Item	No. Pieces	Size	Length	Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
								SPAN #1									
1	216	#5	17'-3"	1S1A	Str.												
2	216	#5	31'-3"	1S1B	Str.												
3	216	#5	20'-9"	1S1C	Str.												
4	216	#5	27'-9"	1S1D	Str.												
5	328	#4	27'-9"	1S2	Str.												
6	56	#6	28'-0"	1S3	Str.												
7	70	#4	8'-11"	1S4	S3	5"	1'-6"	5'-1"	1'-6"			5"					
8	56	#5	22'-9"	1S5	Str.												
9	76	#4	7'-6"	1S6A	S2	5"	3'-0"	8"	3'-0"			5"					
10	74	#4	4'-2"	1S6P	S10		2'-6"	8"	1'-0"								
11	58	#6	3'-0"	1S7	1	8"	1'-8"					8"					
12	70	#4	4'-7"	1S11	S3	5"	1'-2"	1'-0"	1'-2"			5"					
13	24	#5	2'-3"	1S12	Str.												
14	4	#5	1'-4"	1S13	Str.												
15																	
16								**SPAN #2**									
17	*297	#5	17'-3"	2S1A	Str.												
18	296	#5	31'-3"	2S1B	Str.												
19	296	#5	20'-9"	2S1C	Str.												
20	296	#5	27'-9"	2S1D	Str.												
21	*493	#4	26'-0"	2S2	Str.												
22	* 85	#6	26'-3"	2S3	Str.												
23	100	#4	8'-11"	2S4	S3	5"	1'-6"	5'-1"	1'-6"			5"					
24	48	#5	22'-9"	2S5	Str.												
25	74	#4	4'-2"	2S6P	S10		2'-6"	8"	1'-0"								
26	100	#4	4'-7"	2S11	S3	5"	1'-2"	1'-0"	1'-2"			5"					
27																	
28								**SPAN #3**									
29								Same as Span #2 (except no test bars required)									
30																	
31																	
32								**SPAN #4**									
33	236	#5	17'-3"	4S1A	Str.												
34	236	#5	31'-3"	4S1B	Str.												
35	236	#5	20'-9"	4S1C	Str.												
36	236	#5	27'-9"	4S1D	Str.												
37	328	#4	30'-3"	4S2	Str.												
38	56	#6	30'-6"	4S3	Str.												
39	76	#4	8'-11"	4S4	S3	5"	1'-6"	5'-1"	1'-6"			5"					
40	56	#5	22'-9"	4S5	Str.												
41	76	#4	7'-6"	4S6A	S2	5"	3'-0"	8"	3'-0"			5"					
42	74	#4	4'-2"	4S6P	S10		2'-6"	8"	1'-0"								
43	58	#6	3'-0"	4S7	1	8"	1'-8"					8"					
44	76	#4	4'-7"	4S11	S3	5"	1'-2"	1'-0"	1'-2"			5"					
45	24	#5	2'-3"	4S12	Str.												
46	4	#5	1'-4"	4S13	Str.												
47																	
48																	
49																	
50																	
51								**PIER #1**									
52	172	#6	8'-6"	1P1	Str.												
53	94	#11	20'-5"	1P2	Str.												
54	26	#11	17'-9"	1P3	Str.												
55	* 27	#11	13'-9"	1P4	Str.												
56	52	#9	23'-1"	1P5	Str.												
57	120	#8	7'-0"	1P6	2	1'-5"	5'-7"					0					
58	120	#8	25'-1"	1P7	Str.												
59	48	#4	11'-6"	1P8	T1	5"	2'-8"	2'-8"	2'-8"	2'-8"		5"					
60	84	#4	8'-4"	1P9	T1	5"	1'-6"	2'-3"	1'-6"	2'-3"		5"					
61	84	#4	9'-6"	1P10	T1	5"	2'-8"	1'-8"	2'-8"	1'-8"		5"					
62	8	#11	18'-0"	1P11	2	1'-5"	16'-7"					0					
63	4	#11	11'-9"	1P12	2	1'-5"	10'-4"					0					
64	8	#10	11'-4"	1P13	Str.												
65	* 9	#8	4'-0"	1P14	Str.	(Smooth)											
66	8	#11	19'-1"	1P15	2	1'-5"	17'-8"										
67	4	#11	12'-11"	1P16	2	1'-5"	11'-6"										
68	* 9	#10	12'-6"	1P17	Str.												
69	* 9	#9	18'-10"	1P18	Str.												
70	8	#9	25'-1"	1P19	Str.												
71	8	#6	7'-9"	1P20	14	2'-9"	5'-0"	0	0	0			4'-10"				
72	16	#5	23'-8"	1P21	Str.												
73	180	#6	12'-4"	1P22	T1	7"	2'-5"	3'-2"	2'-5"	3'-2"		7"					
74	4 ea.		9'-0"	1P23		7"	2'-5"	1'-6"	2'-5"	1'-6"		7"					
75	Total	#6	to	to	T1		to		to		Varies by 5" inc. Avg. length = 10'-6"						
76	32		12'-0"	1P30		7"	2'-5"	3'-0"	2'-5"	3'-0"		7"					
77	56	#5	1'-7"	1P31	Str.												
78	56	#5	6'-3"	1P32	17.		2'-6"	1'-3"	2'-6"								
79																	
80																	
81																	

