4	3.00				
6	3	4.00				
7	5	2.40				
8	8	1.50				
9	7	1.714				
10	7	1.714				63 BLOWS PER MIN.
11	14	.857		9400	20,000	96 BLOWS PER MIN.
12	15	.800		9400	21,000	"
13	15	.800		9400	21,000	"
14	20	.600		9400	27,000	"
15	19	.632		9400	25,500	"
16	16	.750		9400	22,300	"
17	17	.706		9400	23,200	"
18	15	.800		9400	21,000	"
19	17	.706		9400	23,200	"
20	16	.750		9400	22,300	"
21	17	.706		9400	23,200	"
22	18	.667		9400	24,500	"
23	19	.632		9400	25,500	"
24	19	.632		9400	25,500	"
25	21	.571		9400	28,000	"
26	23	.522		9400	30,500	"
27	50	.240		9400	55,000	"
28	59	.203		9400	62,000	"
29	46	.261		10330	57,500	102 BLOWS PER MIN.
30	40	.300		10330	52,000	"
31	30	.400		10330	41,500	"
32	44	.273		10330	56,000	"
33	40	.300		10330	53,000	"
34	40	.300		9700	48,500	98 BLOWS PER MIN.
35	40	.300		9400	47,000	96 BLOWS PER MIN.
36	42	.286	9400	9400	51,000	"
37	46	.261		10000	55,000	100 BLOWS PER MIN.
38	52	.231		9400	56,000	96 BLOWS PER MIN.
39	63	.190		10330	71,000	102 BLOWS PER MIN.
40	68	.176		10330	75,000	"
41	70	.171		10330	76,000	"

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

DRIVING LOG OF PILE NO. 18 IN No. 6 PIER A/1/1 SUMMIT COUNTY
 Station 38+14.95 Offset 60.37 Ft. A/H L. S.R. NO. 5 SEC. 12.31
 Date Driven 7-19-50 Hammer VULCAN C-50
 Type of Pile 14" H 73# BR. NO. EXPRESSWAY PART I
 Ground El. 916.00 File Cap. El. 917.00
 OVER AKRON

Formula: R = $\frac{2 \times F}{S + 0.1}$

Depth	Blows	S	H	F	R	Remarks
42	75	.160		10330	79,000	102 BLOWS PER MIN.
43	74	.162		10330	78,000	"
44	74	.162		10330	78,000	"
45	85	.141		10330	85,000	"
46	63	.190		10330	71,000	"
47	52	.231		10330	63,000	"
48	52	.231		9700	58,500	98 BLOWS PER MIN
49	50	.240		9700	57,000	"
50	50					"
51	7-20-50 63	.190		10330	71,000	102 BLOWS PER MIN.
52	73	.164		10330	78,000	"
53	65	.185		10330	73,000	"
54	59	.203		10330	68,000	"
55	50	.240		10330	61,000	"
56	51	.235		1330	62,000	"
57	51	.235		10330	62,000	"
58	50	.240		10330	61,000	"
59	51	.235		10330	62,000	"
60	55	.218		10330	66,000	"
61	58	.207		10330	67,000	"
62	65	.185		10330	73,000	"
63	70	.171		11500	84,000	108 BLOWS PER MIN.
64	80	.150		11500	91,000	"
					160,000	ADD 15.50
						FILE WOULD NOT START
						GET 1" IN 25 BLOWS

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

DRIVING LOG OF PILE NO. 59 IN No. 6 PIER AB/11 SUNNIT COUNTY

Station 38+16.70 Offset 55.71 Ft. H/H L. S.R. NO. 5 SEC. 12.31
 Date Driven 4-28-50 Hammer VULCAN C-50 Differential Acting
 Type of Pile 14" H 73 BR. NO. EXPRESSWAY PART I
 Ground El. 916.00 File Cap. El. 917.00

