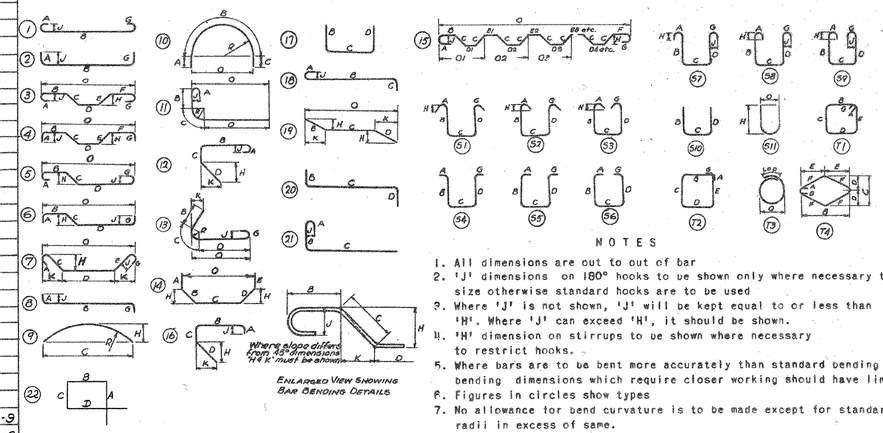
Item	No. Pieces	Size	Length	Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
				ABUTMENT No. 1													
1				FOOTING													
2	9	6	15-0	1A605	Str.												
3	10	6	20-0	1A606	Str.												
4	8	6	24-6	1A610A	Str.												
5	8	6	30-6	1A610B	Str.												
6																	
7	11	6	6-8	1A607	17		0-11	5-9									
8	*49	6	5-5	1A608	17		0-11	4-6									
9	8	6	10-3	1A611	19		3-0	4-3	3-0				2-2		2-2		8-7
10																	
11	*16	7	10-2	1A701	17		1-1	8-0	1-1								
12																	
13	*15	8	7-7	1A801	17		1-3	6-4									
14	20	8	11-6	1A802	17		1-3	9-0	1-3								
15	62	8	9-6	1A803	17		1-3	7-0	1-3								
16																	
17	15	9	7-3	1A901	17		1-5	5-10									
18	10	9	7-3	1A904	17		1-5	5-10									
19																	
20				STEM & WINGS													
21	1	4	20-3	1A401A	Str												
22	↓	↓	to	thru	↓		1 each, vary in 6 increments of 0-7										
23	1	4	23-9	1A401G	Str												
24	1	4	23-0	1A401H	Str												
25	↓	↓	to	thru	↓		1 each, vary in 5 increments of 0-7										
26	1	4	25-11	1A401M	Str												
27	2	4	26-6	1A401N	Str												
28	6	4	26-6	1A402	Str												
29	7	4	9-10	1A403A	Str												
30	7	4	10-2	1A403B	Str												
31	8	4	10-7	1A403C	Str												
32	*8	4	4-0	1A404	Str												
33	1	4	4-11	1A405A	Str												
34	↓	↓	to	thru	↓		1 each, vary in 4 increments of 1-6										
35	1	4	10-11	1A405E	Str												
36	1	4	4-6	1A406A	Str												
37	1	4	6-0	1A406B	Str												
38	1	4	7-6	1A406C	Str												
39	19	4	8-9	1A408	Str												
40	6	4	9-8	1A409A	Str												
41	5	4	9-11	1A409B	Str												
42	5	4	10-2	1A409C	Str												
43	1	4	10-5	1A410A	Str												
44	↓	↓	to	thru	↓		1 each, vary in 4 increments of 1-4										
45	1	4	5-1	1A410E	Str												
46	6	4	21-0	1A411	Str												
47	1	4	16-0	1A412A	Str												
48	↓	↓	to	thru	↓		1 each, vary in 5 increments of 0-8										
49	1	4	19-4	1A412F	Str												
50	1	4	17-0	1A412G	Str												
51	↓	↓	to	thru	↓		1 each, vary in 5 increments of 0-8										
52	1	4	20-4	1A412L	Str												
53	2	4	21-0	1A412M	Str												
54	13	4	7-8	(1A413)	Str												
55	1	4	7-0	1A414A	Str												
56	1	4	5-8	1A414B	Str												
57	1	4	4-3	1A414C	Str												
58	14	4	25-6	1A415A	Str												
59	16	4	24-10	1A415B	Str												
60	49	4	7-1	1A417	Str												
61	16	4	25-3	1A418A	Str												
62	16	4	23-1	1A418B	Str												
63																	
64	1	5	16-3	1A501A	Str												
65	↓	↓	to	thru	↓		1 each, vary in 12 increments of 0-7										
66	1	5	23-3	1A501M	Str												
67	2	5	24-3	1A501N	Str												
68	1	5	11-0	1A502A	Str												
69	↓	↓	to	thru	↓		1 each, vary in 11 increments of 0-8										
70	1	5	18-4	1A502L	Str												
71	2	5	18-9	1A502M	Str												
72	48	5	7-1	1A503	Str												
73																	
74	1	6	4-11	1A601A	Str												
75	↓	↓	to	thru	↓		1 each, vary in 4 increments of 1-6										
76	1	6	10-11	1A601E	Str												
77	9	6	10-1	1A602A	Str												
78	9	6	10-6	1A602B	Str												
79	7	6	9-10	1A603A	Str												
80	6	6	10-2	1A603B	Str												
81																	

