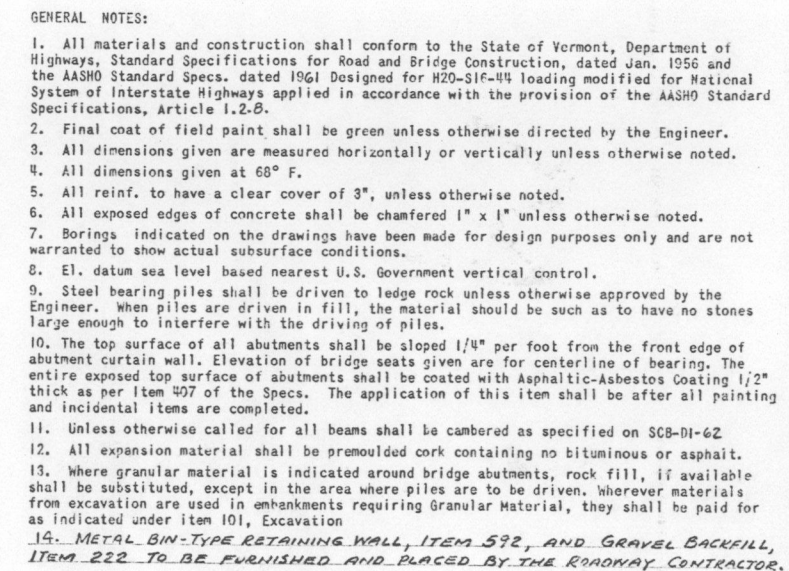




Br: 66 Plan View.
Br 67. Boring Log.
Br 68 Bridge Quantity Sheet.
Br 69 Elevation View of Bin Wall.
Br 70 Framing Plan.
Br 71 N.B. Abutment Details.
Br 72 S. B. Abutment Details.
Br 73-76 Details of Approach Slabs #1-#4.
Br 77-80 Reinforcing Steel Schedule.
Br 81 Preliminary Information Sheet.

SCB-D1-62 Br 103
SCB-38-62, Br 104
SCB-42-62, Br 105
SB-56-62, Br 101/102
SCB-D6-62, Br 100
SCB-D2-62 Br 106
H-1A #H-1B, Br 114/112
SCB-D8-62
SCB-D4-62
SCB-D7-62
SCB-D9-62

NOTE:
For Elevation View
See Br. 69

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

SHEET 96 OF 141

[illegible]

BRIDGE QUANTITY SHEET														STATE OF VERMONT DEPARTMENT OF HIGHWAYS BRIDGE DIVISION		
NO.	ITEM	UNIT	QUANTITY BREAKDOWN											CONTRACT ESTIMATED QUANTITY	FINAL	
			ABUT No 1	ABUT No 2	ABUT No 3	ABUT No 4	SUPSTR. N. B.	SUPSTR. S. B.	APP SLAB No 1	APP SLAB No 2	APP SLAB No 3	APP SLAB No 4	BIN. RET. WALL			
107	STRUCTURE EXCAVATION	CY	175	175	19	19							**990	171	73	
204	SUB-BASE OF CRUSHED ROCK	CY					55	57						123	111	
401A	CONCRETE CLASS RA (MOD.)	CY	69	67	79	76	108	117						518	515	
40B	CONCRETE CLASS R (MOD.)	CY			76	75	116	42	41	43	46			177	177	
402	REINFORCING STEEL	LB.	3,795	3,750	4,248	4,176	24,945	25,445	6,228	6,686	7,761	7,389		95,523	95,523	
403	SPIRAL REINFORCEMENT	LS.					12	12						1	1	
404A	STRUCTURAL STEEL	LB.					9,774	10,233						22,227	19,607	
407	ASPHALTIC-ASBESTOS COATING	SY	45	45	45	45								20		
501	FURNISHING EQUIPMENT FOR DRIVING PILES	LS.	REQ'D.	REQ'D.	REQ'D.	REQ'D.								1/3	1/3	
503	SPICES FOR STEEL PILING	EA.	77	77	3	3								40		
504	STEEL PILING (12 BP53)	LF	14	0	0	1								340	15	
556C	GRANITE BRIDGE CURB (MOD.)	LF	931	887	734	628	149	149	25	25	25	25		398	3180	
572	BRIDGE RAILING	LF					63	65						326	325	
222	GRAVEL BACKFILL	CY					162.5	162.5					**2472	**2472		
592	METAL BIN-TYPE RETAINING WALL	SE											**7054	**7054		
569	FIELD OFFICE	L.S.												1/3	1/3	
318	TAR EMULSION FOR BRIDGE FLOORS	GAL.					125	138	46	45	53	51		456		
361B	BITUMINOUS CONC. PAYEMENT (MOD.)	TON					30	33	10	9	11	11		104		
372A	JOINT SEALER - HOT Poured	LF					81	90						171		
402A	GRANULAR BORROW	CY											**2400	**2400		
373	RUBBER JOINT MATERIAL	L.F.					44	52						296	312	
	* DENOTES QUANTITY IS NOT INCLUDED IN CONTRACT #3						152	160								
	** STAGE I CONSTRUCTION (ROADWAY) NOT PART OF CONTRACT #3															

BRIDGE(S) AT STATION(S)

2205+94.61 SB 2207+81.34 NB

LOCATION(S)

SPRINGFIELD TERMINAL R.R.

SPRINGFIELD

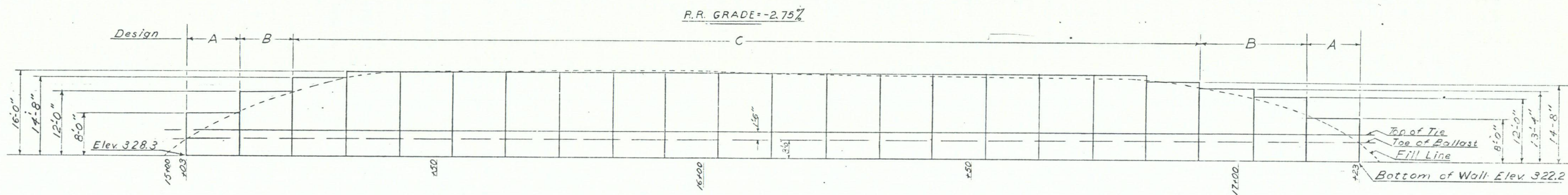
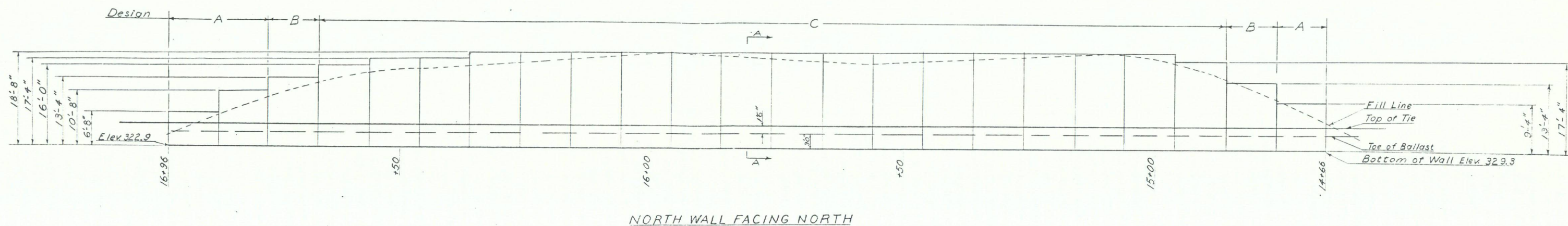
BR 68 OF

PROJECT NO. I-91-1(19) Cont. 3

SHEET NO. 98 OF 141

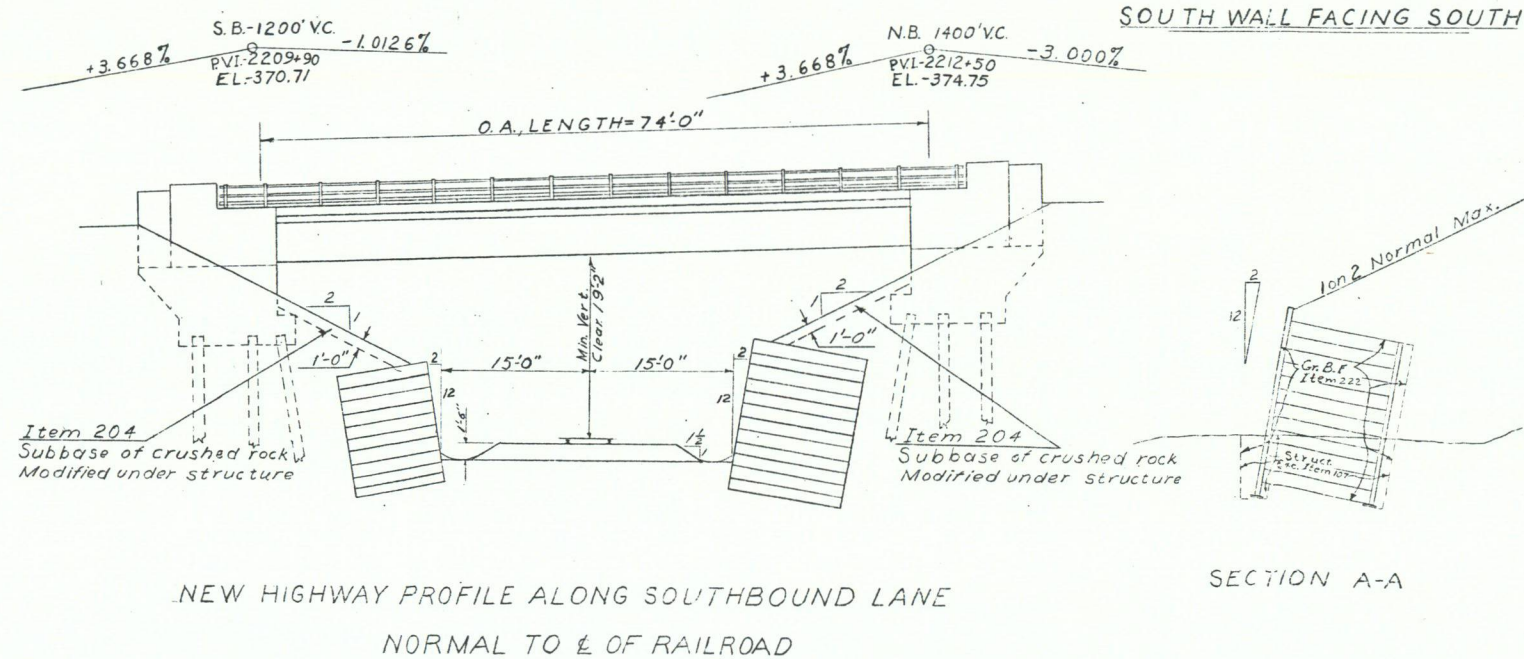
SPRINGFIELD PROJECT NO. I-91-1(19) CONT. 3
BR. 68 OF SHEET NO. 98 OF 141

GALV. METAL BIN-TYPE RETAINING WALLS



NOTES

For additional details & Designs A, B, & C see Standard Sheets H-1a & H-1b.



ITEM NO.	ITEM	UNIT	NET	OVERRUN	TOTAL	FINAL
106-A	CHAN. EXCAV. OF EARTH	C. Y.				
106-B	CHAN. EXCAV. OF ROCK	C. Y.				
106-C	UNCLASS. CHAN. EXCAV.	C. Y.				
107	STRUCT. EXCAV.	C. Y.	590			
401-B	CONC. CLASS B (MOD.)	C. Y.				
402	REINF. STEEL	LBS.				
407	ASPHALTIC-ASB. COATING	S. Y.				
502-B	TREATED TIMBER PILING	L. F.				
503	SPLICES FOR STEEL PILING	EA.				
504	STEEL PILING	L. F.				
502-A	UNTREATED TIMBER PILING	L. F.				
*592	METAL BIN-TYPE RETAINING WALL	SQ. F.	7054			
*722	GRAVEL BACKFILL	C. Y.	2472			
*102-A	GRANULAR BORROW	C. Y.	2400			
	**STAGE I CONSTRUCTION (ROADWAY)					
	*QUANTITY IS NOT INCLUDED IN CONTRACT #3					

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF SPRINGFIELDROUTE No. I-91 LOG STA. 100