OVER AKRON SU-5-124

Formula: $R = \frac{2 \cdot F}{540.1}$

Little Cuyahoga River

Depth	Blows	S	H	F	R	Remarks
1						
2						
3						
4						
5						
6						
7						
8						
9						
10	34					78 BLOWS PER MIN.
11						78 BLOWS PER MIN.
12						78 BLOWS PER MIN.
13						78 BLOWS PER MIN.
14	41	.292			58,500	108 BLOWS PER MIN.
15						108 BLOWS PER MIN.
16						108 BLOWS PER MIN.
17						108 BLOWS PER MIN.
18						108 BLOWS PER MIN.
19						108 BLOWS PER MIN.
20	94	.128			99,000	108 BLOWS PER MIN.
21						
22						
23						
24						
25	120	.100			115,000	108 BLOWS PER MIN.
26	30	.400			46,000	108 BLOWS PER MIN.
27	27	.445			48,100	102 BLOWS PER MIN.
28	27	.445			48,100	102 BLOWS PER MIN.
29	30	.400			52,000	114 BLOWS PER MIN.
30	29	4.15			44,700	108 BLOWS PER MIN.
31	30	.400			46,000	108 BLOWS PER MIN.
32	30	.400			46,000	108 BLOWS PER MIN.
33	32	.375			48,800	108 BLOWS PER MIN.
34	33	.364			49,200	108 BLOWS PER MIN.
35	31	.387			47,300	108 BLOWS PER MIN.
36	34	.352			51,000	108 BLOWS PER MIN.
37	35	.342			42,500	96 BLOWS PER MIN.
38	36	.334			48,100	102 BLOWS PER MIN.
39	37	.324			49,200	102 BLOWS PER MIN.
40	41	.293			53,000	102 BLOWS PER MIN.
41	41	.293			53,000	102 BLOWS PER MIN.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

DRIVING LOG OF PILE NO. 108 IN No. 6 PIER 1111 SUMMIT COUNTY

Station 37+99.20 Offset 48.42 Ft. R. 114 S.R. NO. 5 SEC. 12.31

Date Driven 8-17-50 Hammer VULCAN C-50 Differential Acting BR. NO. EXPRESSWAY PART I

Type of Pile 14 H # 73 Ground El. 916.00 Pile Cap. El. 917.00 OVER ARRON SU-5-124

Formula: $R = \frac{2F}{S+0.1}$

Little Cuyahoga River

Depth	Blows	S	H	F	R	Remarks
1						ORIG. LENGTH 60.14 + 19.22
2						
3						
4						
5	4	3.00				
6						
7						
8						
9						
10	5	2.40				
11						
12						
13						
14						
15	6	2.00				
17						
18						
19						
20	7	1.714				
21						
22						
23						
24						
25	12	1.00				
26						
27						
28						
29						
30	12	1.00				
31						
32						
33						
34						
35	14	.857				80 BLOWS PER MIN.
36	14	.857				80 BLOWS PER MIN.
37	13	.923				80 BLOWS PER MIN.
38	12	1.00				80 BLOWS PER MIN.
39	15	.800				80 BLOWS PER MIN.
40	15	.800				80 BLOWS PER MIN.
41	14	.857				80 BLOWS PER MIN.
42	15	.800				80 BLOWS PER MIN.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

DRIVING LOG OF PILE NO. 108 IN No. 6 PIER 1111 SUNNY COUNTY

Station 37+99.20 Offset 48.42 Ft. R. -1111 S.R. NO. 5 SEC. 12.31
Date Driven 8-17-50 Hammer VULCAN C-50
Type of Pile 14" H 73" BR. NO. EXPRESSWAY PART I
Ground El. 916.00 File Cap. El. 917.00

