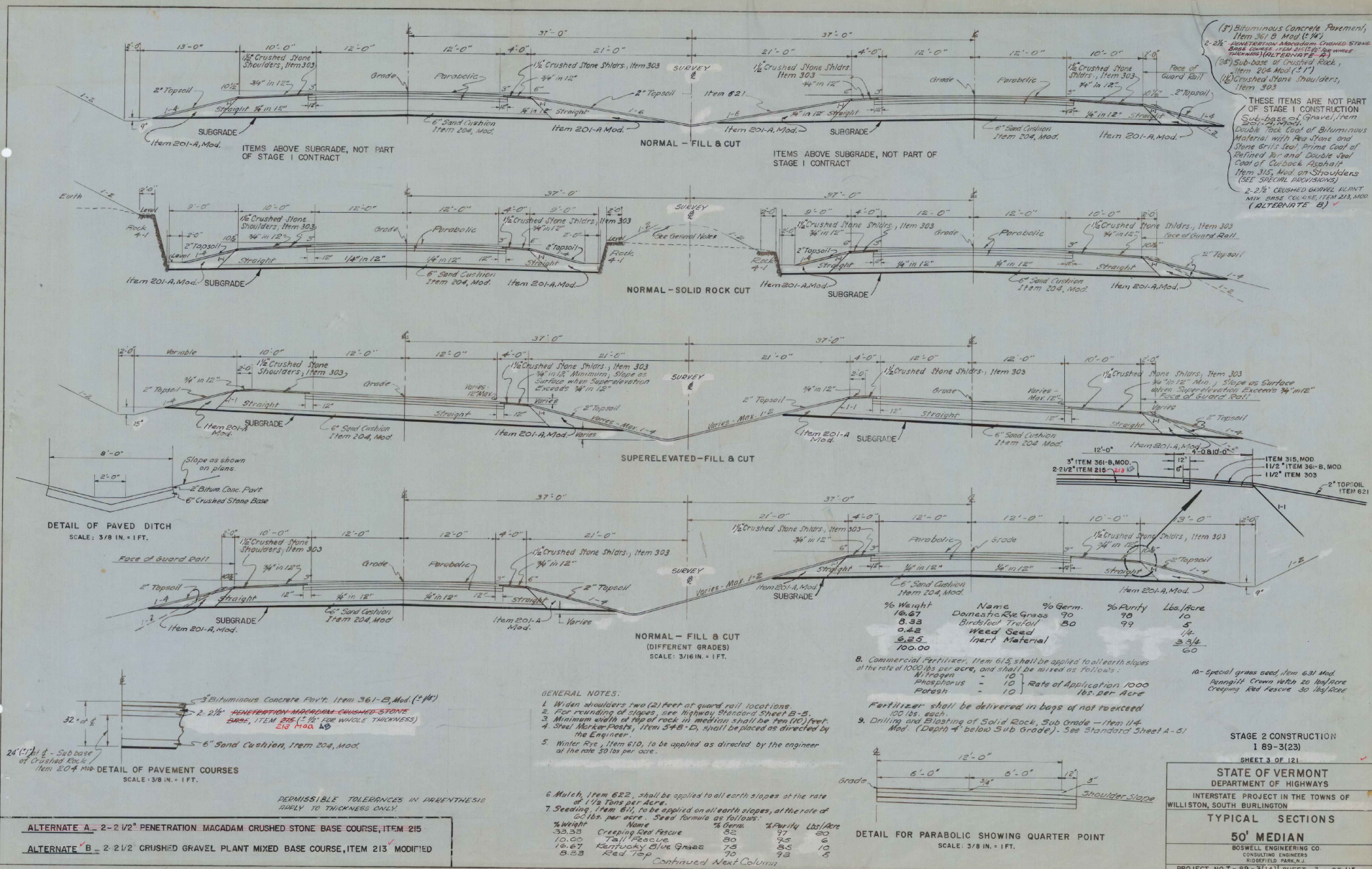
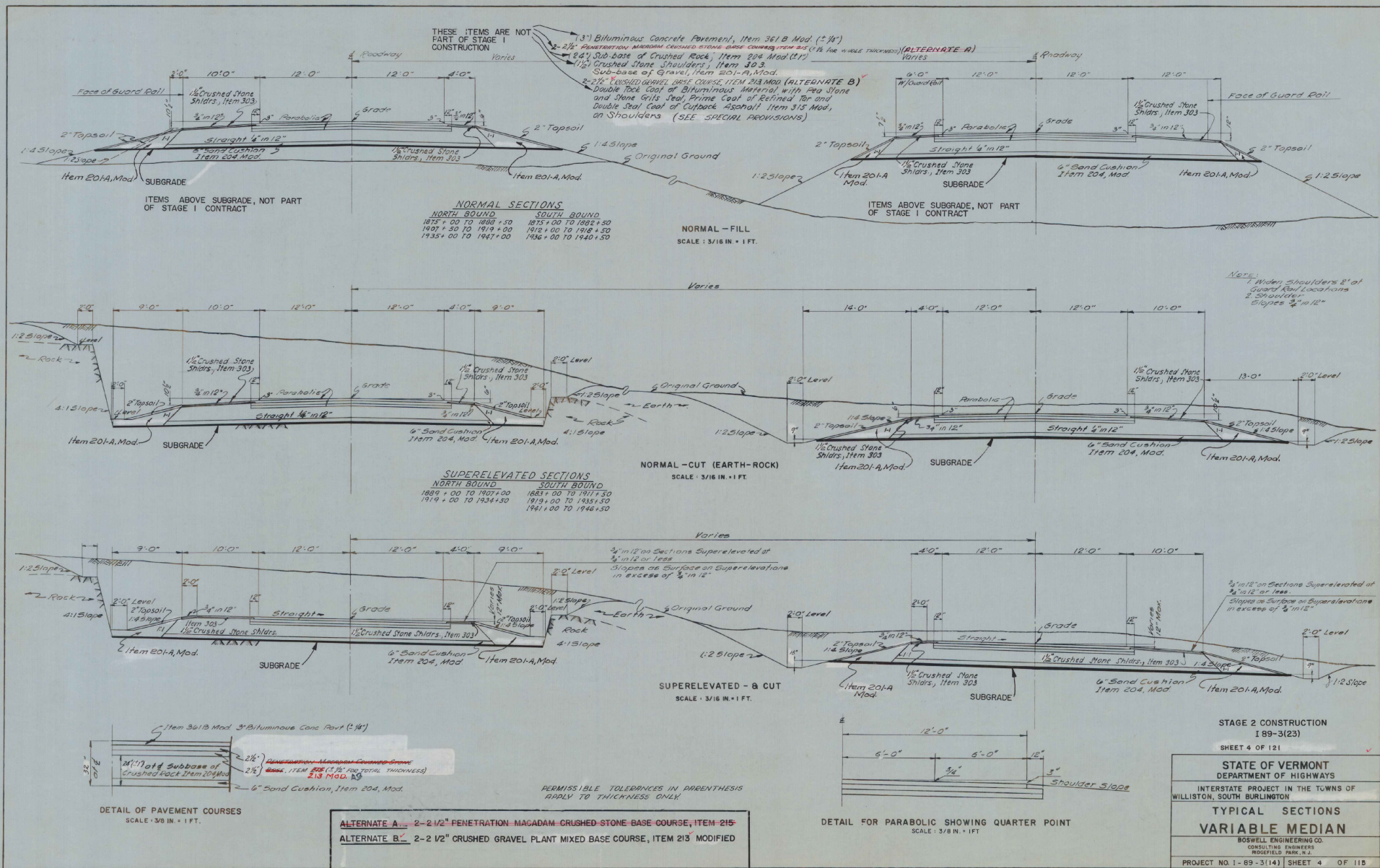
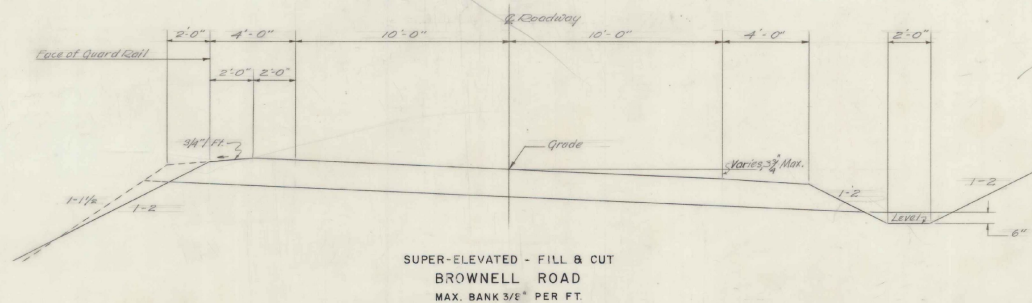
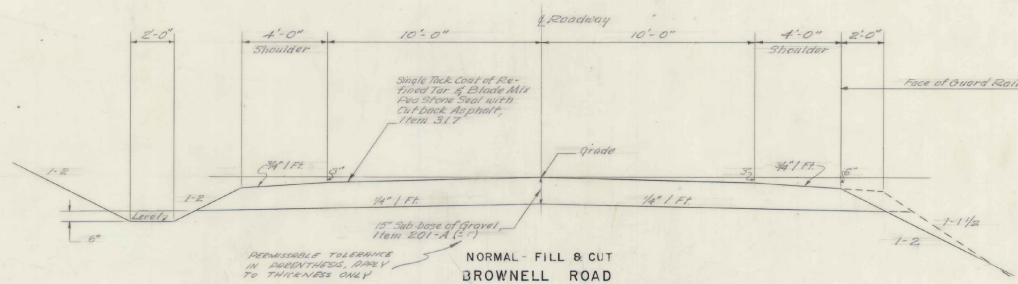






Single Tack Coat of Refined Tar & Blot
Mix Pea Stone Seal with Cutback Asphalt
Item 317 (15") Sub-Base of Gravel, Item 201 A.

CONSTRUCTED AS DESIGNED ^{AS}



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	91
9	9	Red Top	90	92
64	35	Kentucky Blue Grass	77	80
9	9	Dutch White Clover	80	90

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

SCALE 3/8" = 1'

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

STAGE I CONTRACT I

APPROXIMATE SUMMARY OF QUANTITIES									
STATION	BRIDGE	ROAD	INTERSTATE	QUANTITIES	UNIT	ITEMS	(OVERSUN)	ITEM NO.	
FROM	TO			GRAND TOTAL					
100				110,000	C.Y.	COMMON EXCAVATION	(101-1)		
				3,000	C.Y.	SOLID ROCK EXCAVATION	(101-2)		
				31,000	C.Y.	ROCK	(101-3)		
				25,000	C.Y.	GRAVEL	(101-4)		
				70	C.Y.	TRENCH EXCAVATION OF EARTH	(101-5)		
				5,000	C.Y.	CLEARING & GRUBBING, M.D. (101-6)	(101-6)		
				5,000	C.Y.	FINE GRADING SUB-BASE	(279)		
				5,000	C.Y.	CHANNEL EXCAVATION OF EARTH	(101-7)		
				500	C.Y.	CHANNEL EXCAVATION OF ROCK (EST.)	(101-8)		
				900	C.Y.	STRUCTURE EXCAVATION	(101-9)		
				50	C.Y.	ROADWAY PATROL MAINTENANCE (EST.)	(101-10)		
				5,000	C.Y.	DRILLING & BLASTING OF SOLID ROCK SURGRADE	(101-11)		
				5,000	C.Y.	UNDER EXCAVATION, UNBLENDED	(101-12)		
				15	RS.	BULLDOZER RENTAL (EST.)	(101-13)		
				15	TON	DUST CONTROL w/ CALCIUM CHLORIDE (EST.)	(101-14)		
				30	HP.	POWER GRADER RENTAL (EST.)	(101-15)		
				2,000	C.Y.	SUB-BASE OF GRAVEL	(201-1)		
				2,000	C.Y.	SUB-BASE OF SAND (EST.)	(201-2)		
				120	C.Y.	SUB-BASE OF CRUSHED ROCK AND UNDER STRUCTURE	(201-3)		
				15,000	C.Y.	GRAVEL BASE	(201-4)		
				800	C.Y.	STRIPPING OF GRAVEL PITS (EST.)	(201-5)		
				3,000	MB.	SINGLE TACK COAT OF ASPHALT TAR AND GRAVEL MIX	(201-6)		
				371	MB.	TAR GRADATION FOR BRIDGE DECK	(201-7)		
				1,500	MB.	OUTBACK ASPHALT (EST.)	(201-8)		
				110	RS.	SETHINGHAM CONCRETE PAVEMENT (MOD.)	(201-9)		
				150	L.F.	JOINT SEALER, HOT POLYMER-ELASTIC TYPE	(201-10)		
				1,170	C.Y.	CONCRETE CLASS 8, MOD.	(201-11)		
				161,040	LBS.	REINFORCING STEEL	(201-12)		
				1	L.F.	SPIRAL REINFORCEMENT (201-13)	(201-13)		
				172,190	LBS.	STRUCTURAL STEEL	(201-14)		
				47	L.F.	ASPHALTIC FIBERGLASS GRATING	(201-15)		
				100	C.Y.	GRANITE RUBBLE MASONRY	(11)		
				200	L.F.	8" PLAIN CAST IRON PIPE (MOD.)	(20)		
				1,120	L.F.	10" REINFORCED CONCRETE PIPE	(108)		
				100	L.F.	24" REINFORCED CONCRETE PIPE (EST.)	(21-1)		
				200	L.F.	30" REINFORCED CONCRETE PIPE	(21-2)		
				182	L.F.	60" REINFORCED CONCRETE PIPE	(21-3)		
				200	L.F.	10" ASPHALTIC CORR. GALV. STEEL PIPE	(190)		
				100	L.F.	24" CORR. GALV. STEEL PIPE (EST.)	(201-16)		
				270	L.F.	RELAYING PIPE OLVERTS (EST.)	(201-17)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-18)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-19)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-20)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-21)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-22)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-23)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-24)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-25)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-26)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-27)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-28)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-29)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-30)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-31)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-32)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-33)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-34)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-35)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-36)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-37)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-38)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-39)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-40)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-41)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-42)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-43)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-44)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-45)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-46)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-47)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-48)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-49)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-50)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-51)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-52)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-53)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-54)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-55)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-56)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-57)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-58)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-59)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-60)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-61)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-62)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-63)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-64)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-65)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-66)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-67)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-68)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-69)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-70)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-71)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-72)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-73)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-74)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-75)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-76)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-77)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-78)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-79)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-80)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-81)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-82)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-83)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-84)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-85)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-86)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-87)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-88)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-89)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-90)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-91)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-92)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-93)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-94)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-95)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-96)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-97)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-98)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-99)		
				1	L.F.	8" CORR. GALV. STEEL PIPE (116 1/4 x 22' 0")	(201-100)		

QUANTITY SHEET

STATE OF VERMONT DEPARTMENT OF HIGHWAYS

WILLISTON-RODNEY BRIDLEWAY

PROJECT NO. 1-55-3(15)

SUMMARY SHEET NO. 5 OF 115 19-98

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS	(OVERSUN)
COMMON EXCAVATION			
110,000	C.Y.	INTERSTATE BRIDGEWAY	(700-1)
3,000	C.Y.	BROWNELL ROAD	(120)
110,000	C.Y.	TOTAL	(700-1)
SOLID ROCK EXCAVATION			
3,000	C.Y.	INTERSTATE BRIDGEWAY	(1130)
3,000	C.Y.	TOTAL	
ROCK			
31,000	C.Y.	INTERSTATE BRIDGEWAY	(5072)
31,000	C.Y.	BROWNELL ROAD	(2683)
77,000	C.Y.	TOTAL	
GRAVEL BASE			
15,000	C.Y.	INTERSTATE BRIDGEWAY OUTSIDE	(1103)
15,000	C.Y.	BROWNELL ROAD BRIDGE	(2006)
30,000	C.Y.	TOTAL	(2006)
TRENCH EXCAVATION OF EARTH			
965	C.Y.	INTERSTATE COLLECTOR, INLET & OUT DITCHES	(05)
790	C.Y.	INTERSTATE MEDIAN DITCHES	(46)
2,300	C.Y.	INTERSTATE UNDERDRAIN	(216)
30	C.Y.	BROWNELL ROAD COLLECTOR	(5)
60	C.Y.	BROWNELL ROAD UNDERDRAIN	(5)
5,145	C.Y.	TOTAL	(282)
SUB-BASE OF GRAVEL			
2,000	C.Y.	BROWNELL ROAD	(162)
200	C.Y.	BROWNELL ROAD EXTRA DEPTH AT BRIDGE	(16)
2,200	C.Y.	TOTAL	(178)
NON-GOVERNMENT PARTICIPATION			
180	C.Y.	TRENCH EXCAVATION OF EARTH	(10)
200	L.F.	12" CAST IRON PIPE (M.D.)	(25)
CHANNEL EXCAVATION OF EARTH			
308	C.Y.	SOLVENTS, INTERSTATE	(20)
5,008	C.Y.	STREAM RELOCATIONS, INTERSTATE	(106)
2,400	C.Y.	STREAM RELOCATIONS, BROWNELL RD.	(25)
7,180	C.Y.	TOTAL	(658)
STRUCTURE EXCAVATION			
400	C.Y.	SOLVENTS, INTERSTATE	(70)
218	C.Y.	SOLVENTS, BROWNELL ROAD	(46)
618	C.Y.	TOTAL	(116)

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

FED. ROAD DIVISION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	VT	1-82-8(8)	POST	8	118

[illegible]

EARTHWORK SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

FED. ROAD DISTRICT NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	VT	1-49-3(5)	9	115

GRADES										TOTAL EXCAVATION EARTH AND ROCK										ROCK										EMBANKMENT										BASE									
VC	%	STATION	ELEVATION	CORR	DIST.	AREA	CU YDS.	AREA	CU YDS.	VC	%	STATION	ELEVATION	CORR	DIST.	AREA	CU YDS.	AREA	CU YDS.	AREA	CU YDS.	AREA	CU YDS.	VC	%	STATION	ELEVATION	CORR	DIST.	AREA	CU YDS.	AREA	CU YDS.	AREA	CU YDS.														
			ON TANGENT	ON V. CURVES																																													
			NORTH	BOUND																																													
		1875	BEGIN CONTRACT N° 1			42	61		86				1898				479	1212									1919					468	843																
	+50					24			374	426							820	1475									+50					412	780																
		1876				0	28		1352	1598				1899				1079										+50					400	680															
	+50		F 15.114						755	1185					+50			612	930									+50					334	469															
		1877	C 29						525	907				1900				1239										1921					172	274		0	6												
	+50		FAC 125						434	1422					+50			726	1458									+50					124	183		6	78												
		1878	Ex F 19.810						1082	2020					+50			848	1443													76	133		78	152													
	+50								1100	1769				1901				710	1361									+50					76	102		86	167												
		1879							811	1727					+50			1056	1680													40	39		240	221													
	+50								1054	2109				1902				1230	2171									+50					2	2		248	493												
		1880							1224	2349				1903				856	1987										+50					0	2		248	433											
	+50								1306	2185					+50			16	307																	248	687												
		1881							1054	2006				1904				0	15										+50								248	302											
	+50		F 19.401						1112	2071					+50																						248	306											
		1882	FAC 125						1124	1994				1905																							248	354											
	+50		Ex F 24.251						1030	2019					+50																						248	683											
		1883							1144	2032					+50																						248	863											
	+50								1080	1843				1906				F 10.690																		248	267												
		1884							940	1569					+50			Ex F 13.299																		248	841												
	+50								754	1345				1907																						248	793												
		1885							698	1185					+50																						248	739											
	+50								582	907					+50			1807+260	Gravel Roadway Begin Bridge																		248	546											
		1886							397	660					+50																						248	254											
	+50		F 4479						316	472				1908																							248	35											
		1887	C 17						124	313					+50																						248	169											
	+50		FAC 125						146	256					+50																						248	0											
		1888	Ex F 5342						130	225					+50																						248	681											
	+50								118	202				1909																							248	598											
		1889							105	156					+50																						248	530											
	+50								64	101					+50																						248	1000											
		1890							8	43					+50																						248	547											
	+50								15	90				1910																							248	104											
		1891							82	206					+50																						248	324											
	+50		F 4297						140	319					+50																						248	0											
		1892	C 2432						204	396					+50																						248	139											
	+50		FAC 125						224	421					+50																						248	8											
		1893	Ex F 1911						231	377					+50																						248	0											
	+50								176	274					+50																						248	7											
		1894							120	183					+50																						248	0											
	+50								84	139					+50																						248	139											
		1895							66	139					+50																						248	8											
	+50		F 3474						3	64					+50																							248	7										
		1896	C 6455						204	396					+50																						248	0											
	+50		FAC 125						224	421					+50																						248	0											
		1897	Ex F 2113						231	377					+50																						248	0											
	+50								176	274					+50																						248	0											
		1898							120	183					+50																						248	0											
	+50								84	139					+50																						248	0											
		1899							66	139					+50																						248	0											
	+50		F 3474						3	64					+50																							248	0										
		1900	C 6455						204	396					+50																						248	0											
	+50		FAC 125						224	421																																							

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

FED. ROAD DIVISION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	V.T.		POST WAR		

Boeing Blue Print 300-3-01
76 6 1 418 60 0 0
STAGE 1
CONTRACT 1

STATE OF VERMONT
DEPARTMENT OF
HIGHWAYS

Checked, Revised & corrected 1/19/60
4/7/60

SOUTH BOUND

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

SOUTH BOUND & NORTH BOUND

PROJECT Williston - So. Burlington PROJECT I NO. OP-5(14) Cont. 2
SHEET _____ OF _____

FINAL EARTHWORK SHEET

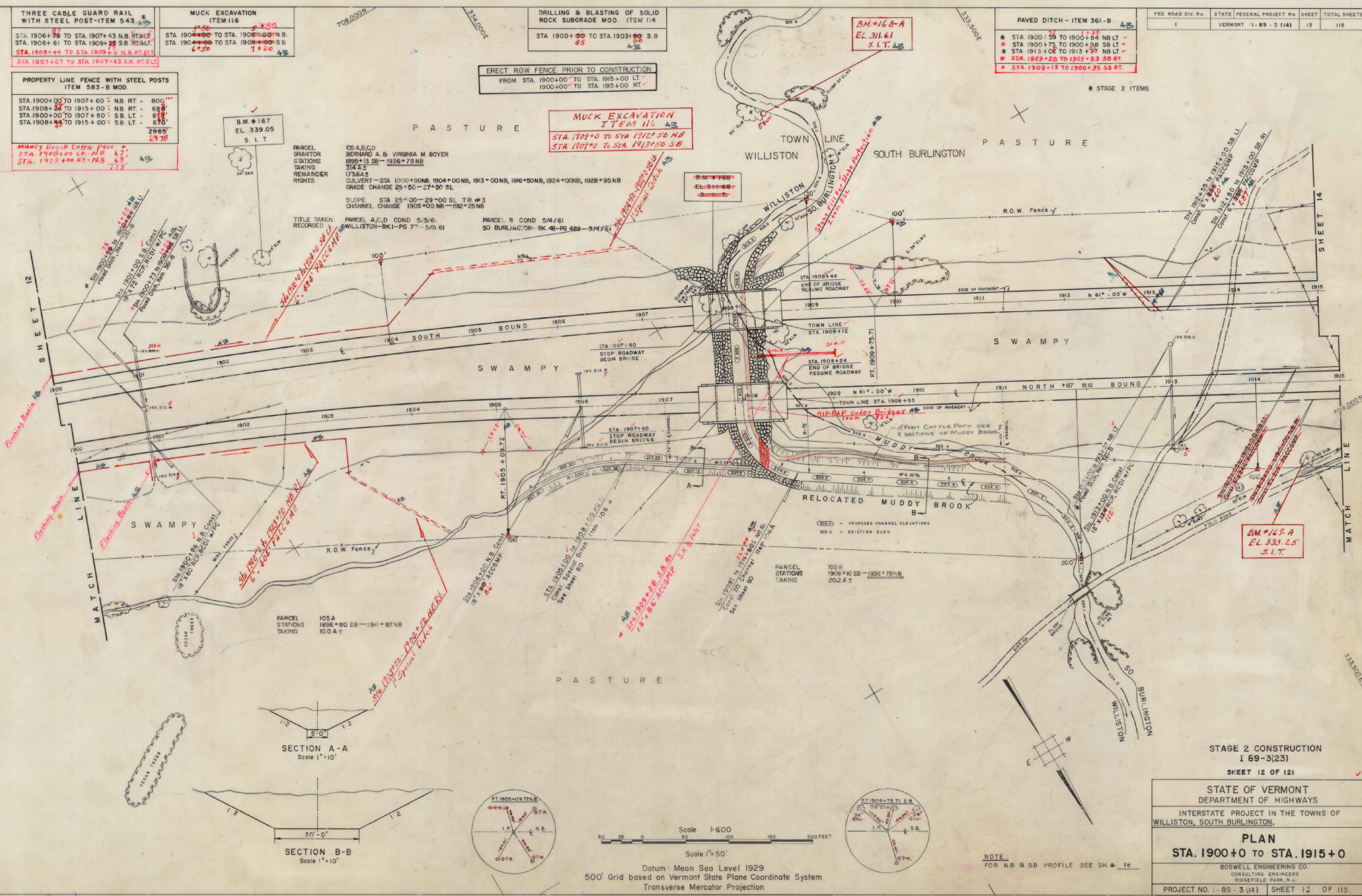
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

