INDEX OF SHEETS

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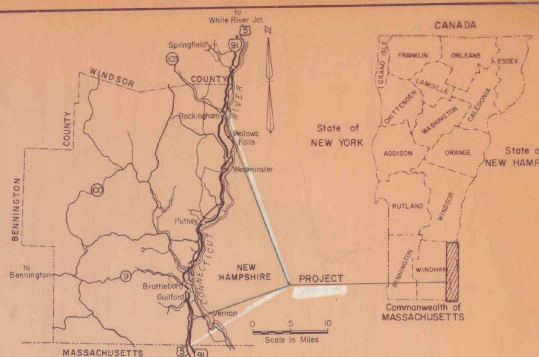
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

RECORD PLANS-MATERIAL SUPPLIERS

CONTRACTOR-AMERICAN BRIDGE RAILING CORP., LYNN, MASS. CONTRACT DATED-3 OCTOBER 1979
CONSTRUCTION BEGAN-2 JANUARY 1979 COMPLETED-9 AUGUST 1979 ACCEPTED-23 AUGUST 1979
RESIDENT ENGINEER-FREDERICK W. ROSS III RECORD PLANS-PAUL E. SINGLETON
1 1/4" GALVANIZE PIPE-AMERICAN BRIDGE RAILING CORP., LYNN, MASS.
JOINT SEALER POLYURETANE-SONNEBORN BUILDING PRODUCTS, MINNEAPOLIS, MINN.
PREFORMED FABRIC MATERIAL-B.F.GOODRICH ENGINEERING PRODUCTS CO., AKRON, OHIO
DRAIN TROUGH SUPPORTS-CONCORD STEEL CORP., EVERETT, MASS.
PAINT-CADILAC PAINT AND VARNISH CO. INC., ALLSTON, MASS.

NOTE: ANY FURTHER INFORMATION CONCERNING FINAL QUANTITIES, AMOUNTS OR OTHER DETAILS RELATIVE TO THIS PROJECT MAY BE FOUND IN EITHER THE FIELD BOOKS OR THE ESTIMATE FILE.

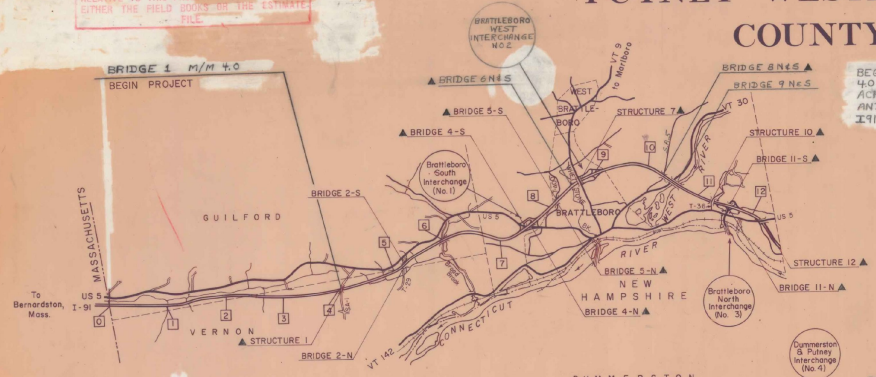
PROPOSED IMPROVEMENT
TOWNS OF
VERNON - BRATTLEBORO -
PUTNEY - WESTMINSTER - ROCKINGHAM
COUNTY OF WINDHAM

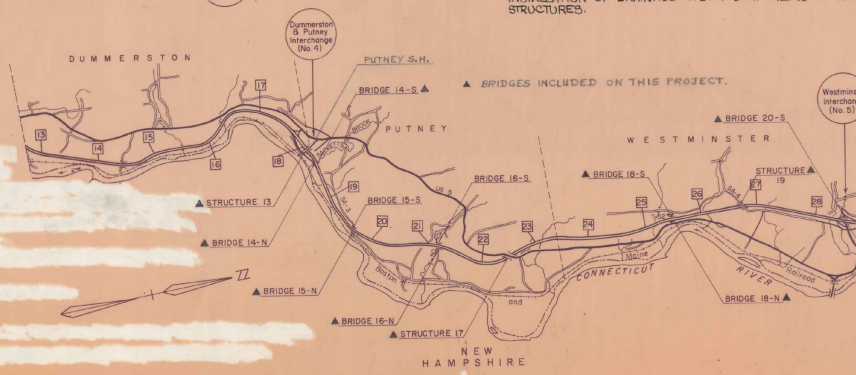


BEGINNING AT BRIDGE #1 ON I91 4.0 MILES NORTHERLY OF THE MASSACHUSETTS-VERMONT STATE LINE AND EXTENDING NORTHERLY ALONG I91 TO INCLUDE BRIDGE 23 S&N AT M/M 35.2

	Mass. Border to Interchange No. 1	Interchange No. 1 to No. 2	Interchange No. 2 to No. 3	Interchange No. 3 to No. 4	Interchange No. 4 to No. 5	Interchange No. 5 to No. 6
1975 ADT	10,025	9,385	11,465	8,435	7,570	6,500
1975 DHV	1,160	1,110	1,270	1,020	930	820
D	51 %	51 %	51 %	51 %	51 %	51 %
T	7 %	7 %	7 %	7 %	7 %	7 %

PROJECT DESCRIPTION: THIS PROJECT SHALL CONSIST OF THE INSTALLATION OF DRAINAGE SYSTEMS AT PIERS ON INDICATED STRUCTURES.





▲ BRIDGES INCLUDED ON THIS PROJECT.

SCALE IN MILES 0 0.5 1 2 3

CONVENTIONAL SIGNS

COUNTY LINE
TOWN LINE
LIMITS OF ACCESS
POINT OF ACCESS
FENCE LINE
STONE WALL
TRAVELED WAY
GUARD RAIL
RAILROAD
SURVEY LINE
CULVERT
POWER POLE
TELEPHONE POLE
TREES
F.A. CONST IDENTIFICATION SIGNS
PROPERTY LINE
R.O.W. TAKING LINE
SLOPE RIGHTS
TOP OF CUT
TOE OF SLOPE
MILE MARKER

These plans are subject to such engineering changes as may be required by the Federal Highway Administration or the Chief Engineer.
Construction is to be carried on in accordance with these plans and the Standard Specifications for Highway and Bridge Construction dated MARCH 1976 as approved by the Federal Highway Administration on OCT. 27, 1976 for use on this project, including all subsequent revisions and such revised specification and special provisions as are incorporated in these plans.

SUBMITTED BY ORDER OF THE STATE HIGHWAY BOARD
APPROVED A.J. Gage DATE 6-15-78
CHIEF ENGINEER

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED _____ DATE _____
DIVISION ENGINEER

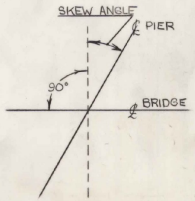
PROJECT NO. VERNON-ROCKINGHAM IR-91-1(3)
SHEET 1 OF 32 SHEETS

D-10 SRS 12/17/70

BRIDGE NO.	TOWN	DESCRIPTION	MILEAGE (SEE NOTE NO. 4 BELOW)	SKEW ∠ (SEE DETAIL BELOW)	DECK WIDTH CURB TO CURB	CURB WIDTH	REFERENCE STANDARD Dwg. FOR EXISTING EXPANSION JOINT	BEAM SPACING	EST. LENGTH OF NEW DRAIN TROUGH	NO. OF NEW DRAIN TROUGHS	EST. TOTAL LENGTH OF NEW TROUGH PER BRIDGE	EST. WIDTH OF NEW FABRIC FOR TROUGH	DIRECTION OF FLOW IN TROUGH	EXTERIOR BEAM END PLATES TO BE REMOVED (SEE SHEET NO. 4)	TYPE OF PIER DIAPHRAM	REMARKS
1	VERNON	S.A.#1 OVER I91	4.0	28°	30'	2-2'-5	SB-20-56	6'-0	40'	3	120'	16"	LT.	6	CONCRETE	CHECK WALLS ON PIERS.
4N	BRATTLEBORO	I91 OVER US 5	7.5	41°	30'	↑	SCB-30-56	7'-6	47'	1	40'	↑	LT.	2	↑	
4S	"	" " "	7.5	41°	44'		" " "	7'-6	65'	1	65'		LT.	2		
5N	"	I91 OVER MAPLE ST.	8.2	17°	42'		SCB-42-56	7'-0	49'	2	98'		LT.	4		
5S	"	" " " "	8.2	20°	42'		" " "	7'-0	50'	2	100'		LT.	4		
6N	"	I91 OVER WILLIAMS ST.	8.6	10°	30'		SCB-30-56	7'-6	36'	4	144'	↓	RT.	8		
6S	"	" " " "	8.6	5°	30'	2-2'-5	" " "	7'-6	36'	4	144'	16"	RT.	8		
7	"	VT 9 OVER I91	8.7	0°	64'	2-2'-5 VAR. MED.	SCB-42-56	7'-3	78	1	78'	16 TO 36"	RT. & LT.	2		1-PIPE IN 3RD & 7TH BAY.
8N	"	I91 OVER SA 5	10.3	20°	42'	2-2'-5	" " "	7'-0	50	2	100'	16"	RT.	4		
8S	"	" " "	10.3	20°	42'	↑	" " "	7'-0	50	2	100'	16"	RT.	4		
10	"	TR 36 OVER I91	11.2	4°	30'		SCB-30-56	7'-6	43	3	129	16" TO 36"	RT. & LT.	6		2 PIPES IN 1ST BAY
11N	"	I91 OVER BRATTLEBORO S.H.	11.6	1°	42'		SCB-42-56	7'-0	47	2	94	16" TO 36"	RT & LT.	NONE		
11S	"	" " " "	11.6	1°	42'		" " "	7'-4	47	2	94	16" TO 36"	RT. & LT	↑		
12	BRATTLEBORO	US 5 OVER I91	12.2	33°	30'		SB-22-58	7'-6	42	3	126	16"	LT.			CONDUIT IN 4TH BAY
13	PUTNEY	PUTNEY S.H. OVER I91	18.2	17°	30'		↑	7'-6	37	3	111	↑	RT.			1 PIPE OUTSIDE RT FACIA BEAM
14N	"	I91 OVER SACKETTS BRK.	18.5	20°	30'			7'-6	38	2	76		LT.			
14S	"	" " " "	18.5	20°	30'			7'-6	38	2	76		LT.			
15N	"	I91 OVER S.A. 3	19.7	45°	30'			7'-6	50	4	200		LT.			
15S	"	" " "	19.7	45°	30'			7'-6	50	2	100		LT.			
16N	"	I91 OVER TH 50 & PUT. BRK.	21.3	0°	30'			7'-6	35	3	105		LT.			
16S	"	" " " " "	21.3	0°	30'			7'-6	35	3	105	↓	LT.			
17	PUTNEY	US 5 OVER I91	22.6	55°	30'			7'-6	61	3	183	16"	RT.			
18N	WESTMINSTER	I91 OVER TH 52	25.6	22°	42'			7'-0	51	2	102	16" TO 36"	RT & LT			
18S	"	" " " "	25.6	34°	42'			7'-0	57	2	114	16"	LT.			
19	"	SA 4 OVER I91	26.8	39°	30'			7'-6	45	3	135	↑	RT.			
20N	"	I91 OVER WESTMINSTER STATE HIGHWAY	28.6	28°	30'	↓	↓	7'-6	40	2	80	↓	LT.		↓	
20S	WESTMINSTER	" " " "	28.6	28°	30'	2-2'-5	SB-22-58	7'-6	40	2	80	16"	LT.		CONCRETE	
22N	ROCKINGHAM	I91 OVER TH 46	33.7	15°	38'	2-2'-8	SB-22-60	7'-6	45	2	90	16" TO 36"	RT & LT.		STEEL	SEE DETAILS SHEET NO. 5
23N	"	I91 OVER VT 103	35.2	16°	30'	2-2'-8	SB-22-56	7'-6	37	2	74	16"	LT.	↓	CONCRETE	
23S	ROCKINGHAM	" " " "	35.2	16°	42'	2-2'-8	SB-22-56	7'-0	50	2	100	16"	LT.	NONE	CONCRETE	
									TOTAL	71	3163		TOTAL	50		
										TOTAL	ROUNDING 37 3200					

NOTES

1. STATIONING FOR I91 IS ASSUMED TO RUN IN A NORTHERLY DIRECTION.
2. STATIONING FOR A STRUCTURE CROSSING OVER I91 IS ASSUMED TO RUN FROM EAST TO WEST.
3. BEAMS OR BAYS BETWEEN BEAMS ARE NUMBERED LEFT TO RIGHT. THE LEFT FACIA BEAM IS ASSUMED TO BE THE #1 BEAM.
4. MILEAGE NOTED FOR STRUCTURE IS MEASURED FROM THE MASSACHUSETTS-VERMONT LINE IN A NORTHERLY DIRECTION ALONG I91.
5. ESTIMATED LENGTH, WIDTH, AND DIRECTION OF FLOW FOR THE NEW FABRIC TROUGHS IS ONLY APPROXIMATE AND MAY BE CHANGED BY THE ENGINEER SO AS TO MEET EXISTING FIELD CONDITIONS.



SKEW ANGLE DETAIL

QUANTITIES

NO.	ITEM	UNIT	ORIGINAL	FINAL
506.80	DRAIN TROUGH	LF	3200	
637.10	MAINTENANCE OF TRAFFIC FOR BRIDGE PROJECTS	LS	1	

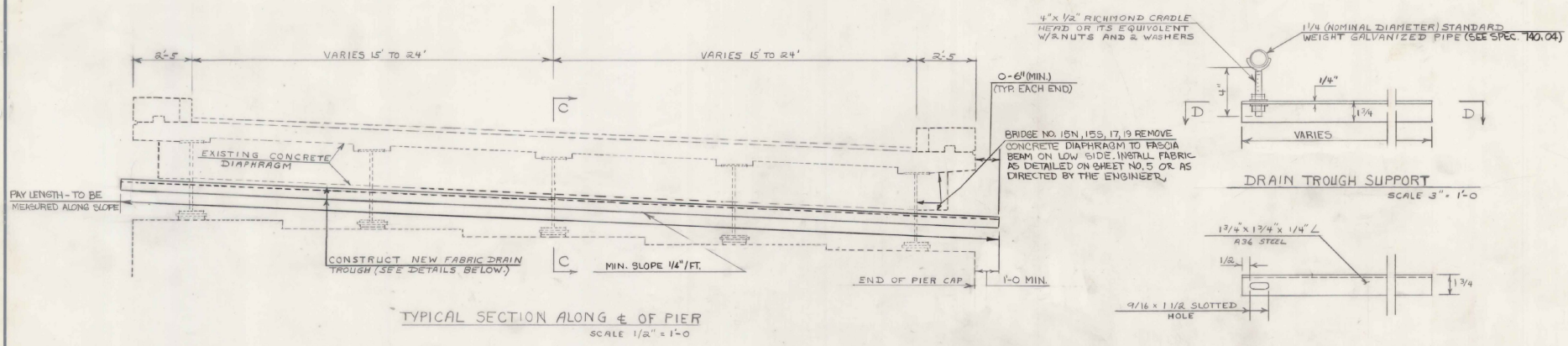
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF VERNON-ROCKINGHAM	Bridge No. VARIOUS
HIGHWAY NO. I91	Log Sta.
	Surv. Sta.

SUMMARY CHART OF STRUCTURES
RECEIVING NEW FABRIC DRAIN TROUGHS

Designed by D. PERKINS	Drawn by D. PERKINS & C. DUBRAY
Checked by D. E. LATHROP date 6/78	Bridge Design Supervisor W. TRIPP date 6/78
PROJECT VERNON-ROCKINGHAM	PROJECT NO. IR-91-1(3)
Bridge Sheet No.	Sheet 2 of 32

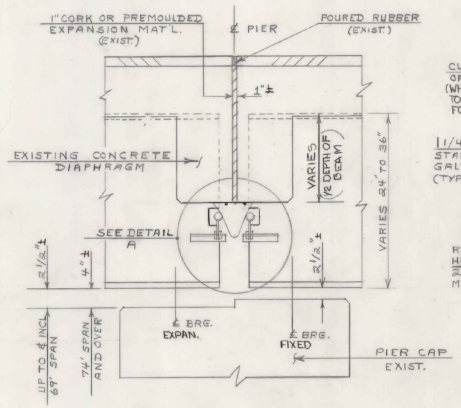
BR-9



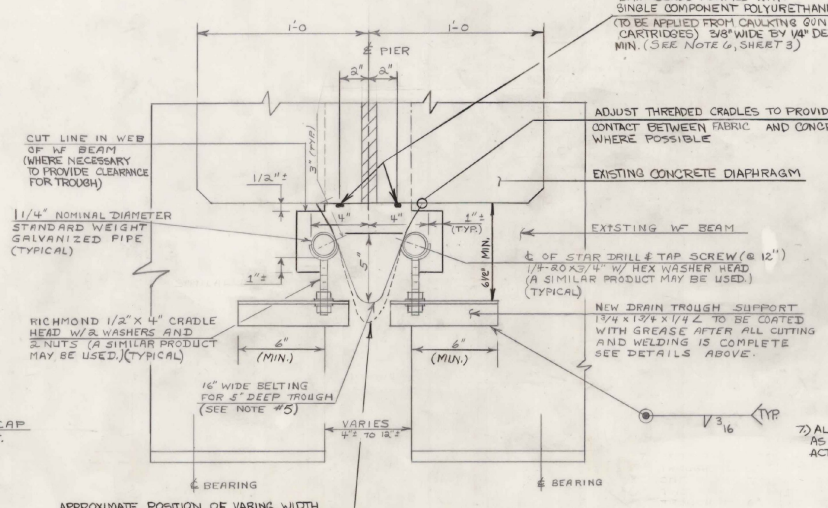
TYPICAL SECTION ALONG ℄ OF PIER
SCALE 1/2" = 1'-0

DRAIN TROUGH SUPPORT
SCALE 3" = 1'-0

VIEW D-D
SCALE 3" = 1'-0



VIEW C-C
SCALE-1" = 1'-0



DETAIL A
SCALE-3" = 1'-0

NOTES

1. THIS PROJECT CONSISTS MAINLY OF CONSTRUCTING FABRIC DRAIN TROUGHS AT THE PIER EXPANSION JOINTS OF THE BRIDGES DESIGNATED ON THE TITLE PAGE.
2. ALL EXISTING BITUMINOUS MATERIAL ON PIER CAPS WILL BE REMOVED AND ALL POCKETS OR WATER TRAPS WILL BE DAYLIGHTED TO THE EDGE OF THE PIER CAP.
3. ALL FOREIGN MATERIALS SUCH AS SAND, LOOSE CONCRETE, ETC ON THE PIER CAPS WHERE TROUGH WORK IS DONE WILL BE CLEANED OFF BY FLUSHING WITH WATER. PAYMENT FOR FLUSHING PIER CAP WILL BE INCLUDED IN THE UNIT BID PRICE FOR FABRIC DRAIN TROUGHS.
4) MAINTENANCE OF TRAFFIC FOR BRIDGE PROJECTS WILL BE NECESSARY ONLY DURING WORKING HOURS, ALL CONSTRUCTION RELATED ROADWAY OBSTRUCTIONS SHALL BE REMOVED AFTER EACH DAYS WORK.
5) FABRIC USED IN THE CONSTRUCTION OF THE DRAIN TROUGHS WILL BE A PREFORMED FABRIC MATERIAL AS SPECIFIED IN SECTION 707.13 (I SHALL BE ONE CONTINUOUS STRIP) THE NORMAL WIDTH OF FABRIC FOR A 5" DEEP TROUGH IS 16", HOWEVER, A VARYING WIDTH FABRIC MAY BE CALLED FOR BY THE ENGINEER IF DEEMED NECESSARY TO STEEPEN THE FLOW LINE GRADE. PAYMENT FOR FABRIC BELTING (ALL WIDTHS) AND THE INSTALLATION OF SAME SHALL BE INCLUDED IN THE UNIT BID PRICE FOR FABRIC DRAIN TROUGHS.
6) IF BOTTOM OF CONCRETE DIAPHRAGM HAS LOOSE OR BROKEN CONCRETE THE CONTRACTOR WILL REMOVE AND DISPOSE OF THESE SECTIONS. THEN WIRE BRUSH ENTIRE AREA SO THAT THE POLYURETHANE DRIP BEADS MAY BE PLACED ON REASONABLY SOUND CONCRETE. PAYMENT FOR THIS WORK WILL BE INCLUDED IN THE UNIT PRICE FOR FABRIC DRAIN TROUGHS.
7) ALL DETAILS ARE SUBJECT TO REVISIONS AS DIRECTED BY THE ENGINEER TO FIT ACTUAL FIELD CONDITIONS.