Formula: $R = \frac{2-F}{5+0.1}$

OVER ARRON

Depth	Blows	S	H	F	R	Remarks
43	18	.667				80 BLOWS PER MIN.
44	21	.571				80 BLOWS PER MIN.
45	28	.429				80 BLOWS PER MIN.
46	27	.444				80 BLOWS PER MIN.
47	14	.857				80 BLOWS PER MIN.
48	14	.857				80 BLOWS PER MIN.
49	14	.857				80 BLOWS PER MIN.
50	15	.800				80 BLOWS PER MIN.
51	16	.750				80 BLOWS PER MIN.
52	17	.706				80 BLOWS PER MIN.
53	17	.706				80 BLOWS PER MIN.
54	17	.706				80 BLOWS PER MIN.
55	19	.632				80 BLOWS PER MIN.
56	18	.667				80 BLOWS PER MIN.
57	19	.632				80 BLOWS PER MIN.
58	26	.462				84 BLOWS PER MIN.
59	38	.316				84 BLOWS PER MIN.
60	37	.324				84 BLOWS PER MIN.
61	39	.308				84 BLOWS PER MIN.
62	37	.324				84 BLOWS PER MIN.
63	33	.364				84 BLOWS PER MIN.
64	30	.400				84 BLOWS PER MIN.
65	31	.387				84 BLOWS PER MIN.
66	30	.400				84 BLOWS PER MIN.
67	24	.500				84 BLOWS PER MIN.
68	24	.500				84 BLOWS PER MIN.
69	29	.414				84 BLOWS PER MIN.
70	30	.400				84 BLOWS PER MIN.
71	30	.400				84 BLOWS PER MIN.
72	31	.387				84 BLOWS PER MIN.
73	30	.400				84 BLOWS PER MIN.
74	33	.364				84 BLOWS PER MIN.
75	35	.343				84 BLOWS PER MIN.
76	35	.343				84 BLOWS PER MIN.
77	47	.255				84 BLOWS PER MIN.
78	67	.179				26 LAST INCH 102 BLOWS PER MIN.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

DRIVING LOG OF PILE NO. 118 IN No. 6 PIER 1111 SUMMIT COUNTY

Station 38+02.72 Offset 48.42 Ft. R. 1111 S.R. NO. 5 SEC. 12.31
 Date Driven 8-17-50 Hammer VULCAN C-50 Differential Acting
 Type of Pile 14" H 73 BR. NO. EXPRESSWAY PART I
 Ground El. 916.00 Pile Cap. El. 917.00

~~OVER~~ AKRON SU-5-124

Formula: $R = \frac{2 \cdot F}{S + 0.1}$

Little Cuyahoga River

Depth	Blows	S	H	F	R	Remarks
1						ORIGINAL LENGTH 60.13 +
2						40.35
3						
4						
5	4	3.00				
6						
7						
8						
9						
10	4	3.00				
11						
12						
13						
14						
15	6	2.00				
16						
17						
18						
19						
20	9	1.333				
21						
22						
23						
24						
25	11	1.091				
26						
27						
28						
29						
30	10	1.200				
31						
32						
33						
34						
35	14	.857				
36	13	.923				
37	11	1.091				
38	11	1.091				
39	11	1.091				
40	12	1.00				
41	13	.923				

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

DRIVING LOG OF PILE NO. 118 IN No. 6 PIER 1111 SUMMIT COUNTY

Station 38+02.72 Offset 45.42 Ft. R. HN. S.R. NO. 5 SEC. 12.31
Date Driven 8-17-50 Hammer VULCAN C-50
Type of Pile 14" H 73# BR. NO. EXPRESSWAY PART I
Ground El. 916.00 File Cap. El. 917.00