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STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

STAGE	CONTRACT
1	1

STAGE 1 CONTRACT 1



NOTE:
FOR NB. & SB PROFILE SEE SH # 15

PLAN	REVISED	BY	DATE
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9
10	10	10	10

STANDARD STEEL BEAM GUARD RAIL - ITEM 547A *
STA 1943+75 TO STA 1944+29 NB RT
STA 1943+75 TO STA 1944+29 SB LT
STA 1943+34 TO STA 1943+88 SB LT
STA 1943+44 TO STA 1943+98 SB RT

MUCK EXCAVATION ITEM 116
STA 1943+50 TO STA 1944+50 NB

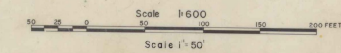
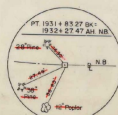
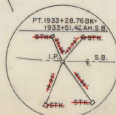
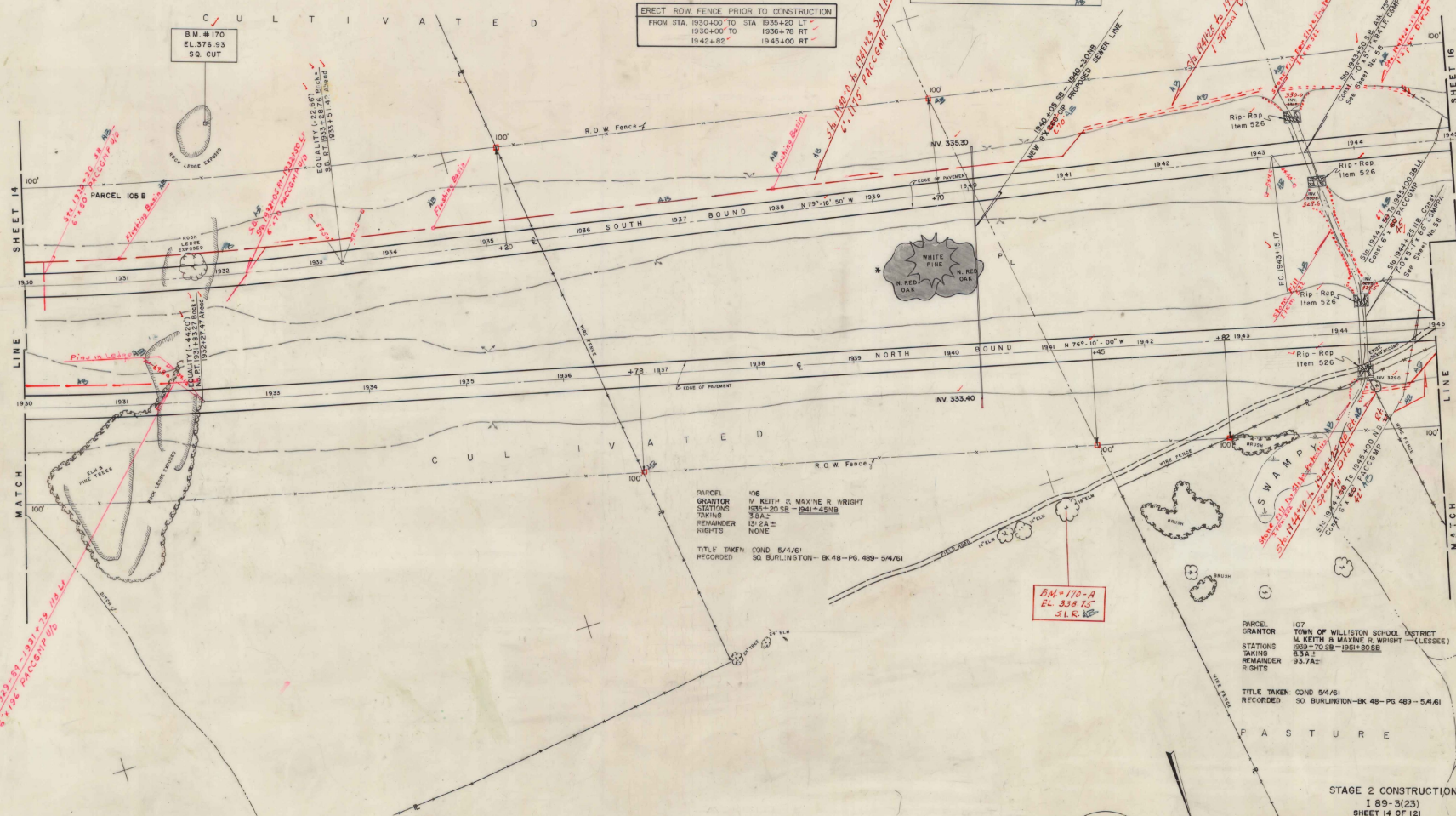
DRILLING & BLASTING OF SOLID ROCK SUBGRADE MOD - ITEM 114
STA 1930+00 TO STA 1935+50 N.B.
STA 1930+00 TO STA 1935+50 S.B.
1942+85
1945+00 RT

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

PROPERTY LINE FENCE WITH STEEL POSTS ITEM 583-B MOD
STA 1930+00 TO 1945+00 C.N.B. RT - 1450'
STA 1930+00 TO 1945+00 S.B. LT - 1470'
2930
2930
2930

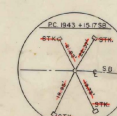
* STAGE 2 ITEMS

FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No.	SHEET	TOTAL SHEETS
1	VERMONT	1-89-3(14)	15	115



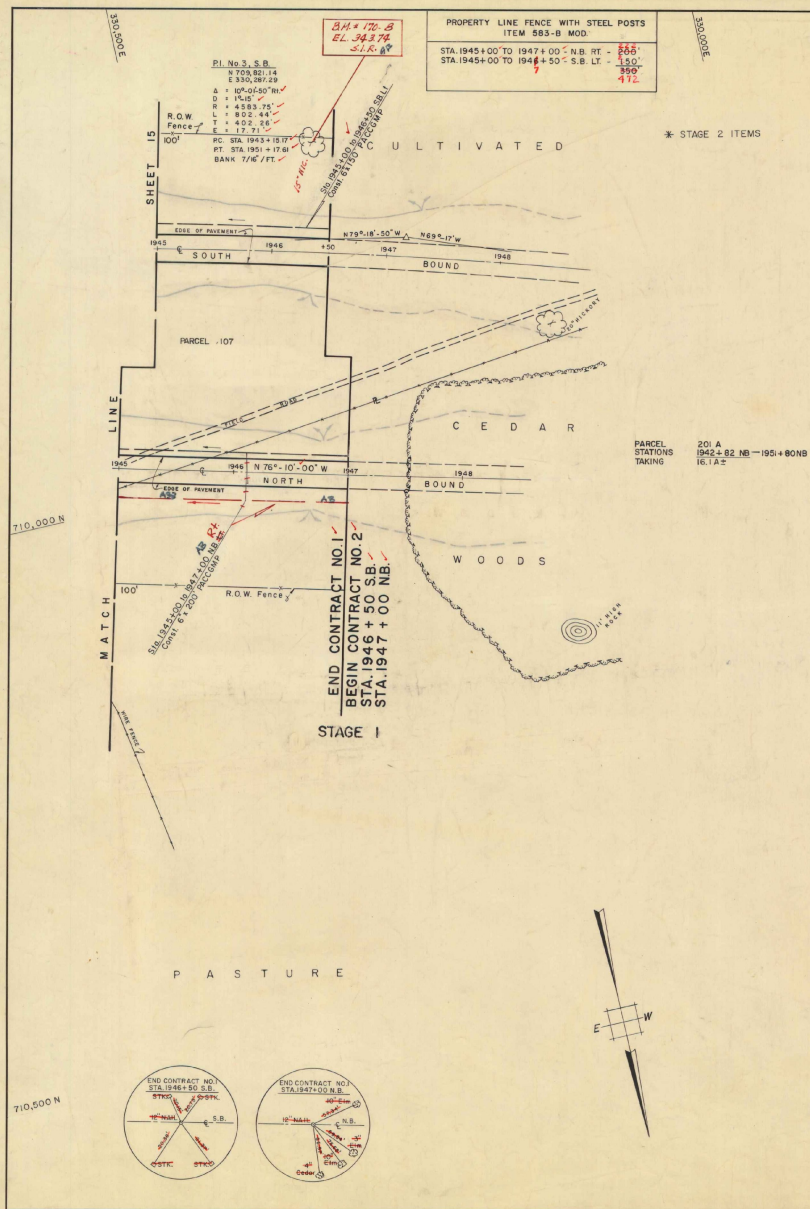
Datum: Mean Sea Level 1929
500' Grid based on Vermont State Plane Coordinate System
Transverse Mercator Projection

NOTE:
FOR NB & SB PROFILE SEE SH. 112



STAGE 2 CONSTRUCTION
189-3(23)
SHEET 14 OF 121

STATE OF VERMONT DEPARTMENT OF HIGHWAYS
INTERSTATE PROJECT IN THE TOWNS OF WILLISTON, SOUTH BURLINGTON.
PLAN STA. 1930+0 TO STA. 1945+0
BOSWELL ENGINEERING CO. CONSULTING ENGINEERS ROSELAND PARK, N.J.
PROJECT NO. 1-89-3(14) SHEET 15 OF 115



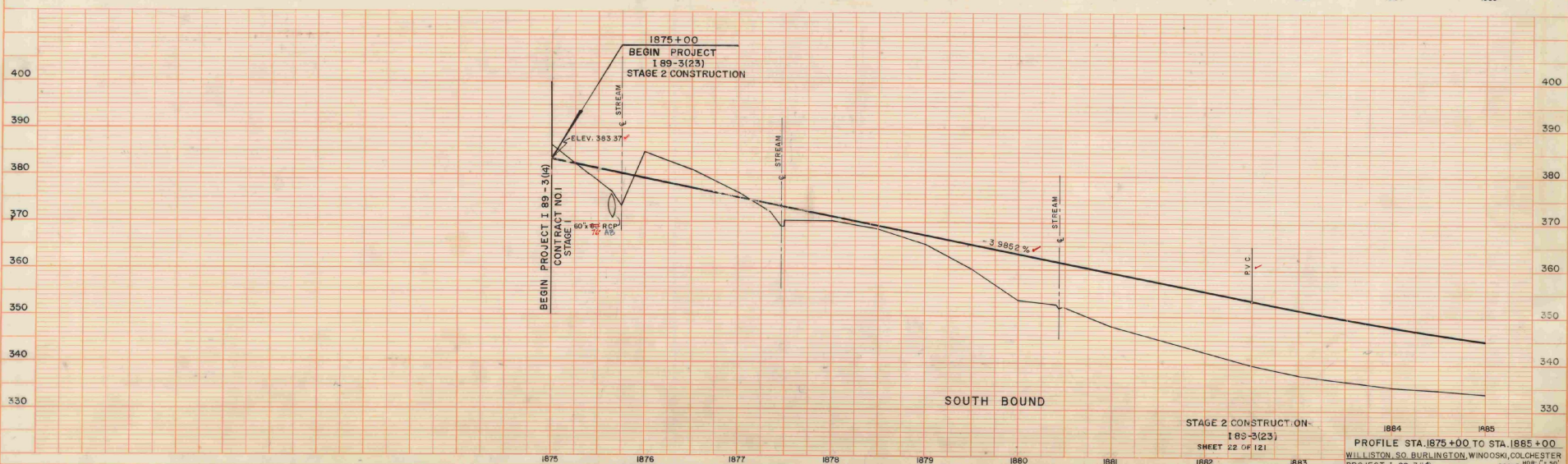
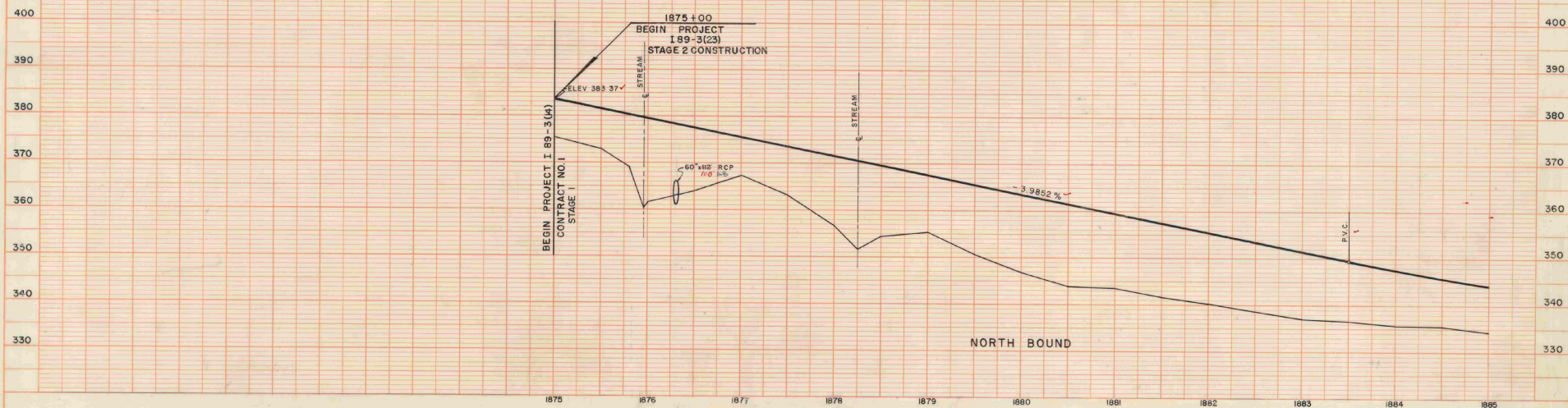
FED. ROAD DIV. NO.	STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
1	VERMONT	1-89-3 (14)	16	115

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

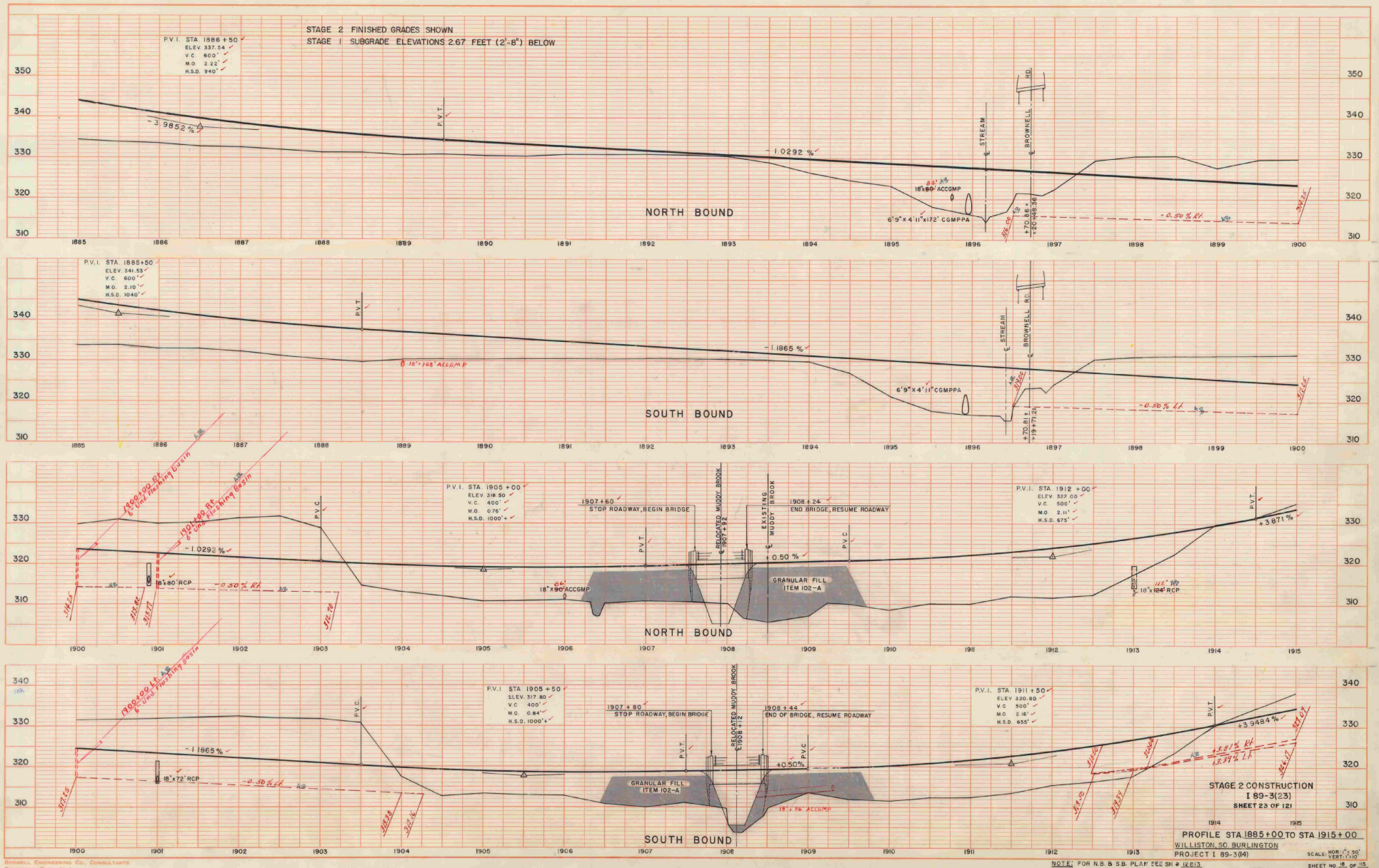
STATE OF VERMONT DEPARTMENT OF HIGHWAYS			
INTERSTATE PROJECT IN THE TOWNS OF WILLISTON, SOUTH BURLINGTON.			
PLAN STA. 1945+0 TO STA. 1946+50			
BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.			
DRAWN BY	IN CHARGE	DATE	SCALE
CHECKED BY			
PROJECT NO. 1-89-3 (14)		SHEET 16	OF 115

STAGE 1 CONTRACT 1

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
1682 1683 1684 1685
PROFILE STA. 1875+00 TO STA. 1885+00
WILLISTON, SO. BURLINGTON, WINOOSKI, COLCHESTER
PROJECT 1 89-3(4)
SCALE: HORIZ. 1" = 50'
VERT. 1" = 10'
NOTE: FOR N.B. & S.B. PLAN SEE SH. # 11
STAGE 1
SHEET NO. 17 OF 15
CONTRACT 1



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



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

TWO CABLE GUARD RAIL
WITH WOOD POSTS - ITEM 543

CONSTRUCT DRIVES

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

PARCEL 104 A/B
GRANTOR NORA A. LACASSE
STATIONS 1894+20.58 - 1895+60.58
TAKING 0.2 A.E.
REMAINDER 249.8 A.E.
RIGHTS

TITLE TAKEN: WOOD 5/1/61
RECORDED: WILLISTON - BK 27 - PG 426 - 5/1/61

STATION 16+00
ELEV. 330.08
S.H.R. 100

STA 18+48 RT.
STA 18+48 LT.
STA 21+34 TO STA 22+00 RT.
STA 21+34 TO STA 22+00 LT.

PARCEL 103
GRANTOR TOWN OF WILLISTON
STATIONS 1894+30.58 - 1897+05.58
TAKING 0.3 A.E.
REMAINDER

TITLE TAKEN: COND. 5/1/61
RECORDED: WILLISTON - BK 1 - PG 77 - 5/1/61

BROWNELL ROAD
CURVE DATA - ARC DEF.

