

(3) Bituminous Concrete Pavement, Item 361-B, Mod. (2-1/2)
 2-2 1/2\"/>

THESE ITEMS ARE NOT PART OF STAGE I CONSTRUCTION
 See Page 27 of Plans, Item 361-B, Mod. (2-1/2)
 Double the Top Coat of Bituminous Material with 2 1/2\"/>

2-2 1/2\"/>
 (ALTERNATE B)

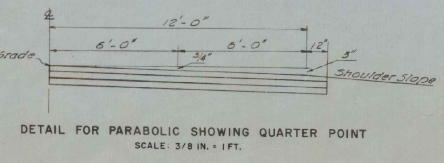
% Weight	Name	% Germ.	% Purity	Lbs./Acre
16.67	Domestic Eye Grass	90	90	10
8.33	Brodiaea Trifolium	80	99	5
0.42	Weed Seed			14
6.25	Inert Material			3 3/4
100.00				60

8. Commercial Fertilizer, Item 615, shall be applied to all earth slopes at the rate of 1000 lbs per acre, and shall be mixed as follows:
 Nitrogen - 10
 Phosphorus - 10
 Potash - 10
 Rate of Application 1000 lbs. per Acre

Fertilizer shall be delivered in bags of not to exceed 100 lbs. each.

9. Drilling and Blasting of Solid Rock, Sub Grade - Item 114 Mod. (Depth 4' below Sub Grade). See Standard Sheet A-51

GENERAL NOTES:
 1. Widened shoulders two (2) feet at guard rail locations.
 2. For regrading of slopes, see Highway Standard Sheet B-5.
 3. Minimum width of top of rock in median shall be ten (10) feet.
 4. Steel Marker Posts, Item 348-D, shall be placed as directed by the Engineer.
 5. Water Pipe, Item 610, to be applied as directed by the engineer at the rate 50 lbs per acre.



STAGE 2 CONSTRUCTION
 1 89-3(23)
 SHEET 3 OF 121

STATE OF VERMONT
 DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWNS OF
 WILLISTON, SOUTH BURLINGTON

TYPICAL SECTIONS
 50' MEDIAN

BOSWELL ENGINEERING CO.
 CONSULTING ENGINEERS
 ROSELAND PARK, N.H.

PROJECT NO. I-89-3(14) SHEET 3 OF 115

ALTERNATE A - 2-2 1/2\"/>

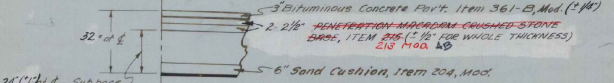
ALTERNATE B - 2 2 1/2\"/>
 (ALTERNATE B)

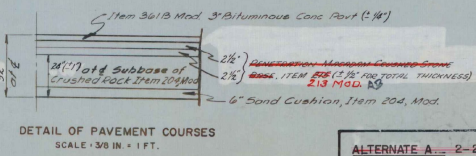
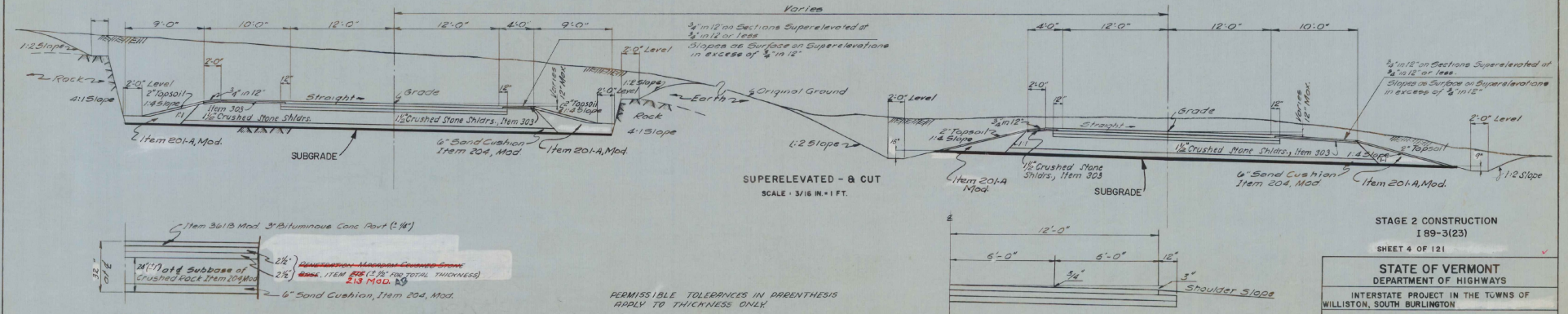
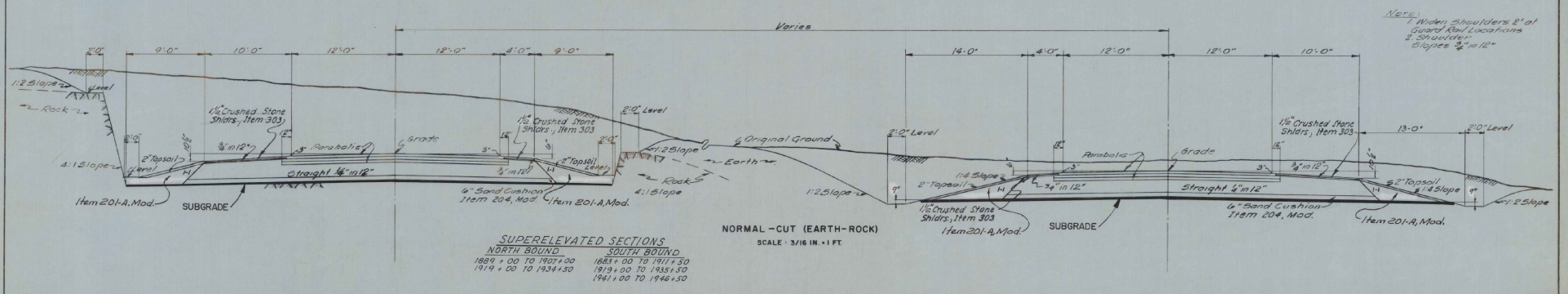
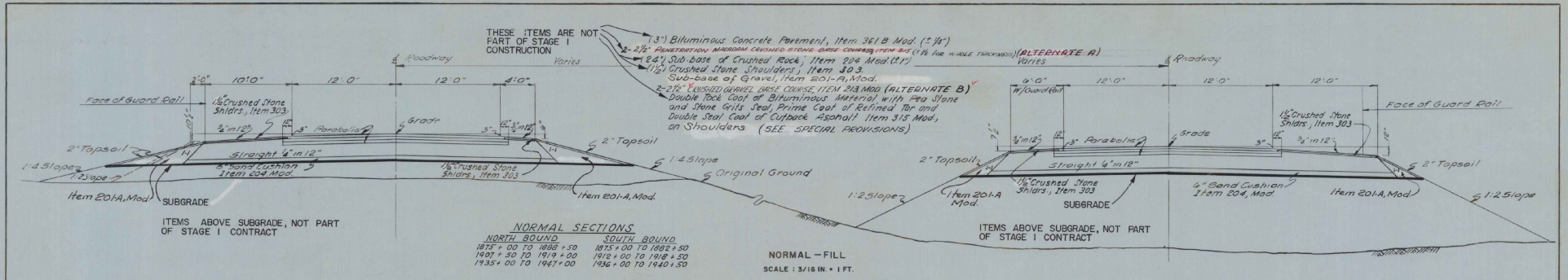
6. Mulch, Item 622, shall be applied to all earth slopes at the rate of 1 1/2 Tons per acre.
 7. Seeding, Item 611, to be applied on all earth slopes, at the rate of 50 lbs. per acre. Seed formula as follows:

Weight	Name	% Germ.	% Purity	Lbs./Acre
33.33	Creeping Red Fescue	85	97	20
10.00	Timothy	90	95	6
16.67	Kentucky Blue Grass	75	85	10
8.33	Red Top	70	93	5

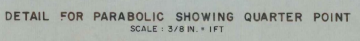
Continued Next Column

PERMISSIBLE TOLERANCES IN PARENTHESIS
 APPLY TO THICKNESS ONLY.





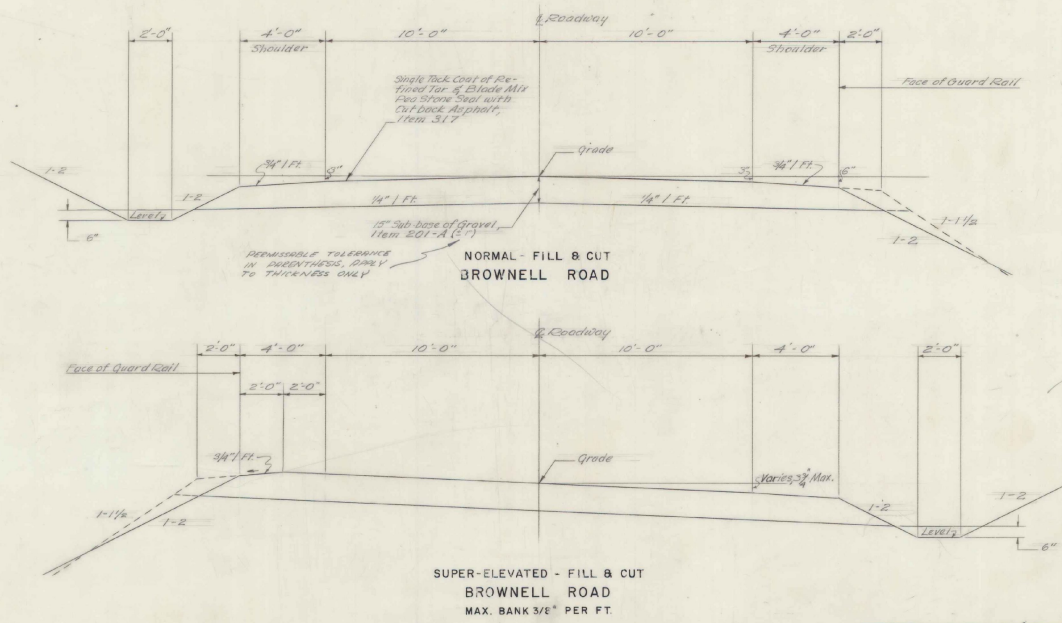
ALTERNATE A - 2-2 1/2" PENETRATION MACADAM CRUSHED STONE BASE COURSE, ITEM 215
ALTERNATE B - 2-2 1/2" CRUSHED GRAVEL PLANT MIXED BASE COURSE, ITEM 213 MODIFIED



PERMISSIBLE TOLERANCES IN PARENTHESES APPLY TO THICKNESS ONLY.

Single Tack Coat of Refined Tar & Bitum
 Mix Pea Stone Seal with Outback Asphalt
 Item 317 (15") Sub-Base of Gravel, Item 201-A.

CONSTRUCTED AS DESIGNED



NOTE: BROWNELL ROAD IS TO BE BUILT IN ITS ENTIRETY DURING STAGE I CONSTRUCTION

General Notes No 1 thru 5 & 7 thru 9 on Sheet No 2 Apply to these Typical Sections.

SEEDING, ITEM 611 (Lawns)

The seeding formula and rate of application as follows:

% Weight	Lbs/acre	Name	% Germ	% Purity
10	10	Creeping Red Fescue	82	97
9	9	Red Top	90	92
44	35	Kentucky Blue Grass	77	90
9	9	Dutch White Clover	80	90
	35			

Commercial Fertilizer for Grasses will be used with Seeding, Item 611 (Lawns) at the rate of 800 pounds per Acre.

SCALE 3/8"

STATE OF VERMONT DEPARTMENT OF HIGHWAYS INTERSTATE PROJECT IN THE TOWNS OF WILLISTON, SOUTH BURLINGTON
TYPICAL SECTIONS BROWNELL ROAD
BOSWELL ENGINEERING CO. CONSULTING ENGINEERS RISFIELD, VERMONT
PROJECT NO. I-69-3 (14) SHEET 4 OF 115

QUANTITY SHEET

APPROXIMATE SUMMARY OF QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITIES		ITEM NO.
			AMOUNT	UNIT	
100	COMMON EXCAVATION	(750)	110,000	C.Y.	101-A
101	SOLID ROCK EXCAVATION	(10)	3,000	C.Y.	101-B
102	BOBROW	(3000)	31,000	C.Y.	102
103	GRAVEL BORROW	(3000)	25,000	C.Y.	103-A
104	TRENCH EXCAVATION OF EARTH	(1000)	70	C.Y.	104-A
105	CLEARING & GRUBBING, MIN. (EXCEPT UNDERPAV.)	(100)	1	L.S.	105
106	FINE GRADING SUB-BASE	(272)	5,000	S.Y.	106
107	CHANNEL EXCAVATION OF EARTH	(1000)	2,850	C.Y.	107-A
108	CHANNEL EXCAVATION OF ROCK (EST.)	(1000)	200	C.Y.	108-B
109	STRUCTURE EXCAVATION	(100)	900	C.Y.	109
110	ROADWAY PATROL MAINTENANCE (EST.)	(100)	50	DAY	110
111	DUST CONTROL (EST.)	(100)	800	TON	111-A
112	DRILLING & BLASTING OF SOLID ROCK UNDERPAV.	(100)	5,300	S.Y.	112
113	ROCK EXCAVATION UNBLENDED	(256)	5,500	C.Y.	113
114	BULLDOZER RENTAL (EST.)	(305)	15	HR.	114
115	DUST CONTROL w/CALCIUM CHLORIDE (EST.)	(12)	15	TON	115
116	POWER GRADER RENTAL (EST.)	(100)	30	HR.	116
117	SUB-BASE OF GRAVEL	(201-A)	2,300	C.Y.	117
118	SUB-BASE OF SAND	(302)	128	C.Y.	118
119	SUB-BASE OF CRUSHED ROCK W/OD. UNDER STRUCTURE	(205)	15,000	C.Y.	119
120	GRAVEL UNDERPAV. (100)	(100)	150	C.Y.	120
121	GRAVEL BASELAYS	(100)	800	C.Y.	121
122	STRIPPING OF GRAVEL PITS (EST.)	(288)	3,000	SAL.	122
123	SINGLE TACK COAT OF ASPHALT FOR ROAD BUILT	(140)	371	SAL.	123
124	2% TACK SEAL WITH CUTBACK ASPHALT	(318)	1,500	SAL.	124
125	OUTRACK ASPHALT (EST.)	(322)	118	TON	125
126	BETHUNHOLM CONCRETE PAINTMENT (MOD.)	(361-A)	150	L.F.	126
127	JOINT SEALER, HOT POLYMER-ELASTIC TYPE	(372)	1,178	L.B.	127
128	CONCRETE CLASS 8, MOD.	(381-B)	181,040	LBS.	128
129	REINFORCING STEEL	(388)	1.4	TON	129
130	SPIRAL REINFORCEMENT (3000) (4100-70, 43)	(395)	1.3	TON	130
131	STRUCTURAL STEEL	(397-A)	372,198	LBS.	131
132	ASPHALTIC FIBERED GRADING	(407)	47	S.Y.	132
133	GRANITE RUBBLE MASONRY	(411)	130	C.Y.	133
134	8" PLAIN CAST IRON PIPE (600)	(420)	280	L.F.	134
135	10" REINFORCED CONCRETE PIPE (108)	(421-B)	1,120	L.F.	135
136	24" REINFORCED CONCRETE PIPE (EST.)	(421-C)	100	L.F.	136
137	30" REINFORCED CONCRETE PIPE	(421-D)	268	L.F.	137
138	60" REINFORCED CONCRETE PIPE	(421-E)	192	L.F.	138
139	18" ASPHALT CORR. GALV. METAL PIPE (120)	(421-F)	80	L.F.	139
140	24" CORR. GALV. METAL PIPE (EST.)	(421-G)	100	L.F.	140
141	RELAYING PIPE CULVERTS (EST.)	(421-H)	270	L.F.	141
142	30" CORR. GALV. MET. FLAT PIPE 1116 FT & 22470	(421-I)	1	L.F.	142
143	30" CORR. GALV. MET. FLAT PIPE 1116 FT & 22470	(421-J)	1	L.F.	143
144	70" CORR. GALV. MET. FLAT PIPE 1116 FT & 22470	(421-K)	1	L.F.	144
145	70" CORR. GALV. MET. FLAT PIPE 1116 FT & 22470	(421-L)	1	L.F.	145
146	100" CORR. GALV. MET. FLAT PIPE 1116 FT & 22470	(421-M)	1	L.F.	146
147	100" CORR. GALV. MET. FLAT PIPE 1116 FT & 22470	(421-N)	1	L.F.	147
148	NON-GOVERNMENT PARTICIPATION	(421-O)	100	C.Y.	148
149	TRENCH EXCAVATION OF EARTH	(421-P)	280	L.F.	149
150	8" CAST IRON PIPE (600)	(421-Q)	280	L.F.	150
151	CHANNEL EXCAVATION OF EARTH	(421-R)	204	C.Y.	151
152	CULVERTS, INTERSTATE	(421-S)	4,026	C.Y.	152
153	STREAM RELOCATIONS, INTERSTATE	(421-T)	2,650	C.Y.	153
154	STREAM RELOCATIONS, BROWNELL RD.	(421-U)	7,180	C.Y.	154
155	STRUCTURE EXCAVATION	(421-V)	800	C.Y.	155
156	CULVERTS, INTERSTATE	(421-W)	212	C.Y.	156
157	CULVERTS, BROWNELL ROAD	(421-X)	618	C.Y.	157
158	STEEL PILING	(421-Y)	1,500	L.F.	158
159	STEEL PILING	(421-Z)	1,000	L.F.	159
160	STEEL PILING	(421-AA)	1,000	L.F.	160
161	STEEL PILING	(421-AB)	1,000	L.F.	161
162	STEEL PILING	(421-AC)	1,000	L.F.	162
163	STEEL PILING	(421-AD)	1,000	L.F.	163
164	STEEL PILING	(421-AE)	1,000	L.F.	164
165	STEEL PILING	(421-AF)	1,000	L.F.	165
166	STEEL PILING	(421-AG)	1,000	L.F.	166
167	STEEL PILING	(421-AH)	1,000	L.F.	167
168	STEEL PILING	(421-AI)	1,000	L.F.	168
169	STEEL PILING	(421-AJ)	1,000	L.F.	169
170	STEEL PILING	(421-AM)	1,000	L.F.	170
171	STEEL PILING	(421-AN)	1,000	L.F.	171
172	STEEL PILING	(421-AO)	1,000	L.F.	172
173	STEEL PILING	(421-AP)	1,000	L.F.	173
174	STEEL PILING	(421-AQ)	1,000	L.F.	174
175	STEEL PILING	(421-AR)	1,000	L.F.	175
176	STEEL PILING	(421-AS)	1,000	L.F.	176
177	STEEL PILING	(421-AT)	1,000	L.F.	177
178	STEEL PILING	(421-AU)	1,000	L.F.	178
179	STEEL PILING	(421-AV)	1,000	L.F.	179
180	STEEL PILING	(421-AW)	1,000	L.F.	180
181	STEEL PILING	(421-AX)	1,000	L.F.	181
182	STEEL PILING	(421-AY)	1,000	L.F.	182
183	STEEL PILING	(421-AZ)	1,000	L.F.	183
184	STEEL PILING	(421-BA)	1,000	L.F.	184
185	STEEL PILING	(421-BB)	1,000	L.F.	185
186	STEEL PILING	(421-BC)	1,000	L.F.	186
187	STEEL PILING	(421-BD)	1,000	L.F.	187
188	STEEL PILING	(421-BE)	1,000	L.F.	188
189	STEEL PILING	(421-BF)	1,000	L.F.	189
190	STEEL PILING	(421-BG)	1,000	L.F.	190
191	STEEL PILING	(421-BH)	1,000	L.F.	191
192	STEEL PILING	(421-BI)	1,000	L.F.	192
193	STEEL PILING	(421-BJ)	1,000	L.F.	193
194	STEEL PILING	(421-BK)	1,000	L.F.	194
195	STEEL PILING	(421-BL)	1,000	L.F.	195
196	STEEL PILING	(421-BM)	1,000	L.F.	196
197	STEEL PILING	(421-BN)	1,000	L.F.	197
198	STEEL PILING	(421-BO)	1,000	L.F.	198
199	STEEL PILING	(421-BP)	1,000	L.F.	199
200	STEEL PILING	(421-BQ)	1,000	L.F.	200
201	STEEL PILING	(421-BR)	1,000	L.F.	201
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203	STEEL PILING	(421-BT)	1,000	L.F.	203
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205	STEEL PILING	(421-BV)	1,000	L.F.	205
206	STEEL PILING	(421-BW)	1,000	L.F.	206
207	STEEL PILING	(421-BX)	1,000	L.F.	207
208	STEEL PILING	(421-BY)	1,000	L.F.	208
209	STEEL PILING	(421-BZ)	1,000	L.F.	209
210	STEEL PILING	(421-CA)	1,000	L.F.	210
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212	STEEL PILING	(421-CC)	1,000	L.F.	212
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215	STEEL PILING	(421-CD)	1,000	L.F.	215
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281	STEEL PILING	(421-CE)	1,000	L.F.	281
282	STEEL PILING	(421-CE)	1,000	L.F.	282
283					

FINAL EARTHWORK SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

Left Side Data												Right Side Data											
STATION	DIST	AREA	CU YDS	AREA	CU YDS	AREA	CU YDS	AREA	CU YDS	AREA	CU YDS	STATION	DIST	AREA	CU YDS	AREA	CU YDS	AREA	CU YDS	AREA	CU YDS	AREA	CU YDS
DRAIN CONTRACT #1																							
1875	50	121	725									1877	50	121	725								
1876	50	121	725									1878	50	121	725								
1877	50	121	725									1879	50	121	725								
1878	50	121	725									1880	50	121	725								
1879	50	121	725									1881	50	121	725								
1880	50	121	725									1882	50	121	725								
1881	50	121	725									1883	50	121	725								
1882	50	121	725									1884	50	121	725								
1883	50	121	725									1885	50	121	725								
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1924	50	121	725									1926	50	121	725								
1925	50	121	725									1927	50	121	725								
1926	50	121	725									1928	50	121	725								
1927	50	121	725									1929	50	121	725								
1928	50	121	725									1930	50	121	725								
1929	50	121	725									1931	50	121	725								
1930	50	121	725									1932	50	121	725								
1931	50	121	725									1933	50	121	725								
1932	50	121	725									1934	50	121	725								
1933	50	121	725									1935	50	121	725								
1934	50	121	725									1936	50	121	725								
1935	50	121	725									1937	50	121	725								
1936	50	121	725									1938	50	121	725								
1937	50	121	725									1939	50	121	725								
1938	50	121	725									1940	50	121	725								
1939	50	121	725									1941	50	121	725								
1940	50	121	725									1942	50	121	725								
1941	50	121	725									1943	50	121	725								
1942	50	121	725									1944	50	121	725								
1943	50	121	725									1945	50	121	725								
1944	50	121	725									1946	50	121	725								
1945	50	121	725									1947	50	121	725								
1946	50	121	725									1948	50	121	725								
1947	50	121	725									1949	50	121	725								
1948	50	121	725									1950	50	121	725								
1949	50	121	725									1951	50	121	725								
1950	50	121	725									1952	50	121	725								
1951	50	121	725									1953	50	121	725								
1952	50	121	725									1954	50	121	725								
1953	50	121	725									1955	50	121	725								
1954	50	121	725									1956	50	121	725								
1955	50	121	725									1957	50	121	725								
1956	50	121	725									1958	50	121	725								
1957	50	121	725									1959	50	121	725								
1958	50	121	725									1960	50	121	725								
1959	50	121	725									1961	50	121	725								
1960	50	121	725									1962	50	121	725								
1961	50	121	725									1963	50	121	725								
1962	50	121	725																				

FINAL EARTHWORK SUMMARY SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

NOTES	STATIONS	TOTAL EXCAVATION			PILE			EMBANKMENT			BASE			NOTES
		DESIGN	FINAL	DIFFERENCE	DESIGN	FINAL	DIFFERENCE	DESIGN	FINAL	DIFFERENCE	DESIGN	FINAL	DIFFERENCE	
	SOUTH BOUND													
	1875+0 - 1880+0	5058	5326				741	829						
	1885+0 - 1890+0	0	0				16890	16831						
	1895+0 - 1890+0	0	0				8598	8547						
	1890+0 - 1895+0	371	733				1314	1394						
	1895+0 - 1900+0	6455	6945	0	0		4300	4306						
	1900+0 - 1905+0	19767	16158	2647	660		874	874				182		
	1905+0 - 1910+0	0	0	0	0		5227	5227						
	1910+0 - 1915+0	2410	2966				6527	6527						
	1915+0 - 1920+0	12036	19415				0	0						
	1920+0 - 1925+0	6213	4571				211	204						
	1925+0 - 1930+0	2032	2678				152	0						
	1930+0 - 1935+0	11432	12915	5210	5202		0	0					1434	
	1935+0 - 1940+0	843	1250	0	0		772	772						
	1940+0 - 1945+0	45	37				787	787						
	TOTALS	67344	75212	5636	6507		55260	55441					1471	
	NORTH BOUND													
	1875+0 - 1880+0	83	142				1514	1514						
	1880+0 - 1885+0	0	0				1161	19402						
	1885+0 - 1890+0	17	34				477	477						
	1890+0 - 1895+0	2432	2465				427	427						
	1895+0 - 1900+0	6455	6424				3474	3474						
	1900+0 - 1905+0	14912	11383				2064	2064						
	1905+0 - 1910+0	0	0				14639	14617						
	1910+0 - 1915+0	1773	1915				1429	10229						
	1915+0 - 1920+0	1172	11286				0	0						
	1920+0 - 1925+0	1886	1849	0	0		3507	2302						
	1925+0 - 1930+0	172	205	17	0		394	2394						
	1930+0 - 1935+0	5584	2388	3206	2700		57	35					528	
	1935+0 - 1940+0	7	449	0	0		8107	1920						
	1940+0 - 1945+0	25	17				6700	6700						
	TOTALS	40515	43557	2225	2500		85589	84381					528	
	TRUCKING ROAD													
	11+50 - 15+0	127	117				1120	1137						
	15+0 - 20+0	0	0				16785	16783						
	20+0 - 25+0	0	0				20466	20466						
	25+0 - 30+0	278	156				2725	2725						
	30+0 - 34+0	0	120				0	0						
	TOTALS	425	413				41266	41266						
	TOTALS	110284	117187	7561	7007		185065	181038					2174	

COLUMN SUMMARY									
SHEET	COLUMN	EXCAVATION	PILE	EMBANKMENT	BASE	REMARKS	QUANTITY	UNIT	VALUE
1	1	6065	0	30243					
	2	33471	460	15174					182
	3	35477	5267	2271					1987
2	1	182	0	4492					
	2	20306	0	12023					
	3	15255	0	25810					528
3	1	485	6500	3707					
	2	318	0	4217					
	3	45	0	0					
TOTALS		117187	7007	181038					2174
REMARKS									
EARTH & ROCK EXCAVATION									
SOLID VOL EXCAVATION									
EARTH EXCAVATION									
117187									
PLANIMETERED FILL									
LESS COVERED SOLID FILL									
LESS DEDUCTIBLE OF ANY LARGE STRUCTURES									
NET PLANIMETERED FILL									
FACTORS 1.12									
PLANIMETERED FILL INCLUDING FACTOR									
181038									
MATERIALS AVAILABLE FOR FILL									
EARTH EXCAVATION									
UNDERSEAL EXCAVATION									
STRUCTURE EXCAVATION									
WASTE EXCAVATION									
MILL EXCAVATION									
WASTE EQU									
TOTAL MATERIALS AVAILABLE FOR FILL									
TOTAL FILL INCLUDING FACTOR									
TOTAL MATERIAL FOR FILL									
BORROW									
ADJUSTING BORROW									
EXCESS BORROW									
53288									
126									

THREE CABLE GUARD RAIL WITH STEEL POSTS ITEM 543 *
 STA 1875+00 TO STA. 1883+50 NB RT.

STANDARD STEEL BEAM GUARD RAIL ITEM 547-A *
 STA 1875 + 75 TO STA. 1876+20 NB LT.
 STA 1875 + 49 TO STA. 1876+03 SB LT.
 STA. 1875 + 69 TO STA. 1876+23 SB RT.

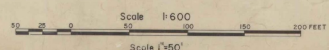
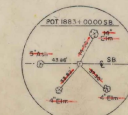
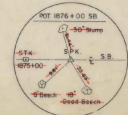
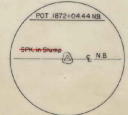
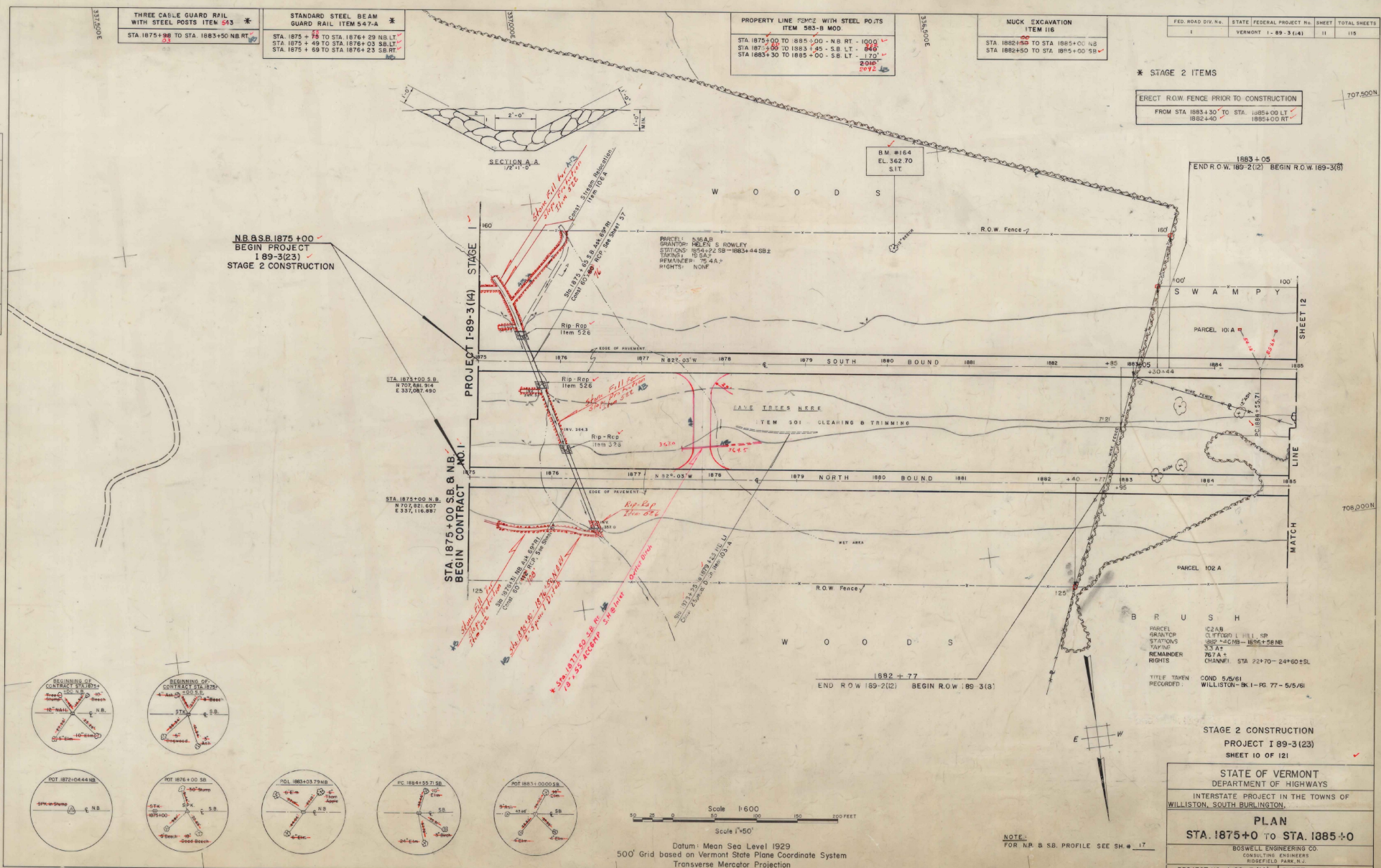
PROPERTY LINE FENCE WITH STEEL POSTS ITEM 583-B MOD
 STA 1875+00 TO 1885+00 - NB RT - 1000'
 STA 1875+00 TO 1883+00 - S.B. LT. - 848'
 STA 1883+30 TO 1885+00 - S.B. LT. - 170'
 2016'
 2072'

MUCK EXCAVATION ITEM 116
 STA 1882+00 TO STA. 1885+00 NB
 STA 1882+40 TO STA. 1885+00 SB

FED. ROAD DIV. No.	STATE FEDERAL PROJECT No.	SHEET	TOTAL SHEETS
1	VERMONT 1-89-3(14)	11	115

* STAGE 2 ITEMS
 ERECT R.O.W. FENCE PRIOR TO CONSTRUCTION
 FROM STA 1883+30 TO STA. 1885+00 LT.
 1882+40 TO STA. 1885+00 RT.

PLAN	DESIGNED	BY
	DRAWN	BY
	CHECKED	BY
	IN CHARGE	BY



Datum: Mean Sea Level 1929
 500' Grid based on Vermont State Plane Coordinate System
 Transverse Mercator Projection

NOTE:
 FOR N.B. & S.B. PROFILE SEE SH. # 17

STAGE 2 CONSTRUCTION
 PROJECT I 89-3 (23)
 SHEET 10 OF 121

STATE OF VERMONT
 DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWNS OF
 WILLISTON, SOUTH BURLINGTON,

PLAN
 STA. 1875+0 TO STA. 1885+0

BOSWELL ENGINEERING CO.
 CONSULTING ENGINEERS
 ROSELAND PARK, N.J.

PROJECT NO. I-89-3 (14) SHEET 11 OF 115

STAGE 1 CONTRACT 1

THREE CABLE GUARD RAIL WITH STEEL POST-ITEM 543
 STA 1906+78 TO STA 1907+43 NB RT
 STA 1906+61 TO STA 1909+28 SB RT
 STA 1908+44 TO STA 1909+26 N.B. RT
 STA 1907+07 TO STA 1907+63 S.B. RT

MUCK EXCAVATION ITEM 116
 STA 1904+00 TO STA 1906+00 NB
 STA 1904+00 TO STA 1908+00 S.B.

DRILLING & BLASTING OF SOLID ROCK SUBGRADE MOD ITEM 114
 STA 1900+00 TO STA 1903+00 S.B.

PAVED DITCH - ITEM 361-B
 STA 1900+59 TO 1900+84 NB LT
 STA 1900+75 TO 1900+59 SB LT
 STA 1915+08 TO 1913+77 NB LT
 STA 1909+28 TO 1909+53 SB RT
 STA 1908+15 TO 1908+95 SB RT

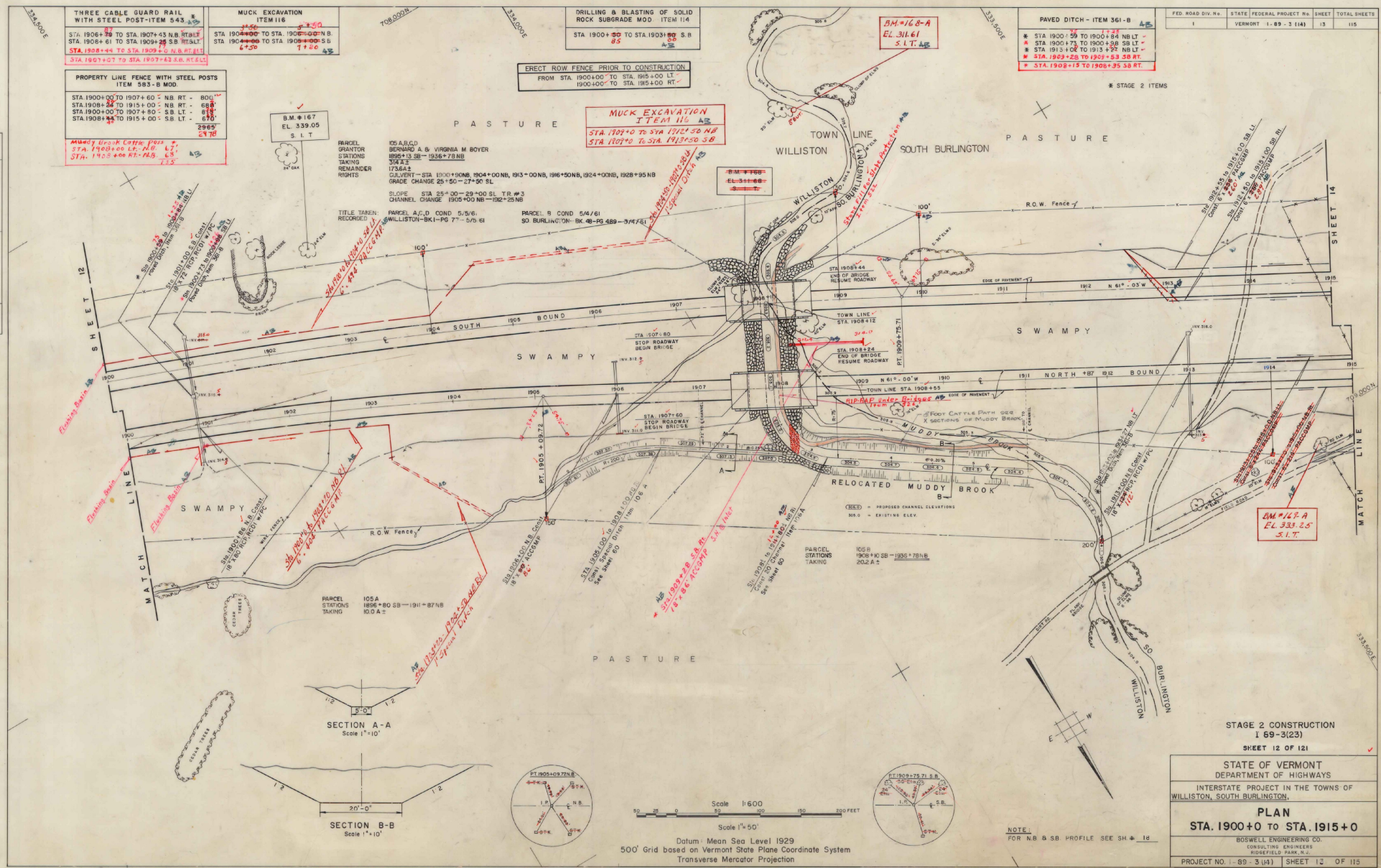
FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No.	SHEET	TOTAL SHEETS
1	VERMONT	1-89-3 (14)	13	115

PROPERTY LINE FENCE WITH STEEL POSTS ITEM 583-B MOD
 STA 1900+00 TO 1907+60 - NB RT - 80'
 STA 1908+24 TO 1915+00 - NB RT - 68'
 STA 1900+00 TO 1907+80 - S.B. LT - 215'
 STA 1908+15 TO 1915+00 - S.B. LT - 67'
 2965' 2170'

ERECT ROW FENCE PRIOR TO CONSTRUCTION
 FROM STA 1900+00 TO STA 1915+00 LT
 1900+00 TO STA 1915+00 RT

MUCK EXCAVATION ITEM 116 AS
 STA 1907+00 TO STA 1912+50 NB
 STA 1907+00 TO STA 1913+50 SB

PLAN	REVISED	DATE	BY



STAGE 2 CONSTRUCTION
 1 69-3(23)
 SHEET 12 OF 121

STATE OF VERMONT
 DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWNS OF
 WILLISTON, SOUTH BURLINGTON,

PLAN
 STA. 1900+0 TO STA. 1915+0

BOSWELL ENGINEERING CO.
 CONSULTING ENGINEERS
 RIDGEBURY PARK, N.Y.