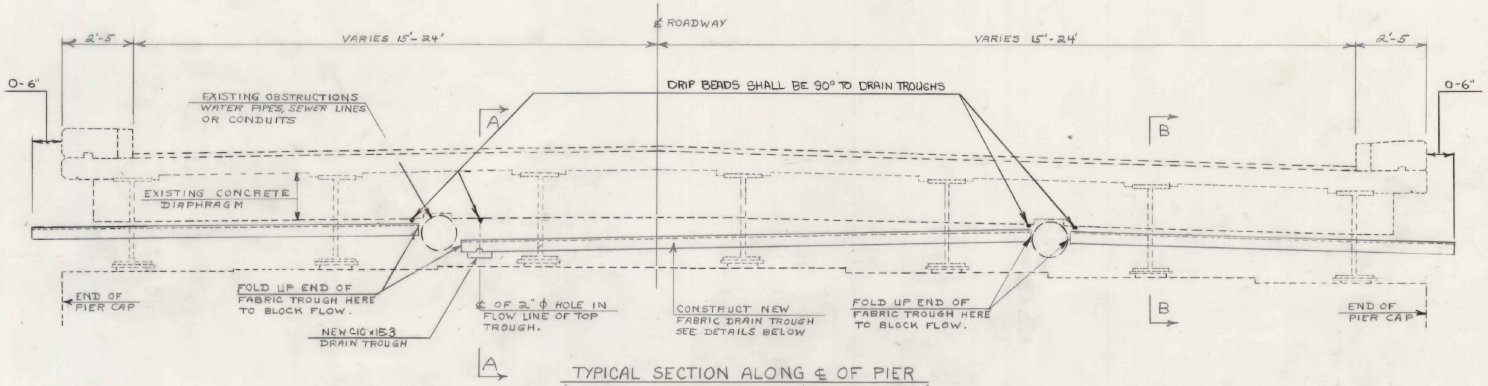
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF VERNON-ROCKINGHAM	Bridge No. VARIOUS
HIGHWAY NO. I 91	Log Sta.
	Surv. Sta.

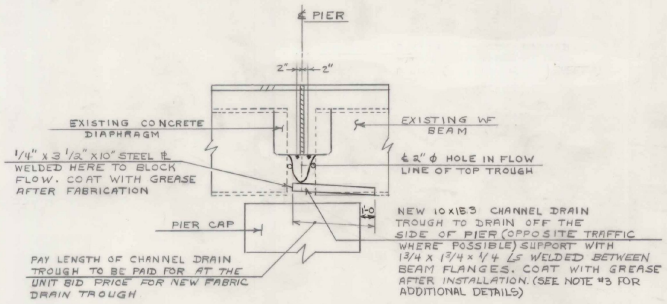
EXPANSION JOINT DRAIN TROUGH DETAILS

Designed by D. PERKINS	Drawn by D. PERKINS & G. DUBRAY
Checked by D.E. LATHROP date 6/78	Bridge Design Supervisor W. TRIPP date 6/78
PROJECT VERNON-ROCKINGHAM	PROJECT NO. IR-91-1(3)
Bridge Sheet No.	Sheet 3 of 32

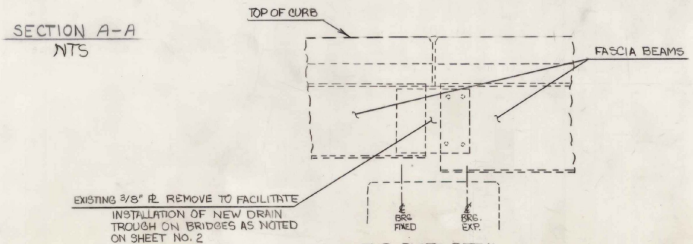
BR-9



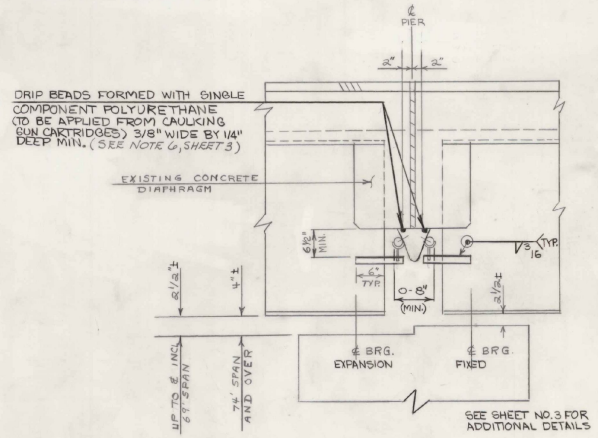
TYPICAL SECTION ALONG ℄ OF PIER
(NEW FABRIC DRAIN TROUGH W/ OBSTRUCTIONS)
(OBSTRUCTIONS APPEAR ON BRIDGES OVER INTERSTATE ONLY)



SECTION A-A
NTS



END PLATE DETAIL
NTS



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

NOTES

1. ALL NEW STEEL COMPONENTS USED IN CONSTRUCTING FABRIC DRAIN TROUGHS SHALL BE PAINTED AS SPECIFIED IN SECTION 513 OF STANDARD SPECIFICATIONS AND SPRAY COATED WITH ONE COAT OF GREASE. GREASE WILL BE AS SPECIFIED IN SPECIAL PROVISIONS.
2. IN LIEU OF WELDER CERTIFICATION, THE WELDER MAY BE APPROVED BY DEMONSTRATION TO THE ENGINEER OF HIS ABILITY TO PERFORM SATISFACTORY WELDING.
3. THE NEW 10 X 15.3 CHANNEL SHALL BE USED TO DRAIN WATER OFF THE SIDE OF THE PIERS WHEN AN OBSTRUCTION TO THE MAIN FABRIC TROUGH IS ENCOUNTERED. THE CHANNEL MAY BE SUPPORTED BY SHORT LEGS SETTING ON THE CONCRETE PIER CAP, HOWEVER, IT SHOULD ALSO BE ATTACHED TO WF BEAM FLANGES IN SUCH A MANNER AS TO HOLD THE CHANNEL FIRMLY IN POSITION. PAYMENT FOR CHANNEL TROUGH (MATERIALS AND INSTALLATION) WILL BE AT THE SAME UNIT PRICE AS THE FABRIC DRAIN TROUGH.
4. BRIDGES #1, #7 #10, #12, & #18 AS SHOWN ON THE TITLE SHEET HAVE PIPES, CONDUITS, OR CONCRETE PIER CHEEK WALLS THAT WILL OBSTRUCT A CONTINUOUS FABRIC DRAIN TROUGH, THEREFORE, IT WILL BE NECESSARY TO TREAT THESE PIER EXPANSION JOINTS SIMILAR TO THE DETAILS SHOWN ON THIS SHEET.
5. ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A-36 EXCEPT AS NOTED.

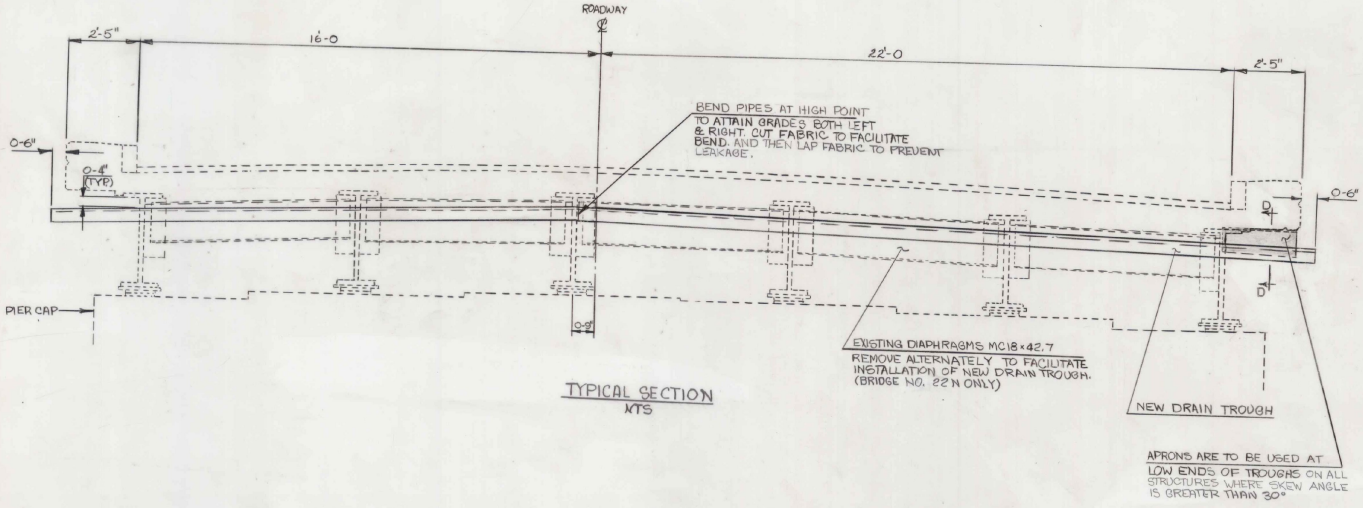
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF VERNON - ROCKINGHAM	Bridge No. VARIOUS
HIGHWAY NO. I 91	Log Sta.
	Surv. Sta.

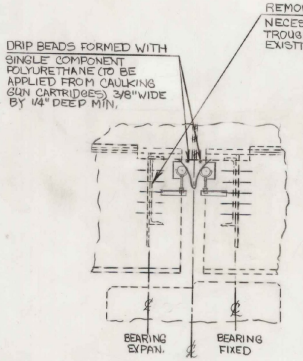
EXPANSION JOINT DRAIN TROUGH DETAILS

Designed by D. PERKINS	Drawn by D. PERKINS
Checked by D.E. LATHROP date 6/78	Bridge Design Supervisor W. TRIPP date 6/78
PROJECT VERNON-ROCKINGHAM	PROJECT NO. IR-91-1(3)
Bridge Sheet No.	Sheet 4 of 32

BR-9

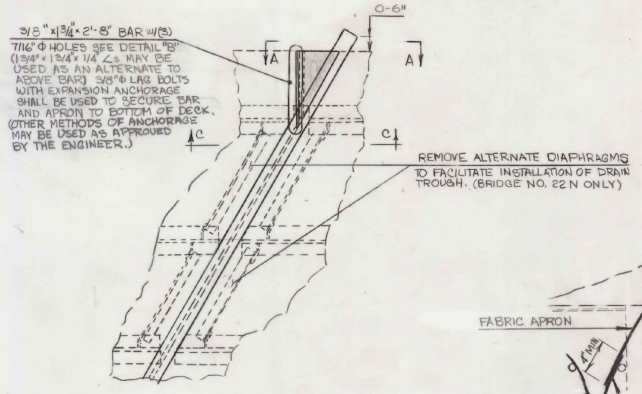


TYPICAL SECTION
NTS

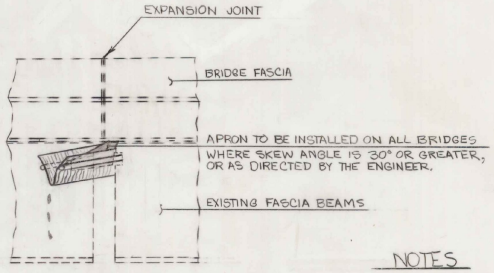


SEE SHT. 3 FOR ADDITIONAL DETAILS.

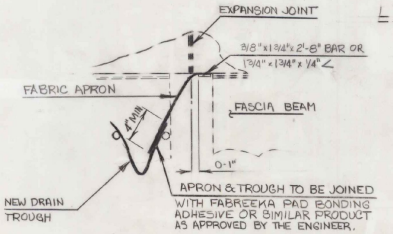
SECTION C-C
NTS



TYPICAL PARTIAL PLAN VIEW @ PIER
NTS



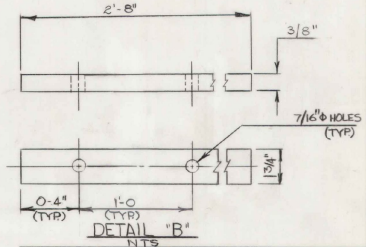
VIEW A-A
NTS



SECTION D-D
NTS

NOTES

1) FOR INSTALLATION & MATERIAL DETAILS OF TROUGH SEE SHEET NO. 3



DETAIL "B"
NTS

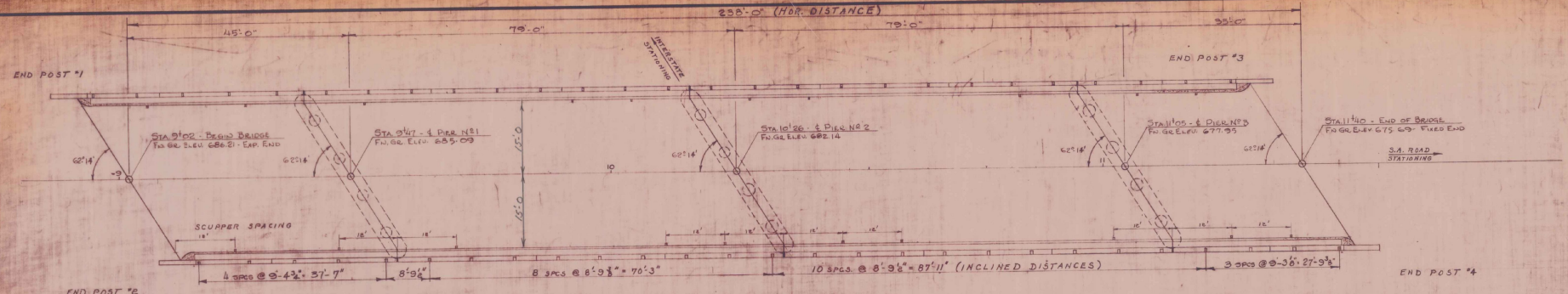
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF VERNON - ROCKINGHAM	Bridge No. 22N
	Log Sta.
HIGHWAY NO. I 91	Surv. Sta. 1783+92.22

EXPANSION JOINT DRAIN TROUGH DETAILS

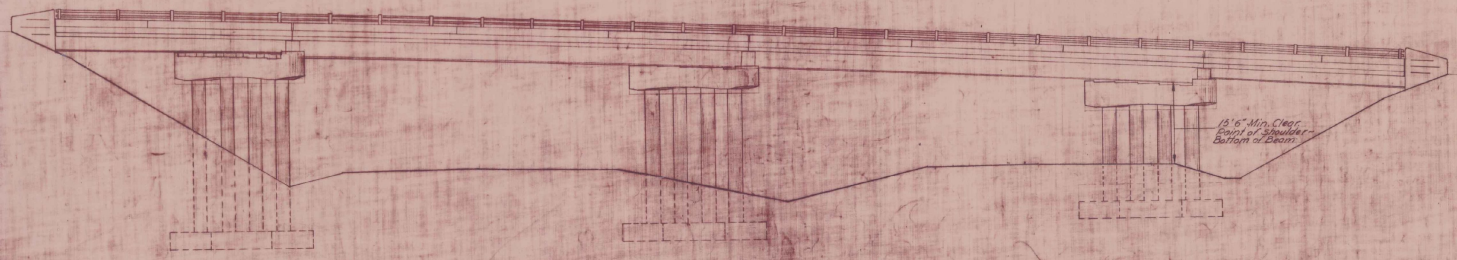
Designed by D. PERKINS	Drawn by G. DUBRAY
Checked by D.E. LATHROP date 6/78	Bridge Design Supervisor W. TRIPP date 6/78
PROJECT VERNON - ROCKINGHAM	PROJECT NO. IR-91-1(3)
Bridge Sheet No.	Sheet 5 of 32

BR 6



P·L·A·N

SCALE 1"=10'



E·L·E·V·A·T·I·O·N

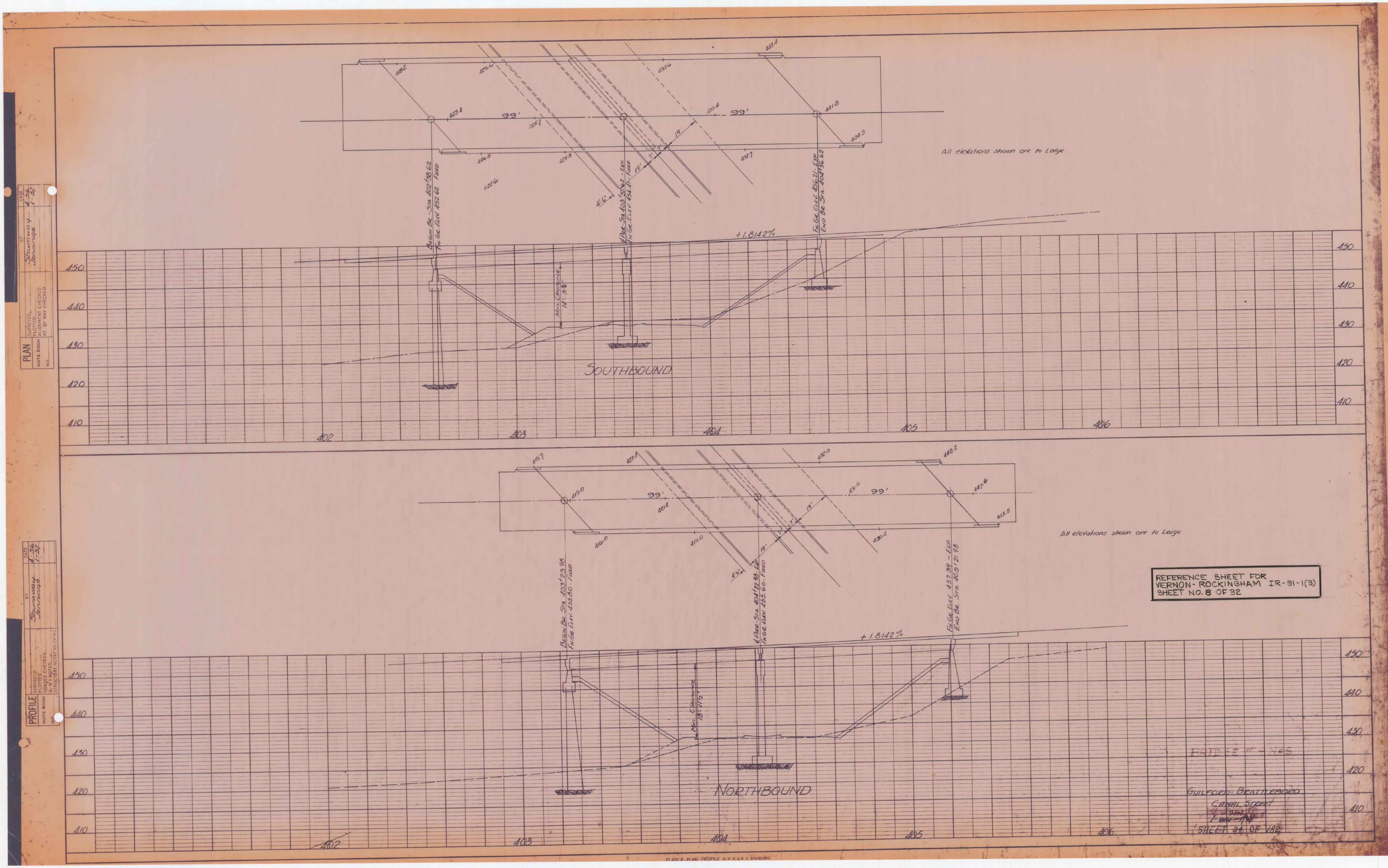
SCALE 1"=10'