OVER ARRON

Formula: $R = \frac{24}{5+0.1}$

Depth	Blows	S	H	F	R	Remarks
42	18	.667				84 BLOWS PER MIN.
43	18	.667				84 BLOWS PER MIN.
44	18	.667				84 BLOWS PER MIN.
45	15	.800				84 BLOWS PER MIN.
46	15	.800				84 BLOWS PER MIN.
47	16	.750				84 BLOWS PER MIN.
48	17	.706				84 BLOWS PER MIN.
49	18	.667				84 BLOWS PER MIN.
50	18	.667				84 BLOWS PER MIN.
51	17	.706				84 BLOWS PER MIN.
52	16	.750				84 BLOWS PER MIN.
53	16	.750				84 BLOWS PER MIN.
54	17	.706				84 BLOWS PER MIN.
55	17	.706				84 BLOWS PER MIN.
56	18	.667				84 BLOWS PER MIN.
57	28	.429		9420	36,000	96 BLOWS PER MIN.
58	39	.308		9420	46,500	96 BLOWS PER MIN.
59	34	.353		9420	41,500	96 BLOWS PER MIN.
60	32	.375		9420	39,500	96 BLOWS PER MIN.
61	38	.316		9420	36,500	96 BLOWS PER MIN.
62	31	.387		9420	39,000	96 BLOWS PER MIN.
63	29	.414		9420	36,500	96 BLOWS PER MIN.
64	28	.429		9420	35,500	96 BLOWS PER MIN.
65	27	.444		9420	35,000	96 BLOWS PER MIN.
66	26	.462		9420	33,500	96 BLOWS PER MIN.
67	24	.500		9420	31,500	96 BLOWS PER MIN.
68	23	.522		9420	30,500	96 BLOWS PER MIN.
69	25	.486		9420	32,500	96 BLOWS PER MIN.
70	26	.462		9420	33,500	96 BLOWS PER MIN.
71	25	.480		9420	32,500	96 BLOWS PER MIN.
72	26	.462		9420	33,500	96 BLOWS PER MIN.
73	27	.444		9420	35,000	96 BLOWS PER MIN.
74	26	.462		9420	33,500	96 BLOWS PER MIN.
75	24	.500		9420	31,500	96 BLOWS PER MIN.
76	26	.462		9420	33,500	96 BLOWS PER MIN.
77	34	.353		9420	42,000	96 BLOWS PER MIN.
78	42	.286		9420	49,000	96 BLOWS PER MIN.
79	54	.222		10340	64,000	108 BLOWS PER MIN.
						25 LAST INCH

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

DRIVING LOG OF PILE NO. 154 IN No. 6 PIER 1111 SUMMIT COUNTY

Station 38+16.70 Offset 37.33 Ft. 1111 L. S.R. NO. 5 SEC. 12.31
Date Driven 8-13-50 Hammer VULCAN C-50 Differential Acting
Type of Pile 14" H 73 BR. NO. EXPRESSWAY PART I
Ground El. 916.00 Pile Cap. El. 917.00

OVER AKRON SU-5-124

Formula: $R = \frac{2 \cdot F}{S + 0.1}$

Little Cuyahoga River

Depth	Blows	S	H	F	R	Remarks
1						ORIGINAL LENGTH 60.16 +
2						16.61
3						
4						
5	3	4.00				
6						
7						
8						
9						
10	4	3.00				
11						
12						
13						
14						
15	7	1.714				
16						
17						
18						
19						
20	9	1.333				
21						
22						
23						
24						
25	11	1.091				
26						
27						
28						
29						
30	17	.706				
31						
32						90 BLOWS PER MIN.
33						90 BLOWS PER MIN.
34						90 BLOWS PER MIN.
35	20	.600				90 BLOWS PER MIN.
36	20	.600				90 BLOWS PER MIN.
37	21	.571				90 BLOWS PER MIN.
38	20	.600				90 BLOWS PER MIN.
39	20	.600				90 BLOWS PER MIN.
40	23	.522				90 BLOWS PER MIN.
41	20	.600				90 BLOWS PER MIN.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