PROJECT NO. 1-89-3 (14) SHEET 12 OF 115

DATE: 1989

DRILLING & BLASTING OF SOLID ROCK SUBGRADE MOD. ITEM 114
 STA. 1928+50 TO STA. 1930+00 N.B.
 STA. 1928+00 TO STA. 1930+00 S.B.
 30' ± 2.5'

PLANTING TREES, SHRUBS AND VINES - ITEM 631 MOD. *
 SEE SHADED AREA

PAVED DITCH ITEM 561-B *
 STA. 1916+74 TO 1916+99 S.B. ✓
 STA. 1916+74 TO 1916+99 S.B. LT ✓
 STA. 1920+24 TO 1920+49 S.B. ✓
 STA. 1920+24 TO 1920+49 S.B. LT ✓

PROPERTY LINE FENCE WITH STEEL POSTS
 ITEM 583-B MOD.
 STA. 1915+00 TO 1930+00 - N.B. RT - 1520' ✓
 STA. 1915+00 TO 1930+00 - S.B. LT - 1470' ✓
 2990' ✓

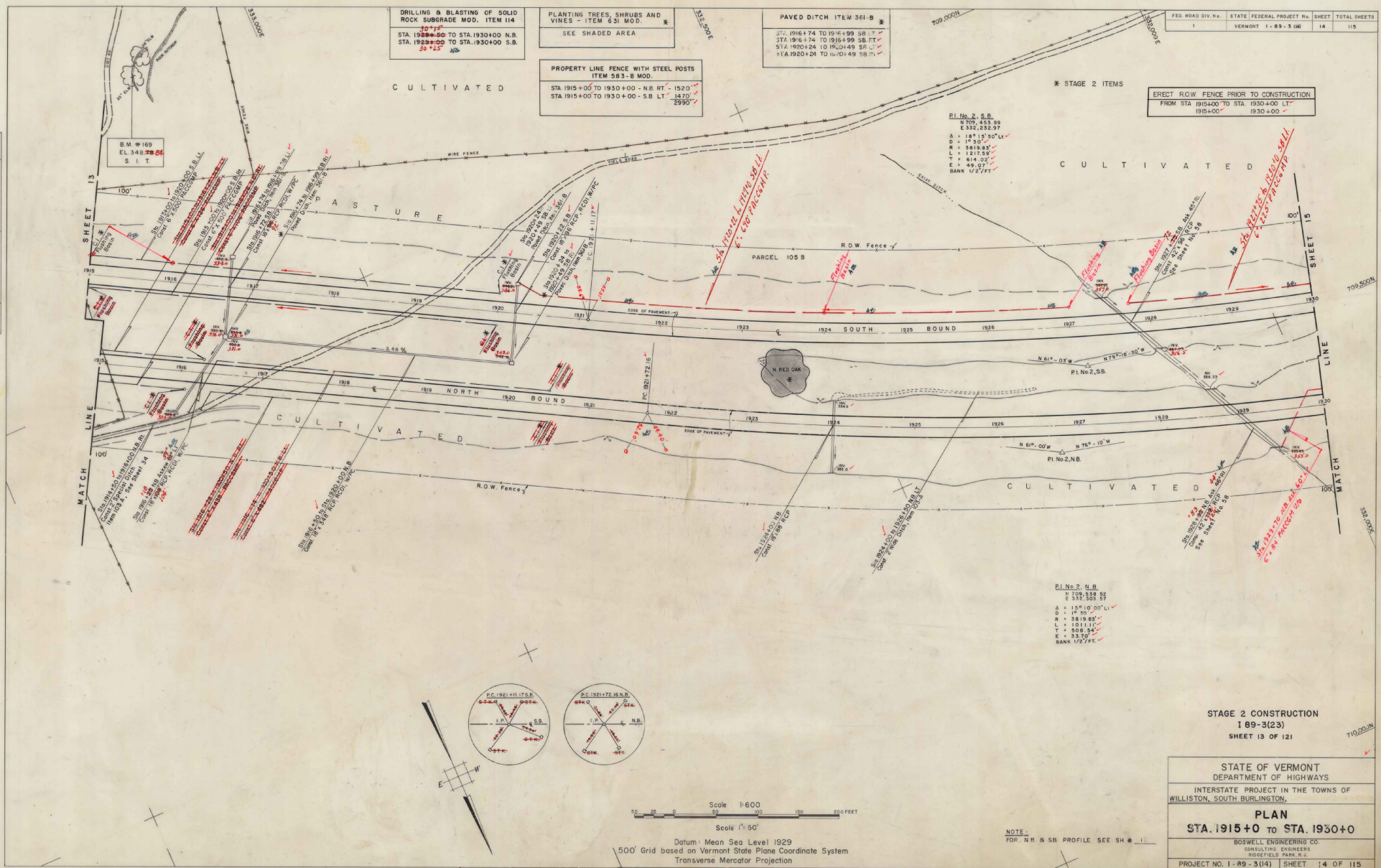
FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No.	SHEET	TOTAL SHEETS
1	VERMONT	1-89-3 (40)	14	115

* STAGE 2 ITEMS
 ERECT R.O.W. FENCE PRIOR TO CONSTRUCTION
 FROM STA. 1915+00 TO STA. 1930+00 LT - 1930+00 ✓

PI No. 2, S.B.
 Δ = 187° 15' 50" LT ✓
 D = 17' 30" ✓
 R = 3819.83' ✓
 L = 1217.35' ✓
 T = 614.02' ✓
 E = 489.07' ✓
 BANK 1/2' FT ✓

PI No. 2, N.B.
 Δ = 127° 10' 00" LT ✓
 D = 17' 30" ✓
 R = 3819.83' ✓
 L = 1217.35' ✓
 T = 508.54' ✓
 E = 237.07' ✓
 BANK 1/2' FT ✓

PLAN	DESIGNED	BY
REVISED	CHECKED	
DATE	BY	
BY	CHECKED	
DATE	BY	



STAGE 2 CONSTRUCTION
 189-3(23)
 SHEET 13 OF 121

STATE OF VERMONT
 DEPARTMENT OF HIGHWAYS
 INTERSTATE PROJECT IN THE TOWNS OF
 WILLISTON, SOUTH BURLINGTON.

PLAN
 STA. 1915+0 TO STA. 1930+0

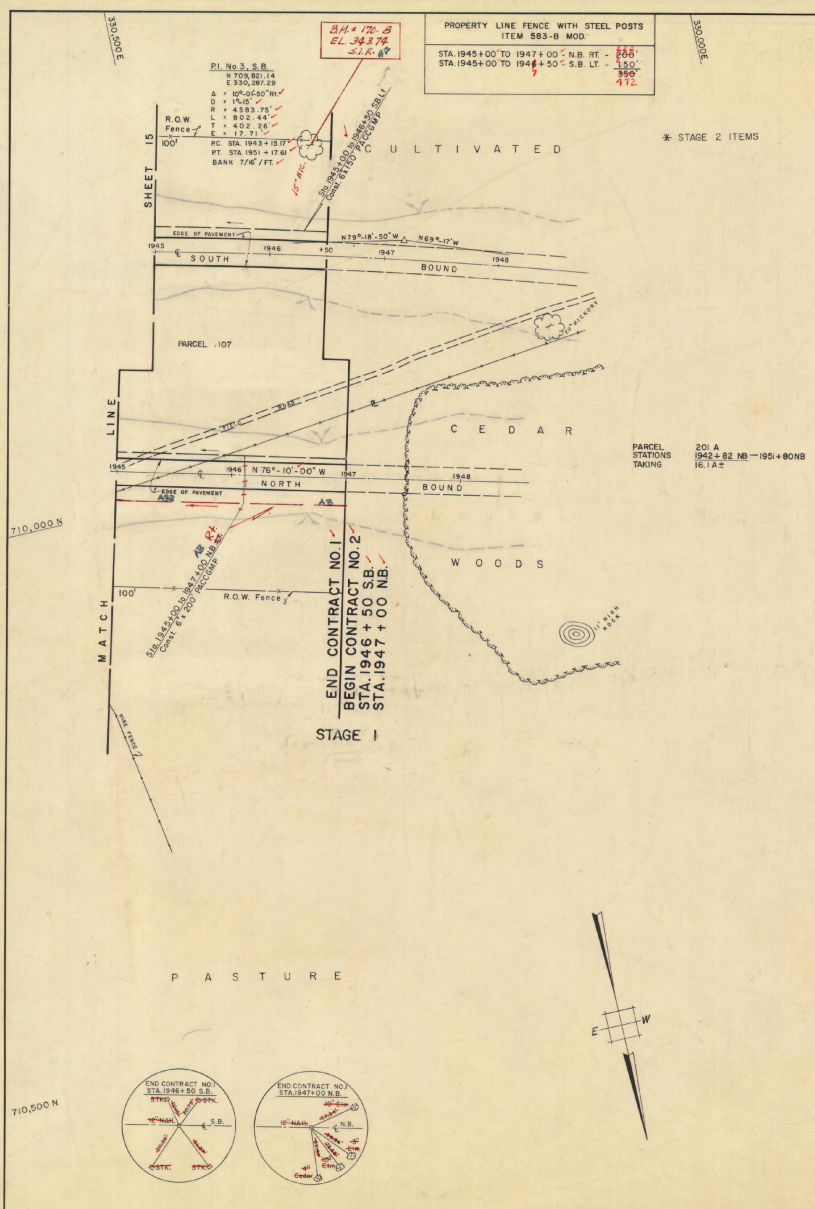
BOSWELL ENGINEERING CO.
 CONSULTING ENGINEERS
 ROSELAND PARK, N.Y.

PROJECT NO. 1-89-3 (14) SHEET 14 OF 115

Scale 1" = 50'
 Datum: Mean Sea Level 1929
 500' Grid based on Vermont State Plane Coordinate System
 Transverse Mercator Projection

NOTE:
 FOR N.B. & S.B. PROFILE SEE SH. 11

FED. ROAD DIV. NO.	STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
1	VERMONT	1-89-3 (4)	16	115



STAGE 2 CONSTRUCTION
 189-3(23)
 SHEET 15 OF 121

STATE OF VERMONT
 DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWNS OF
 WILLISTON, SOUTH BURLINGTON.

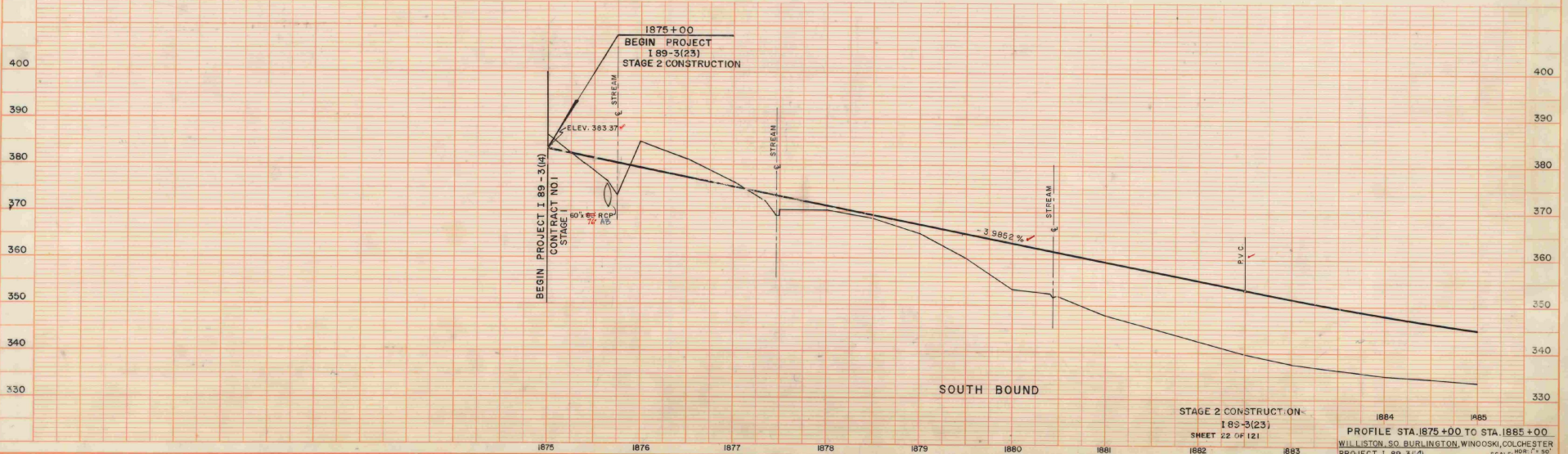
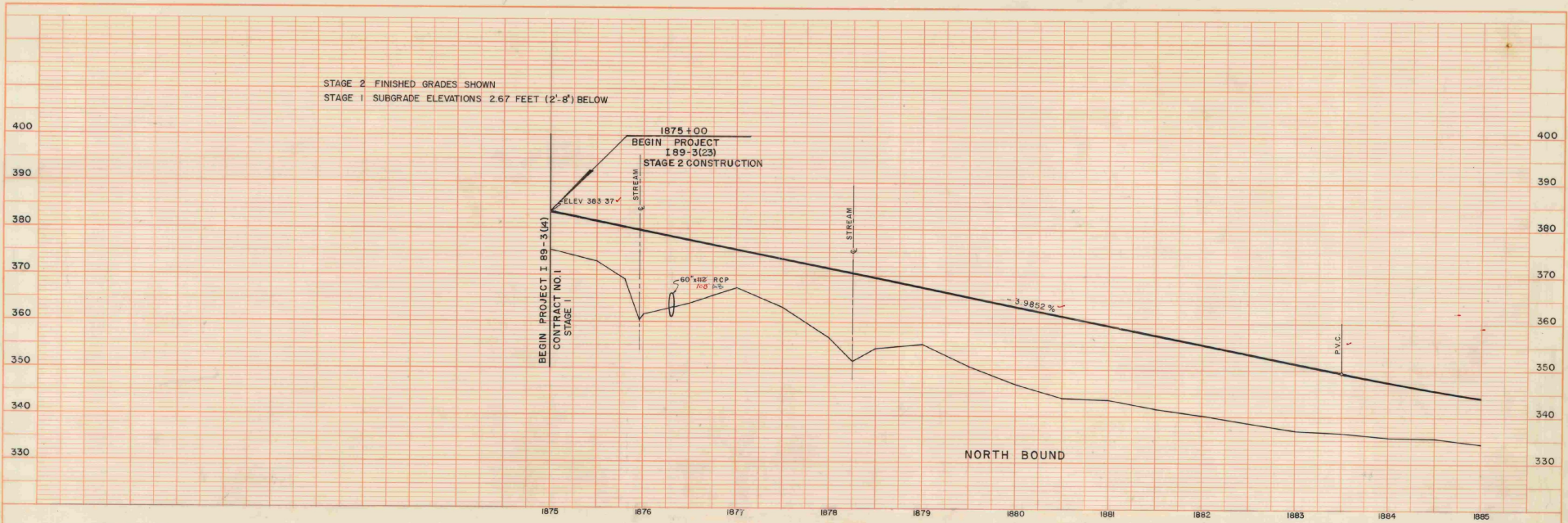
PLAN
STA. 1945+0 TO STA. 1946+50

BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.

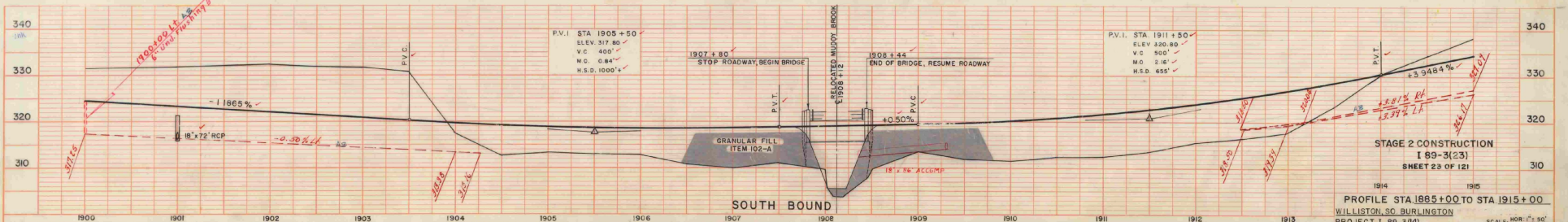
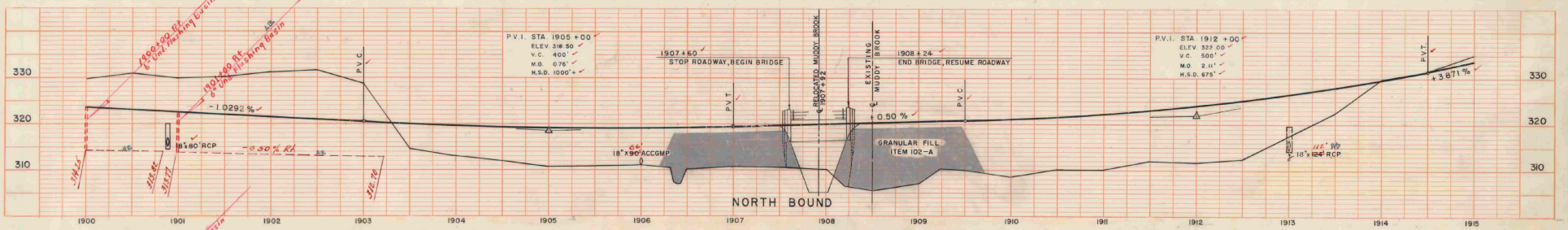
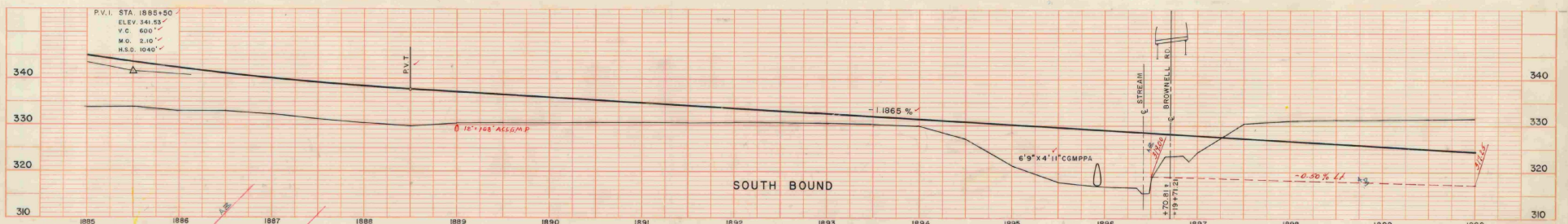
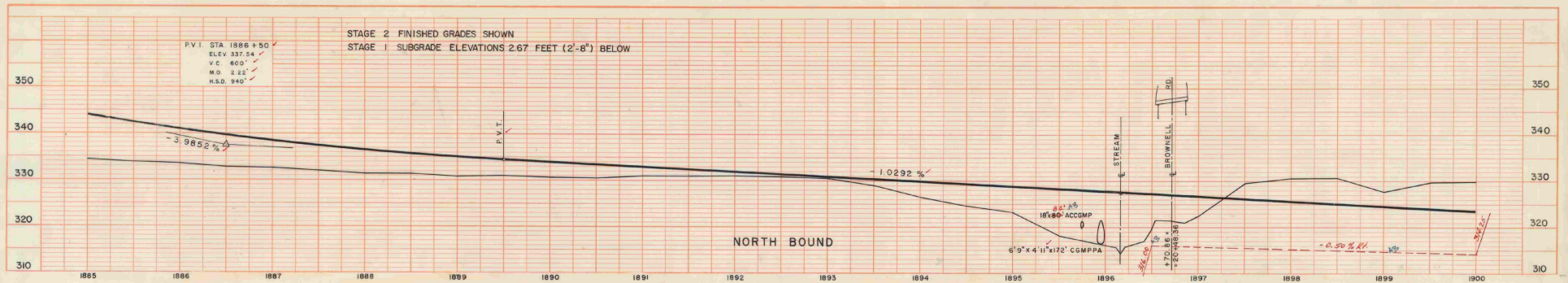
DRAWN BY	IN CHARGE	SCALE
CHECKED BY	DATE	

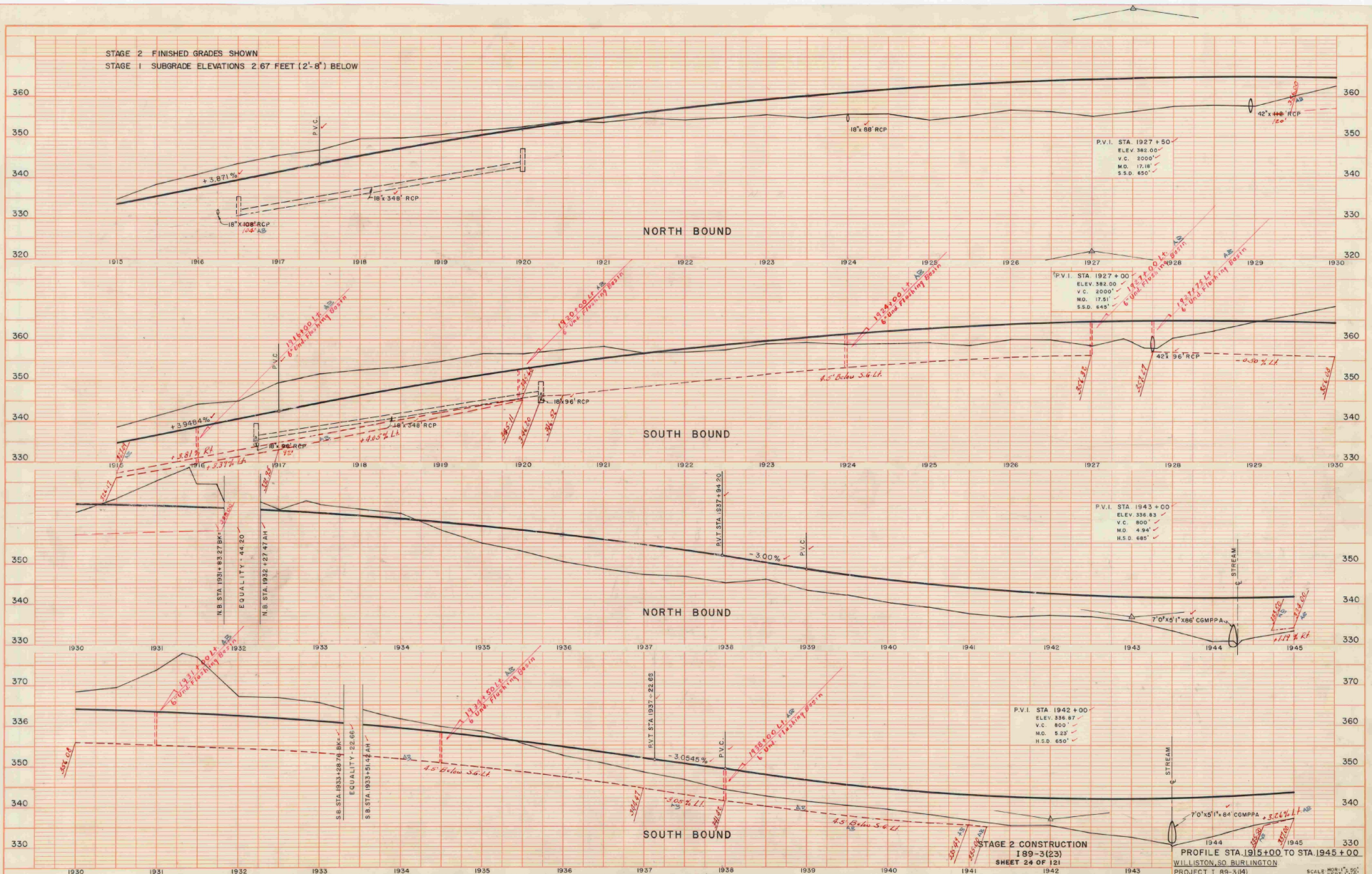
PROJECT NO. 1-89-3 (4) SHEET 16 OF 115

STAGE 2 FINISHED GRADES SHOWN
 STAGE 1 SUBGRADE ELEVATIONS 2.67 FEET (2'-8") BELOW



STAGE 2 CONSTRUCTION -
 189-3(23)
 SHEET 22 OF 121
 1882 1883 1884 1885
 PROFILE STA. 1875+00 TO STA. 1885+00
 WILLISTON, SO. BURLINGTON, WINOOSKI, COLCHESTER
 PROJECT 189-3(4)
 SCALE: HORIZ. 1" = 50'
 VERT. 1" = 10'
 NOTE: FOR N.B. & S.B. PLAN SEE SH # 11
 STAGE 1 SHEET NO. 12 OF 115 CONTRACT #





PAVED DITCH
ITEM 541-B
STA 15+50 RT. W

TWO CABLE GUARD RAIL
WITH WOOD POSTS - ITEM 543
STA 18+44 TO STA 18+80 LT
STA 18+82 TO STA 18+83 RT
STA 21+34 TO STA 22+00 RT
STA 21+38 TO STA 22+00 LT

CONSTRUCT DRIVES
STA 15+25 RT
STA 18+90 LT
STA 18+85 LT

FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No.	SHEET	TOTAL SHEETS
1	VERMONT	1-89-3 (14)	21	115

PARCEL 104 AB
GRANTOR NORA A. LACASSE
STATIONS 1894+20.58 - 1895+60.58
TAKING 0.22±
REMAINDER 249.8±
TITLE TAKEN: WOOD 5/1/61
RECORDED: WILLISTON-BK 27-PG 426-5/1/61

PARCEL 103
GRANTOR TOWN OF WILLISTON
STATIONS 1894+30.58 - 1897+05.18
TAKING 0.3±
REMAINDER RIGHTS
TITLE TAKEN: COOD 5/1/61
RECORDED: WILLISTON-BK 1-PG 77-5/5/61

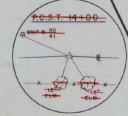
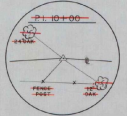
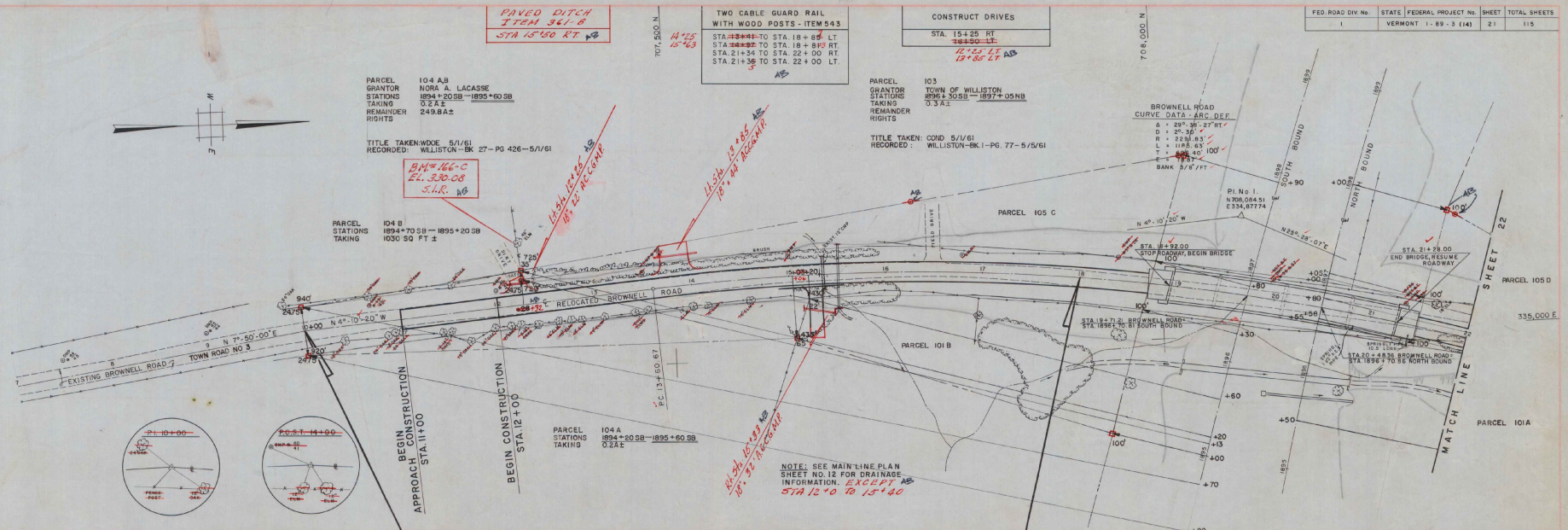
2.91% 165'-0"
ELEV. 330.08
S.H.R. 108

High 12' 0" ±
10' 0" ±
10' 0" ±
10' 0" ±
10' 0" ±

BROWNELL ROAD
CURVE DATA - ARC DEF.

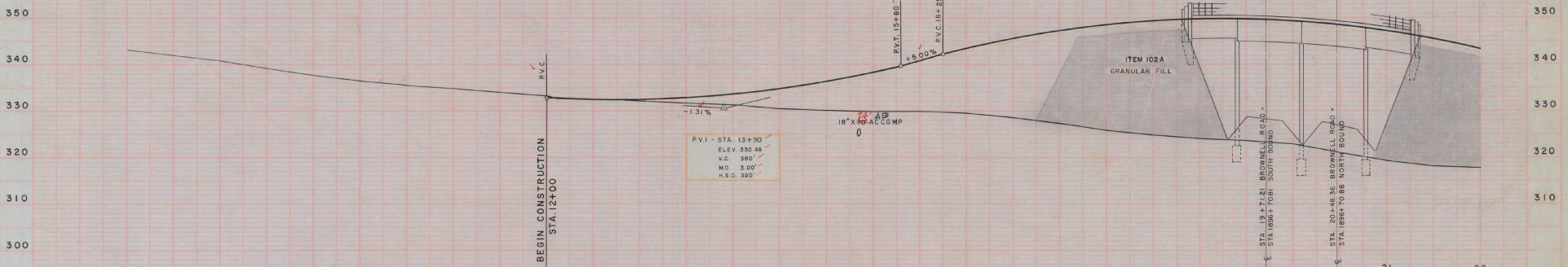
A = 28° 38' 27" RT
D = 25.36'
R = 239.83'
L = 118.83'
T = 88.40'
BANK 5/8' / FT

PI No. 1
N 208.08451
E 234.87774



BEGIN RELINQUISHMENT NO. I
T.H.-3 10+00 CL (800')

END RELINQUISHMENT NO. I
BEGIN MAINT. AGREE. AREA NO. I
T.H.-3 18+00 CL (448')



NOTE: BROWNELL ROAD IS TO BE BUILT IN ITS ENTIRETY DURING STAGE I CONSTRUCTION

21 22

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWNS OF
WILLISTON, SOUTH BURLINGTON,

RELOCATION
BROWNELL ROAD

BOSWELL ENGINEERING CO.
CONSULTING ENGINEERS
ROSELAND PARK, N.J.

PROJECT NO. 1-89-3(14) SHEET 21 OF 115

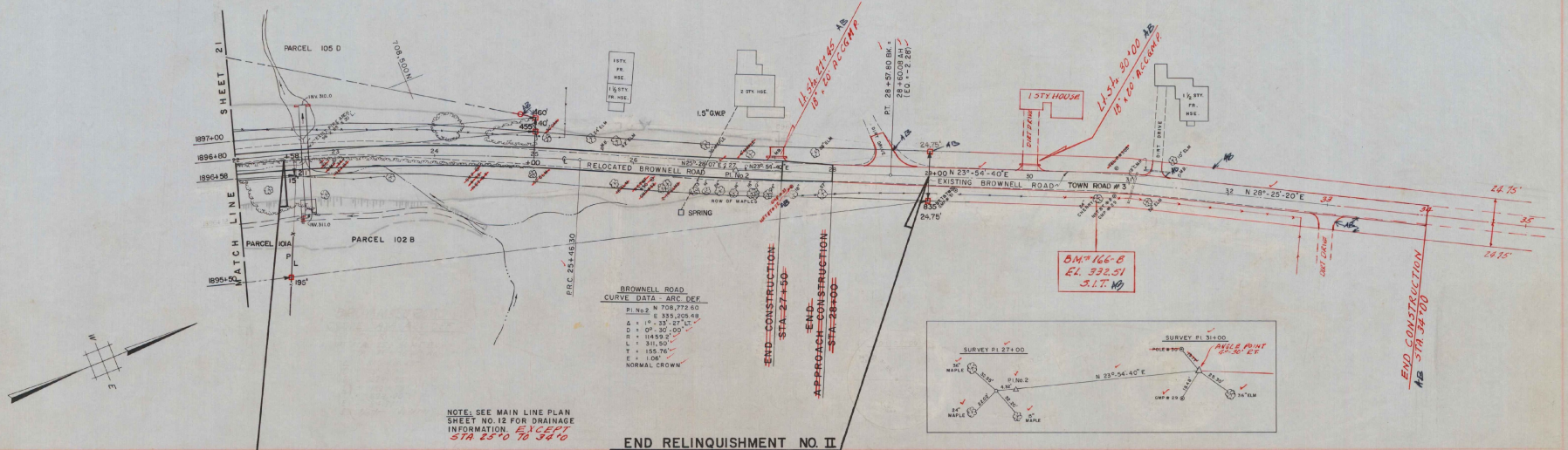
TWO CABLE GUARD RAIL WITH WOOD POSTS - ITEM 54B
 STA 22+00 TO STA 26+94 RT
 STA 22+00 TO STA 26+00 LT

Spec Ditches
 25+63 - 28+34 LT
 24+28 - 31+50 RT

PAVED DITCH ITEM 361A
 STA 24+70 RT NO

CONSTRUCT DRIVES
 STA 27+45 LT
 28+50 LT
 30+00 LT
 31+25 LT
 33+00 RT

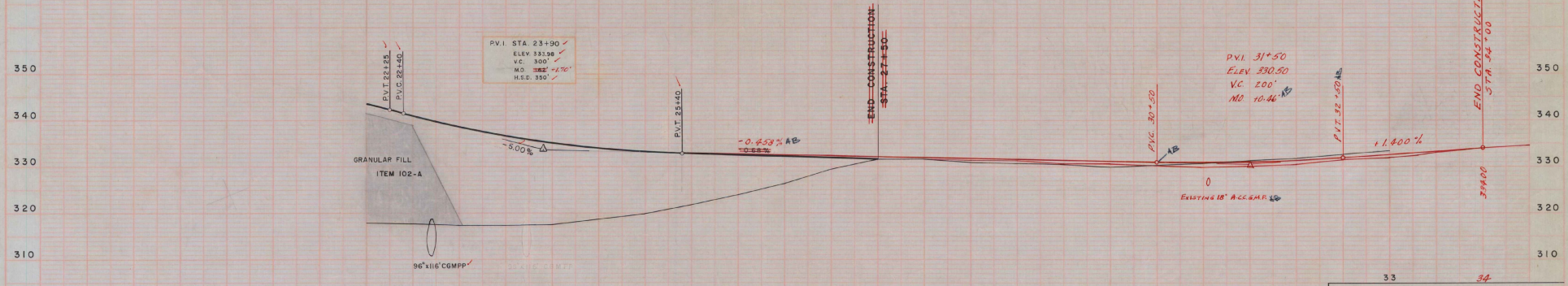
FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No.	SHEET	TOTAL SHEETS
1	VERMONT	1-89-3(14)	22	115



NOTE: SEE MAIN LINE PLAN SHEET NO. 12 FOR DRAINAGE INFORMATION. EXCEPT STA 25+70 TO 34+70

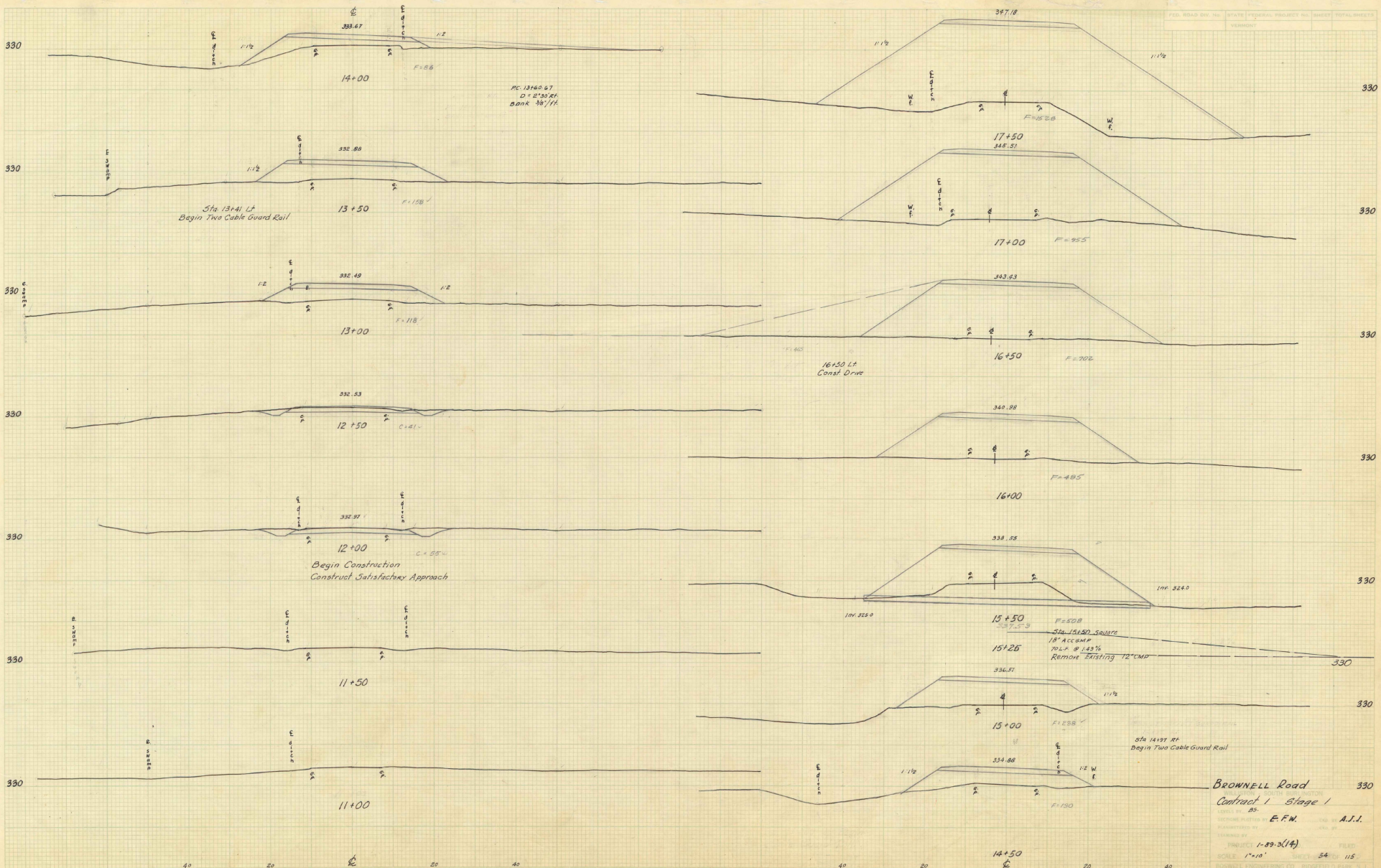
END RELINQUISHMENT NO. II
 T.H.-3 29+00

END MAINT. AGREE. AREA NO. I
 BEGIN RELINQUISHMENT NO. II
 T.H.-3 22+48 (652)