A = 28° 36' 27" RT.
D = 25.36'
R = 239.83'
L = 1185.43'
T = 100'
BANK 5/8' FT

PI No 1
N 205.08431
E 234.87774

STA 18+71.5 BROWNELL ROAD
STA 1894+30.58 SOUTH BOUND

STA 18+71.5 BROWNELL ROAD
STA 1894+30.58 SOUTH BOUND

STA 18+71.5 BROWNELL ROAD
STA 1894+30.58 SOUTH BOUND

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STA 1894+30.58 SOUTH BOUND

STA 18+71.5 BROWNELL ROAD
STA 1894+30.58 SOUTH BOUND

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

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

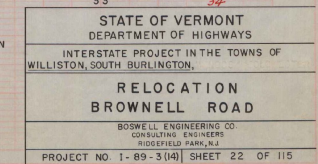
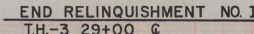
PVI - STA 19+25
ELEV. 337.23
V.C. 600'
M.O. 750'
H.S.D. 295'

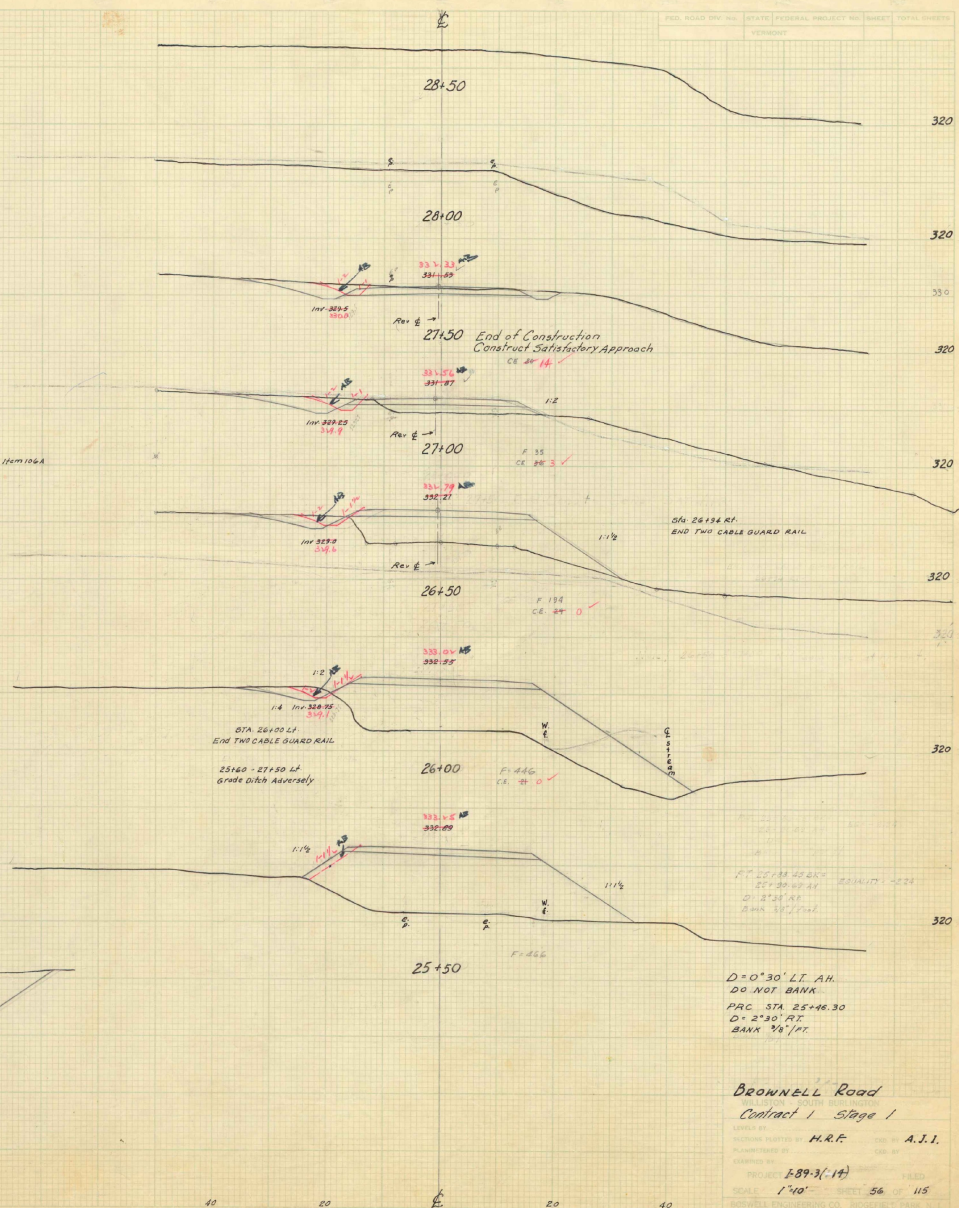
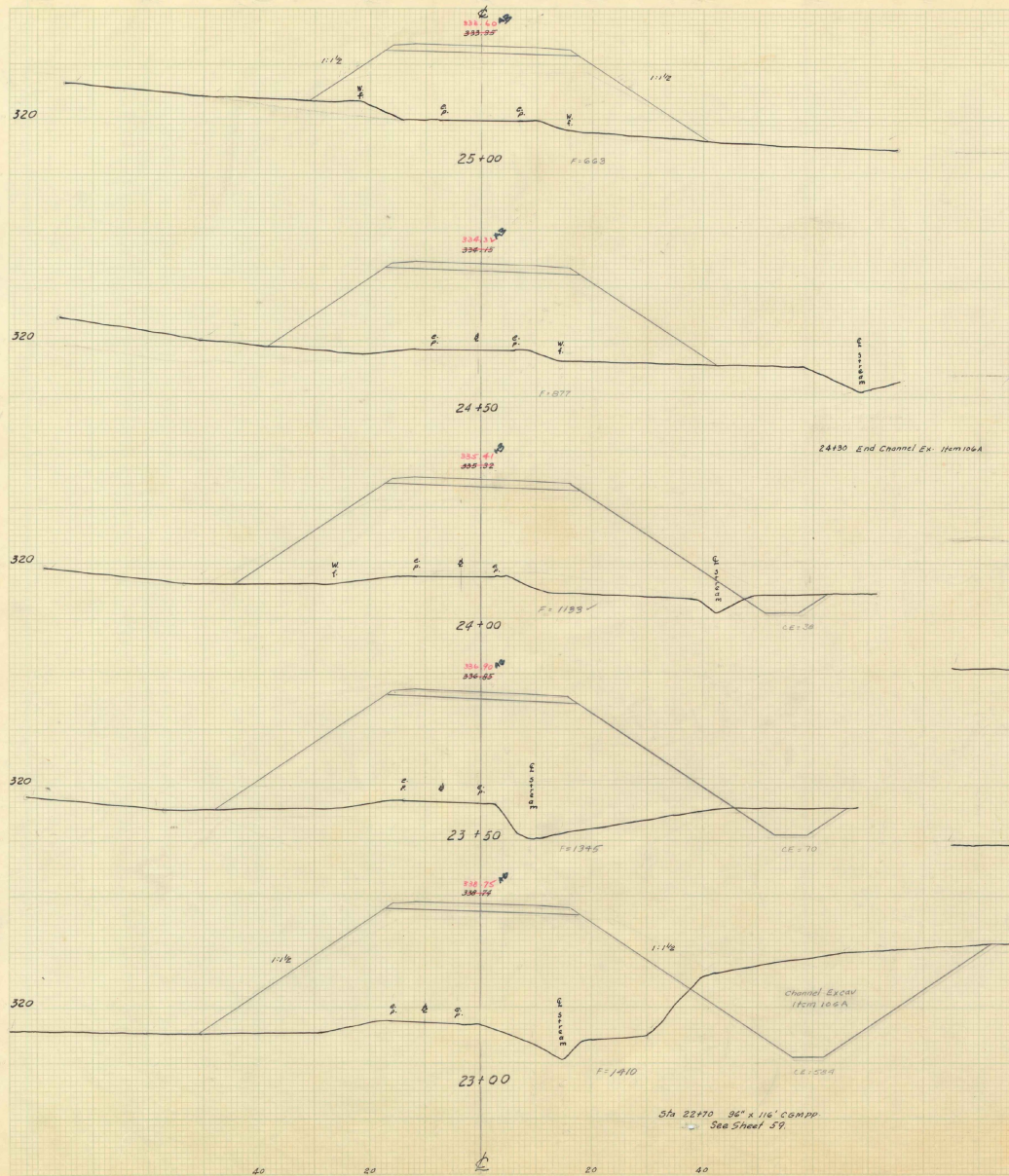
PVI - STA 13+90
ELEV. 330.48
V.C. 380'
M.O. 300'
H.S.D. 320'

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

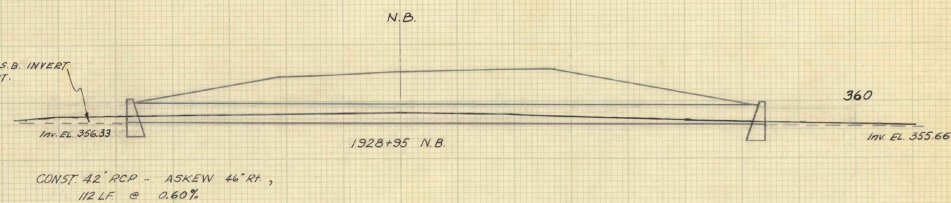
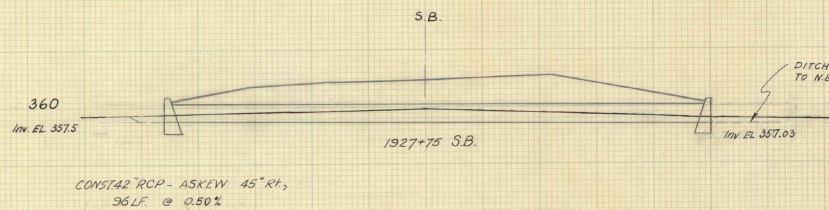
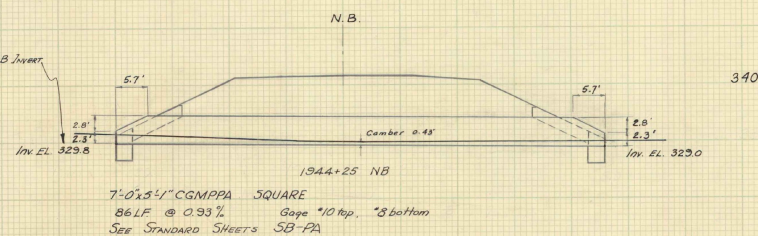
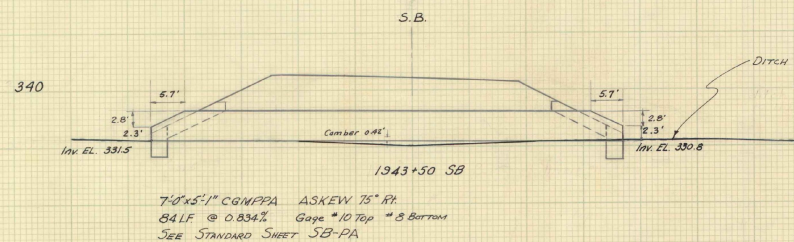
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
INTERSTATE PROJECT IN THE TOWNS OF
WILLISTON, SOUTH BURLINGTON,
RELOCATION
BROWNELL ROAD
BOSWELL ENGINEERING CO.
CONSULTING ENGINEERS
ROSELAND PARK, N.J.
PROJECT NO. 1-89-3(14) SHEET 21 OF 115

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

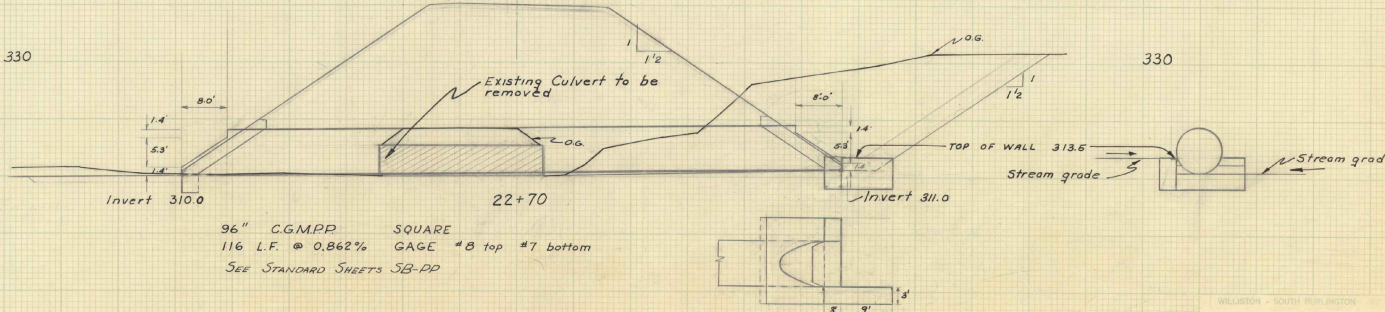




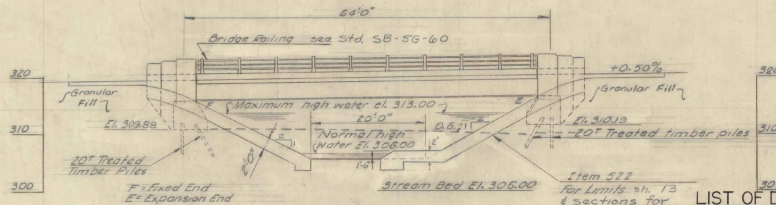
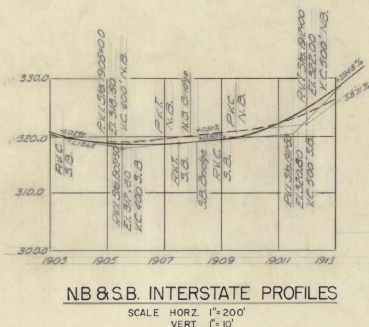
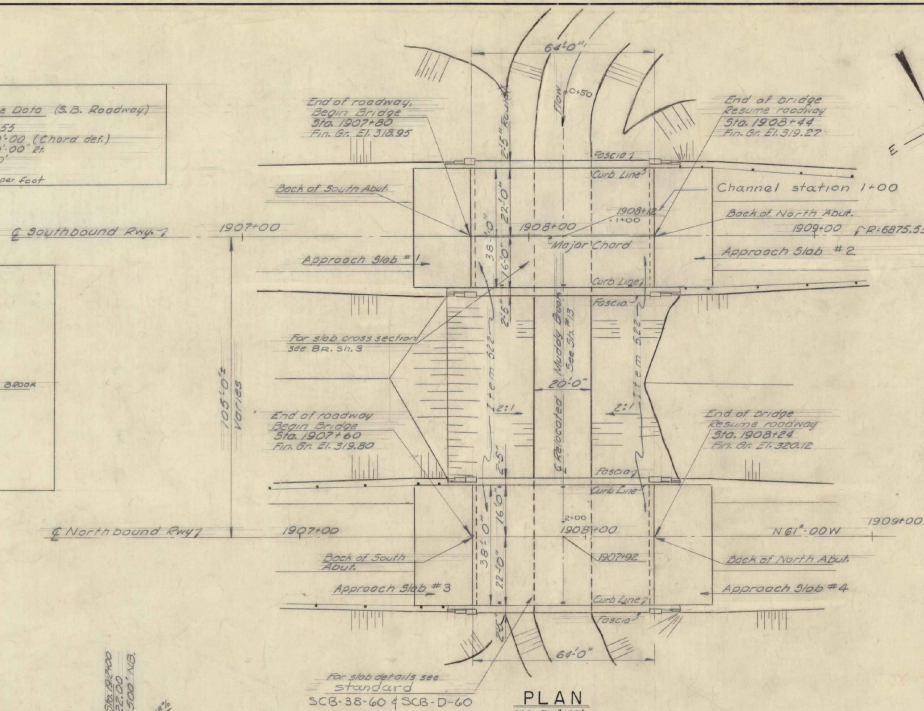
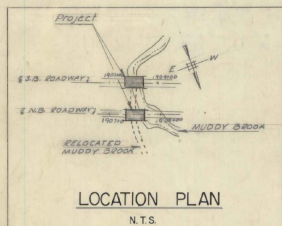
D=0°30' LT. AH.
 DO NOT BANK
 PAC STA 25+46.30
 D=2°30' RT
 BANK 98'/FT.
 BROWNELL ROAD
 Contract 1 Stage 1
 M.R.P. A.I.I.
 289-3(14)
 1"=40' SHEET 56 OF 115



Reloc. Brownell Rd.



Curve Data (S.B. Roadway)
 $R=875.55$
 $\Delta=0^{\circ}50'10''$ (Chord def.)
 $L=21^{\circ}00'00''$
 $T=1274.10'$
 $L=117.10'$
 Bank 1/4" per foot



LIST OF DRAWINGS

General Party Elevation
 North Bound Abut. Details
 S.B. Typ. Section Abutment Details
 Goring Log
 Bar Schedule
 Preliminary Information Sheet
 SB-38-60
 SB-58-60 1 of 2
 SB-AS-60
 SB-20-60
 SCB-D-60

Bk. 1
 Bk. 2
 Bk. 3
 Bk. 4
 Bk. 9
 Bk. 10
 sheet 106
 sheet 108/109
 Bk. 5, 6, 7, 8
 sheet 110
 sheet 111

REFERENCE DRAWINGS

Plan
 Profile
 Cross Sections
 SB-38-60
 SB-58-60
 SB-AS-60
 SB-20-60
 SCB-D-60

ESTIMATED QUANTITIES

Final Quantities	ITEM	UNIT	NORTHBOUND		SOUTHBOUND	
			NEAT	OVERRUN TOTAL	NEAT	OVERRUN TOTAL
N.Bnd. S.Bnd.	#					
30 30	107 Structure Excavation	C.Y.	28	28	28	28
*	3518 Bit Conc. Pavt. (Ind. App. Sub) Mod.	Ton	48	9	48	9
253 253	4018 Conc. Cess. B. Mod. (Ind. App. Sub)	C.Y.	247	73	247	73
31,495 31,571	402 Reinforcing Steel (Ind. App. Sub)	Lbs	31,495	31,495	31,495	31,495
1/2 1/2	403 Spiral Reinforcement	L.S.	Required	Required	Required	Required
69,082 69,082	4014 Structural Steel	Lbs	69,082	69,082	69,082	69,082
9 9	4017 Asph. Prime Asbestos Coating	S.K.	40	40	40	40
Required Required	401 Reinforcing Equipment for	L.S.	Required	Required	Required	Required
1,959 1,943	5005 Treated Timber Piling	L.F.	1,959	1,959	1,959	1,959
159 159	5506 Granite Cr. Curb Mod. (Ind. App. Sub)	L.F.	159	159	159	159
119 119	572 Bridge Railing	L.F.	119	119	119	119
0 0	222 Gravel Backfill	C.Y.	48	48	48	48
450 472	522 Stone Fill for Slope Protection	C.Y.	450	450	450	450
*	318 Tar Emulsion for Bridge Floors	Gal.	176	176	176	176
450 472	1004 Channel Excavation in Earth	C.Y.	450	450	450	450
*	372 Joint Sealer Hot Poured Elastic Type	L.F.	76	76	76	76

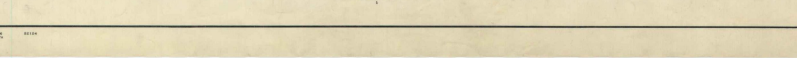
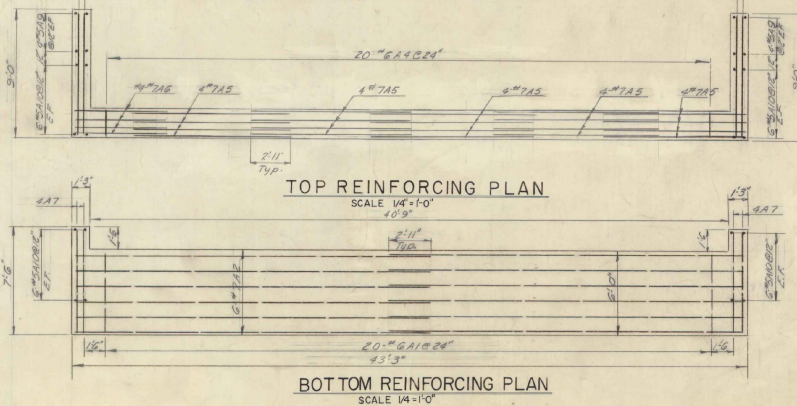
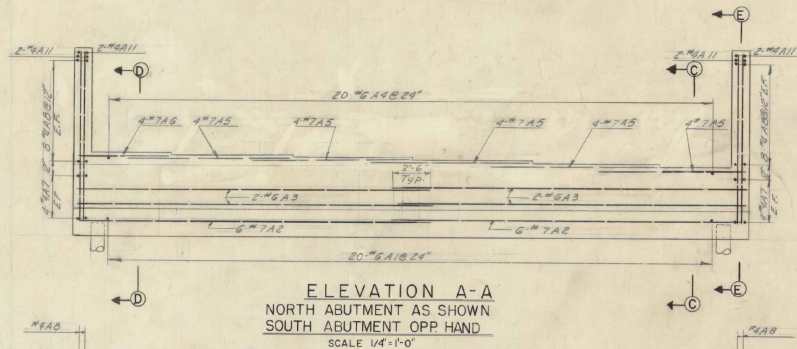
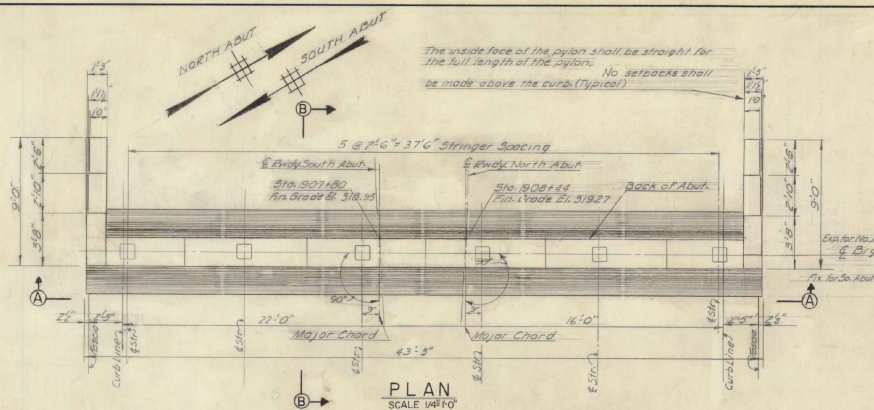
* These items to be included in the roadway estimate

GENERAL NOTES

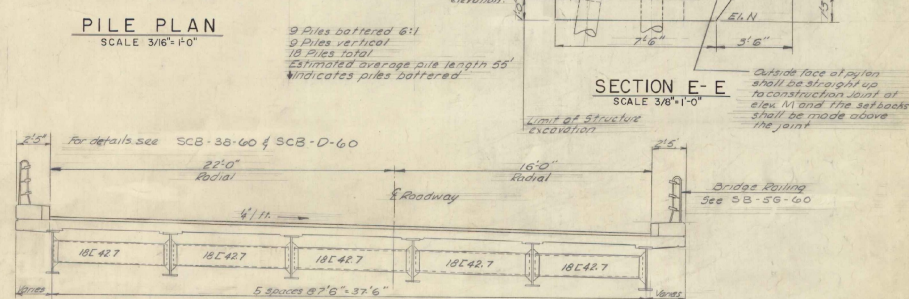
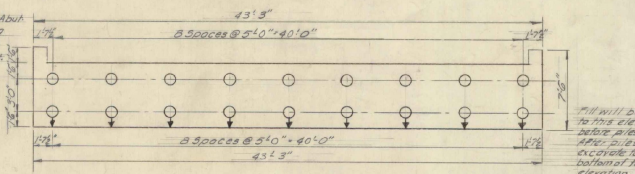
- All materials and construction shall conform to the state of Vermont, Department of Highways, Standard Specifications for Road and Bridge Construction dated Jan. 1958 and the A.A.S.H.O. Standard Specifications dated 1957. Designed for H20-S16-44 loading modified for National System of Interstate Highways applied in accordance with the provision of the A.A.S.H.O. Standard Specifications, Article 1, 2, 3.
- 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 1/4" per foot from the front edge of backwall. These sloping surfaces shall be coated with asphaltic asbestos coating 1/2" thick as per item 407 of Specifications.
- All dimensions given are measured horizontally or vertically unless otherwise noted.
- All dimensions given at 88°F.
- All reinforcing to have a clear cover of 3", unless otherwise noted.
- All exposed edges of concrete shall be chamfered 1/4" 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 AISC 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.

B1 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. RIDGEFIELD PARK, N. J.	
DRAWN BY R.H.E.	IN CHARGE A.V.I.
CHECKED BY A.V.I.	DATE
PROJECT NO. 1-89-3(14)	SHEET 91 OF 115



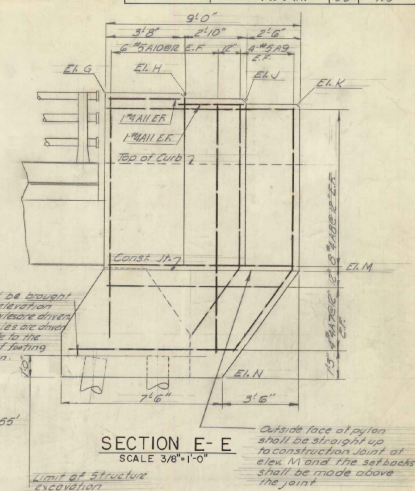
ELEV	NORTH ABUTMENT		SOUTH ABUTMENT	
	RIGHT PYLON	LEFT PYLON	RIGHT PYLON	LEFT PYLON
G	323.25	324.04	322.74	323.74
H	323.27	324.06	322.93	323.72
J	323.03	323.82	322.67	323.46
K	322.77	323.56	322.40	323.19
L				
M	314.71	315.49	314.40	315.16
N	309.71	309.71	309.40	309.40



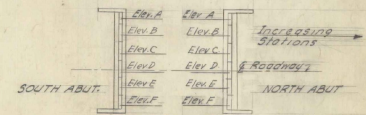
BEARING ELEVATIONS						
	A	B	C	D	E	F
NORTH ABUTMENT	315.49	315.33	315.18	315.02	314.86	314.71
SOUTH ABUTMENT	315.18	315.02	314.87	314.71	314.55	314.40

		ESTIMATED QUANTITIES						
ITEM #	ITEM	UNIT	SOUTHBOUND					
			NORTH ABUTMENT			SOUTH ABUTMENT		
			NEAT	OVRERRUN	TOTAL	NEAT	OVRERRUN	TOTAL
107	Structure Excavation	C.Y.	—	—	—	—	—	—
4010	Concrete Class B (Wd.)	YD	48.8	2	50.8	49.1	2	51.1
402	Reinforcing Steel	LB	300	0	300	300	0	300
407	Asphaltic Asbestos Coating	S.Y.	—	—	—	—	—	—
5020	Treated Timber Piling	LF	990.0	—	990.0	990.0	—	990.0
232	Gravel Backfill	C.Y.	4.2	0	4.2	4.2	0	4.2

FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No.	SHEET	TOTAL SHEET
	VERMONT	1-89-3 (14)	93	115



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



BEARING ELEVATION

N.T.S.