Item	No. Pieces	Size	Length	Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
82								**PIER #2**									
83							Same as Pier #1 except as noted.										
84																	
85																	
86							(No test bars required)										
87																	
88	120	#8	23'-10"	2P7	Str.												
89	42	#4	11'-6"	2P8	T1	5"	2'-8"	2'-8"	2'-8"	2'-8"		5"					
90																	
91																	
92																	
93								**PIER #3**									
94							Same as Pier #2 except as noted.										
95																	
96																	
97							(No test bars required)										
98																	
99	120	#8	26'-7"	3P7	Str.												
100	96	#4	8'-4"	3P9	T1	5"	1'-6"	2'-3"	1'-6"	2'-3"		5"					
101	96	#4	9'-6"	3P10	T1	5"	2'-8"	1'-8"	2'-8"	1'-8"		5"					
102																	
103								**WEST ABUTMENT**									
104	* 51	#6	5'-6"	WA1	Str.												
105	* 25	#7	24'-11"	WA2	Str.												
106	36	#6	24'-8"	WA3	Str.												
107	50	#6	1'-6"	WA4	Str.												
108	* 29	#5	10'-3"	WA5	Str.												
109	12	#5	12'-3"	WA6	14	7'-3"	5'-0"	0	0	0			2'-6"				
110	* 17	#4	8'-0"	WA7	Str.												
111	32	#4	8'-6"	WA8	Str.												
112	8	#4	8'-4"	WA9	Str.												
113	5	#8	4'-0"	WA10	Str.	(Smooth)											
114																	
115																	
116																	
117																	
118																	
119								**EAST ABUTMENT**									
120							Same as West Abutment (except no test bars required)										
121																	
122																	
123																	
124							For detail of Approach Slab reinforcing										
125							steel see sheet Br. 12.										
126																	
127	96	#5	21'-3"	WAS2	Str.												
128			(25'-1"														
129	4	#10	to	WAS3													
130			(25'-1"														
131																	
132	5	#5	3'	WAS4	Str.												
133																	
134																	
135																	
136																	
137																	
138																	
139								EAST APPROACH SLAB									
140			(21'-8"														
141			(23'-5"														
142	96	#5	2'-4"	EAS2	Str.												
143			(23'-5"														
144	4	#10	to	EAS3													
145			(23'-2"														
146	43	#5	6'-11"	EAS4													
147	5	#4	15'-8"	EAS5													
148	5	#4	22'-8"	EAS6													
149																	
150																	
151																	
152																	
153																	
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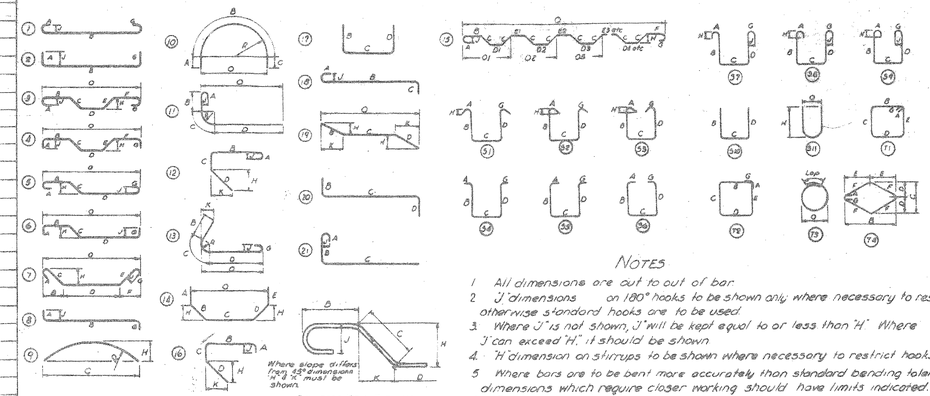
TYPICAL BAR BENDS