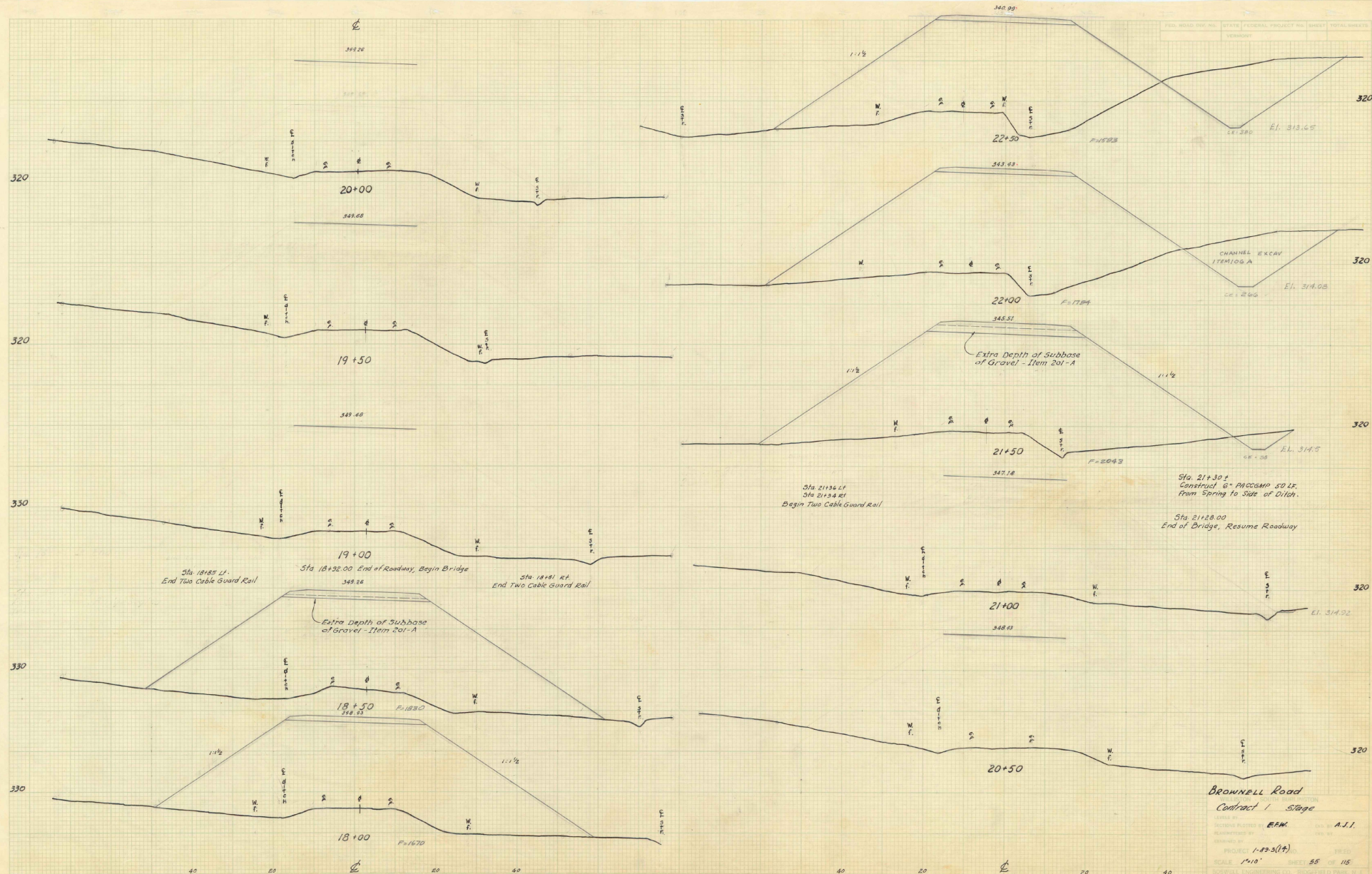
NOTE: BROWNELL ROAD IS TO BE BUILT IN ITS ENTIRETY DURING STAGE I CONSTRUCTION

STATE OF VERMONT
 DEPARTMENT OF HIGHWAYS
 INTERSTATE PROJECT IN THE TOWNS OF
 WILLISTON, SOUTH BURLINGTON,
 RELOCATION
 BROWNELL ROAD
 BOWELL ENGINEERING CO.
 CONSULTING ENGINEERS
 WINDSFIELD PARK, N.J.
 PROJECT NO. 1-89-3(14) SHEET 22 OF 115

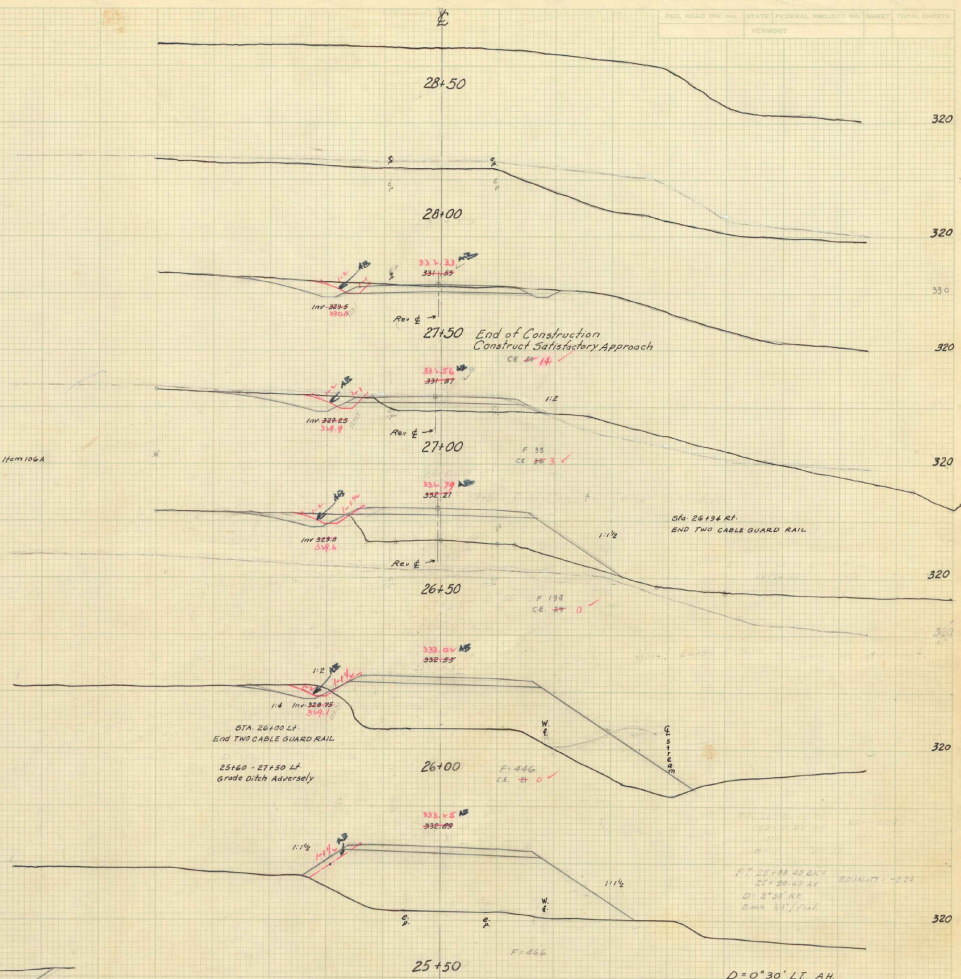
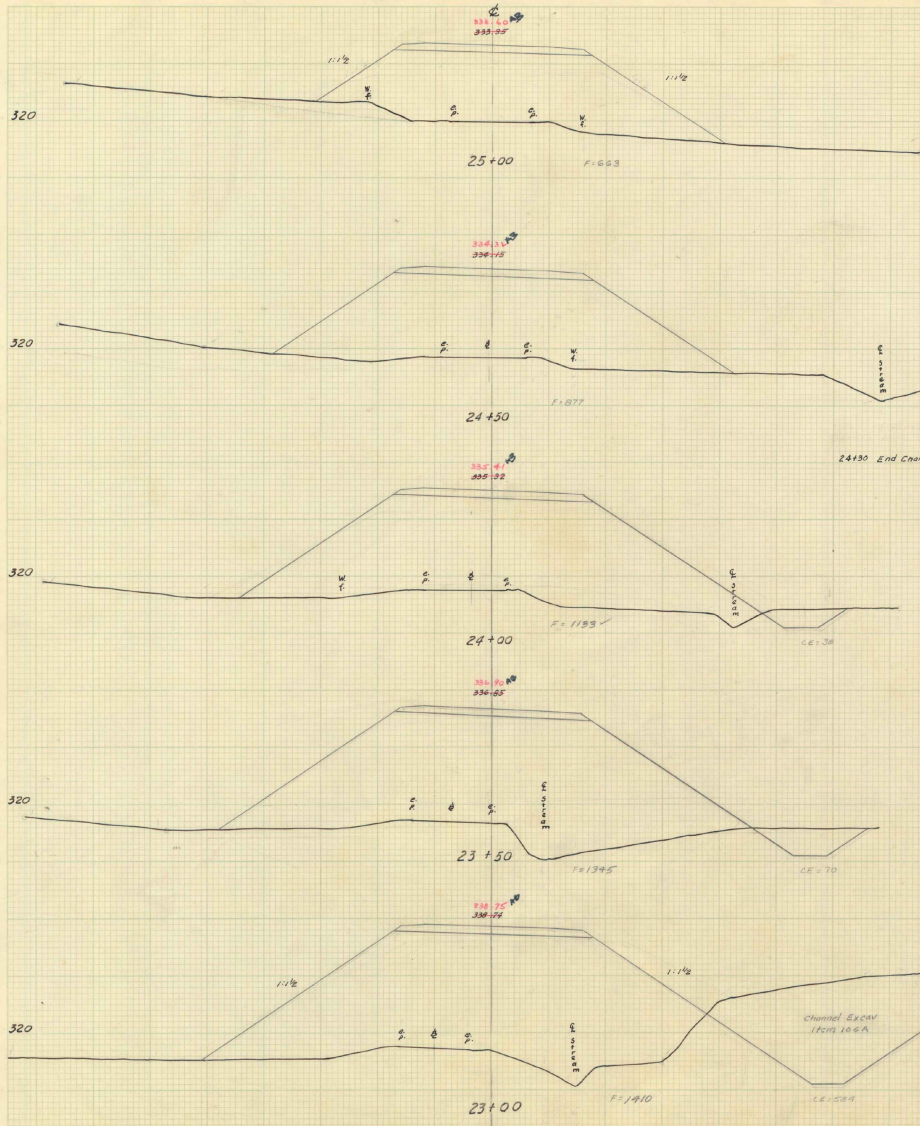


C.D. P. 10/10 by 10/10/10
 10/10/10 by 10/10/10
 Checked 10/10/10

BROWNELL Road
 Contract 1 Stage 1
 E.F.W. A.J.I.
 PROJECT 1-89-3(14)
 SCALE 1"=10'
 SHEET 54 OF 115
 BROWNELL ENGINEERING CO. BIDDIFIELD PARK, VT.



C.B. Checked by *ASW* 1/18/57
 O.S. Checked by *ASW* 1/17/57



FED. ROAD DIST. NO.	STATE	FEDERAL PROJECT NO.	ROUTE	TOTAL SHEETS

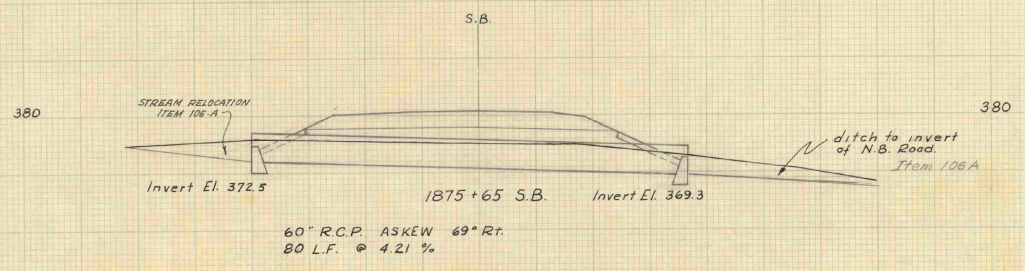
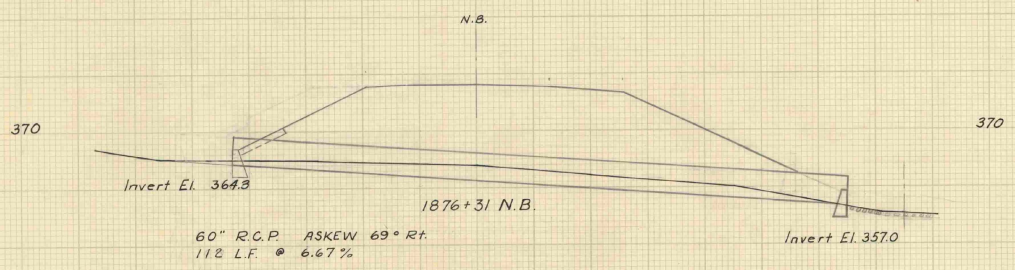
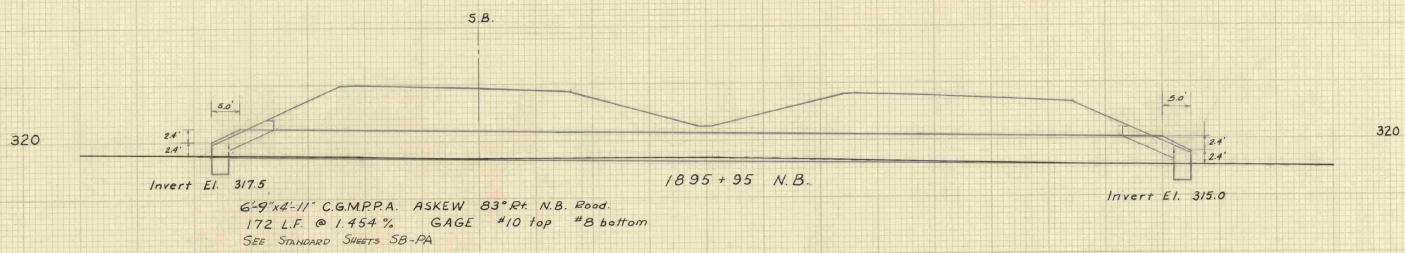
D=0°30' L.I. AH.
DO NOT BANK
PAC STA 25+46.30
D=2°30' RT
BANK 3/8' FT.

Brownell Road
Contract 1 Stage 1

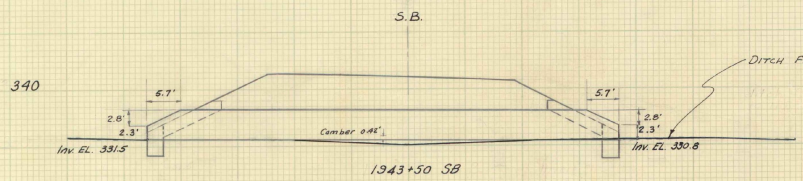
DESIGNED BY: M.H.F. A.I.I.
PROJECT NO: 5893(1A)
SCALE: 1"=40'

See Station 25+00
 See Station 24+50
 See Station 24+00
 See Station 23+50
 See Station 23+00

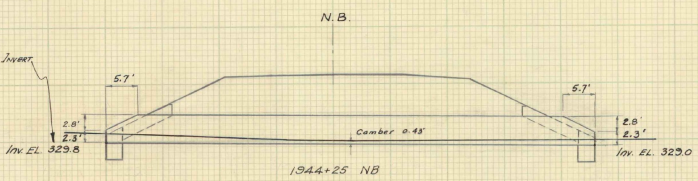
5th 22x70 36" x 1/8" COMPP
See Sheet 59.



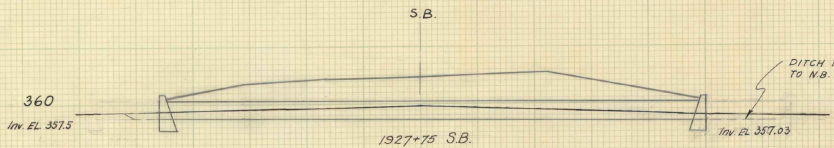
FED. ROAD DIST. NO.	STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
	VERMONT			



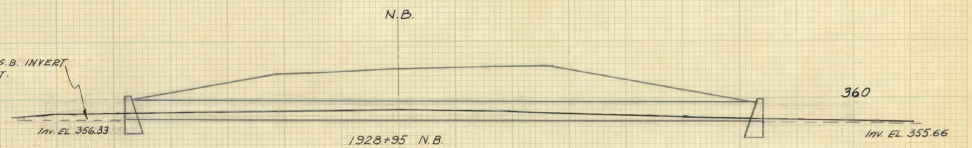
1343+50 S.B.
 7'-0"x5'-1" CGMPPA ASKEW 75° RT.
 84 LF @ 0.834% Gage *10 Top *3 Bottom
 SEE STANDARD SHEET SB-PA



1344+25 N.B.
 7'-0"x5'-1" CGMPPA SQUARE
 86 LF @ 0.93% Gage *10 Top *3 Bottom
 SEE STANDARD SHEETS SB-PA



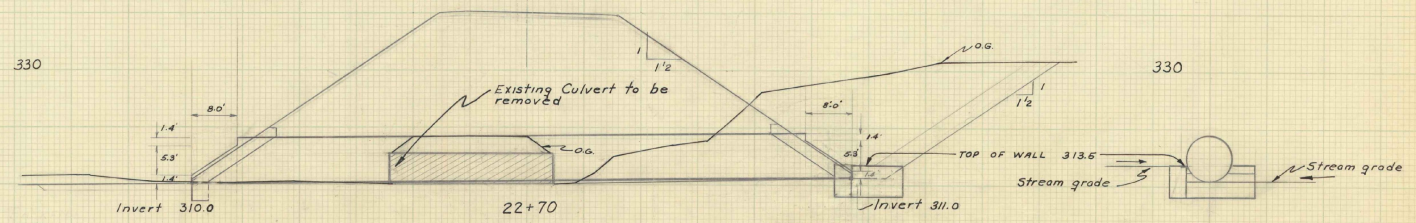
1927+75 S.B.
 CONSTAR RCP - ASKEW 45° RT,
 96 LF @ 0.50%



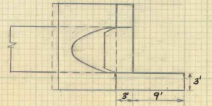
1928+95 N.B.
 CONST 42" RCP - ASKEW 46° RT,
 112 LF @ 0.60%

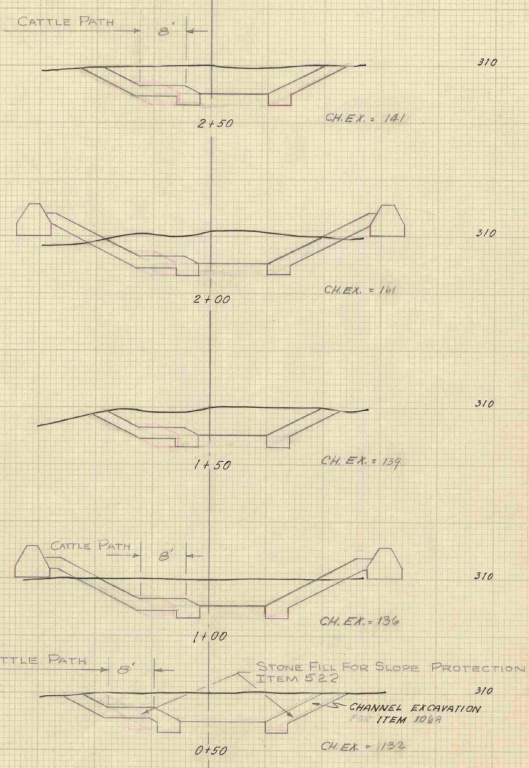
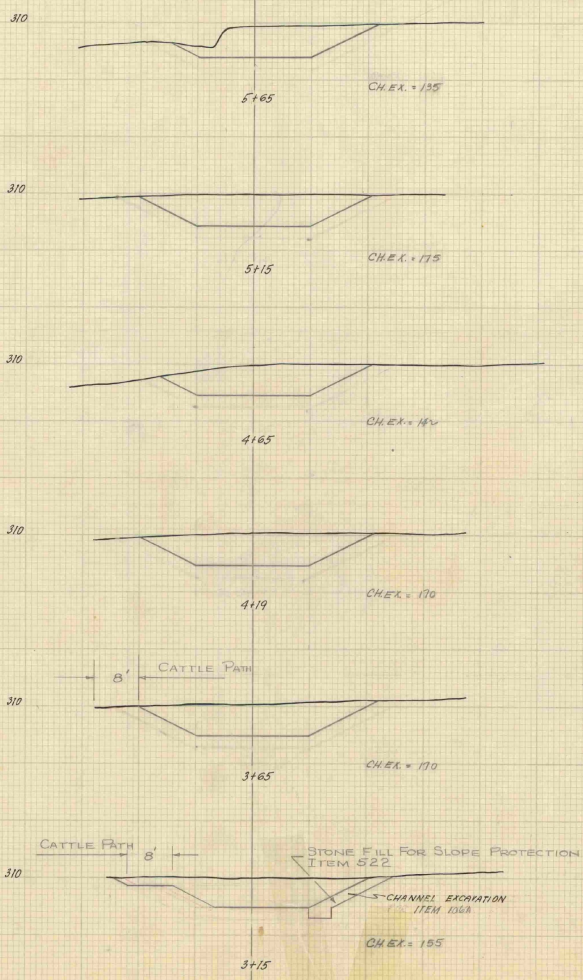
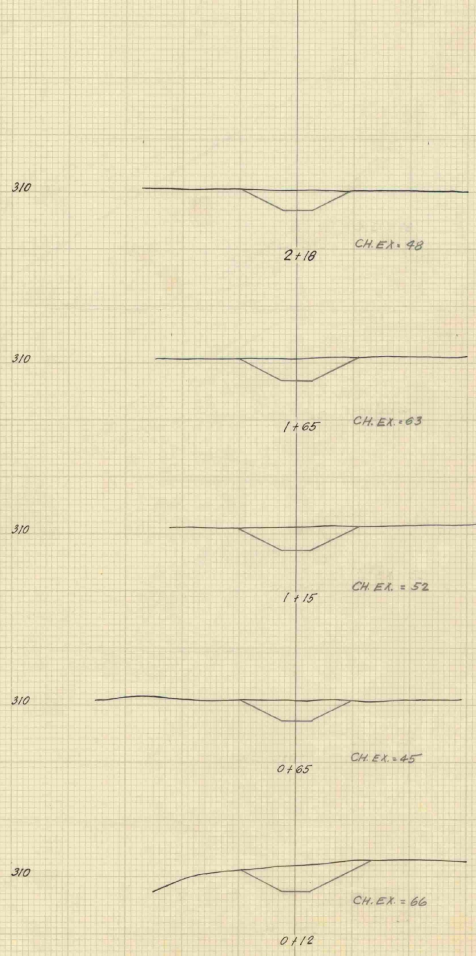
FED. ROAD DIV. NO.	STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS

Reloc. Brownell Rd.



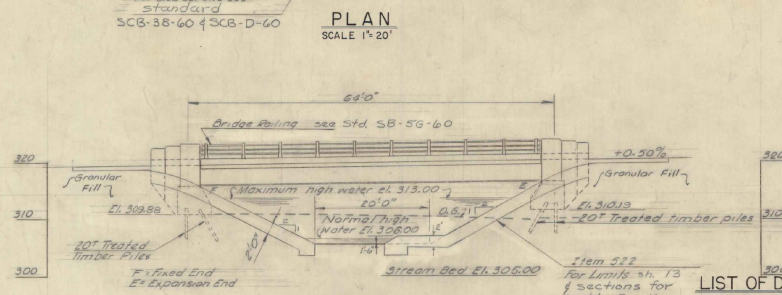
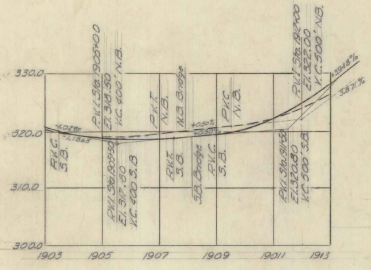
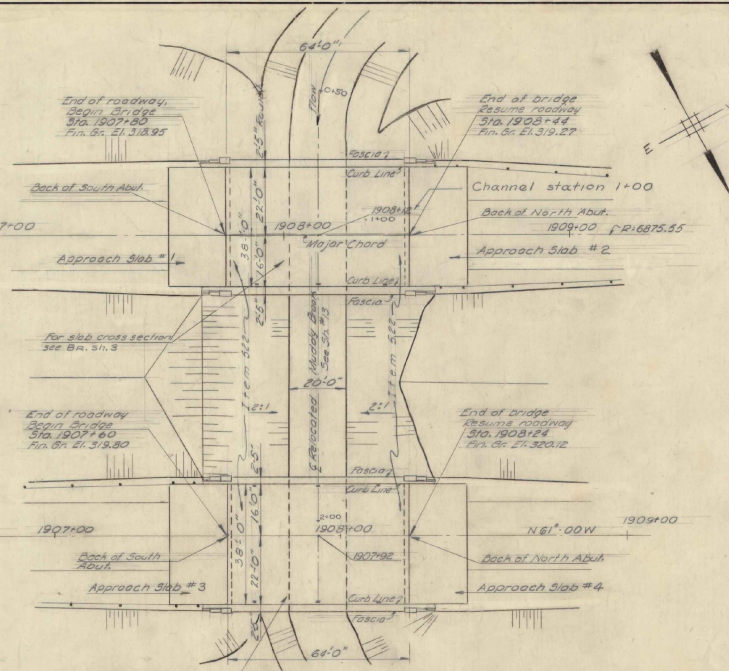
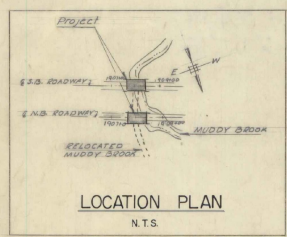
96" CGMPP SQUARE
 116 L.F. @ 0.862% GAGE #8 top #7 bottom
 SEE STANDARD SHEETS SB-PP





Notes: Additional Channel Excav. Necessary for Stone for Item 522 used in this channel is included on Muddy Brook Bridge Quantities.

Curve Data (S.B. Roadway)
 $R = 6375.55$
 $\Delta = 21^{\circ}00'00''$ (Chord def.)
 $L = 21^{\circ}00'00'' \times R$
 $T = 1274.10'$
 $M = 1171.10'$
 Bank $\frac{1}{2}$ " per foot



Final Quantities		ESTIMATED QUANTITIES						
N.Bnd.	S.Bnd.	ITEM #	ITEM	UNIT	NORTHBOUND		SOUTHBOUND	
					NEAT	OVERRUN	NEAT	OVERRUN
					TOTAL	TOTAL	TOTAL	TOTAL
30	30	107	Structure Excavation	C.Y.	28	28	28	28
*	*	351B	Bit. Conc. Pavt. (incl. App. Slab) Mod.	Sq. Yd.	48	9	57	48
253	253	401B	Conc. Cess. B. Mod. (incl. App. Slab)	C.Y.	247	73	249	73
31,495	31,571	402	Reinforcing Steel (incl. App. Slab)	Lbs.	51,450	51,450	51,450	51,450
$\frac{1}{2}$	$\frac{1}{2}$	403	Spiral Reinforcement	Lbs.	Required	Required	Required	Required
69,082	69,082	404A	Structural Steel	Lbs.	69,082	76,932	69,082	76,932
9	9	407	Asph. Prime Asbestos Coating	Sq. Yd.	40	40	40	40
Required	Required	501	Forming Equipment for Drying Piles	L.S.	Required	Required	Required	Required
1,959	1,913	502B	Treated Timber Piling	L.F.	1,959	1,900	1,959	1,900
159	159	555C	Granite Br. Curb Mod. (incl. App. Slab)	L.F.	159	159	159	159
119	119	572	Bridge Railings	L.F.	119	119	119	119
0	0	222	Gravel Backfill	C.Y.	45	42	45	42
450	472	522	Stone Fill for Slope Protection	C.Y.	450	499	450	499
*	*	318	For Emulsion for Bridge Floors	Sq. Yd.	176	176	176	176
450	472	102A	Channel Excavation in Earth	C.Y.	450	499	450	499
*	*	372	Joint Sealer Hot Poured Elastic Type	L.F.	76	76	76	76

* These items to be included in the roadway estimate

GENERAL NOTES

- All materials and construction shall conform to the state of Vermont, Department of Highways, Standard Specifications for Road and Bridge Construction dated Jan. 1926 and the A.A.S.H.O. Standard Specifications dated 1927. Designed for H20-316-44 loading modified for National System of Interstate Highways applied in accordance with the provision of the A.A.S.H.O. Standard Specifications, Article 1, 4, 5.
- Cross slope of approach slab to conform with the cross slope of bridge.
- Final coat of field paint shall be green, unless otherwise directed by the Engineer.
- The top surface of abutments shall be sloped $\frac{1}{2}$ " per foot from the front edge of backwall. These sloping surfaces shall be coated with asphaltic asbestos coating $\frac{1}{2}$ " thick as per item 407 of specifications.
- All dimensions given are measured horizontally or vertically unless otherwise noted.
- All dimensions given at 66°F.
- All reinforcing to have a clear cover of 3", unless otherwise noted.
- All exposed edges of concrete shall be chamfered 1" unless otherwise noted.
- Bearings indicated on the drawings have been made for design purposes only and are not warranted to show actual sub-surface conditions.
- Elevation Datum Sea Level based on Bench Line U.S.C.G.S. Survey Level Line Vermont 25 (Second Order).
- Unless otherwise called for all beams shall be rolled to a true circular camber the middle ordinate being that shown in A.S.C. Handbook as being the minimum camber likely to remain permanent.
- Where piles are driven in fill, the material shall be such as to have no stones large enough to interfere with the driving of piles.

LIST OF DRAWINGS

- General Plan Elevation BR 1
- North Bound Abut. Details BR 2
- S.B. Typ. Section Abutment Details BR 3
- Garing Logs BR 4
- Bar Schedule BR 9
- Proprietary Information Sheet BR 10
- Sheet 100 BR 100
- SB-56-60 1 of 2 BR 56, 74
- SB-AS-60 BR 56, 74
- SB-20-60 BR 56, 74
- SC3-D-60 BR 111

REFERENCE DRAWINGS

- Plan BR 11
- Profile BR 11
- Cross Sections BR 11

BRI OF 10

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWNS OF
WILLISTON, SOUTH BURLINGTON.

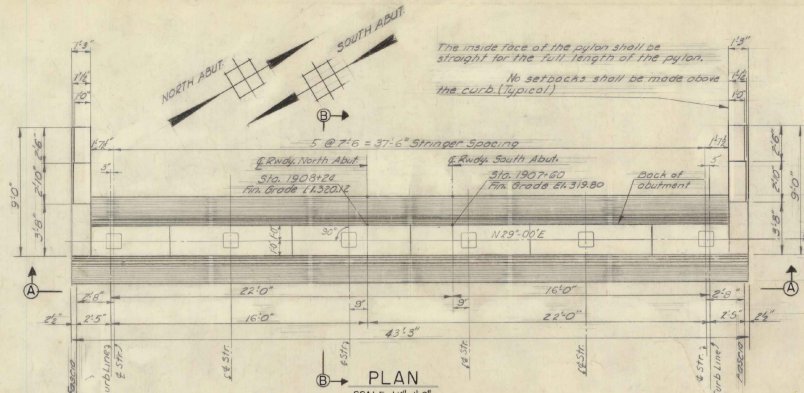
OVERPASS STA. 1907+70
MUDDY BROOK

GENERAL PLAN & ELEVATION

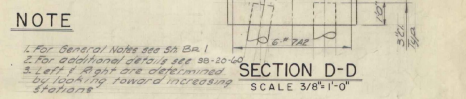
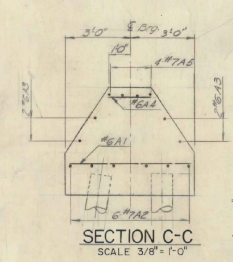
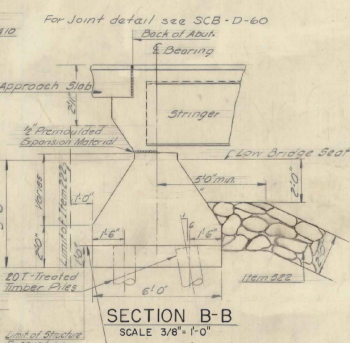
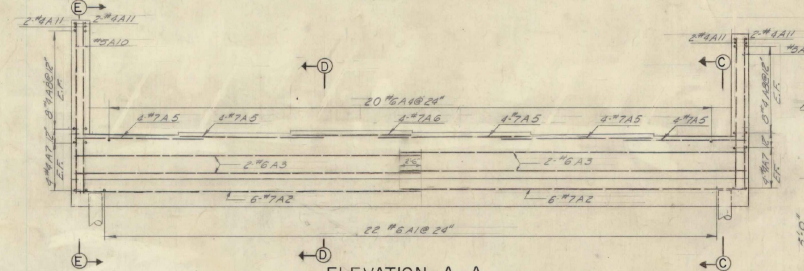
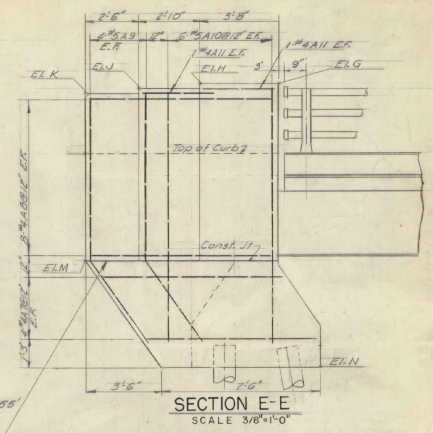
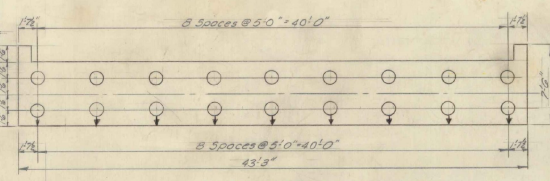
BOSWELL ENGINEERING CO. RIDGFIELD PARK, N. J.

DRAWN BY R.H.E. IN CHARGE A.V.I.
CHECKED BY A.V.I. DATE: SCALE AS SHOWN

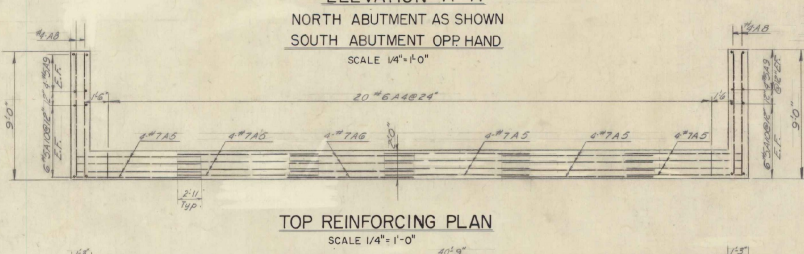
PROJECT NO. 1-89-3(14) SHEET 91 OF 115



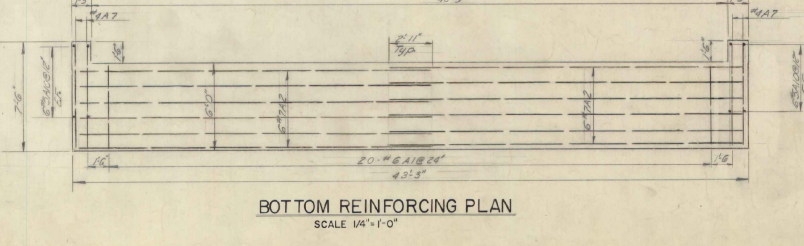
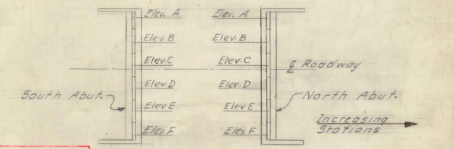
ELEV	NORTH ABUTMENT		SOUTH ABUTMENT	
	RIGHT PYLON	LEFT PYLON	RIGHT PYLON	LEFT PYLON
G	323.70	324.01	323.46	323.71
H	323.78	324.03	323.46	323.70
J	323.50	323.80	323.18	323.43
K	323.31	323.56	322.92	323.17
L	315.23	315.48	314.92	315.17
M	310.23	310.23	309.92	309.92



NOTE
 1. For General Notes see SA Bn 1
 2. For additional details see 30-20-50
 3. Left & Right are determined by looking toward increasing stations



	BEARING ELEVATIONS					
	A	B	C	D	E	F
NORTH ABUTMENT	315.48	315.77	315.86	315.81	315.54	315.23
SOUTH ABUTMENT	315.17	315.46	315.57	315.60	315.23	314.92



ITEM #	ITEM	UNIT	ESTIMATED QUANTITIES				Final Quantities		
			NORTH ABUTMENT		SOUTH ABUTMENT		Nth.	S. Abut.	
			NEAT	OVERRUN TOTAL	NEAT	OVERRUN TOTAL			
107	Structure Excavation	CY	12	12	14	2	16	12	
401B	Concrete Class B (Mod)	CY	47	49	47	2	49	49	
402	Reinforcing Steel	LB	See Bar Schedule Sheet B-2						
407	Asphaltic Asbestos Coating	SQ	5	5	5	5	4.5	4.5	
900B	Treated Timber Piling	L.F	900	900	900	900	1,070	994	
222	Gravel Backfill	CY	19	21	19	2	21	0	

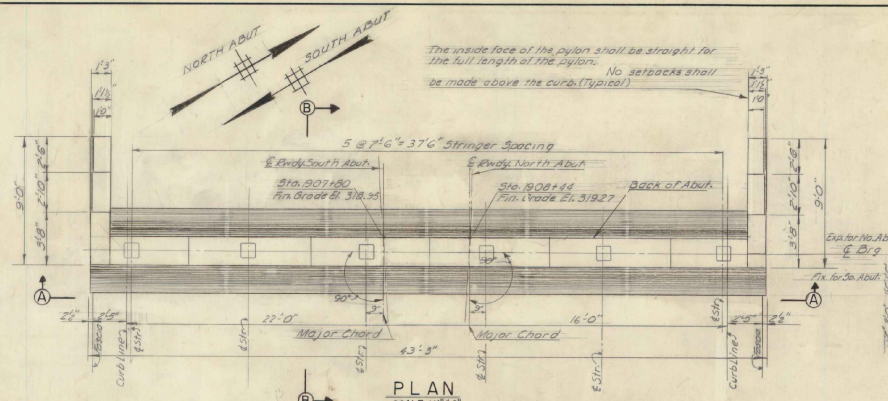
BEARING ELEVATIONS
 N.T.S.
 BR 2 OF 10

STATE OF VERMONT
 DEPARTMENT OF HIGHWAYS

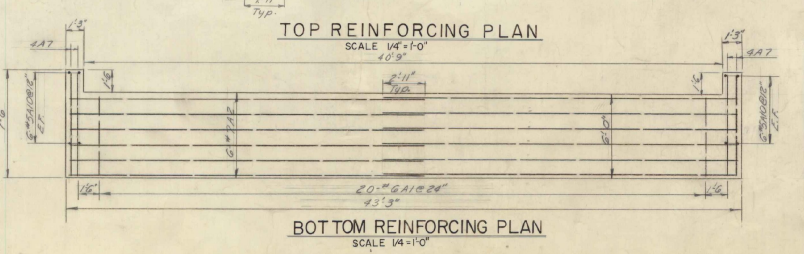
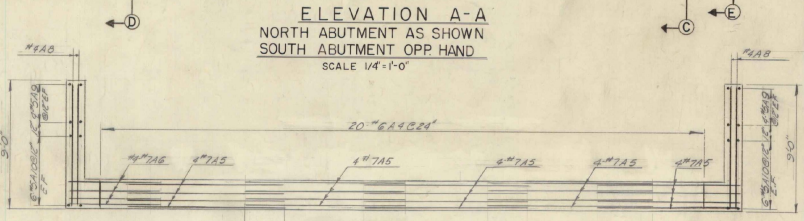
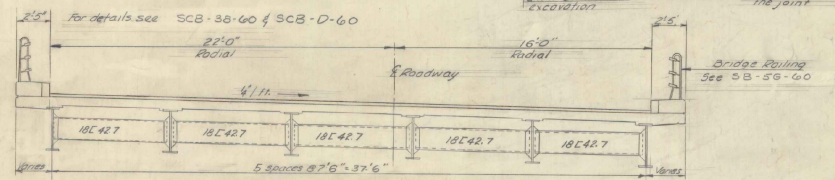
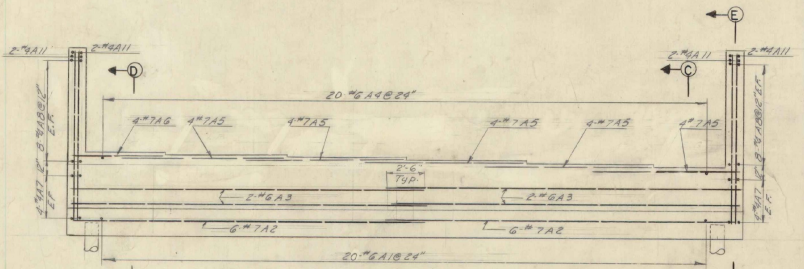
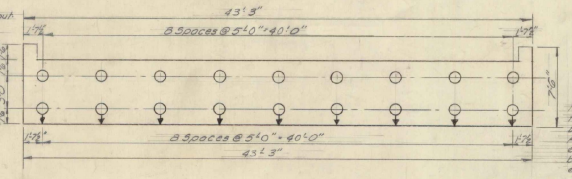
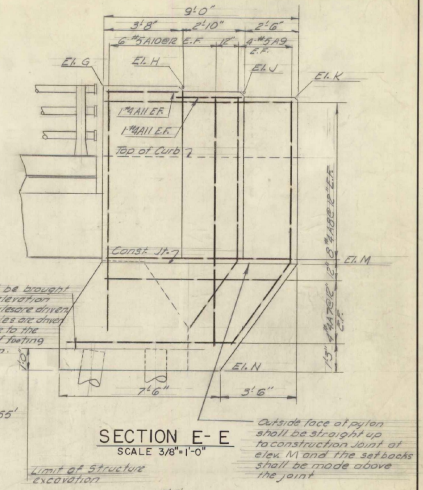
INTERSTATE PROJECT IN THE TOWNS OF
 WILSTON, SOUTH BURLINGTON.