DRIVING LOG OF PILE NO. 154 IN No. 6 PIER //// SUMMIT COUNTY

Station 38+16.70 Offset 37.33 Ft. /// L. S.R. NO. 5 SEC. 12.31
Date Driven 8-13-50 Hammer VULCAN C-50
Type of Pile 14" H 73 BR. NO. EXPRESSWAY PART 1
Ground El. 916.00 Pile Cap. El. 917.00

OVER AKRON

Formula: $R = \frac{2 \cdot F}{540 \cdot T}$

Depth	Blows	S	H	F	R	Remarks
42	21	.571				90 BLOWS PER MIN.
43	21	.571				90 BLOWS PER MIN.
44	22	.545				90 BLOWS PER MIN.
45	23	.522				90 BLOWS PER MIN.
46	23	.522				90 BLOWS PER MIN.
47	23	.522				90 BLOWS PER MIN.
48	25	.480				90 BLOWS PER MIN.
49	24	.500				90 BLOWS PER MIN.
50	25	.480				90 BLOWS PER MIN.
51	27	.444				90 BLOWS PER MIN.
52	28	.429				90 BLOWS PER MIN.
53	31	.387		9420	39,000	96 BLOWS PER MIN.
54	34	.353		9420	42,500	96 BLOWS PER MIN.
55	33 35	.343		9420	43,000	96 BLOWS PER MIN.
56	34	.353		9420	53,500	96 BLOWS PER MIN.
57						
58	59	.203		9420	62,000	96 BLOWS PER MIN.
59	55	.218		9420	59,000	96 BLOWS PER MIN.
60	52	.231		9420	56,000	96 BLOWS PER MIN.
61	44	.273		9420	50,500	96 BLOWS PER MIN.
62	44	.273		9420	50,500	96 BLOWS PER MIN.
63	43	.279		9420	49,500	96 BLOWS PER MIN.
64	43	.279		9420	49,500	96 BLOWS PER MIN.
65	37	.324		9420	44,500	96 BLOWS PER MIN.
66	35	.343		9420	42,500	96 BLOWS PER MIN.
67	40	.300		9420	47,000	96 BLOWS PER MIN.
68	43	.279		9420	49,500	96 BLOWS PER MIN.
69	39	.308	9420	163300	46,500	96 BLOWS PER MIN.
70	40	.300		9420	47,000	96 BLOWS PER MIN.
71	44	.273		9420	51,000	96 BLOWS PER MIN.
72	40	.300		9420	47,000	96 BLOWS PER MIN.
73	34	.353		9420	42,000	96 BLOWS PER MIN.
74	65	.185		10340	73,000	102 BLOWS PER MIN.
75	72	.167				102 BLOWS PER MIN. 20 IN LAST INCH

See reverse side for EXPLANATORY NOTES AND INSTRUCTIONS

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

DRIVING LOG OF PILE NO. 155 IN No. 6 PIER ABUT. SUMMIT COUNTY

Station 38+16.70 Offset 41.00 Ft. R. HUJ S.R. NO. 5 SEC. 12.31
 Date Driven 8-14-50 Hammer VULCAN C-50 Differential Acting
 Type of Pile 14" H 73 BR. NO. EXPRESSWAY PART 1
 Ground El. 916.00 Pile Cap. El. 917.00

OVER AKRON SU-5-124

Formula: $R = \frac{X}{S+0.1}$

Little Cuyahoga River

Depth	Blows	S	H	F	R	Remarks
1						ORIGINAL LENGTH 60.13 +
2						40.10
3						
4						
5	3	4.00				
6						
7						
8						
9						
10	4	3.00				
11						
12						
13						
14						
15	6	2.00				
16						
17						
18						
19						
20	10	1.20				
21						
22						
23						
24						
25	15	.800				
26						
27						
28						
29						
30	20	.600				
31						
32						
33						
34						
35	21	.571				
36	21	.571				
37	20	.600				
38	19	.632				
39	19	.632				
40	19	.632				
41	19	.632				