METAL BIN-TYPE RETAINING WALL

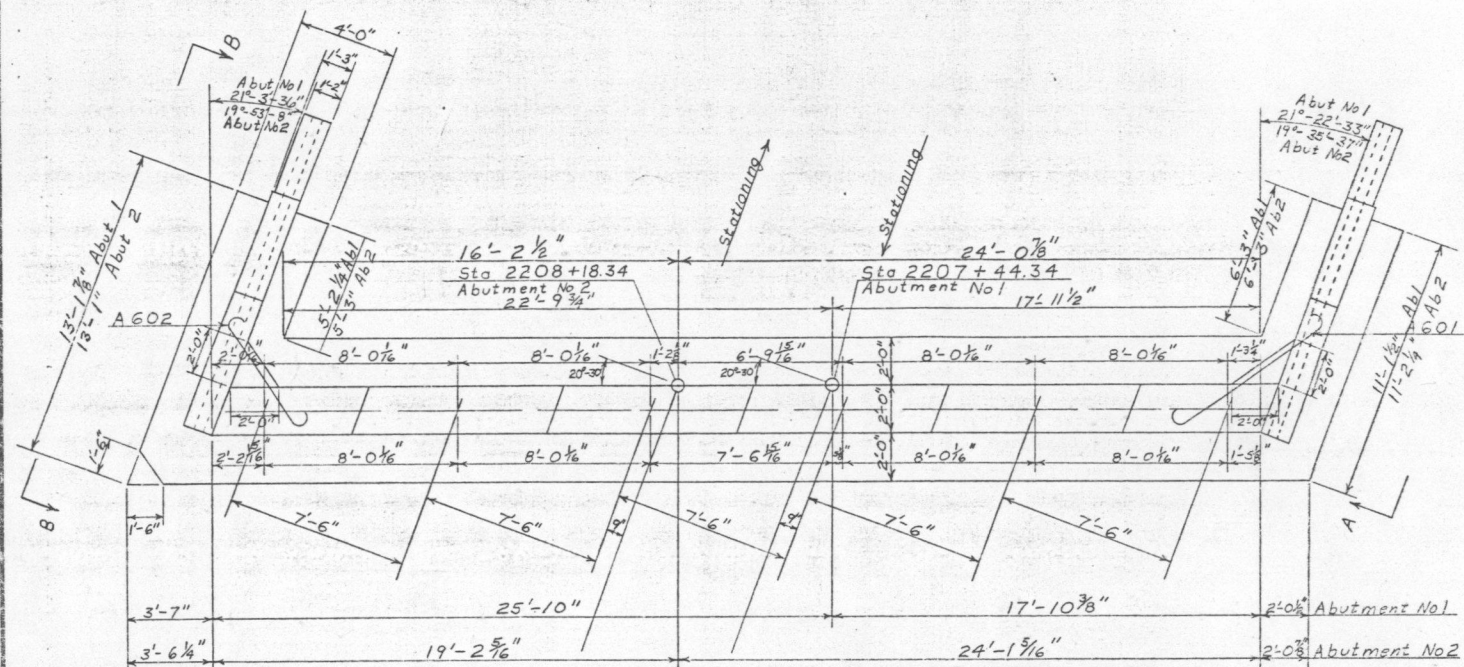
SCALE $1'' = 10''$ _____

SURVEYED BY D. Brown

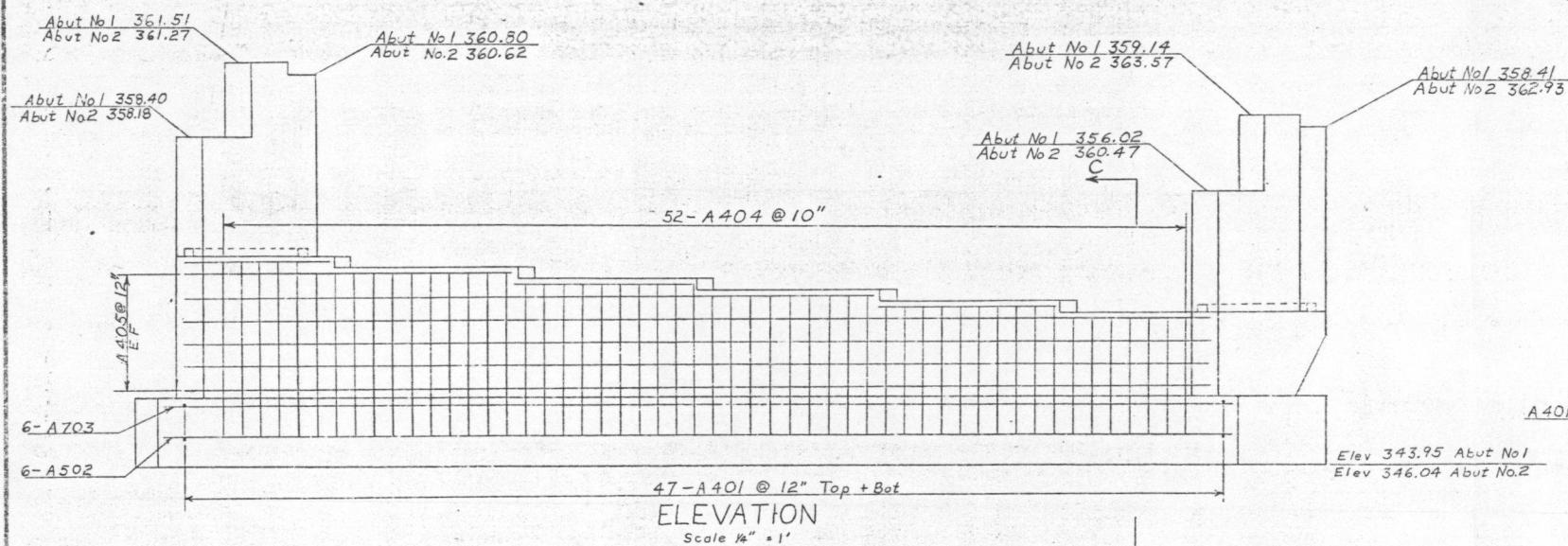
DRAWN BY A.V. CHECKED BY A

PROJECT NO. I-91-1(19) Contr. 3

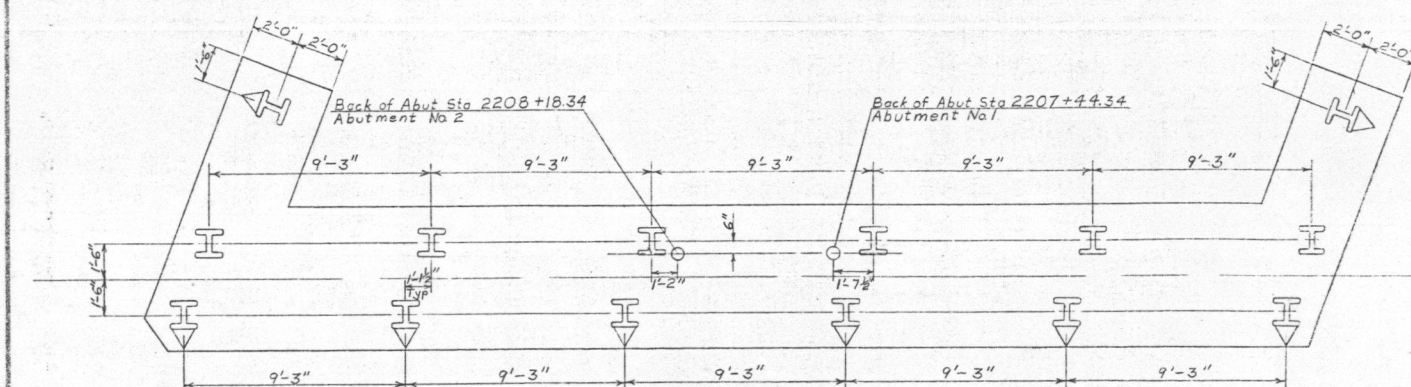
3069 SHEET 109 OF 357



PLAN
Scale 1/4" = 1'

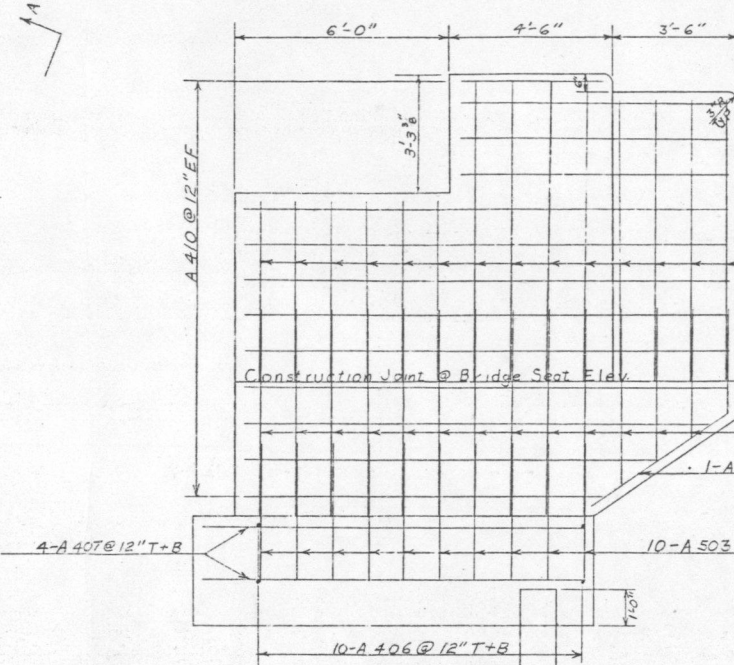


ELEVATION
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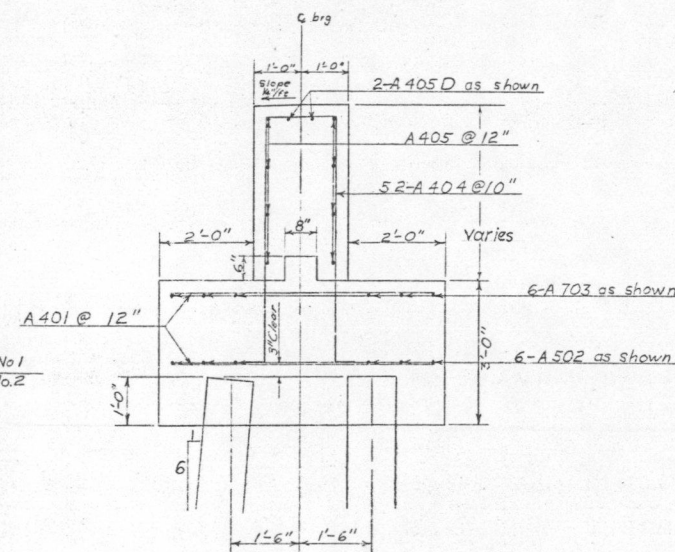


PILE PLAN
Scale 1/4" = 1'

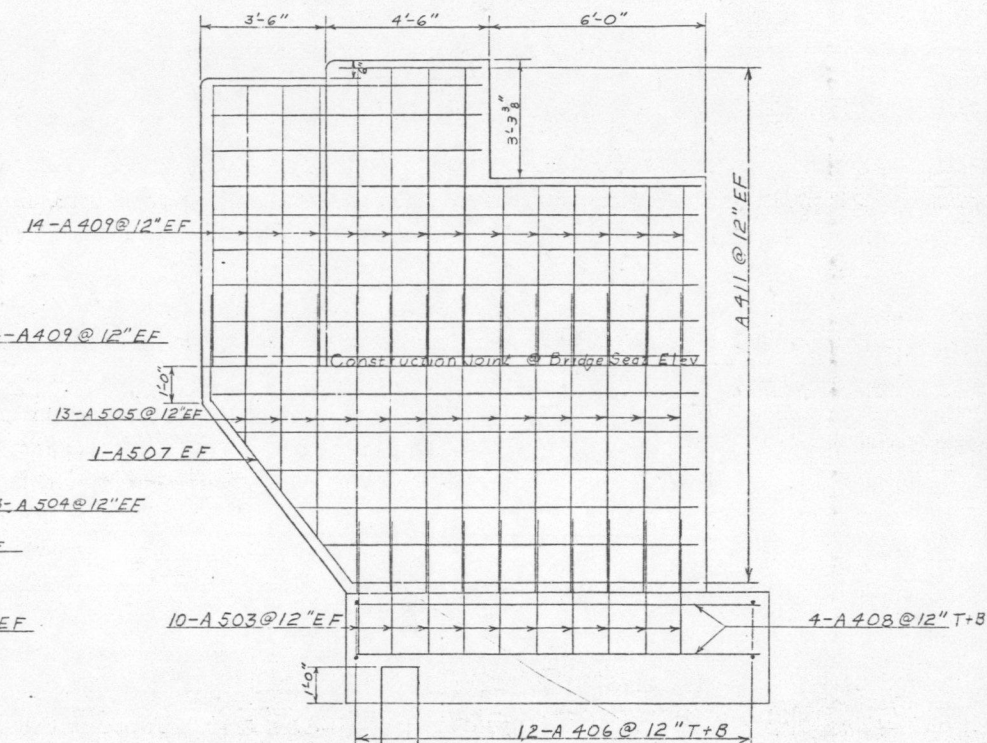
Notes:
Estimated length of piles 70'
For design purposes the maximum pile load does not exceed 35 Tons
Fill will be brought to the top of pile elevation before piles are driven. After piles are driven excavate to bottom of footing elevation as Structure Excavation Item 107



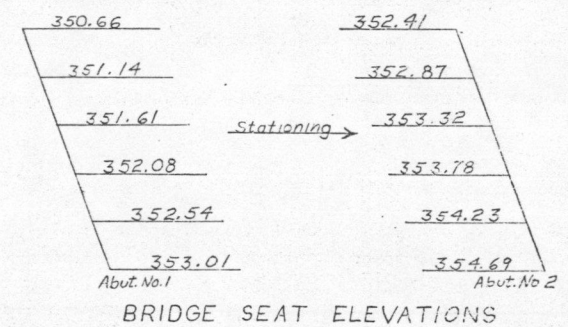
SECTION AA
Scale 3/8" = 1"