OVERPASS STA. 1907+70
 MUDDY BROOK
 NORTHBOUND ABUT. DETAILS

BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.
 DRAWN BY RHE IN CHARGE AJJ
 CHECKED BY AJJ DATE
 PROJECT NO. 1-89-3(14) SHEET 92 OF 115



ELEV.	NORTH ABUTMENT		SOUTH ABUTMENT	
	RIGHT PYLON	LEFT PYLON	RIGHT PYLON	LEFT PYLON
G	323.25	324.04	322.94	323.74
H	323.27	324.06	322.93	323.72
J	323.05	323.82	322.67	323.46
K	322.79	323.58	322.40	323.19
M	318.71	318.49	318.40	318.18
N	309.71	309.71	309.40	309.40

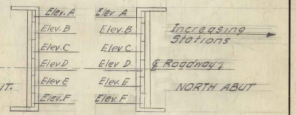


TYPICAL SECTION SOUTHBOUND RWDY.
SCALE 1/4"=1'-0"

Looking toward increasing stations.

	BEARING ELEVATIONS					
	A	B	C	D	E	F
NORTH ABUTMENT	315.49	315.33	315.18	315.02	314.86	314.71
SOUTH ABUTMENT	315.18	315.02	314.87	314.71	314.55	314.40

- NOTES
- For General Notes see sh. BR 1
 - For sections B-B, C-C, D-D see sh. BR 2
 - For additional details see 50-20-60
 - Left & Right are determined by looking toward increasing stations.



ITEM #	ITEM	UNIT	ESTIMATED QUANTITIES						
			NORTH ABUTMENT			SOUTH ABUTMENT			
			NEAT	OVERRUN	TOTAL	NEAT	OVERRUN	TOTAL	
107	Structure Excavation	C.Y.	12	2	14	14	2	16	30
401B	Concrete Class B (Mod.)	C.Y.	48	7	55	48	7	55	48
402	Reinforcing Steel	LB	See Our Schedule Sheet BR 9						
407	Asphaltic Asbestos Coating	S.K.	5	5	10	5	5	10	4.5
502B	Treated Timber Piling	L.F.	990	990	1980	990	990	1980	970
512	Gravel Backfill	C.Y.	190	190	380	190	190	380	0

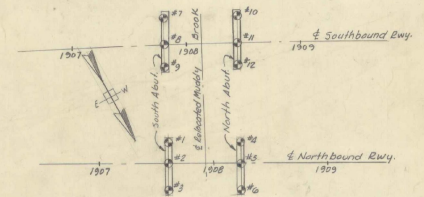
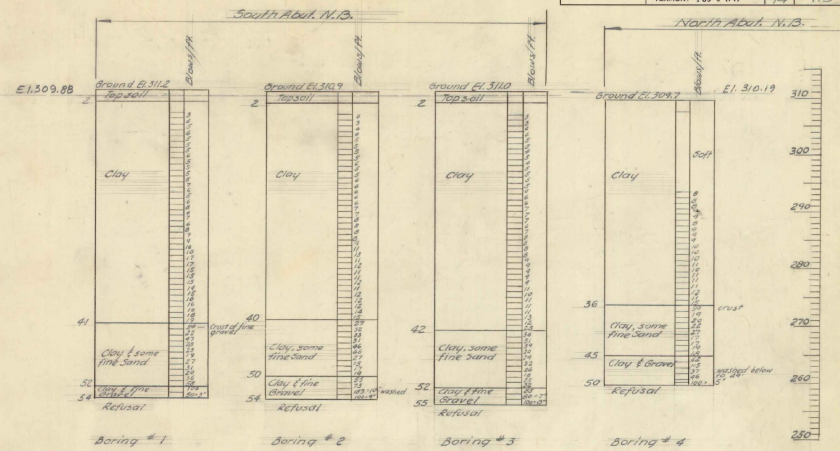
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWNS OF
WILLISTON, SOUTH BURLINGTON.

OVERPASS STA. 1907+70
MUDDY BROOK
S.B.-TYP. SECT. & ABUT. DETAILS

BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.

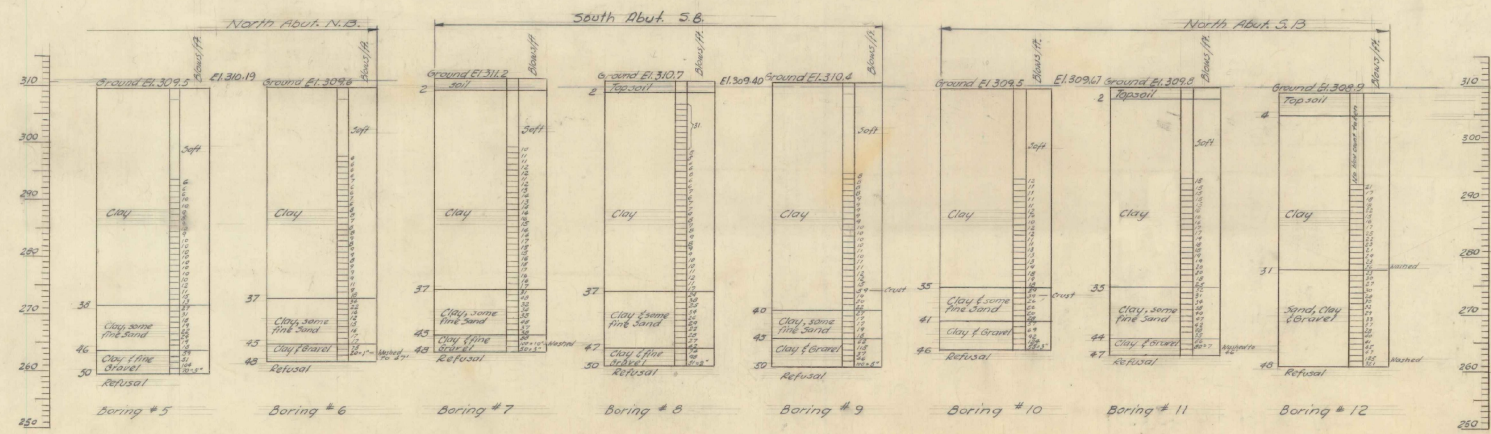
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CHECKED BY: A.V.Z. DATE: PROJECT No. 1-89-3 (14) SHEET 93 OF 115



BORING LOCATION PLAN
SCALE 1" = 50'-0"

NOTES

- For General Notes see sh. Br. 1
- Blows per foot indicate the number of blows necessary to drive a casing whose outside diameter is 2 1/2" and whose thickness is 3/8" one foot using a hammer which weighs 350 lbs and drops 24"
- Indicates bottom of footing elevation.



Dr. 4 of Br. 10

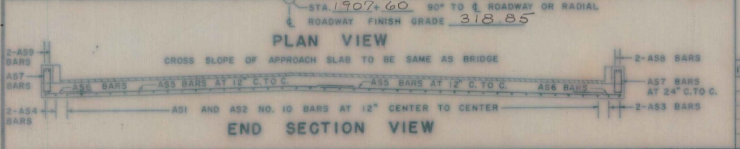
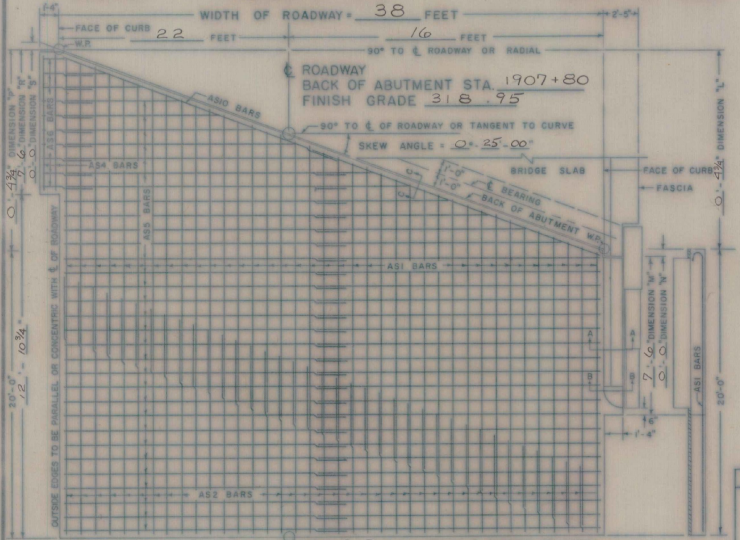
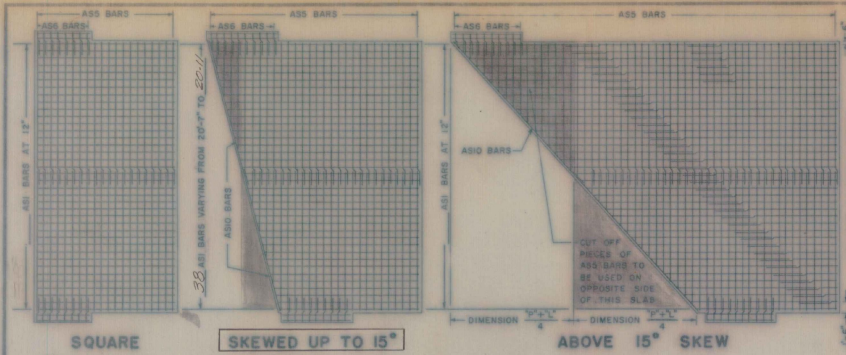
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWNS OF
WILLISTON, SOUTH BURLINGTON.

OVERPASS STA. 190+70
MUDDY BROOK
APPROACH SLAB & BORING LOGS

BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N. J.

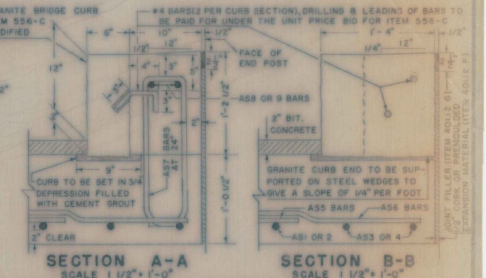
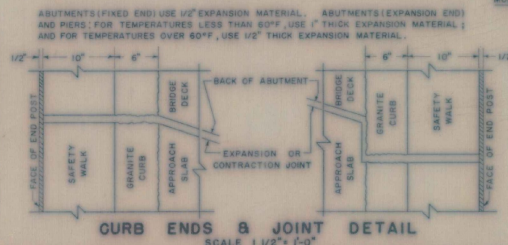
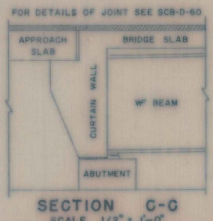
DRAWN BY E. M. IN CHARGE A. J. I.
CHECKED BY A. J. I. DATE SCALE AS SHOWN
PROJECT NO. 189-3 (14) SHEET 94 OF 115



30' ROADWAY				38' ROADWAY				42' ROADWAY				44' ROADWAY				ROADWAY			
NO.	PIECES	SIZE	REMARKS	NO.	PIECES	SIZE	REMARKS	NO.	PIECES	SIZE	REMARKS	NO.	PIECES	SIZE	REMARKS	NO.	PIECES	SIZE	REMARKS
2	10	AS3 STR.	SQUARE OR SKEWED	2	10	7'-0"	AS3 STR.	2	10	AS3 STR.	SQUARE OR SKEWED	2	10	AS3 STR.	SQUARE OR SKEWED	2	10	AS3 STR.	SQUARE OR SKEWED
2	10	AS4 STR.	SQUARE OR SKEWED	2	10	7'-0"	AS4 STR.	2	10	AS4 STR.	SQUARE OR SKEWED	2	10	AS4 STR.	SQUARE OR SKEWED	2	10	AS4 STR.	SQUARE OR SKEWED
5	3-6"	AS6 STR.	SQUARE OR SKEWED	14	8	3-6"	AS6 STR.	5	3-6"	AS6 STR.	SQUARE OR SKEWED	5	3-6"	AS6 STR.	SQUARE OR SKEWED	5	3-6"	AS6 STR.	SQUARE OR SKEWED
5	5-0"	AS7 SB	SQUARE OR SKEWED	8	5	5-0"	AS7 SB	5	5-0"	AS7 SB	SQUARE OR SKEWED	5	5-0"	AS7 SB	SQUARE OR SKEWED	5	5-0"	AS7 SB	SQUARE OR SKEWED
5	5-0"	AS8 STR.	SQUARE OR SKEWED	8	5	5'-4"	AS8 STR.	5	5-0"	AS8 STR.	SQUARE OR SKEWED	5	5-0"	AS8 STR.	SQUARE OR SKEWED	5	5-0"	AS8 STR.	SQUARE OR SKEWED
5	5-0"	AS9 STR.	SQUARE OR SKEWED	8	5	5'-4"	AS9 STR.	5	5-0"	AS9 STR.	SQUARE OR SKEWED	5	5-0"	AS9 STR.	SQUARE OR SKEWED	5	5-0"	AS9 STR.	SQUARE OR SKEWED

REMARKS: (1) AS1 BAR 1" DIMENSION VARIES FROM 19'-6" TO 20'-0". (2) 20' + DIMENSION (TPK) = 4' (IN FEET) = NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. (3) 40' + DIMENSION (TPK) = 2' (IN FEET) = NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. (4) THE LENGTH OF AS2 BARS VARIES FROM 7'-0" TO 7'-6". THE AS2 BARS MAY BE DIVIDED INTO TWO OR MORE PIECES, AS MAY BE NECESSARY, TO LIMIT THE MAXIMUM BAR LENGTH TO 30 FEET. THE LOCATION OF SPLICES IS LEFT TO THE OPTION OF THE DESIGNER. THE NO. PIECES SHOWN ARE FOR CONDITION 1. (FOR CONDITION 2 & 3, SEE REINF. SCHEDULE.)

GENERAL NOTES: ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. WHEN A BAR LENGTH VARIES IN INCREMENTS EACH BAR SHALL BE DETAILED. SPLICES SHALL BE 2'-1" FOR NUMBER 5 BARS AND 4'-3" FOR NUMBER 10 BARS. ALL WORK AND MATERIALS SHALL CONFORM TO THE STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED JANUARY 1954, AND THE A.A.S.H.O. SPECIFICATIONS DATED 1957. DESIGNED FOR 120-SI-64



DETAILS OF REINFORCING BARS				REINFORCING STEEL			
TYPE I		TYPE S6 C		A	B	C	A x B x C
A = 1'-1"	J = 0'-9"	A = 0'-6"	B = 0'-6"	BAR NO.	LENGTH	WEIGHT PER FT.	WEIGHT IN LBS.
B = 19'-6" OR Varies		C = 0'-6"	D = 1'-9"	AS1	38 20.25	2.303	3392.9
		E = 1'-9"	G = 0'-6"	AS2	-	5.303	-
				AS3	2 7.0	4.303	60.2
				AS4	2 7.0	4.303	60.2
				AS5	40 19.75	1.043	824.0
				AS6	14 3'-6"	1.043	51.1
				AS7	8 5'-9"	1.043	41.7
				AS8	2 5.33	1.043	11.1
				AS9	2 5.33	1.043	11.1
				AS0	2 20.08	1.043	41.9
							TOTAL WEIGHT = 4494.2

QUANTITY COMPUTATION			
W = WIDTH OF ROADWAY	Z = 20' + DIMENSION	T = DIMENSION	
W = 38	Z = 20.2	T = 7.5	
BITUMINOUS CONCRETE = W x Z x 0.0123 = TONS 38 x 20.2 x 0.0123 = 9.4 TONS			
TAR EMULSION = W x Z x 0.0444 = GALLONS 38 x 20.2 x 0.0444 = 34 GALLONS			
CONCRETE CLASS B = W x Z x 0.0888 + T x 0.1029 = (T-1.8333) x 0.0733 = CUBIC YARDS [38 x 20.2 x 0.0888] + [7.5 x 0.1029] + [(7.5-1.8333) x 0.0733] = 3.1 CUBIC YARDS			
GRANITE BRIDGE CURB = (21' x 0'-3") x LINEAR FEET (21.75 x 0.25) = 15.5 LINEAR FEET			
ADD AN OVERRUN OF 5% TO BIT. CONCRETE, AND AN OVERRUN OF 5% TO CONCRETE CLASS B			
BAR LENGTHS: AS3 BAR - DIMENSION "W" - 0'-6"			
AS4 BAR - DIMENSION "W" - 0'-6"			
AS6 BAR - 3'-6"			
AS7 BAR - 5'-9"			
AS8 BAR - DIMENSION "W" - 2'-2"			
AS9 BAR - DIMENSION "W" - 2'-2"			

REVISIONS AND CORRECTIONS

APPROVED

DRAWN BY: S.S. HAUPPT NOV. 1960

TRACED BY: S.S. HAUPPT NOV. 1960

CHECKED BY: A.H. SMALLLEY NOV. 1960

CORRECT: Nov 1960 *[Signature]* BRIDGE ENGINEER

APPROVED: Nov 22 1960 *[Signature]* CHIEF ENGINEER

DETAILS OF APPROACH SLAB FOR 38 FOOT BRIDGE (WIDTH)

TO BE USED FOR BRIDGE AT STATION 1907+70

LOCATION INTERSTATE OVER MUDDY BROOK (SOUTHBOUND ROADWAY)

APPROACH SLAB No. 1

STATE OF VERMONT DEPARTMENT OF HIGHWAYS STANDARD STRUCTURE

TOWN OF WILLISTON - S. BURLINGTON

ROUTE NO. I 89

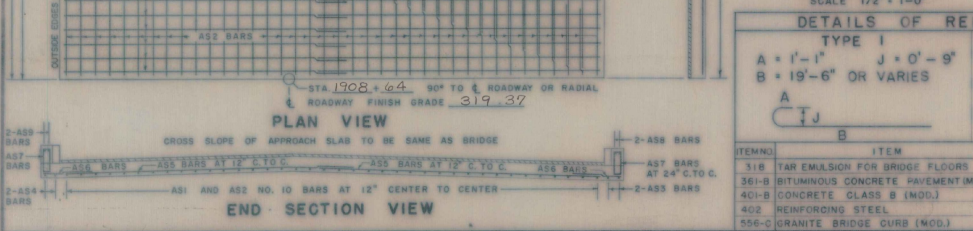
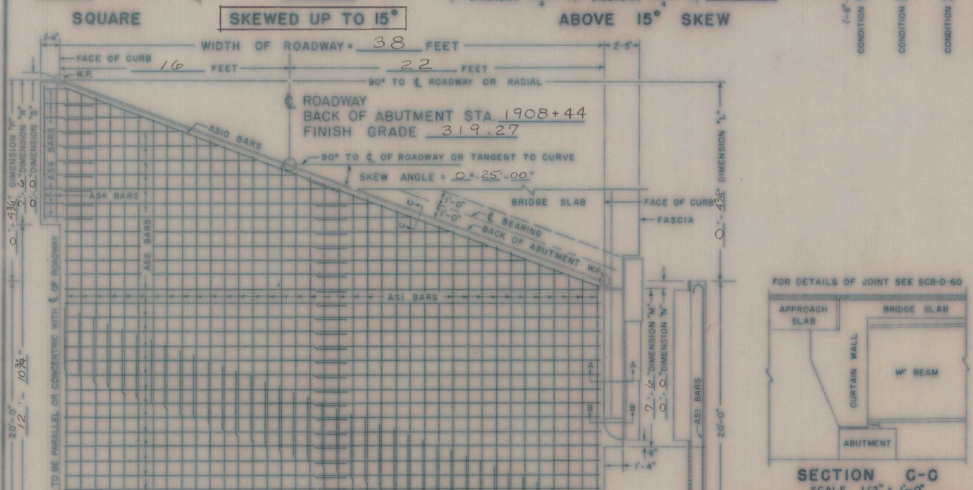
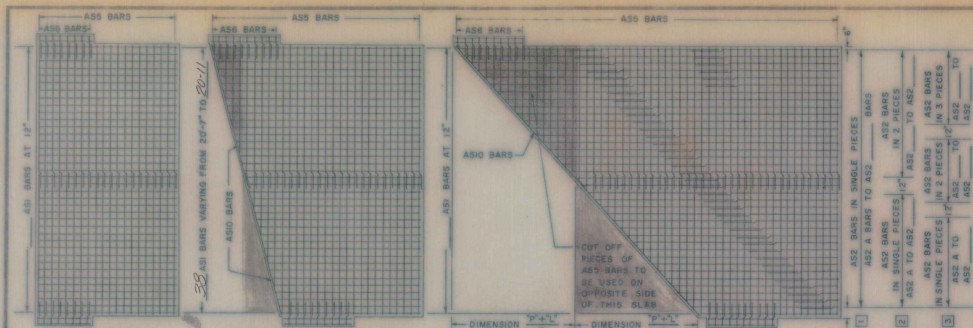
LOG STA. SCALE AS NOTED

DESIGNED BY RSH CHECKED BY AHS

PROJECT NO I-89-3(1) Cont #1

BR. 5 OF 10 SHEET 95 OF 115

SB-AS-60



30' ROADWAY				36' ROADWAY				42' ROADWAY				44' ROADWAY				ROADWAY			
NO.	SIZE	LENGTH	MARK	NO.	SIZE	LENGTH	MARK	NO.	SIZE	LENGTH	MARK	NO.	SIZE	LENGTH	MARK	NO.	SIZE	LENGTH	MARK
2	10		AS3 STR.	2	10	7'-0"	AS3 STR.	2	10		AS3 STR.	2	10		AS3 STR.	2	10		AS3 STR.
2	10		AS4 STR.	2	10	7'-0"	AS4 STR.	2	10		AS4 STR.	2	10		AS4 STR.	2	10		AS4 STR.
5	5-6"		AS6 STR.	14	5	3'-6"	AS6 STR.	5	5	3'-6"	AS6 STR.	5	5	3'-6"	AS6 STR.	5	5	3'-6"	AS6 STR.
2	5	5'-0"	AS7 STR.	2	5	5'-0"	AS7 STR.	2	5	5'-0"	AS7 STR.	2	5	5'-0"	AS7 STR.	2	5	5'-0"	AS7 STR.
2	5		AS8 STR.	2	5	5'-4"	AS8 STR.	2	5		AS8 STR.	2	5		AS8 STR.	2	5		AS8 STR.
2	5		AS9 STR.	2	5	5'-4"	AS9 STR.	2	5		AS9 STR.	2	5		AS9 STR.	2	5		AS9 STR.

REMARKS: (1) BARS 10" DIMENSION VARIES FROM 19'-6" TO 20'-0". (2) 20" DIMENSION (P) = 4 (IN FEET) + NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. (3) 40" DIMENSION (P) = 2 (IN FEET) + NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. (4) THE LENGTH OF AS2 BARS VARIES FROM 19'-9" TO 20'-0". THE AS2 BARS MAY BE DIVIDED INTO TWO OR MORE PIECES AS MAY BE NECESSARY TO LIMIT THE MAXIMUM BAR LENGTH TO 30 FEET. THE LOCATION OF SPLICES IS LEFT TO THE OPTION OF THE DESIGNER. THE NO. PIECES SHOWN ARE FOR CONDITION 1 (FOR CONDITION 2 & 3 SEE REINF. SCHEDULE).

GENERAL NOTES: ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. WHEN A BAR LENGTH VARIES IN INCREMENTS EACH BAR MUST BE DETAILED. SPLICES SHALL BE 2'-0" FOR NUMBER 5 BARS AND 4'-0" FOR NUMBER 10 BARS. ALL WORK AND MATERIALS SHALL CONFORM TO THE STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED JANUARY 1956, AND THE A.A.H.O. SPECIFICATIONS DATED 1957. DESIGNED FOR H20-S16-44.

REVISIONS AND CORRECTIONS

APPROVED

DRAWN BY: R.S. HAUPT NOV. 1950

TRACED BY: R.S. HAUPT NOV. 1950

CHECKED BY: A.H. SMALLEY NOV. 1950

CORRECT: Nov 1950 Smalley
BRIDGE ENGINEER

APPROVED: Nov 1950 R.S. Haupt
CHIEF ENGINEER

DETAILS OF APPROACH SLAB FOR 38 FOOT BRIDGE (WIDTH)

TO BE USED FOR BRIDGE AT STATION 1907+70

LOCATION INTERSTATE OVER MUDDY BROOK (SOUTHBOUND ROADWAY)

APPROACH SLAB NO 2

STATE OF VERMONT DEPARTMENT OF HIGHWAYS STANDARD STRUCTURE

TOWN OF WILLISTON-S. BURLINGTON

ROUTE NO. I 89

LOG STA. _____

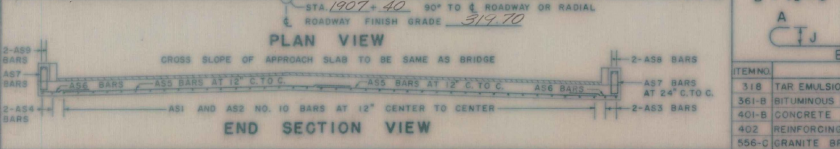
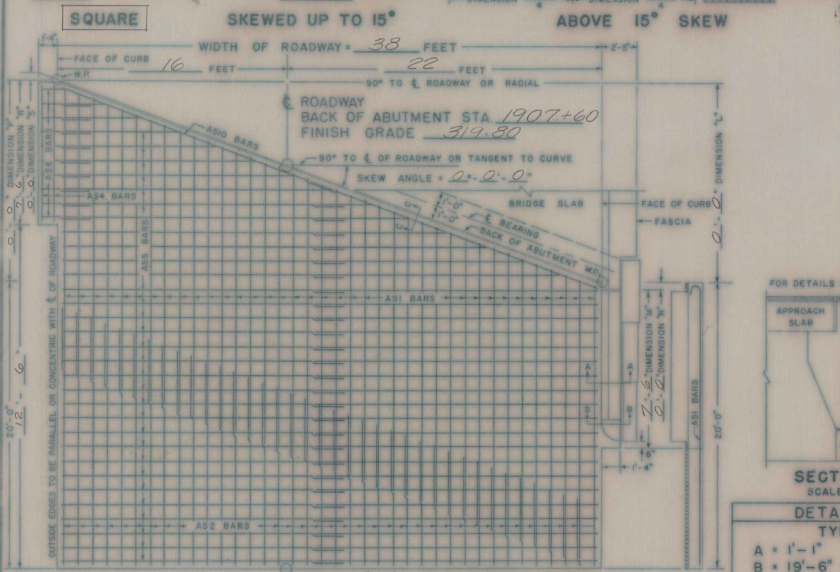
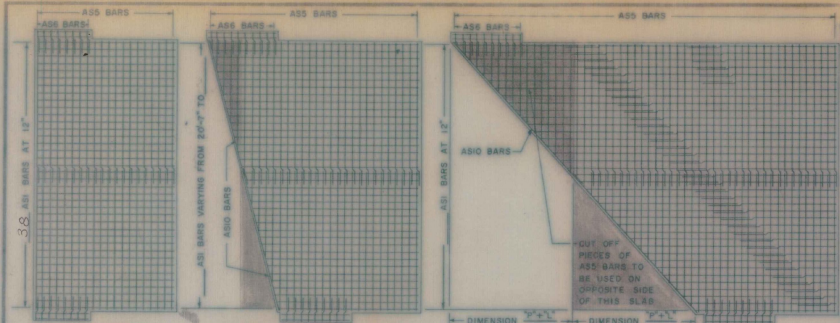
SCALE AS NOTED

DESIGNED BY RSB CHECKED BY AHS

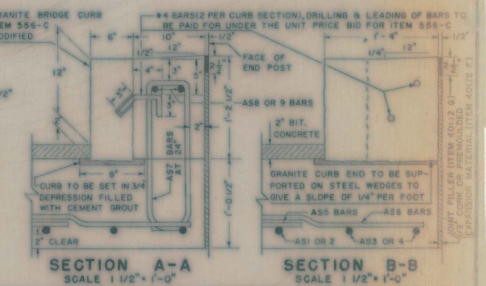
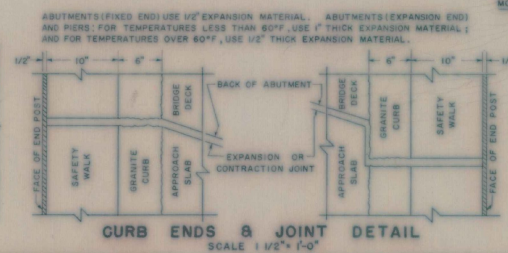
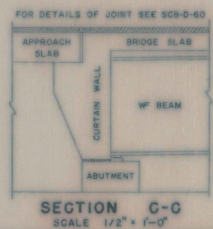
PROJECT NO. I 89-3(4) Cont. # 1

BR. 6 OF 10 SHEET 76 OF 115

DETAILS OF REINFORCING BARS				REINFORCING STEEL				QUANTITY COMPUTATION					
TYPE I		TYPE S6 C		A	B	C	A X B X C	W	Z	T	W	Z	T
A	J	A	B	BAR NO.	LENGTH	WEIGHT	PER FT.	W	Z	T	W	Z	T
A = 1'-1"	J = 0'-9"	A = 0'-6"	B = 0'-6"	AS1	38	20.75	3392.9	38	20.2	7.5	38	20.2	7.5
B = 19'-6" OR VARIES		C = 0'-6"	D = 0'-6"	AS2	—	—	4.303	3.8	20.2	0.0444	3.8	20.2	0.0444
		E = 1'-9"	F = 0'-6"	AS3	2	7.0	4.303	6.02	—	—	—	—	—
		G = 0'-6"		AS4	2	7.0	4.303	6.02	—	—	—	—	—
				AS5	40	19.9	1.043	824.0	3.8	20.2	0.0586	3.8	20.2
				AS6	14	3'-6"	1.043	51.7	—	—	—	—	—
				AS7	8	5'-0"	1.043	41.7	—	—	—	—	—
				AS8	2	5'-3"	1.043	11.1	—	—	—	—	—
				AS9	2	5'-3"	1.043	11.1	—	—	—	—	—
				AS10	2	20'-0"	1.043	41.9	—	—	—	—	—
				TOTAL WEIGHT = 4494.2									



30' ROADWAY				38' ROADWAY				42' ROADWAY				44' ROADWAY				ROADWAY							
NO. PIECES	SIZE	LENGTH	MARK	NO. PIECES	SIZE	LENGTH	MARK	NO. PIECES	SIZE	LENGTH	MARK	NO. PIECES	SIZE	LENGTH	MARK	NO. PIECES	SIZE	LENGTH	MARK	NO. PIECES	SIZE	LENGTH	MARK
REMARKS: (1) ASI BARS 7" DIMENSION VARIES FROM 19'-6" TO (2) 20' + DIMENSION (7" x L) = 4 (IN FEET) + NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. (3) 40' + DIMENSION (7" x L) = 2 (IN FEET) + NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. (4) THE LENGTH OF AS2 BARS VARIES FROM 10' TO 30 FEET. THE LOCATION OF SPLICES IS LEFT TO THE OPTION OF THE DESIGNER. THE NO. PIECES SHOWN ARE FOR CONDITION 1. (FOR CONDITION 2 & 3, SEE REINF. SCHEDULE.)																							
GENERAL NOTES: ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. WHEN A BAR LENGTH VARIES IN INCREMENTS EACH BAR MUST BE DETAILED. SPLICES SHALL BE 2'-0" FOR NUMBER 5 BARS, AND 4'-0" FOR NUMBER 10 BARS. ALL WORK AND MATERIALS SHALL CONFORM TO THE STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED JANUARY 1956, AND THE A.A.S.H.O. SPECIFICATIONS DATED 1957. DESIGNED FOR H20-S16-44.																							



DETAILS OF REINFORCING BARS				REINFORCING STEEL				QUANTITY COMPUTATION			
TYPE I		TYPE S6 C		A	B	C	A X B X C	W	Z	T	W X Z X T
A	J	A	B	BAR NO.	LENGTH	WEIGHT PER FT.	WEIGHT IN LBS.	W	Z	T	W X Z X T
A = 1'-1"	J = 0'-9"	A = 0'-6"	B = 1'-9"	AS1	38	20.7	786.6	38'	20'	7'-6"	38 x 20 x 7.6 = 5808
B = 19'-6" OR VARIES	C = 0'-6"	C = 0'-6"	D = 1'-9"	AS2	—	—	—	38'	20'	7'-6"	38 x 20 x 7.6 = 5808
	D = 1'-9"	D = 1'-9"	E = 0'-6"	AS3	2	7-0	60.2	38'	20'	7'-6"	38 x 20 x 7.6 = 5808
	E = 0'-6"	E = 0'-6"	F = 0'-6"	AS4	2	7-0	60.2	38'	20'	7'-6"	38 x 20 x 7.6 = 5808
			G = 0'-6"	AS5	40	19-9	824.0	38'	20'	7'-6"	38 x 20 x 7.6 = 5808
				AS6	14	5-6	51.1	38'	20'	7'-6"	38 x 20 x 7.6 = 5808
				AS7	8	5-0	41.7	38'	20'	7'-6"	38 x 20 x 7.6 = 5808
				AS8	2	5-4	11.1	38'	20'	7'-6"	38 x 20 x 7.6 = 5808
				AS9	2	5-4	11.1	38'	20'	7'-6"	38 x 20 x 7.6 = 5808
				AS10	—	—	—	38'	20'	7'-6"	38 x 20 x 7.6 = 5808
				TOTAL WEIGHT =			4425.0				

REVISIONS AND CORRECTIONS

APPROVED

DRAWN BY: R.S. HAURT NOV. 1960

TRACED BY: R.S. HAURT NOV. 1960

CHECKED BY: A.H. SMALLEY NOV. 1960

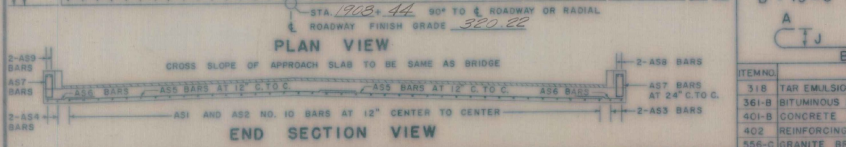
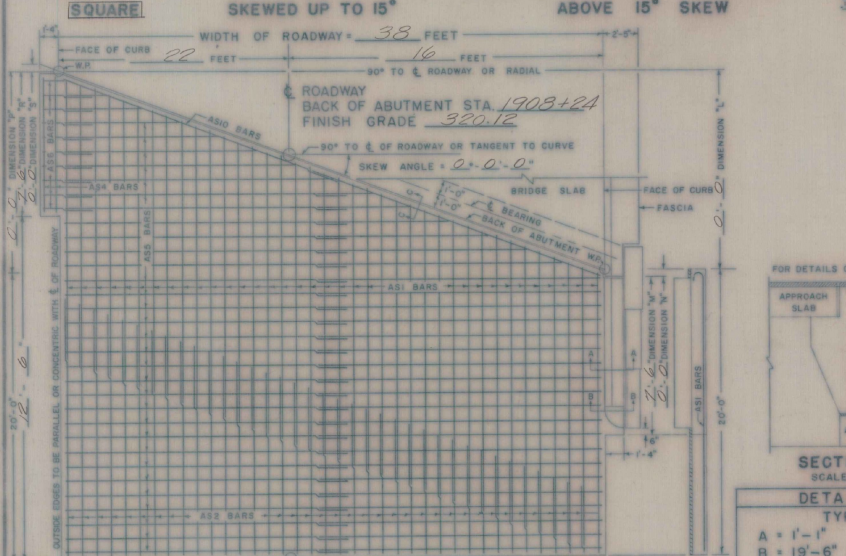
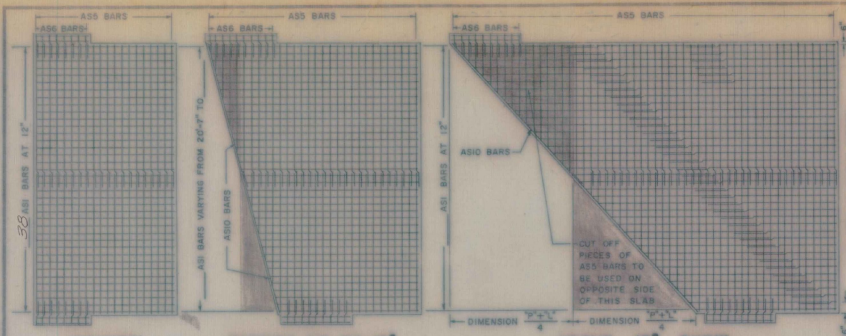
CORRECT: Nov 2, 1960 *A.H. Smalley*
BRIDGE ENGINEER

APPROVED: Nov 22, 1960 *R.S. Haurt*
CHIEF ENGINEER

DETAILS OF APPROACH SLAB FOR 38' FOOT BRIDGE TO BE USED FOR BRIDGE AT STATION 1907+70 LOCATION INTERSTATE OVER MUDDY BROOK (NORTHBOUND ROADWAY) APPROACH SLAB No. 3

STATE OF VERMONT DEPARTMENT OF HIGHWAYS STANDARD STRUCTURE SB-AS-60

TOWN OF WILLISTON - S. BURLINGTON ROUTE NO. I 89 LOG STA. 1907+70 SCALE AS NOTED DESIGNED BY R.S.H. CHECKED BY A.H.S. PROJECT NO. I-89-3(4) Cont. #1 BR. 7 OF 10 SHEET 76A OF 115



REVISIONS AND CORRECTIONS

APPROVED

DRAWN BY: R.S. HAUPT NOV. 1960

TRACED BY: R.S. HAUPT NOV. 1960

CHECKED BY: A.H. SMALLEY NOV. 1960

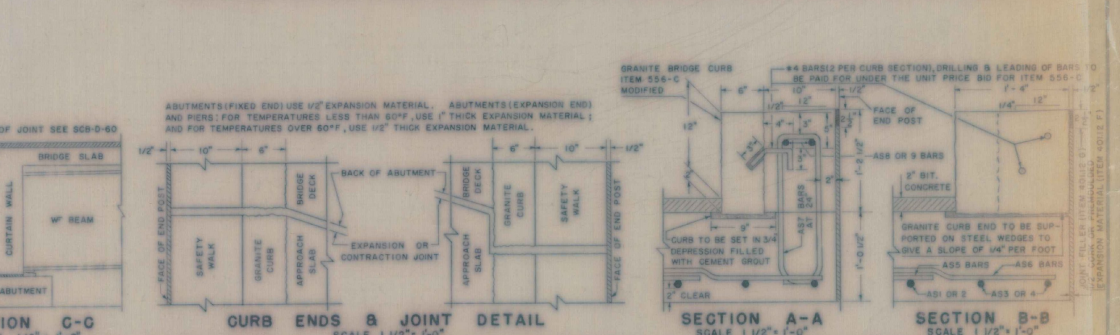
CORRECT: *[Signature]* BRIDGE ENGINEER

APPROVED: *[Signature]* NOV. 22, 1960 CHIEF ENGINEER

30' ROADWAY				38' ROADWAY				42' ROADWAY				44' ROADWAY				ROADWAY							
NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS	NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS	NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS	NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS
2	10			AS3	STR.	2	10	7-0		AS3	STR.	2	10			AS3	STR.	2	10			AS3	STR.
2	10			AS4	STR.	2	10	7-0		AS4	STR.	2	10			AS4	STR.	2	10			AS4	STR.
5	9	3-6		AS6	STR.	5	9	3-6		AS6	STR.	5	9	3-6		AS6	STR.	5	9	3-6		AS6	STR.
2	9	5-0		AS7	STR.	2	9	5-0		AS7	STR.	2	9	5-0		AS7	STR.	2	9	5-0		AS7	STR.
2	9			AS8	STR.	2	9	5-4		AS8	STR.	2	9			AS8	STR.	2	9			AS8	STR.
2	9			AS9	STR.	2	9	5-4		AS9	STR.	2	9			AS9	STR.	2	9			AS9	STR.