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

DRIVING LOG OF PILE NO. 155 IN No. 6 PIER IIII SUNNIT COUNTY
 Station 38+16.70 Offset 41.00 Ft. R. IIII S.R. NO. 5 SEC. 12.31
 Date Driven 8-14-50 Hammer VULCAN C-50
 Type of Pile 14" H 73 BR. NO. EXPRESSWAY PART I
 Ground El. 916.00 File Cap. El. 917.00
 OVER AKRON

Formula: $R = \frac{2 \times F}{S \div 0.1}$

Depth	Blows	S	H	F	R	Remarks
42	20	.600				
43	22	.545				
44	22	.545				90 BLOWS PER MIN.
45	20	.600				90 BLOWS PER MIN.
46	20	.600				90 BLOWS PER MIN.
47	21	.571				90 BLOWS PER MIN.
48	22	.545				90 BLOWS PER MIN.
49	22	.545				90 BLOWS PER MIN.
50	29	.414				90 BLOWS PER MIN.
51	28	.429				90 BLOWS PER MIN.
52	25	.480				90 BLOWS PER MIN.
53	25	.480				90 BLOWS PER MIN.
54	28	.429				90 BLOWS PER MIN.
55	30	.400				90 BLOWS PER MIN.
56	30	.400				90 BLOWS PER MIN.
57	37	.324				90 BLOWS PER MIN.
58	72	.167		9420	71,000	96 BLOWS PER MIN.
59	60	.200		9420	62,000	96 BLOWS PER MIN.
60	55	.218		9420	59,000	96 BLOWS PER MIN.
61	56	.214		9420	60,000	96 BLOWS PER MIN.
62	48	.250		9420	53,500	96 BLOWS PER MIN.
63	45	.267		9420	51,500	96 BLOWS PER MIN.
64	44	.273		9420	50,500	96 BLOWS PER MIN.
65	44	.273		9420	50,500	96 BLOWS PER MIN.
66	42	.286		9420	49,000	96 BLOWS PER MIN.
67	42	.286		9420	49,000	96 BLOWS PER MIN.
68	41	.293		9420	48,500	96 BLOWS PER MIN.
69	42	.286		9420	49,000	96 BLOWS PER MIN.
70	41	.293		9420	48,500	96 BLOWS PER MIN.
71	45	.267		9420	51,500	96 BLOWS PER MIN.
72	43	.279		9420	50,000	96 BLOWS PER MIN.
73	41	.293		9420	48,500	96 BLOWS PER MIN.
74	50	.240		9420	55,000	96 BLOWS PER MIN.
75	51	.235		9420	55,500	96 BLOWS PER MIN.
76	104	.115		10340	94,000	102 BLOWS PER MIN. 23 LAST INCH

Pile No. 13
 WEST FOOTING #6 ABUHL Pier
 Sta. 38+14.95
 Offset 42.87 RHL
 Date Driven XXXXXX
7-25-50

State of Ohio -
 Department of Highways
 Bureau of Bridges

SUMMIT County
 S.R. 5 Sec. 12.31
 Br. No. SU-5-124
 Over LITTLE CUYAHOGA RIVER

TEST LOAD

Type of Pile 14" BP 73#

Ld _____ Lg _____ Weather CLEAR, WARM

Ground El. 916.00 ; Soil SAND - SILT - WET

Refer to Driving Log report for this pile

DATE	LOADING TIME (Hr. of Day)	INCREMENT OF LOAD (In Tons) + or -	TOTAL LOAD APPLIED (In Tons)	SETTLEMENT PER LOAD INCREMENT (Inches)	TOTAL SETTLEMENT (Inches)	REMARKS
7-28-50	5:00	+65	65 TON		.00	
	5:02				.07	
	5:20				.085	
	5:40				.085	
	6:00			.085	.085	
ADDED 13 TON INCREMENT TO 65 TONS.						
	6:01	+13	78 TON		.105	
	6:20				.105	
	6:40				.110	
	7:00				.110	
	7:20				.110	
	7:40				.110	
	8:00			.030	.115	
ADDED 13 TON INCREMENT TO 78 TONS.						
	8:01	+13	91 TONS		.135	
	8:20				.135	
	8:40				.1375	
	9:00				.14	
	9:20				.14	
	9:40				.145	
	10:00				.145	
	10:20				.145	
	10:40				.145	
	11:00			.030	.145	
ADDED 13 TON INCREMENT TO 91 TONS						
	11:01	+13	104 TONS		.155	
	11:20				.1625	
	11:40				.165	
	12:00				.165	
7-29-50	12:20				.165	