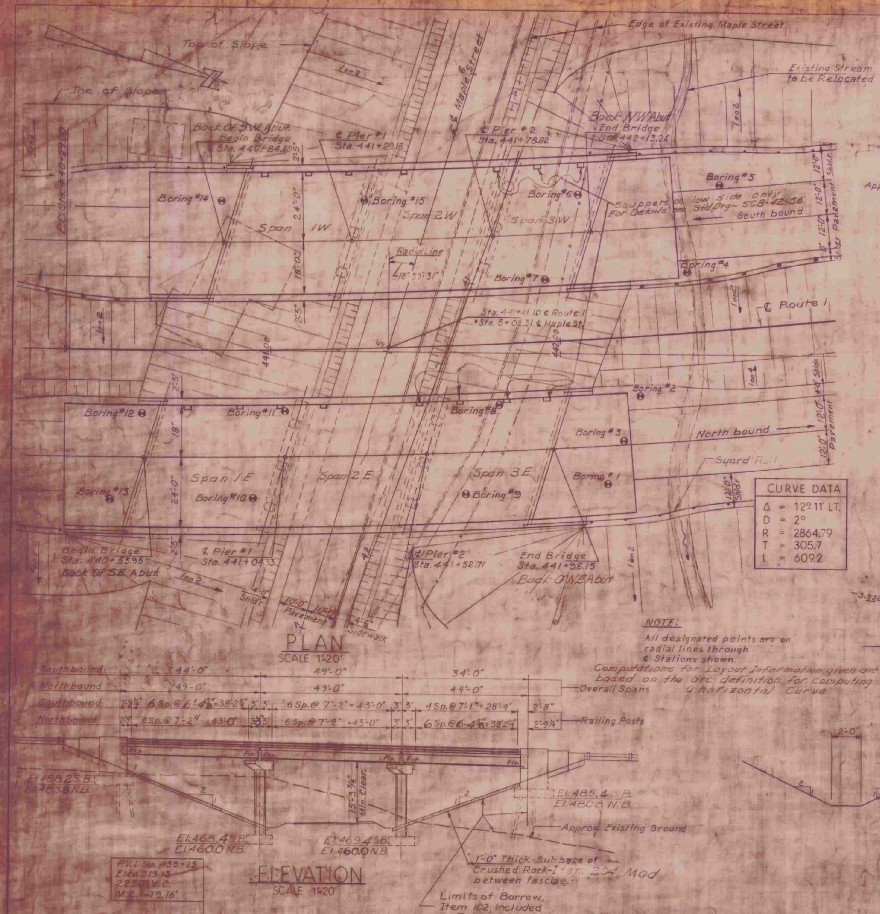
REFERENCE SHEET FOR
VERNON - ROCKINGHAM IR-91-1(3)
SHEET NO 7 OF 32

BRIDGE 1

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

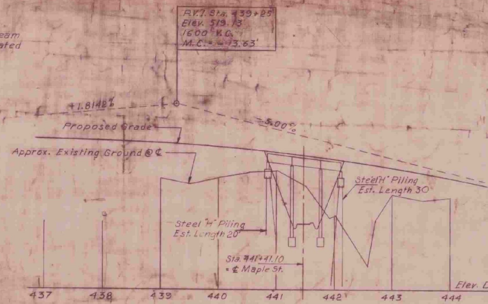
TOWN OF VERNON
ROUTE NO. INTERSTATE LOG STA.
UNDERPASS @ 222+87.4
PLAN & ELEVATION
SCALE 1" = 10'-0"
SURVEYED BY [illegible]
DRAWN BY [illegible] CHECKED BY [illegible]
PROJECT NO. IM 091-1(3)
SHEET 7 OF 32


All elevations shown are to Ledge
+1.8142%
SOUTHBOUND
All elevations shown are to Ledge
+1.8142%
NORTHBOUND
REFERENCE SHEET FOR
VERNON-ROCKINGHAM IR-91-1(3)
SHEET NO. 8 OF 32
GUILFORD-BRATTLEBORO
CANAL STREET
PLAN
PROFILE

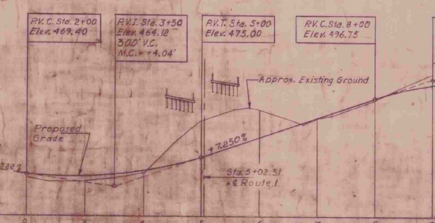


PLAN
SCALE 1"=20'

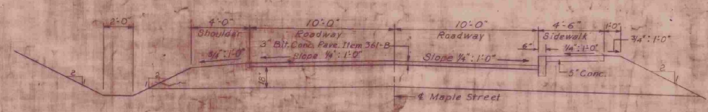
ELEVATION
SCALE 1"=20'



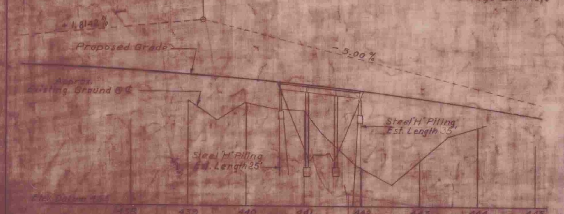
PROFILE SOUTHBOUND
INTERSTATE ROUTE 1
SCALES HORIZ. 1"=100' VERT. 1"=20'



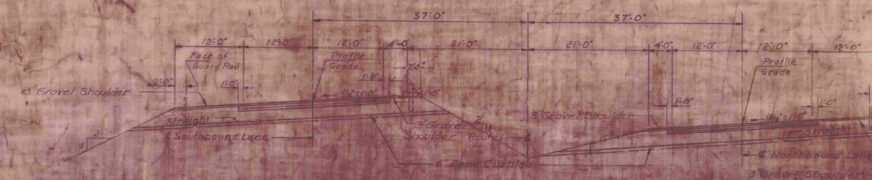
PROFILE MAPLE STREET AT ℄
SCALES HORIZ 1"=100' VERT 1"=20'



TYPICAL ROAD SECTION MAPLE STREET
SCALE 1/4"=1'-0"



PROFILE NORTHBOUND
INTERSTATE ROUTE 1



TYPICAL APPROACH SECTION

ESTIMATE OF QUANTITIES - TWO BRIDGES			
ITEM NO	DESCRIPTION	UNIT	QUANTITY
102	Borrow	C.Y.	2975
204	Sub-base of Crushed Rock (Mod.)	C.Y.	388
361-B	Bituminous Concrete Pavement (Mod.)	Ton	232
401-B	Concrete - Class 'B' (Mod.)	C.Y.	1364
402	Reinforcing Steel	Lb.	193,850
403	Spiral Reinforcement 6130	L.S.	1
404-A	Structural Steel	Lb.	283,850
501	Furnishing Equipment for Driving Piles	L.S.	Req'd
504	Steel Piling	L.F.	1866
556-C	Granite Bridge Curb	L.F.	646
572	Bridge Railing	L.F.	520
407	Asphaltic-Asbestos Coating	S.Y.	113
107	Structure Excavation	C.Y.	876

GENERAL NOTES

1. Materials and Construction shall conform to State of Vermont Department of Highways Standard Specifications for Highway and Bridge Construction dated 1956.
2. All design in accordance with A.A.S.H.O. Standard Specifications for Highway Bridges, dated 1953. Loading is H20-S16-44 truck as modified for National System of Interstate Highways.
3. Concrete shall attain a minimum strength of 2,000 psi prior to the addition of any superimposed load.
4. All concrete to be Class 'B' throughout.
5. All welding to conform with the American Welding Society Standard Specifications for Welded Highway and Railway Bridges.
6. All piles to be 10BP42 and driven to minimum bearing capacity of 37 tons. Piles shall not be spliced without the written approval of the engineer.
7. All dimentions given are measured horizontally or vertically unless noted.
8. All reinforcing to have a clear cover of 3" unless noted.
9. 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.
10. The top surfaces of all piers and abutments shall be sloped [illegible] per foot from the back edge of abutments or the ℄ of piers except for bearing pads projecting 1" or more above the general area, which surfaces shall be level. These sloping surfaces shall be coated with asphaltic asbestos coating, ½" thick as per [illegible] of Specifications, and rounded up against the pads.
11. Where rock is encountered, no footings shall be placed until all blasting in the adjacent area has been completed.
12. Standard Drawing SB-AS-15° Skew-57 shall be modified to fit the applicable skew for each abutment.
13. All bearing elevations have been lowered 1½" to allow for camber in the beams.

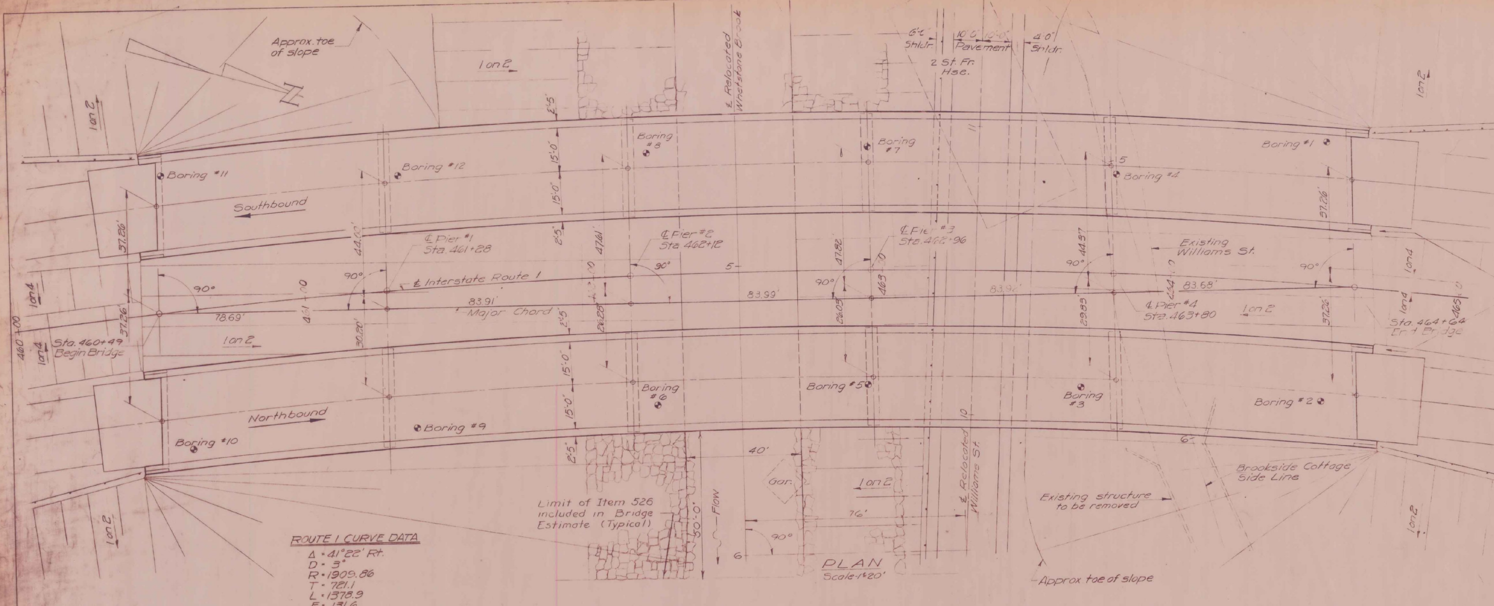
REFERENCE SHEET FOR VERNON-ROCKINGHAM IR-91-1(3) SHEET 9 OF 32

BRIDGE 5N & S

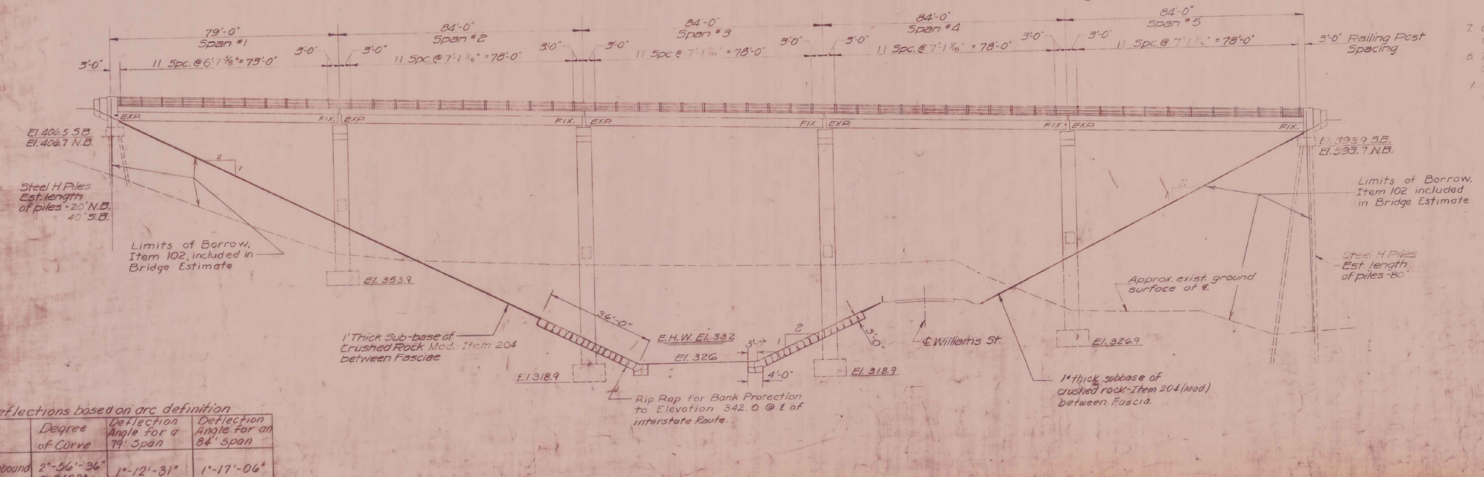
FOR LIST OF SHEETS SEE SHEET #2

VERMONT
STATE HIGHWAY DEPARTMENT
TOWN OF BRATTLEBORO
INTERSTATE ROUTE 1

MAPLE STREET OVERPASS
GENERAL PLAN, ELEVATIONS, PROFILES & SECTIONS



Approx. toe of slope
Southbound
Northbound
Boring #11
Boring #12
Boring #8
Boring #7
Boring #4
Boring #1
Boring #10
Boring #9
Boring #6
Boring #5
Boring #3
Boring #2
℄ Pier #1 Sta. 461+28
℄ Pier #2 Sta. 462+12
℄ Pier #3 Sta. 462+96
℄ Pier #4 Sta. 463+80
℄ Interstate Route 1
83.91' Major Chord
Sta. 460+44 Begin Bridge
Sta. 464+64 End Bridge
Existing Williams St.
℄ Relocated Whetstone Brook
℄ Relocated Williams St.
Existing structure to be removed
Brookside Cottage Side Line
Limit of Item 526 included in Bridge Estimate (Typical)
ROUTE 1 CURVE DATA
Δ = 41°22' Rt.
D = 3°
R = 1909.86
T = 721.1
L = 1378.9
E = 131.6
PLAN
Scale 1"=20'
Approx toe of slope



79'-0" Span #1
84'-0" Span #2
84'-0" Span #3
84'-0" Span #4
84'-0" Span #5
11 Spc. @ 6'-7 5/8" = 73'-0"
11 Spc. @ 7'-1 1/4" = 78'-0"
3'-0" Railing Post Spacing
El. 406.5 S.B.
El. 406.7 N.B.
El. 393.9 S.B.
El. 393.7 N.B.
Steel H Piles Est. length of piles - 20' N.B. 40' S.B.
Limits of Borrow, Item 102, included in Bridge Estimate
Limits of Borrow, Item 102 included in Bridge Estimate
Steel H Piles Est. length of piles - 80'
Approx. exist. ground surface of ℄
1" Thick Sub-base of Crushed Rock Mod. Item 204 between Fasciae
E.H.W. El. 332
El. 326
El. 318.9
El. 318.9
El. 326.9
El. 353.9
℄ Williams St.
1" thick subbase of crushed rock - Item 204 (mod) between Fascia
Rip Rap for Bank Protection to Elevation 342.0 @ ℄ of Interstate Route.
ELEVATION
Scale 1"=20'

ESTIMATE OF QUANTITIES FOR TWO BRIDGES			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
102	Borrow	C.Y.	47700
204	Sub-base of Crushed Rock Mod.	C.Y.	850
36-B	Bituminous Concrete Pavement (Mod)	Ton	390
313	Tar Emulsion for Bridge Floors (Supp. Agree.)	gal.	6
401-B	Concrete - Class 'B' (Mod)	C.Y.	2,714
402	Reinforcing Steel	Lb.	442,910
403	Spiral Reinforcement 13810 lbs.	L.S.	1
404-A	Structural Steel	Lb.	1,185,236
501	Furnishing Equipment for Dr. Piles	L.S.	1/6
222	Gravel Backfill	L.S.	0
504	Steel Piling	L.F.	2200
556-C	Granite Bridge Curb	L.F.	1715
572	Bridge Railing	L.F.	1642
107	Structure Excavation	C.Y.	2268
407	Asphaltic-Asbestos Coating	S.Y.	144
526	Riprap for Bank Protection	C.Y.	2090
* 442	Removal of Present Superstructure	L.S.	1

For detail of guardrail treatment at approaches see standard sheet R5-57-7.

* Rt. of Sta 464+25

GENERAL NOTES

1. Materials and Construction shall conform to State of Vermont Department of Highways Standard Specifications for Highway and Bridge Construction, dated 1956.
2. All design in accordance with A.A.S.H.O. Standard Specifications for Highway Bridges, dated 1953. Loading is H20-S16-44 truck as modified for National System of Interstate Highways.
3. Concrete shall attain a minimum strength of 2,000 psi prior to the addition of any superimposed load.
4. All concrete to be Class 'B' throughout.
5. All welding to conform with the American Welding Society Standard Specifications for Welded Highway and Railway Bridges.
6. All piles to be 10BP42 and driven to a minimum bearing capacity of 37 tons. Abutment piles are to be driven to the following minimum elev. unless otherwise directed by the engineer:
   - Abut #1 SB elev. 371
   - #1 NB elev. 389
   - Abut #2 SB elev. 322
   - #2 NB elev. 317
7. Use self-lubricating plates for expansion devices on piers (standard SB-20-56)
8. The beam seat elevations have been lowered 1½ inches to allow for camber.
9. Computations for layout information given are based on the arc definition for computing a horizontal curve.