REMARKS: (1) AS1 BAR "W" DIMENSION VARIES FROM 19'-0" TO (2) 20' + DIMENSION (W/L) + A (IN FEET) - NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. (3) 40' + DIMENSION (W/L) + 2 (IN FEET) - NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. (4) THE LENGTH OF AS2 BARS VARIES FROM TO (5) THE AS2 BARS MAY BE DIVIDED INTO TWO OR MORE PIECES, AS MAY BE NECESSARY, TO LIMIT THE MAXIMUM BAR LENGTH TO 30 FEET. THE LOCATION OF SPLICES IS LEFT TO THE OPTION OF THE DESIGNER. THE NO. PIECES SHOWN ARE FOR CONDITION 1. (FOR CONDITION 2 & 3, SEE REIN. SCHEDULE.)

GENERAL NOTES: ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE, WHEN A BAR LENGTH VARIES IN DIMENSIONS EACH BAR MUST BE DETAILED. SPLICES SHALL BE 2'-0" FOR NUMBER 5 BARS, AND 4'-0" FOR NUMBER 10 BARS. ALL WORK AND MATERIALS SHALL CONFORM TO THE STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED JANUARY 1956, AND THE A.L.S.D. SPECIFICATIONS DATED 1957. DESIGNED FOR REC-30-60.



DETAILS OF REINFORCING BARS				REINFORCING STEEL				QUANTITY COMPUTATION					
TYPE I		TYPE S6		TYPE I		TYPE S6		W = WIDTH OF ROADWAY		Z = 20' DIMENSION		T = DIMENSION	
A	J	A	B	A	B	A	B	W	Z	T	W	Z	T
A = 1'-1"	J = 0'-9"	A = 0'-5"	B = 1'-9"	BAR NO.	NO. PIECES	LENGTH	WEIGHT PER FT. IN LBS.	38'-0"	20'-0"	7'-6"	38'-0"	20'-0"	7'-6"
B = 19'-6" OR VARIES		C = 0'-6"	D = 1'-9"	AS1	38	20-7	4.303	3365.6	BITUMINOUS CONCRETE	11.22 x 0.044 x 33.7	36.4	20.0	0.023 x 935
		E = 1'-9"	G = 0'-6"	AS2	2	7-0	4.303	60.2	TAR EMULSION	11.22 x 0.044 x 33.7	36.4	20.0	0.044 x 33.7
				AS3	2	7-0	4.303	60.2	CONCRETE CLASS B	11.22 x 0.058 x 33.7	36.4	20.0	0.058 x 33.7
				AS4	2	7-0	4.303	60.2	[38'-0" + 0.038] + [20'-0" + 0.023] + [7'-6" + 0.033] + 0.0733	36.4	20.0	0.033 x 935	
				AS5	14	3-6	1.043	82.0	GRANITE BRIDGE CURB	11.22 x 0.14 x 33.7	36.4	20.0	0.14 x 33.7
				AS6	14	3-6	1.043	82.0	200 AN OVERRUN OF 15% TO BIT. CONCRETE, AND AN OVERRUN OF 5% TO CONCRETE CLASS B	11.22 x 0.14 x 33.7	36.4	20.0	0.14 x 33.7
				AS7	8	5'-0"	1.043	41.7	BAR LENGTHS: AS3 BARS + DIMENSION "M" - 0'-6"	11.22 x 0.14 x 33.7	36.4	20.0	0.14 x 33.7
				AS8	2	5-4	1.043	11.1	AS4 BARS + DIMENSION "M" - 0'-6"	11.22 x 0.14 x 33.7	36.4	20.0	0.14 x 33.7
				AS9	2	5-4	1.043	11.1	AS6 BARS + 3'-6"	11.22 x 0.14 x 33.7	36.4	20.0	0.14 x 33.7
				AS10	-	-	1.043	-	AS7 BARS + 5'-0"	11.22 x 0.14 x 33.7	36.4	20.0	0.14 x 33.7
									AS8 BARS + DIMENSION "M" - 2'-2"	11.22 x 0.14 x 33.7	36.4	20.0	0.14 x 33.7
									AS9 BARS + DIMENSION "M" - 2'-2"	11.22 x 0.14 x 33.7	36.4	20.0	0.14 x 33.7
									TOTAL WEIGHT	4425.0			

DETAILS OF APPROACH SLAB FOR 38' FOOT BRIDGE

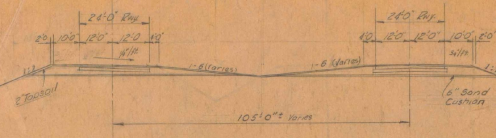
TO BE USED FOR BRIDGE AT STATION 1907+70

LOCATION INTERSTATE OVER MUDDY BROOK (NORTHBOUND ROADWAY)

APPROACH SLAB NO. 4

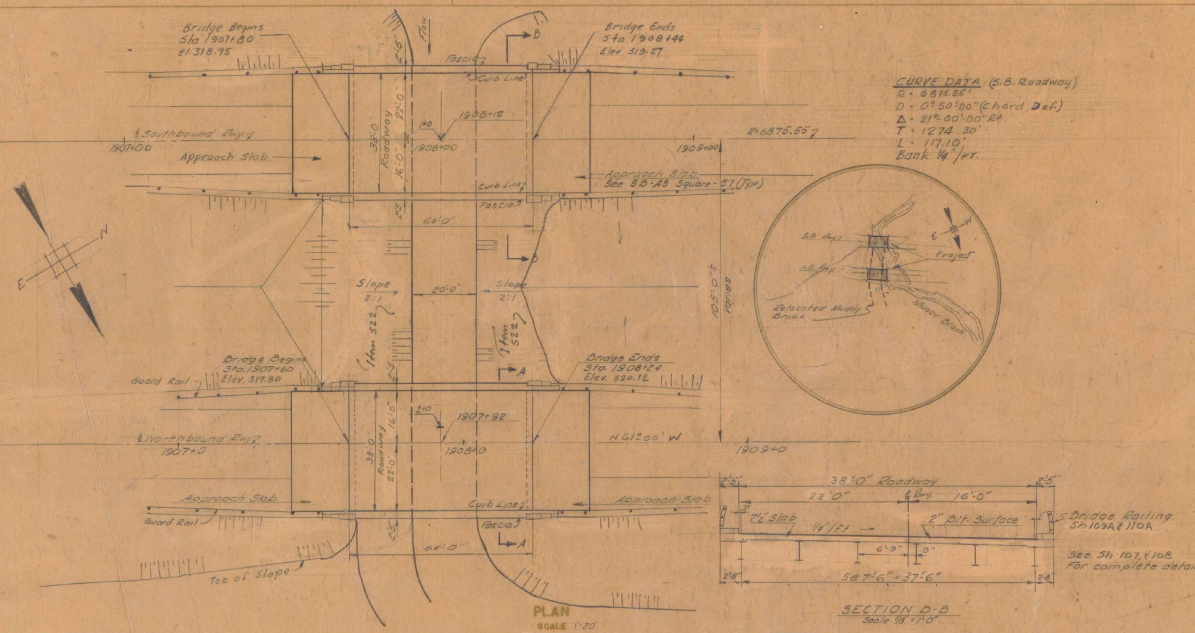
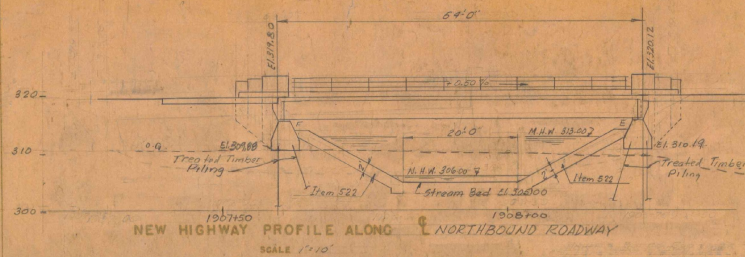
STATE OF VERMONT DEPARTMENT OF HIGHWAYS STANDARD STRUCTURE SB-AS-60

TOWN OF WILLISTON S. BRUNTON ROUTE NO. 189 LOG STA. 1907+70 SCALE AS NOTED DESIGNED BY RSH CHECKED BY AHS PROJECT NO. I-89-3(1A) Cont. #1 BR. 8 OF 10 SHEET 76 OF 115



3" C.P. Conc. Pavement 17m 301'-8 Mod.
2" 4" Crushed Stone Base Course 17m 2 1/2"
3/4" 3/4" Sand of Crushed Rock 17m 2" 2"
3" Gravel / Shoulders 17m 3'-0"

NEW HIGHWAY SECT. STA. 1907+00 TO STA. 1907+40
SCALE 1/4" = 1'-0"



CURVE DATA (S.B. Roadway)
 $D = 3815.85'$
 $D = 0^\circ 50' 00''$ (Chord Def.)
 $\Delta = 21^\circ 00' 00''$
 $T = 1274.30'$
 $L = 1710'$
 Bank 1/4' ft.

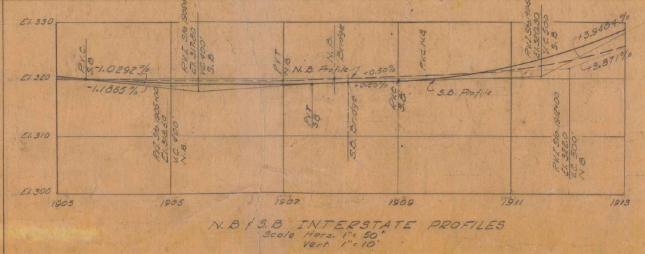
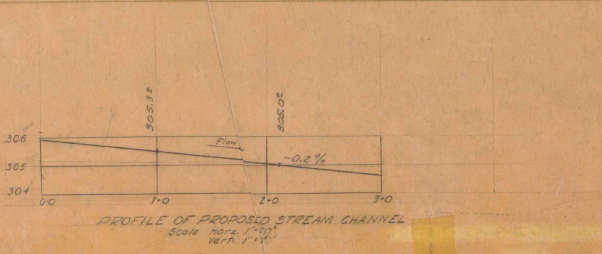
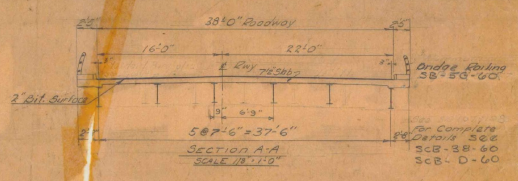
RIGHTWAY NO. **89** NAME OF HIGHWAY **INTERSTATE**
 STRUCTURE NO. **OVERPASS N.B.F.S.B. WOODY BROOK** COUNTY **CHITTENDEN** TOWN **WILLISTON**
 PROJECT NO. **255-3(14)** LOCATION **STA. 1907+80 TO 1908+144 S.B. 1907+60 TO 1908+144 N.B.**

- EXISTING STRUCTURE**
- 1 RATED LOADING OF EXISTING STRUCTURE
 - 2 TYPE OF EXISTING STRUCTURE **NO. 16**
 - 3 UNDERCLEARANCE ELEVATION OF EXISTING STRUCTURE
 - 4 WHAT DISPOSITION SHOULD BE MADE OF EXISTING STRUCTURE COST OF REMOVAL
 - 5 SHOULD EXISTING STRUCTURE BE USED TO MAINTAIN TRAFFIC DURING CONSTRUCTION OF NEW STRUCTURE
 - 6 SHOULD NEW TEMPORARY STRUCTURE BE BUILT
 - 7 ORDINARY HIGH WATER SURFACE ELEV. AT EXISTING STRUCTURE WATERWAY TO ORDINARY H.W.
 - 8 EXTREME HIGH WATER AT EXISTING STRUCTURE
 - 9 SPAN OF EXISTING BRIDGE UPSTREAM WATERWAY TO EXTREME H.W.
 - 10 SPAN OF EXISTING BRIDGE DOWNSTREAM WATERWAY TO EXTREME H.W.
 - 10 TYPE OF FOUNDATION UNDER EXISTING ABUTMENTS
 - 11 DOES ALL WATER AT FLOOD ELEVATION PASS THROUGH EXISTING STRUCTURE
 - 12 IF NOT AT WHAT ELEVATION IS RELIEF AFFORDED
 - 13 ADDITIONAL WATERWAY AREA PROVIDED
- NEW STRUCTURE**
- 1 RECOMMENDED TYPE OF STRUCTURE **Span Simple Supported Composite Beam Constructed**
 - 2 RECOMMENDED CLEAR SPAN OR SPANS MEASURED PARALLEL TO & NEW HIGHWAY **60'-0"**
 - 3 MEASURED AT RIGHT ANGLES TO STREAM **60'-0"**
 - 3 ARE THERE OBJECTIONS TO A PIER IN THE STREAM, ANSWER YES OR NO **NO**
 - 4 ORDINARY HIGH WATER ELEVATION AT NEW STRUCTURE **306.05'**
 - 5 EXTREME HIGH WATER ELEVATION AT NEW STRUCTURE **310'** SOURCE OF INFORMATION
 - 6 IS ALL WATER INTENDED TO PASS THROUGH NEW STRUCTURE? **YES**
 - 7 DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY? **YES** IS ORDINARY RISE RAPID? **NO**
 - 8 LOW WATER ELEVATION AT NEW STRUCTURE **306.00 ±**
 - 9 DRAINAGE AREA IN ACRES ABOVE STRUCTURE **2000** CHARACTER OF TERRAINE **Rolling**
 - 10 IS STREAM EVER DRY? **NO**
 - 11 VELOCITY OF STREAM AT HIGH WATER STAGE **6 F/S** ESTIMATED DISCHARGE **1680 C.F/S**
 - 12 AREA FULL OPENING **440** AREA BELOW ORDINARY H.W.
 - 13 CHARACTER OF SOIL **Slight** DRIFT ICE
 - 14 ESTIMATED DRAINAGE AREA ABOVE NATURAL OR ARTIFICIAL STORAGE
 - 15 VERTICAL CLEARANCE ABOVE FLOOD ELEVATION **15'-0"**
 - 16 ARE SIDEWALKS REQUIRED, IF SO ON WHAT SIDE **N.O.** BOTH SIDES
 - 17 RECOMMENDED TYPE OF PAVEMENT **7 1/2" Bit. Conc. 12" Bit. Conc. Concrete**
 - 18 TRAFFIC TO BE MAINTAINED UNDER ITEM NO. **ONE OR TWO WAYS** PROBABLE **ONE**
 - 19 PROBABLE COST OF CLEARING AND GRUBBING STREAM CHANNEL AT STRUCTURE SITE **4,000**
 - 20 SHOULD PROVISIONS BE MADE FOR PUBLIC UTILITY? **NO**
 - 21 ESTIMATED ALLOWABLE LOAD ON FOUNDATION **NO** SHOULD PILES BE USED? **Yes** EST. LTH. **55'**
20 TONS PER PILE **TREATED TIMBER PILE!**

FOUNDATION INFORMATION

OBTAINED FOR DESIGN PURPOSES ONLY, AND THE STATE ASSUMES NO RESPONSIBILITY WHATSOEVER FOR THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN. Boulders may be encountered at any pier or abutment location.

1 For borings see Sh 94 of 115
 2 Design loading 1,120 lbs. 3' x 4' Modified for National System of Interstate Highways



BR 10 OF 10

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

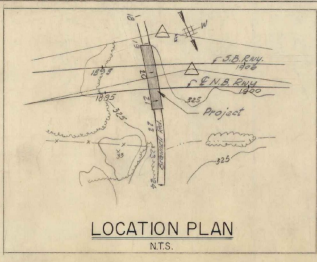
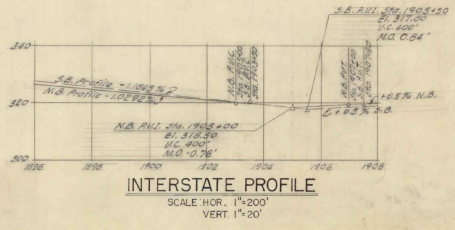
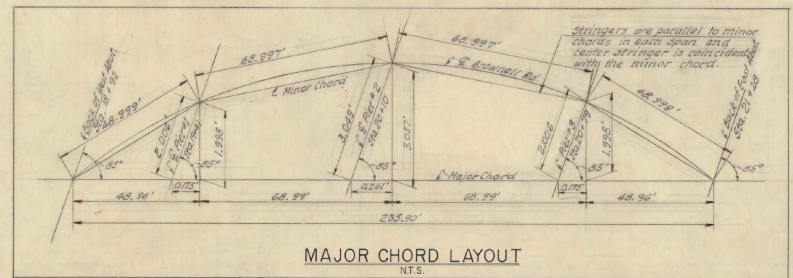
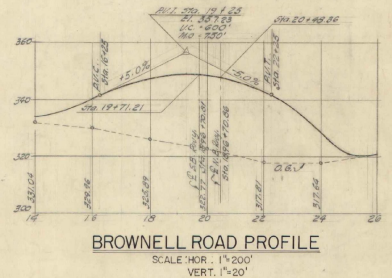
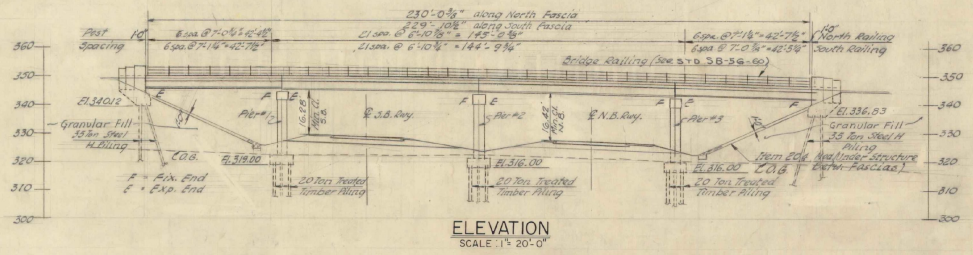
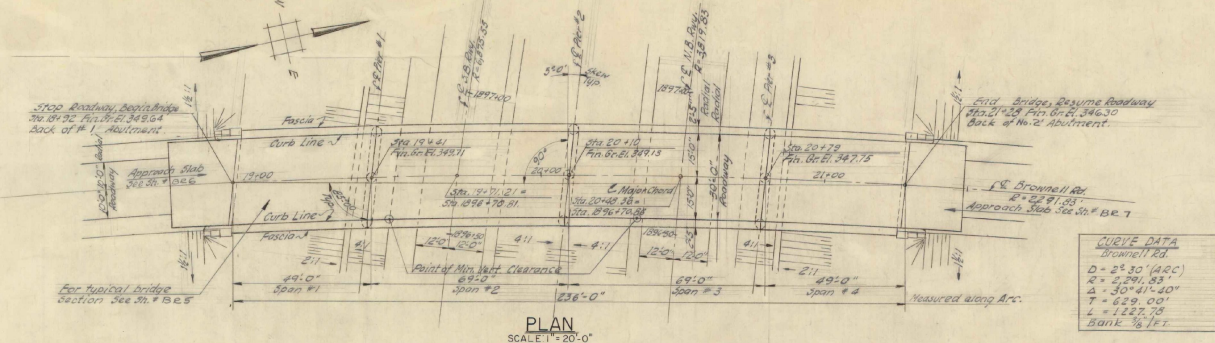
INTERSTATE _____ IN THE TOWNS OF
WILLISTON, SO. BURNING

ROUTE NO. **92** LOG STA.

OVERPASS N.B.F.S.B. WOODY BROOK

DESIGNED BY **R.K.E.** CHECKED BY **A.J.T.** SCALE **1/2" = 1'-0"**
 DRAWN BY **R.K.E.** CHECKED BY **A.J.T.** SCALE **1/2" = 1'-0"**

PROJECT NO. **255-3(14)** SHEET **115**



REFERENCE DRAWINGS:
 Plan Interstate Sh. # 12
 Profile Interstate Sh. # 18
 Cross Section Interstate Sh. # 31, 32, 43, 44
 Plan of Profile Brownell Rd. Sh. # 21
 Cross Section Brownell Rd. Sh. # 54, 55, 56

LIST OF DRAWINGS:
 General Plan & Elevations Be. Sh. # 1
 App. Plan & Elevation Be. Sh. # 2
 Pier Details Be. Sh. # 3
 Abutment Details Be. Sh. # 4
 Framing Plan Be. Sh. # 5
 Approach Slab # 1 DE Sh. # 6
 Approach Slab # 2 BE Sh. # 7
 Boring Logs BE Sh. # 8
 Bar Schedule BE Sh. # 9
 Preliminary Information Sheet BE Sh. # 10
 Sheet 107
 Sheet 108
 Sheet 109
 Sheet 110
 Sheet 111

ESTIMATED QUANTITIES						NE. QUANT.
ITEM #	ITEM	UNIT	NEAT	OVERRUN	TOTAL	Final
107	Structure Excavation	C.Y.	482	257	739	236
204	Excavate Cracked Rock, Incl. Under Structure	C.Y.	418	75	493	127
361A	Bit Conc. Pavt. (Incl. Approach Slab)	Ton	462	452	914	*
402	Conc. Class B Mod. (Incl. Appro. Slab)	C.Y.	602	32	634	619
402	Reinforcing Steel (Incl. Approach Slab)	LB	9000	—	9000	99,693
403	Spiral Reinforcement (T-40")	LB	—	—	—	1
404A	Structural Steel	LB	22600	4500	27100	228,252
407	Asphaltic Asbestos Coating	S.Y.	477	—	477	47
501	Purchasing Equipment for Lining Piles	—	—	—	—	76
502A	Painted Timber Piling	LF	4,450	—	4,450	5,799
503	Galv. Steel Piling	LF	—	—	—	—
504	Steel H. Piling (10 x 25 P 53)	LF	4,500	—	4,500	1,571
506	Concrete Bridge Curb and (Incl. Approach Slab)	LF	502	—	502	503
572	Bridge Railing	LF	463 V	—	463 V	463
622	Gravel Backfill	C.Y.	22	—	22	0
818	Tar Emulsion for Bridge Floors	Gal	371	—	371	*
892	Joint Sealer Non-Durable Elastic Type	LF	150	—	150	*

* TO BE INCLUDED IN THE ROADWAY ESTIMATE

GENERAL NOTES

- All materials and construction shall conform to the State of Vermont Department of Highways, Standard Specifications for Road and Bridge Construction dated Jan. 1956 and the A.A.S.H.O. Standard Specifications dated 1957. Designed for R-20-316-44 loading modified for National System of Interstate Highways applied in accordance with the provision of the A.A.S.H.O. Standard Specifications, Article 1.2.8.
- Unless otherwise called for all beams shall be rolled to a true circular camber the middle ordinate being that shown in AISC handbook as being the minimum camber likely to remain permanent.
- Final coat of field paint shall be green unless otherwise directed by the Engineer.
- All dimensions given are measured horizontally or vertically unless otherwise noted.
- All dimensions given at 63°F.
- All reinforcing to have a clear cover of 3" unless otherwise noted.
- All exposed edges of concrete shall be chamfered 1" unless otherwise noted.
- Bearings indicated on the drawings have been made for design purposes only and are not warranted to show actual subsurface conditions.
- Elevation datum sea level based on Bench line U.S.C.G.S. Survey Level Line Vermont 28 (Second Order).
- Steel Bearing Piles shall be driven to ledge rock unless otherwise approved by the Engineer. When Piles are driven in fill, the material should be suit. as to have no spaces large enough to interfere with the driving of piles. All steel Piles shall be 1/2 B.P. 23.
- The top surfaces of all piers and abutments shall be sloped 1/4" per foot from the bank side of abutment back walls or 1/2" centerline of pier abutment for bearing pads projecting far enough above the general area, which surfaces shall be level. The entire exposed top surface of the piers and abutments shall be coated with asphaltic asbestos coating 1/2" thick as per Item 407 of specifications.

BE 1 of 10

STATE OF VERMONT
 DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWNS OF
 WILLISTON, SOUTH BURLINGTON.

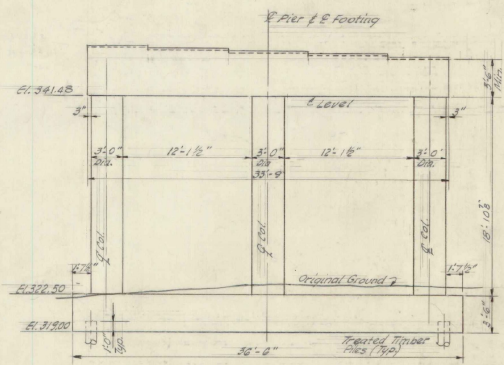
UNDERPASS STA. 1896+70.86
BROWNELL ROAD

GENERAL PLAN & ELEVATION

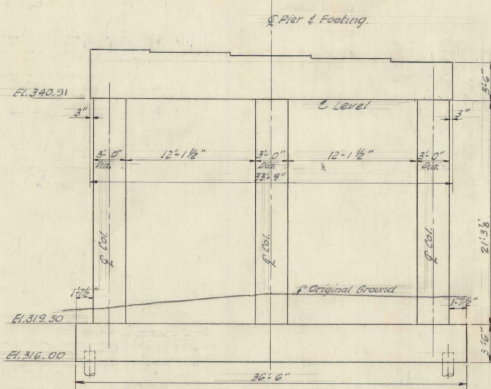
BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.

DRAWN BY A.M. IN CHARGE A.J.T. SCALE AS SHOWN
 CHECKED BY B.L.C. DATE

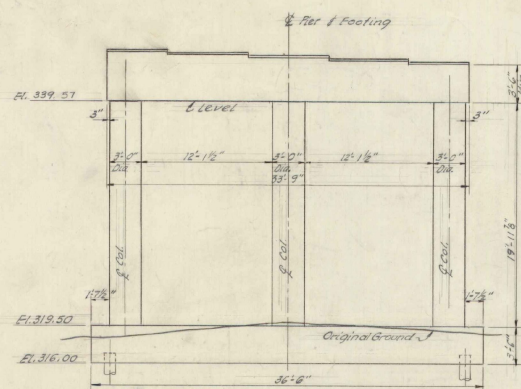
PROJECT NO. 1 89-3 (4) SHEET 97 OF 115



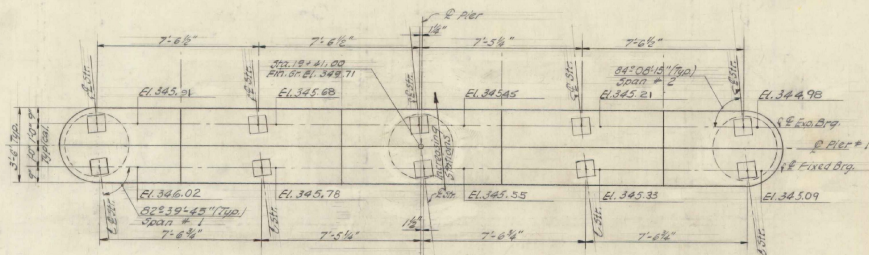
PIER #1
SCALE: 3/16"=1'-0"



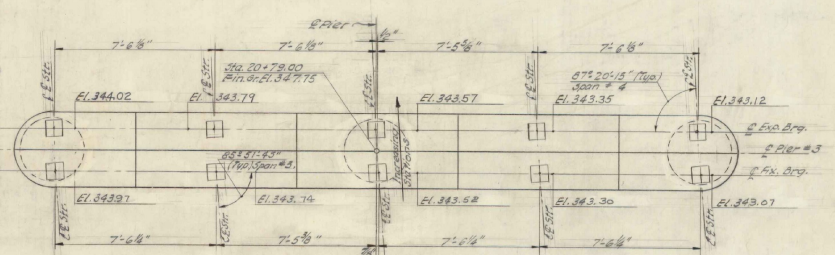
PIER #2
SCALE: 3/16"=1'-0"



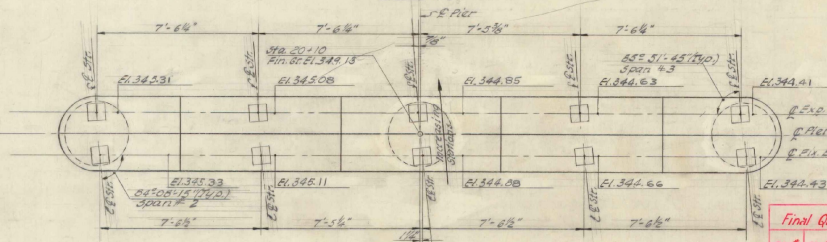
PIER #3
SCALE: 3/16"=1'-0"



PLAN-PIER #1
SCALE: 3/8"=1'-0"



PLAN-PIER #3
SCALE: 3/8"=1'-0"



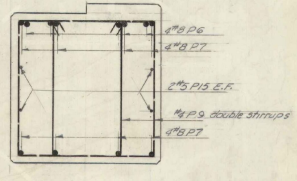
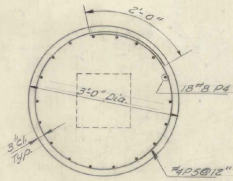
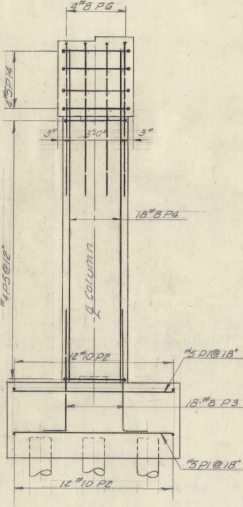
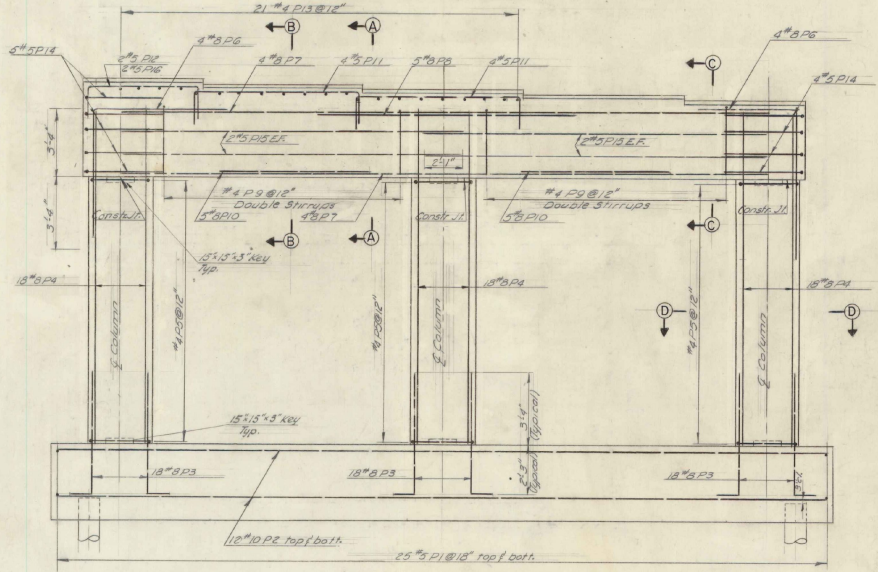
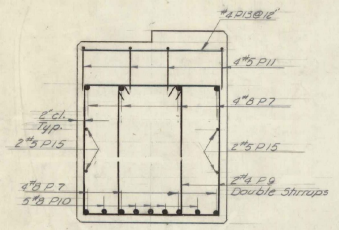
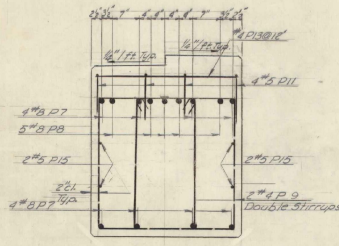
PLAN-PIER #2
SCALE: 3/8"=1'-0"

NOTES:
1. For General Notes see Sht. # B01
2. For Pier details see Sht. # B03
3. For pile data see Sht. # B03
4. All elevations looking toward increasing stations.

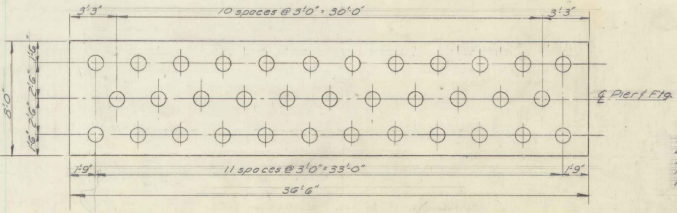
BR 2 of 10

ITEM #	ITEM	UNIT	ESTIMATED QUANTITIES								
			PIER #1		PIER #2		PIER #3				
			NEAT	OVERRUN	TOTAL	NE AT	OVERRUN	TOTAL	NEAT	OVERRUN	TOTAL
107	Structure Excavation	C.Y.	100	0	100	0	0	0	0	0	0
20	404 Concrete Class B. Mod.	C.K.	70	0	70	0	0	0	0	0	0
402	Reinforcing Steel	Lb.	1100	0	1100	0	0	0	0	0	0
407	Asphaltic Asbestos Coating	S.Y.	10	0	10	0	0	0	0	0	0
302	Treated Timber Piling	L.F.	1000	0	1000	0	0	0	0	0	0

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
INTERSTATE PROJECT IN THE TOWNS OF
WILLISTON, SOUTH BURLINGTON
UNDERPASS STA. 1896+70.86
BROWNELL ROAD
PIERS - PLANS & ELEVATIONS
BOSWELL ENGINEERING CO., RIDGEFIELD PARK, N.J.
DRAWN BY: J.M. IN CHARGE: A.J.J.
CHECKED BY: J.J.G. DATE: SCALE AS SHOWN
PROJECT NO. 189-3 (14) SHEET 73 OF 115



NOTES
 1. For General Notes see sheet 10 R.1
 2. For pier elevations and plans see sheet 10 R.2
 3. For estimate of quantities see sheet 10 R.2



35 Piles
 Estimated Average Pile Length
 24' x 1.50'
 24' x 1.50'
 24' x 1.50'

BR 3 of 10

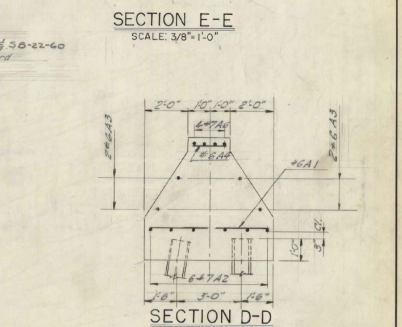
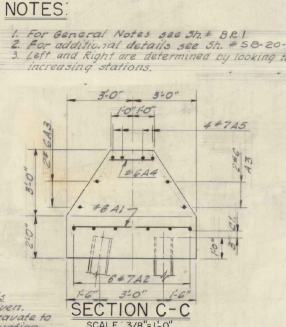
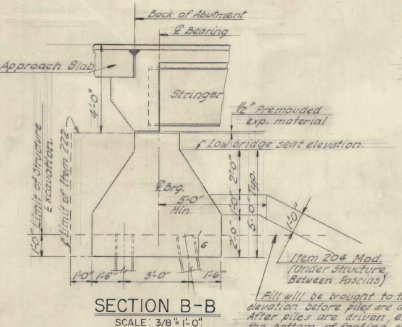
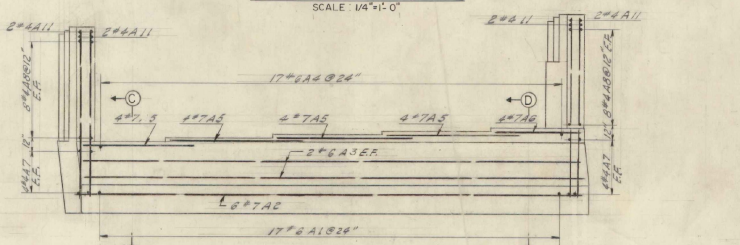
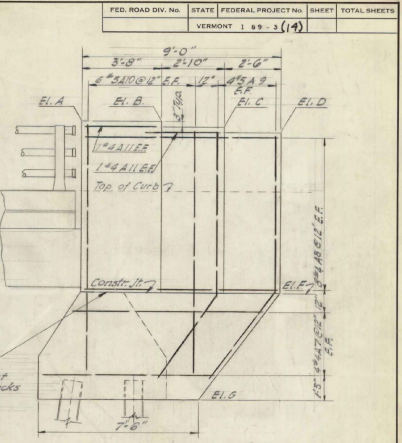
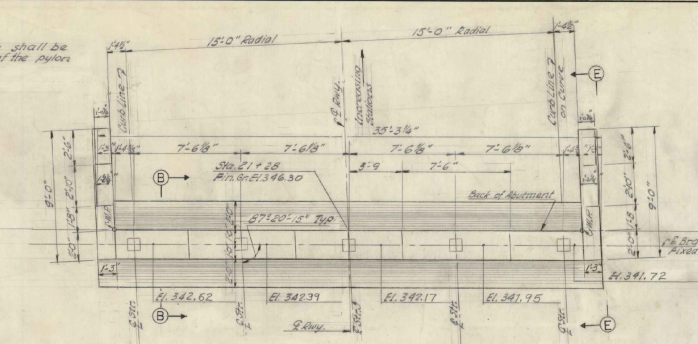
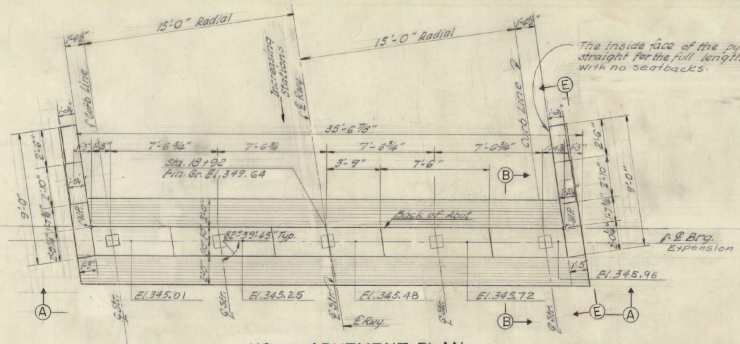
STATE OF VERMONT
 DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWNS OF
 WILLISTON, SOUTH BURLINGTON

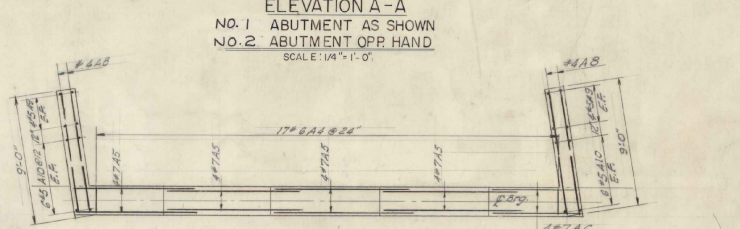
UNDERPASS STA. 1896+70.86
 BROWNELL ROAD
 TYPICAL PIER DETAILS

BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.