SECTION CC
Scale 1/2" = 1'



SECTION BB
Scale 3/8" = 1"



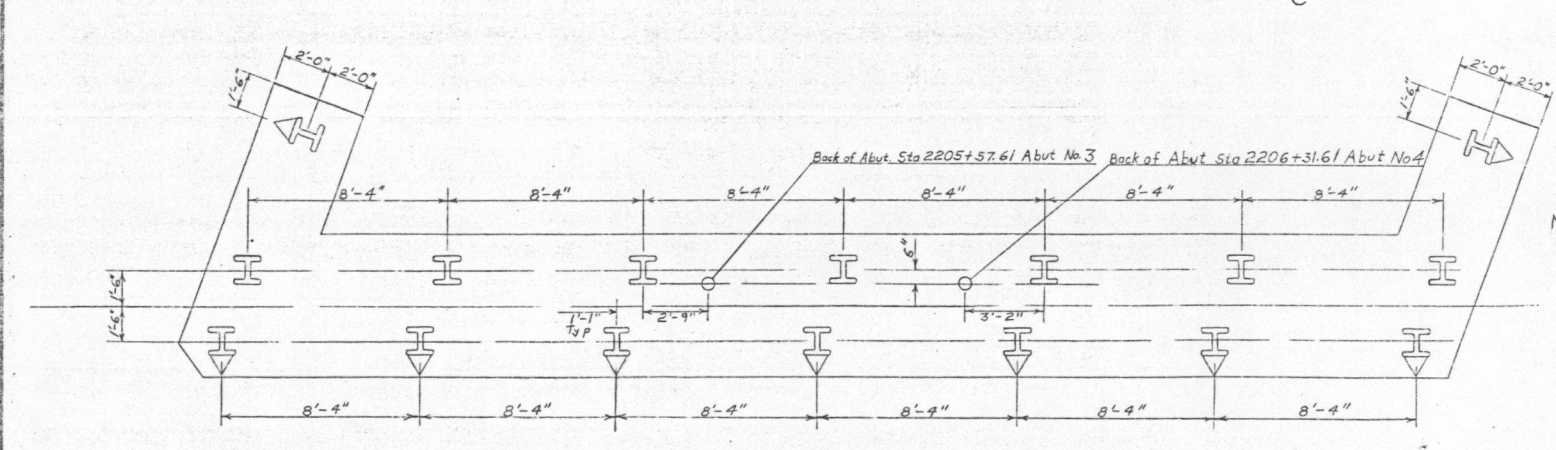
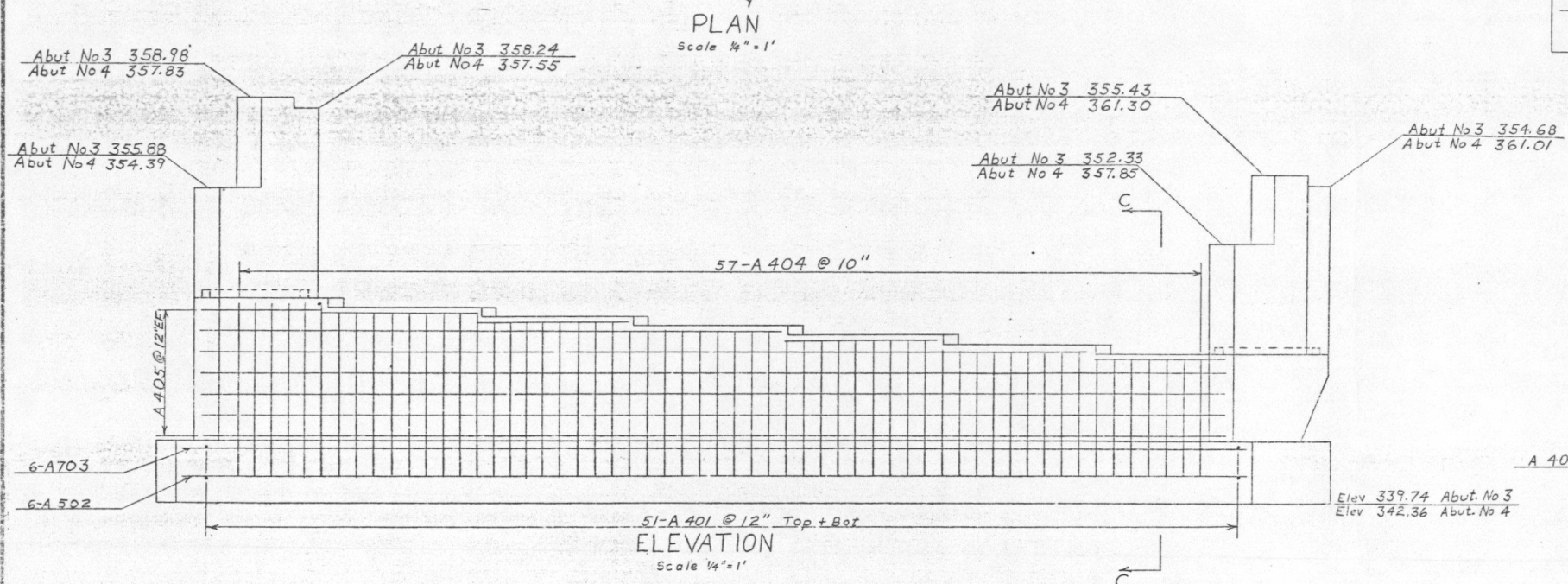
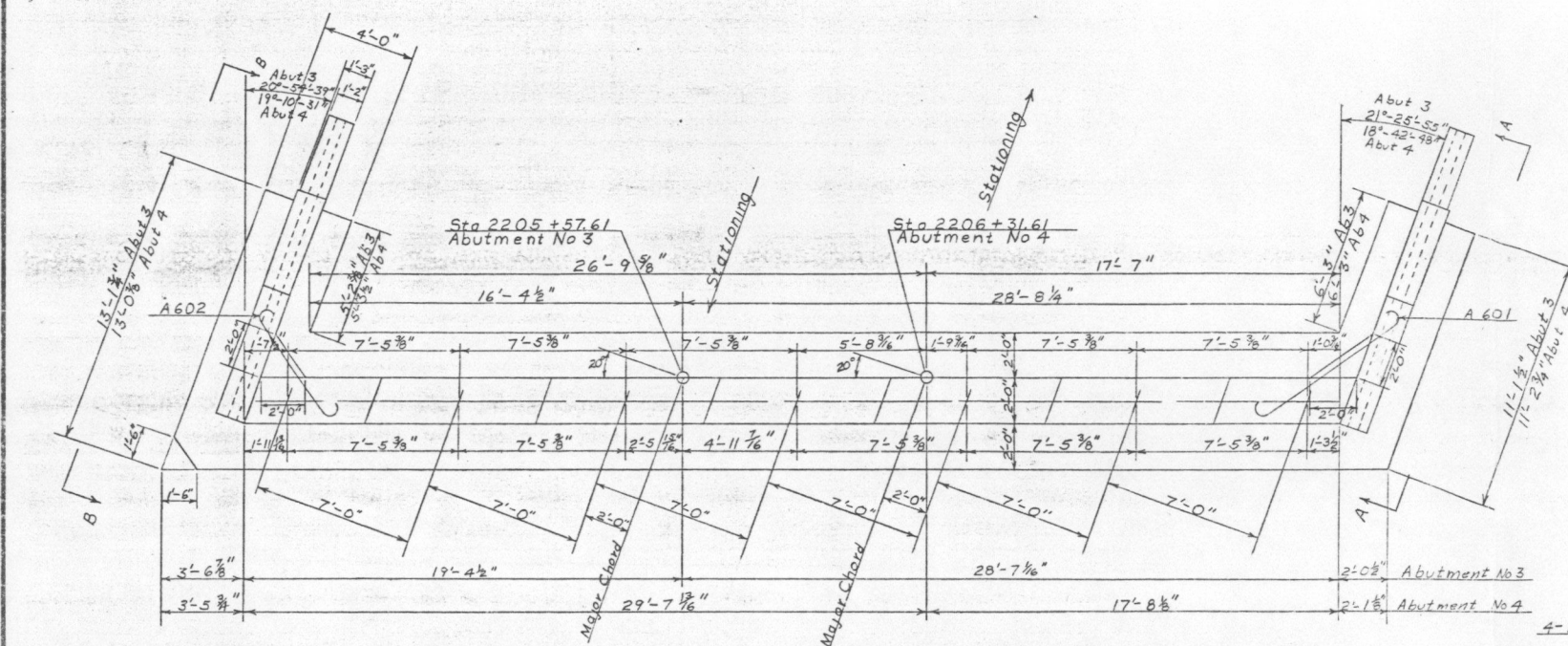
No. PILES	SIZE	EST. LGTH OF PILES	SPLICES ALLOWED FOR PILES NOT EXCEEDING PLAN LENGTH (TO BE PAID FOR ONLY IF USED)	SPLICES ESTIMATED FOR PILES EXCEEDING PLAN LENGTH (TO BE PAID FOR ONLY IF USED)
ABUT. #1	14	128P53	70'	14
ABUT. #2	14	128P53	70'	14

ITEM NO.	ITEM	UNIT	ABUT No. 1		ABUT No. 2	
			NET	FINAL	NET	FINAL
106-A	CHAN. EXCAV. OF EARTH	C.Y.				
106-B	CHAN. EXCAV. OF ROCK	C.Y.				
106-C	UNCLASS. CHAN. EXCAV.	C.Y.				
107	STRUCT. EXCAV.	C.Y.	17.5	17.5	17.5	17.5
401-AA	CONC. CLASS AA (MOD.)	C.Y.	6.9	6.9	6.9	6.9
402	REINF. STEEL	LBS.	See Reinforcing Steel Schedule			
407	ASPHALTIC ASB. COATING	S.Y.	2.5	2.5	2.5	2.5
502-B	TREATED TIMBER PILING	L.F.				
503	SPLICES FOR STEEL PILING	EA.	14	14	14	14
504	STEEL PILING	L.F.	931	931	931	931
502-A	UNTREATED TIMBER PILING	L.F.				