Item	No. Pieces	Size	Length	Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
82	1	6	10-5	1A604A	Str												
83	↓	↓	to	thru	↓		1 each, vary in 4 increments of 1-4										
84	1	6	5-1	1A604E	Str												
85	8	6	8-9	1A609A	Str												
86	9	6	7-9	1A609B	Str												
87	10	6	7-1	1A609C	Str												
88	9	6	9-3	1A609D	Str												
89	9	6	8-5	1A609E	Str												
90	5	6	7-8	1A609F	Str												
91																	
92	23	8	3-0	1A804	Str												
93																	
94	15	9	9-3	1A902	Str												
95	1	9	5-0½	1A903A	Str												
96	1	9	6-6	1A903B	Str												
97	1	9	8-0	1A903C	Str												
98	10	9	8-2	1A905	Str												
99	1	9	7-6	1A906A	Str												
100	1	9	6-2	1A906B	Str												
101	*2	9	4-9	1A906C	Str												
102																	
103	49	4	6-4	1A407	22	2-9	1-1	1-0	1-6								
104	6	4	10-10	1A416A	17		6-6	3-8	0-8								
105	9	4	10-1	1A416B	17		5-9	3-8	0-8								
106	9	4	9-3	1A416C	17		4-11	3-8	0-8								
107	9	4	11-4	1A416D	17		7-0	3-8	0-8								
108	9	4	10-6	1A416E	17		6-2	3-8	0-8								
109	7	4	9-9	1A416F	17		5-5	3-8	0-8								
110																	
111	14	5	11-6	1A504	14		1-0	9-6	1-0				0-6				11-9
112	*14	5	7-2	1A505	14		1-0	5-2	1-0				0-11				6-2
113																	
114																	
115																	
116																	
117																	
118																	
119																	
120																	
121																	
122																	
123																	
124																	
125																	
126																	
127																	
128																	
129																	
130				ABUTMENT No. 2													
131				FOOTING													
132	8	5	18-0	2A504	Str												
133																	
134	16	6	35-0	2A601	Str												
135	1	6	8-0	2A606A	Str												
136	↓	↓	to	thru	↓		1 each, vary in 9 increments of 0-11										
137	1	6	16-3	2A606J	Str												
138																	
139	63	6	5-5	2A602	17		0-11	4-6									
140	15	6	8-10	2A607	17		0-11	7-0	0-11								
141																	
142	13	8	7-11	2A801	17		1-3	6-8									
143	16	8	11-6	2A802	17		1-3	9-0	1-3								
144	11	8	8-11	2A803	17		1-3	7-8									
145	68	8	9-6	2A804	17		1-3	7-0	1-3								
146																	
147	14	9	7-3	2A901	17		1-5	5-10									
148																	
149				STEM & WINGS													
150	8	4	12-0	2A401A	Str												
151	12	4	24-10	2A401B	Str												
152	16	4	31-10	2A401C	Str												
153	16	4	12-0	2A403A	Str												
154	16	4	24-10	2A403B	Str												
155	16	4	29-0	2A403C	Str												
156	60	4	7-0	2A404	Str												
157	18	4	10-2	2A405	Str												
158	1	4	9-0	2A406A	Str												
159	1	4	7-8	2A406B	Str												
160	1	4	6-4	2A406C	Str												
161	1	4	5-0	2A406D	Str												
162	8	4	8-7	2A407A	Str												