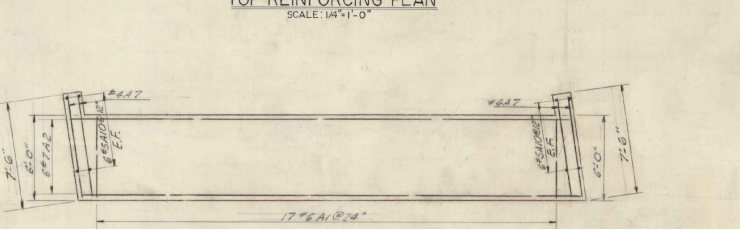
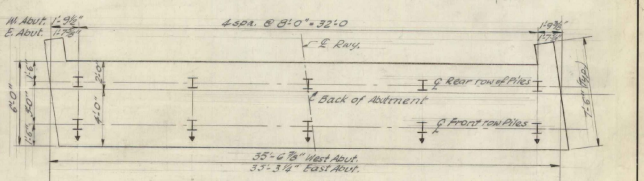
DRAWN BY: M. BARNES IN CHARGE A.J.L. SCALE AS SHOWN
 CHECKED BY: M.C. DATE
 PROJECT NO. 1 89 - 3 (14) SHEET 77 OF 113



NOTES:
1. For general notes see Sp. # B.1
2. For additional details see Sp. # 50-20-60 & 50-22-60
3. Left and Right are determined by looking toward increasing stations.



ELEV.	NO. 1 ABUTMENT		NO. 2 ABUTMENT	
	RIGHT PYLON	LEFT PYLON	RIGHT PYLON	LEFT PYLON
A	353.49	354.45	350.23	351.15
B	353.47	354.43	350.10	351.01
C	353.20	354.16	349.76	350.67
D	352.94	353.90	349.43	350.32
E				
F	345.12	346.07	341.83	342.75
G	340.12	340.12	336.83	336.83

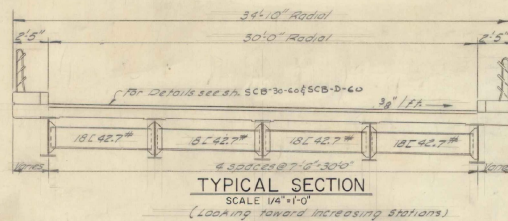


Final Quant.	ITEM #	ITEM	ESTIMATED QUANTITIES				
			UNIT	WEST ABUTMENT NEAT	OVERRUN TOTAL	EAST ABUTMENT NEAT	OVERRUN TOTAL
	107	Structure Excavation	C.Y.	44	12	7	12
	401	Concrete Class B Mod.	C.Y.	22	44	44	22
2002	1989	Reinforcing Steel	LD	See Bar Schedule	See BR 9 of 10		
	407	Asphaltic Asbestos Coating	S.Y.	4	4	4	4
0	0	Splices for Steel Piling	Sq.				
847	880	Steel H Piling (12 D.P.S.)	L.F.	8500	1800	8500	1800
0	0	Gravel Backfill	C.Y.	77	77	77	77

5 Piles battered 6:1 each Abut. 5 Piles vertical each Abut. 10 Piles Total each Abut. Estimated dry pile length = West abut 654'. East abut 854'. Indicates piles battered.

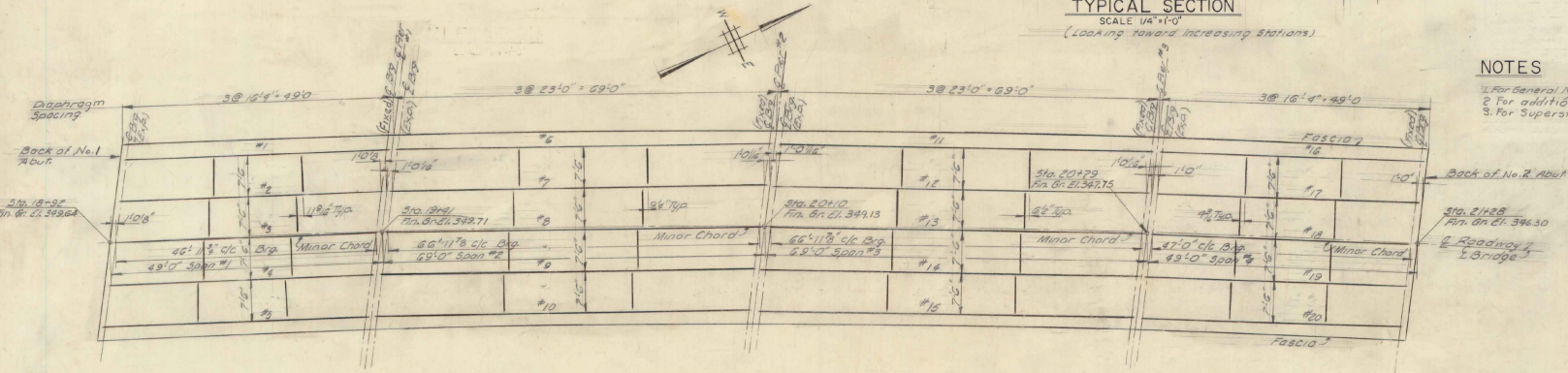
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
INTERSTATE PROJECT IN THE TOWNS OF
WILLISTON SOUTH BURLINGTON
UNDERPASS STA. 1896+70.86
BROWNELL ROAD
ABUTMENT DETAILS
BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N. J.
DRAWN BY: A.M. IN CHARGE: J.J. SCALE AS SHOWN
CHECKED: P.V.C. DATE PROJECT NO. 1 89 - 3 (14) SHEET 100 OF 115

BR4 of 10



ESTIMATED QUANTITIES				
ITEM #	ITEM	UNIT	NEAT	OVERRUN TOTAL
403	FRAMING PLAN	LS	256	1152
444A	STRUCTURAL STEEL	Lb	326100	4500
				23062

- NOTES**
- For General Notes see Sh. BR-1
 - For additional details see Sh. 5B-20-60 & 5B-22-60
 - For Superstructure details see Sh. 5B-30-60 & 5B-D-60



FRAMING PLAN
SCALE 1" = 10'

BR 5 of 10

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWNS OF
WILLISTON, SOUTH BURLINGTON.

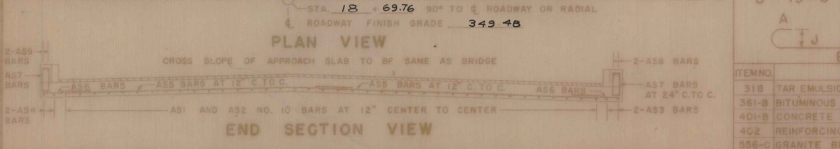
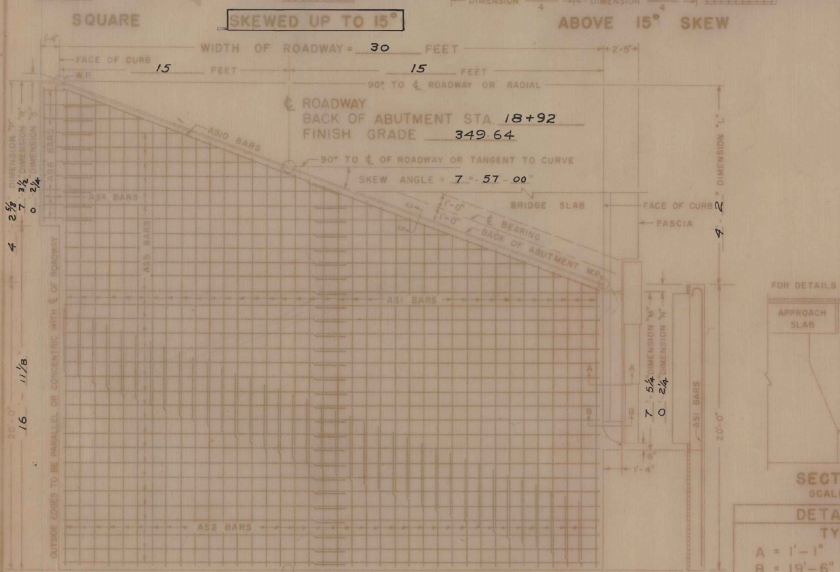
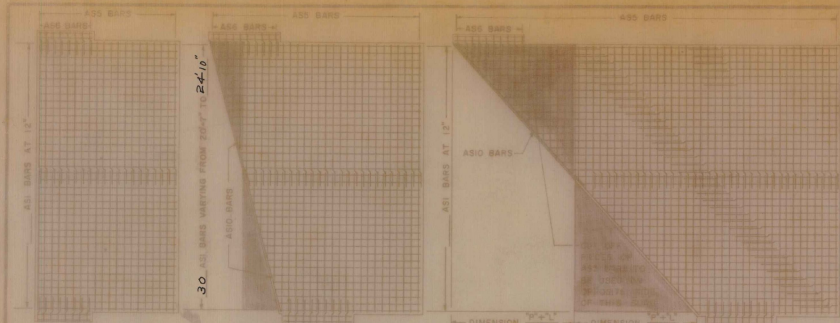
UNDERPASS STA. 1896+70.86
BROWNELL ROAD

FRAMING PLAN

BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N. J.

DRAWN BY: R.E.E. IN CHARGE: A.W.L. SCALE: As Shown
CHECKED BY: A.L.T. DATE: _____

PROJECT NO. I-89-3 (14) SHEET 101 OF 115



REVISIONS AND CORRECTIONS

APPROVED _____

DRAWN BY: R.S. HAUPST NOV. 1940

TRACED BY: R.S. HAUPST NOV. 1940

CHECKED BY: A.H. SMALLEY NOV. 1940

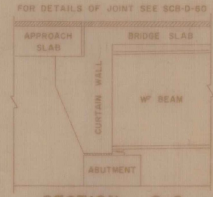
CORRECT _____

APPROVED _____

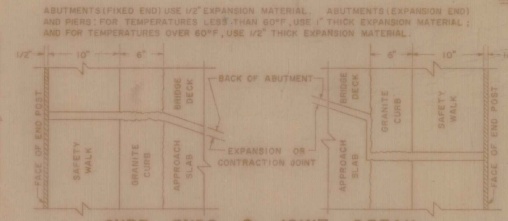
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NO. PIECES	SIZE	MARK	REMARKS	NO. PIECES	SIZE	MARK	REMARKS	NO. PIECES	SIZE	MARK	REMARKS	NO. PIECES	SIZE	MARK	REMARKS	NO. PIECES	SIZE	MARK	REMARKS				
SQUARE OR SKEWED																							
2	10	7'-0"	AS3 STR.	2	10	7'-0"	AS3 STR.	2	10	7'-0"	AS3 STR.	2	10	7'-0"	AS3 STR.	2	10	7'-0"	AS3 STR.				
2	10	6'-10"	AS4 STR.	2	10	6'-10"	AS4 STR.	2	10	6'-10"	AS4 STR.	2	10	6'-10"	AS4 STR.	2	10	6'-10"	AS4 STR.				
14	5	5'-0"	AS5 STR.	8	5	3'-6"	AS6 STR.	2	5	3'-6"	AS6 STR.	5	5	3'-6"	AS6 STR.	5	5	3'-6"	AS6 STR.				
8	5	5'-0"	AS7 STR.	2	5	5'-0"	AS7 STR.	2	5	5'-0"	AS7 STR.	2	5	5'-0"	AS7 STR.	2	5	5'-0"	AS7 STR.				
4	5	5'-3"	AS8 STR.	2	5	5'-3"	AS8 STR.	2	5	5'-3"	AS8 STR.	2	5	5'-3"	AS8 STR.	2	5	5'-3"	AS8 STR.				
2	5	5'-2"	AS9 STR.	2	5	5'-2"	AS9 STR.	2	5	5'-2"	AS9 STR.	2	5	5'-2"	AS9 STR.	2	5	5'-2"	AS9 STR.				
SQUARE																							
30	10	20'-7"	AS1 I	38	10	20'-7"	AS1 I	42	10	20'-7"	AS1 I	44	10	20'-7"	AS1 I	10	20'-7"	AS1 I	10	20'-7"	AS1 I		
20	5	29'-6"	AS5 STR.	40	5	19'-9"	AS5 STR.	40	5	21'-9"	AS5 STR.	40	5	22'-9"	AS5 STR.	5	29'-6"	AS5 STR.	5	29'-6"	AS5 STR.		
SKEWED UP TO 15°																							
30	10	22'-8 1/2"	AVE AS1 I	38	10	20'-7"	AVE AS1 I	42	10	20'-7"	AVE AS1 I	44	10	20'-7"	AVE AS1 I	10	20'-7"	AVE AS1 I	10	20'-7"	AVE AS1 I		
24	5	29'-6"	AS5 STR.	2	5	19'-9"	AS5 STR.	3	5	21'-9"	AS5 STR.	3	5	22'-9"	AS5 STR.	3	5	29'-6"	AS5 STR.	3	5	29'-6"	AS5 STR.
ALL SKEWED SPANS																							
2	5	16'-3"	AS10 STR.	5	AS10 STR.	5	AS10 STR.	5	AS10 STR.	5	AS10 STR.	5	AS10 STR.	5	AS10 STR.	5	AS10 STR.	5	AS10 STR.	5	AS10 STR.		
ABOVE 15° SKEW																							
30	10	20'-7"	AS1 I	38	10	20'-7"	AS1 I	42	10	20'-7"	AS1 I	44	10	20'-7"	AS1 I	10	20'-7"	AS1 I	10	20'-7"	AS1 I		
29	10	20'-7"	AVE AS2 STR.	4	37	10	AVE AS2 STR.	4	41	10	AVE AS2 STR.	4	43	10	AVE AS2 STR.	4	10	20'-7"	AVE AS2 STR.	4	10	20'-7"	AVE AS2 STR.
5	29'-6"	AS5 STR.	2	5	19'-9"	AS5 STR.	3	5	21'-9"	AS5 STR.	3	5	22'-9"	AS5 STR.	3	5	29'-6"	AS5 STR.	3	5	29'-6"	AS5 STR.	

REMARKS: ① ASI BAR "W" DIMENSION VARIES FROM 19'-6" TO 23'-9" ② 20" DIMENSION (3/4" L) = 4 (IN FEET) + NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. ③ 40" DIMENSION (3/4" L) = 2 (IN FEET) + NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. ④ THE LENGTH OF AS2 BARS VARIES FROM 7'-0" TO 10'-0". THE AS2 BARS MAY BE DIVIDED INTO TWO OR MORE PIECES, AS MAY BE NECESSARY, TO LIMIT THE MAXIMUM BAR LENGTH TO 30 FEET. THE LOCATION OF SPLICES IS LEFT TO THE OPTION OF THE DESIGNER. THE NO. PIECES SHOWN ARE FOR CONDITION 1. FOR CONDITION 2 & 3 SEE REINF. SCHEDULE.

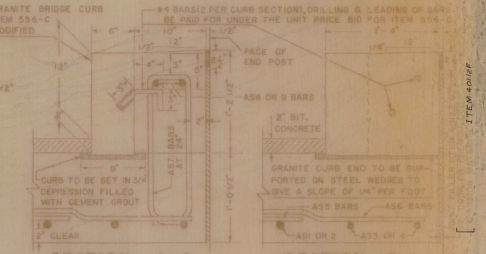
GENERAL NOTES: ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. WHEN A BAR LENGTH VARIES IN INCREMENTS EACH BAR MUST BE INSTALLED AS SHOWN. SPLICES SHALL BE 7'-0" FOR NUMBER 5 BARS, AND 4'-0" FOR NUMBER 10 BARS. ALL WORK AND MATERIALS SHALL CONFORM TO THE STATE OF VERMONT DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED JANUARY 1956, AND THE A.A.S.H.O. SPECIFICATIONS DATED 1957. DESIGNED FOR 100-PSI CONCRETE.



SECTION C-C
SCALE 1/2" = 1'-0"



CURB ENDS & JOINT DETAIL
SCALE 1/2" = 1'-0"



SECTION A-A
SCALE 1/2" = 1'-0"

SECTION B-B
SCALE 1/2" = 1'-0"

DETAILS OF REINFORCING BARS				REINFORCING STEEL				QUANTITY COMPUTATION							
TYPE I	TYPE S6	C	D	BAR NO.	NO. PIECES	LENGTH PER FT.	WEIGHT PER FT.	WEIGHT IN LB.	W = WIDTH OF ROADWAY	Z = 20 + DIMENSION	T = DIMENSION	ITEM	QUANTITY	UNIT	
A = 1'-1"	J = 0'-9"	A = 0'-6"	B = 0'-6"	AS1	30	22'-8 1/2"	4.303	2931.63	30	22.0957	7.346	BITUMINOUS CONCRETE	8	TONS	
B = 19'-6" OR VARIES	B = 0'-6"	B = 1'-9"	B = 0'-6"	AS2	20	29'-6"	4.303	2931.63	30	22.0957	7.346	TAR EMULSION	30	GALLONS	
	C = 0'-6"	C = 0'-6"	C = 0'-6"	AS3	14	7'-0"	4.303	56.24	30	22.0957	7.346	CONCRETE CLASS B	30	CY	
	D = 0'-6"	D = 0'-6"	D = 0'-6"	AS4	2	6'-10"	4.303	56.43	30	22.0957	7.346	CONCRETE CLASS B	30	CY	
	E = 0'-6"	E = 0'-6"	E = 0'-6"	AS5	22	29'-6"	1.043	676.91	30	22.0957	7.346	CONCRETE CLASS B	30	CY	
	F = 0'-6"	F = 0'-6"	F = 0'-6"	AS6	14	3'-6"	1.043	51.10	30	22.0957	7.346	CONCRETE CLASS B	30	CY	
	G = 0'-6"	G = 0'-6"	G = 0'-6"	AS7	8	5'-0"	1.043	41.72	30	22.0957	7.346	CONCRETE CLASS B	30	CY	
	H = 0'-6"	H = 0'-6"	H = 0'-6"	AS8	2	5'-3"	1.043	10.95	30	22.0957	7.346	CONCRETE CLASS B	30	CY	
	I = 0'-6"	I = 0'-6"	I = 0'-6"	AS9	2	5'-2"	1.043	10.70	30	22.0957	7.346	CONCRETE CLASS B	30	CY	
	J = 0'-6"	J = 0'-6"	J = 0'-6"	AS10	2	16'-3"	1.043	33.90	30	22.0957	7.346	CONCRETE CLASS B	30	CY	
				TOTAL WEIGHT				3875.98							

DETAILS OF APPROACH SLAB FOR 30 FOOT BRIDGE

TO BE USED FOR BRIDGE AT STATION 1896+70.86

LOCATION BROWNELL ROAD OVER INTERSTATE APPROACH Slab No. 1

STATE OF VERMONT DEPARTMENT OF HIGHWAYS STANDARD STRUCTURE SB-AS-60

TOWN OF WILLISTON So. BURLINGTON

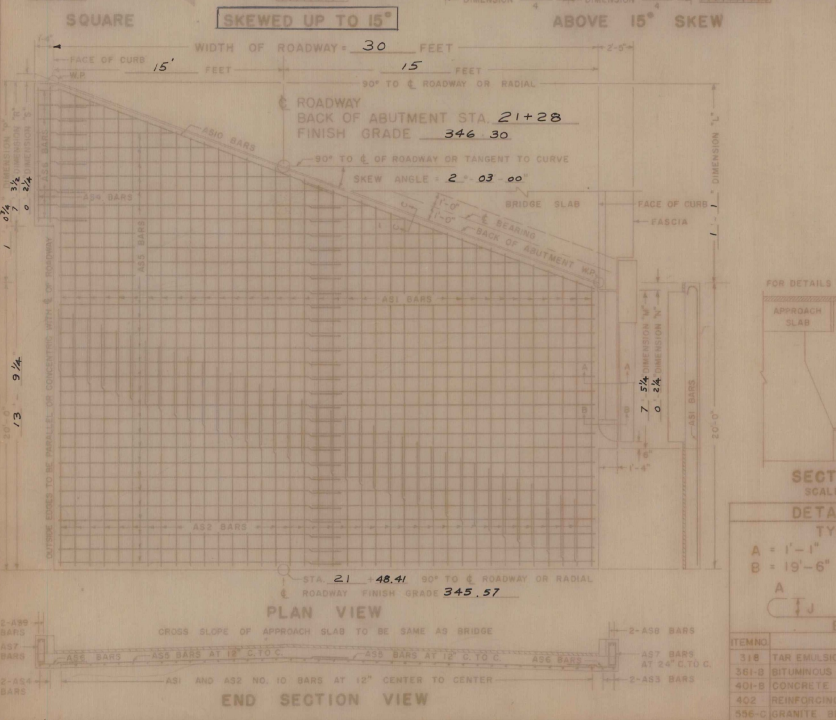
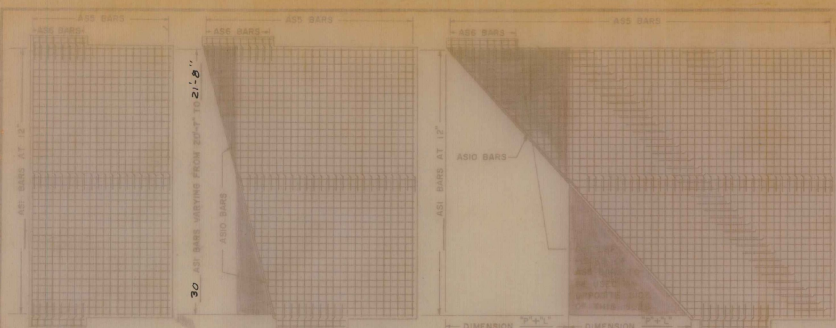
ROUTE NO. I B 9

LOG STA. SCALE AS NOTED

DESIGNED BY G.V.K. CHECKED BY R.S.H.

PROJECT NO. I 89-3(14)

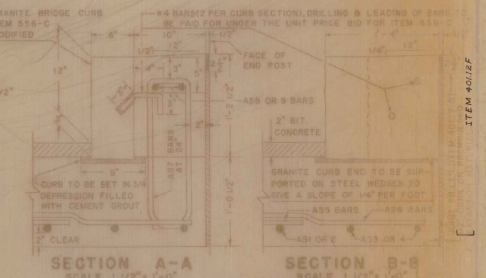
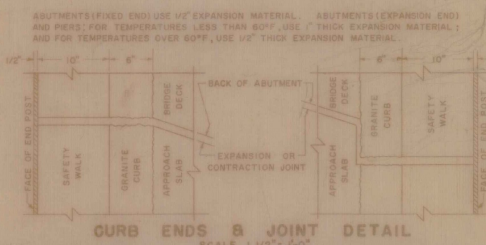
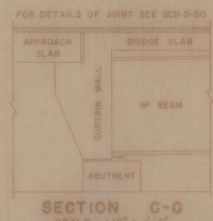
DR. 6 OF 10 SHEET 102 OF 115



30' ROADWAY					36' ROADWAY					42' ROADWAY					44' ROADWAY					ROADWAY																			
NO. PIECES	SIZE	LENGTH	MARK	TYPE	NO. PIECES	SIZE	LENGTH	MARK	TYPE	NO. PIECES	SIZE	LENGTH	MARK	TYPE	NO. PIECES	SIZE	LENGTH	MARK	TYPE	NO. PIECES	SIZE	LENGTH	MARK	TYPE															
SQUARE OR SKEWED																																							
2	10	7'-0"	AS3	STR.	2	10	6'-10"	AS4	STR.	2	10	5'-6"	AS6	STR.	2	10	5'-0"	AS7	STR.	2	10	5'-0"	AS8	STR.	2	10	5'-0"	AS9	STR.	2	10	5'-0"	AS10	STR.					
SQUARE																																							
30	10	20'-7"	AS1	J	38	10	20'-7"	AS1	J	42	10	20'-7"	AS1	J	44	10	20'-7"	AS1	J	10	20'-7"	AS1	J	10	20'-7"	AS1	J	10	20'-7"	AS1	J	10	20'-7"	AS1	J				
SKEWED UP TO 15°																																							
30	10	21'-11"	AVE AS1	J	38	10	21'-9"	AVE AS1	J	42	10	21'-9"	AVE AS1	J	44	10	21'-9"	AVE AS1	J	10	21'-9"	AVE AS1	J	10	21'-9"	AVE AS1	J	10	21'-9"	AVE AS1	J	10	21'-9"	AVE AS1	J				
ALL SKEWED SPANS																																							
3	5	16'-2"	AS10	STR.	3	5	16'-2"	AS10	STR.	3	5	16'-2"	AS10	STR.	3	5	16'-2"	AS10	STR.	3	5	16'-2"	AS10	STR.	3	5	16'-2"	AS10	STR.	3	5	16'-2"	AS10	STR.	3	5	16'-2"	AS10	STR.
ABOVE 15° SKEW																																							
30	10	20'-7"	AVE AS2	STR.	37	10	20'-7"	AVE AS2	STR.	41	10	20'-7"	AVE AS2	STR.	43	10	20'-7"	AVE AS2	STR.	10	20'-7"	AVE AS2	STR.	10	20'-7"	AVE AS2	STR.	10	20'-7"	AVE AS2	STR.	10	20'-7"	AVE AS2	STR.				
3	5	19'-6"	AS5	STR.	3	5	19'-6"	AS5	STR.	3	5	19'-6"	AS5	STR.	3	5	19'-6"	AS5	STR.	3	5	19'-6"	AS5	STR.	3	5	19'-6"	AS5	STR.	3	5	19'-6"	AS5	STR.	3	5	19'-6"	AS5	STR.

REMARKS: ① BAR SIZE DIMENSION VARIES FROM 15'-6" TO 20'-7" ② 30' W DIMENSION (79' 11") = 4 (IN FEET) × NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. ③ 40' W DIMENSION (79' 11") = 2 (IN FEET) × NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. ④ THE LENGTH OF ASD BARS VARIES FROM 10' TO 30 FEET. THE LOCATION OF SPLICES IS LEFT TO THE OPTION OF THE DESIGNER. THE NO. PIECES SHOWN ARE FOR CONDITION 1. (FOR CONDITION 2 & 3 SEE REIN. SCHEDULE.)

GENERAL NOTES: ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. WHEN A BAR LENGTH VARIES IN INCREMENTS EACH BAR MUST BE DETAILED. SPLICES SHALL BE 2'-0" FOR NUMBER 5 BARS, AND 4'-0" FOR NUMBER 10 BARS. ALL WORK AND MATERIALS SHALL CONFORM TO THE STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED JANUARY 1956, AND THE A.A.S.H.O. SPECIFICATIONS DATED 1957. DESIGNED FOR 100-PSF LL.



FOR DETAILS OF JOINT SEE SB-9-60

DETAILS OF REINFORCING BARS	
TYPE 1	TYPE 2
A = 1'-1"	J = 0'-9"
B = 1'-6" OR VARIES	B = 0'-6"
C = 0'-6"	C = 0'-6"
D = 1'-9"	D = 1'-9"
E = 0'-6"	E = 0'-6"

REINFORCING STEEL				QUANTITY COMPUTATION			
BAR NO.	NO.	LENGTH	WEIGHT PER FT.	W	Z	T	T
AS1	30	21'-11" (ave)	1.703	20.5358	20.5358	0.0125	2.36476
AS2	2	7'-0"	4.303	6.024			
AS4	2	6'-10"	4.303	5.843			
AS5	21	29'-6"	1.043	64.612	30	20.5358	0.0125
AS6	14	3'-6"	1.043	51.10			
AS7	8	5'-0"	1.043	41.72			
AS8	2	5'-2"	1.043	10.95			
AS9	2	5'-2"	1.043	10.70			
AS10	2	16'-2"	1.043	33.73			
TOTAL WEIGHT				364.08			

QUANTITY COMPUTATION

W = WIDTH OF ROADWAY = 30
 Z = 20' DIMENSION
 T = DIMENSION

BITUMINOUS CONCRETE = 20.5358 × 0.0125 = 2.56698 TONS
 TAR EMULSION = 20.5358 × 0.0444 = 0.91178 GALLONS
 CONCRETE CLASS B = 30 × 20.5358 × 0.0723 = 44.608 TONS
 GRANITE BRIDGE CURB = (51' 0" × 3' × 15" LINEAR FEET) × 1.5 UNITS PER FOOT = 230.25 UNITS
 ADD AN OVERLAP OF 15% TO BIT. CONCRETE, AND AN OVERLAP OF 5% TO CONCRETE CLASS B. BAR LENGTHS: ASD BARS = DIMENSION "W" - 2" × 2. ASD BARS = DIMENSION "H" - 0" × 4. ASD BARS = 5'-0" × 2. ASD BARS = DIMENSION "H" - 2" × 2.

REVISIONS AND CORRECTIONS

APPROVED: [Signature] BRIDGE ENGINEER

APPROVED: [Signature] CHIEF ENGINEER

DRAWN BY: R.S. HUPT NOV. 1950

TRACED BY: R.S. HUPT NOV. 1950

CHECKED BY: S.D. SMALLEY NOV. 1950

DETAILS OF APPROACH SLAB FOR 30 FOOT BRIDGE

TO BE USED FOR BRIDGE AT STATION 1826+70.86

LOCATION: BROWNELL ROAD OVER INTERSTATE APPROACH SLAB No. 4

STATE OF VERMONT DEPARTMENT OF HIGHWAYS STANDARD STRUCTURE

SB-AS-60

TOWN OF WILLISTON SO. BURLINGTON

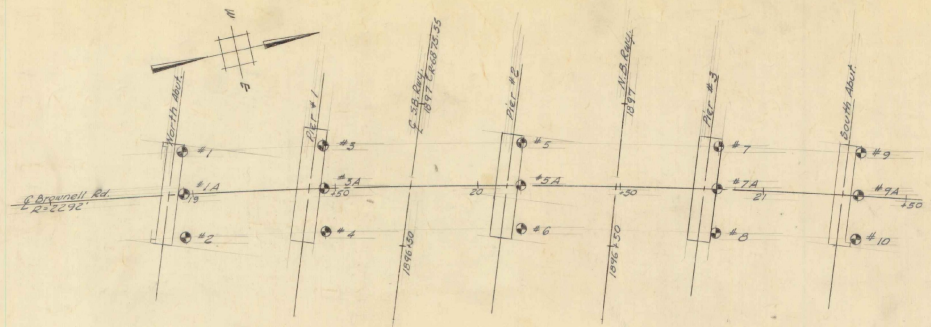
ROUTE NO. I-89

LOG STA. SCALE AS NOTED

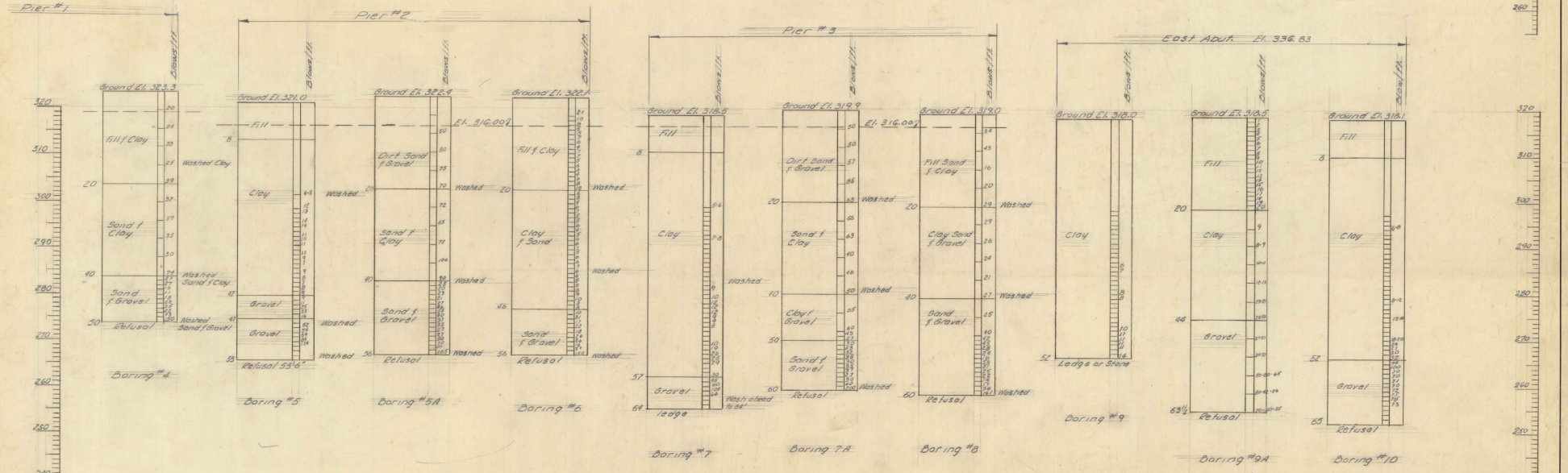
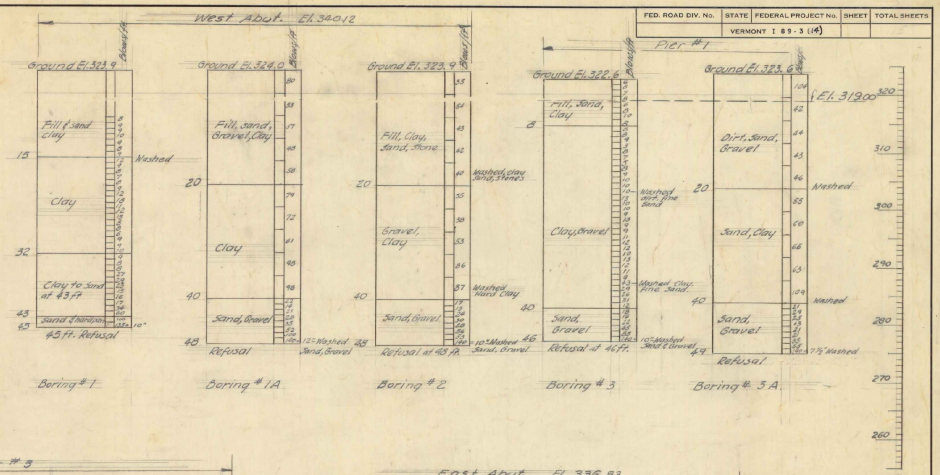
DESIGNED BY G.Y.K. CHECKED BY R.S.H.

PROJECT NO. I 89-3(14)

SR. 7 OF 10 SHEET 103 115



BORING LOCATION PLAN
SCALE 1"=20'



NOTES

1. For General Notes see sheet B.R. 1
2. Blows per foot indicate the number of blows necessary to drive a casing whose outside diameter is 2 1/2" and whose length near the top and foot using a hammer which weighs 350 lbs and drops 24"
3. ——— indicates bottom of footing elevation

B.R. 8 of 10

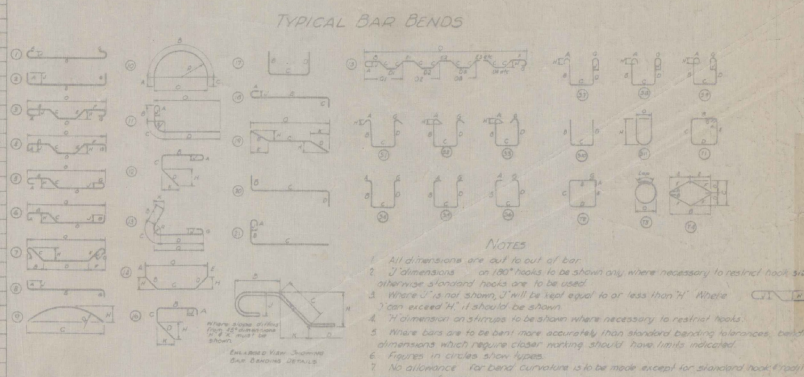
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWNS OF
WILLISTON, SOUTH BURLINGTON.