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

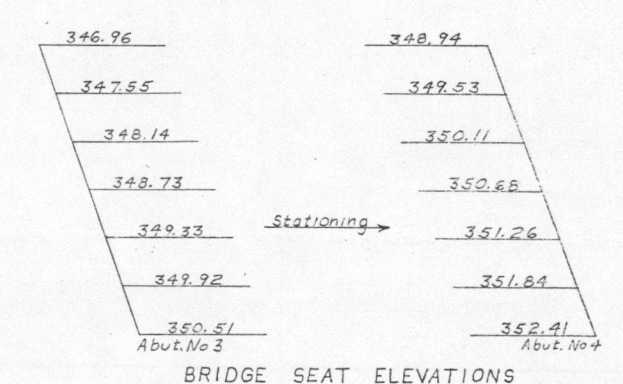
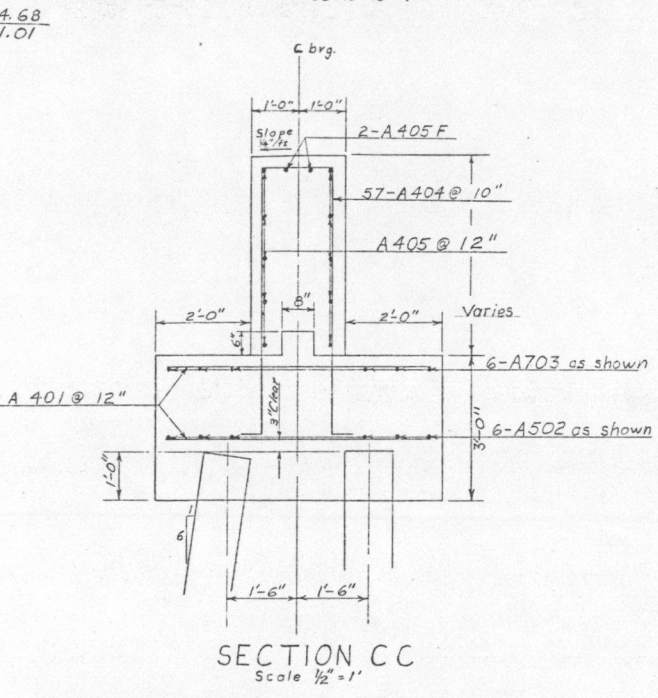
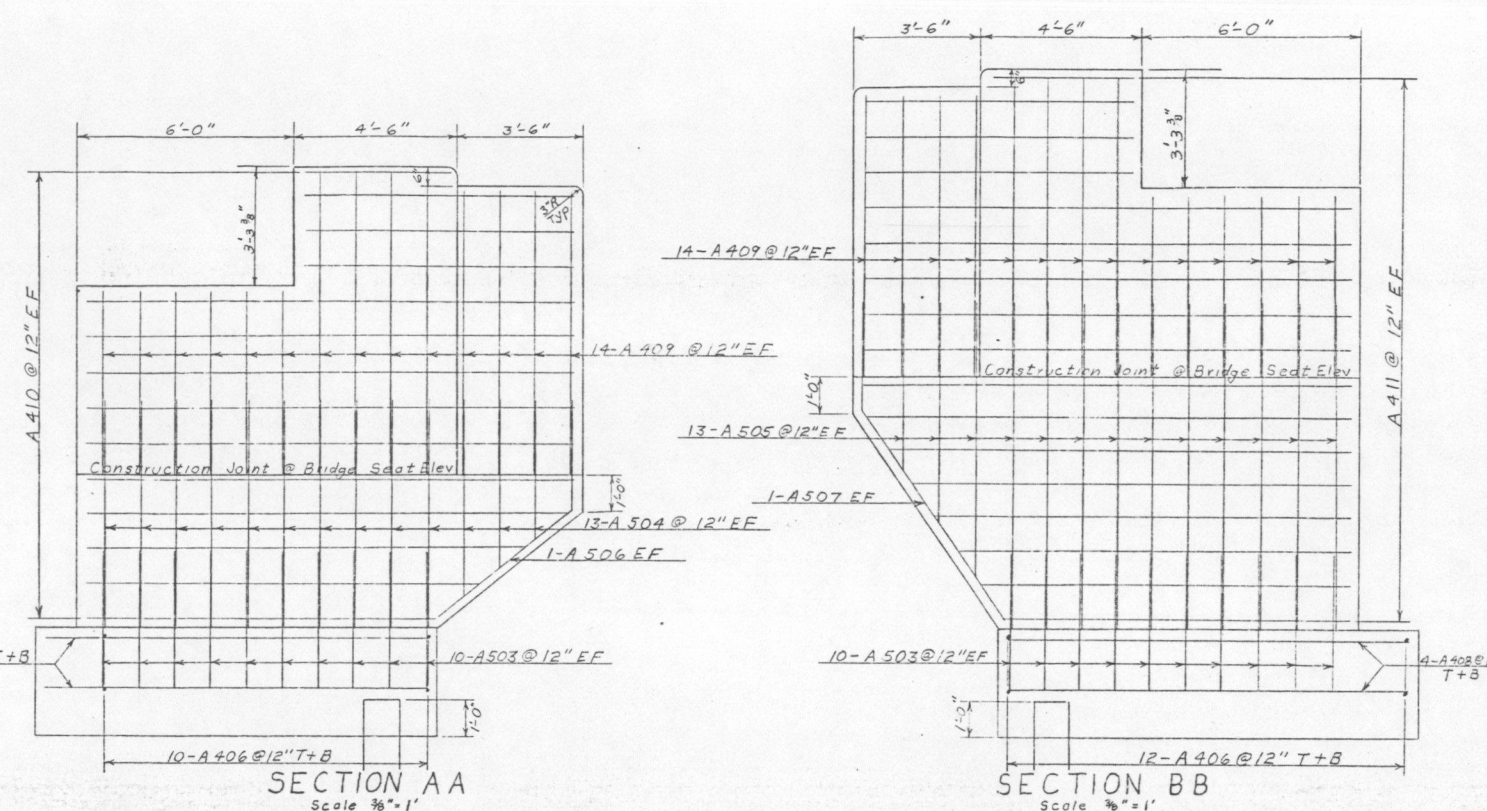
TOWN OF SPRINGFIELD
ROAD NO. 191 BRIDGE NO.
SPRINGFIELD TERM. R.R.
N.B. ABUTMENT DETAILS

SCALE As Noted
SURVEYED BY
DRAWN BY AGC CHECKED BY AV
PROJECT NO. I-91-1(19) CONT. 3
SHEET 101 OF 141



Notes
Estimated length of piles about 3'-50"
about 4'-4 1/2'

For design purposes the maximum
pile load does not exceed 35 Tons.
Fill will be brought to the top of pile
elevation before piles are driven.
After piles are driven excavate to
bottom of footing elevation as
Structure Excavation item 107.



NO. PILES	SIZE	EST. LGTH OF PILES	SPICES ALLOWED FOR PILES NOT EXCEEDING PLAN LENGTH (TO BE PAID FOR ONLY IF USED)	SPICES ESTIMATED FOR PILES EXCEEDING PLAN LENGTH. (TO BE PAID FOR ONLY IF USED)
ABUT #3 16	12BP53	50'	—	3
ABUT #4 16	12BP53	45'	—	3

			ABUT. No 3		ABUT. No 4	
ITEM NO.	ITEM	UNIT	NET	FINAL	NET	FINAL
106-A	CHAN. EXCAV. OF EARTH	C.Y.				
106-B	CHAN. EXCAV. OF ROCK	C.Y.				
106-C	UNCLASS. CHAN. EXCAV.	C.Y.				
107	STRUCT. EXCAV.	C.Y.	19 v	19	78	19
401 AA	CONC. CLASS AA (MOD)	C.Y.	74 v	72	78	75
402	REINF. STEEL	LBS.	See Reinforcing Steel Schedule			
407	ASPHALTIC-ASB. COATING	S.Y.	5	4.5	5	4.5
502-B	TREATED TIMBER PILING	L.F.				
503	SPLICES FOR STEEL PILING	"EA	3	0	3	1
504	STEEL PILING	L.F.	800	754	720	628
502-A	UNTREATED TIMBER PILING	L.F.				

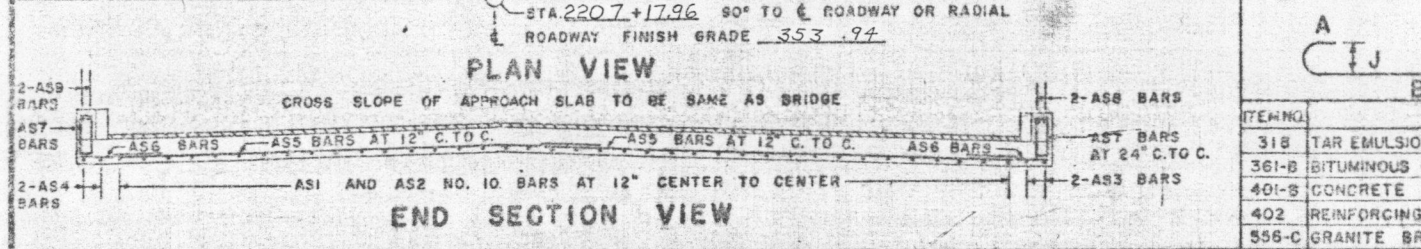
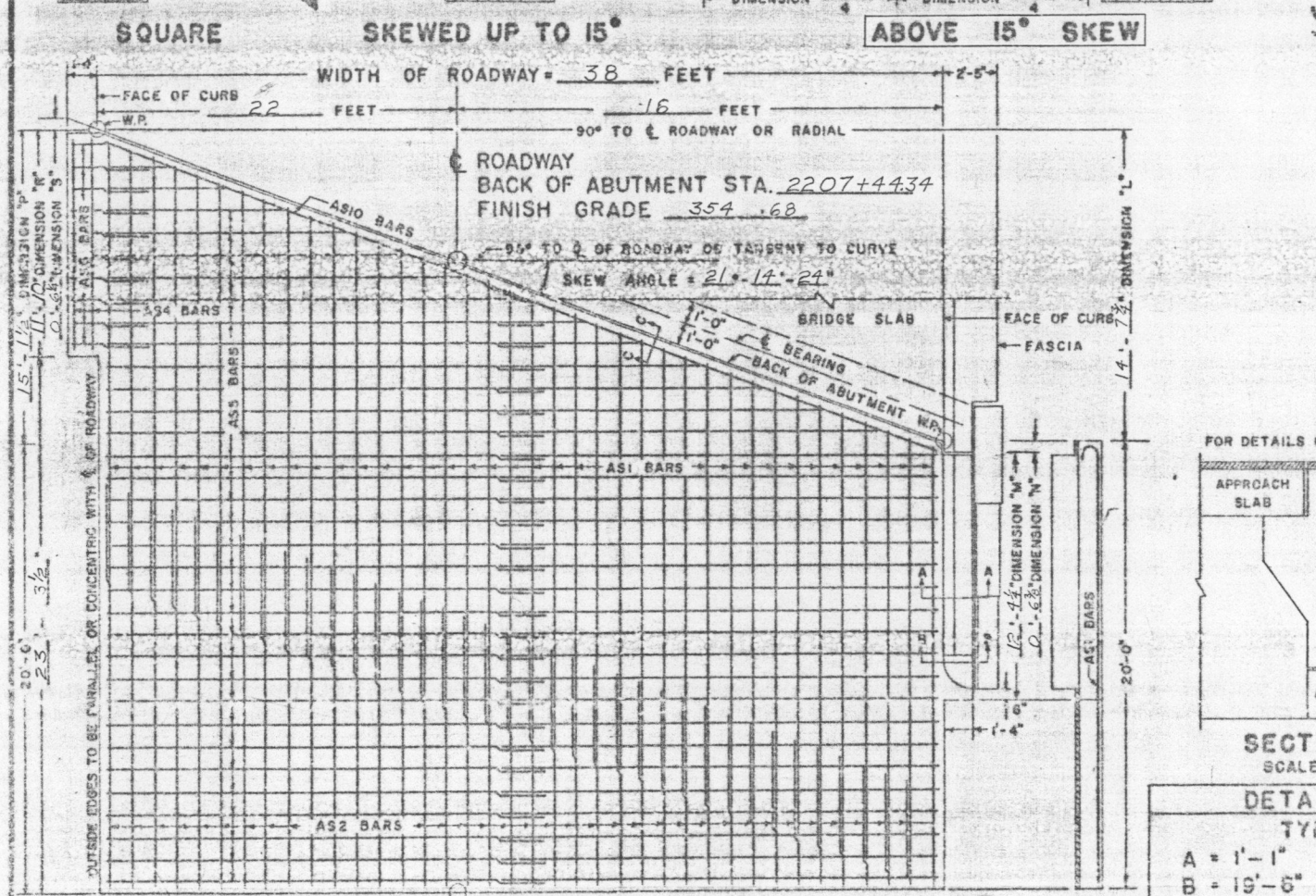
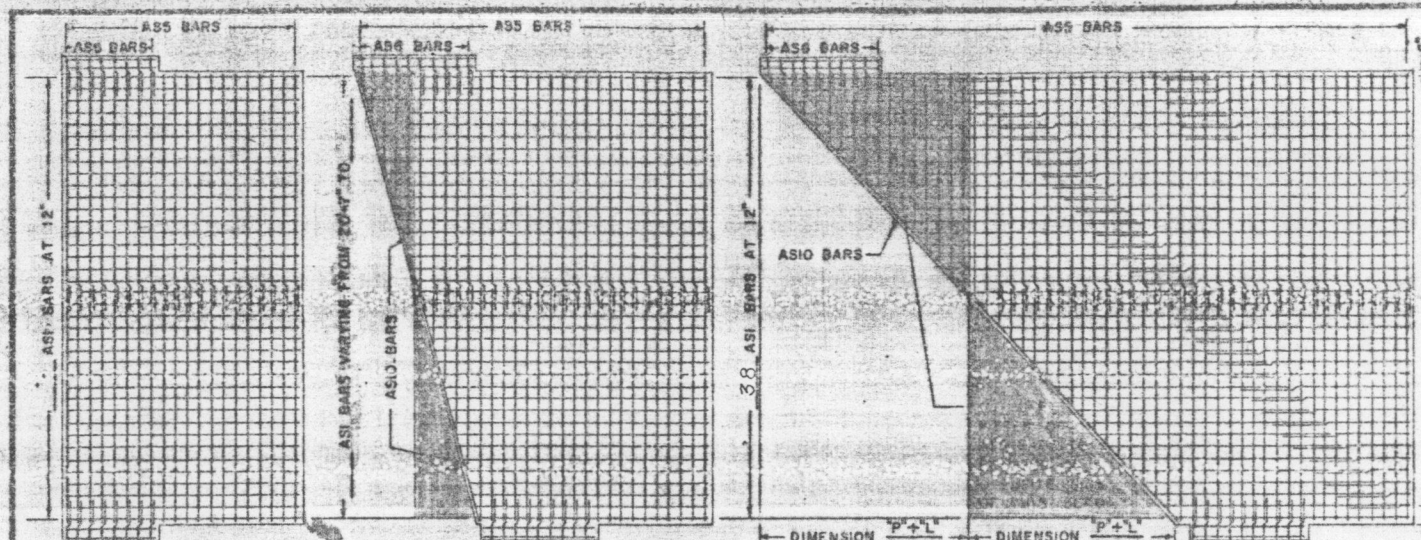
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF SPRINGFIELD
ROAD NO. I 91 BRIDGE NO. _____
SPRINGFIELD TERM. R.R.
S.B. ABUTMENT DETAILS