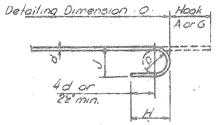
NOTES

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.
8. Bar reinforcement metal shall conform to the requirements of the Standard Specifications for new Billet-Steel Concrete Reinforcement Bars (Intermediate Grade) Serial Designation A.A.S.H.O. M31-48 or its latest revision. All bars shall be deformed to conform with A.S.T.M. Specifications A305-49.

Item	No. Pieces	Size	Length	Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
163								**EAST MANHOLE**									
164																	
165		#4	10'-[illegible]	[illegible]			3'-5"	5'-5"	3'-4"								
166		#5	4'-[illegible]	EM-12													
167		#5	7'-[illegible]	EM-13			7"										
168		#4	9'-[illegible]	EM-14 S1A			3'-10"	3'-5"	2'-10"								
169		#4	[illegible]	EM-15 S1B			3'-4"	5'-5"	3'-4"								
170		#4	[illegible]	[illegible] S3			3'-9"	4'-4"	3'-3"								
171	6	#4	[illegible]	EM-17 S10			3'-0"	2'-1"	3'-0"								
172	12	#4	2'-6"	EM-18 Str.													
173	2	#4	2'-10"	[illegible]			1'-10"	2'-0"									
174	[illegible]	#4	4'-[illegible]	[illegible] Str.			Cut in field to fit										
175	16	#4	4'-1"	[illegible] Str.			Cut in field to fit										
176	6	#4	2'-10"	[illegible] Str.													
177																	
178																	
179								**WEST MANHOLE**									
180							Same as East Manhole										
181							NOTE:										
182							Reinforcing steel for East Manhole and										
183							West Manhole shown as Sym. around Bo										
184							Item 635.4 and is not included in this list										
185							Bridge Item 402.										
186																	
187																	
188																	
189																	
190																	

* Denotes one bar added for testing.

Detailing Dimension .O. Hook A or G



STANDARD HOOK DETAIL

BAR SIZES

Equivalent Size	Present (Numbers)
1/4"	#2
3/8"	#3
1/2"	#4
5/8"	#5
3/4"	#6
7/8"	#7
1"	#8
1 1/8"	#9
1 1/4"	#10
1 1/4"	#11

ESTIMATED QUANTITIES

FINAL	Location	Pounds
33,138	Span #1	33,160
44,097	Span #2	44,125
44,024	Span #3	44,050
35,972	Span #4	36,995
35,053	Pier #1	35,150
34,415	Pier #2	34,500
35,439	Pier #3	35,525
3,895	West Abutment	3,950
3,818	East Abutment	3,875
269,+51		
	Sub-total Carried	
269,851	Forward	270,330

SOUTH BURLINGTON IM DECK(36)
FOR REFERENCE ONLY - BRIDGE 68

Sheet 1 of SHEET 68A OF 75

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWN OF SOUTH BURLINGTON

UNDERPASS STA. 2101+78.29
BURLINGTON INTERCHANGE
BAR SCHEDULE

BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.

DRAWN BY D.S. IN CHARGE A.J.I.
CHECKED BY A.J.I. DATE SCALE

PROJECT NO. I 89-3(12) SHEET 160 OF 175