* Continuation of columns and Explanatory Notes on reverse side.

Pile No. 13
 WEST FOOTING #6 1/4 HULL Pier
 Sta. 38+14.95
 Offset 42.87 1R+L
 Date Driven 7-25-50

State of Ohio
 Department of Highways
 Bureau of Bridges

SUMMIT County
 S.H.S.R. 5 Sec. 12.31
 Br. No. SU-5-124
 Over LITTLE CUYAHOGA RIVER

TEST LOAD

Type of Pile 14" BP 73#
 L_d _____ L_g _____ Weather CLEAR - WARM
 Ground El. 916.00 ; Soil SAND - SILT - WET

Refer to Driving Log report for this pile

DATE	LOADING TIME (Hr. of Day)	INCREMENT OF LOAD (In Tons) + or -	TOTAL LOAD APPLIED (In Tons)	SETTLEMENT PER LOAD INCREMENT (Inches)	TOTAL SETTLEMENT (Inches)	REMARKS
	8:20				.225	
	8:40				.225	
	9:00				.225	
	9:20				.225	
	9:40				.225	
	10:00				.225	
	10:20				.225	
	10:40				.225	
	11:00				.225	
	11:20				.225	
	11:40				.225	
	12:00				.225	
	12:20				.225	
	12:40				.225	
	1:00				.225	
	1:20				.225	
	1:40			.030	.23	
7-29-50	LOAD REMOVED					
	2:05	000	000	.035	.035	
	5:00	000	000	.030	.030	
						C. NEWHALL

* Continuation of columns and Explanatory Notes on reverse side.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

TEST PILE
DRIVING LOG OF PILE NO. 13 IN No. 6 PIER 1111 SUMMIT COUNTY

Station 38+02.70 Offset 33.70 Ft. 1111 L. S.R. NO. 5 SEC. 12.31
Date Driven 7-25-50 Hammer VULCAN C-50 Differential Acting
Type of Pile 14" BP 73# BR. NO. EXPRESSWAY PART 1
Ground El. 916.00 Pile Cap. El. 917.00