BR 3 OF 10

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.

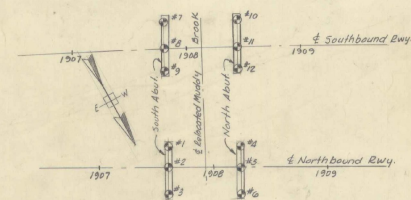
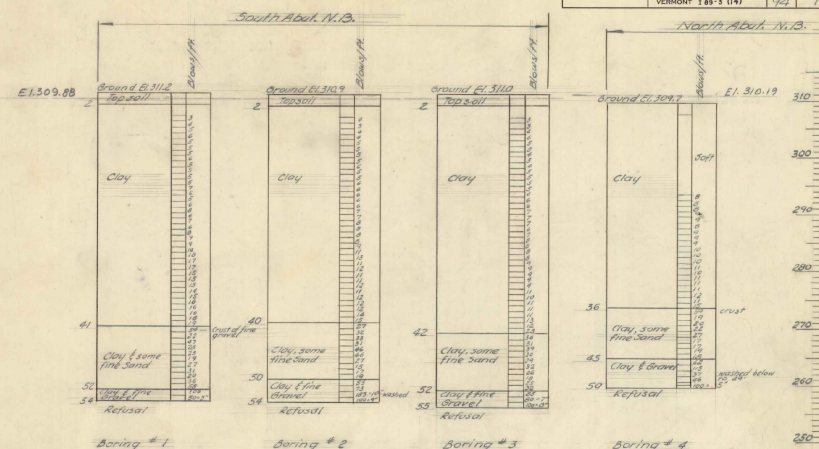
DRAWN BY H. E. RICHARDS
CHECKED BY A. J. J.

DATE 11/24/54

IN CHARGE 11/24/54

SHEET 33 OF 110

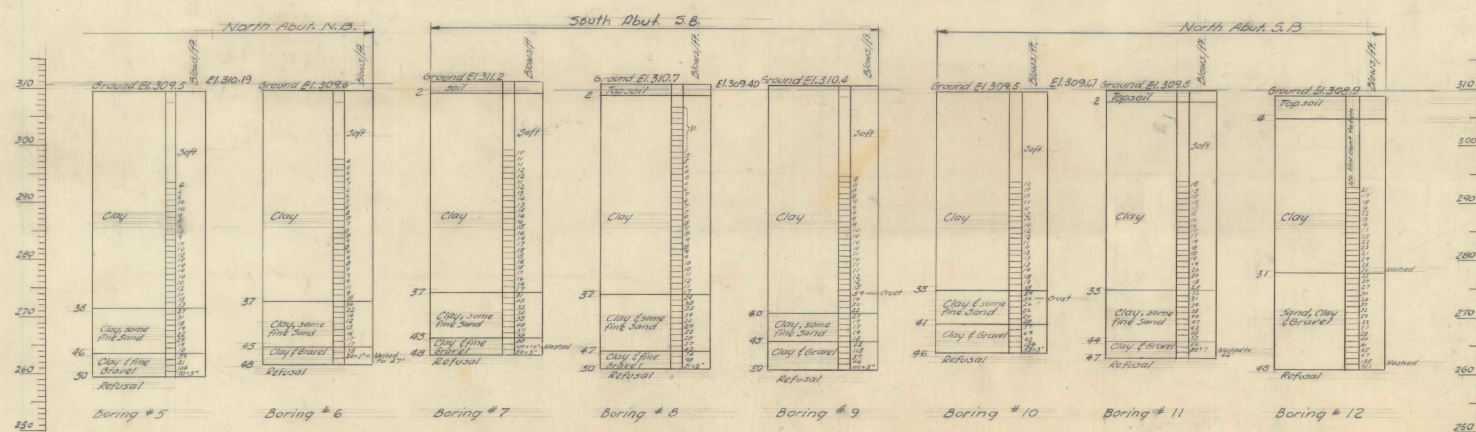
S.C. STONE



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

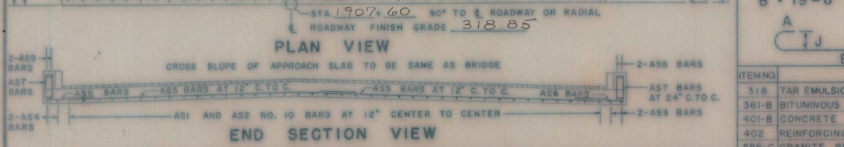
NOTES

1. For General Notes see sh. Br. 1
2. 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".
3. _____ indicates bottom of footing elevation.

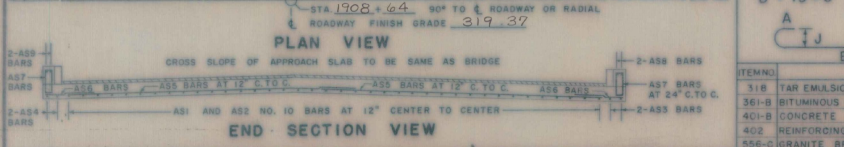
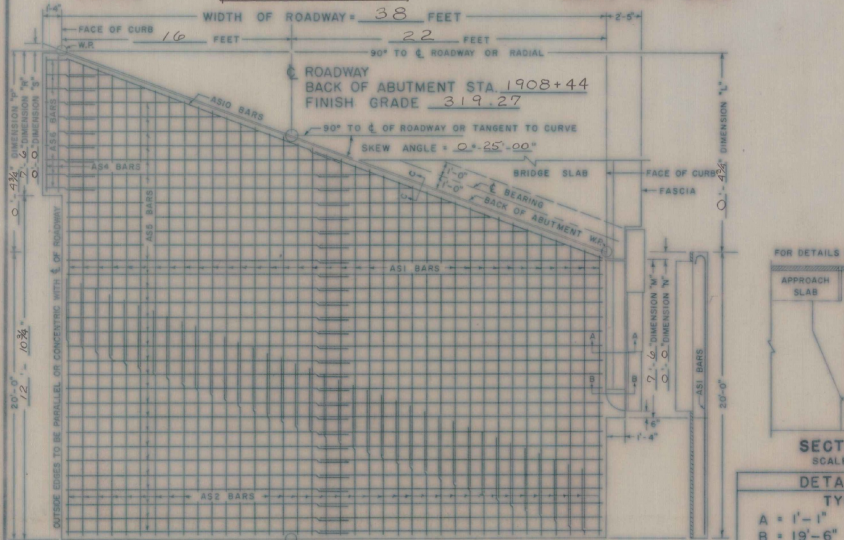


Dr. 4 of Br. 10

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 J. H.	IN CHARGE A. J. I.
CHECKED BY A. J. I.	DATE
PROJECT NO. 189-3 (14)	SHEET 94 OF 115



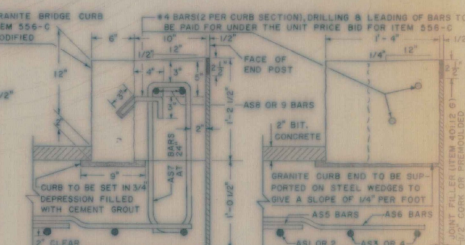
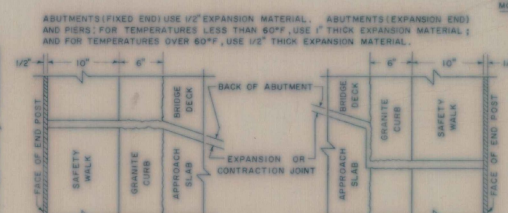
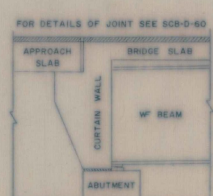
TOWN OF WILLISTON-S. BURINGTON
ROUTE NO. I 89
LOG STA. _____
SCALE AS NOTED
DESIGNED BY RSH CHECKED BY AHS
PROJECT NO. I-89-3(14) Cont. # 1
DR. 5 OF 10 SHEET 95 OF 115



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	NO.	PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS								
SQUARE OR SKEWED							SQUARE OR SKEWED							SQUARE OR SKEWED							SQUARE OR SKEWED							SQUARE OR SKEWED														
2	10			A53	STR.		2	10	7'-0"		A53	STR.		2	10			A53	STR.		2	10			A53	STR.		2	10			A53	STR.									
2	10			A54	STR.		2	10	7'-0"		A54	STR.		2	10			A54	STR.		2	10			A54	STR.		2	10			A54	STR.									
		5	3'-6"						14	5	3'-6"	A56	STR.			5	3'-6"					5	3'-6"			A56	STR.			5	3'-6"			A56	STR.							
		5	5'-0"						0	5	5'-0"	A57	SE				5	5'-0"					5	5'-0"			A57	SE			5	5'-0"			A57	SE						
2	3			A58	STR.		2	3		5'-4"		A58	STR.		2	3			A58	STR.		2	3			A58	STR.		2	3			A58	STR.								
2	5			A59	STR.		2	5		5'-4"		A59	STR.		2	5			A59	STR.		2	5			A59	STR.		2	5			A59	STR.								
SQUARE							SQUARE							SQUARE							SQUARE							SQUARE														
30	10	20'-7"		ASI	1		38	10	20'-7"		ASI	1		42	10	20'-7"		ASI	1		44	10	20'-7"		ASI	1		10	20'-7"		ASI	1		AS1	1							
20	5	29'-6"		A55	STR.	2	40	5	19'-9"		A55	STR.	4	40	5	21'-9"		A55	STR.	4	40	5	23'-9"		A55	STR.	5	40	5	25'-9"		A55	STR.	5	40	5	27'-9"		A55	STR.	5	
SKEWED UP TO 15°							SKEWED UP TO 15°							SKEWED UP TO 15°							SKEWED UP TO 15°							SKEWED UP TO 15°														
30	10			AVE	ASI	1	38	10		20'-9"	AVE	ASI	1	42	10			AVE	ASI	1	44	10			AVE	ASI	1	10			AVE	ASI	1		AVE	ASI	1					
		5	29'-6"						40	5	19'-9"					5	21'-9"					5	23'-9"				5	25'-9"				5	27'-9"				5	29'-9"				
ALL SKEWED SPANS							ALL SKEWED SPANS							ALL SKEWED SPANS							ALL SKEWED SPANS							ALL SKEWED SPANS														
2	5			ASIO	STR.		2	5		20'-1"		ASIO	STR.		2	5			ASIO	STR.		2	5			ASIO	STR.		2	5			ASIO	STR.		2	5			ASIO	STR.	
ABOVE 15° SKEW							ABOVE 15° SKEW							ABOVE 15° SKEW							ABOVE 15° SKEW							ABOVE 15° SKEW														
30	10	20'-7"		ASI	1		38	10	20'-7"		ASI	1		42	10	20'-7"		ASI	1		44	10	20'-7"		ASI	1		10	20'-7"		ASI	1		AS1	1		AS1	1				
29	10			AVE	ASI	STR.	4	37	10		AVE	ASI	STR.	4	41	10			AVE	ASI	STR.	4	43	10			AVE	ASI	STR.	4	45	10			AVE	ASI	STR.	4	47	10		

REMARKS: ① BASI BAR # DIMENSION VARIES FROM 19'-6" TO 20'-0". ② 20' 0" DIMENSION (Y'Y') = 48 (IN FEET) = NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIES ON OPPOSITE HALF OF SLAB. ③ 40' 0" DIMENSION (Y'Y') = 2 (IN FEET) = NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIES ON OPPOSITE HALF OF SLAB. ④ THE LENGTH OF AS2 BARS VARIES FROM _____ TO _____. 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 INCREMENTS EACH BAR MUST BE DETAILED. SPLICES SHALL BE 2'-0" FOR NUMBER 5 BARS AND 4'-0" FOR NUMBER 3 BARS. ALL JOINTS AND MATERIALS SHALL CONFORM TO THE STATE OF VERMONT, DEPARTMENT OF TRANSPORTATION, REINFORCING STEEL SPECIFICATION, 1990 EDITION, AND THE AASHTO STANDARD SPECIFICATION FOR STEEL REINFORCING BARS, 1990 EDITION.



SECTION C-C

CURB ENDS & JOINT DETAIL

SECTION A-A SECTION B-B

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

DETAILS OF REINFORCING BARS				REINFORCING STEEL			
TYPE I		TYPE S6					
A = 1'-1" J = 0'-9" B = 19'-6" OR VARIES 		A = 0'-6" B = 1'-9" C = 0'-6" D = 1'-9" E = 0'-6"					
A T J B		A B C D E F G H I J K L M N O P Q R S T U V W X Y Z		BAR NO. NO. PHES LENGTH WEIGHT PER FT. WEIGHT IN LBS. A52 1 38 20.75 4.303 332.9 A52 2 38 20.75 4.303 332.9 A52 3 2 7.0 4.303 60.2 A54 2 40 4.303 60.2 A55 40 19.75 1.043 624.0 A56 14 3-6 1.043 51.7 A57 3 5-0 1.043 41.7 A58 6 5-3 1.043 41.7 A59 2 5-3 1.043 41.7 A50 2 20.0 1.043 41.9 TOTAL WEIGHT = 4494.4			
ITEM NO.	ITEM	UNIT	NET	OVERRUN	TOTAL	FINAL	
318	TAR EMULSION FOR BRIDGE FLOORS	gal	34	—	34		
319	BITUMINOUS CONCRETE PAVEMENT (MOD.)	TONS	7	2	11		
401-B	CONCRETE CLASS B (MOD.)	CU YD	3	2	3		
402	REINFORCING STEEL	LB.	4495	—	4495		
525-6	GRANITE BRIDGE CURB (MOD.)	cu yds	11/2	—	11/2		

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

QUANTITY COMPUTATION

$W =$ WIDTH OF ROADWAY	$Z =$ 20 + DIMENSION $\frac{H^2}{4}$	$T =$ DIMENSION $\frac{H^2}{4}$
$W = 38$	$Z = 20.2$	$T = 7.5$

BITUMINOUS CONCRETE * W * Z * 0.0123 TONS $38 \times 20.2 \times 0.0123 = 9.4$ TONS

TAR EMULSION * W * Z * 0.044 * GALLONS $38 \times 20.2 \times 0.044 = 34$ GALLONS

CONCRETE CLASS B * W * Z * 0.0386 * T * 0.1029 + (T - 1.8333) * 0.0733 * CUBIC YARDS

$[38 \times 20.2 \times 0.0386] + [7.5 \times 0.1029] + [(7.5 - 1.8333) \times 0.0733] = 31$ CUBIC YARDS

GRANITE BUSH CURB $21T + (0.7 - 3) \times$ LINEAR FEET $21(7.5 + 0.25) = 155.5$ LINEAR FEET

AND AN OVERRUN OF 15% TO BUILT CONCRETE, AND AN OVERRUN OF 5% TO CONCRETE CLASS B

BAR LENGTHS: A53 BARS: DIMENSION "W" - 0'-0"

A54 BARS: DIMENSION "W" - 0'-0"

A56 BARS: 3'-6"

A57 BARS: 5'-0"

A58 BARS: DIMENSION "W" - 0'-0"

A59 BARS: DIMENSION "W" - 0'-0"

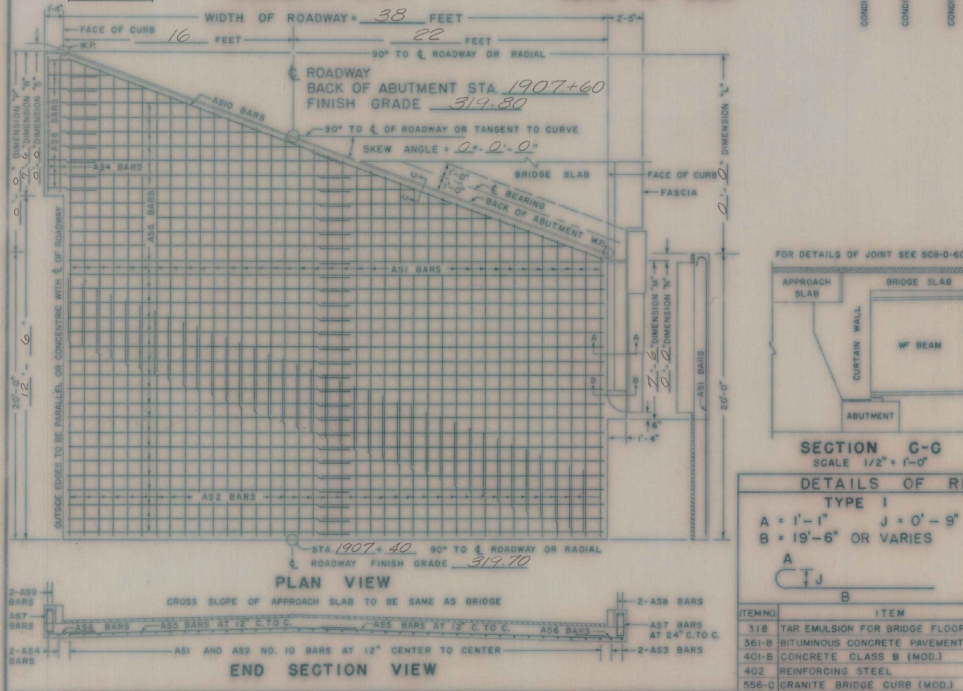
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	CHECKED BY: <u>A.H. SMALLEY NOV. 1960</u>
	CORRECT : <u>Nov 22, 1960</u> <u>Paul Davis</u>
	BRIDGE ENGINEER
	APPROVED : <u>Nov 22, 1960</u> <u>W.D. Galt</u>

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

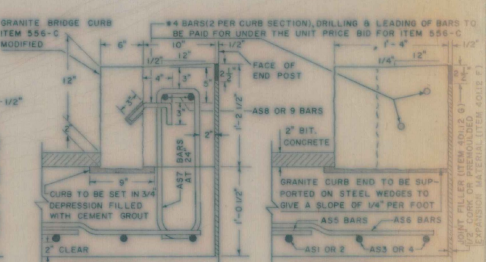
TOWN OF WILLISTON - S. BURLINGTON
ROUTE NO. I 89
LOG STA. _____

SCALE AS NOTED
DESIGNED BY RSB CHECKED BY AHS
PROJECT NO. I-89-3(14) Cont #1
PR. 6/2/12 DATE 3/2/11



REMARKS: 1. AS1 BAR "D" DIMENSION VARIES FROM "A" TO "B" C TO "D" 20 + DIMENSION "C" / 4 (IN FEET) : NUMBER OF PIECES, CUT BARS IN THE FIELD USING CUT OFF PICES ON OPPOSITE HALF OF SLAB. 4. 40 + DIMENSION "C" / 2 (IN FEET) : NUMBER OF PIECES, CUT BARS IN THE FIELD USING CUT OFF PICES ON OPPOSITE HALF OF SLAB. 5. THE LENGTH OF AS2 BARS VARIES FROM "E" TO "F" THE AS2 BARS MAY BE DIVIDED INTO TWO OR MORE PICES, 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. PICES 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'-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 1956, AND THE A.A.S.H.O. SPECIFICATIONS DATED 1957. DESIGNED FOR H20-S16-A



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

[illegible]

REVISIONS AND CORRECTIONS	APPROVED
	DRAWN BY: <u>R.S. HAUPF NOV. 1960</u>
	TRACED BY: <u>R.S. HAUPF NOV. 1960</u>
	CHECKED BY: <u>A.H. SMALLEY NOV. 1960</u>
	CORRECT : <u>Nov. 21, 1960</u> <i>Am. Boring</i> BRIDGE ENGINEER
APPROVED : <u>Nov. 22, 1960</u> <i>W. H. Hall</i> CHIEF ENGINEER	

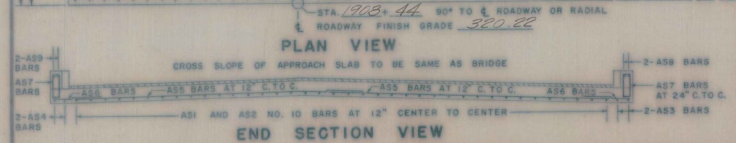
DETAILS OF APPROACH SLAB
FOR 38 FOOT BRIDGE
(WIDTH)
TO BE USED FOR BRIDGE AT STATION 1907 + 70
LOCATION INTERSTATE OVER MUDDY BROOK (NORTHBOUND ROADWAY)
APPROACH SLAB NO. 3

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
STANDARD STRUCTURE

SB-AS-60

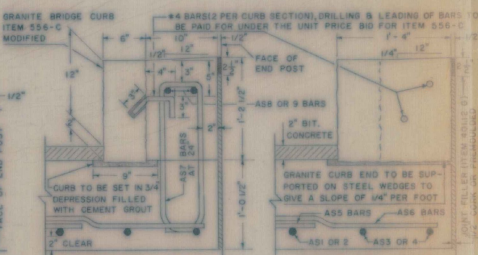
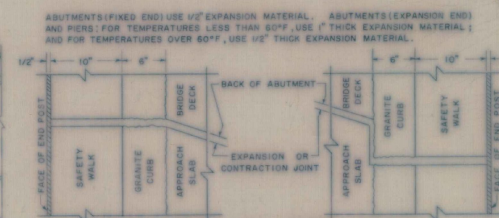
TOWN OF WILLISTON-S. BURLINGTON
ROUTE NO. I 89
LOG STA. 1907+70

SCALE AS NOTED
DESIGNED BY RSB CHECKED BY AHS
PROJECT NO. I-89-3(4) Cont. #1
BR. 7 OF 10 SHEET 66A OF 115



REMARKS: ① ASH BAR TENSION DIMENSION SHALL BE 10'-6" TO _____; ② 20 + DIMENSION ($\frac{P_u}{f_y A_s}$) / 4 IN (FEET); NUMBER OF PIECES, CUT BARS IN THE FIELD USING OUT OFF PICES IN OPPOSITE HALF OF SLAB. ③ 40 + DIMENSION ($\frac{P_u}{f_y A_s}$) / 2 IN FEET; NUMBER OF PIECES, CUT BARS IN THE FIELD USING OUT OFF PICES ON OPPOSITE HALF OF SLAB. ④ THE LENGTH OF AS2 BARS VARIES FROM _____ TO _____. THE AS2 BARS MAY BE DIVIDED INTO TWO OR MORE PICES IF NECESSARY, TO LIMIT THE MAXIMUM BAR LENGTH TO 30 FEET. THE LOCATION OF SPLICES IS LEFT TO THE OPTION OF THE DESIGNER. THE NO PICES SHOWN ARE FOR CONSTRUCTION 1 & 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 DESIGNED SPECIES SHALL BE 2"-4" FOR NUMBER 5 BARS, AND 4"-5" FOR NUMBER 10 BARS. ALL WORK AND MATERIALS SHALL COMFORM WITH THE LATEST EDITIONS OF THE STATE OF VERMONT, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION, AND THE AASHTO STANDARD SPECIFICATIONS FOR STEEL REINFORCEMENT, LATEST EDITION.



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

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

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

[illegible]

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 (NORTHSOUND ROADWAY)
APPROACH SLAB NO. 4

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

TOWN OF WILLISTON, S. DAKOTAN
ROUTE NO. I 89
LOG STA. 1907+70
SCALE AS NOTED
DESIGNED BY RSH CHECKED BY AHS
PROJECT NO. I-89-3(14) Cont #1
BR. 8 OF 10 SHEET 76 OF 115

TYPICAL BAR BENDS

NOTES

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

STANDARD HOOK DETAIL

Item	No. Pieces	Size	Length	Area	Type	A	B	C	D	E	F	G	H	J	K	R	O
163																	
164																	
165																	
166																	
167																	
168																	
169																	
170																	
171																	
172																	
173																	
174																	
175																	
176																	
177																	
178																	
179																	
180																	
181																	
182																	
183																	
184																	
185																	
186																	
187																	
188																	
189																	
190																	

BAR SIZES

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

8. Bar reinforcement metal shall conform to the requirements of the Standard Specifications for new **Billet-Steel Concrete Reinforcement Bars** (Intermediate Grade) Serial Designation AAS, H, O, M, S, 40 or 65, **ASTM** reversion.