SCALE As Noted

SURVEYED BY _____
DRAWN BY AGC CHECKED BY AV

PROJECT NO. I-91-1(19) Cont. 3
SHEET 102 OF 141



REVISIONS AND CORRECTIONS

APPROVED

DRAWN BY: R.S. HAUPST NOV. 1960

TRACED BY: R.S. HAUPST NOV. 1960

CHECKED BY: A.H. SMALLEY NOV. 1960

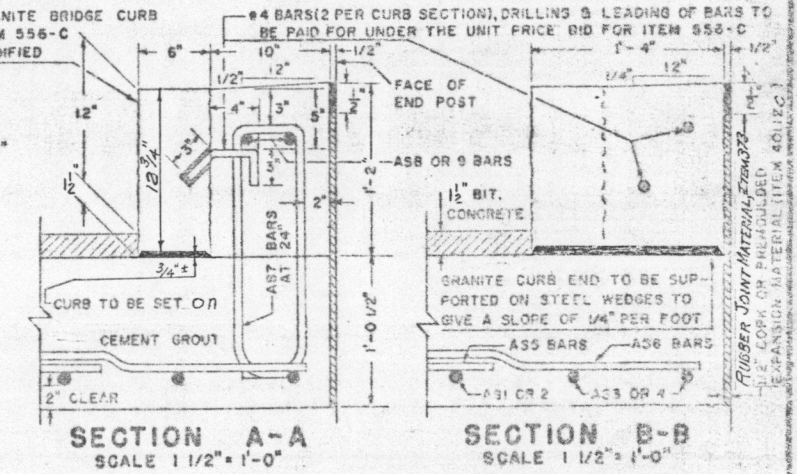
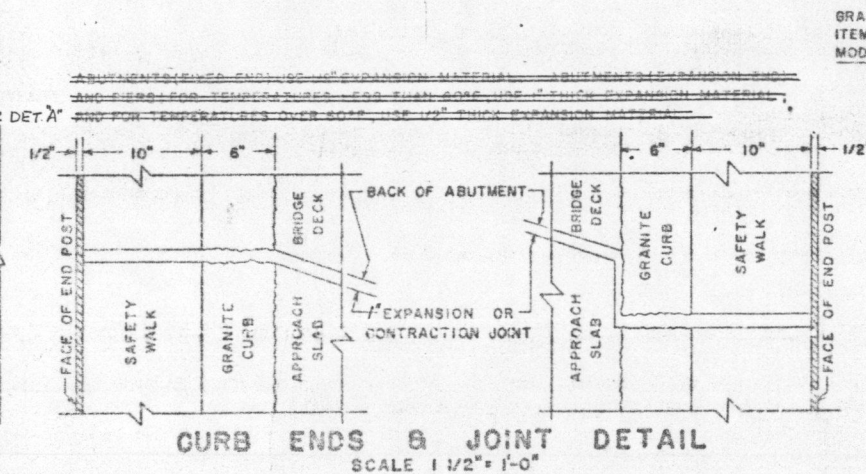
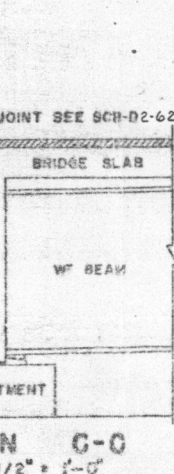
CORRECT: Nov 21 1960 *Smalley* BRIDGE ENGINEER

APPROVED: Nov 22 1960 *R.S. Haupt* CHIEF ENGINEER

30' ROADWAY										38' ROADWAY										42' ROADWAY										44' ROADWAY										ROADWAY																							
		NO. PIECES		SIZE		LENGTH		MARK		TYPE		REMARKS				NO. PIECES		SIZE		LENGTH		MARK		TYPE		REMARKS				NO. PIECES		SIZE		LENGTH		MARK		TYPE		REMARKS																							
SQUARE OR SKEWED										SQUARE OR SKEWED										SQUARE OR SKEWED										SQUARE OR SKEWED										SQUARE OR SKEWED																							
		2		10				AS3		STR.				2		10		11-10		AS3		STR.				2		10				AS3		STR.				2		10		AS3		STR.																			
		2		10				AS4		STR.				2		10		11-4		AS4		STR.				2		10				AS4		STR.				2		10		AS4		STR.																			
		5		3'-6"				AS6		STR.				25		5		3'-6"		AS6		STR.				5		3'-6"				AS6		STR.				5		3'-6"		AS6		STR.																			
		5		5'-0"				AS7		S6				11		5		5'-0"		AS7		S6				5		5'-0"				AS7		S6				5		5'-0"		AS7		S6																			
		2		5				AS8		STR.				2		5		10-2		AS8		STR.				2		5				AS8		STR.				2		5		AS8		STR.																			
		2		5				AS9		STR.				2		5		9-8		AS9		STR.				2		5				AS9		STR.				2		5		AS9		STR.																			
SQUARE										SQUARE										SQUARE										SQUARE										SQUARE																							
		30		10		20'-7"				AS1		I				38		10		20'-7"		AS1		I				42		10		20'-7"		AS1		I				44		10		20'-7"		AS1		I															
		20		5		25'-6"				AS5		STR.				40		5		19'-9"		AS5		STR.				40		5		22'-9"		AS5		STR.				5				AS5		STR.																	
SKEWED UP TO 15°										SKEWED UP TO 15°										SKEWED UP TO 15°										SKEWED UP TO 15°										SKEWED UP TO 15°																							
		30		10		AVE		AS1		I		I				38		10		AVE		AS1		I		I				42		10		AVE		AS1		I		I				44		10		AVE		AS1		I		I									
		5		29'-6"				AS5		STR.		2				5		19'-9"		AS5		STR.		3				5		21'-9"		AS5		STR.		3				5		22'-9"		AS5		STR.		3				5		22'-9"		AS5		STR.		2-3			
ALL SKEWED SPANS										ALL SKEWED SPANS										ALL SKEWED SPANS										ALL SKEWED SPANS										ALL SKEWED SPANS																							
		2		5				AS10		STR.				2		5		21-2		AS10		STR.				5				AS10		STR.				5				AS10		STR.				5				AS10		STR.											
ABOVE 15° SKEW										ABOVE 15° SKEW										ABOVE 15° SKEW										ABOVE 15° SKEW										ABOVE 15° SKEW																							
		30		10		20'-7"				AS1		I				38		10		20'-7"		AS1		I				42		10		20'-7"		AS1		I				44		10		20'-7"		AS1		I				10		20'-7"		AS1		I					
		29		10		AVE		AS2		STR.		4				37		10		11-9		AVE		AS2		STR.		4				41		10		AVE		AS2		STR.		4				43		10		AVE		AS2		STR.		4							
		5		29'-6"				AS5		STR.		2				55		5		19'-9"		AS5		STR.		3				5		21'-9"		AS5		STR.		3				5		22'-9"		AS5		STR.		3				5				AS5		STR.		2-3	

REMARKS: AS1 BAR "B" DIMENSION VARIES FROM 19'-6" TO 20' + DIMENSION (P+L) ÷ 4 (IN FEET) = NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. AS2 BAR "B" DIMENSION VARIES FROM 19'-6" TO 20' + DIMENSION (P+L) ÷ 2 (IN FEET) = NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. THE LENGTH OF AS2 BARS VARIES FROM 4'-5" TO 19'-2". THE AS2 BARS MAY BE DIVIDED INTO TWO OR MORE PIECES, AS MAY BE NECESSARY, TO LIMIT THE MAXIMUM BAR LENGTH TO 30 FEET. THE LOCATION OF SPLICES IS LEFT TO THE OPTION OF THE DESIGNER. THE NO. PIECES SHOWN ARE FOR CONDITION 1 (FOR CONDITION 2 & 3, SEE REINF. SCHEDULE).

GENERAL NOTES: ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. WHEN A BAR LENGTH VARIES IN INCREMENTS EACH BAR MUST BE DETAILED. SPLICES SHALL BE 2'-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 1961. DESIGNED FOR H20-S16-44.



DETAILS OF REINFORCING BARS					REINFORCING STEEL					QUANTITY COMPUTATION				
TYPE I					TYPE S6 C					W = WIDTH OF ROADWAY				
A = 1'-1"					A = 0'-6"					Z = 20 + DIMENSION "P+L"				
B = 15'-6" OR VARIES					B = 1'-3"					T = DIMENSION "T"				
C = 0'-6"					C = 0'-6"					W = 38				
D = 1'-9"					D = 1'-9"					Z = 27.44				
G = 0'-6"					G = 0'-6"					T = 12.09				
ITEM NO.					BAR NO.					BITUMINOUS CONCRETE = W x Z x 0.0092 = TONS				
318					AS1					38 x 27.44 x 0.0092 = 9.6 TONS				
361-B					AS2					TAR EMULSION = W x Z x 0.0444 = GALLONS				
401-B					AS3					38 x 27.44 x 0.0444 = 46.3 GALLONS				
402					AS4					CONCRETE CLASS B = W x Z x 0.0385 + T x 0.1029 + (T - 1.8333) x 0.0733 = CUBIC YARDS				
556-C					AS5					[38 x 27.44 x 0.0385] + [12.09 x 0.1029] + [12.09 - 1.8333] x 0.0733 = 42.3 CUBIC YARDS				
ITEM NO.					AS6					GRANITE BRIDGE CURB = (2(T+0-3)) x LINEAR FEET				
318					AS7					2(12.09 + 0.26) = 24.7 LINEAR FEET				
361-B					AS8					BAR LENGTHS: AS3 BARS = DIMENSION "M" - 0'-6"				
401-B					AS9					AS4 BARS = DIMENSION "N" - 0'-6"				
402					AS10					AS6 BARS = 3'-6"				
556-C										AS7 BARS = 5'-0"				
										AS8 BARS = DIMENSION "M" - 2'-2"				
										AS9 BARS = DIMENSION "N" - 2'-2"				

DETAILS OF APPROACH SLAB FOR 38 FOOT BRIDGE

TO BE USED FOR BRIDGE AT STATION 2207+81.34 NB

LOCATION Springfield Terminal Railroad

Approach Slab No 1

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

TOWN OF SPRINGFIELD ROUTE NO. 191

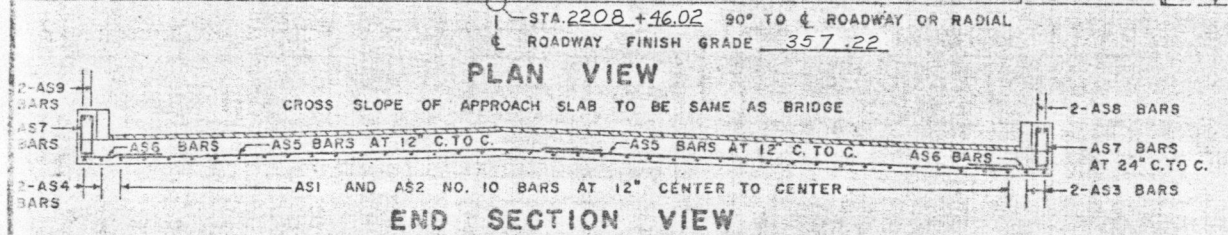
LOG STA. 2207+81.34 NB

SCALE AS NOTED

DESIGNED BY AGC CHECKED BY AV

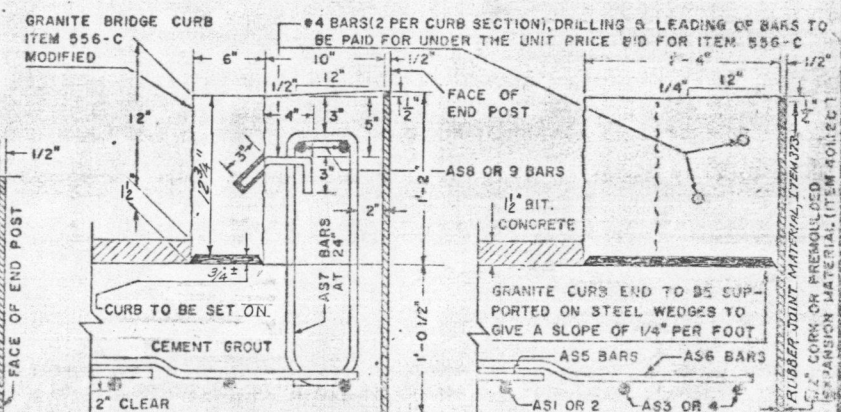
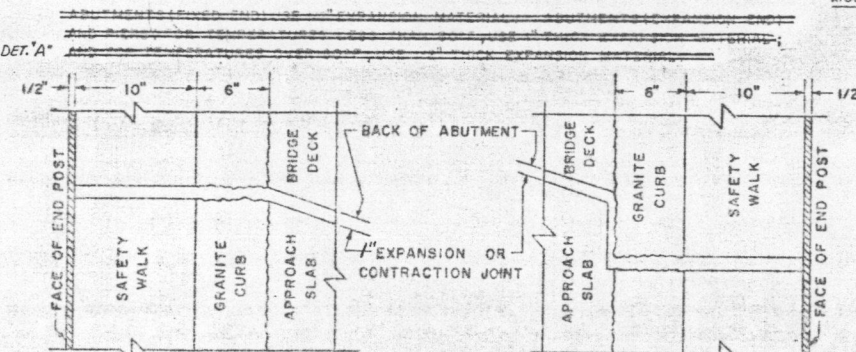
PROJECT NO. 1-91-1(19) CONT. 3

BR. 73 OF SHEET 102-A OF 141



REMARKS: ① AS1 BAR "B" DIMENSION VARIES FROM 19'-6" TO 20'-0". ② 20 + DIMENSION ("P" L) + 4 (IN FEET) = NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. ③ 40 + DIMENSION ("P" L) + 2 (IN FEET) = NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. ④ THE LENGTH OF AS2 BARS VARIES FROM 4'-5" TO 17'-10". THE AS2 BARS MAY BE DIVIDED INTO TWO OR MORE PIECES, AS MAY BE NECESSARY, TO LIMIT THE MAXIMUM BAR LENGTH TO 30 FEET. THE LOCATION OF SPLICES IS LEFT TO THE OPTION OF THE DESIGNER. THE NO. PIECES SHOWN ARE FOR CONDITION 1. (FOR CONDITION 2 & 3. SEE REINF. SCHEDULE.)