UNDERPASS STA. 1896+70.86
BROWNELL ROAD
BORING LOGS

BOSWELL ENGINEERING CO.	RIDGEFIELD PARK, N. J.
DRAWN BY R.L.E.	IN CHARGE A.J.T.
CHECKED BY A.J.T.	DATE
PROJECT NO. 1 89-3 (14)	SHEET 10 OF 115

Item	No. Pieces	Size	Length	Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O	Item	No. Pieces	Size	Length	Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O																	
SPAN # 1 (49')																																																				
196	5	34'-4"	151	STR																																																
197	5	25'-3"	132	STR																																																
21	6	85'-6"	153	STR																																																
60	5	6'-3"	154	53	0'-8"	1'-6"	1'-5"	1'-6"																				0'-5"	0'-3"																							
26	4	7'-6"	154	53	0'-5"	3'-0"	0'-6"	3'-0"																				0'-5"	0'-3"																							
31	5	4'-2"	150P	17																									2'-4"	0'-5"	1'-0"																				0'-8"	0'-6"
22	6	3'-0"	157	1																									0'-8"	1'-0"																						
SPAN # 2 (69')																																																				
276	5	34'-4"	251	STR																																																
192	4	24'-3"	252	STR																																																
30	6	24'-6"	253	STR																																																
88	4	5'-3"	254	53	0'-8"	1'-6"	1'-5"	1'-6"																				0'-5"	0'-3"																							
6	5	32'-0"	255	STR																																																
62	5	4'-2"	255P	17																									2'-6"	0'-5"	1'-0"																					
SPAN # 3																																																				
Some as SPAN # 2 (MARK 351, 352, 353 etc.)																																																				
SPAN # 4																																																				
Some as SPAN # 1 (EXCEPT NO TEST BARS REQUIRED) (MARK 451, 452, 453 etc.)																																																				
APPROACH SLAB No. 1																																																				
1	10	20'-7"	IASIA	1	1'-1"	19'-6"																																														
31	1	20'-9"	B																									0"	0'-9"																							
33	1	20'-10"	C																									0"	0'-9"																							
34	1	21'-0"	D																									0"	0'-9"																							
35	1	21'-1"	E																									0"	0'-9"																							
36	1	21'-4"	F																									0"	0'-9"																							
37	1	21'-7"	H																									0"	0'-9"																							
38	1	21'-9"	I																									0"	0'-9"																							
39	1	21'-11"	J																									0"	0'-9"																							
40	1	22'-1"	K																									0"	0'-9"																							
41	1	22'-2"	L																									0"	0'-9"																							
42	1	22'-4"	M																									0"	0'-9"																							
43	1	22'-6"	N																									0"	0'-9"																							
44	1	22'-8"	O																									0"	0'-9"																							
45	1	22'-10"	P																									0"	0'-9"																							
46	1	22'-11"	Q																									0"	0'-9"																							
47	1	23'-1"	R																									0"	0'-9"																							
48	1	23'-3"	S																									0"	0'-9"																							
49	1	23'-5"	T																									0"	0'-9"																							
50	1	23'-6"	U																									0"	0'-9"																							
51	1	23'-8"	V																									0"	0'-9"																							
52	1	23'-10"	W																									0"	0'-9"																							
53	1	24'-0"	X																									0"	0'-9"																							
54	1	24'-1"	Y																									0"	0'-9"																							
55	1	24'-3"	Z																									0"	0'-9"																							
56	1	24'-5"	AA																									0"	0'-9"																							
57	1	24'-7"	BB																									0"	0'-9"																							
58	1	24'-8"	CC																									0"	0'-9"																							
59	10	24'-10"	WDD	1	1'-1"	23'-9"																																														
60	3	7'-0"	IAS3	STR																																																
61	2	6'-0"	IAS4	STR																																																
62	22	5	29'-6"	IAS5	STR																																															
63	14	5	3'-6"	IAS6	STR																																															
64	8	5	5'-2"	IAS7	56	0'-4"	1'-9"	0'-6"	1'-9"																				0'-6"																							
65	2	5	8'-3"	IAS8	STR																																															
66	2	5	8'-2"	IAS9	STR																																															
67	2	5	16'-3"	IAS10	STR																																															
APPROACH SLAB # 2																																																				
83	2	10	20'-7"	2AIA	1	1'-1"	19'-6"																																													
84	2	10	20'-8"	B																									0"	0'-9"																						
85	2	10	20'-9"	C																									0"	0'-9"																						
86	2	10	20'-10"	D																									0"	0'-9"																						
87	2	10	20'-11"	E																									0"	0'-9"																						
88	2	10	21'-0"	F																									0"	0'-9"																						
89	2	10	21'-1"	G																									0"	0'-9"																						
90	2	10	21'-2"	H																									0"	0'-9"																						
91	2	10	21'-3"	I																									0"	0'-9"																						
92	2	10	21'-4"	J																									0"	0'-9"																						
93	2	10	21'-5"	K																									0"	0'-9"																						
94	2	10	21'-6"	L																									0"	0'-9"																						
95	3	10	21'-7"	2ASIM	1	1'-1"	20'-6"																																													
96	2	10	7'-0"	2AS3	STR																																															
97	2	10	6'-10"	2AS4	STR																																															
98	21	5	29'-1"	2AS5	STR																																															
99	14	5	3'-6"	2AS6	STR																																															
100	8	5	5'-0"	2AS7	56	0'-6"	1'-9"	0'-6"	1'-9"																				0'-6"																							
101	2	5	5'-3"	2AS8	STR																																															
102	2	5	5'-2"	2AS9	STR																																															
103	2	5	16'-2"	2AS10	STR																																															
ABUTMENT No. 1																																																				
104	18	6	5'-6"	1A1	STR																																															
105	4	7	36'-0"	1A2	STR																																															
106	4	7	36'-0"	1A3	STR																																															
107	17	6	1'-6"	1A4	STR																																															
108	16	7	16'-6"	1A5	STR																																															
109	5	7	6'-0"	1A6	STR																																															
110	16	4	7'-16"	1A7	STR																																															
111	33	4	8'-6"	1A8	STR																																															
112	16	5	11'-0"	1A9	14	7'-3"	4'-6"																												4'-0"																	
113	24	5	12'-0"	1A10	STR																																															
114	5	4	3'-2"	1A11	STR																																															
ABUTMENT # 2																																																				
Some as ABUTMENT # 1 (EXCEPT NO TEST BARS REQUIRED) (MARK 2A1, 2A2, 2A3 etc.)																																																				
PIER # 1																																																				
115	5	5	7'-6"	1P1	STR																																															
116	25	10	36'-0"	1P2	STR																																															
117	5	8	7'-0"	1P3	2	1'-5"	5'-7"																												0																	
118	5	8	22'-3"	1P4	STR																																															
119	4	8	16'-8"	1P5	73																																															
120	8	8	11'-7"	1P6	17	6'-8"	4'-11"																												2'-8"																	
121	8	8	30'-3"	1P7	STR																																															
122	5	8	12'-0"	1P8	STR																																															
123	48	11	1'-9"	1P9	7	4'-6"	2'-3"	3'-2"	2'-3"	3'-2"																				4'-6"																						
124	11	8	7'-0"	1P10	STR																																															
125	8	5	9'-6"	1P11	17	1'-0"	7'-6"	1'-0"																																												
126	2	5	5'-9"	1P12	17	1'-0"	3'-9"	1'-0"																																												
127	21	4	3'-5"	1P13	STR																																															
128	9	5	3'-11"	1P14	13	2'-11"	4'-1"	2'-11"																												1'-7"	3'-11"															
129	8	5	16'-2"	1P15	STR																																															
130	2	5	7'-0"	1P16	17	1'-0"	5'-0"	1'-0"																																												
PIER # 2																																																				
Same as PIER # 1 EXCEPT AS NOTED (NO TEST BARS REQUIRED)																																																				
131	54	8	24'-8"	2P4	STR																																															
132	63	4	10'-4"	2P5	T3																									2'-8"																						
PIER # 3																																																				
Same as PIER # 1 EXCEPT AS NOTED (NO TEST BARS REQUIRED)																																																				
133	54	8	23'-3"	3P4	STR																																															
134	60	4	10'-4"	3P5	T3																									2'-8"																						



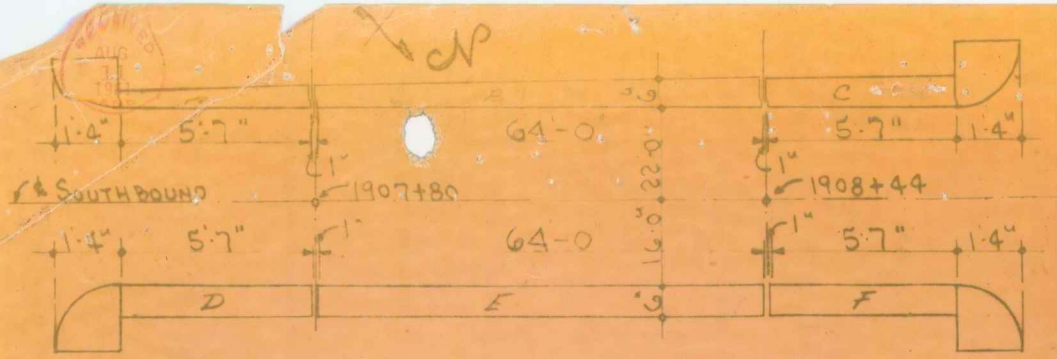
Item	No. Pieces	Size	Length	Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
141																	
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B.R. 9 of 10
ESTIMATED QUANTITIES

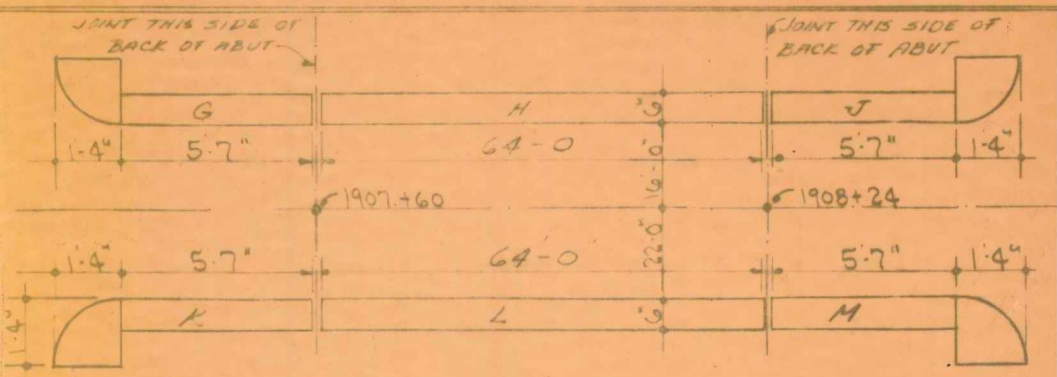
FINAL	Location	Quantity
10976	Span # 1	10976
14877	Span # 2	14877
14877	Span # 3	14877
10877	Span # 4	10877
3041	Approach Slab # 1	3041
3630	Approach Slab # 2	3630
2052	Abutment # 1	2052
1000	Abutment # 2	1000
10851	Pier # 1	10851
11691	Pier # 2	11691
10065	Pier # 3	10065
9302	Extra Safety Hooks	9302
	TOTAL	95993

94,683 call 96,000

UNDERPASS STA. 1896+70.86
BROWNELL ROAD
BAR SCHEDULE
I 89-3(14)
Comp. by Boswell Eng. Co.
Re. Comp. by G.V.K.
Checked by R.S.H.



PLAN OF GRANITE BRIDGE CURB - SOUTHBOUND RDWY.



PLAN OF GRANITE BRIDGE CURB - NORTHBOUND ROADWAY

REVISED: OVERPASS AT STA. 1907+70
 8-2-61 INTERSTATE OVER MUDDY BROOK
 OK *Wm. J.* 8-15-61 WILLISTON - So. BURLINGTON, VERMONT
 STATE COPY *Approved 8/17/61* I-89-3(1A) Cont. 1

BY: BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N. J.
 CONTRACTOR: THE LANE CONST. CORP. - MERIDEN, CONN.

SEE DRWG. NO. 1 FOR TYPICAL SECTION

DETAILS BY: BARRETTO GRANITE CORP. OAK ST. - MILFORD, N. H.
 DATE: JULY 19, 1961
 DRWG. NO. 2 OF 2
 ORDER NO. 1-C-38

REPUBLIC STEEL CORPORATION
TRUSCON DIVISION
REINFORCING BAR SHOP LIST

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Overpass Sta. 1907+70 to 2000+00
Wilmington, So. Carolina

THIS SHEET COVERS Proj. 2-89-3(14) Cont. 1
So. Abut. So. Bnd.
PROPOSED CUTTING TIG
MADE BY E.E.J.
DATE 6-19-61

PAGE 1 OF 1
CCL. NO. 1
MIL. ENGINEER ON DRAWING NO. #96C
CUSTOMER NO. B
REPUBLIC NO. 10-8717
INVOICE NO.
CODE B51
DATE SHIPPED
SHIP FROM BUFFALO
SHIP WITH
ROUTE
R/L NO.'S
7-18-61
CAR NO.

BENT BARS NOTE: ALL DIMENSIONS OUT TO OUT SKIP ONE SPACE BETWEEN BAR SIZES DIMENSIONS OMITTED ARE ZERO

ITEM	QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	D	R	WEIGHT OR CHECK COLUMN
1																		
2	16	5	12-3	S5BA9	14	7-9	4-6							3-9	✓			
3																		
4				STRAIGHT BARS														
5																		
6	8	4	3-4	S5BA11														✓
7	16	4	8-0	" A7														✓
8	32	4	8-6	" A8														✓
9																		
10	24	5	11-9	" A10														✓
11																		
12	20	6	1-6	" A4														✓
13	20	6	5-6	" A1														✓
14	8	6	22-8	" A3														✓
15																		
16	4	7	6-3	" A6														✓
17	20	7	10-3	" A5														✓
18	12	7	22-10	S5BA2														✓
19																		
20																		
21																		
22																		
23																		
24																		
25																		
26																		
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Approved
6/23/61
J.H.

SPECIAL INSTRUCTIONS (FOR TYPICAL BENDING TYPES REFER TO FORM 1251)
Notify 1 Day Prior to Shipping
VOL 6-21-60
 WAREHOUSE COPY
 PACKING LIST
 WAREHOUSE - INVOICING
 NOTICE OF SHIPMENT

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REPUBLIC STEEL CORPORATION
TRUSCON DIVISION
REINFORCING BAR SHOP LIST

LANE CONST. CORP.
Overpass Sta. 1907+70 @ Muddy Brook
Williston, So. Burlington Vt.

PAGE 1	OF 1	REL. NO. 2	REV. 3	CUSTOMER NO.	REPUBLIC NO. 10-8717
NTL. SHOWN ON DRAWING NO. #96C				INVOICE NO.	
CODE 851	DATE SHIPPED	SHIP FROM BUFFALO			
SHIP WITH	ROUTE	B/L NO.'S			
REL.# 1,3,d					
MADE BY EES	DATE 6-19-61	7-18-61	CAR NO.		

THIS SHEET COVERS Proj. I-89-3(14) Cont. 1
No. ABUF So. BND.
PROPOSED ROUTING
MADE BY EES DATE 6-19-61

BENT BARS NOTE: ALL DIMENSIONS OUT TO OUT GRIP ONE SPACE BETWEEN BAR SIZES DIMENSIONS OMITTED ARE ZERO

ITEM	QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	O	R	WEIGHT OR CHECK COLUMN
1																		
2	16	5	12-3	MS9BA9	14	7-9	4-6											3-9 ✓
3																		
4	STRAIGHT BARS																	
5																		
6	8	4	3-4	MS9BA11														✓
7	17	4	8-0	" A7														✓
8	32	4	8-6	" A8														✓
9																		
10	25	5	11-9	" A10														✓
11																		
12	20	6	1-6	" A1														✓
13	21	6	5-6	" A1														✓
14	8	6	22-8	" A3														✓
15																		
16	5	7	6-3	" A6														✓
17	20	7	10-3	" A5														✓
18	12	7	22-10	MS9BA2														✓
19																		
20																		
21																		
22																		
23																		
24																		
25																		
26																		
27																		
28																		

SPECIAL INSTRUCTIONS (FOR TYPICAL BENDING TYPES REFER TO FORM 1251)
 NOTIFY 1 DAY PRIOR TO SHIPPING
 100 6-21-60
 Warehouse Copy
 Packing List
 Warehouse - Invoicing
 Notice of Shipment
 Approved 6/23/61 HHT

S M I P T O
 LANE CONST. CORP
 OVERPASS STA. 1907+70 @ Muddy Brook
 WILLISTON, So. BURLINGTON Vt.

REPUBLIC STEEL CORPORATION
 TRUSCON DIVISION
 REINFORCING BAR SHOP LIST

PAGE 1 OF 1 RLL NO. 33 CUSTOMER NO. #96C REPUBLIC NO. 10-8717
 DET. SHOWN OR DRAWING NO. #96C INVOICE NO.
 CODE BST DATE SHIPPED SHIP FROM BUFFALO
 SHIP WITH REL # 1, 2, d ROUTE E/L NO.'S
 MADE BY EES DATE 6-19-61 7-18-61 CAR NO.

THIS SHEET COVERS PROJ. I-89-3(14) CONT. 1
 So. ASUT. No. BND.
 PROPOSED ROUTING TPKS
 MADE BY EES DATE 6-19-61

BENT BARS NOTE: ALL DIMENSIONS OUT TO OUT SKIP ONE SPACE BETWEEN BAR SIZES DIMENSIONS OMITTED ARE ZERO

ITEM	QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	O	R	WEIGHT OR CHECK COLUMN	
1	16	5	12-3	SANBA9	14	7-9	4-6							3-9	✓				
2																			
3																			
4	STRAIGHT BARS																		
5																			
6	8	4	3-4	SANBA11														✓	
7	16	4	8-0	" A7														✓	
8	32	4	8-6	" AB														✓	
9																			
10	24	5	11-9	" A10														✓	
11																			
12	20	6	1-6	" A4														✓	
13	20	6	5-6	" A1														✓	
14	8	6	22-8	" A3														✓	
15																			
16	4	7	7-0	" A6														✓	
17	20	7	10-3	" A5														✓	
18	12	7	22-10	SANBA2														✓	
19																			
20																			
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22																			
23																			
24																			
25																			
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SPECIAL INSTRUCTIONS (FOR TYPICAL BENDING TYPES REFER TO FORM 1231)
 NOTIFY 1 Day Prior to SHIPPING
 APPROVED 6/23/61 JHH
 VOL 6-21-60
 WAREHOUSE COPY
 PACKING LIST
 WAREHOUSE - INVOICING
 NOTICE OF SHIPMENT

SHIP TO
 LANE CONST. CORP.
 Overpass Sta. 1907+70 @ Muddy Brook
 WILLISTON, So. BURLINGTON, Vt.

REPUBLIC STEEL CORPORATION
 TRUSCON DIVISION
 REINFORCING BAR SHOP LIST

PAGE 1 OF 1 REL. NO. 4-3 CUSTOMER NO. REPUBLIC NO. 10-8717
 RTL. SHOWN ON DRAWING NO. #96C INVOICE NO.
 CODE 851 DATE SHIPPED SHIP FROM BUFFALO
 SHIP WITH ROUTE D/L NO.'S
 RAL. #1, 2, 3
 MADE BY EEW DATE 6-19-61 7-18-61 CAR NO.

THIS SHEET COVERS Proj. I-89-3(14) Cont. 1
 No. Abut. No. Brd.
 PROPOSED ROUTING TRK
 MADE BY EEW DATE 6-19-61

BENT BARS NOTE: ALL DIMENSIONS OUT TO OUT SKIP ONE SPACE BETWEEN BAR SIZES DIMENSIONS OMITTED ARE ZERO

ITEM	QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	O	R	WEIGHT OR CHECK COLUMN
1	16	5	12-3	NANBA9	14	7-9	4-6						3-9	✓				
2																		
3																		
4	STRAIGHT BARS																	
5																		
6	8	4	3-4	NANBAH														✓
7	16	4	8-0	" A7														✓
8	32	4	8-6	" AB														✓
9																		
10	24	5	11-9	" A10														✓
11																		
12	20	6	1-6	" A4														✓
13	20	6	5-6	" A1														✓
14	8	6	22-8	" A3														✓
15																		
16	4	7	7-0	" A6														✓
17	20	7	10-3	" A5														✓
18	12	7	22-10	NANBAZ														✓
19																		
20																		
21																		
22																		
23																		
24																		
25																		
26																		
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SPECIAL INSTRUCTIONS (FOR TYPICAL BENDING TYPES REFER TO FORM 1251)

NOTIFY 1 DAY PRIOR TO SHIPPING

Approved
 W.P. Smith

VOL 6-21-61

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- WAREHOUSE - INVOICING
- NOTICE OF SHIPMENT

G LAME CONST CORP
 I OVERPASS STA 1907+70 @ MUDDY BROOK
 T WILLISTON, So. BURLINGTON, Vt.
 O

REPUBLIC STEEL CORPORATION
 TRUSCON DIVISION
 REINFORCING BAR SHOP LIST

PAGE 1 OF 5 REL. NO. 53 CUSTOMER NO. 10-8717
 INCL. SHOWN ON DRAWING NO. #76C INVOICE NO.
 THIS SHEET COVERS PROJ. I-89-3(14) CONT. 1 CODE 851 DATE SHIPPED
 SHIP FROM BUFFALO
 SHIP WITH ROL. #6-10 ROUTE D/L NO./G
 MADE BY E.E.J. DATE 6-19-61 9-11-61 CAR NO.

PROPOSED ROUTING TRK PFD. COL.
 No. BND. SCAB

BENT BARS

NOTE: ALL DIMENSIONS OUT TO OUT
 SKIP ONE SPACE BETWEEN BAR SIZES DIMENSIONS OMITTED ARE ZERO

ITEM	QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	O	R	WEIGHT OR CHECK COLUMN
4	82	4	5-3	NBS4	S3	5	7-6	1-5	1-6			5	3		✓			
2	64	4	7-6	NBS6A	S2	5	3-0	8	3-0			5	3		✓			
3																		
4	54	6	3-0	NBS7	1	8	1-8					8	6		✓			
5																		
6																		
7	STRAIGHT BARS																	
8																		
9	153	4	32-9	NBS2														✓
10																		
11	129	5	14-9	" S1C														✓
12	128	5	18-6	" S1A														✓
13	32	5	21-3	" S5														✓
14	128	5	26-0	" S1B														✓
15	128	5	29-9	" S1D														✓
16																		
17	25	6	33-0	NBS3														✓
18																		
19																		
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SPECIAL INSTRUCTIONS (FOR TYPICAL BENDING TYPES REFER TO FORM 1251)

Notify V Day Prior to SHIPPING

Approved
 6/23/61
 J.H.H.

UOL 6/21/61

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- WAREHOUSE INVOICING
- NOTICE OF SHIPMENT

SHIP TO
 LANE CONST. CORP.
 OVERPASS STA. 1907+70 CANADY BROOK
 WILLISTON, So. BURLINGTON, VT.

REPUBLIC STEEL CORPORATION
 TRUSCON DIVISION
 REINFORCING BAR SHOP LIST

PAGE 1 OF 1 REL. NO. 10-13 CUSTOMER NO. 10-8717
 STL. SHOWN ON DRAWING NO. #96C INVOICE NO.
 CODE 851 DATE SHIPPED SHIP FROM BUFFALO
 SHIP WITH 45,7-10 ROUTE D/L NO.'S
 MADE BY EFL DATE 6-19-61 9-11-61 CAR NO.

THIS SHEET COVERS PROJ. F-89-3(14) Cont. 1
 SO. BND. SCABS
 PROPOSED BONDING T&K
 PER. 7% CCL.

NOTE: ALL DIMENSIONS OUT TO OUT SKIP ONE SPACE BETWEEN BAR SIZES DIMENSIONS OMITTED ARE ZERO

ITEM	QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	O	R	WEIGHT OR CHECK COLUMN	
L ₁	82	4	5-3	SB 54	S3	5	1-6	1-5	1-6			5	3						
L ₂	64	4	7-6	SB 56A	S2	5	3-0	8	3-0			5	3						
3																			
4	54	6	3-0	SB 57	1	8	1-8					8		6					
5																			
6																			
7	STRAIGHT BARS																		
8																			
9	152	4	32-9	SB 52															
10																			
11	128	5	14-9	" S1C															
12	128		18-6	" S1A															
13	32		21-3	" S5															
14	128		26-0	" S1B															
15	128	5	29-9	" S1D															
16																			
17	24	6	33-0	SB 53															
18																			
19																			
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27																			
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SPECIAL INSTRUCTIONS (FOR TYPICAL BENDING TYPES REFER TO FORM 1221)

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 6/23/61
 JWH

VOL 6-21-61

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- WAREHOUSE-INVOICING
- NOTICE OF SHIPMENT

LANE CONST. CORP.
 OVERPASS STA. 1907+70 @ Muddy Branch
 WILMINGTON, SO. BURLINGTON, VA

REPUBLIC STEEL CORPORATION
 TRUSCON DIVISION
 REINFORCING BAR SHOP LIST

PAGE 1	OF 1	REL. NO. 7	REV. 3	CUSTOMER NO.	REPUBLIC NO. 10-8717
SYL. SHOWN ON DRAWING NO. #966				INVOICE NO.	
CODE 851	DATE SHIPPED	SHIP FROM BUFFALO			
SHIP WITH #5,6,8,9,10	DOUVE	B/L NO.'S			
MADE BY EEL	DATE 6-19-61	9-11-61		CAL. NO.	

THIS SHEET COVERS PROS. I-89-3 (14) Cont. 1
 APPR. SLABS No. 1 (SO. BND.)
 PROPOSED ROUTING TRK

BENT BARS NOTE: ALL DIMENSIONS CUT TO OUT
 SHIP ONE SPACE BETWEEN BAR SIZES DIMENSIONS OMITTED ARE ZERO

ITEM	QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	O	R	WEIGHT OR CHECK COLUMN
1	4	8	5	5-0	1A57	56	6	1-9	6	1-9			6					
2																		
3	8	10	20-7	1A51A	1	1-1	19-6											
4	8	10	20-8	1A51B	1		19-7											
5	8	10	20-9	1A51C	1		19-8											
6	8	10	20-10	1A51D	1		19-9											
7	6	10	20-11	1A51E	1	1-1	19-10											
8																		
9																		
10	STRAIGHT BARS																	
11																		
12	14	5	3-6	1A56														
13	2	5	5-4	1A58														
14	2	5	5-4	1A59														
15	40	10	19-9	1A55														
16	2	5	20-1	1A510														
17																		
18	2	10	7-0	1A53														
19	2	10	7-0	1A54														
20																		
21																		
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27																		
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VOL 6-21-61
 GPK 6/21/61

Notify 1 Day Prior to SHIPPING

- WAREHOUSE COPY
- PACKING LIST
- WAREHOUSE - INVOICING
- NOTICE OF SHIPMENT

LANE CONST. CORP
 OVERPASS, SR. 1907+70 @ Muddy Brook
 WILLISTON, So. BURLINGTON, Vt.

REPUBLIC STEEL CORPORATION
 TRUSCON DIVISION
 REINFORCING BAR SHOP LIST

PLANT NO.	18	CUSTOMER NO.		REPUBLIC NO.	10-8717
MTL. SHEET OR DRAWING NO.	# 966	INVOICE NO.			
CODE	B51	DATE SHIPPED		SHIP FROM	BUFFALO
SHIP WITH	5-7, 9, 10	ROUTE		C/S. NO.'S	
MADE BY	EEJ	DATE	6-19-61	9-11-61	CAR NO.

THIS SHEET COVERS Proj. I-89-3 (rd) Cont. 1
 APPR. SCAM No. 2 (So. BND)
 PROPOSED ROUTING TNG
 MADE BY EEJ

BENT BARS NOTE: ALL DIMENSIONS OUT TO OUT SKIP ONE SPACE BETWEEN BAR SIZES DIMENSIONS OMITTED ARE ZERO

ITEM	QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	O	R	WEIGHT OR CHECK COLUMN
1	8	5	5-0	2A57	56	6	1-9	6	1-9			6	✓					
2																		
3	8	10	20-7	2A5A	1	1-1	19-6	✓										109 ✓
4	8		20-8	2A5B	1		19-7	✓										
5	8		20-9	2A5C	1		19-8	✓										
6	8		20-10	2A5D	1		19-9	✓										
7	6	10	20-11	2A5E	1	1-1	19-10	✓										109 ✓
8																		
9																		
10				STRAIGHT BARS														
11																		
12	14	5	3-6	2A56	✓													
13	2		5-4	2A58	✓													
14	2		5-4	2A59	✓													
15	40		19-9	2A55	✓													
16	2	5	20-1	2A510	✓													
17																		
18																		
19	2	10	7-0	2A53	✓													
20	2	10	7-0	2A54	✓													
21																		
22																		
23																		
24																		
25																		
26																		
27																		
28																		
29																		
30																		

Vol 6-21-61
 GULC 6/21/61

SPECIAL INSTRUCTIONS (FOR TYPICAL BENDING TYPES REFER TO FORM 1281)
 NOTIFY 1 DAY PRIOR TO SHIPPING

- WAREHOUSE COPY
- PACKING LIST
- WAREHOUSE - INVOICING
- NOTICE OF SHIPMENT

S
H
I
P
O
LANE CONST. CORP.
Overpass Sta. 1907 to e Muddy Brook
WILLISTON, So. BURLINGTON, Vt

REPUBLIC STEEL CORPORATION
TRUSCON DIVISION
REINFORCING BAR SHOP LIST

PLANT	CF	REL. NO.	NO. INV.	CUSTOMER NO.	REPUBLIC NO.
1	1	9	3		10-8717
NET. SHOWN ON DRAWING NO.					INVOICE NO.
# 96C					
CODE	DATE SHIPPED		SHIP FROM		
851			BUFFALO		
SHIP WITH	ROUTE		B/L NO.'S		
#5-8, 10					
DATE			CAR NO.		
6-19-61 9-11-61					

THIS SHEET COVERS
Proj. F-89-3(1d) Cont. 1
APPR. SEAS No. 3 (No. BND)
PROPOSED ROUTING
TEK
MADE BY
BEJ

BENT BARS

NOTE: ALL DIMENSIONS OUT TO OUT
SKIP ONE SPACE BETWEEN BAR SIZES
DIMENSIONS OMITTED ARE ZERO

ITEM	QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	O	R	WEIGHT OR CHECK COLUMN	
1																			
2	8	5	5-0	3A57	S6	6	1-9	6	1-9			6	✓						
3																			
4	38	10	20-7	3A51	1	1-1	19-6	✓										189 ✓	
5																			
6																			
7	STRAIGHT BARS																		
8																			
9	14	5	3-6	3A56														✓	
10	2	1	5-4	3A58														✓	
11	2	1	5-4	3A59														✓	
12	40	5	19-9	3A55														✓	
13																			
14																			
15	2	10	7-0	3A53														✓	
16	2	10	7-0	3A54														✓	
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			
25																			
26																			
27																			
28																			

UOL 6-21-61
GUK 6/21/61

SPECIAL INSTRUCTIONS (FOR TYPICAL BENDING TYPES REFER TO FORM 1251)

Notify 1 Day Prior to SHIPPING

- WAREHOUSE COPY
- PACKING LIST
- WAREHOUSE - INVOICING
- NOTICE OF SHIPMENT

S LINE CONST. CORP
 I OVERPASS STA-1907+70 @ MUDDY BROOK
 P WILMINGTON, SO. BURLINGTON, VT.
 T
 O

REPUBLIC STEEL CORPORATION
 TRUSCON DIVISION
 REINFORCING BAR SHOP LIST

PAGE 1 OF 1	REL. NO. 10	REV. 3	CUSTOMER NO.	REPUBLIC NO. 10-8717
UTIL. SHOWN ON DRAWING NO. #96C	INVOICE NO.			
CODE 351	DATE SHIPPED	SHIP FROM BUFFALO		
SHIP WITH #5-9	ROUTE	C/L NO. 9		
MADE BY EEJ	DATE 6-19-61	9-11-61	CAR NO.	

THIS SHEET COVERS PROJ. I-89-3(14) CONT. 1

APPR. SCALE No. 4 (NO BND)

PROPOSED ROUTING TRK

DATE 6-19-61 9-11-61

BENT BARS

NOTE: ALL DIMENSIONS OUT TO OUT
 SKIP ONE SPACE BETWEEN BAR SIZES
 DIMENSIONS OMITTED ARE ZERO

ITEM	QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	O	R	WEIGHT OR CHECK COLUMN
1	8	5	5-0	4AS7	5/6	6	1-9	6	1-9	✓		6						
3	38	10	20-7	4AS1	1	1-1	19-6	✓						109	✓			
7	STRAIGHT BARS																	
9	14	5	3-6	4AS6						✓								
10	2		5-4	4AS8						✓								
11	2		5-4	4AS9						✓								
12	40	5	19-9	4AS5						✓								
14	2	10	7-0	4AS3						✓								
15	2	10	7-0	4AS4						✓								
24	VOL -6-21-61																	

SPECIAL INSTRUCTIONS (FOR TYPICAL BENDING TYPES REFER TO FORM 1251)

Notify 1 Day Prior to SHIPPING

- WAREHOUSE COPY
- PACKING LIST
- WAREHOUSE - INVOICING
- NOTICE OF SHIPMENT

REPUBLIC STEEL CORPORATION
TRUSCON DIVISION
REINFORCING BAR SHOP LIST

TO: LANE CONST. CORP.
OVERPASS S.M. 1947 & 70 @ Muddy Brook
WILMINGTON, So. BURLINGTON, Vt.

PAGE 1	OR 1	REL. NO. 7	REV. 3	CUSTOMER NO.	REPUBLIC NO. 10-8717
D/L SHOWN ON DRAWING NO. #96C				INVOICE NO.	
CODE 851	DATE SHIPPED		SHIP FROM BUFFALO		
SHIP WITH #5,6,8,9,10	ROUTE		D/L NO.'S		
MADE BY EEI	DATE 2-19-61		CAR NO.		

THIS SHEET COVERS PROJ. I-89-3 (14) CONT. I
APPX. SLABS No. 1 (SO. BND)
 PROPOSED ROUTING TRK
 MADE BY EEI DATE 2-19-61

NOTE: ALL DIMENSIONS OUT TO OUT
 SKIP ONE SPACE BETWEEN BAR SIZES ✓ DIMENSIONS OMITTED ARE ZERO

ITEM	QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	O	R	WEIGHT OR CHECK COLUMN
1	8	5	5-0	1A57	SG	6	1-9	6	1-9			6						
2																		
3	8	10	20-7	1A51A	1	1-1	19-6											9
4	8	10	20-8	1A51B	1	1-1	19-7											9
5	8	10	20-9	1A51C	1	1-1	19-8											9
6	8	10	20-10	1A51D	1	1-1	19-9											9
7	6	10	20-11	1A51E	1	1-1	19-10											9
8																		
9																		
10	STRAIGHT BARS																	
11																		
12	14	5	3-6	1A56														
13	2	5	5-4	1A58														
14	2	5	5-4	1A59														
15	40	5	19-9	1A55														
16	2	5	20-1	1A510														
17																		
18																		
19	2	10	7-0	1A53														
20	2	10	7-0	1A54														
21																		
22																		
23																		
24																		
25																		
26																		
27																		
28																		

CKd GEF
 6/29/61

Approved
 6/30/61
 GEF

SPECIAL INSTRUCTIONS (FOR TYPICAL BENDING TYPES REFER TO FORM 1201)

Notify 1 Day Prior to SHIPPING

- WAREHOUSE COPY
- PACKING LIST
- WAREHOUSE - INVOICING
- NOTICE OF SHIPMENT

LAKE CREST CORP
 OVERPASS Sta. 1907+70 @ MUDDY BROOK
 WILMINGTON, So. BURLINGTON, Vt.

REPUBLIC STEEL CORPORATION
 TRUSCON DIVISION
 REINFORCING BAR SHOP LIST

PAGE 1	OF 1	REVISED No. 1	CUSTOMER No. 3	REPUBLIC NO. 10-8717
MTL. SHOWN ON DRAWING No. # 96C			INVOICE NO.	
CODE 851	DATE SHIPPED		SHIP FROM BUFFALO	
SHIP WITH	ROUTE	B/L NO.'S		
5-7, 9, 10				
MADE BY E.E.J.		DATE 6-19-61	9-11-61	CAR NO.

THIS SHEET COVERS Proj. J-89-3(10) Cont. 1
 APPR. SCAB No. 2 (So. BND)
 PROPOSED ROUTING TRK
 MADE BY E.E.J. DATE 6-19-61 9-11-61

BENT BARS NOTE: ALL DIMENSIONS OUT TO OUT SKIP ONE SPACE BETWEEN BAR SIZES ✓ DIMENSIONS OMITTED ARE ZERO

ITEM	QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	O	R	WEIGHT OR CHECK COLUMN
1	4	8	5	5-0	2AS7	56	6	1-9	6	1-9		6						
2																		
3	8	10	20-7	2AS1A	1	1-1	19-6											
4	8	10	20-8	2AS1B	1	1-1	19-7											
5	8	10	20-9	2AS1C	1	1-1	19-8											
6	8	10	20-10	2AS1D	1	1-1	19-9											
7	6	10	20-11	2AS1E	1	1-1	19-10											
8																		
9																		
10	STRAIGHT BARS																	
11																		
12	14	5	3-6	2AS6														
13	2	5	5-4	2AS8														
14	2	5	5-4	2AS9														
15	40	1	19-9	2AS5														
16	2	5	20-1	2AS10														
17																		
18																		
19	2	10	7-0	2AS3														
20	2	10	7-0	2AS4														
21																		
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24																		
25																		
26																		
27																		
28																		
29																		

✓ G.E.H.

SPECIAL INSTRUCTIONS (FOR TYPICAL BENDING TYPES REFER TO FORM 251)
 NOTIFY 1 DAY PRIOR TO SHIPPING
 Warehouse Copy
 Packing List
 Warehouse - Invoicing
 Notice of Shipment
 Approved 6/30/61 J.H.H.

LONE CONCRETE CO. INC.
 OVERPASS STA. 19074 TO E. MUDDY BROOK
 WILLIAMSON, SO. BURLINGTON, VA.

REPUBLIC STEEL CORPORATION
 TRUSCON DIVISION
 REINFORCING BAR SHOP LIST

PAGE 1	OF 1	REL. NO. 9	REV. 3	CUSTOMER NO.	REPUBLIC NO. 10-8717
MTL. SHOWN ON DRAWING NO. # 96C				INVOICE NO.	
THIS SHEET COVERS PROJ. F-89-3(d) CONT. 1			CODE 851	DATE SHIPPED	SHIP FROM BUFFALO
APPR. SLAB No. 3 (No. BND.)			SHIP WITH	ROUTE	B/L NO.'S
PROPOSED ROUTING TRK	PPG. X	COL.	25-8, 10		
MADE BY GEI	DATE 6-19-61		9-11-61	CAR NO.	

BENT BARS NOTE: ALL DIMENSIONS OUT TO OUT. SKIP ONE SPACE BETWEEN BAR SIZES. DIMENSIONS OMITTED ARE ZERO.

ITEM	QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	O	R	WEIGHT OR CHECK COLUMN
1																		
2	8	5	5-0	3A57	SG	6	1-9	6	1-9			6						
3																		
4	38	10	20-7	3A51	1	1-1	19-6											
5																		
6																		
7	STRAIGHT BARS																	
8																		
9	14	5	3-6	3A56														
10	2	1	5-4	3A58														
11	2	1	5-4	3A59														
12	40	5	19-9	3A55														
13																		
14																		
15	2	10	7-0	3A53														
16	2	10	7-0	3A54														
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26																		
27																		
28																		

✓ GEH

NOTIFY 1 DAY PRIOR TO SHIPPING

approval
 6/30/61
 JH

- WAREHOUSE COPY
- PACKING LIST
- WAREHOUSE - INVOICING
- NOTICE OF SHIPMENT

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Y. M. C. Const. Corp.
 Overpass Sta-1907+70 @ Muddy Brook
 Williamsport, Pa. BURLINGTON, Pa.

REPUBLIC STEEL CORPORATION
 TRUSCON DIVISION
 REINFORCING BAR SHOP LIST

PAGE 1	OF 10	REL. NO. 3	CUSTOMER NO.	REPUBLIC NO. 10-8717
STYL. SHOWN ON DRAWING NO. #960			INVOICE NO.	
CODE 851	DATE SHIPPED	SHIP FROM BUFFALO		
SHIP WITH #5-9	ROUTE	B/L NO.'S		
MADE BY E.E.J.	DATE 6-19-61	9-11-61	CAR NO.	