All bars shall be deformed to conform with **ASTM** Specifications A305-49.

* Denotes one bar added for testing

ESTIMATED QUANTITIES

Location	Pounds
5100	18026 17989
North Abutment	2302 2395
South Abutment	2302 2395
North Approach 3100	4489 4499
South Approach 3100	4489 4499
TOTAL	21489 21600

FINAL

N.Brd. 5.Brd.

18026 17989

2302 2395

2302 2395

4489 4499

4489 4499

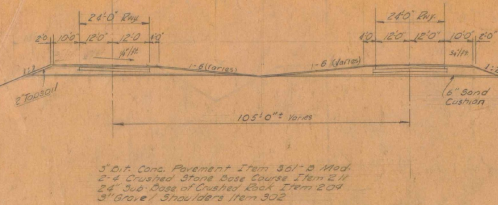
OVERPASS STA. 1907+70

MUDDY BROOK

BAR SCHEDULE

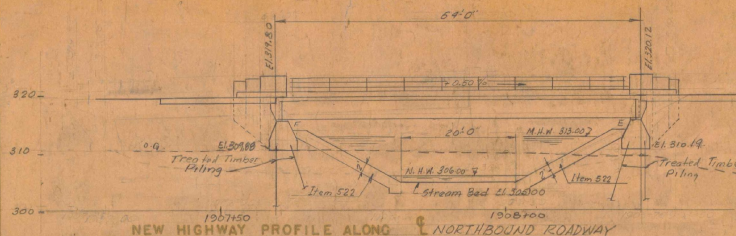
BOSWELL ENGINEERING
RIDGEFIELD PARK N.J.

Sheet 28-C, of 35 Sheets



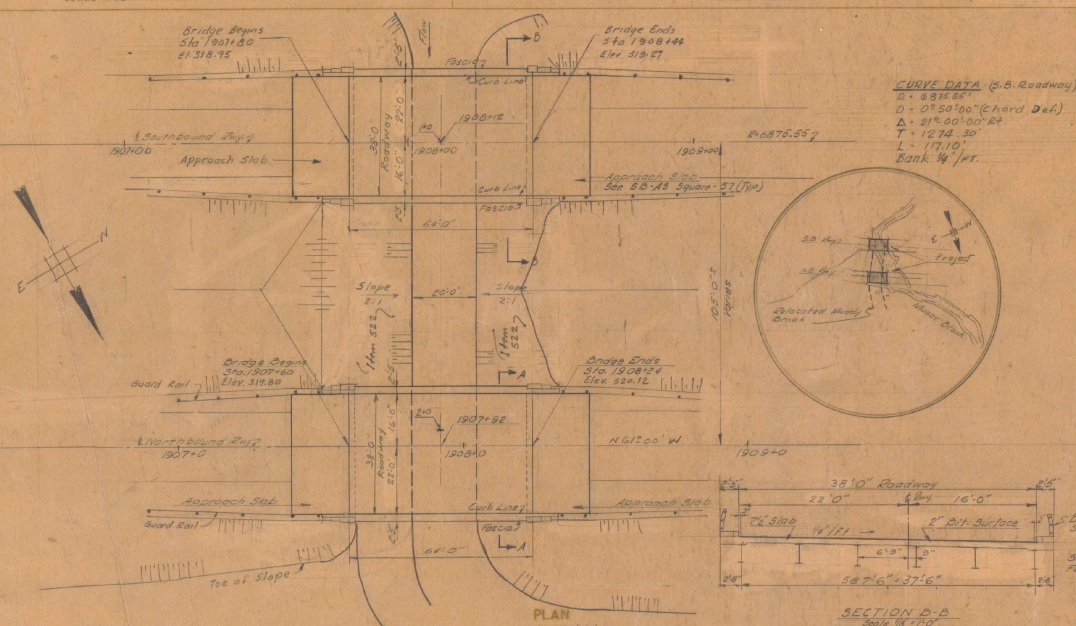
NEW HIGHWAY SECT. STA. 190700 TO STA. 190740

SCALE 1"=20'



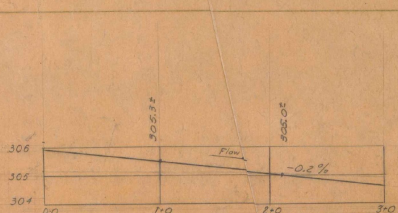
NEW HIGHWAY PROFILE ALONG NORTHBOUND ROADWAY

SCALE 1"=10'

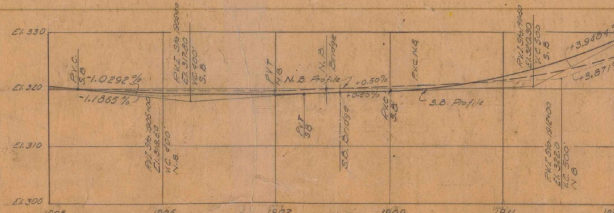


PLAN SCALE 1"=20'

SECTION A-B SCALE 1"=10'



PROFILE OF PROPOSED STREAM CHANNEL Scale Horiz. 1"=10' Vert. 1"=10'



N.D.S.B. INTERSTATE PROFILES Scale Horiz. 1"=20' Vert. 1"=10'

HIGHWAY NO. 89 OVERPASS N.D.S.B. NAME OF HIGHWAY INTERSTATE
STRUCTURE NO. 100123 COUNTY CHITTENDEN TOWN WILLISTON
PROJECT NO. 188-3(14) LOCATION STA. 1907100 TO 1907600 N.B.

EXISTING STRUCTURE

1. RATED LOADING OF EXISTING STRUCTURE
2. TYPE OF EXISTING STRUCTURE
3. UNDERCLEARANCE ELEVATION OF EXISTING STRUCTURE
4. WHAT DISPOSITION SHOULD BE MADE OF EXISTING STRUCTURE
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
8. EXTREME HIGH WATER AT EXISTING STRUCTURE
9. SPAN OF EXISTING BRIDGE UPSTREAM
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

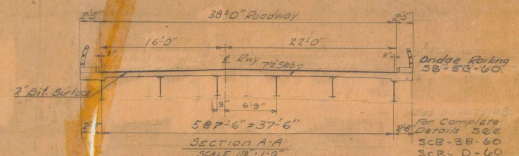
NEW STRUCTURE

1. RECOMMENDED TYPE OF STRUCTURE
2. RECOMMENDED CLEAR SPAN OR SPANS
3. ARE THERE OBJECTIONS TO A PIER IN THE STREAM, ANSWER YES OR NO
4. ORDINARY HIGH WATER ELEVATION AT NEW STRUCTURE
5. EXTREME HIGH WATER ELEVATION AT NEW STRUCTURE
6. IS ALL WATER INTENDED TO PASS THROUGH NEW STRUCTURE
7. DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY
8. LOW WATER ELEVATION AT NEW STRUCTURE
9. DRAINAGE AREA IN ACRES ABOVE STRUCTURE
10. IS STREAM EVER DRY
11. VELOCITY OF STREAM AT HIGH WATER STAGE
12. AREA FULL OPENING
13. CHARACTER OF SOIL
14. ESTIMATED DRAINAGE AREA ABOVE NATURAL OR ARTIFICIAL STORAGE
15. VERTICAL CLEARANCE ABOVE FLOOD ELEVATION
16. ARE SIDEWALKS REQUIRED, IF SO ON WHAT SIDE
17. RECOMMENDED TYPE OF PAVEMENT
18. TRAFFIC TO BE MAINTAINED UNDER ITEM NO.
19. PROBABLE COST OF CLEARING AND GRUBBING STREAM CHANNEL AT STRUCTURE SITE
20. SHOULD PROVISIONS BE MADE FOR PUBLIC UTILITIES
21. ESTIMATED ALLOWABLE LOAD ON SUBGRADE

FOUNDATION INFORMATION

OBTAINED FOR DESIGN PURPOSES ONLY, AND THE STATE ASSUMES NO RESPONSIBILITY WHATSOEVER FOR THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN. BOLDERS MAY BE ENCOUNTERED AT ANY PIER OR ABUTMENT LOCATION.

For borings see Sh. 94 of 105
Design loading 1,120 lbs. sq. ft. Modified for National System of Interstate Highways



BR 10 OF 10

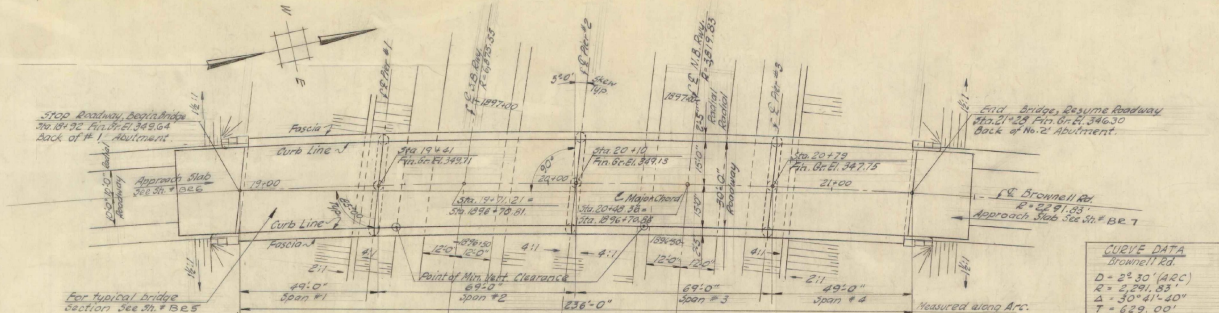
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE IN THE TOWNS OF
WILLISTON, CHITTENDEN COUNTY

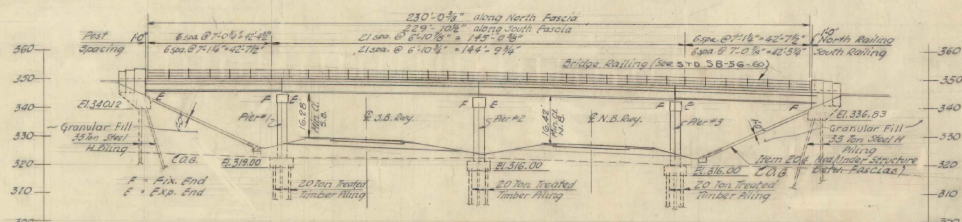
ROUTE NO. 89 LUGO STA.

OVERPASS N.D.S.B. WOODY BROOK

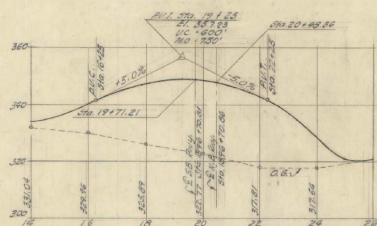
DESIGNED BY: [Signature] CHECKED BY: [Signature]
DRAWN BY: [Signature] SCALE: 1"=10'
PROJECT NO. 188-3(14) SHEET 100 OF 115



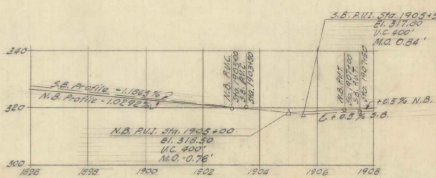
PLAN
SCALE 1" = 20'-0"



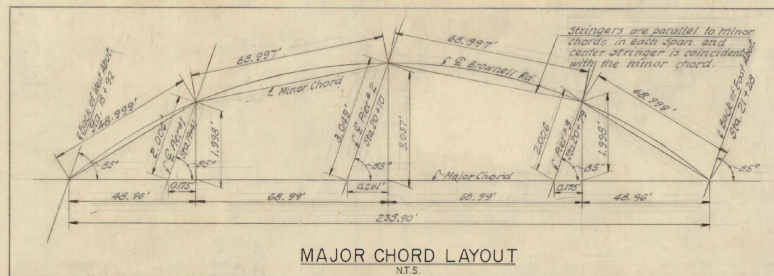
ELEVATION
SCALE 1" = 20'-0"



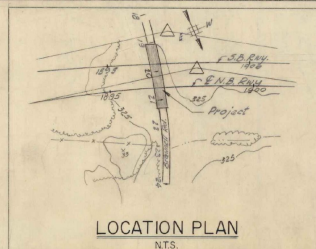
BROWNELL ROAD PROFILE
SCALE: HOR. 1" = 200'
VERT. 1" = 20'



INTERSTATE PROFILE
SCALE: HOR. 1" = 200'
VERT. 1" = 20'



MAJOR CHORD LAYOUT
N.T.S.



LOCATION PLAN
N.T.S.

REFERENCE DRAWINGS:

Plan Interstate Sh. # 12
Profile Interstate Sh. # 15
Cross Section Interstate Sh. # 21, 32, 43, 44
Plan of Profile Brownell Rd. Sh. # 21
Cross Section Brownell Rd. Sh. # 54, 55, 56

LIST OF DRAWINGS:

General Plan & Elevation
Plan of Elevation
Profile Details
Framing Plan
Approach Slab #1
Boring Logs
Bar Schedule
Preliminary Information Sheet
Sheet 107
Sheet 108
Sheet 109
Sheet 110
Sheet 111

ESTIMATED QUANTITIES

ITEM #	ITEM	UNIT	NEAT	OVERRUN	TOTAL	Final
107	Structure Excavation	C.Y.	48.22	150	198.22	236
204	Excavation of Gravel Rock, Road Under Structure	C.Y.	418	75	493	127
304	Bit Conc. Pavt. (incl. Approach Slab)	Ton	40.3	45	85.3	*
401	Conc. Class B Mod. (incl. Approach Slab)	C.Y.	60.3	32	92.3	69
402	Reinforcing Steel (incl. Approach Slab)	Lb.	9000		9000	99,693
403	Spiral Reinforcement ("40")	Lb.		Required		1
404	Structural Steel	Lb.	22600	4500	27100	228,252
407	Asphalt, Asbestos Coating	S.Y.	477		477	41
501	Purchasing Equipment for Boring Piles	L.S.		Required		72
502	Painted Timber Piling	L.F.	4,450		4,450	5,779
503	Spices for Steel Piling	Each	4		4	1571
504	Steel H. Piling (10 x 10 P 53)	L.F.	4,450		4,450	5,023
505	Granite Bridge Curb and (incl. Approach)	L.F.	403		403	463
572	Bridge Railing	L.F.	403		403	0
622	Gravel Backfill	C.Y.	403		403	*
618	Tar Emulsion for Bridge Floors	Gal.	371		371	*
692	Joint Sealer, Non-Cured Elastic Type	L.F.	150		150	*

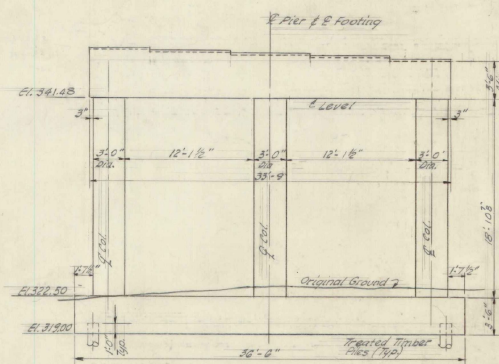
* To Be Included In The Roadway Estimate

GENERAL NOTES

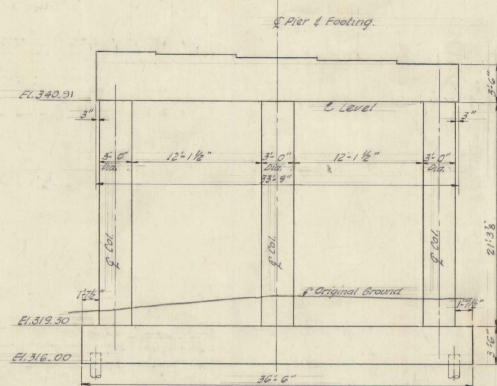
- All materials and construction shall conform to the State of Vermont, Department of Highways, Standard Specifications for Road and Bridge Construction, dated Jan. 1956 and the A.A.S.H.O. Standard Specifications dated 1957. Designed for 120-316-44 loading modified for National System of Interstate Highways applied in accordance with the provision of the A.A.S.H.O. Standard Specifications, Article 1.2.1.
- Unless otherwise noted 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 60°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.
- Borings 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 such as to have no greater slope enough to interfere with the driving of piles. All steel Piles shall be 12 x 12 x 33.
- The top surfaces of all piers and abutments shall be sloped 1/4" per foot from the bank side of abutment back walls or centerline of pier to center of bearing pads projecting 1' or more 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

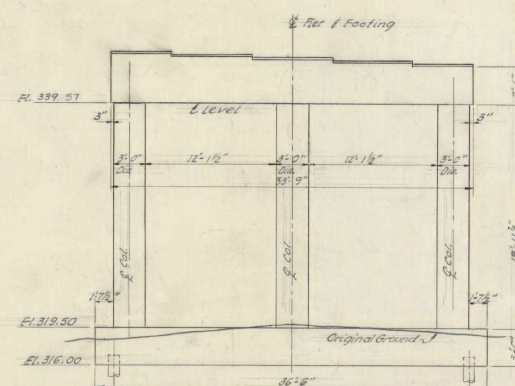
STATE OF VERMONT DEPARTMENT OF HIGHWAYS
INTERSTATE PROJECT IN THE TOWNS OF WILLISTON, SOUTH BURLINGTON
UNDERPASS STA. 1896+70.86 BROWNELL ROAD
GENERAL PLAN & ELEVATION
BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.
DRAWN BY A.J. IN CHARGE A.J.J.
CHECKED BY J.C.C. DATE
PROJECT NO. 1 89-3 (46) SHEET 97 OF 115



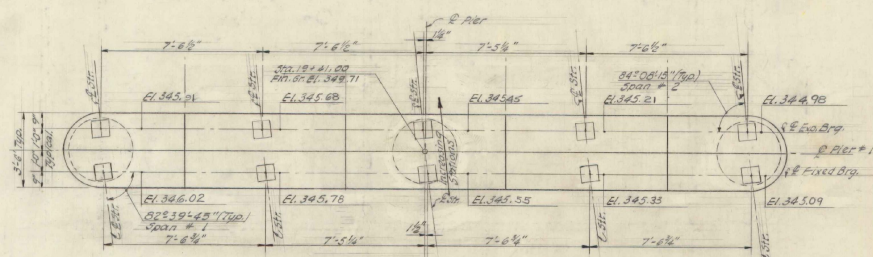
PIER # 1
SCALE: 3/16" = 1' - 0"



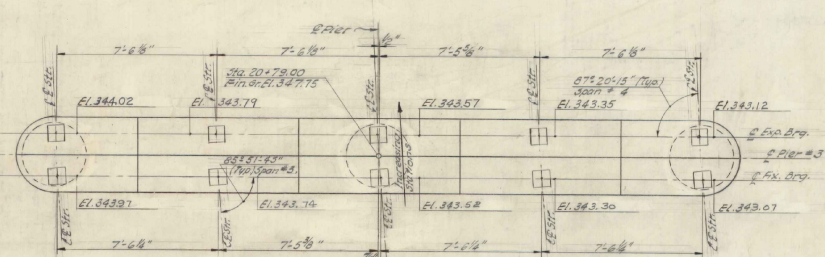
PIER # 2
SCALE: 3/16" = 1'-0"



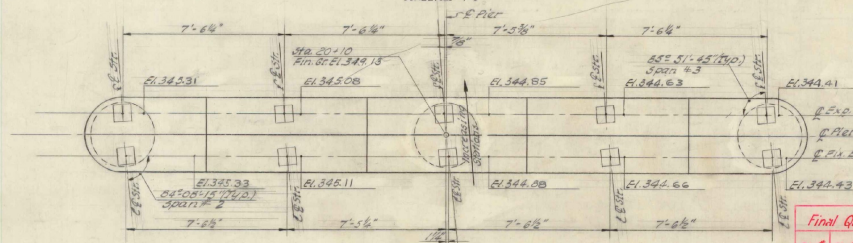
PIER #3
SCALE: 3/16"=1'-0"



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



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



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

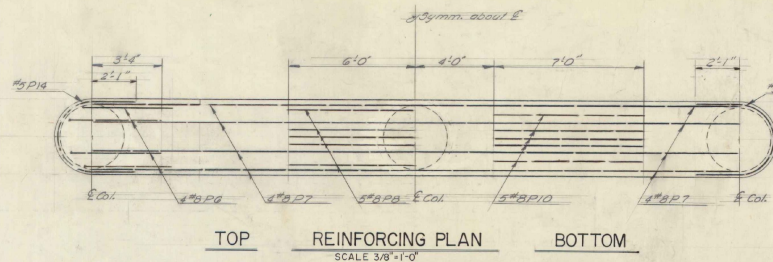
NOTES:

1. For General Notes see Sh. # B21
2. For pier details see Sh. # B23
3. For pile plan see Sh. # B23
4. All Elevations looking toward increasing stations.

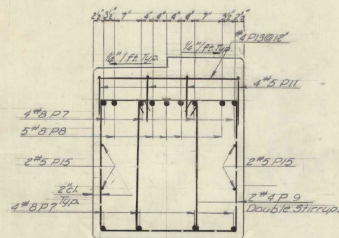
BR 2 of 10

Final Quant. ^{KS}				ESTIMATED QUANTITIES											
				PIER #1			PIER #2			PIER #3			PIER #4		
NO.1	NO.2	NO.3	NO.4	ITEM #	ITEM	UNIT	NEAT	OVER/UN	TOTAL	NEAT	OVER/UN	TOTAL	NEAT	OVER/UN	TOTAL
63	84	55		407	Structure Excavation	C.Y.	1.00	-	1.00	1.00	-	1.00	1.00	-	1.00
20	72	71		408A	Concrete D/S Mod.	C.Y.	2.00	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00
0.0891	0.0901	0.0867		402	Reinforcing Steel	120	26	0.00	26	26	0.00	26	26	0.00	26
12	12	12		407	Asphaltic Asphaltos Coating	S.Y.	1.00	-	1.00	1.00	-	1.00	1.00	-	1.00
1.654	1.651	1.580		404	Reamed Trench Piling	L.F.	1.00	-	1.00	1.00	-	1.00	1.00	-	1.00

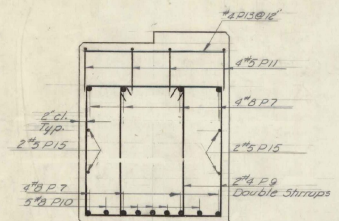
STATE OF VERMONT DEPARTMENT OF HIGHWAYS		
INTERSTATE PROJECT IN THE TOWNS OF WILLISTON, SOUTH BURLINGTON		
UNDERPASS STA. 1896 + 70.86 BROWNELL ROAD PIERS - PLANS & ELEVATIONS		
BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.		
DRAWN BY <i>A.M.</i>	IN CHARGE <i>A.J.J.</i>	SCALE AS SHOWN
CHECKED BY <i>M.T.G.</i>	DATE	
PROJECT NO. 189 - 3 (14)	SHEET	<i>78</i> OF <i>115</i>



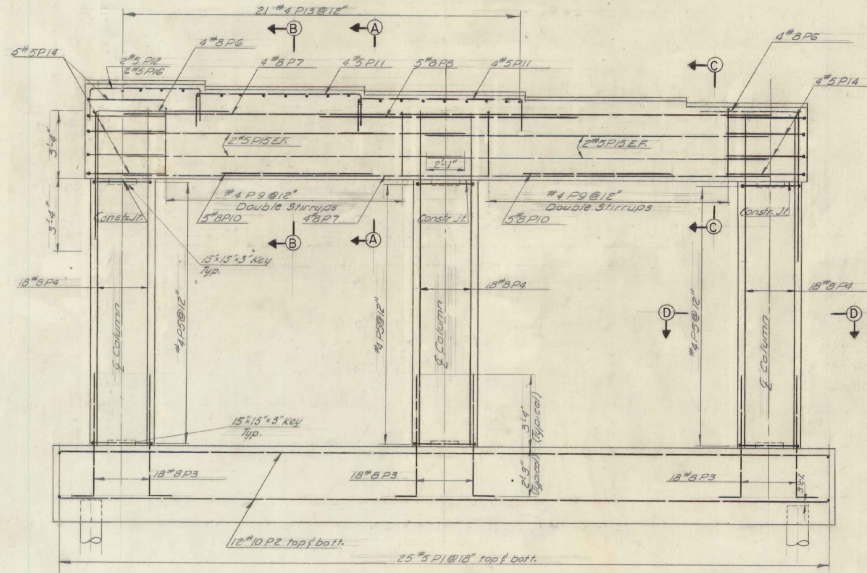
TOP REINFORCING PLAN
SCALE 3/8"=1'-0"



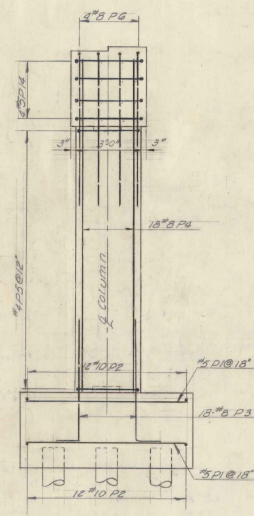
SECTION A-A
SCALE 3/4"=1'-0"



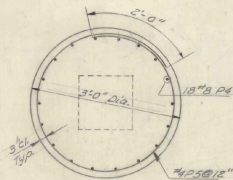
SECTION B-B
SCALE 3/4"=1'-0"



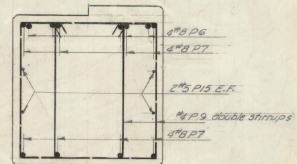
ELEVATION
SCALE 3/8"=1'-0"



END ELEVATION
SCALE 3/8"=1'-0"



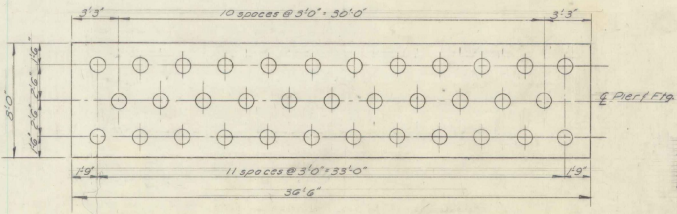
SECTION D-D
N.T.S.