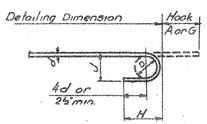
TYPICAL BAR BENDS



NOTES

1. All dimensions are out to out of bar
2. 'J' dimensions on 180° hooks to be shown only where necessary to restrict hook size otherwise standard hooks are to be used
3. Where 'J' is not shown, 'J' will be kept equal to or less than 'H'. Where 'J' can exceed 'H', it should be shown.
4. 'H' dimension on stirrups to be shown where necessary to restrict hooks.
5. Where bars are to be bent more accurately than standard bending tolerances bending dimensions which require closer working should have limits indicated
6. Figures in circles show types
7. No allowance for bend curvature is to be made except for standard hook & radii in excess of same.

Item	No. Pieces	Size	Length	Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
163	8	4	8-11	2A407B	Str												
164	7	4	9-4	2A407C	Str												
165	1	4	8-6	2A408A	Str												
166	1	4	6-9	2A408B	Str												
167	1	4	5-0	2A408C	Str												
168	6	4	25-6	2A410	Str												
169	9	4	4-0	2A411	Str												
170	1	4	21-8	2A412A	Str												
171	↓	↓	to	thru	↓		1 each, vary in 7 increments of 0-8										
172	1	4	26-4	2A412H	Str												
173	1	4	23-4	2A412I	Str												
174	↓	↓	to	thru	↓		1 each, vary in 3 increments of 0-8										
175	1	4	25-4	2A412L	Str												
176	2	4	25-6	2A412M	Str												
177	16	4	15-2	2A413	Str												
178	1	4	3-6	2A414A	Str												
179	1	4	4-3	2A414B	Str												
180	1	4	17-2	2A415A	Str												
181	1	4	18-5	2A415B	Str												
182	1	4	19-8	2A415C	Str												
183	1	4	19-3	2A415D	Str												
184	↓	↓	to	thru	↓		1 each, vary in 3 increments of 1-3										
185	1	4	23-0	2A415G	Str												
186	2	4	23-6	2A415H	Str												
187	1	4	8-0	2A416A	Str												
188	↓	↓	to	thru	↓		1 each, vary in 4 increments of 0-9										
189	1	4	5-0	2A416E	Str												
190				(ABUTMENT No. 2 CONTINUED ON BR. 425)													



STANDARD HOOK DETAIL

BAR SIZES

Equivalent Size	Present Number	Weight per ft.
1/4"	2	.167
3/8"	3	.376
1/2"	4	.668
5/8"	5	1.043
3/4"	6	1.502
7/8"	7	2.044
1"	8	2.670
1"	9	3.400
1 1/8"	10	4.303
1 1/4"	11	5.313
1 5/8"	14S	7.650
2"	18S	13.600

GENERAL NOTES

(1) Unless otherwise designated all standard reinforcement shall be deformed bars conforming with the requirements of the "Standard Specification for Billet-Steel Bars for Concrete Reinforcement"(Intermediate Grade) AASHO Designation M31-60 or its latest revision.

(2) Unless otherwise designated all special large size reinforcement shall be deformed bars conforming with the requirements of the "Standard Specification for Special Large size Deformed Billet-Steel Bars for Concrete Reinforcement"(Intermediate Grade) AASHO Designation M-174-60 or its latest revision.

(3) * Denotes one extra bar added for testing purposes.

(4) Stirrups and tie bars shall be bent around a pin having a diameter not less than two times the minimum thickness of the bar. Bends for other bars shall be made around a pin having a diameter not less than six times the minimum thickness except for bars larger than 1 inch, in which case the bends shall be made around a pin of eight bar diameters.

ESTIMATED QUANTITIES

LOCATION	PLAN (LBS)	FINAL (LBS)
ABUTMENT 1		

THIS SHEET FOR REFERANCE ONLY
BERLIN IM 089-1(70)
BRIDGES 4 N&S

SHEET 101 OF 104

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROJECT BERLIN-MONTPELIER
TOWNS OF BERLIN & MONTPELIER
ROUTE NO. I 89 STA 193+50±
I 89 OVER VT. 12
REINFORCING - ABUTMENTS 1 & 2
IN CHARGE W. SMITH
DRAWN BY W. TRIPP CHECKED BY F. GILMAN & LADD 11-67
PROJECT I NO. 89-1(12)
SHEET 175 OF 497 BR. 424