~~OVER~~ AKRON SU-5-124

Formula: $R = \frac{2 \cdot F}{S + 0.1}$

Little Cuyahoga River

Depth	Blows	S	H	F	R	Remarks
1						ORIGINAL LENGTH 48.10
2						
3						
4						
5						
6						
7	6	2.00				
8	5	2.40				
9	3	4.00				
10	5	2.40				
11	4	3.00				
12	6	2.00				
13	10	1.20				90 BLOWS PER MIN.
14	9	1.333				90 BLOWS PER MIN.
15	10	1.20				90 BLOWS PER MIN.
16	11	1.091				90 BLOWS PER MIN.
17	10	1.20				90 BLOWS PER MIN.
18	11	1.091				90 BLOWS PER MIN.
19	11	1.091				90 BLOWS PER MIN.
20	12	1.00		9420	17,200	96 BLOWS PER MIN.
21	13	.923		9420	18,400	96 BLOWS PER MIN.
22	12	1.00		9420	17,200	96 BLOWS PER MIN.
23	13	.923		9420	18,400	96 BLOWS PER MIN.
24	13	9.23		9420	18,400	96 BLOWS PER MIN.
25	14	.857		9420	20,000	96 BLOWS PER MIN.
26	15	.800		9420	21,000	96 BLOWS PER MIN.
27	14	.857		9420	20,000	96 BLOWS PER MIN.
28	16	.750		9420	22,200	96 BLOWS PER MIN.
29	15	.800		9420	21,000	96 BLOWS PER MIN.
30	16	.750		9420	22,200	96 BLOWS PER MIN.
31	16	.750		9420	22,200	96 BLOWS PER MIN.
32	15	.800		9420	21,000	96 BLOWS PER MIN.
33	17	.706		9420	23,300	96 BLOWS PER MIN.
34	17	.706		9420	23,300	96 BLOWS PER MIN.
35	17	.706		9420	23,300	96 BLOWS PER MIN.
36	17	.706		9420	23,300	96 BLOWS PER MIN.
37	18	.667		9420	24,500	96 BLOWS PER MIN.
38	18	.667		9420	24,500	96 BLOWS PER MIN.
39	18	.667		9420	24,500	96 BLOWS PER MIN.
40	18	.667		9420	24,500	96 BLOWS PER MIN.
41	19	.632		10340	28,300	102 BLOWS PER MIN.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

TEST PILE

DRIVING LOG OF PILE NO. 13 IN No. 6 PIER 1111 SUNNY COUNTY

Station 38+02.70 Offset 33.70 Ft. 1111 L. S.R. NO. 5 SEC. 12.31
 Date Driven 7-25-50 Hammer VULCAN C-50
 Type of Pile 14" RH 73# BR. NO. EXPRESSWAY PART 1
 Ground El. 916.00 File Cap. El. 917.00

OVER AKRON

Formula: $R = \frac{2F}{540.T}$

Depth	Blows	S	H	F	R	Remarks
42	21	.571		10340	30,700	
43	21	.571		10340	30,700	
44	34	.353		10340	46,400	
45	26	.416		10340	40,500	
46	21	.571		9420	28,300	96 BLOWS PER MIN.
47	21	.571		9420	28,300	96 BLOWS PER MIN.
48	45	.267				90 BLOWS PER MIN.
49	40	.300				90 BLOWS PER MIN.
50	40	.300				90 BLOWS PER MIN.
51	40	.300				90 BLOWS PER MIN.
52	35	.343				90 BLOWS PER MIN.
53	33	.364				90 BLOWS PER MIN.
54	29	.414				90 BLOWS PER MIN.
55	30	.400				90 BLOWS PER MIN.
56	27	.444				90 BLOWS PER MIN.
57	27	.444				90 BLOWS PER MIN.
58	27	.444				90 BLOWS PER MIN.
59	27	.444				90 BLOWS PER MIN.
60	29	.414				90 BLOWS PER MIN.
61	32	.375				90 BLOWS PER MIN.
62	31	.387				90 BLOWS PER MIN.
63	32	.375				90 BLOWS PER MIN.
64	31	.387				90 BLOWS PER MIN.
65	29	.414				90 BLOWS PER MIN.
66	28	.429				90 BLOWS PER MIN.
67	29	.414				90 BLOWS PER MIN.
68	27	.444				90 BLOWS PER MIN.
69	27	.444				90 BLOWS PER MIN.
70	26	.462				90 BLOWS PER MIN.
71	26	.462				90 BLOWS PER MIN.
72	26	.462				90 BLOWS PER MIN.
73	25	.480				90 BLOWS PER MIN.
74	27	.444				90 BLOWS PER MIN.
75	28	.429		9420	35,500	96 BLOWS PER MIN.
76	29	.414		9420	36,500	96 BLOWS PER MIN.
77	27	.444		9420	35,000	96 BLOWS PER MIN.
78	27	.444		10340	38,000	102 BLOWS PER MIN.
79	40	.300		10340	52,000	102 BLOWS PER MIN.
80-3"	20	.050			138,000	102 BLOWS PER MIN.