THIS SHEET COVERS Proj. T-89-3(14) Cont. 1
 APPR. SCAFF. No. 4 (No BND)

NOTE: ALL DIMENSIONS OUT TO OUT
 SKIP ONE SPACE BETWEEN BAR SIZES
 DIMENSIONS OMITTED ARE ZERO

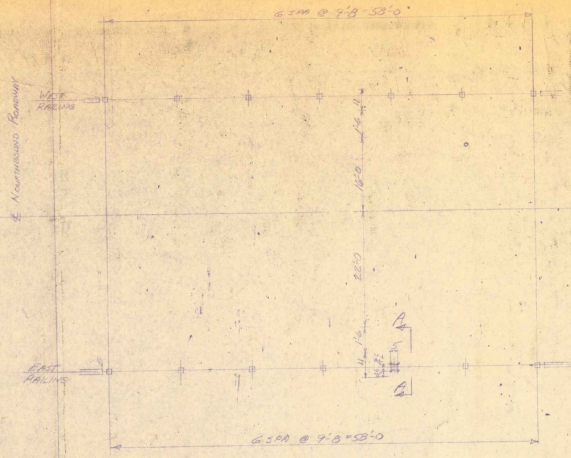
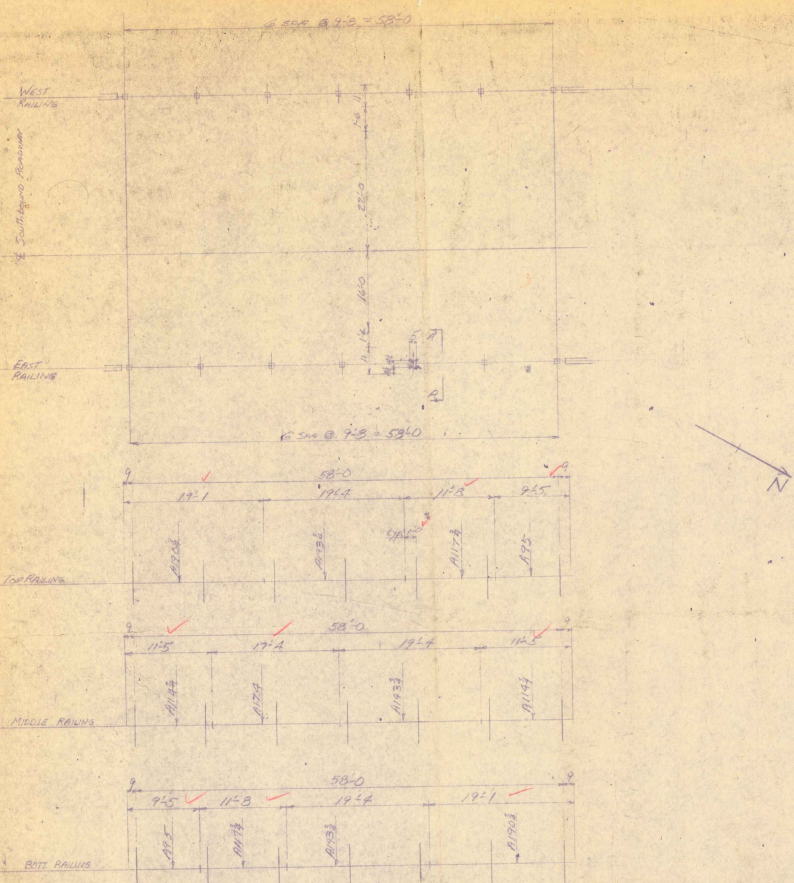
ITEM	QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	O	R	WEIGHT OR CHECK COLUMN	
1	6	8	5	5-0	4AS7	6	1-9	6	1-9				6						
3																			
4	38	10	20-7	4AS1	1	1-1	190												
5																			
6																			
7	STRAIGHT Bars																		
8																			
9	14	5	3-6	4AS6															
10	2	Y	5-4	4AS8															
11	2	Y	5-4	4AS9															
12	40	5	19-9	4AS5															
13																			
14	2	10	7-0	4AS3															
15	2	10	7-0	4AS4															
16																			
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27																			
28																			

✓ G.E.H.

Notify 1 Day Prior to SHIPPING

approved
 4/20/61
 H.H.

- WAREHOUSE COPY
- PACKING LIST
- WAREHOUSE - INVOICING
- NOTICE OF SHIPMENT



O.K. chd by M.E.A. 7/28/61

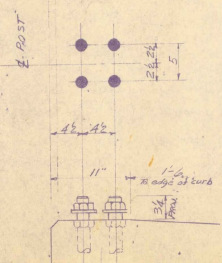
WEST RAILING LOOKING EAST
EAST RAILING LOOKING WEST



Set up as shown in detail of expansion joint, Bethlehem Steel Co. sheet B9-3000

TUBING
5/8" STEEL RAIL A.S.T.M. A245
GRADE B GALV. TO A 52K
SPEC. A 123-53
BETHLEHEM STEEL CO.
STANDARD BRIDGE RAILING
AND PIECE MARKS

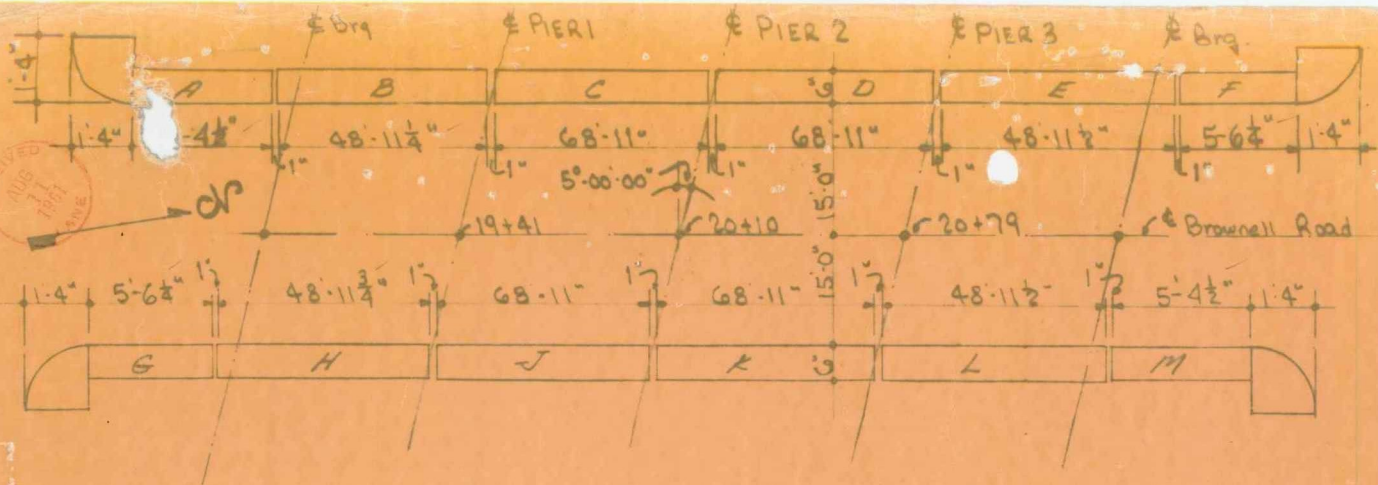
DETAIL OF TUBING & TYP. SPLICE JOINTS



SECTION A-A
TYP. A-BOLT DETAIL

BILL OF MATERIAL									
NO.	QUANTITY	UNIT	DESCRIPTION	LENGTH	WEIGHT				
			WORTHINGTON BRIDGE STA 120+72						
			SOUTHINGTON BRIDGE STA 17+27.6						
16	4	1/2"	BRIDGE RAIL BARRIS	19	34				
17	2	1/2"		11	14				
18	4	1/2"		14	28				
19	2	1/2"		17	34				
20	4	1/2"		19	76				
21	4	1/2"		11	44				
22	19	BRIDGE	BRIDGE RAILINGS FOR						
23	12	BRIDGE	END CAPS						
24	18	BRIDGE	SPLICES						
25	42	BRIDGE	WEDGE BOLTS						
26	56	BRIDGE	BOLTS 1/2" X 11	1	56				
27	112		T-MEN NUTS						
28	56		2" DIA. WASHERS	0	112				
29	18	BRIDGE	BRIDGE RAILING TEMPORARY						

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT. 05401
PROJECT: BRIDGE TO NORTH VERMONT
LOCATION: S. Burlington, Vermont
CUSTOMER: LANG GROUP CO.
DATE: 7/28/61
JOB NO. 100-117
DATE: 7/28/61
ARCHITECT: J. C. HARRINGTON, CHIEF OF ENGINEERS
JOB NO. 61-383-C
SHEET NO. 1



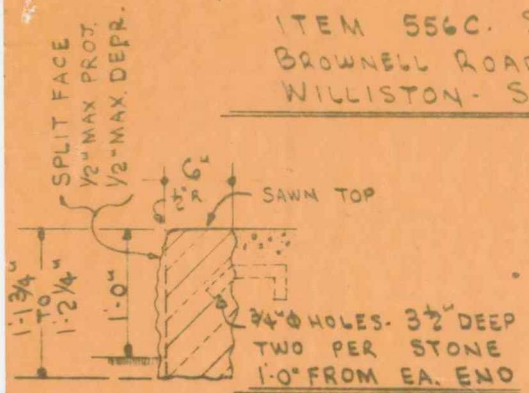
ITEM 556C. STR. GRANITE BRIDGE CURB
 BROWNELL ROAD STA. 1896+70.86 OVER INTERSTATE
 WILLISTON - SO. BURLINGTON, VERMONT. I-89-3(14) CONT 1

CONTRACTOR: THE LANE CONST. CORP.
 MERIDEN CONN.

BARRETTO GRANITE CORP.
 OAK ST. - MILFORD, N. H.

REVISED: 8-2-61

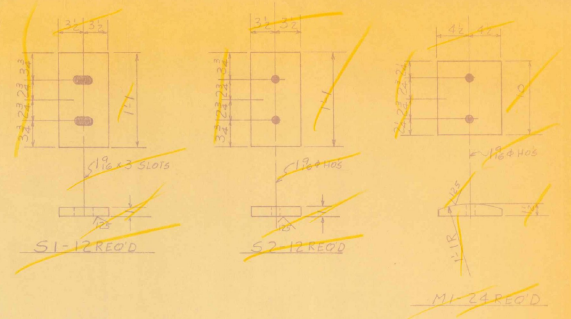
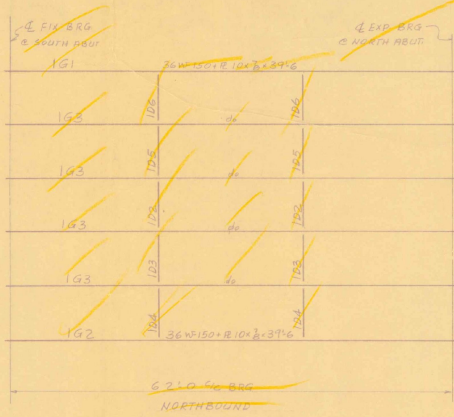
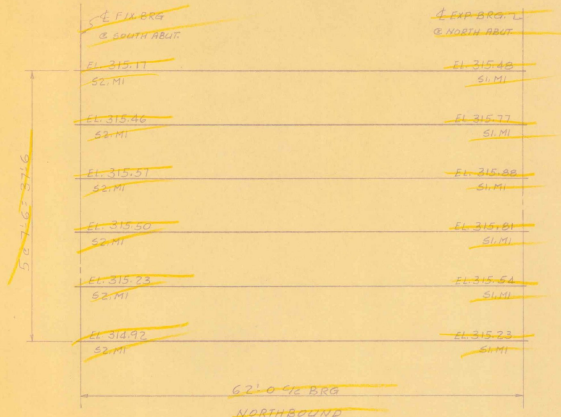
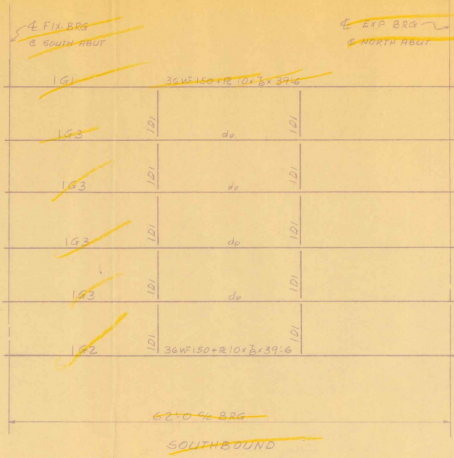
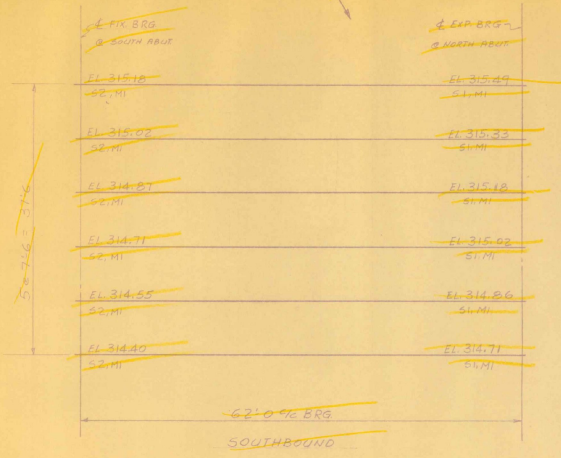
DATE: JULY 19, 1961.
 DRAWING NO 1 OF 2
 ORDER NO 1-C-38



1" SCALE TYPICAL SECTION
 MINIMUM LENGTH: 4'-0"

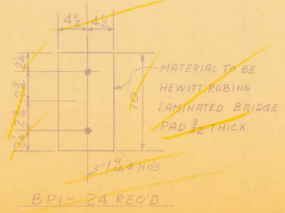
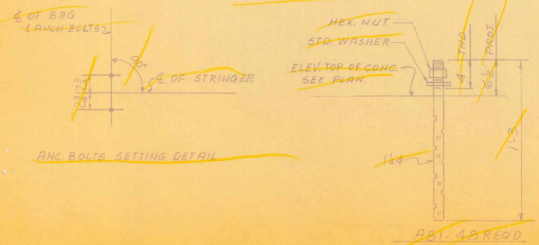
approved
8/17/61
 OK W.M.S.
 8-17-61

STATE COPY



MARK	NO	MATERIAL	REMARKS	WEIGHT
BPT	10	1/2" x 3" ANCHOR BOLTS		
BPT	11	1/2" x 3" ANCHOR BOLTS		
BPT	12	1/2" x 3" ANCHOR BOLTS		
BPT	24	BPT 1/2" x 3" ANCHOR BOLTS		
ST	1	ST 1/2" x 3" ANCHOR BOLTS	BPTM BPT	
ST	2	ST 1/2" x 3" ANCHOR BOLTS	BPTM BPT	
M1	24	M1 1/2" x 3" ANCHOR BOLTS	BPTM BPT	

ANCHOR BOLT PLAN
(CALL DIMENSIONS ARE HORIZONTAL)



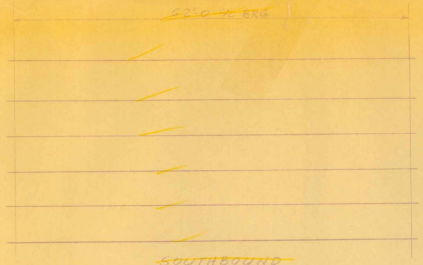
- STEEL FRAMING PLAN
1. ALL DIMENSIONS ARE HORIZONTAL
 2. ALL DIMENSIONS ARE 1/8" TOLERANCE
 3. COUPLER BOLTS ARE 3/4" HIGH STRENGTH
 4. FOR TENDERS TO HAVE BRG FIELD WELDED IN BRG
CONTRACT SEE DETAIL SHEET 1001
 5. FOR METHOD OF TIGHTENING HIGH STRENGTH
STEEL BOLTS SEE C.I.W. SHEET "B1"
 6. FOR TORQUE & TENSION REQ'D FOR HIGH
STRENGTH STEEL BOLTS SEE C.I.W. SHEET "B2"

NOTE:
BRG 1 & 2 NO PAINT
M 1 & 2 PAINT BOTTOM & LOWER SIDE
PAINT PER STA. SPEC. STATE OF CONNECTICUT PAR 100000

OK
JSS
7-13-61
1970

PROJ. NO. 1-89-3(14)
Contract #1

CITY IRON WORKS, Inc.	
P. O. BOX 147 WETHERFIELD, CONN.	
OVERSIC - STA 107+70 - MUST BRIDGE INTO ROADS - PROJECT IN THE TOWN OF WILLINGTON, SOUTH BRITAIN, CONNECTICUT	
MADE BY: AS	CHECKED BY: EK
DATE: 7-13-61	SCALE:
S.O. 12894	SHEET NO. 11



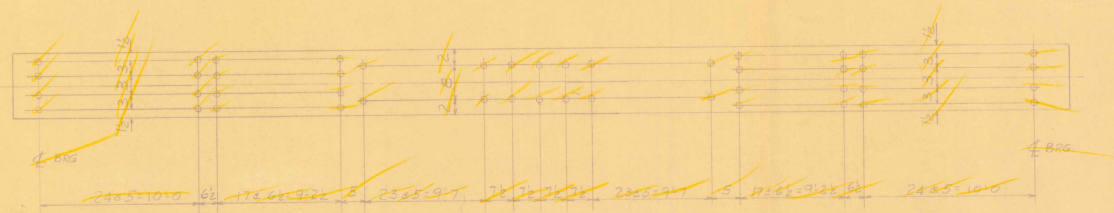
SOUTHBOUND



NORTHBOUND

LOCATION PLAN

~~NORTH~~



~~STUD SPACING PLAN FOR ALL BEAMS~~

~~TOTAL NO OF STUDS REQD: 3352~~

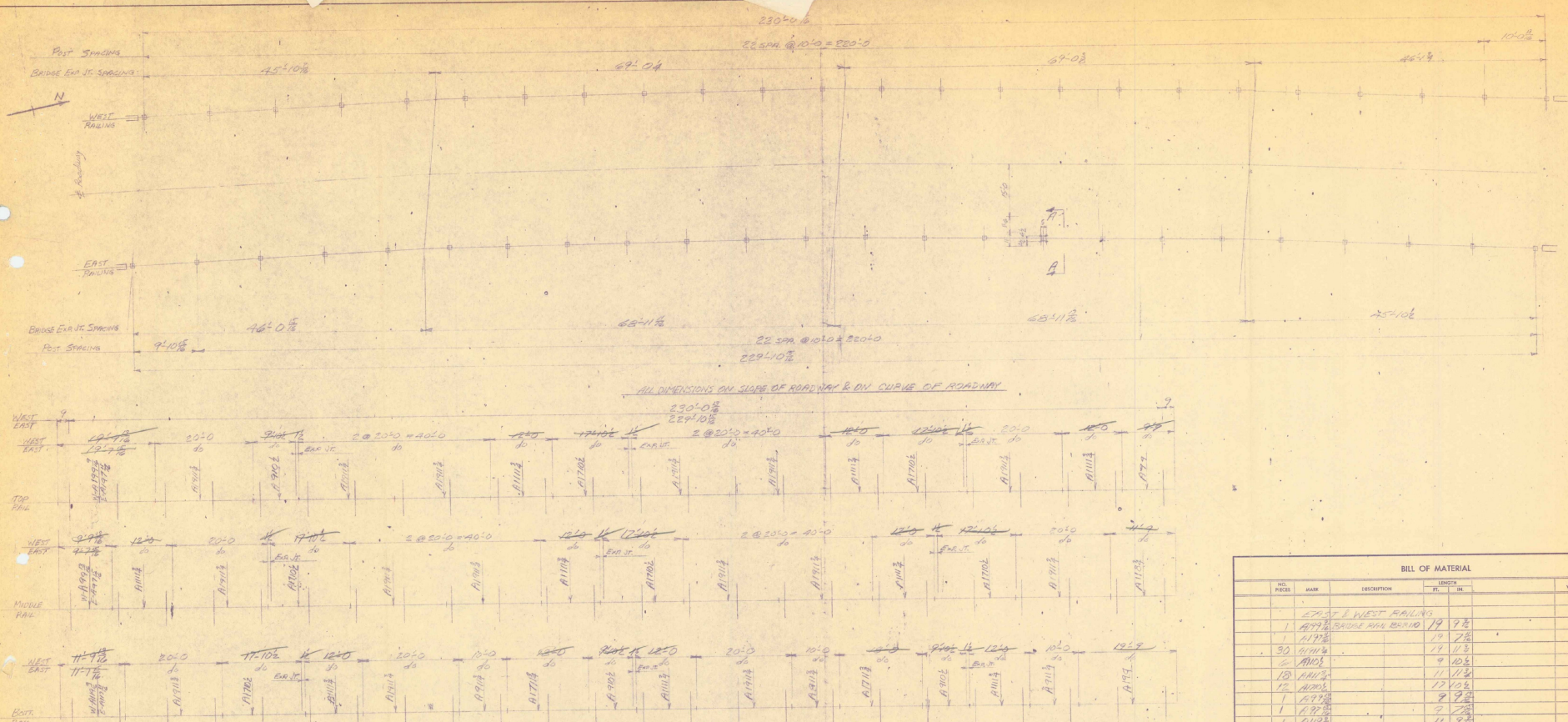
~~STUDS TO BE PUT ON IN THE SHOP~~

~~PROP NO 189361~~

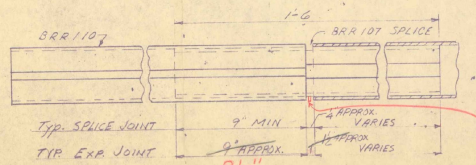
OTL
JSC
7-13-61
i m m d

Handwritten initials

BOLTS		CITY IRON WORKS, Inc.	
OPEN HOLES		P. O. BOX 147 WETHERFIELD, CONN.	
PAINT		OVERPASS STA 11+00 TO 11+00 - 28.00	
REVISIONS		INTERSTATE PROJECT - I-28	
		WILLISTON, SOUTH BURLINGTON, VERMONT	
DATE BY <u>AE</u>		CHECKED BY <u>FR</u>	
APPROVED		SCALE	
S.O. 1389A		SHEET NO. 22	



WEST RAILING LOOKING EAST
EAST RAILING LOOKING WEST

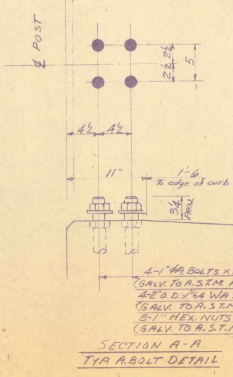


TUBING
5" x 2" STEEL RAIL A.S.T.M. A425
GRADE C GALV. TO A.S.T.M.
SPEC. A 123-53.

BETHLEHEM STEEL CO.
STANDARD BRIDGE RAILING
AND PIECE MARKS.

DETAIL OF TUBING & TYP SPLICE JOINTS

Splice as shown in
detail of Expansion
Joint Bethlehem Steel
Co. Sheet BR-2000



SECTION A-A
TYR ABOLT DETAIL

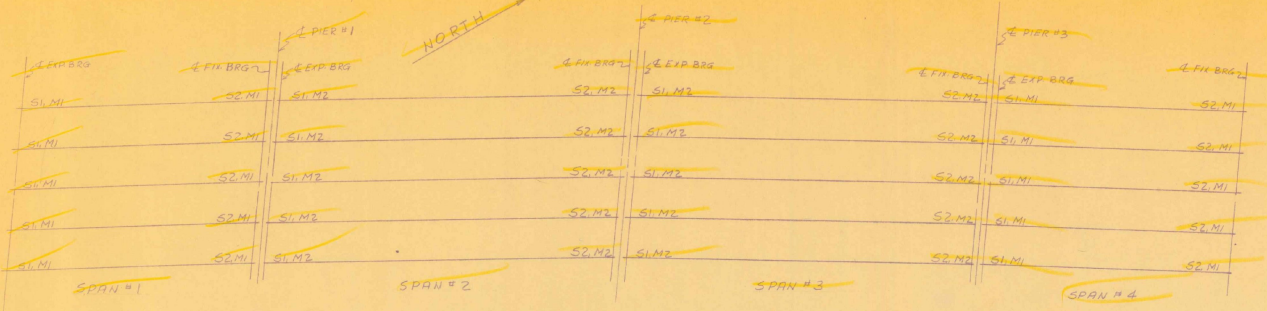
BILL OF MATERIAL						
NO.	PIECES	MARK	DESCRIPTION	LENGTH		WEIGHT
				FE.	IN.	
EAST & WEST RAILING						
1	1	A177	BRIDGE RAIL BARRIO	19	7 1/2	
1	1	A178		19	7 1/2	
30	30	A179		11	11 3/4	
5	5	A180		9	10 1/2	
18	18	A181		11	11 1/2	
12	12	A182		17	10 1/2	
1	1	A183		9	9 1/2	
1	1	A184		9	9 1/2	
1	1	A185		11	9 1/2	
2	2	A186		11	7 1/2	
16	16	A187		19	11 1/2	
2	2	A188		17	11 1/2	
2	2	A189		9	9 1/2	
2	2	A190		11	8 1/2	
48	48	A191	BRIDGE RAIL POST			
18	18	A192	END SAUCES			
64	64	A193	SPLICES			
44	44	A194	WEDGE BOLTS			
182	182	A195	BOLT 1/2"	1	0	
300	300	A196	1" HEX NUTS			
178	178	A197	2" x 4" WEDGES	12	1/4	
12	12	A198	END CAPS			

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT. 104-3040

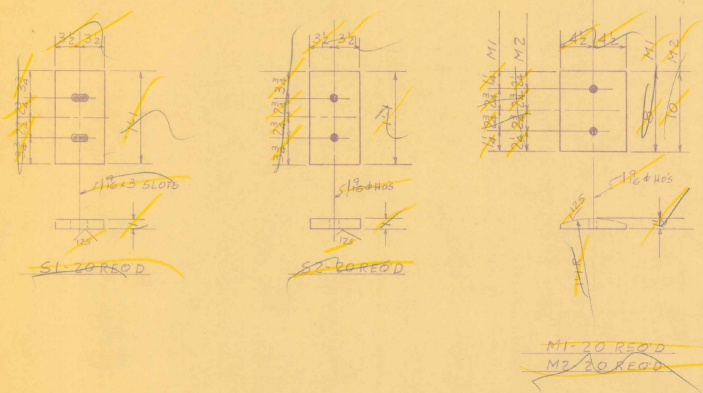
PROJECT: FRANKELL RD. SUPERSTRA. STA. 104-3040
LOCATION: ST. FRANCIS CHURCH
CUSTOMER: LANE CONST. CO.

DATE: 11/27/54
NO. FOR: 2
SHEET NO.: 2

ARCHITECT: S. G. VERMONT DEPT. OF HIGHWAYS
JOB NO. 21-289-2



LOCATION PLAN



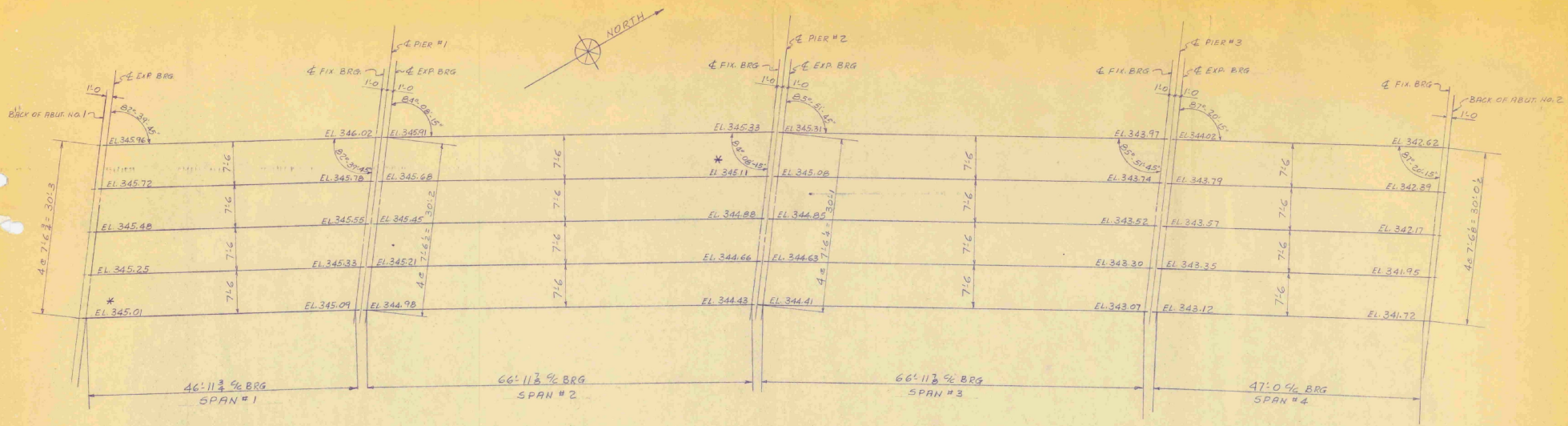
M1 20 REQD
M2 20 REQD

MARK	NO.	MATERIAL	REMARKS	WEIGHT
		20 SLOTTED	SI	
		20 # 7 X 1 1/2	ASIM A333	
		20 SLOTTED	SR	
		20 # 7 X 1 1/2	ASIM A333	
		20 MACONAY B'S	M1	
		20 # 9 X 1 1/2 - 5	ASIM A7	
		20 MACONAY B'S	M2	
		20 # 9 X 1 1/2 - 10	ASIM A7	

NOTE: S P'S - NO PAINT
M R'S - PAINT BOTTOM & EDGES ONLY
PAINT PER STD. SPEC. STATE OF VERMONT
PAR 404 03B
PROJ. NO. I-29-3(14)-Cont #1

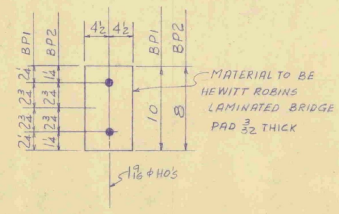
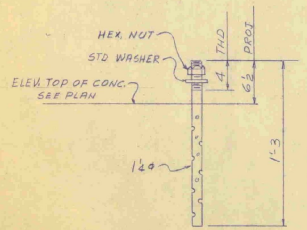
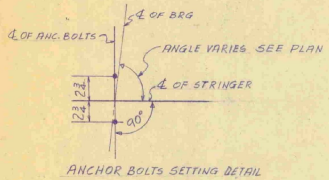
Approved
7/27/14
JHT

BOLTS _____		CITY IRON WORKS Inc. P. O. BOX 187 WETHERFIELD, CONN. UNDERPASS STA 1876+70.00 BROWNELL ROAD WILLISTON, SA. BURLINGTON, VERMONT
OPEN HOLES _____		
PAINT _____		
REVISIONS _____		MADE BY: AS CHECKED BY: F.K. DATE: 7.28.14 APPROVED: _____ SCALE: _____
S.O. 1389B		SHEET NO. P1



ANCHOR BOLT SETTING PLAN
ALL DIMENSIONS ARE HORIZONTAL

* ENGR & CONTR. PLEASE NOTICE ELEVATION
IN SPAN #1 ELEVATION IN SPAN #2



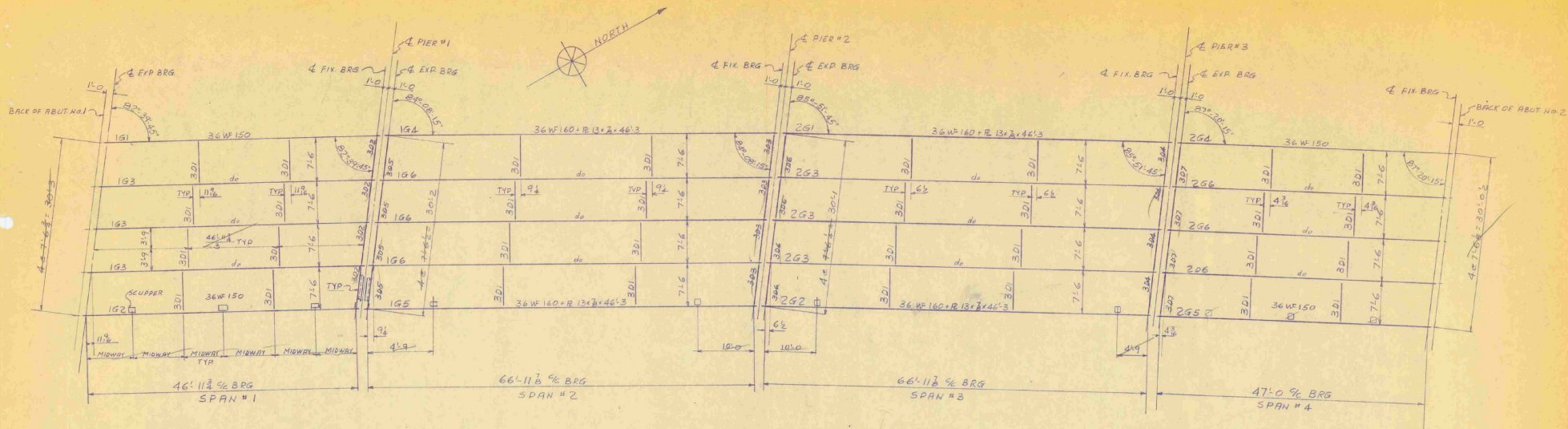
ABI-80 REQ'D

BPI-20 REQ'D (FOR SPAN #2 & SPAN #3)
BP2-20 REQ'D (FOR SPAN #1 & SPAN #4)

MARK NO	MATERIAL	REMARKS	WGT
ABI	80 1/4" x 1/3" SWEDGE BOLT		
BG	1/2" HEX. NUTS		
BG	1 1/2" STD. WASHERS		
BP1	20 BRG PAD 9' 3/2" x 0' 10"		
BP2	20 BRG PAD 9' 3/2" x 0' 8"		

16113-1-61
OFFICE COPY
PROJ. NO. I-89-3(14) CONT #1

CITY IRON WORKS, Inc. P. O. BOX 147 WETHERSFIELD, CONN. UNDERPASS STA 1896+70.88 BROWNELL ROAD WILLISTON & RD. BURLINGTON, VERMONT	
BOLTS _____ OPEN HOLES _____ PAINT _____ REVISIONS _____ 7-240 (ENGINEER'S COMMENTS) _____	MADE BY: <u>A.S.</u> CHECKED BY: <u>AK</u> DATE: <u>2-7-61</u> APPROVED: _____
S.O. <u>1389B</u> SHEET NO. <u>E1</u>	



STEEL FRAMING PLAN

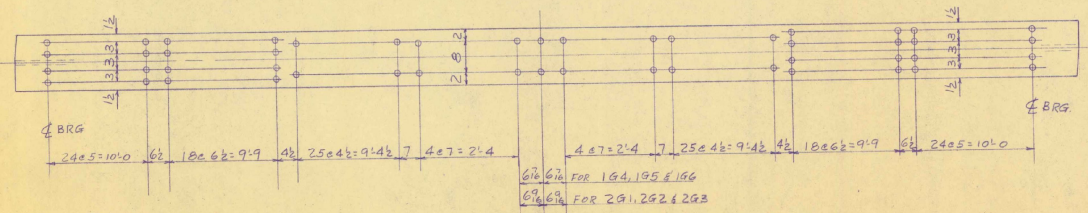
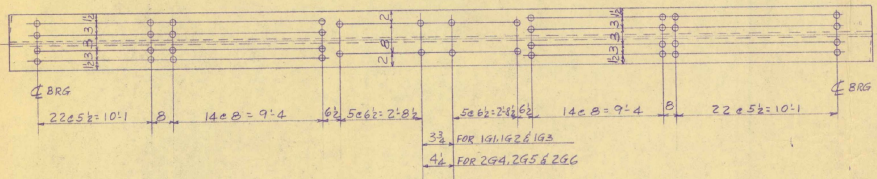
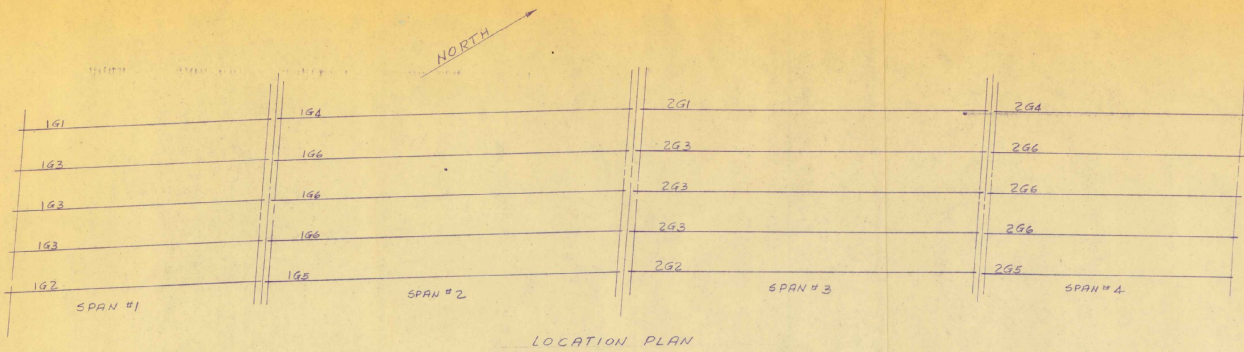
1. ALL DIMENSIONS ARE HORIZONTAL
2. ALL DIAPHRAGMS ARE 10L42.7
3. CONN. BOLTS ARE $\frac{3}{4}$ " HIGH STRENGTH
4. FOR GIRDERS TO HAVE 10S FIELD WELDED
CONTR. TO SEE DETAIL SHEETS 10A3 & 20A3
5. FOR METHOD OF TIGHTENING HIGH STRENGTH
BOLTS SEE C.I.W. SHEET #B1
6. FOR TORQUE & TENSION REQ'D FOR HIGH
STRENGTH BOLTS SEE C.I.W. SHEET #B2

V60A 1-1-61

Approved
PK

PROJ. No. I-89-3(4) - CONT #1

BOLTS		CITY IRON WORKS, Inc. P. O. BOX 147 WETHERSFIELD, CONN.
OPEN HOLES		
PAIN		UNDERPASS STA 1896+70.86 BROWNELL ROAD WILLISTON, SO. BURLINGTON, VERMONT
REVISIONS		
7-24-61 EMER'S COMMENT		MADE BY: <i>PK</i> CHECKED BY: <i>PK</i> DATE: 2-2-61
		APPROVED: _____ SCALE: _____
		S.O. 13898
		SHEET NO. E2



TOTAL NO OF 3/4" x 6" STUDS REQ'D = 8060
STUDS TO BE PUT ON IN THE SHOP

✓ QUC 8-1-61
Approved 8/1/61
PROJ. NO. I-89-3C14) CONT #1

BOLTS		CITY IRON WORKS, Inc.	
OPEN HOLES		P. O. BOX 147 WETHERFIELD, CONN.	
PAINT		UNDERPASS STA 1896+70.86	
REVISIONS		BROWNELL ROAD	
7-241 ENGINE'S COMMENTS		WILLISTON SB BURLINGTON VERMONT	
MADE BY	APR	CHECKED BY	FKL
APPROVED		DATE	JUL 61
S.D. 1389B		SHEET NO. E3	

* C/1
19 61
63

Williston - So. Burlington
I-89-3 (14) C/1

19 61
63