GENERAL NOTES: ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. WHEN A BAR LENGTH VARIES IN INCREMENTS EACH BAR MUST BE DETAILED. SPLICES SHALL BE 2'-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 1961. DESIGNED FOR H20-S16-44.



DETAILS OF REINFORCING BARS					REINFORCING STEEL					QUANTITY COMPUTATION					
TYPE I		TYPE S6 C													
A = 1'-1" J = 0'-9"		A = 0'-6"								W = WIDTH OF ROADWAY Z = 20 + DIMENSION $\frac{P+L}{4}$ T = DIMENSION $\frac{M+R}{2}$					
B = 19'-6" OR VARIES		B = 1'-9"								W = <u>38</u> Z = <u>26.75</u> T = <u>12.12</u>					
A J B		B D A G								BITUMINOUS CONCRETE = W x Z x 0.0092 = TONS <u>38 x 26.75 x 0.0092 = 10.4</u> TONS					
		C = 0'-6"								TAR EMULSION = W x Z x 0.0444 = GALLONS <u>38 x 26.75 x 0.0444 = 45.1</u> GALLONS					
		D = 1'-9"								CONCRETE CLASS B = W x Z x 0.0366 + T x 0.1029 + (T - 1.8333) x 0.0733 = CUBIC YARDS					
		G = 0'-6"								[<u>38 x 26.75 x 0.0366</u>] + [<u>12.12 x 0.1029</u>] + [<u>(12.12 - 1.8333) x 0.0733</u>] = <u>4.12</u> CUBIC YARDS					
										GRANITE BRIDGE CURB = 2(T + 0'-3") = LINEAR FEET 2(12.12 + 0.25) = <u>24.5</u> LINEAR FEET					
ITEM NO.	ITEM	UNIT	NET		FINAL						BAR LENGTHS: AS3 BARS = DIMENSION "M" - 0'-6"				
318	TAR EMULSION FOR BRIDGE FLOORS	GAL.	45								AS4 BARS = DIMENSION "R" - 0'-6"				
361-B	BITUMINOUS CONCRETE PAVEMENT (MOD.)	TONS	9								AS6 BARS = 3'-6"				
401-S	CONCRETE CLASS B (MOD.)	CY.	41.1		41						AS7 BARS = 5'-0"				
402	REINFORCING STEEL	LB.	6685		6690						AS8 BARS = DIMENSION "M" - 2'-2"				
556-C	GRANITE BRIDGE CURB (MOD.)	LF.	25V		25						AS9 BARS = DIMENSION "R" - 2'-2"				
						TOTAL WEIGHT = 6687.7									

DETAILS OF APPROACH SLAB
FOR 38 FOOT BRIDGE
(WIDTH)

TO BE USED FOR BRIDGE AT STATION 2207 + 81.34 NB
LOCATION Springfield Terminal Railroad
Approach Slab No 2

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
STANDARD STRUCTURE

SB-AS-60

TOWN OF SPRINGFIELD
ROUTE NO. I 91
LOG STA. 2207 + 81.34 NB
SCALE AS NOTED
DESIGNED BY AGC CHECKED BY W
PROJECT NO. I-91-1(19) CONF 3
BR. 74 OF _____ SHEET 102-8 OF 141

REVISIONS AND CORRECTIONS

Per. Joint Filler 6-23-61 VOL

APPROVED

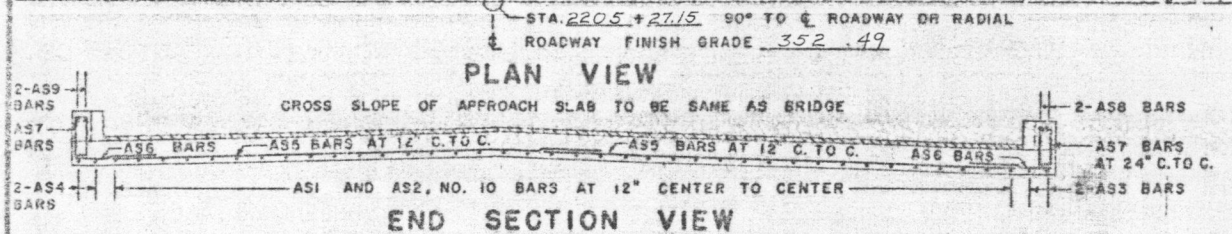
DRAWN BY: R.S. HAUPT NOV. 1960

TRACED BY: R.S. HAUPT NOV. 1960

CHECKED BY: A.H. SMALLEY NOV. 1960

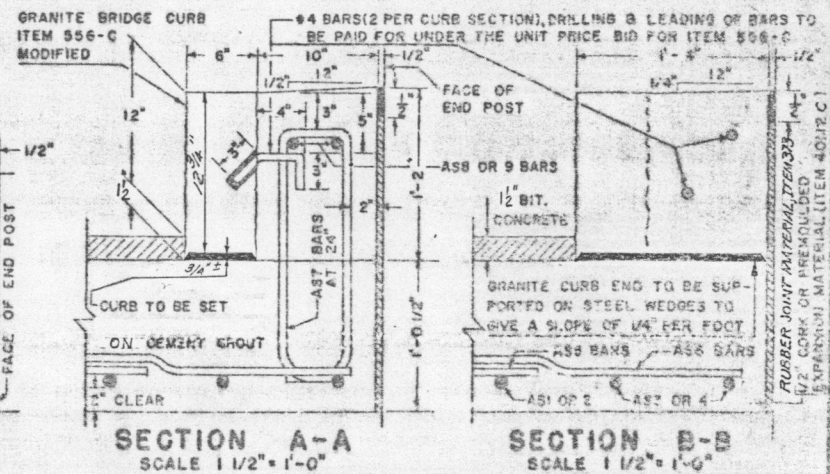
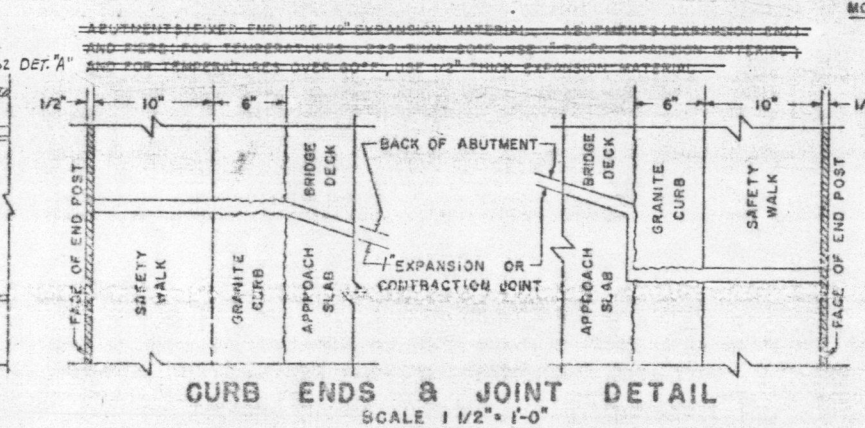
CORRECT : Nov 21, 1960 Sm Joins
BRIDGE ENGINEER

APPROVED : Nov 22, 1960 [Signature]
CHIEF ENGINEER



REMARKS: AS2 BAR 1/2" DIMENSION VARIES FROM 19'-6" TO 20' 0" DIMENSION (19'-11" + 4" (IN FEET) + NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. 40 + DIMENSION (19'-11" + 2 (IN FEET) + NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. THE LENGTH OF AS2 BARS VARIES FROM 19'-0" TO 20'-11". THE AS2 BARS MAY BE DIVIDED INTO TWO OR MORE PIECES, AS MAY BE NECESSARY, TO LIMIT THE MAXIMUM BAR LENGTH TO 30 FEET. THE LOCATION OF SPLICES IS LEFT TO THE OPTION OF THE DESIGNER. THE NO. PIECES SHOWN ARE FOR CONDITION 1 (FOR CONDITION 2 & 3. SEE REINF. SCHEDULE.)

GENERAL NOTES: ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. WHEN A BAR LENGTH VARIES IN INCREMENTS EACH BAR MUST BE DETAILED. SPLICES SHALL BE 2'-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 1961. DESIGNED FOR 120-SI-E-4.