SECTION C-C
SCALE 3/4"=1'-0"

NOTES

1. For General Notes see sheet 10.1
2. For pier elevations and plans see sheet 10.2
3. For estimate of quantities see sheet 10.3

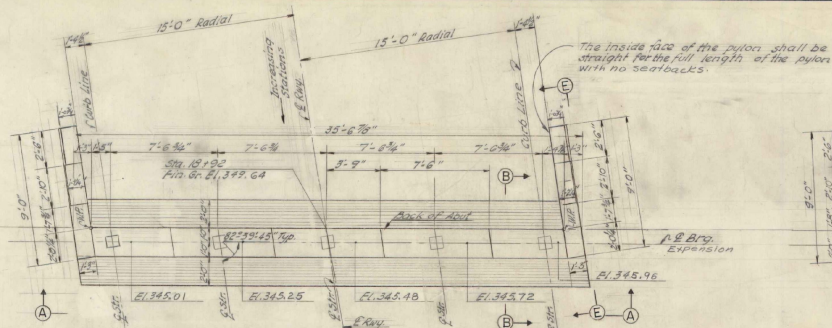


PILE PLAN
SCALE 1/4"=1'-0"

35 Piles
Estimated Average Pile Length
24' x 1' x 50'
Pile 35
Pile 35

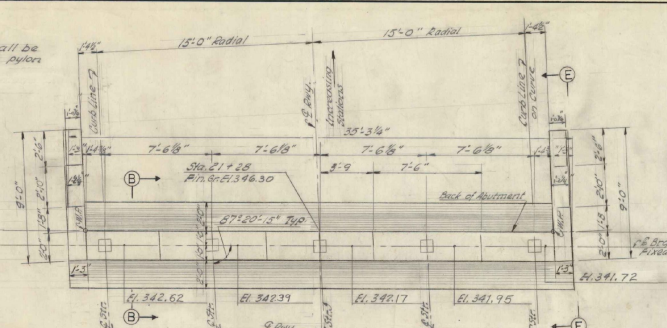
BR 3 of 10

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. B. B. IN CHARGE: A. J. L.	SCALE AS SHOWN
CHECKED BY: M. J. S. DATE:	
PROJECT NO. 189-3(10)	SHEET 77 OF 113



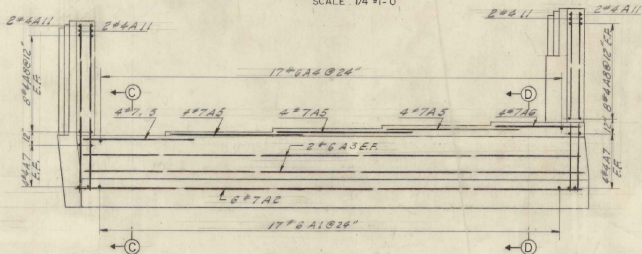
NO. 1 ABUTMENT PLAN

SCALE 1/4"=1'-0"



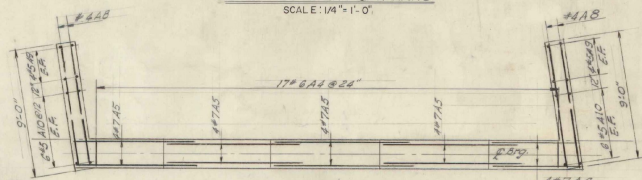
NO. 2 ABUTMENT PLAN

SCALE 1/4"=1'-0"



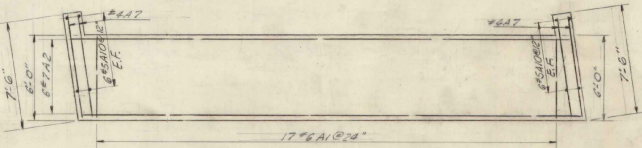
ELEVATION A-A
NO. 1 ABUTMENT AS SHOWN
NO. 2 ABUTMENT OPP. HAND

SCALE 1/4"=1'-0"



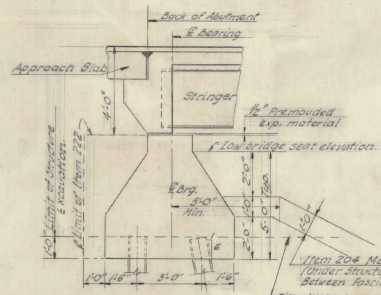
TOP REINFORCING PLAN

SCALE 1/4"=1'-0"



BOTTOM REINFORCING PLAN

SCALE 1/4"=1'-0"

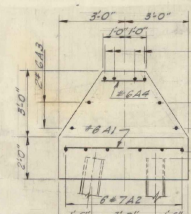


SECTION B-B

SCALE 3/8"=1'-0"

NOTES:

1. For General Notes see 30# B.1
2. For additional details see 30# 50-20-60 & 30-22-60
3. Left and Right are determined by looking toward increasing stations.

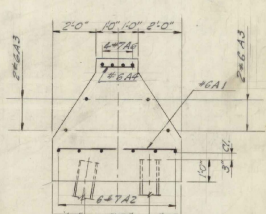


SECTION C-C

SCALE 3/8"=1'-0"

SECTION E-E

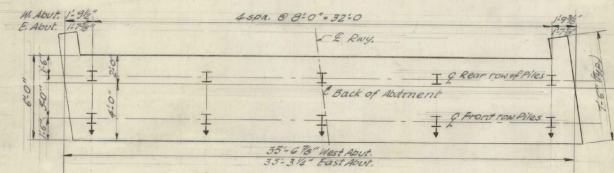
SCALE 3/8"=1'-0"



SECTION D-D

SCALE 3/8"=1'-0"

ELEV.	NO. 1 ABUTMENT	NO. 2 ABUTMENT
	RIGHT PYLON	LEFT PYLON
A	353.49	354.45
B	353.47	354.43
C	353.20	354.16
D	352.94	353.90
E		349.43
F	343.12	346.07
G	340.12	340.12



PILE PLAN

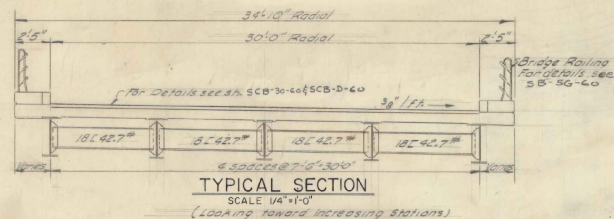
SCALE 1/4"=1'-0"

Final Quant.	ITEM #	ITEM	UNIT	WEST ABUTMENT	EAST ABUTMENT
				NEAT	OVERALL TOTAL
12	12	Structure Excavation	C.Y.	12	12
41	41	Concrete Case B Mod.	C.Y.	41	41
2002	1889	Reinforcing Steel	LB.	2002	1889
4	4	Asphaltic Asbestos Coating	S.Y.	4	4
0	0	Splices for Steel Piling	EA.	0	0
847	880	Steel H Piling (12 D.P.S.)	LF.	847	880
0	0	dravel backfill	C.Y.	0	0

ESTIMATED QUANTITIES

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: A.J.T. SCALE: AS SHOWN
CHECKED: P.H.C. DATE: PROJECT NO. 189-3(14) SHEET 100 OF 115

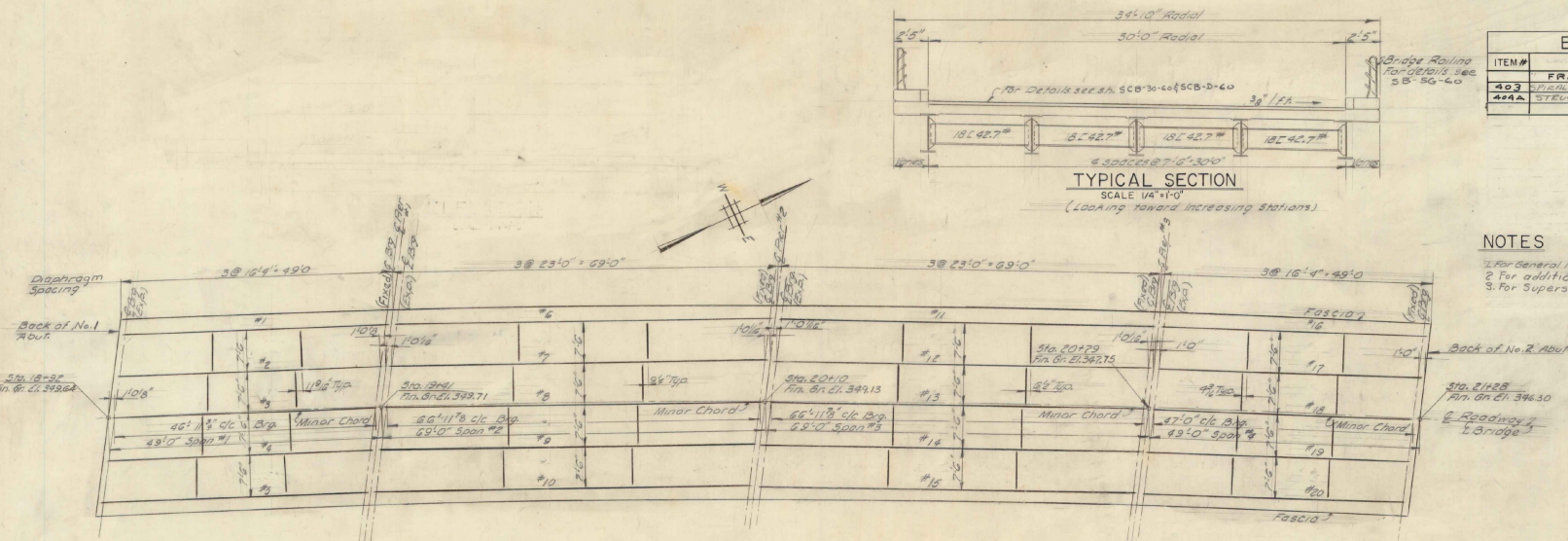
BR4 of 10



ESTIMATED QUANTITIES				
ITEM #	ITEM	UNIT	NEAT	OVERRUN TOTAL
403	FRAMING PLAN	LS	25,911.15	
444A	STRUCTURAL STEEL	LB	34,600	4500 23,060

NOTES

- For General Notes see 3d BR 1
- For additional details see 3d SB 20-60 & SB 22-60
- For Superstructure details see 3d SB 30-60 & SB-D-60



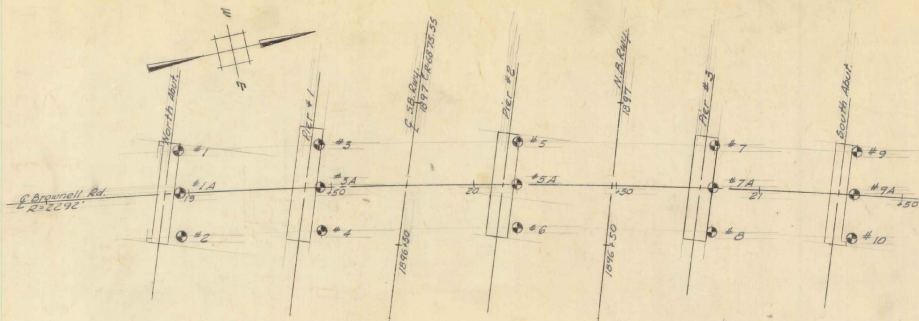
BR 5 of 10

STATE OF VERMONT DEPARTMENT OF HIGHWAYS			
INTERSTATE PROJECT IN THE TOWNS OF WILSTON, 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.V.I.	SCALE: As Shown	
CHECKED: H.A.L.	DATE:		
PROJECT NO. 1-89-3 (14)		SHEET	101 OF 115

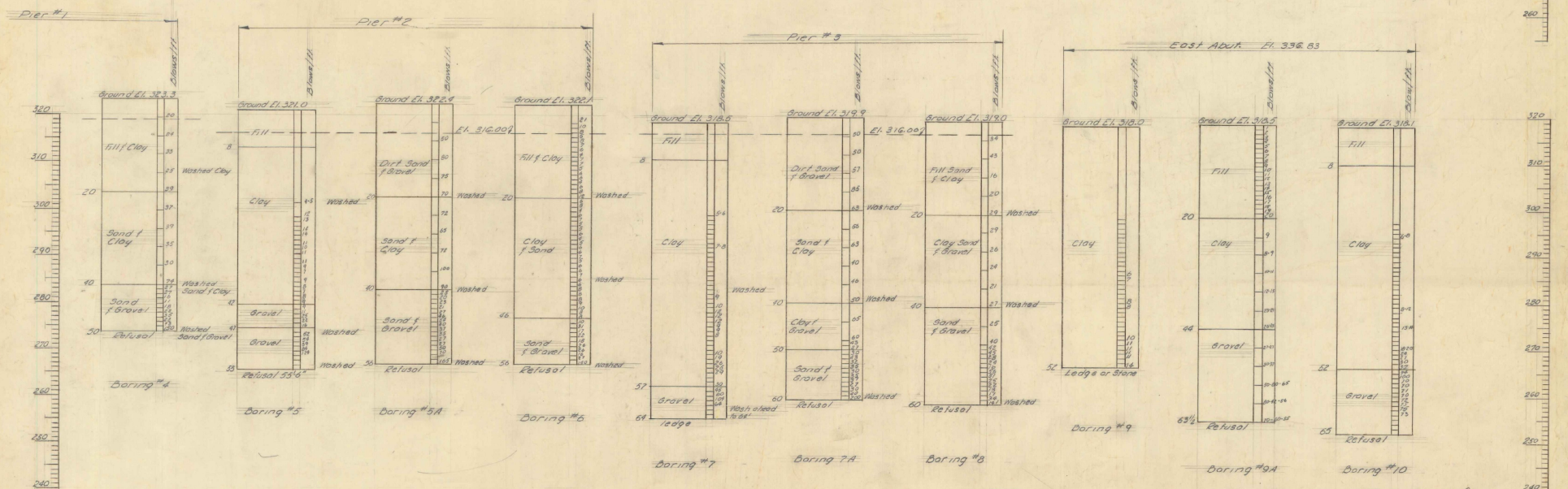
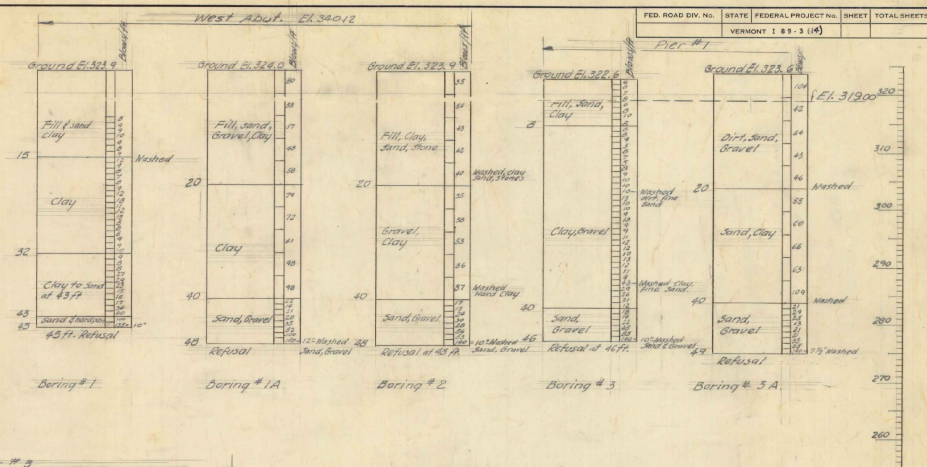
SCALE AS NOTED
DESIGNED BY G.V.K. CHECKED BY R.S.H.
PROJECT NO. I 89-3(14)
BR. 6 OF 10 SHEET 102 115

DETAILS OF APPROACH SLAB
FOR 30 FOOT BRIDGE
(1929)
TO BE USED FOR BRIDGE AT STATION 1896+70.86
LOCATION BEWELL ROAD OVER INTERSTATE
Approach Slab No. 2

TOWN OF *WILLISTON*
So. BURLINGTON
ROUTE NO *I-89*
LOG STA _____
SCALE *AS NOTED*
DESIGNED BY *G.V.K.* CHECKED BY *R.J.H.*
PROJECT NO *I 89-3 (14)*
ON *7* OF *10* SHEET *103* OF *115*



BORING LOCATION PLAN
SCALE 1"=20'

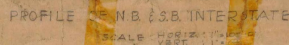
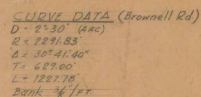


NOTES

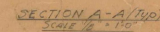
1. For General Notes see sheet B.R. 1.
2. Blows per foot indicate the number of blows necessary to drive casing whose outside diameter is 2 1/2" and whose thickness is 1/4" and foot using a hammer which weighs 350 lbs and drops 24".
3. ——— indicates bottom of footing elevation.

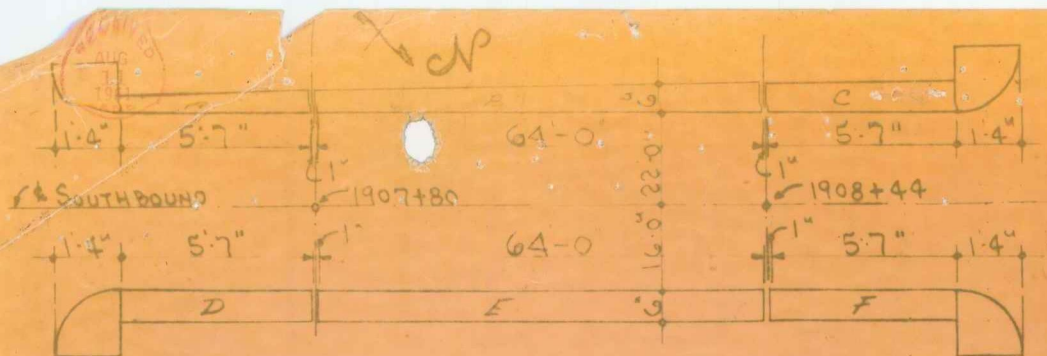
BR 8 of 10

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.	DATE: _____
DRAWN BY: M.L.E.	CHECKED BY: A.J.T.
PROJECT NO. 189-3(14)	SHEET 10 OF 15

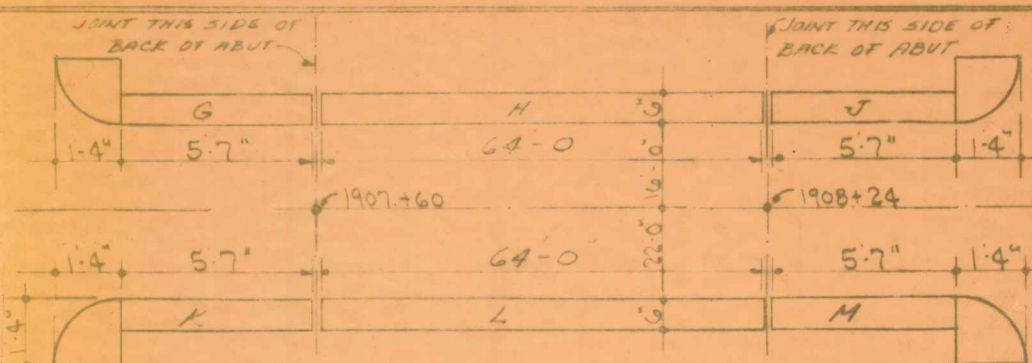


1. Bridge Design: H-20 - S16 - 44 Modified for National System Interstate Highways
2. For Drawings See Sheet E.R.B. of 10





PLAN OF GRANITE BRIDGE CURB - SOUTHBOUND RDWY.



PLAN OF GRANITE BRIDGE CURB - NORTHBOUND ROADWAY

REVISED:

8-2-61

OK Wm. J.
8-15-61

OVERPASS AT STA. 1907+70
INTERSTATE OVER MUDDY BROOK
WILLISTON - SO. BURLINGTON, VERMONT

STATE COPY

I-89-3(14) 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

S. C. L. Corp.
 Overpass Sta. 1907+70 CMU
 WILKINSON, So. BURLINGTON, VT.

REPUBLIC STEEL CORPORATION
 TRUSCON DIVISION
 REINFORCING BAR SHOP LIST

THIS SHEET COVERS: PROJ. 2-89-3(14) CONT. 1
 SO. ABUT. SO. BND.
 PROPOSED ROUTING: TIGK
 MADE BY: E.E.J.
 DATE: 6-19-61
 REP. NO. 10-8717
 INVOICE NO.
 CODE: B51
 DATE SHIPPED
 SHIP WITH: ROL. # 2, 3, 4
 ROUTE
 R/L NO.'S
 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																		
27																		
28																		

approved
 6/23/61
 JTH

SPECIAL INSTRUCTIONS (FOR TYPICAL BENDING TYPES REFER TO FORM 1251)
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 VOL 6-21-60
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☐ WAREHOUSE - INVOICING
☐ NOTICE OF SHIPMENT

5 H I P T O
L-ONE CONST. CORP.
OVERPASS STA. 1907+70 @ MUDDY BR. OK
WILLISTON, SO. BURLINGTON VT.

REPUBLIC STEEL CORPORATION
TRUSCON DIVISION
REINFORCING BAR SHOP LIST

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

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	MSBA9	14	7-9	4-6							3-9	✓			
3																		
4				STRAIGHT BARS														
5																		
6	8	4	3-4	MSDA11		✓												
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	MSBA2		✓												
19																		
20																		
21																		
22																		
23																		
24																		
25																		
26																		
27																		
28																		

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

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approved
6/23/61
HHT

SHIP

LAWRE CONSTRUCTION CORP

Overpass: Sta. 19074 to @ Muddy Brook

WILKINSON, So. Burlington Vt.