REFERENCE DRAWINGS

BORING LOGS, PROFILES, & SECTIONS	BRIDGE SHEET 2
ABUTMENT DETAILS	" " 3
PIER DETAILS	" " 4
REINFORCING BAR SCHEDULE	" " 5
STANDARD DRAWINGS	SB-5A-56
	SB-A5-SQUARE-57 (MOD)
	SB-20-56
	SCB-30-56 SH. 1 OF 2
	SH. 2 OF 2

REFERENCE SHEET FOR
VERNON - ROCKINGHAM IR-91-1(3)
SHEET NO. 10 OF 32

Deflections based on arc definition

	Degree of Curve	Deflection Angle for a 79' Span	Deflection Angle for an 84' Span
Southbound Lane	2°-56'-36" 2.9433°	1°-12'-31"	1°-17'-06"
℄	3°-00'-00" 3.0000°		
Northbound Lane	3°-03'-35" 3.0596°	1°-09'-45"	1°-14'-10"

BRIDGE 6N & S

VERMONT
STATE HIGHWAY DEPARTMENT
TOWN OF BRATTLEBORO
INTERSTATE ROUTE 1

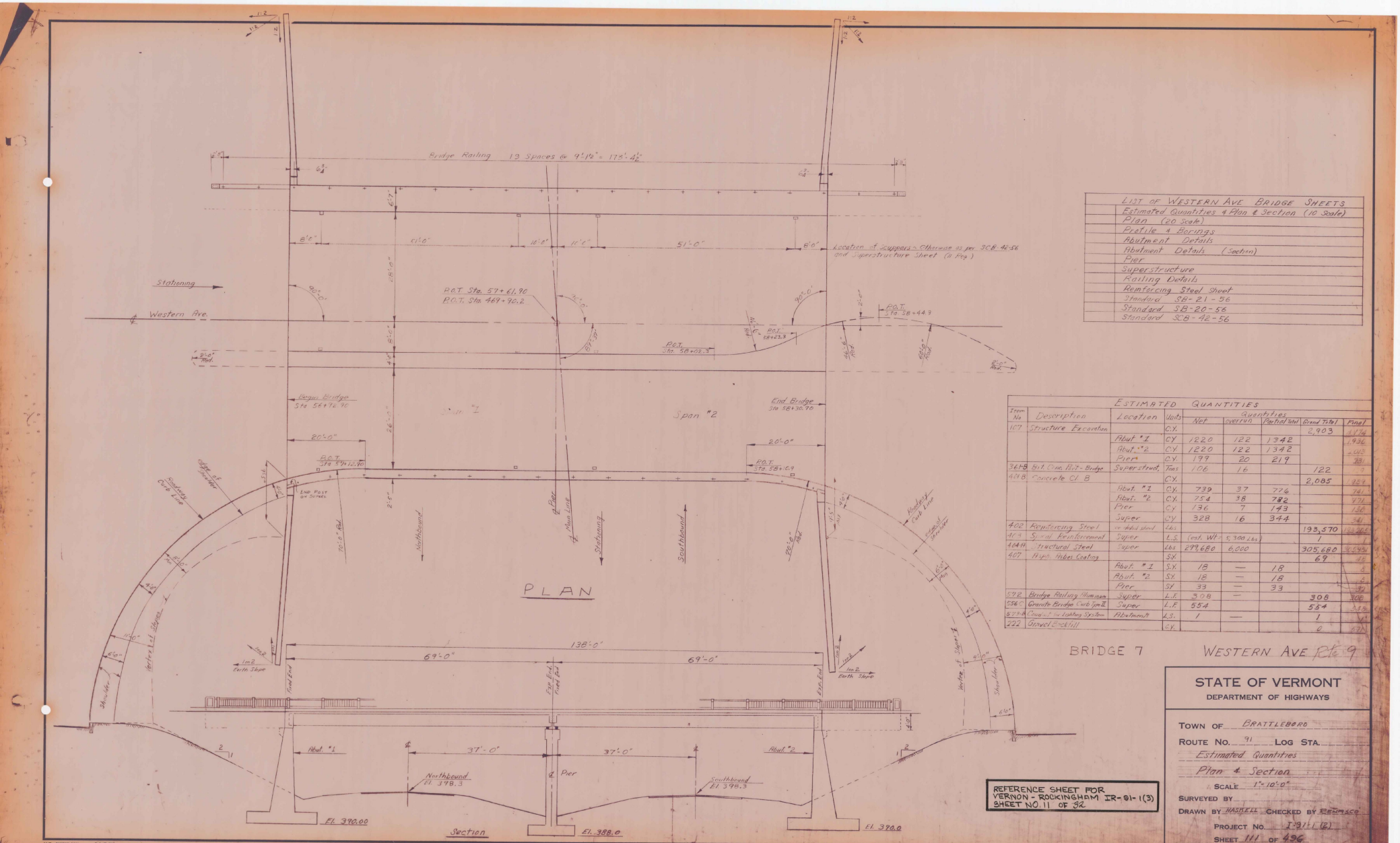
WHETSTONE BROOK BRIDGE

GENERAL PLAN AND ELEVATION

WM. H. McFARLAND
ENGINEER
BINGHAMTON, N.Y.

DESIGNED F.W.C. | CHECKED L.H.S. | DATE 8-19-57
DRAWN J.J.McC. | IN CHARGE H.G. Coles | SCALE As shown

PROJECT NO. I-91-1(2) SHEET 107 OF [illegible]
BRIDGE SHEET 1



LIST OF WESTERN AVE BRIDGE SHEETS

	Estimated Quantities & Plan & Section (10 Scale)
	Plan (20 Scale)
	Profile & Borings
	Abutment Details
	Abutment Details (Section)
	Pier
	Superstructure
	Railing Details
	Reinforcing Steel Sheet
	Standard SB-21-56
	Standard SB-20-56
	Standard SCB-42-56

ESTIMATED QUANTITIES

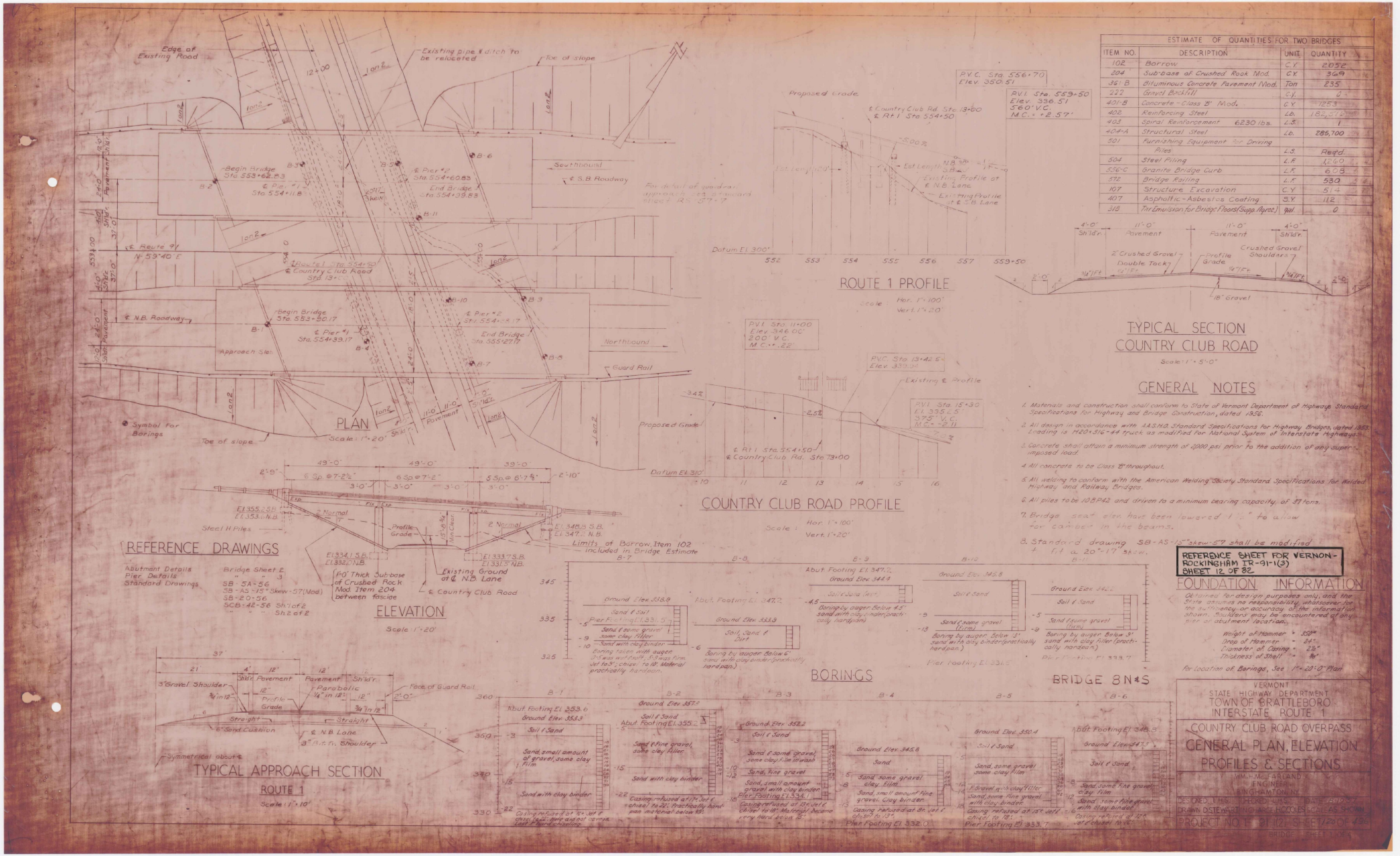
Item No	Description	Location	Units	Quantities Net	Overrun	Partial Total	Grand Total	Final
107	Structure Excavation		C.Y.				2,903	4,174
		Abut. "1	C.Y.	1220	122	1342		1,936
		Abut. "2	C.Y.	1220	122	1342		2,043
		Pier	C.Y.	199	20	219		321
361B	Bit. Conc. Pvt. - Bridge	Superstruct.	Tons	106	16		122	?
601B	Concrete Cl. B		C.Y.				2,085	984
		Abut. "1	C.Y.	739	37	776		741
		Abut. "2	C.Y.	754	38	792		771
		Pier	C.Y.	136	7	143		136
		Super	C.Y.	328	16	344		341
602	Reinforcing Steel	or Abut. steel	Lbs.				193,570	193,202
613	Spiral Reinforcement	Super	L.S.	(est. Wt. = 5,700 Lbs.)			1	
604A	Structural Steel	Super	Lbs	299,680	6,000		305,680	304,451
607	Hyp. Fibes Coating		S.Y.				69	42
		Abut. "1	S.Y.	18	—	18		8
		Abut. "2	S.Y.	18	—	18		8
		Pier	S.Y.	33	—	33		27
612	Bridge Railing Aluminum	Super	L.F.	308	—		308	308
556C	Granite Bridge Curb Typ II	Super	L.F.	554			554	538
619A	Conduit for Lighting System	Abutment	L.S.	1	—		1	1
222	Gravel Backfill		C.Y.				0	670

BRIDGE 7 WESTERN AVE Rte 9

REFERENCE SHEET FOR VERNON - ROCKINGHAM IR-91-1(3) SHEET NO. 11 OF 32

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF BRATTLEBORO
ROUTE NO. 91 LOG STA.
Estimated Quantities
Plan & Section
SCALE 1"=10'-0"
SURVEYED BY
DRAWN BY HASKELL CHECKED BY REDMOND
PROJECT NO. I-91-1(8)
SHEET 111 OF 496



ESTIMATE OF QUANTITIES FOR TWO BRIDGES			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
102	Borrow	C.Y.	2052
204	Sub-base of Crushed Rock Mod.	C.Y.	349
361 B	Bituminous Concrete Pavement Mod.	Ton	235
222	Gravel Backfill	C.Y.	0
401-B	Concrete - Class B Mod.	C.Y.	1253
402	Reinforcing Steel	Lb.	182,370
403	Spiral Reinforcement 6230 lbs.	L.S.	1
404-A	Structural Steel	Lb.	285,700
501	Furnishing Equipment for Driving Piles	L.S.	Reqd.
504	Steel Filing	L.F.	1260
556-C	Granite Bridge Curb	L.F.	608
572	Bridge Railing	L.F.	530
107	Structure Excavation	C.Y.	514
407	Asphaltic-Asbestos Coating	S.Y.	112
318	Tar Emulsion for Bridge Floors (Supp. Rprce.)	Gal.	0

GENERAL NOTES

1. Materials and construction shall conform to State of Vermont Department of Highways Standard Specifications for Highway and Bridge Construction, dated 1956.
2. All design in accordance with AASHO Standard Specifications for Highway Bridges, dated 1953. Loading is H20-S16-44 truck as modified for National System of Interstate Highways.
3. Concrete shall attain a minimum strength of 4000 psi prior to the addition of any superimposed load.
4. All concrete to be Class 'B' throughout.
5. All welding to conform with the American Welding Society Standard Specifications for Welded Highway and Railway Bridges.
6. All piles to be 10BP42 and driven to a minimum bearing capacity of 37 tons.
7. Bridge seat elevations have been lowered 1" to allow for camber in the beams.
8. Standard drawing SB-AS-15° skew-57 shall be modified to fit a 20°-17' skew.

REFERENCE SHEET FOR VERNON-ROCKINGHAM TR-91-1(5) SHEET 12 OF 32

FOUNDATION INFORMATION

Obtained for design purposes only, and the State assumes no responsibility whatsoever for the sufficiency or accuracy of the information shown. Boulders may be encountered at any pier or abutment location.

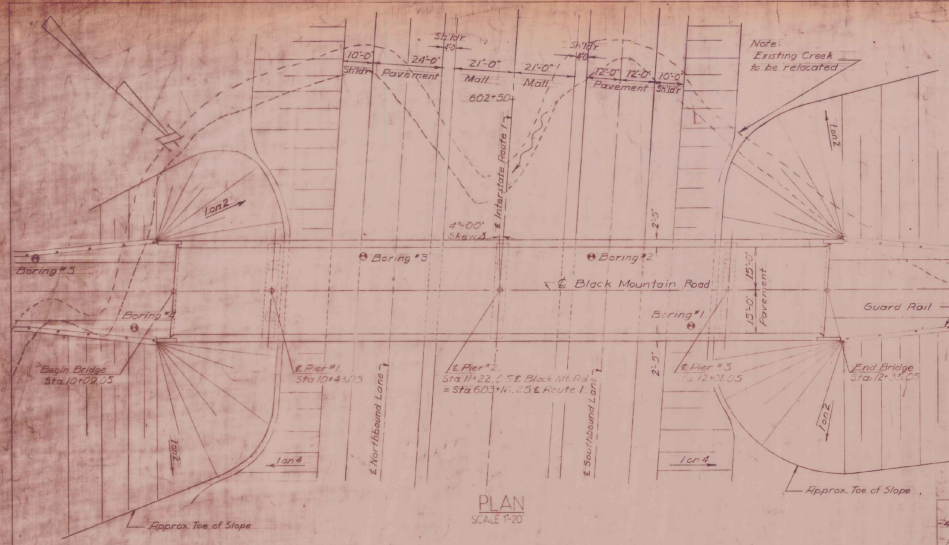
Weight of Hammer = 32#
Drop of Hammer = 24"
Diameter of Casing = 12"
Thickness of Shell = 3/8"

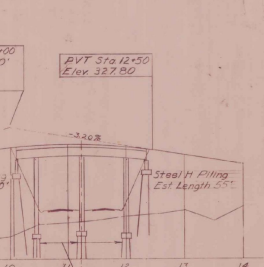
For location of Borings, See 1"=20'-0" Plan

VERMONT
STATE HIGHWAY DEPARTMENT
TOWN OF BRATTLEBORO
INTERSTATE ROUTE 1
COUNTRY CLUB ROAD OVERPASS
GENERAL PLAN, ELEVATION
PROFILES & SECTIONS

WM. H. McFARLAND
ENGINEER
BINGHAMTON, N.Y.

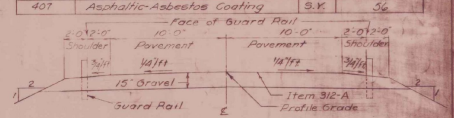
DESIGNED L.T.H.S. CHECKED L.H.S. DATE 2-20-57
DRAWN D.S.T.E.W.A. CHECKED C.C.L. SCALE AS SHOWN
PROJECT NO. I 91-1(5) SHEET NO. 12 OF 32
BRIDGE SHEET NO.



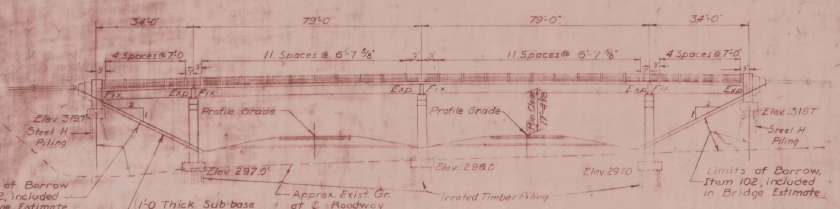


℄ PROFILE - RELOCATED BLACK MOUNTAIN ROAD
SCALES: HORIZ 1"=100'
VERT 1"=20'

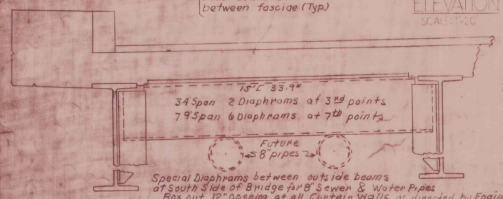
ESTIMATE OF QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
102	Borrow	C.Y.	2441
107	Structure Excavation	C.Y.	140
304.1	Sub-base of Crushed Rock Mod.	C.Y.	110
401-B	Bituminous Concrete Pavement (Mod)	Ton	98
502-B	Treated Timber Piling	l.f.	2430
401-B	Concrete - Class "B" (Mod.)	C.Y.	567
402	Reinforcing Steel	Lb.	60375
403	Spiral Reinforcement 3930 Lbs	L.S.	1
404-A	Structural Steel	Lb.	234,032
501	Furnishing Equipment For Driving Pile	L.S.	Reqd.
222	Gravel Backfill	C.Y.	0
504	Steel Piling	L.F.	1050
556-C	Granite Bridge Curb	L.F.	452
572	Bridge Railing	L.F.	443
407	Asphaltic-Asbestos Coating	S.Y.	56

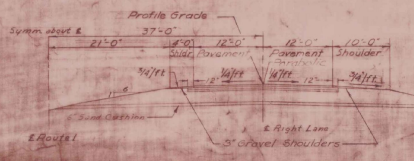


TYPICAL APPROACH SECTION
BLACK MOUNTAIN ROAD
SCALE: 1"=5'



ELEVATION
SCALE: 1"=10'

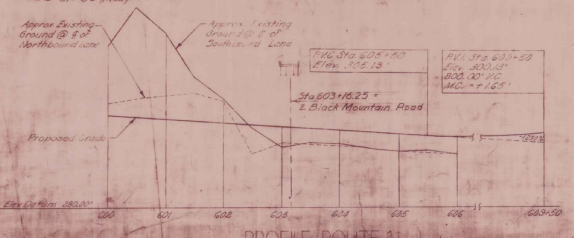




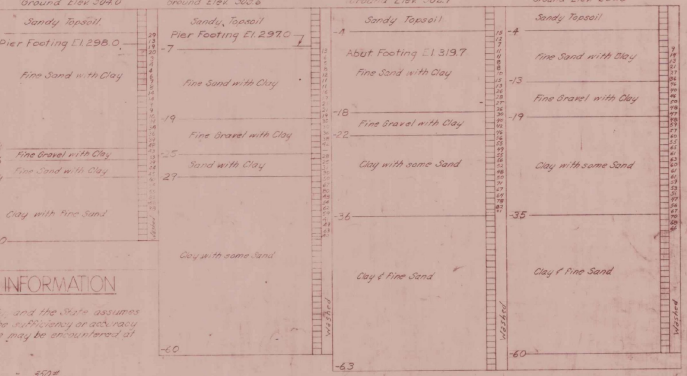
TYPICAL SECTION ROUTE 1
SCALE 1"=10'

Reference Drawings

Abutment & Details	Bridge Sheet 2
Pier Details	" " 3
Reinforcing Bar Schedule	" 4
Standard Drawings	SB-20-56
	SCD-30-56 Sheet 1 of 2
	" 2 of 2
	SB-SA-56 (Mod)



PROFILE ROUTE 1
SCALES: HORIZ 1"=100'
VERT 1"=20'



FOUNDATION INFORMATION

Obtained for design purposes only, and the State assumes no responsibility whatsoever for the sufficiency or accuracy of the information shown. Boulders may be encountered at any pier or abutment location.