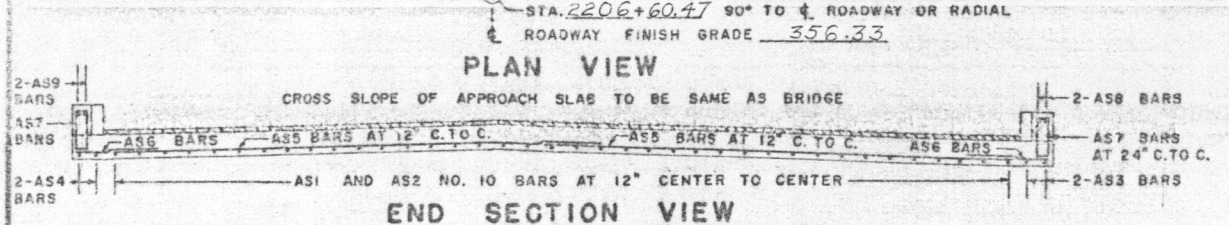
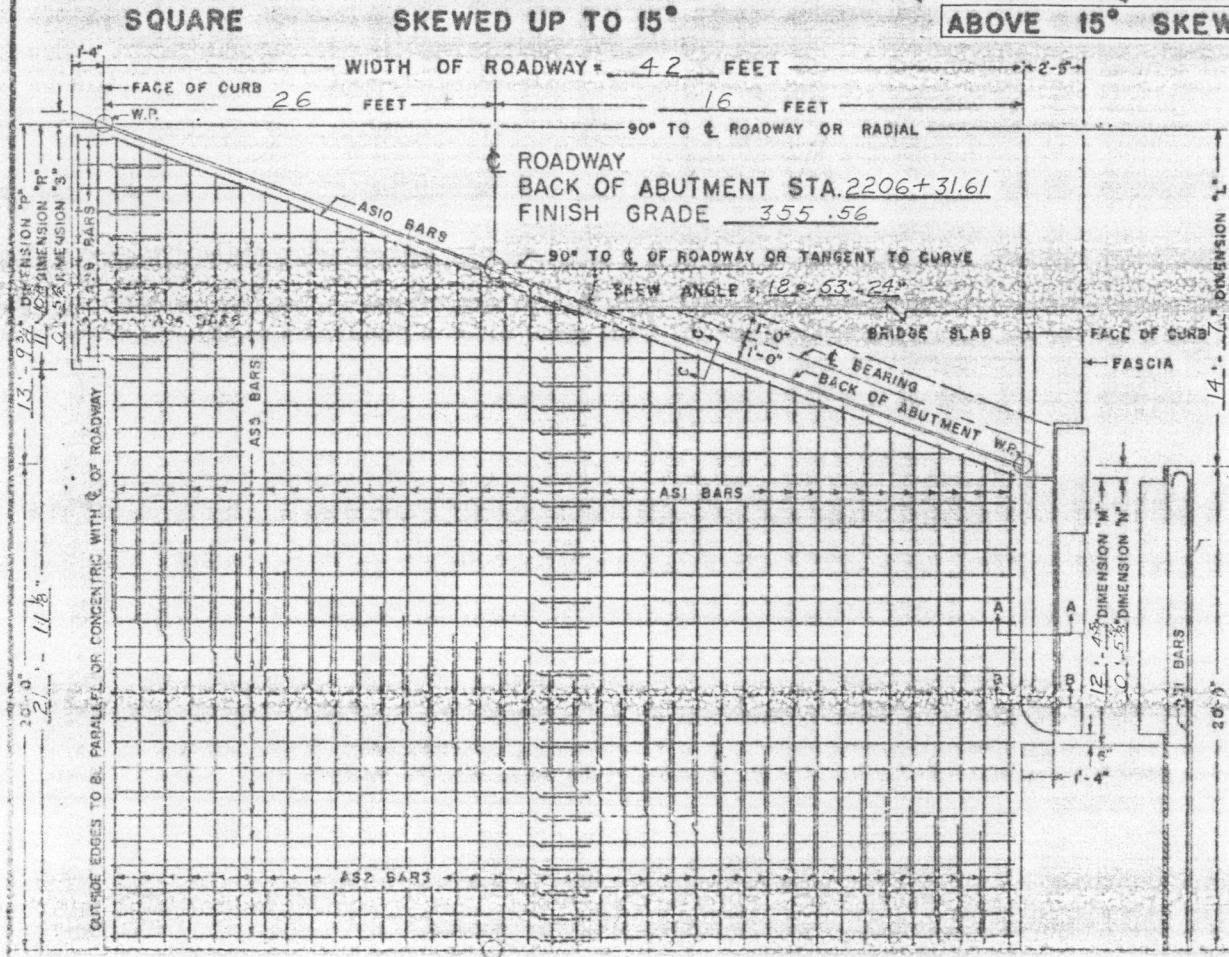
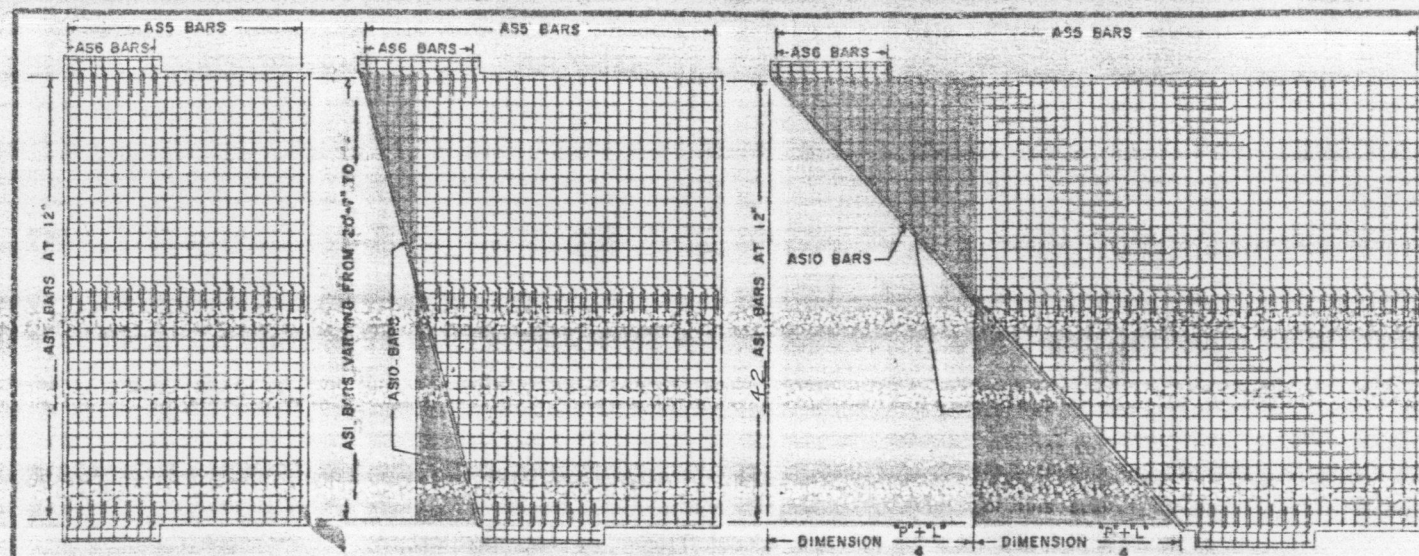
DETAILS OF REINFORCING BARS				REINFORCING STEEL				QUANTITY COMPUTATION			
TYPE I		TYPE S6 C		BAR NO.	A	B	C	A X B X C	W = WIDTH OF ROADWAY	Z = 20 + DIMENSION $\frac{W}{4} + \frac{L}{4}$	T = DIMENSION $\frac{W}{2} + \frac{R}{2}$
A = 1'-1"	J = C'-9"	A = 0'-6"	B = 1'-9"								
B = 19'-6" OR VARIES		C = 0'-6"		AS1	42	20.58	4.303	3719.3	BITUMINOUS CONCRETE = W x Z x 0.0012 = 10.9 TONS		
A		D		AS2	41	12.88	4.303	2272.3	TAR EMULSION = W x Z x 0.0444 = 52.7 GALLONS		
B		A G		AS3	2	11.83	4.303	101.8	CONCRETE CLASS B = W x Z x 0.0386 + T x 0.1029 + (T - 1.8333) x 0.0733 = 47.8 CUBIC YARDS		
J				AS4	2	11.33	4.303	97.5	[42 + 28.24 x 0.0386] + [12.1 x 0.1029] + [(12.1 - 1.8333) x 0.0733] = 47.8 CUBIC YARDS		
				AS5	57	21.75	1.043	1293.1	GRANITE BRIDGE CURB = (21 x 0'-5") x LINEAR FEET 21(2.1 + 0.25) = 24.7 LINEAR FEET		
ITEM NO.	ITEM	UNIT	NET	FINAL	AS6	AS7	AS8	AS9	AS10	BAR LENGTHS: AS3 BARS = DIMENSION "M" - 0'-8"	
316	TAR EMULSION FOR BRIDGE FLOORS	GAL.	53		25	3'-5"	1.043	91.3		AS4 BARS = DIMENSION "R" - 0'-6"	
361-B	BITUMINOUS CONCRETE PAVEMENT (MOD.)	TONS	11		14	5'-0"	1.043	73.0		AS6 BARS = 3'-6"	
401-B	CONCRETE CLASS B (MOD.)	CY.	48.1	49	2	10.17	1.043	21.2		AS7 BARS = 5'-0"	
402	REINFORCING STEEL	LB.	7740	7754	2	9.67	1.043	20.2		AS8 BARS = DIMENSION "M" - 2'-2"	
556-C	GRANITE BRIDGE CURB (MOD.)	LF.	251	25	2	23.83	1.043	49.7		AS9 BARS = DIMENSION "R" - 2'-2"	
					TOTAL WEIGHT = 7739.4						

REVISIONS AND CORRECTIONS	APPROVED
	DRAWN BY: <u>R.S. HAUPT NOV. 1960</u>
	TRACED BY: <u>R.S. HAUPT NOV. 1960</u>
	CHECKED BY: <u>A.M. SMALLEY NOV. 1960</u>
	CORRECT : <u>Nov 21 1960</u> <i>Smalley</i> BRIDGE ENGINEER
	APPROVED : <u>Nov 23 1960</u> <i>[Signature]</i> CHIEF ENGINEER

DETAILS OF APPROACH SLAB
FOR 42 FOOT BRIDGE
(WIDTH)
TO BE USED FOR BRIDGE AT STATION 2205+94.61 S.B.
LOCATION Springfield Terminal Railroad
Approach Slab No 3

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

TOWN OF SPRINGFIELD
ROUTE NO. 191
LOG STA. 2205 + 94.61 SB
SCALE AS NOTED
DESIGNED BY AGC CHECKED BY W
PROJECT NO. I-91-1(19) CON. 3
BR. 75 OF 18 SHEET 102 OF 141



REVISIONS AND CORRECTIONS

APPROVED

DRAWN BY: R.S. HAUPT NOV. 1960

TRACED BY: R.S. HAUPT NOV. 1960

CHECKED BY: A.H. SMALLEY NOV. 1960

CORRECT: Nov 21, 1960 *Am J*

BRIDGE ENGINEER

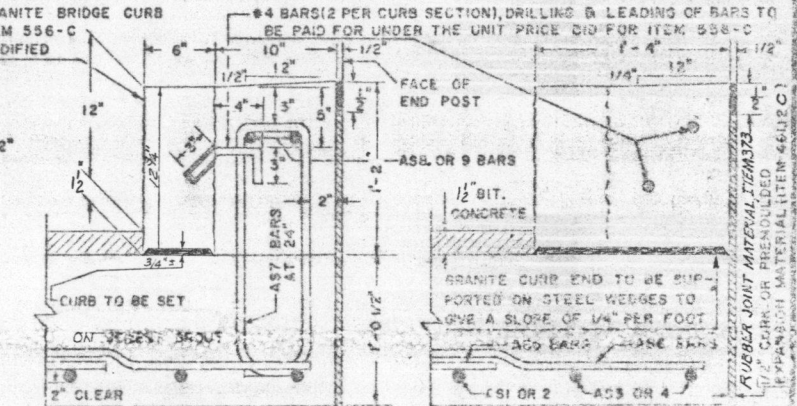
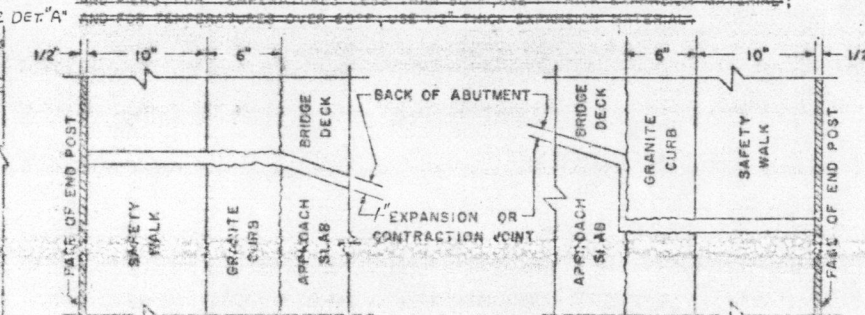
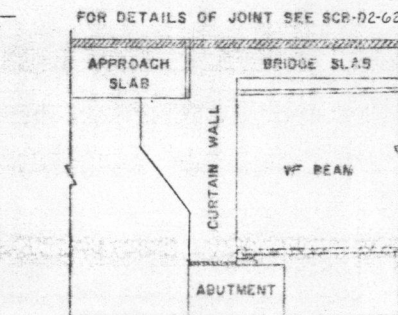
APPROVED: Nov 22, 1960 *W.D.*

CHIEF ENGINEER

30' ROADWAY					36' ROADWAY					42' ROADWAY					44' ROADWAY					ROADWAY				
NO.	PIECES	SIZE	LENGTH	MARK	NO.	PIECES	SIZE	LENGTH	MARK	NO.	PIECES	SIZE	LENGTH	MARK	NO.	PIECES	SIZE	LENGTH	MARK	NO.	PIECES	SIZE	LENGTH	MARK
SQUARE OR SKEWED					SQUARE OR SKEWED					SQUARE OR SKEWED					SQUARE OR SKEWED					SQUARE OR SKEWED				
2	10			AS3 STR.	2	10			AS3 STR.	2	10	11-10		AS3 STR.	2	10			AS3 STR.	2	10			AS3 STR.
2	10			AS4 STR.	2	10			AS4 STR.	2	10	11-5		AS4 STR.	2	10			AS4 STR.	2	10			AS4 STR.
5	3-6"			AS6 STR.	5	3-6"			AS6 STR.	25	5	3-6"		AS6 STR.	5	3-6"			AS6 STR.	5	3-6"			AS6 STR.
5	5-0"			AS7 S6	5	5-0"			AS7 S6	12	5	5-0"		AS7 S6	5	5-0"			AS7 S6	5	5-0"			AS7 S6
2	5			AS8 STR.	2	5			AS8 STR.	2	5	10-2		AS8 STR.	2	5			AS8 STR.	2	5			AS8 STR.
2	5			AS9 STR.	2	5			AS9 STR.	2	5	9-9		AS9 STR.	2	5			AS9 STR.	2	5			AS9 STR.
SQUARE					SQUARE					SQUARE					SQUARE					SQUARE				
30	10	20'-7"		AS1 I	38	10	20'-7"		AS1 I	42	10	20'-7"		AS1 I	44	10	20'-7"		AS1 I	10	20'-7"			AS1 I
20	5	20'-6"		AS5 STR.	40	5	19'-8"		AS5 STR.	40	5	21'-8"		AS5 STR.	40	5	22'-8"		AS5 STR.	5	20'-7"			AS5 STR.
SKEWED UP TO 15°					SKEWED UP TO 15°					SKEWED UP TO 15°					SKEWED UP TO 15°					SKEWED UP TO 15°				
30	10	AVE.	AS1 I	1.	38	10	AVE.	AS1 I	1.	42	10	AVE.	AS1 I	1.	44	10	AVE.	AS1 I	1.	10	AVE.	AS1 I	1.	1.
5	29'-6"		AS5 STR.	2.	5	19'-9"		AS5 STR.	3.	5	21'-9"		AS5 STR.	3.	5	22'-9"		AS5 STR.	3.	5	20'-7"			AS5 STR.
ALL SKEWED SPANS					ALL SKEWED SPANS					ALL SKEWED SPANS					ALL SKEWED SPANS					ALL SKEWED SPANS				
2	5			AS10 STR.	5				AS10 STR.	2	5	23-4		AS10 STR.	5				AS10 STR.	5				AS10 STR.
ABOVE 15° SKEW					ABOVE 15° SKEW					ABOVE 15° SKEW					ABOVE 15° SKEW					ABOVE 15° SKEW				
30	10	20'-7"		AS1 I	38	10	20'-7"		AS1 I	42	10	20'-7"		AS1 I	44	10	20'-7"		AS1 I	10	20'-7"			AS1 I
29	10	AVE.	AS2 STR.	4.	37	10	AVE.	AS2 STR.	4.	41	10	11-2	AVE.	AS2 STR.	4.	43	10	AVE.	AS2 STR.	4.	10	AVE.	AS2 STR.	4.
5	29'-6"		AS5 STR.	5.	5	19'-5"		AS5 STR.	3.	5	21'-9"		AS5 STR.	3.	5	22'-9"		AS5 STR.	3.	5	20'-7"			AS5 STR.