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

So. Avstr. No. BND.

PROPOSED ROUTING
TAK

MADE BY *EES*

DATE 6-19-66

REPUBLIC STEEL CORPORATION
TRUSCON DIVISION
REINFORCING BAR SHOP LIST

REINFORCING BAR SHOP LIST

PAGE	OF	REL. NO.	No. Inv.	CUSTOMER NO.
1	1	3	3	

MTL, SHOWN ON DRAWING NO.

CODE B.57

CHMP WITH
REL⁶ 1, 2, d

7-18-61

DATE SHIPPED

CAR NO.

REPUBLIC NO. 10-8717

INVOICE NO.

SHIP FROM BUFFALO

E/L NO.'S

BENT BARS

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

[illegible]

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

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SHIP TO: **LANE CONST. CORP.**
OVERPASS STA. 1907+70 @ Muddy Brook
WILLISTON, S.D. BURLINGTON, VT.

THIS SHEET COVERS: **PROJ. I-89-3(14) CNT. 1**
No. ABUT. No. BRID.

PROPOSED ROUTING: **TRK** PFD. ☒ COL. ☐

MADE BY: **EEJ** DATE: **6-19-61**

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
 REL. #1, 2, 3
 CAR NO.

BENT BARS NOTE: ALL DIMENSIONS CUT 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	NANBA2	✓													
19																		
20																		
21																		
22																		
23																		
24																		
25																		
26																		
27																		
28																		

SPECIAL INSTRUCTIONS (FOR TYPICAL BENDING TYPES REFER TO FORM 1231)

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 [Signature]

G H I P T O
 LANE CONST CORP
 OVERPASS STA 1907+70 @ MUDDY BRIDGE
 WILLISTON, SO. BURLINGTON, VT

REPUBLIC STEEL CORPORATION
 TRUSCON DIVISION
 REINFORCING BAR SHOP LIST

PAGE 1 OF 1	REL. NO. 53	CUSTOMER NO.	REPUBLIC NO. 10-8717
MTL. SHOWN ON DRAWING NO. #765	INVOICE NO.		
CODE 851	DATE SHIPPED	SHIP FROM BUFFALO	
SHIP WITH ROL #6-10	ROUTE	D/L NO. 6	
MADE BY E.C.W.	DATE 6-19-61	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	82	4	5-3	NBS4	S3	5	7-6	1-5	7-6			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																		
20																		
21																		
22																		
23																		
24																		
25																		
26																		
27																		
28																		

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

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 J.H.H. VOL 6/21/61

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S H I P T O
 LANE CONST. CORP.
 OVERPASS STA. 1907+70 CANNODY BRIDGE
 WILLISTON, So. BURLINGTON, VT.

REPUBLIC STEEL CORPORATION
 TRUSCON DIVISION
 REINFORCING BAR SHOP LIST

PAGE 1 OF 1 REL. NO. 16-13 CUSTOMER NO. 10-8717
 STL. SHOWN ON DRAWING NO. #96C INVOICE NO.
 CODE 851 DATE SHIPPED
 SHIP WITH 45,7-10 ROUTE
 D/L NO.'S
 MADE BY EEL DATE 6-19-61 9-11-61 CAR NO.

THIS SHEET COVERS PROJ. F-89-3(14) Cont. 1

So. BND. SCAB

PROPOSED BENDING TKS

MADE BY EEL 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
L ₁	82	4	5-3	SB 54	33	5	1-6	1-5	1-6			5	3	✓				
L ₂	64	4	7-6	SB 56A	52	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																		
20																		
21																		
22																		
23																		
24																		
25																		
26																		
27																		
28																		

SPECIAL INSTRUCTIONS (FOR TYPICAL BENDING TYPES REFER TO FORM 1221)

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Approved
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 JH

G LANE CONST. CORP.
 I OVERPASS STA. 1907+70 @ Muddy Brook
 P WILKINSON, SO. BURLINGTON, VT
 T
 O

REPUBLIC STEEL CORPORATION
 TRUSCON DIVISION
 REINFORCING BAR SHOP LIST

PAGE 1	OF 1	REL. NO. 7	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		DOUYE		D/L NO.'S	
DATE 9-11-61		CAN. NO.			

THIS SHEET COVERS PROJS. I-89-3 (14) CONT. 1
 APPR. SLABS No. 1 (SO. BND.)
 PROPOSED ROUTING TRK
 MADE BY EEL DATE 6-19-61

BENT BARS

NOTE: ALL DIMENSIONS CUT TO CUT
 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	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	✓									
4	8		20-8	1A51B	✓	1		19-7	✓									
5	8		20-9	1A51C	✓	1		19-8	✓									
6	8		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		5-8	1A58	✓													
14	2		5-8	1A59	✓													
15	40		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																		

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

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VOL 6-21-61
 GPK 6/21/61

LAKE COAST CORP
 COVERPASS Sta. 1907+70 C. Muddy Brook
 WILKINSON, S. BURLINGTON, VT.

THIS SHEET COVERS Proj. I-89-3 (1d) Cont. 1
 APPR. SCARS No. 2 (So. Bnd.)

PROPOSED ROUTING TUG
 MADE BY EEJ DATE 6-19-61 9-11-61

REPUBLIC STEEL CORPORATION
 TRUSCON DIVISION
 REINFORCING BAR SHOP LIST

ASD OF 18 13 1
 REF. SPEC. ON DRAWING NO. # 966
 REPUBLIC NO. 10-8717
 INVOICE NO.
 CODE 851
 DATE SHIPPED
 SHIP WITH 5-7, 9, 10
 ROUTE
 R/L NO./S
 CAR NO.

BENT BARS					NOTE: ALL DIMENSIONS OUT TO OUT SKIP ONE SPACE BETWEEN BAR SIZES													DIMENSIONS OMITTED ARE ZERO													WEIGHT OR CHECK COLUMN
ITEM	QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	O	R														
1	8	5	5-0	2A57	56	6	1-9	6	1-9			6	✓																		
2																															
3	8	10	20-7	2A51A	1	1-1	19-6	✓																							
4	8		20-8	2A51B	1		19-7	✓																							
5	8		20-9	2A51C	1		19-8	✓																							
6	8		20-10	2A51D	1		19-9	✓																							
7	6	10	20-11	2A51E	1	1-1	19-10	✓																							
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																															

VOL-6-21-61
DATE 6/21/61

Vol-6-21-61
 GIVE 6/21/61

SPECIAL INSTRUCTIONS (FOR TYPICAL BENDING TYPES REFER TO FORM 1281)

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

REPUBLIC STEEL CORPORATION
TRUSCON DIVISION
REINFORCING BAR SHOP LIST

PAGE 1	OF 1	REL. NO. 19	REV. 13	CUSTOMER NO.	REPUBLIC NO. 10-8717
REL. SHOWN ON DRAWING NO. # 96C				INVOICE NO.	
CODE 851		DATE SHIPPED		SHIP FROM BUFFALO	
SHIP WITH #5-8, 10		ROUTE		B/L NO.'S	
DATE 6-19-61		9-11-61		CAR NO.	

THIS SHEET COVERS Proj. F-89-3(14) CONT. 1
APPR. SEAS No. 3 (No. BND)
PROPOSED ROUTING TEK
MADE BY BEJ
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																		
2	8	5	5-0	3AS7	SG	6	1-9	6	1-9			6	✓					
3																		
4	38	10	20-7	3AS1	1	1-1	19-6	✓							18-9	✓		
5																		
6																		
7	STRAIGHT BARS																	
8																		
9	14	5	3-6	3AS6														
10	2		5-4	3AS8														
11	2		5-4	3AS9														
12	40	5	19-9	3AS5														
13																		
14																		
15	2	10	7-0	3AS3														
16	2	10	7-0	3AS4														
17																		
18																		
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
☐ WAREHOUSE COPY
☐ PACKING LIST
☐ WAREHOUSE - INVOICING
☐ NOTICE OF SHIPMENT

UOL 6-21-61
GUK 6/1/61

S LENE CONST. CORP
 I OVERPASS STA-1907+70 @ MUDDY BROOK
 P WILKINSON, 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
LIT. SHOWN ON DRAWING NO. #96C			INVOICE NO.	
CODE 351	DATE SHIPPED	SHIP FROM BUFFALO		
SHIP WITH #5-9	ROUTE	C/L NO. 2		
DATE 6-19-61 9-11-61		CAR NO.		

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

APPR. SEAS No. 4 (NO BND)

PROPOSED ROUTING TICK
 MADE BY EEJ
 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	8	5	5-0	4AS7	56	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	✓													
16																		
17																		
18																		
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

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

VOL -6-21-61

REPUBLIC STEEL CORPORATION
 TRUSCON DIVISION
 REINFORCING BAR SHOP LIST

THIS SHEET COVERS PROJ. 1-89-3 (14) CONT. 1
APPR. SLABS No. 1 (50. BND)

PROPOSED ROUTING TRK

MADE BY EEI DATE 6-19-61

PAGE 1 OF 1 REL. NO. 10-8717 CUSTOMER NO. 10-8717
 RFL. SHOWN ON DRAWING NO. 4966 INVOICE NO. 10-8717
 CODE 851 DATE SHIPPED 9-11-61 SHIP FROM BUFFALO
 SHIP WITH 5, 6, 8, 9, 10 ROUTE 9-11-61 D/L NO.'S 9-11-61
 CAR NO.

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	1-8	6	1-8			6						
2																		
3	8	10	20-7	1A51A	1	1-1	19-6											
4	8		20-8	1A51B	1	1	19-7											
5	8		20-9	1A51C	1	1	19-8											
6	8		20-10	1A51D	1	1	19-9											
7	6	10	20-11	1A51E	1	1	19-10											
8																		
9																		
10																		
11																		
12	14	5	3-6	1A56														
13	2		5-4	1A58														
14	2		5-4	1A59														
15	40		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

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

Notify 1 Day Prior to SHIPPING

approved
6/30/61
JEH

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

L. BLUE CROSS CORP
 OVERPASS Sta. 1927+70 @ Muddy Brook
 WILMINGTON, So. BURLINGTON, Vt.

REPUBLIC STEEL CORPORATION
 TRUSCON DIVISION
 REINFORCING BAR SHOP LIST

PAGE 1	OF 1	REVISED, No. 104 CUSTOMER NO. 3	REPUBLIC NO. 10-8717
MTL. SHOWN ON DRAWING NO. # 96C			INVOICE NO.
CODE 851	DATE SHIPPED	SHIP FROM BUFFALO	
SHIP WITH 5-7, 9, 10	ROUTE	S/L NO.'S	
DATE 6-19-61 9-11-61		CAR NO.	

THIS SHEET COVERS PROJ. 1-89-3(14) Cont. 1
 APPR. SCAB No. 2 (So. BND)
 PROPOSED ROUTING T-16
 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	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		20-8	2AS1B	1		19-7											
5	8		20-9	2AS1C	1		19-8											
6	8		20-10	2AS1D	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		5-4	2AS8														
14	2		5-4	2AS9														
15	40		19-9	2AS5														
16	2	5	20-1	2AS10														
17																		
18																		
19	2	10	7-0	2AS3														
20	2	10	7-0	2AS4														
21																		
22																		
23																		
24																		
25																		
26																		
27																		
28																		
29																		

✓ G.E.H.

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

Notify 1 Day Prior to Shipping

Revised
 6/30/61
 J.H.H.

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

L. C. COHEN CORP.
 OVERPASS STA. 1907470 E. MUDDY BRIDGE
 WILLISTON, SO. BURLINGTON, N.

REPUBLIC STEEL CORPORATION
 TRUSCON DIVISION
 REINFORCING BAR SHOP LIST

THIS SHEET COVERS: PROJ. F-89-3(14) CONT. 1
 APPR. SLAB No. 3 (No. BND.)
 PROPOSED ROUTING: T2K
 MADE BY: GEI
 DATE: 6-19-61 9-11-61
 REL. NO. 10-8717
 INVOICE NO.
 SHIP FROM: BUFFALO
 S/L NO. 8
 CODE: 851
 DATE SHIPPED:
 SHIP WITH: 5-8, 10
 ROUTE:
 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		5-4	3A58														
11	2		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																		

✓ GEH

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

NOTIFY 1 DAY PRIOR TO SHIPPING

approved
 6/30/61
 JH

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

Y. M. M. Const. Corp.
OVERPASS STA-1907+70 @ MUDDY BROOK
WILKESBORO, So. BURLINGTON, N.C.

REPUBLIC STEEL CORPORATION
TRUSCON DIVISION
REINFORCING BAR SHOP LIST

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

THIS SHEET COVERS Proj. I-89-3(14) CONT. 1
APPR. SLABS No. 4 (No BND)
PROPOSED ROUTING T&E
MADE BY E.E.J.

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	SL	6	1-9	6	1-9			6						
3	38	10	20-7	4AS1	1	1-1	190											
7	STRAIGHT BARS																	
9	14	5	3-6	4AS6														
10	2	Y	5-4	4AS8														
11	2	Y	5-4	4AS9														
12	40	5	19-9	4AS5														
14	2	10	7-0	4AS3														
15	2	10	7-0	4AS4														
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		
25																		
26																		
27																		
28																		

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

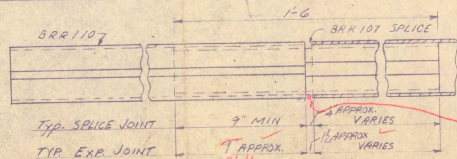
Notify 1 Day Prior to SHIPPING

Approved 4/8/61 H.H.

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

✓ G.E.H.

WEST RAILING LOOKING EAST
EAST RAILING LOOKING WEST



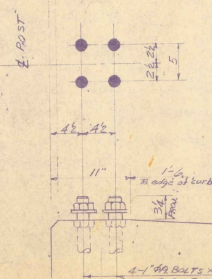
TUBING
5" x 2" STEEL RAIL A.S.T.M. A245
GRADE B. GALV. TO A.S.T.M.
SPEC. A 123-53.

BETHLEHEM STEEL CO.
STANDARD BRIDGE RAILING
AND PIECE MARKS.

DETAIL OF TUBING & TYP. SPLICE JOINTS

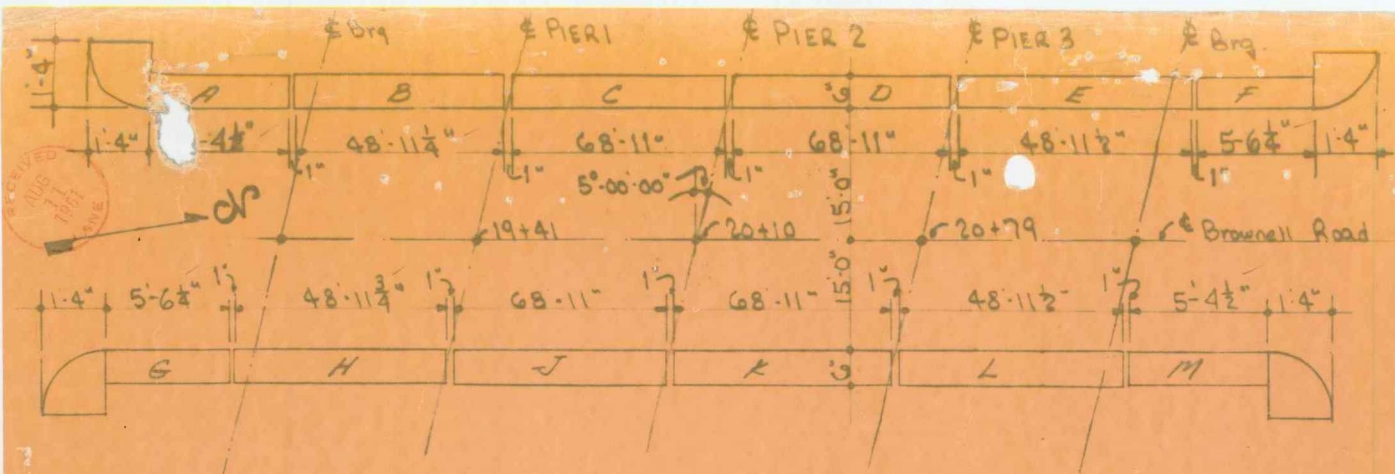
Stop as shown in
detail of expansion
joint, Bethlehem Steel
Co. Sheet BR-3000

O.K. ckd by M.E.L. 7/28/61

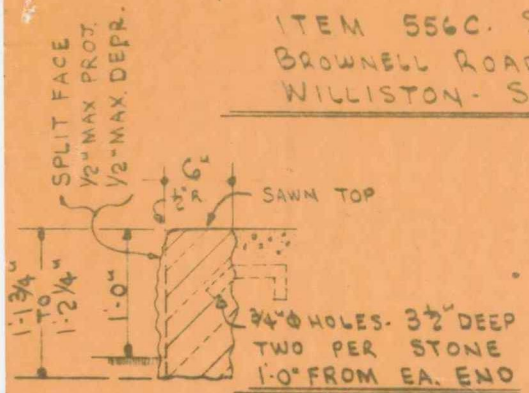


SECTION A-A
TYR A. BOLT DETAIL

[illegible]



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



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

CONTRACTOR: THE LANE CONST. CORP.
 MERIDEN CONN.

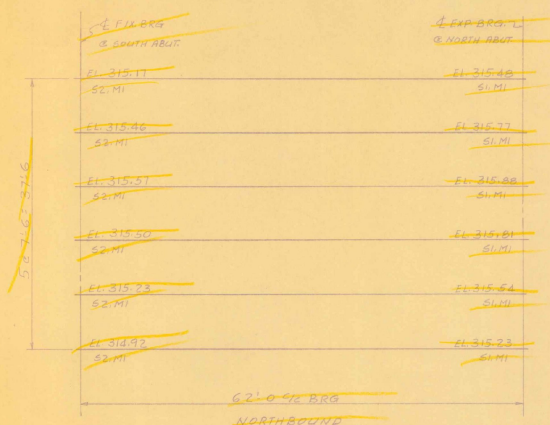
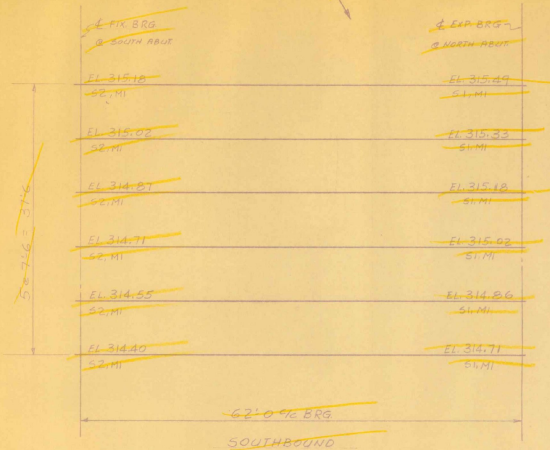
BARRETTO GRANITE CORP.
 OAK ST. - MILFORD, N. H.

REVISED: 8-2-61

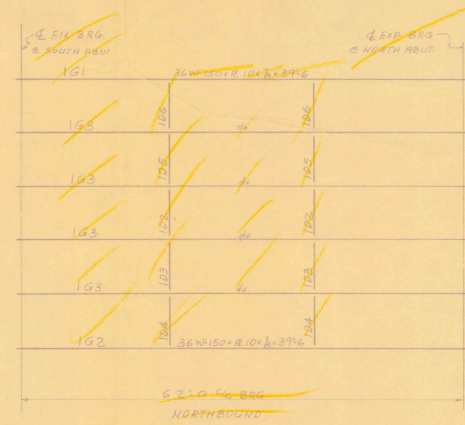
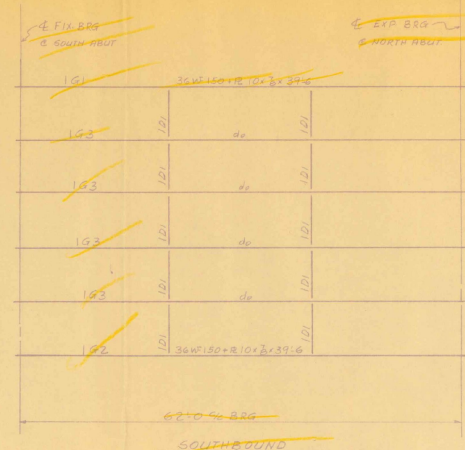
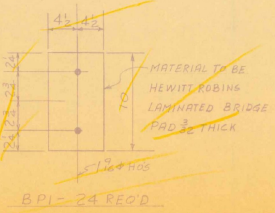
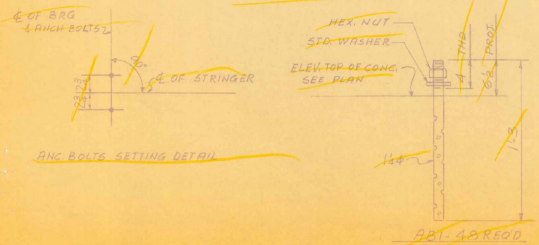
DATE: JULY 19, 1961.
 DRAWING NO 1 OF 2
 ORDER NO 1-C-38

approved
8/17/61
OK WMS.
8-17-61

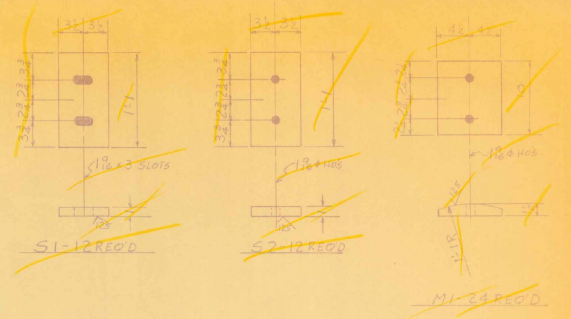
STATE COPY



ANCHOR BOLT PLAN
(ALL DIMENSIONS ARE HORIZONTAL)



- STEEL FRAMING PLAN
(ALL DIMENSIONS ARE HORIZONTAL)
1. ALL DIMENSIONS ARE HORIZONTAL
 2. ALL DIMENSIONS ARE 1/2" x 10"
 3. CORN. BOLTS ARE 3/4" HIGH STRENGTH
 4. FOR TIGERS TO HAVE 8" FIELD WELDED IN ABUT. CONTRA TO SEE DETAIL SHEET "B1"
 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"