Weight of Hammer = 550#
Drop of Hammer = 24"
Diameter of Casing = 28"
Thickness of Shell = 3/8"

For location of Borings, See 1"=20'-0" Plan Above

GENERAL NOTES

1. Materials and construction shall conform to State of Vermont Standard Specifications for Highway and Bridge Construction, dated 1956.
2. All design in accordance with AASHO Standard Specifications for Highway Bridges, dated 1953. Loading is H20-S16-44 truck as modified for National System of Interstate Highways.
3. Concrete shall attain a minimum strength of 2,000 psi prior to the addition of any superimposed load.
4. All concrete to be Class "B" throughout.
5. All welding to conform with the American Welding Society Standard Specifications for Welded Highway and Railway Bridges.
6. Steel H piles to be 10BP42 and driven to a minimum bearing capacity of 57 tons. Treated timber piles shall be driven to a minimum bearing capacity of 22 tons.
7. 24" WF Beams to be cambered 1 inch.
   79 WF Beams to be cambered 3 1/2 inches.

REFERENCE SHEET FOR VERNON-ROCKINGHAM IR-91-1(12) SHEET 13 OF 32

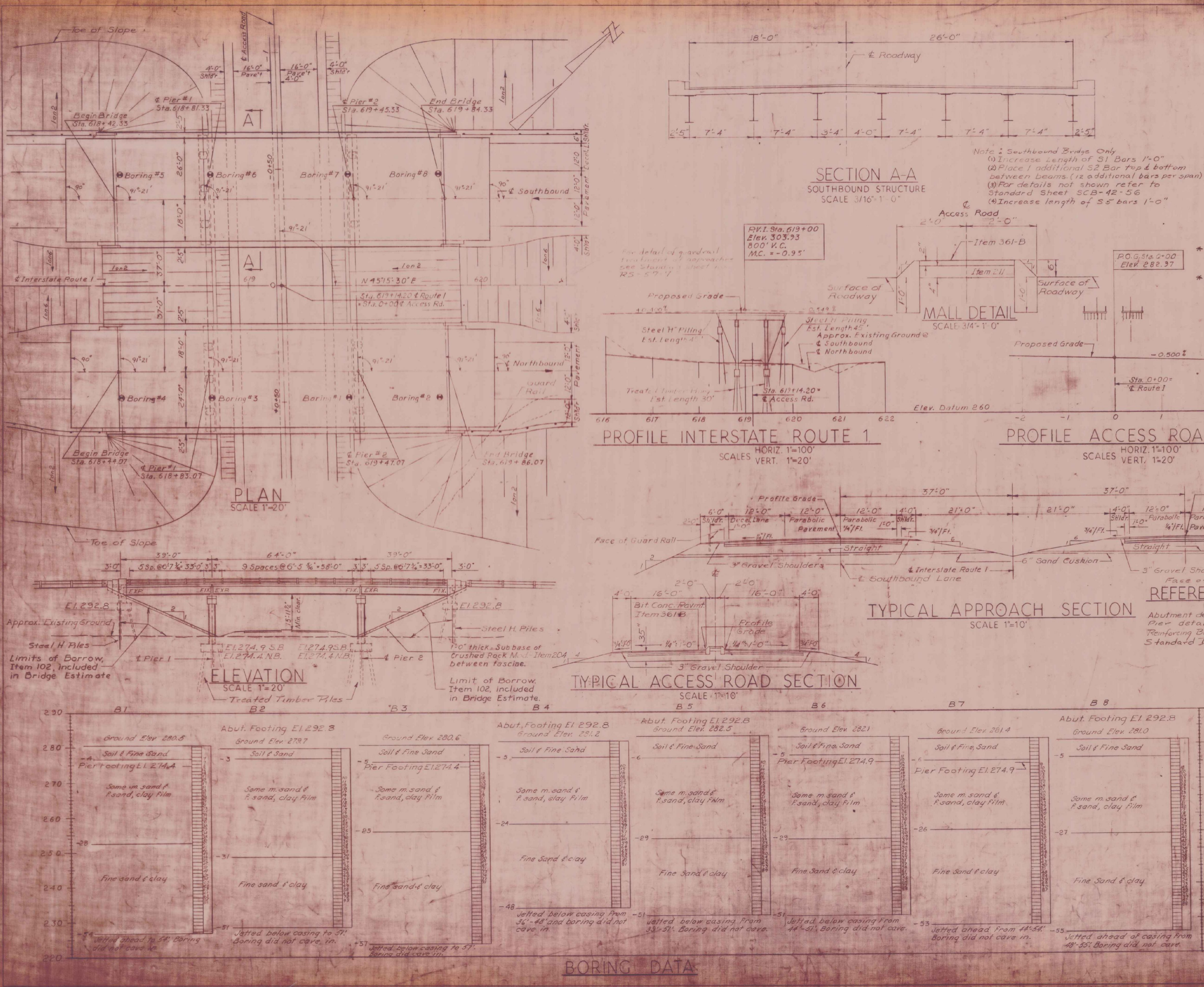
BRIDGE 10

VERMONT
STATE HIGHWAY DEPARTMENT
TOWN OF BRATTLEBORO
INTERSTATE ROUTE 1 91
BLACK MOUNTAIN ROAD
GENERAL PLAN, ELEVATION, PROFILES & SECTIONS

W. H. McFARLAND
ENGINEER
BINGHAMTON, N.Y.

DESIGNED A.W.C. CHECKED W.H.S. DATE 8-1957
DRAWN G.W.Z. IN CHARGE H.C.CURTIS SCALE AS NOTED

PROJECT NO. I 91-1(12) SHEET NO. 13 OF 32



* Rt. of Sta 618+70
** Lt. of Sta 621+75

ESTIMATE OF QUANTITIES FOR TWO BRIDGES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
222	Gravel Backfill	C.Y.	0
318	Tar Emulsion for Bridge Floors	Gal.	0
102	Borrow	C.Y.	5334
204	Sub-base of Crushed Rock Mod.	C.Y.	339
361-B	Bituminous Concrete Pavement	Ton	223
502-B	Treated Timber Piling	L.F.	4320
401-B	Concrete Class 'B'	C.Y.	1210
402	Reinforcing Steel	Lb.	174,484
403	Spiral Reinforcement 6670	L.S.	1
404-A	Structural Steel	Lb.	296,500
572	Bridge Railing (Alum.) (Supp. Agree.)	L.F.	0
501	Furnishing Equipment for Driving Piles	L.S.	Req'd
504	Steel Piling	L.F.	2520
556-C	Granite Bridge Curb	L.F.	624
572	Bridge Railing	L.F.	550
107	Structure Excavation	C.Y.	404
407	Asphaltic-Asbestos Coating	S.Y.	108
* 442	Removal of Present Superstructure	L.S.	1
** 442	Removal of Present Superstructure	L.S.	1

GENERAL NOTES

1. Material and Construction shall conform to State of Vermont Department of Highways Standard Specifications for Highway and Bridge Construction, dated 1956.
2. All design in accordance with AASHO Standard Specifications for Highway Bridges, dated 1953. Loading is H20-S16-44 truck as modified for National System of Interstate Highways.
3. Concrete shall attain a minimum strength of 2,000 psi prior to the addition of any superimposed load.
4. All concrete to be Class 'B' throughout.
5. All welding to conform with the American Welding Society Standard Specifications for Welded Highway and Railway Bridges.
6. Steel H piles to be 10BP42 and driven to a minimum bearing capacity of 37 tons. Treated Timber piles to be driven to a minimum bearing capacity of 20 tons.
7. Standard Drawing for approach slab SB-AS (square) 57 shall be modified to fit a 1°21' skew, and a 44' roadway. Approach slabs to be 20' on the short side.
8. Standard Drawings SCB-42-56 shall be modified to fit a 44' roadway for S.B. lane
9. Beam seat elevations have been lowered 1½" to allow for camber in the beams.

FOUNDATION INFORMATION

Obtained for design purposes only, and the State assumes no responsibility whatsoever for the sufficiency or accuracy of the information shown. Boulders may be encountered at any pier or abutment location.

REFERENCE SHEET FOR VERNON-ROCKINGHAM IR-91-1(3) SHEET 14 OF 32

Weight of Hammer = 350#
Drop of Hammer = 24"
Diameter of Casing = 2½"
Thickness of Shell = 3/8"

For Location of Borings, See 1"=20'0" Plan

BRIDGE 11 N & S

VERMONT
STATE HIGHWAY DEPARTMENT
TOWN OF BRATTLEBORO
INTERSTATE ROUTE 1

KEENE INTERCHANGE
GENERAL PLAN, ELEVATIONS, PROFILES & SECTIONS

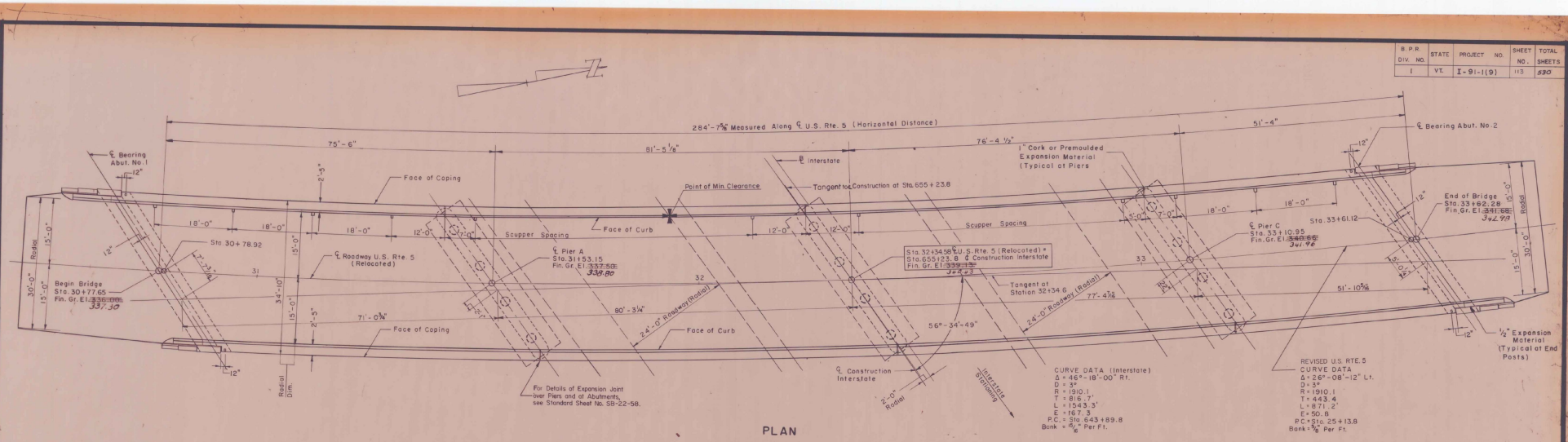
WM. H. Mc FARLAND
ENGINEER
BINGHAMTON, N.Y.

DESIGNED F.G.P.	CHECKED L.H.S.	DATE 8-19-57
DRAWN H.B.	IN CHARGE H.G. COLES	SCALE AS NOTED

PROJECT NO. I-91-1(2) SHEET 103 OF 496

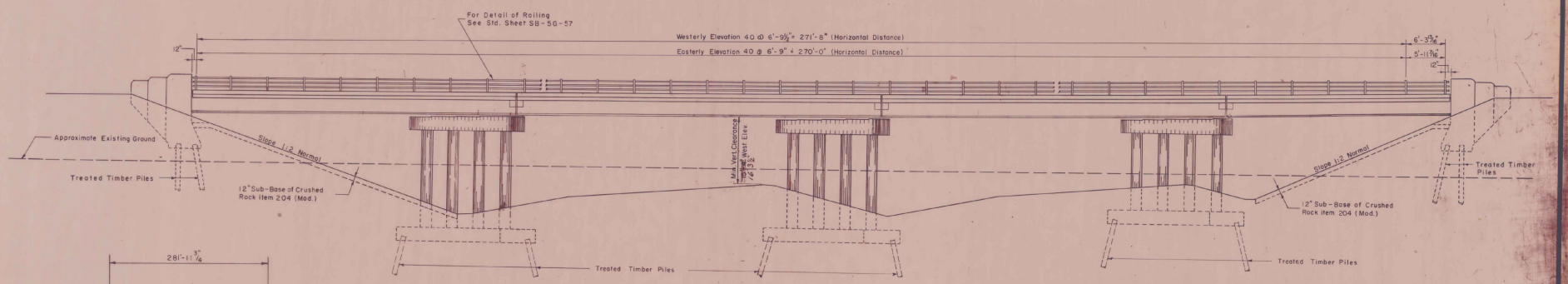
BRIDGE 1 SHEET 1 OF 4

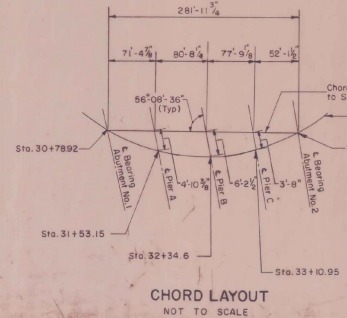
B.P.R. DIV. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	VT.	I-91-1(9)	113	330



PLAN

Scale: $\frac{3}{32}$" = 1'-0"





CHORD LAYOUT

NOT TO SCALE

EASTERLY ELEVATION
WESTERLY ELEVATION (SIMILAR)

Scale: $\frac{3}{32}$" = 1'-0"

Note: 1. Railing posts to be set normal to grade
2. Omit set screws at upgrade end of railing panels at expansion joint over piers.
3. The Contractors attention is called to the material which is located under the various pier foundations. Test piles will be required. After driving test piles the engineer shall determine if piles are necessary and the length to be ordered. If piles are omitted, the footings as designed are to be used unless otherwise ordered by the Engineer.

REFERENCE SHEET FOR VERNON-ROCKINGHAM IR-91-1(3) SHEET 15 OF 32

ESTIMATED QUANTITIES

ITEM No.	ITEM	UNIT	NET	OVER-RUN	TOTAL	FINAL
556-C	Granite Bridge Curb (Type I)	LF	603	-	603	616
572	Bridge Railing	LF	558	-	558	537
361-B	Bituminous Concrete Pavement	Ton	133	20	153	133

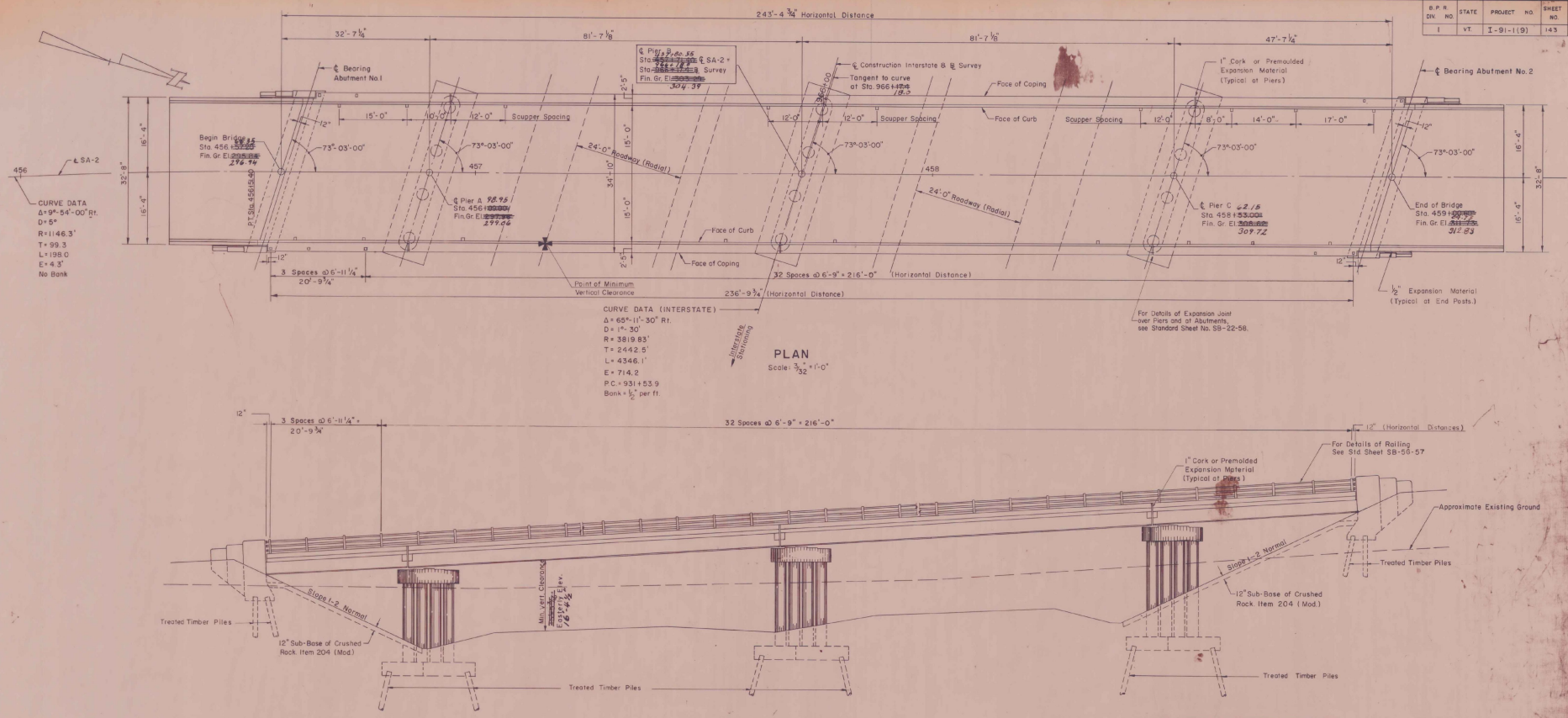
CONSULTING ENGINEERS
CLARKESON ENGINEERING CO. INC.
BOSTON MASSACHUSETTS

BRIDGE 12

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF BRATTLEBORO
ROUTE NO. INTERSTATE STA. 655+23.8
UNDER U.S. RTE. 5 (RELOCATED)
PLAN & ELEVATION
SCALE $\frac{3}{32}$" = 1'-0"
SURVEYED BY
DRAWN BY B.V.F. CHECKED BY D.S.&G.B.
PROJECT NO. I-91-1(9)
SHEET 113 OF 330

CONTRACT



B.P.R. DIV. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	VT.	I-91-1(9)	143	330

Note: 1. Railing Posts to be set normal to grade.
2. Omit set screws at upgrade end of railing panels at expansion joints over piers.
3. The contractor's attention is called to the material which is located under the various pier foundations. Test piles will be required. After driving test piles the engineer shall determine if piles are necessary and the length to be ordered. If piles are omitted, the footings as designed are to be used unless otherwise ordered by the Engineer.

REFERENCE SHEET FOR VERNON-ROCKINGHAM IR-91-1(3) SHEET 16 OF 32.