REMARKS: ① ASI BAR "B" DIMENSION VARIES FROM 19'-6" TO 20'-7". ② 20' + DIMENSION (P+L) + 4 (IN FEET) = NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. ③ 40' + DIMENSION (P+L) + 2 (IN FEET) = NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. ④ THE LENGTH OF AS2 BARS VARIES FROM 4'-5" TO 12'-0". THE AS2 BARS MAY BE DIVIDED INTO TWO OR MORE PIECES, AS MAY BE NECESSARY, TO LIMIT THE MAXIMUM BAR LENGTH TO 30 FEET. THE LOCATION OF SPLICES IS LEFT TO THE OPTION OF THE DESIGNER. THE NO. PIECES SHOWN ARE FOR CONDITION 1. (FOR CONDITION 2 & 3, SEE REINF. SCHEDULE.)

GENERAL NOTES: ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. WHEN A BAR LENGTH VARIES IN INCREMENTS EACH BAR MUST BE DETAILED. SPLICES SHALL BE 2'-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 1955, AND THE A.A.S.H.O. SPECIFICATIONS DATED 1961. DESIGNED FOR H20-S16-44.



DETAILS OF REINFORCING BARS					REINFORCING STEEL				
TYPE I					TYPE SS C				
A = 1'-1"					A = 0'-6"				
B = 19'-6" OR VARIES					B = 1'-8"				
A					C = 0'-6"				
B					D = 1'-9"				
CTJ					G = 0'-6"				
ITEM NO.	ITEM	UNIT	NET	FINAL	BAR NO.	NO.	LENGTH	WEIGHT PER FT.	WEIGHT IN LBS.
318	TAR EMULSION FOR BRIDGE FLOORS	GAL.	51		AS1	42	20.58	4.303	3719.3
361-B	BITUMINOUS CONCRETE PAVEMENT (MOD.)	TONS	H		AS2	41	11.21	4.303	1977.7
401-B	CONCRETE CLASS B (MOD.)	CY.	46.1	46	AS3	2	11.83	4.303	101.8
402	REINFORCING STEEL	LB.	7339	7339	AS4	2	11.42	4.303	98.3
556-C	GRANITE BRIDGE CURB (MOD.)	LF.	25.1	25	AS5	55	21.75	1.043	1247.7
					AS6	25	3'-6"	1.043	91.3
					AS7	12	5'-0"	1.043	62.6
					AS8	2	10.17	1.043	21.2
					AS9	2	9.75	1.043	20.3
					AS10	2	23.33	1.043	48.7
					TOTAL WEIGHT = 7388.9				

QUANTITY COMPUTATION				
W = WIDTH OF ROADWAY = 42				
Z = 20 + DIMENSION (P+L) + 4 = 27.1				
T = DIMENSION "M" + "R" = 12.14				
BITUMINOUS CONCRETE = W x Z x 0.0072 = 42 x 27.1 x 0.0072 = 7.8 TONS				
TAR EMULSION = W x Z x 0.0444 = 42 x 27.1 x 0.0444 = 50.5 GALLONS				
CONCRETE CLASS B = W x Z x 0.0386 + T x 0.1029 + (1 - 1.8333) x 0.0733 = 45.9 CUBIC YARDS				
[42 x 27.1 x 0.0386] + [12.14 x 0.1029] + [(12.14 - 1.8333) x 0.0733] = 45.9 CUBIC YARDS				
GRANITE BRIDGE CURB = 2(T + 0'-3") x LINEAR FEET = 2(12.14 + 0.25) x 24.82 = 1247.7				
BAR LENGTHS: AS1 BARS = DIMENSION "M" - 0'-6"				
AS4 BARS = DIMENSION "R" - 0'-6"				
AS6 BARS = 3'-6"				
AS7 BARS = 5'-0"				
AS8 BARS = DIMENSION "M" - 2'-2"				
AS9 BARS = DIMENSION "R" - 2'-2"				

DETAILS OF APPROACH SLAB FOR 42 FOOT BRIDGE

TO BE USED FOR BRIDGE AT STATION 2205+94.61 SB

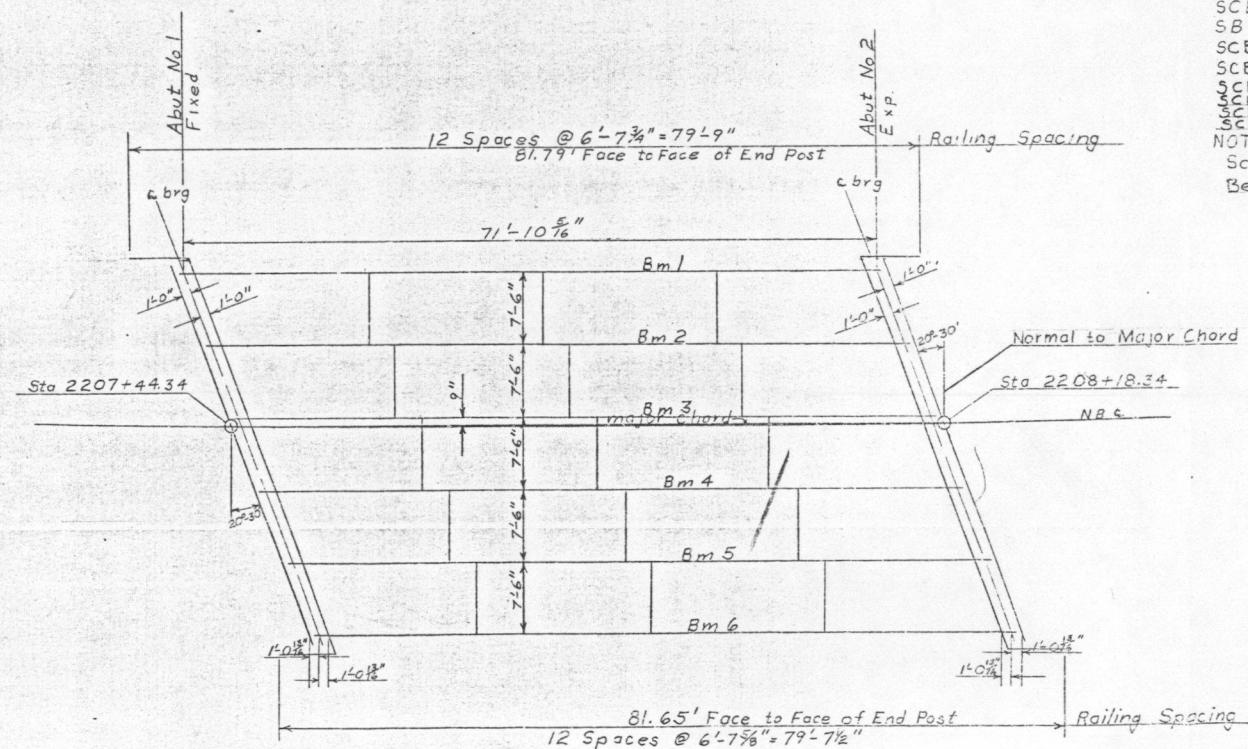
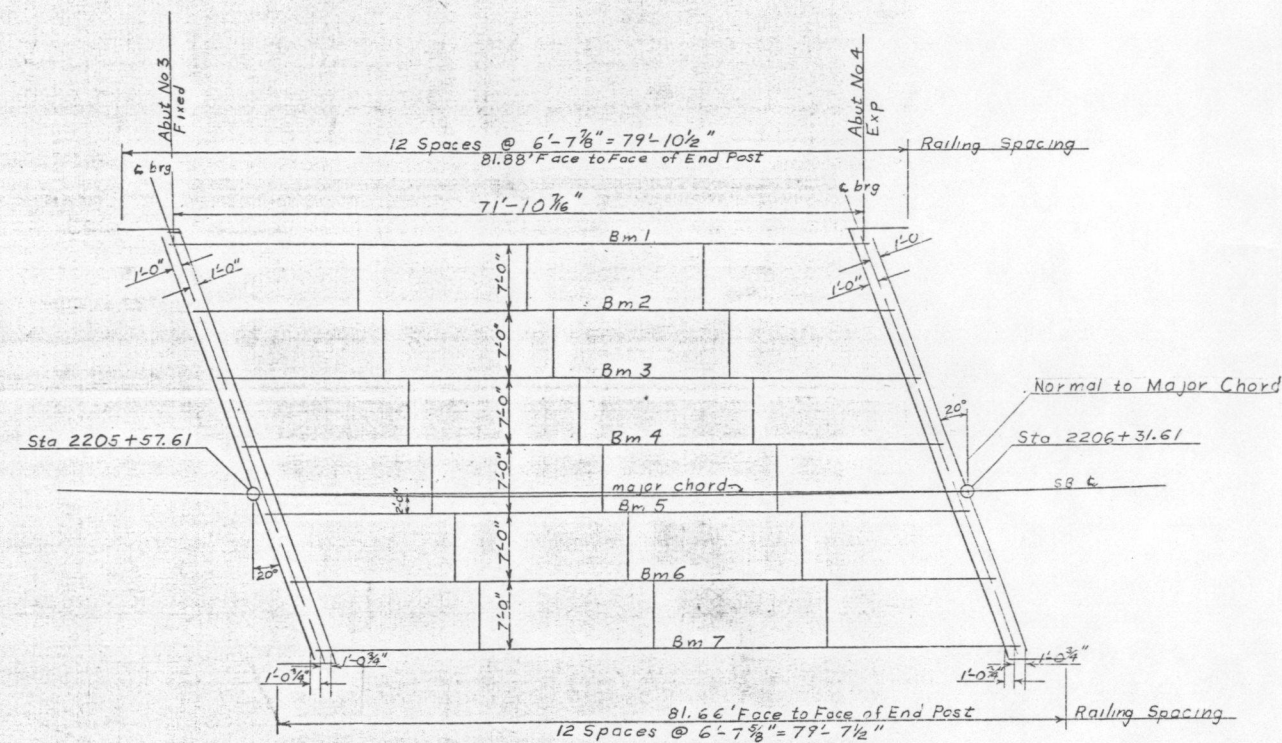
LOCATION Springfield Terminal Railroad

Approach Slab No 4

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

TOWN OF SPRINGFIELD
ROUTE NO. I-91
LOG STA. 2205+94.61 SB
SCALE AS NOTED
DESIGNED BY AGC CHECKED BY X
PROJECT NO. I-91-1(19) CONT. 3
BR. 76 OF SHEET 102-DOF 141

I91 BR 27N+S



FOR SUPERSTRUCTURE DETAILS

See Standard Sheets

SCB-D1-62

SCB-38-62

SCB-42-62

SB-50-62, Sheets 1-2.

SCB-D6-62

SCB-D2-62

SCB-D8-62

SCB-D4-62

NOTE:

Scuppers to be omitted.

Beam haunch to be 1 1/2" instead of 1".

SUPERSTRUCTURE QUANTITIES

* QUANTITY IS NOT INCLUDED IN CONTRACT #3			NB. BRIDGE		SB. BRIDGE	
ITEM NO.	ITEM	UNIT	NET	FINAL	NET	FINAL
106-A	CHAN. EXCAV. OF EARTH	C. Y.				
106-B	CHAN. EXCAV. OF ROCK	C. Y.				
106-C	UNCLAS. CHAN. EXCAV.	C. Y.				
107	STRUCT. EXCAV.	C. Y.				
401-AA	CONC. CLASS AA (MOD. 1)	C. Y.	108V	108	117	116
402	REINF. STEEL	LBS.	See Reinforcing Steel Schedule			
407	ASPHALTIC-ASB. COATING	S. Y.				
502-B	TREATED TIMBER PILING	L. F.				
373	RUBBER JOINT MATERIAL	L. F.	152	152	160	160
204	SUB-BASE OF CRUSHED ROCK MOD. UNDER STR.	CY	54	54	57	57
*318	TAR EMULSION FOR BRIDGE FLOORS	GAL	125		138	
*361B	BITUMINOUS CONCRETE PAVEMENT (MOD.)	TON	30		33	
*372-A	JOINT SEALER - HOT POURED	L. F.	81		90	
403	SPIRAL REINFORCEMENT (2" x 50" x 8')	L. S.	1/2 V	1/2	1/2 V	1/2
404-A	STRUCTURAL STEEL	LB	44,118	25,774	403,111	122,933
556C	GRANITE BRIDGE CURB (MOD.)	LF	149 V	149	149 V	149
372	BRIDGE RAILING	LF	162.5	162.5	162.5	162.5

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF SPRINGFIELD
ROAD NO. 191 BRIDGE NO.
SPRINGFIELD TERM. R R
FRAMING PLAN

SCALE 1" = 10'

SURVEYED BY

DRAWN BY AGC CHECKED BY AV

PROJECT NO. I-91-1(19) CONT. 3

SHEET 100 OF 141