MARK	NO.	MATERIAL	REMARKS	WEIGHT
BPI	18	1/2" x 10" ROD		
BPI	19	1/2" x 10" ROD		
BPI	20	1/2" x 10" ROD		
BPI	21	1/2" x 10" ROD		
BPI	22	1/2" x 10" ROD		
BPI	23	1/2" x 10" ROD		
BPI	24	1/2" x 10" ROD		
BPI	25	1/2" x 10" ROD		
BPI	26	1/2" x 10" ROD		
BPI	27	1/2" x 10" ROD		
BPI	28	1/2" x 10" ROD		
BPI	29	1/2" x 10" ROD		
BPI	30	1/2" x 10" ROD		
BPI	31	1/2" x 10" ROD		
BPI	32	1/2" x 10" ROD		
BPI	33	1/2" x 10" ROD		
BPI	34	1/2" x 10" ROD		
BPI	35	1/2" x 10" ROD		
BPI	36	1/2" x 10" ROD		
BPI	37	1/2" x 10" ROD		
BPI	38	1/2" x 10" ROD		
BPI	39	1/2" x 10" ROD		
BPI	40	1/2" x 10" ROD		
BPI	41	1/2" x 10" ROD		
BPI	42	1/2" x 10" ROD		
BPI	43	1/2" x 10" ROD		
BPI	44	1/2" x 10" ROD		
BPI	45	1/2" x 10" ROD		
BPI	46	1/2" x 10" ROD		
BPI	47	1/2" x 10" ROD		
BPI	48	1/2" x 10" ROD		
BPI	49	1/2" x 10" ROD		
BPI	50	1/2" x 10" ROD		
BPI	51	1/2" x 10" ROD		
BPI	52	1/2" x 10" ROD		
BPI	53	1/2" x 10" ROD		
BPI	54	1/2" x 10" ROD		
BPI	55	1/2" x 10" ROD		
BPI	56	1/2" x 10" ROD		
BPI	57	1/2" x 10" ROD		
BPI	58	1/2" x 10" ROD		
BPI	59	1/2" x 10" ROD		
BPI	60	1/2" x 10" ROD		
BPI	61	1/2" x 10" ROD		
BPI	62	1/2" x 10" ROD		
BPI	63	1/2" x 10" ROD		
BPI	64	1/2" x 10" ROD		
BPI	65	1/2" x 10" ROD		
BPI	66	1/2" x 10" ROD		
BPI	67	1/2" x 10" ROD		
BPI	68	1/2" x 10" ROD		
BPI	69	1/2" x 10" ROD		
BPI	70	1/2" x 10" ROD		
BPI	71	1/2" x 10" ROD		
BPI	72	1/2" x 10" ROD		
BPI	73	1/2" x 10" ROD		
BPI	74	1/2" x 10" ROD		
BPI	75	1/2" x 10" ROD		
BPI	76	1/2" x 10" ROD		
BPI	77	1/2" x 10" ROD		
BPI	78	1/2" x 10" ROD		
BPI	79	1/2" x 10" ROD		
BPI	80	1/2" x 10" ROD		
BPI	81	1/2" x 10" ROD		
BPI	82	1/2" x 10" ROD		
BPI	83	1/2" x 10" ROD		
BPI	84	1/2" x 10" ROD		
BPI	85	1/2" x 10" ROD		
BPI	86	1/2" x 10" ROD		
BPI	87	1/2" x 10" ROD		
BPI	88	1/2" x 10" ROD		
BPI	89	1/2" x 10" ROD		
BPI	90	1/2" x 10" ROD		
BPI	91	1/2" x 10" ROD		
BPI	92	1/2" x 10" ROD		
BPI	93	1/2" x 10" ROD		
BPI	94	1/2" x 10" ROD		
BPI	95	1/2" x 10" ROD		
BPI	96	1/2" x 10" ROD		
BPI	97	1/2" x 10" ROD		
BPI	98	1/2" x 10" ROD		
BPI	99	1/2" x 10" ROD		
BPI	100	1/2" x 10" ROD		

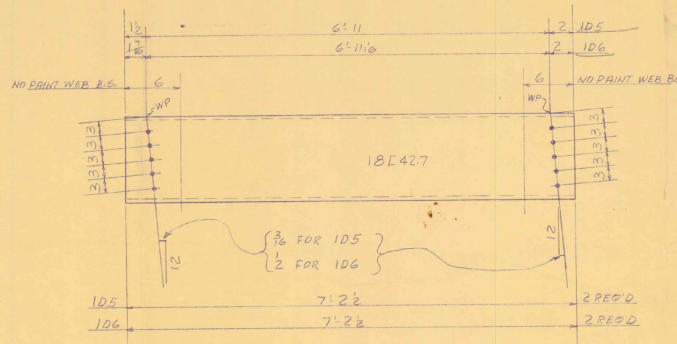
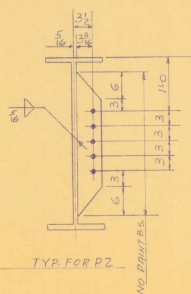
NOTE:
BRIDGE - NO BRIDGE
MATERIAL - PAINT BOTTOM & FLOOR ONLY
PAINT PER STD. SPEC. STATE OF VERMONT - PAINT 400-010

OK
JSS
7-13-61
18701

CITY IRON WORKS, Inc.	
P. O. BOX 147 WETHERFIELD, CONN.	
OVERSEAS - ESTABLISHED - MUST BRIDGE INTERESTS - PROJECT - IN THE TOWN OF WETHERFIELD, SOUTH BRITAIN, VERMONT	
MADE BY: A.S.	CHECKED BY: E.H.
APPROVED BY: [Signature]	DATE: [Date]
S.O. 13294	SHEET NO. 1

OTL
JSC
7-13-6
v. n. m.

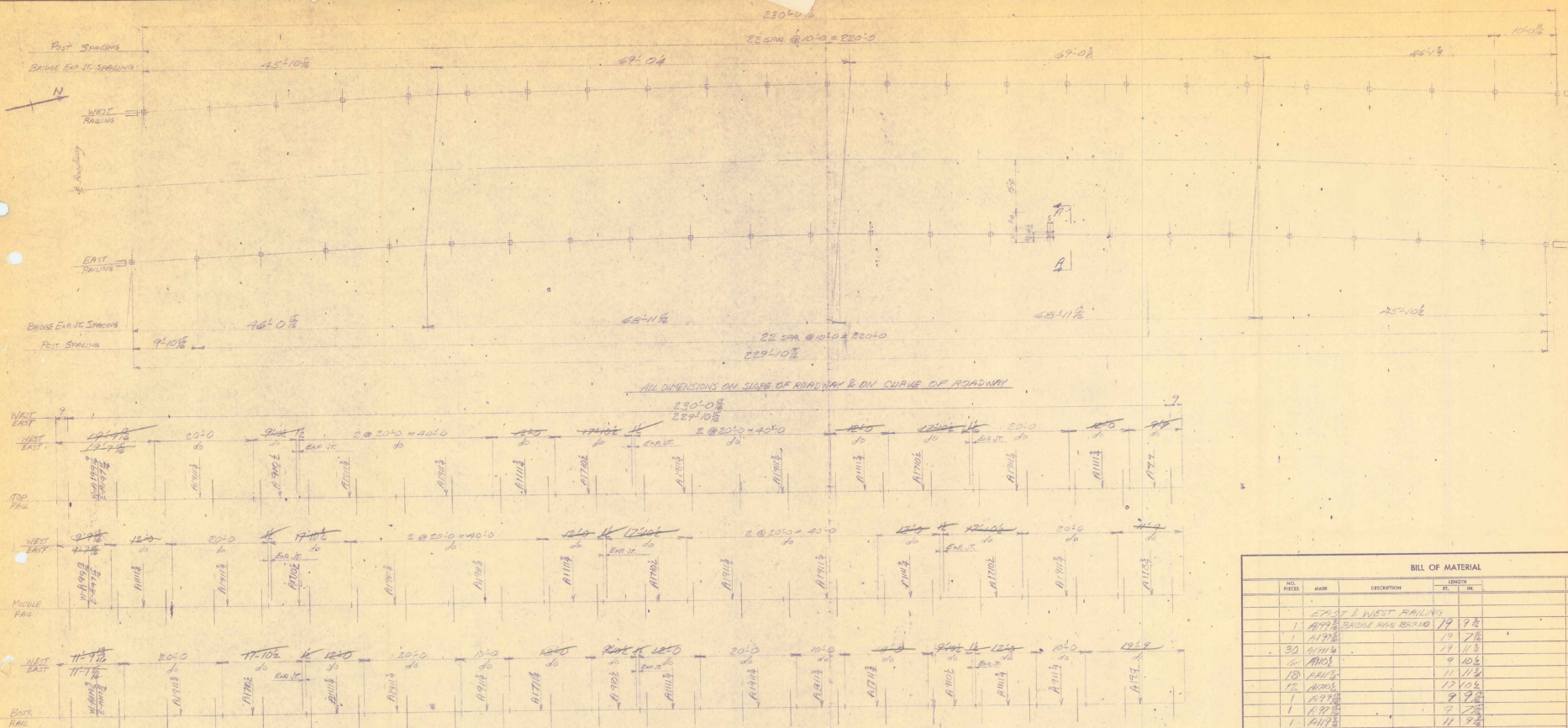
BOLTS		CITY IRON WORKS, Inc.	
OPEN HOUSE		P. O. BOX 147 WETHERSFIELD, CONN.	
PAINT		OVERPAID \$14,197.75. MONEY ORDER INTERSTATE RECEIPTS 1-22-68 42 WILLIAMSON, SCOTT BURNINGHAM, VERNER MAY 1968	
REVISONS		MADE BY <u>RE</u> ORDERED BY <u>PK</u> DATE <u>5-1-68</u>	
		APPROVED _____	
S.O. 13899		SHEET NO. 22	



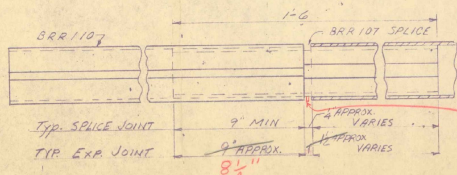
NOTE: ALL DIM. FOR GIRDERS ARE ALONG CTR OF GRAVITY UN
PAINT PER STD SPEC STATE OF VERMONT
PAR. 404.03B

PROJ. = I-89-3(14) Cont #1

ROLLS:	CITY IRON WORKS Inc.,		
OPEN ROLLS:	P. O. BOX 147 WETHERFIELD, CONN.		
PAINT:	OVERPAINT GR. 1961-1976, MUST BE GRAY INTERGATE PROJECT IN THE TOWNS OF WILLISTON, SOUTH BURLINGTON, VERMONT		
REVISIONS			
2166	Replacements 2166	MADE BY: 46	CHECKED BY: FK DATE: 7-7-61
		APPROVED:	SIGN:
		S.D. 13894	SHEET NO. 1 of 1



WEST RAILING LOOKING EAST
EAST RAILING LOOKING WEST

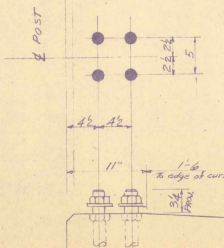


TUBING
5"x2" STEEL RAIL A.S.T.M. A485
GRADE C, GALV. TO A.S.T.M.
SPEC. A 123-53.

BETHLEHEM STEEL CO.
STANDARD BRIDGE RAILING
AND PIECE MARKS.

DETAIL OF TUBING & TYP. SPLICE JOINTS

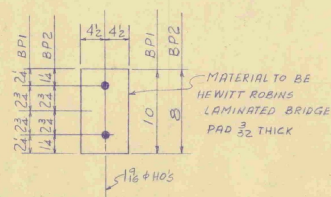
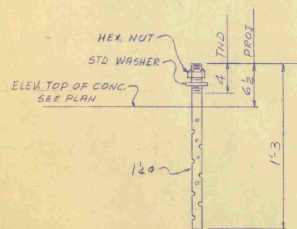
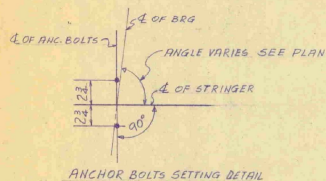
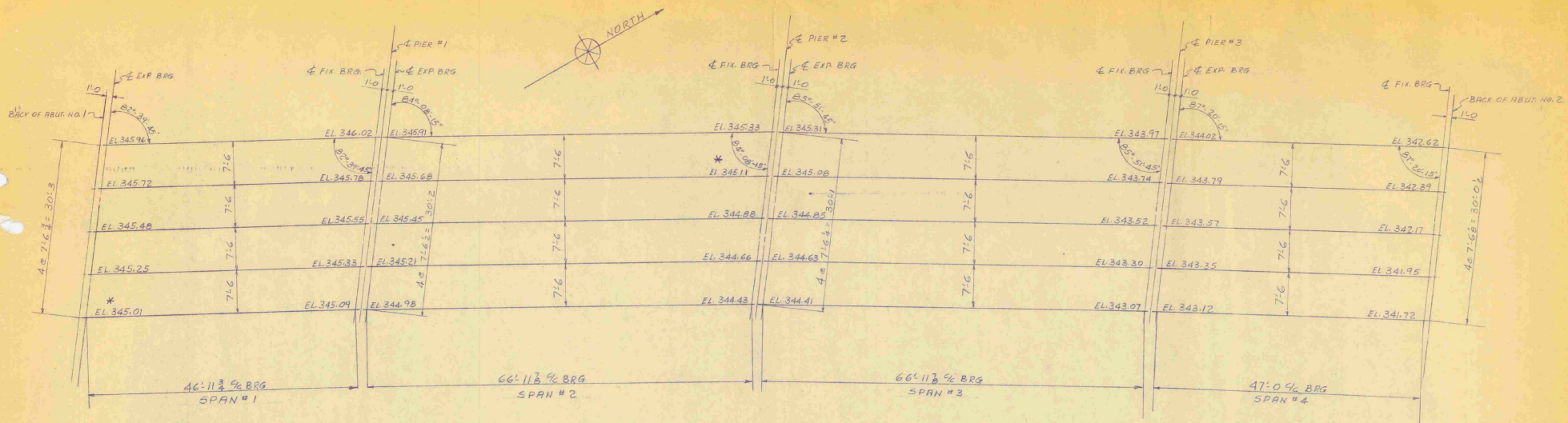
Typ. as shown in
detail of Expansion
Joint Bethlehem Steel
Co. Sheet BR-2000



SECTION A-A
TYP. ABOLT DETAIL

BILL OF MATERIAL					
NO.	PIECES	NAME	DESCRIPTION	LENGTH	
				FE.	IN.
					WEIGHT
			EXIST. & WEST RAILING		
1		PIPE	BRIDGE RAIL BARRIO	19	9 1/2
1		PIPE		19	7 1/2
30		PIPE		11	11 1/2
2		PIPE		9	10 1/2
13		PIPE		11	11 1/2
12		PIPE		17	10 1/2
1		PIPE		9	9 1/2
1		PIPE		9	7 1/2
1		PIPE		11	9 1/2
1		PIPE		11	7 1/2
2		PIPE		19	9
16		PIPE		9	11 1/2
2		PIPE		17	11 1/2
2		PIPE		9	9 1/2
2		PIPE		11	8 1/2
48		BRIDGE RAIL POST			
18		BRIDGE RAIL POST			
64		BRIDGE RAIL POST			
44		BRIDGE RAIL POST			
122		BRIDGE RAIL POST			
200		BRIDGE RAIL POST			
178		BRIDGE RAIL POST			
12		BRIDGE RAIL POST			
VERMONT STRUCTURAL STEEL CORPORATION					
BURLINGTON, VT. 104-3040					
DATE	NOV 1950	PROJECT	BRIDGE RAIL POSTS FOR BRIDGE	POST NO.	
LOCATION	LANE CONST. CO.	CUSTOMER	LANE CONST. CO.	NO.	FOR
ARCHITECT	DR. G. VERMONT DEPT. OF HIGHWAYS	JOB NO.	61389-2	SHEET NO.	2

BOLTS	CITY IRON WORKS Inc., P. O. BOX 147 WETHERSFIELD, CONN.
OPEN HOLES	
PAIN	
REVISIONS	
MADE BY <u>AS</u> CHECKED BY <u>FK</u> DATE <u>7-2-88</u>	UNDERSTAND STA 1876.7000 BRUNNELL ROAD WILSTON COLLETON VERMONT
APPROVED _____	SCALE _____
S.O. 13898	SHEET NO. P1



ABI-80 REQ'D

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

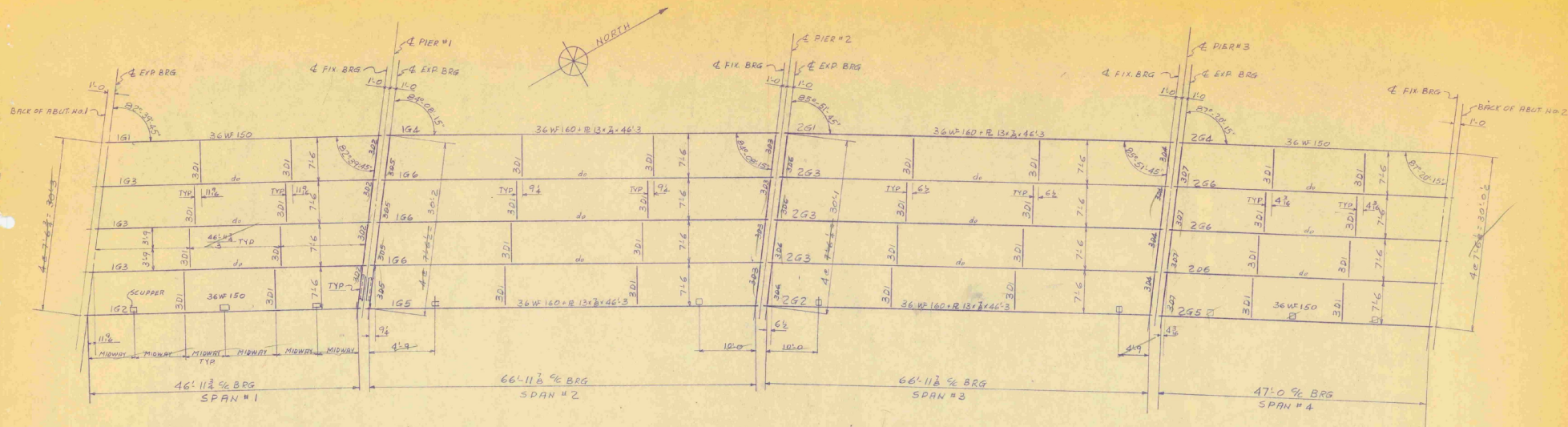
MARK	NO	MATERIAL	REMARKS	WGT
ABI	80	1/4" x 1/3" SLEDGE BOLT		
	80	1/4" HEX. NUTS		
	80	1/4" STD. WASHERS		
BPI	20	BRG PAD 9" x 12" x 0" 10		
BP2	20	BRG PAD 9" x 12" x 0" 8		

1/4" x 1/3" SLEDGE BOLT

OFFICE COPY

PROJ. NO. I-89-3(14) CONT #1

BOLTS		CITY IRON WORKS, Inc.	
OPEN HOLER		P. O. BOX 147 WETHERSFIELD, CONN.	
PAINT		UNDERPASS STA 1876+70.80	
REVISIONS		BROWNELL ROAD	
1-240 (REVISIONS)		WILLISTON & 40 BURLINGTON, VERMONT	
MADE BY	APR 6	CHECKED BY	AK
APPROVED		DATE	2-2-61
S.O. 1389B		SHEET NO. E1	



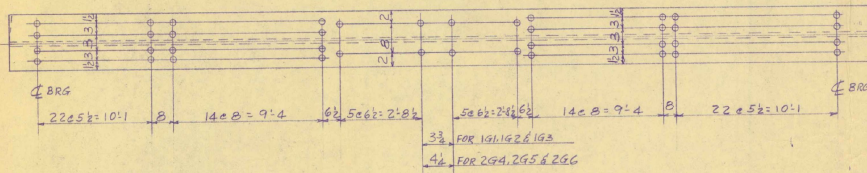
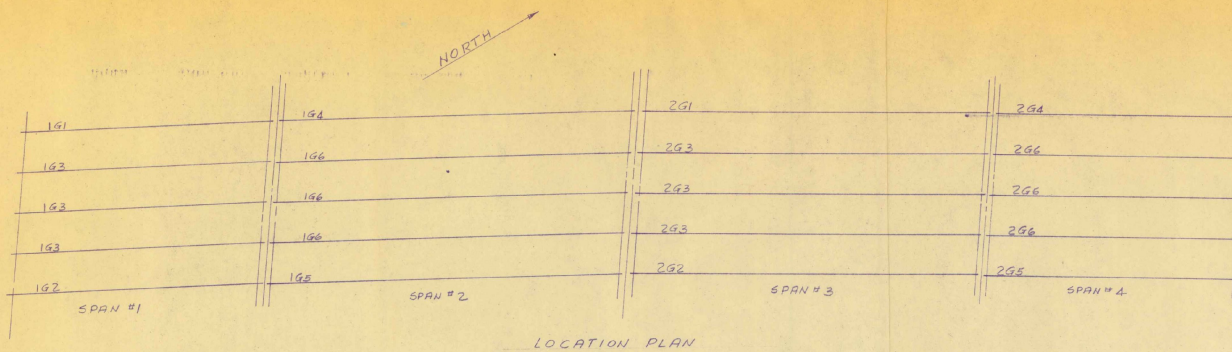
STEEL FRAMING PLAN

1. ALL DIMENSIONS ARE HORIZONTAL
2. ALL DIAPHRAGMS ARE 10L42.7
3. CONN. BOLTS ARE 3/4" HIGH STRENGTH
4. FOR GIRDERS TO HAVE 1/8" FIELD WELDED
5. CONTR. TO SEE DETAIL SHEETS 10A3 & 20A3
6. FOR METHOD OF TIGHTENING HIGH STRENGTH BOLTS SEE C.I.W. SHEET #B1
7. FOR TORQUE & TENSION REQ'D FOR HIGH STRENGTH BOLTS SEE C.I.W. SHEET #B2

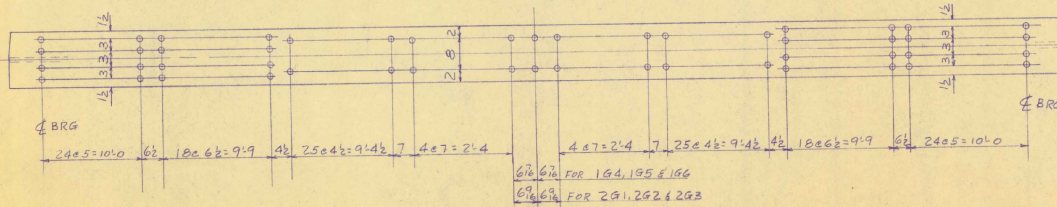
V60A-1-61

PROJ. No. I-89-3CM - CONT. #1

BOLTS		CITY IRON WORKS, Inc.	
OPEN HOLES		P. O. BOX 147 WETHERSFIELD, CONN.	
PAINT		UNDERPASS STA 1896+70.86	
REVISIONS		BROWNELL ROAD	
7-24-61 RUSBY'S COMMENT		WILLISTON, SA BURLINGTON, VERMONT	
MADE BY: R.E.		CHECKED BY: E.K. DATE: 2-2-61	
APPROVED		SCALE	
S.O. 13898		SHEET NO. E2	



STUD SPACING PLAN FOR 191, 192, 193, 294, 295 & 296

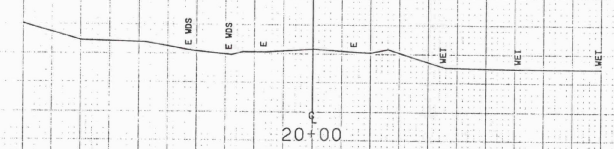


STUD SPACING PLAN FOR 194, 195, 196, 291, 292 & 293

TOTAL NO OF 3/4" x 6 1/2" STUDS REQ'D = 8060
STUDS TO BE PUT ON IN THE SHOP

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

CITY IRON WORKS, Inc.	
P. O. BOX 147 WETHERSFIELD, CONN.	
UNDERPASS STA 1896+70.86	
BROWNELL ROAD	
WILLISTON, AS BURLINGTON, VERMONT	
DESIGNED BY: A.S.	CHECKED BY: F.K.
DATE: 7-10-61	SCALE:
S.D. 1389B	SHEET NO. E3



510

20+00

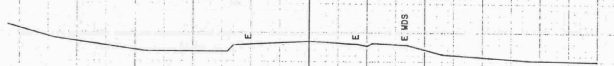
REV. PT. 19+85.02 =
SUR. STA. 19+85.46
EQ = +0.44



500

19+50

MATCH EXISTING
GRADE



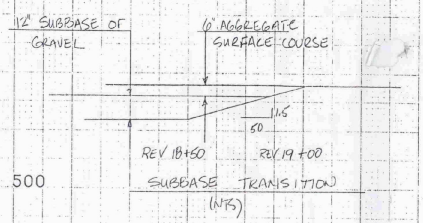
500

SURV. 19+00 = 18+50



500

REV. 18+50 = REV. 18+49.55



FROM STA.	18+50	TO STA.	20+00
PROJECT NAME	RUPERT MAIN		
NO.	BR21441 (22)		
SURVEYED BY	GILMAN		
DATE	04/91		
PLOTTED	04/23/91		

* C/1
19 61
63

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

19 61
63