BRIDGE 13

ESTIMATED QUANTITIES

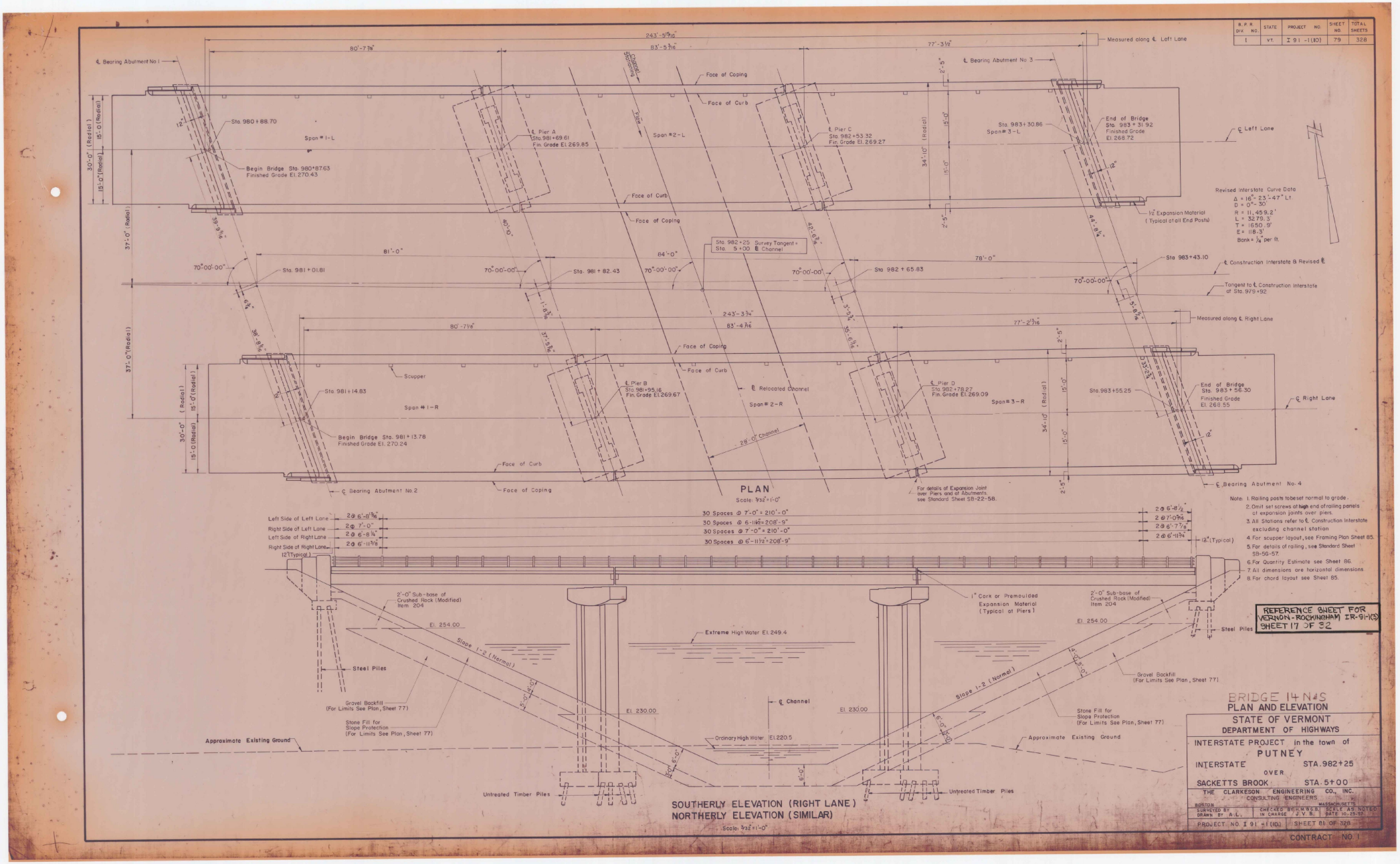
ITEM NO.	DESCRIPTION	UNIT	NET	OVER-RUN	TOTAL	FINAL
556-C	Granite Bridge Curb (Type 1)	L.F.	~~687~~	–	~~687~~	530
572	Bridge Railing	L.F.	~~477~~	–	~~477~~	478

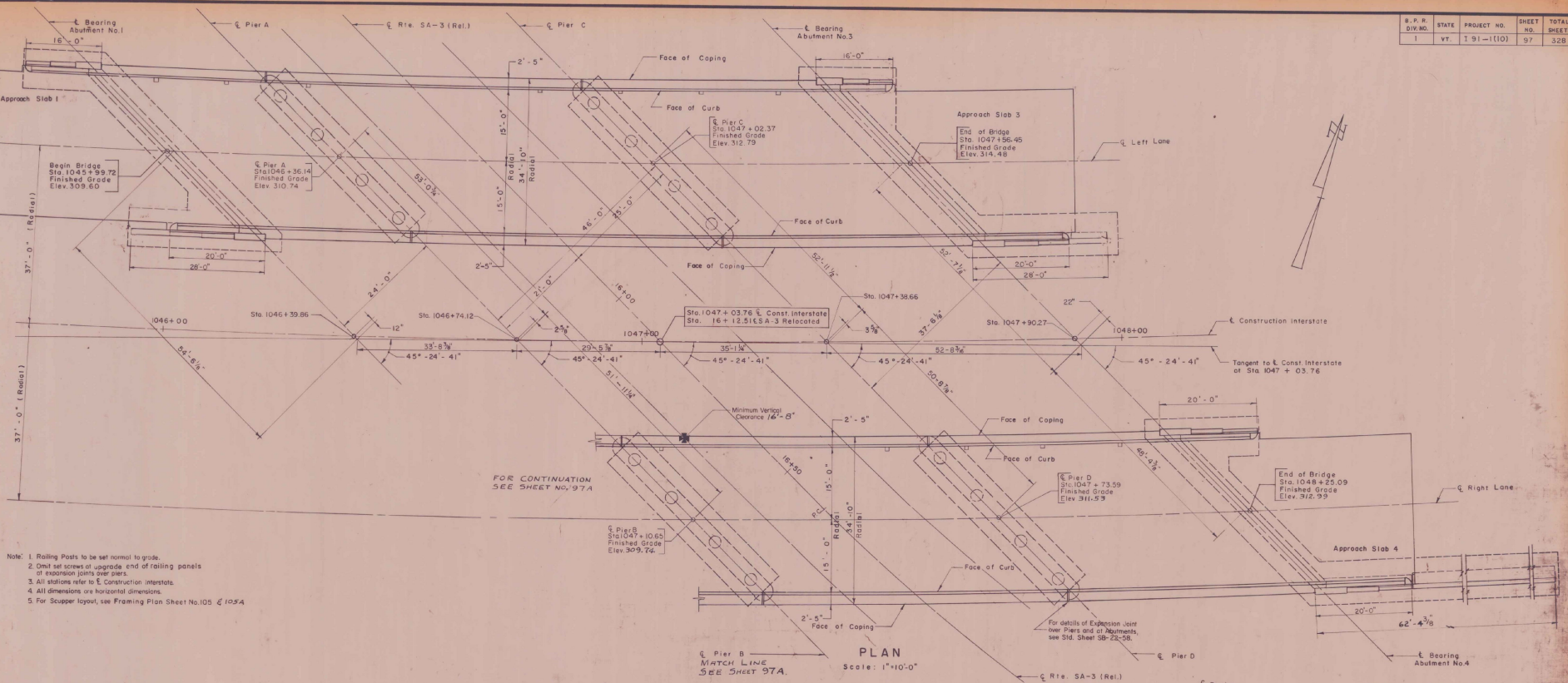
CONSULTING ENGINEERS
CLARKESON ENGINEERING CO. INC.
BOSTON MASSACHUSETTS

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

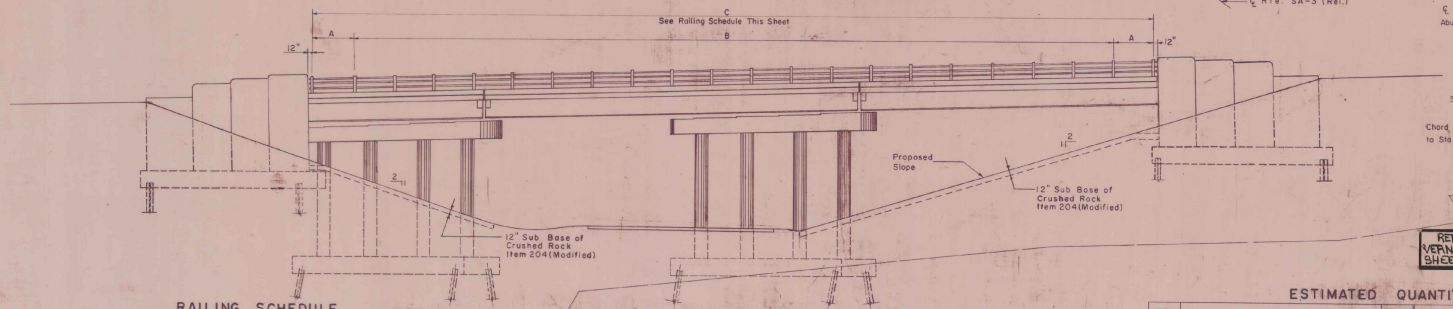
TOWN OF DUMMERSTON
ROUTE NO. INTERSTATE STA. 966+17.4
UNDER SA-2 (RELOCATED)
PLAN & ELEVATION
SCALE 3/32" = 1'-0"
SURVEYED BY
DRAWN BY H.B.C. CHECKED BY D.S.B.C.
PROJECT NO. I-91-1(9)
SHEET 143 OF 330

CONTRACT


B. P. R. DIV. NO. | STATE | PROJECT NO. | SHEET NO. | TOTAL SHEETS
1 | VT. | I 91 -1(10) | 79 | 328
℄ Bearing Abutment No 1
℄ Bearing Abutment No. 3
Measured along ℄ Left Lane
Measured along ℄ Right Lane
Face of Coping
Face of Curb
Sta. 980+88.70
Begin Bridge Sta. 980+87.63
Finished Grade El. 270.43
Span # 1-L
Span #2-L
Span #3-L
℄ Pier A
Sta. 981+69.61
Fin. Grade El. 269.85
℄ Pier C
Sta. 982+53.32
Fin. Grade El. 269.27
Sta. 983+30.86
End of Bridge
Sta. 983+31.92
Finished Grade
El. 268.72
℄ Left Lane
½" Expansion Material
(Typical at all End Posts)
Revised Interstate Curve Data
Δ = 16° 23'-47" Lt.
D = 0°- 30'
R = 11,459.2'
L = 3279.3'
T = 1650.9'
E = 118.3'
Bank = ¼" per ft.
Sta. 982+25 Survey Tangent = Sta. 5+00 ℄ Channel
Sta. 981+01.81
Sta. 981+82.43
Sta. 982+65.83
Sta 983+43.10
℄ Construction Interstate & Revised ℄
Tangent to ℄ Construction Interstate at Sta. 979+92
Scupper
Sta. 981+14.83
Begin Bridge Sta. 981+13.78
Finished Grade El. 270.24
Span # 1-R
Span #2-R
Span #3-R
℄ Pier B
Sta. 981+95.16
Fin. Grade El. 269.67
℄ Relocated Channel
28'-0" Channel
℄ Pier D
Sta. 982+78.27
Fin. Grade El. 269.09
Sta. 983+55.25
End of Bridge
Sta. 983+56.30
Finished Grade
El. 268.55
℄ Right Lane
℄ Bearing Abutment No. 2
℄ Bearing Abutment No. 4
PLAN
Scale: 3/32"=1'-0"
For details of Expansion Joint over Piers and at Abutments see Standard Sheet SB-22-58.
30 Spaces @ 7'-0" = 210'-0"
30 Spaces @ 6-11½"= 208'-9"
30 Spaces @ 7'-0" = 210'-0"
30 Spaces @ 6'-11½"= 208'-9"
Left Side of Left Lane
Right Side of Left Lane
Left Side of Right Lane
Right Side of Right Lane
12" Typical
2 @ 6'-8 13/16"
2 @ 7'-0"
2 @ 6-8 1/4"
2 @ 6'-11 7/8"
2 @ 6'-8 1/2"
2 @ 7'-0 7/8"
2 @ 6'-7 7/8"
2 @ 6'-11 3/4"
12" (Typical)
Note: 1. Railing posts to be set normal to grade.
2. Omit set screws at high end of railing panels at expansion joints over piers.
3. All Stations refer to ℄ Construction Interstate excluding channel station
4. For scupper layout, see Framing Plan Sheet 85.
5. For details of railing, see Standard Sheet SB-56-57.
6. For Quantity Estimate see Sheet 86.
7. All dimensions are horizontal dimensions.
8. For chord layout see Sheet 85.
REFERENCE SHEET FOR VERNON-ROCKINGHAM IR-91(6) SHEET 17 OF 32
2'-0" Sub-base of Crushed Rock (Modified) Item 204
El. 254.00
Steel Piles
Slope 1-2 (Normal)
Gravel Backfill (For Limits See Plan, Sheet 77)
Stone Fill for Slope Protection (For Limits See Plan, Sheet 77)
Approximate Existing Ground
Extreme High Water El. 249.4
Ordinary High Water El. 220.5
℄ Channel
El. 230.00
Untreated Timber Piles
1" Cork or Premoulded Expansion Material (Typical at Piers)
SOUTHERLY ELEVATION (RIGHT LANE)
NORTHERLY ELEVATION (SIMILAR)
Scale: 3/32"=1'-0"
BRIDGE 14 N&S
PLAN AND ELEVATION
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
INTERSTATE PROJECT in the town of
PUTNEY
INTERSTATE STA. 982+25
OVER
SACKETTS BROOK STA. 5+00
THE CLARKESON ENGINEERING CO., INC.
CONSULTING ENGINEERS
BOSTON MASSACHUSETTS
SURVEYED BY | DRAWN BY A.L. | CHECKED BY H.M.S.S.B. IN CHARGE J.V.B. | SCALE AS NOTED DATE 10-25-57
PROJECT NO. I 91 -1(10) | SHEET 81 OF 328
CONTRACT NO. 1



Note: 1. Railing Posts to be set normal to grade.
2. Omit set screws at upgrade end of railing panels at expansion joints over piers.
3. All stations refer to ℄ Construction Interstate.
4. All dimensions are horizontal dimensions.
5. For Scupper layout, see Framing Plan Sheet No. 105 & 105A



SOUTHERLY ELEVATION, LEFT LANE
NORTHERLY ELEVATION (SIMILAR)
Scale: 1" = 10'-0"

RAILING SCHEDULE

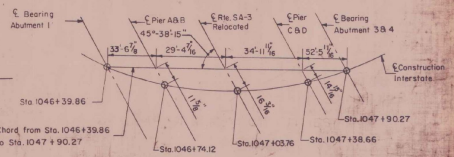
		A	B	C
LEFT LANE	NORTH	7'-1"	19@7'-0"=133'-0"	147'-2"
	SOUTH	6'-11¾"	19@6'-11"=131'-5"	145'-4"
RIGHT LANE	NORTH	7'-0½"	40@7'-0⅝"=281'-6"	295'-9"
	SOUTH	6'-11⅝"	40@6'-11⅝"=278'-9"	292'-7¼"

ESTIMATED QUANTITIES

ITEM NO	DESCRIPTION	UNIT	NET	OVERRUN	TOTAL	FINAL
556-C	Granite Bridge Curb (Type I)	L.F.	1042		1042	1,049
572	Bridge Railing	L.F.	887		887	887
903	Splices for Steel Piling	EA	36		36	36

CHORD LAYOUT

NOT TO SCALE



REFERENCE SHEET FOR VERNON-ROCKINGHAM IR-91-1(3) SHEET 18 OF 32

BRIDGE 15 N&S
PLAN AND ELEVATION

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT in the town of PUTNEY

INTERSTATE SA-3 (REL.) OVER STA. 1047+03.76 STA. 16+12.51

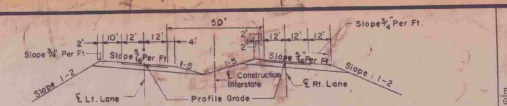
THE CLARKESON ENGINEERING CO., INC.
CONSULTING ENGINEERS
BOSTON MASSACHUSETTS

SURVEYED BY | CHECKED BY B.J.K | SCALE AS NOTED
DRAWN BY D.E.S.B.S.B | IN CHARGE J.V.B. | DATE 11-8-67

PROJECT NO. I 91-1(10) | SHEET 97 OF 328

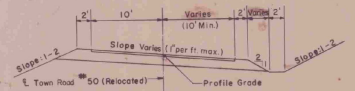
CONTRACT NO. 1

B. P. R. DIV. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	VT.	I 91-1(10)	97	328



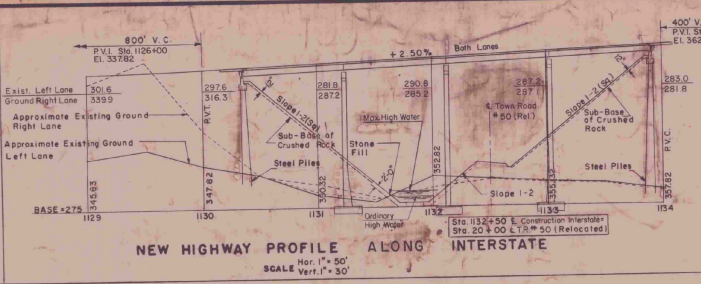
NEW HIGHWAY SECT. STA. 1130+00 TO STA. 1135+00

SCALE: 1" = 30'



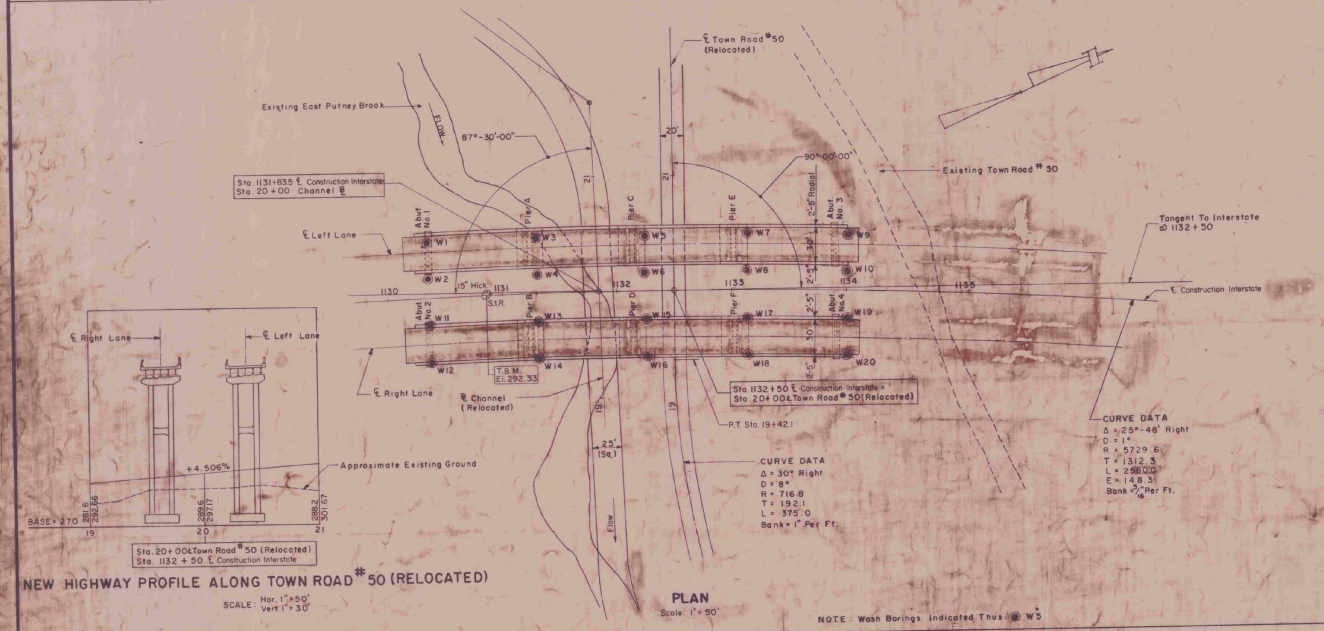
NEW HIGHWAY SECT. STA. 19+00 TO STA. 21+00

SCALE ⅛" = 1'-0"



NEW HIGHWAY PROFILE ALONG INTERSTATE

SCALE Hor. 1" = 50' Vert. 1" = 30'



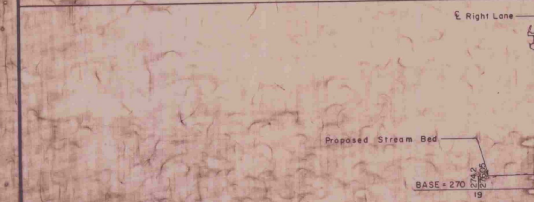
NEW HIGHWAY PROFILE ALONG TOWN ROAD #50 (RELOCATED)

SCALE: Hor. 1" = 50' Vert. 1" = 30'

PLAN

Scale: 1" = 50'

NOTE: Wash Borings Indicated Thus: ◉ W3



PROFILE OF PROPOSED STREAM CHANNEL

SCALE Hor. 1" = 50' Vert. 1" = 30'

HIGHWAY NO. RI 1 \ Sec 1 NAME OF HIGHWAY Interstate

STRUCTURE NO. COUNTY Windham TOWN Putney

PROJECT NO. I 91-1(10) LOCATION Sta. 1132+50

B.R. DIV. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	Vt.	I 91-1(10)	110	328

EXISTING STRUCTURE

1 RATED LOADING OF EXISTING STRUCTURE None
2 TYPE OF EXISTING STRUCTURE
3 UNDERCLEARANCE ELEVATION OF EXISTING STRUCTURE
4 WHAT DISPOSITION SHOULD BE MADE OF EXISTING STRUCTURE COST OF REMOVAL
5 SHOULD EXISTING STRUCTURE BE USED TO MAINTAIN TRAFFIC DURING CONSTRUCTION OF NEW STRUCTURE
6 SHOULD NEW TEMPORARY STRUCTURE BE BUILT
7 ORDINARY HIGH WATER SURFACE ELEV. AT EXISTING STRUCTURE WATERWAY TO ORDINARY H.W.
8 EXTREME HIGH WATER AT EXISTING STRUCTURE
9 SPAN OF EXISTING BRIDGE UPSTREAM WATERWAY TO EXTREME H.W.
SPAN OF EXISTING BRIDGE DOWNSTREAM WATERWAY TO EXTREME H.W.
10 TYPE OF FOUNDATION UNDER EXISTING ABUTMENTS
11 DOES ALL WATER AT FLOOD ELEVATION PASS THROUGH EXISTING STRUCTURE
12 IF NOT AT WHAT ELEVATION IS RELIEF AFFORDED
13 ADDITIONAL WATERWAY AREA PROVIDED

NEW STRUCTURE

1 RECOMMENDED TYPE OF STRUCTURE 4 Span Composite Steel Stringer Bridge
2 RECOMMENDED CLEAR SPAN OR SPANS 86'-86'-86'-86'
MEASURED PARALLEL TO ℄ NEW HIGHWAY
MEASURED AT RIGHT ANGLES TO ℄ STREAM
3 ARE THERE OBJECTIONS TO A PIER IN THE STREAM, ANSWER YES OR NO Yes
4 ORDINARY HIGH WATER ELEVATION AT NEW STRUCTURE 4' Above Bottom
5 EXTREME HIGH WATER ELEVATION AT NEW STRUCTURE 6' Above Bottom SOURCE OF INFORMATION
6 IS ALL WATER INTENDED TO PASS THROUGH NEW STRUCTURE?
7 DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY? No. IS ORDINARY RISE RAPID?
8 LOW WATER ELEVATION AT NEW STRUCTURE 0.5' Above Bottom
9 DRAINAGE AREA IN ACRES ABOVE STRUCTURE 8,390 CHARACTER OF TERRAINE
10 IS STREAM EVER DRY? No
11 VELOCITY OF STREAM AT HIGH WATER STAGE 10.3 F.P.S. ESTIMATED DISCHARGE
12 AREA FULL OPENING AREA BELOW ORDINARY H.W. 234
13 CHARACTER OF SCOUR DRIFT Light ICE Light
14 ESTIMATED DRAINAGE AREA ABOVE NATURAL OR ARTIFICIAL STORAGE
15 VERTICAL CLEARANCE ABOVE FLOOD ELEVATION
16 ARE SIDEWALKS REQUIRED, IF SO ON WHAT SIDE No BOTH SIDES
17 RECOMMENDED TYPE OF PAVEMENT 2" Bituminous Conc. Pavement For Bridge Floors
18 TRAFFIC TO BE MAINTAINED UNDER ITEM NO. None ONE OR TWO WAYS PROBABLE COST
19 PROBABLE COST OF CLEARING AND GRUBBING STREAM CHANNEL AT STRUCTURE SITE
20 SHOULD PROVISIONS BE MADE FOR PUBLIC UTILITIES? No
21 ESTIMATED ALLOWABLE LOAD ON FOUNDATIONS SHOULD PILES BE USED? EST. LGTH.

FOUNDATION INFORMATION

OBTAINED FOR DESIGN PURPOSES ONLY, AND THE STATE ASSUMES NO RESPONSIBILITY WHATSOEVER FOR THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN. BOULDERS MAY BE ENCOUNTERED AT ANY PIER OR ABUTMENT LOCATION. For Boring Logs, see sheet 111

GENERAL NOTES

DESIGN SPECIFICATIONS:
AASHO 1957 Edition and as modified by Vermont Dept. of Highways.

LIVE LOAD
H20-S16-44 and Military Loading

DESIGN STRESSES:
Structural steel fs = 18,000 p.s.i.
Reinforcing steel fs = 20,000 p.s.i.
Concrete fc = 1,200 p.s.i. for fc' = 3,000 p.s.i.

CLEARANCES
Horizontal: as shown on drawings.
Vertical: 50'-8" Clear Over Town Road #50

REFERENCE SHEET FOR VERNON - ROCKINGHAM IR-91-1(3) SHEET 19 OF 32

SUPERSTRUCTURE:
Separate structure for each lane.
30' Roadway, 1'-6" Safety Walks as per SCB-30-56
4 simple span, rolled beams, composite design as per SCB-30-56 (4 @ 86')
Aluminum Bridge Railing as per SB-50-57 (1&2)
Galvanized Bridge Railings
Granite Bridge Curb as per SB-50-57 (1&2)
Bearing and diaphragm connections as per SB-20-56
Details C and F Approach Slab SB-AS-square 20' as Modified.

SUBSTRUCTURE:
Piers: Square columns spaced (8'-0" o.c. with strut as shown, continuous footings. Stub abutments.

FOUNDATION:
Piers: Spread Footings
Abutments: Steel Piles

SUMMARY OF QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	NET	OVER-RUN	TOTAL	FINAL
107	Structural Excavation	C.Y.	3356	240	3636	1,986
204	Sub-base of Crushed Rock (Mod)	C.Y.	703	108	811	1,097
222	Gravel Backfill	C.Y.	88	22	110	70
361B	Bit. Conc. Pavement	Tons	302	46	348	345
401-B	Concrete, Class B (Mod)	C.Y.	2353	466	2819	2,434
402	Reinforcing Steel	Lbs.	370,138		370,138	374,096
403	Spiral Reinforcement (12,080)	L.S.	1 V	-	1 V	1
404A	Structural Steel	Lbs.	1,210,000	24,300	1234,300	1,202,220
407	Asphaltic-Asbestos Coating	S.Y.	404	-	424	121
508	Steel Piling	L.F.	4680	-	4680	4,688
522	Stone Fill for Slope Protection	C.Y.	541	81	622	1,593
558C	Granite Bridge Curb (Type I)	L.F.	1450	-	1450	1,495
572	Bridge Railing (SB-50-57 (1&2))	L.F.	1382	-	1382	1,391
501	Furnishing Equip. for Driving Piles		Required			1.0
503	Splices for Steel Piling	Ea.	46	-	46	1.0
318	Tar Emulsion for Bridge Floors (Sup. Apr. 5-2-61)		880 gal.			
372	Joint Sealer, Hot Poured Elastic Type (Sup. Apr. 8-1-61)		300 L.F.			

LIST OF SHEETS

SHEET NO.	DESCRIPTION
110	GENERAL PLAN
111	BORINGS
112	PLAN & ELEVATION
113	ABUTMENTS
114	WINGWALLS & APPROACH SLABS
115	PIERS A & B
116	PIERS C & D
117	PIERS E & F
118	STRUCTURAL STEEL PLAN
119	STRUCTURAL STEEL DETAILS
120	REINFORCING SCHEDULE
120A	REINFORCING SCHEDULE
3 Thru 39	HIGHWAYS PLAN AND PROFILES
528 & 528	SCB-30-56 (1&2)
92	SB-20-56
93	SB-20-56
54 & 54A	SB-50-57 (1&2)
96	SB-AS-Square-57

BRIDGE 16 N & S

GENERAL PLAN

STATE OF VERMONT

DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT in the town of PUTNEY

INTERSTATE STA. 1132+50 OVER TOWN ROAD #50 (REL.) STA. 20+00

APPROVED BY [signature] DATE 1-7-58

THE CLARKESON ENGINEERING CO. INC. CONSULTING ENGINEERS BOSTON MASSACHUSETTS

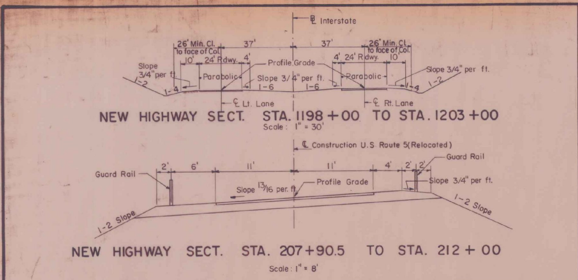
SURVEYED BY	CHECKED BY	SCALE
DRAWN BY	IN CHARGE	DATE

PROJECT NO. I 91-1(10) SHEET NO. 110 OF 328

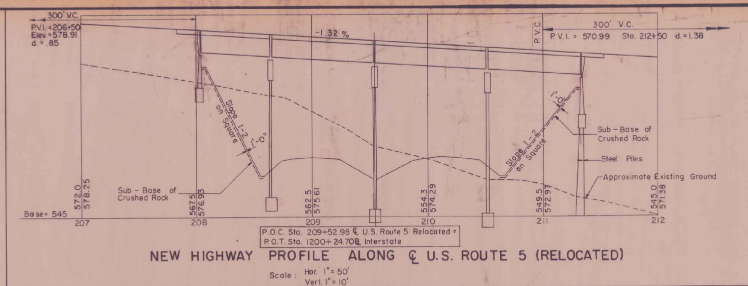
CONTRACT NO. 2

HIGHWAY NO. Rt. 1 Sec. 1	NAME OF HIGHWAY Interstate
STRUCTURE NO.	COUNTY Windham TOWN Putney
PROJECT NO. I 91 - 1(10)	LOCATION Sta. 1200 + 24.70

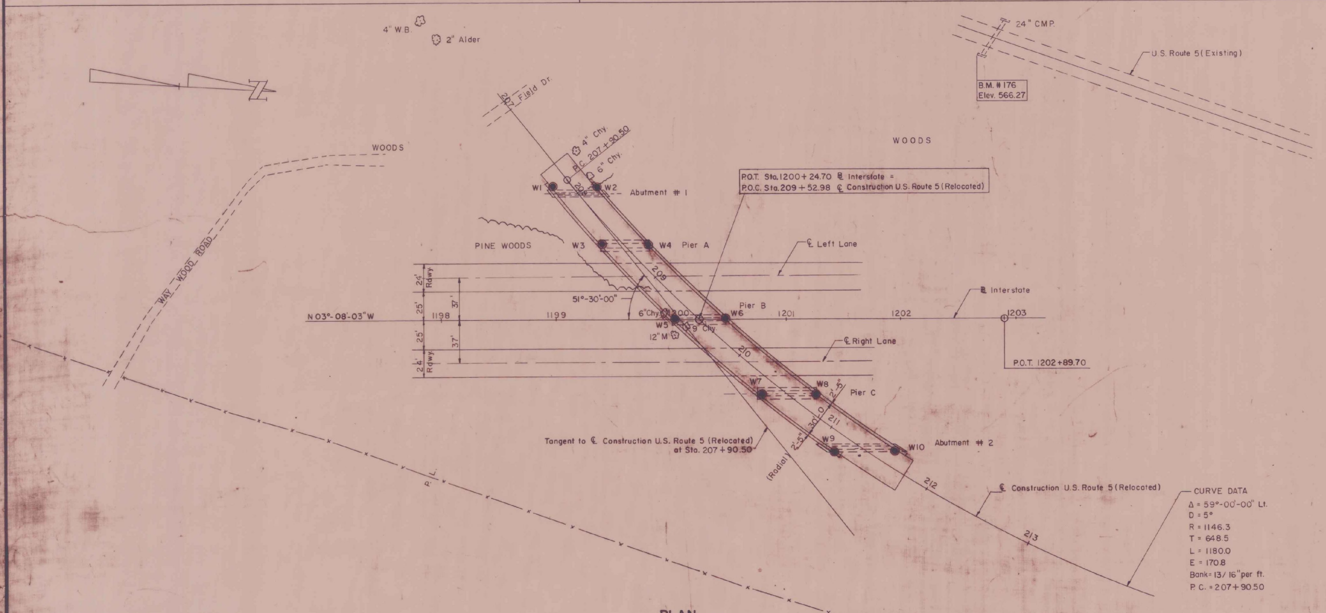
B.P.R. DIV. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	VT.	I 91 - 1(10)	121	328



℄ Interstate
26' Min. Cl. To face of Col.
37'
37'
26' Min. Cl. To face of Col.
10'
24' Rdwy.
4'
4'
24' Rdwy.
10'
Slope 3/4" per ft.
Parabolic
Profile Grade
Slope 3/4" per ft.
Parabolic
Slope 3/4" per ft.
℄ Lt. Lane
℄ Rt. Lane
NEW HIGHWAY SECT. STA. 1198 + 00 TO STA. 1203 + 00
Scale: 1" = 30'
℄ Construction U.S. Route 5 (Relocated)
Guard Rail
Guard Rail
2'
6'
11'
11'
4'
2'
2'
Slope 13/16 per ft.
Profile Grade
Slope 3/4" per ft.
1-2 Slope
1-2 Slope
NEW HIGHWAY SECT. STA. 207 + 90.5 TO STA. 212 + 00
Scale: 1" = 8'



300' V.C.
P.V.I. = 206+50
Elev. = 578.91
d = .85
-1.32 %
300' V.C.
P.V.I. = 570.99 Sta. 212+50 d = 1.38
P.V.C.
Sub - Base of Crushed Rock
Steel Piles
Approximate Existing Ground
Sub - Base of Crushed Rock
Base = 545
207
208
209
210
211
212
P.O.C. Sta. 209+52.98 ℄ U.S. Route 5 Relocated =
P.O.T. Sta. 1200+24.70 ℄ Interstate
NEW HIGHWAY PROFILE ALONG ℄ U.S. ROUTE 5 (RELOCATED)
Scale: Hor. 1" = 50'
Vert. 1" = 10'



4" W.B.
2" Alder
24" CMP
U.S. Route 5 (Existing)
B.M. # 176
Elev. 566.27
Field Dr.
WOODS
WOODS
4" Chy.
P.C. 207 + 90.50
6" Chy.
W1
W2
Abutment # 1
P.O.T. Sta. 1200 + 24.70 ℄ Interstate =
P.O.C. Sta. 209 + 52.98 ℄ Construction U.S. Route 5 (Relocated)
PINE WOODS
W3
W4
Pier A
℄ Left Lane
51°-30'-00"
℄ Interstate
N 03°-08'-03" W
1198
1199
Pier B
1201
1202
1203
W5
W6
12" M.
℄ Right Lane
P.O.T. 1202+89.70
W7
W8
Pier C
Tangent to ℄ Construction U.S. Route 5 (Relocated) at Sta. 207 + 90.50
W9
W10
Abutment # 2
(Radial)
℄ Construction U.S. Route 5 (Relocated)
CURVE DATA
Δ = 59°-00'-00" Lt.
D = 5°
R = 1146.3
T = 648.5
L = 1180.0
E = 170.8
Bank = 13/16" per ft.
P.C. = 207 + 90.50

PLAN

Scale: 1" = 50'

Note: Location of Borings indicated thus: ⦿ W8

REFERENCE SHEET FOR VERNON-ROCKINGHAM IR-91-1(3) SHEET 20 OF 32

FOUNDATION INFORMATION

OBTAINED FOR DESIGN PURPOSES ONLY, AND THE STATE ASSUMES NO RESPONSIBILITY WHATSOEVER FOR THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN. BOULDERS MAY BE ENCOUNTERED AT ANY PIER OR ABUTMENT LOCATION. FOR BORING LOGS, SEE SHEET NO. 121

GENERAL NOTES

DESIGN SPECIFICATIONS:

AASHO 1957 Edition and as modified by Vermont Dept. of Highways.

LIVE LOAD:

H20 - S16 - 44 and Military Loading.

DESIGN STRESSES:

Structural Steel fs = 18,000 p.s.i.
Reinforcing Steel fs = 20,000 p.s.i.
Concrete fc = 1,200 p.s.i. for f'c = 3,000 p.s.i.

CLEARANCE:

Horizontal: as shown on drawings.
Vertical: ~~15'-3"~~ 16'-5" (Lt. Lane Interstate).

SUPERSTRUCTURE:

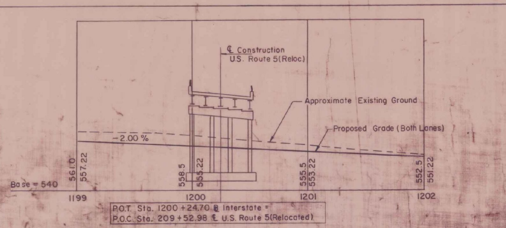
30' Roadway, 1'-6" Safety Walks, as per SCB - 30 - 56.
4 simple spans, rolled beams, composite designs, similar to SCB - 30 - 56. (64'-89'-99'-79' As Modified)
Aluminum bridge railing, or galvanized bridge railing, and granite bridge curb as per SB-5G-57 (1 & 2).
Bearing and diaphragm connections as per SB - 20 - 56.
Approach Slabs as per SB - AS - 45° Skew - 57. As Modified.

SUBSTRUCTURE:

Open piers, round columns continuous footings.
Stub abutments.

FOUNDATIONS:

Piers: Spread Footings.
North Abutment: Steel Piles, 35 Ton Design Load.
South Abutment: Spread Footing.



PROFILE OF PROPOSED INTERSTATE

Scale: Hor. 1" = 50'
Vert. 1" = 20'

SUMMARY OF QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	NET	OVER-RUN	TOTAL	FINAL
107	Structure Excavation	C.Y.	~~484~~	~~49~~	~~533~~	437
204	Sub-base of Crushed Rock (Mod.)	C.Y.	~~175~~	~~26~~	~~201~~	213
222	Gravel Backfill	C.Y.	~~70~~	~~20~~	~~90~~	159
361-B	Bit. Conc. Pavement (S.A. 5-22-61)	Tons	155 ✓	~~23~~	~~178~~	155
401-B	Concrete Class B (Mod.)	C.Y.	~~835~~	~~41~~	~~876~~	913
402	Reinforcing Steel	Lbs.	~~134,636~~	–	~~134,636~~	134,350
403	Spiral Reinforcement (5,685# ±)	L.S.	1 ✓	–	1 ✓	1
404-A	Structural Steel	Lbs.	~~495,890~~	~~9,900~~	~~505,790~~	492,245
407	Asphaltic-Asbestos Coating	S.Y.	88 ✓	–	88 ✓	88
504	Steel Piling	L.F.	~~440~~	–	~~440~~	535
556-C	Granite Bridge Curb (Type I)	L.F.	~~709~~	–	~~709~~	712
572	Bridge Railing (Mod.) (S.A. 9-14-60)	L.F.	648 ✓	–	648 ✓	648
501	Furnishing Equip. for Driving Piles		Required			1
503	Splices for Steel Piling	Ea.	~~4~~	–	~~4~~	0
318	Tar Emulsion for Bridge Floors (Sup. Agr. 5-25-61)				0	385
372	Joint Sealer Hot Poured Elastic Type (Sup. Agr. 6-14-61)				0	223

LIST OF SHEETS

BRIDGE 17
GENERAL PLAN

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT in the town of
PUTNEY

INTERSTATE Sta. 1200 + 24.70
UNDER
U.S. ROUTE 5 (REL.) Sta. 209 + 52.98

APPROVED BY [signature] DATE 1/24/58

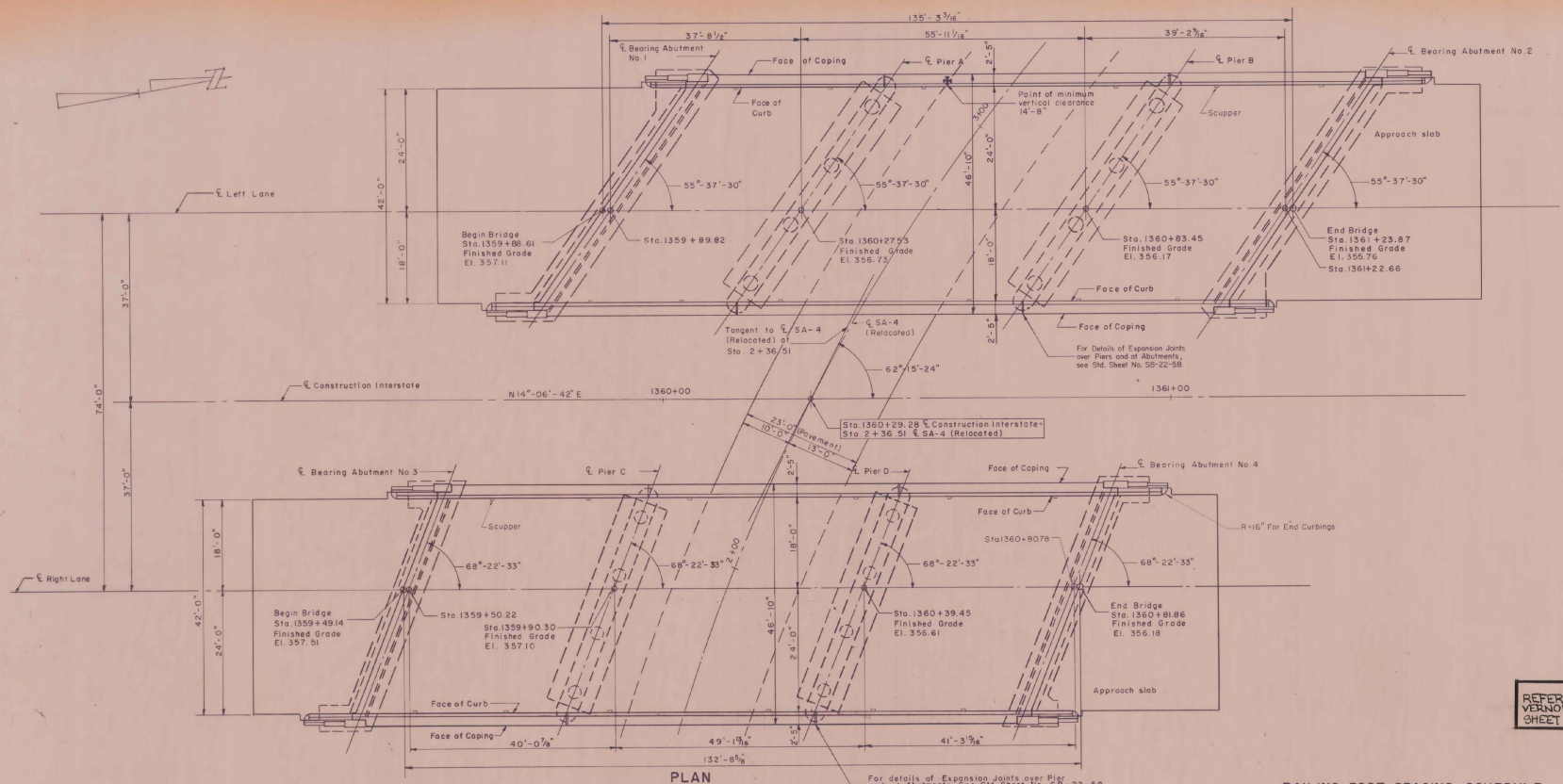
THE CLARKESON ENGINEERING CO. INC.
CONSULTING ENGINEERS
BOSTON MASSACHUSETTS

SURVEYED BY
DRAWN BY H.B.C.
CHECKED BY D.S.
IN CHARGE J.V.B.
SCALE AS NOTED
DATE 10-25-57

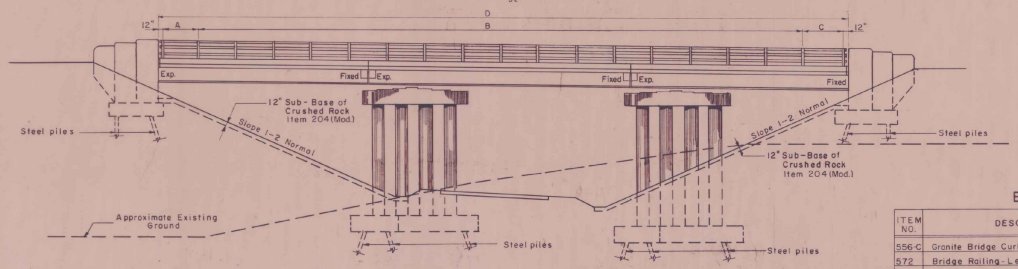
PROJECT NO. I 91 - 1(10) SHEET 121 OF 328

CONTRACT NO. 3

B.P.R. DIV. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
1	VT.	I 91-1(11)	192	555



PLAN
Scale: $\frac{3}{32}$"=1'-0"



EASTERLY ELEVATION
WESTERLY ELEVATION (SIMILAR)
Scale: $\frac{3}{32}$" = 1'-0"

RAILING POST SPACING SCHEDULE

	A	B	C	D
LEFT LANE	7'-2 1/16"	16 @ 7'-1" = 113'-4"	7'-2 1/16"	127'-8 1/8"
RIGHT LANE	6'-11 7/8"	16 @ 7'-0" = 112'-0"	6'-11 13/16"	125'-11 7/16"

Notes: 1. Railing posts to be set normal to grade. Omit set screw at high end of railing panel at expansion joints over pier.
2. All stationing refers to ℄ Construction Interstate excluding stationing along SA-4 (Relocated).
3. For scupper layout see Framing Plan Sheet No. 198
4. For railing details see standard Sheet SB-5G-57 (18.2)
5. All dimensions are horizontal dimensions.
6. For Bridge Marker See Drawing SB-20-56 (Detail A)

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	NET	OVER-RUN	TOTAL	FINAL
556-C	Granite Bridge Curb-Type I - Left Lane	L.F.	~~309~~		~~309~~	308
572	Bridge Railing - Left Lane	L.F.	~~255~~		~~255~~	258
556-C	Granite Bridge Curb-Type I - Right Lane	L.F.	~~306~~		~~306~~	306
572	Bridge Railing - Right Lane	L.F.	~~251~~		~~251~~	256

REFERENCE SHEET FOR VERNON-ROCKINGHAM IR-91-1(3) SHEET 21 OF 32

BRIDGE #8145

PLAN AND ELEVATION
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
INTERSTATE PROJECT in the town of
WESTMINSTER
INTERSTATE STA. 1360+29.28
OVER
SA-4(RELOCATED) STA. 2+36.51

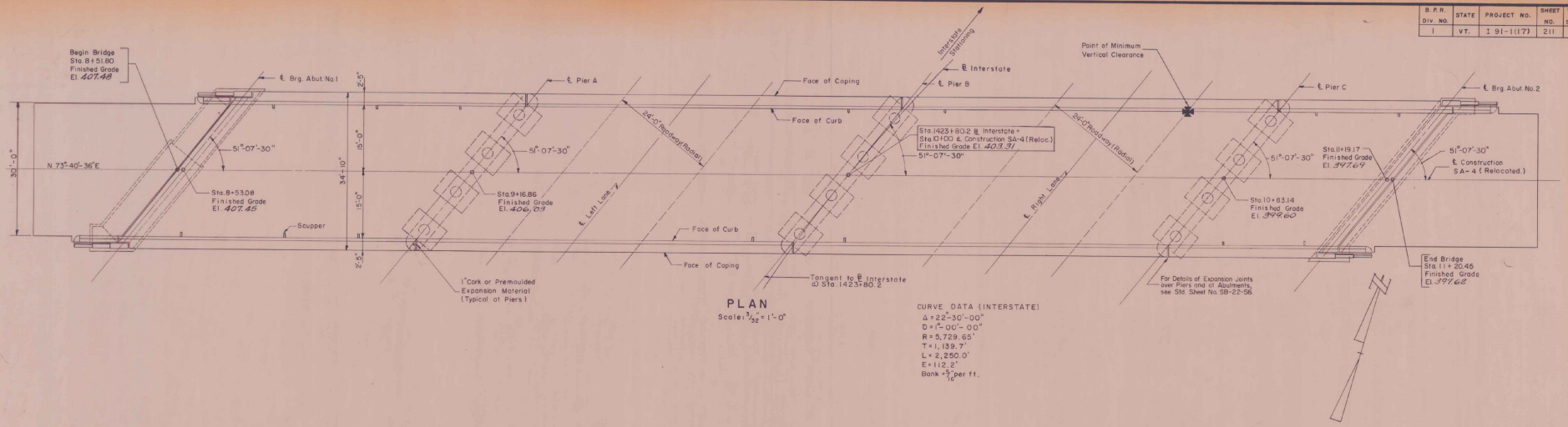
THE CLARKESON ENGINEERING CO., INC.
CONSULTING ENGINEERS
BOSTON MASSACHUSETTS

SURVEYED BY	CHECKED BY	SCALE AS NOTED
DRAWN BY R.J.F.	IN CHARGE J.V.B.	DATE 11-27-67

PROJECT NO. I 91-1(11) SHEET 192 OF 555

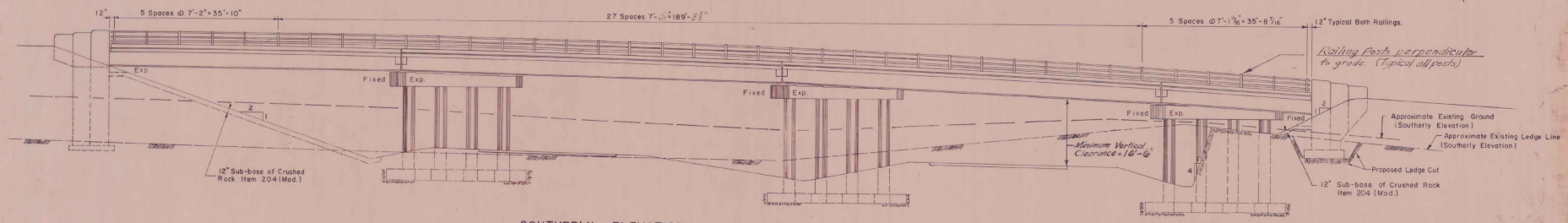
CONTRACT NO. 3

B.P.R. DIV. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
I	VT.	I 91-1(17)	211	555



PLAN
Scale: $\frac{3}{32}$" = 1'-0"

CURVE DATA (INTERSTATE)
Δ = 22°-30'-00"
D = 1°-00'-00"
R = 5,729.65'
T = 1,139.7'
L = 2,250.0'
E = 112.2'
Bank = $\frac{5}{16}$" per ft.



SOUTHERLY ELEVATION
NORTHERLY ELEVATION (SIMILAR)
Scale $\frac{3}{32}$" 1'-0"

REFERENCE SHEET FOR VERNON-ROCKINGHAM IR-91-1(9) SHEET 22 OF 32

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	NET	OVER-RUN	TOTAL	FINAL
556-C	Granite Bridge Curb (Mod)	L.F.	~~570~~	–	~~570~~	579
572	Bridge Railing	L.F.	525 ✓	–	525 ✓	525

Notes: 1. Railing posts to be set normal to grade
2. Omit set screws at one end of railing panel at expansion joints over piers.
3. All dimensions are horizontal dimensions.
4. For scupper spacing see Sheet 215.
5. For Bridge Marker see Drawing SB-20-56 (Detail A)
6. For Details of Railing see standard Sheet SB-56-60 (1 & 2)

BRIDGE 19
STAGE I CONSTRUCTION
PLAN AND ELEVATION

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
INTERSTATE PROJECT in the town of WESTMINSTER
INTERSTATE STA. 1423+80.2
UNDER
SA-4 (RELOCATED) STA. 10+00

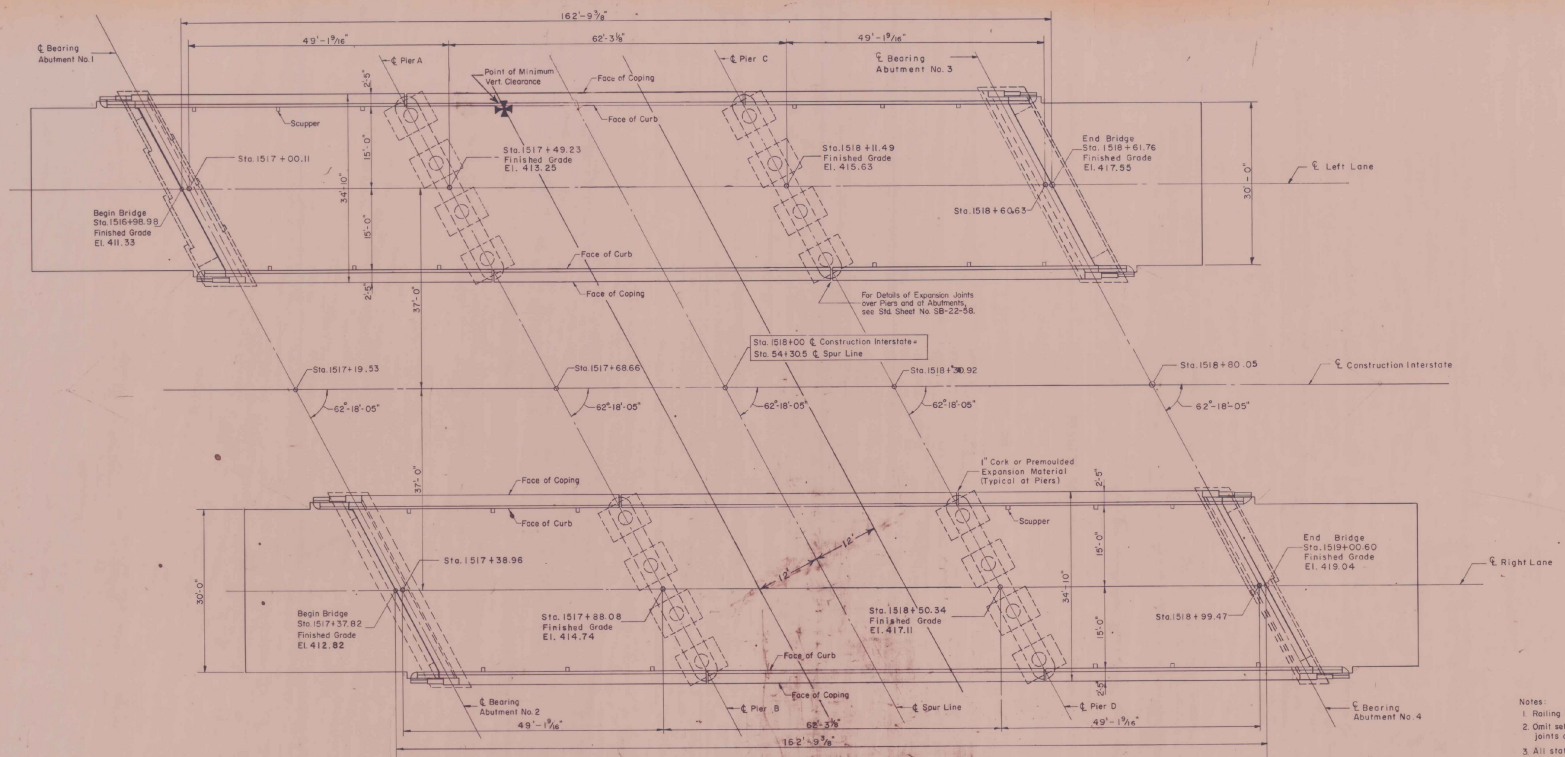
THE CLARKESON ENGINEERING CO. INC.
BOSTON CONSULTING ENGINEERS MASSACHUSETTS

SURVEYED BY	CHECKED BY D.S.R.B.	SCALE AS NOTED
DRAWN BY A.R.C.	IN CHARGE J.V.B.	DATE 8-63

PROJECT NO. I 91-1(17) SHEET 37 OF 149

CONTRACT NO. I 37

B.P.R. DIV. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
I	VT.	I 91-1 01)(23)		

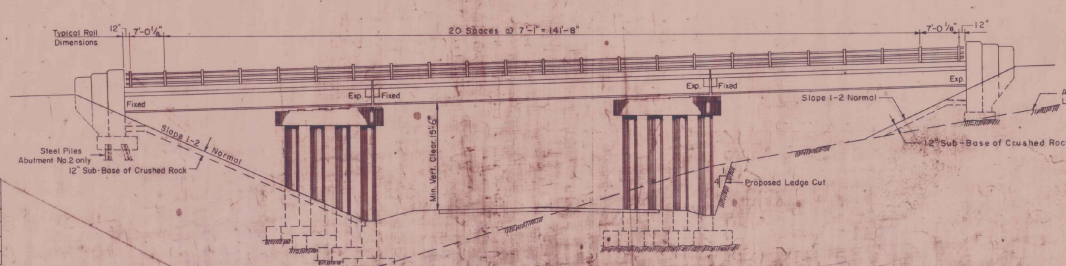


PLAN

Scale: $\frac{3}{32}$" = 1'-0"

Notes:
1. Railing Posts to be set normal to grade.
2. Omit set screws at one end of railing panels at expansion joints over piers.
3. All stations refer to ℄ Construction Interstate.
4. All dimensions are horizontal dimensions.
5. For Scupper layout see Framing Plan Sheet No.243.
6. For Details of Railing see, Standard Sheet SB-56-60(182)

REFERENCE SHEET FOR VERNON - ROCKINGHAM IR-91-1(3) SHEET 23 OF 32



EASTERLY ELEVATION RIGHT LANE
WESTERLY ELEVATION (SIMILAR EXCEPT AS NOTED)

Scale: $\frac{3}{32}$" = 1'-0"

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	NET	OVER-RUN	TOTAL	FINAL
556-C	Granite Bridge Curb (MOD.)	L.F.	~~203~~	-	~~203~~	711
572	Bridge Railing	L.F.	629✓	-	629✓	629

BRIDGE 20 N&S
STAGE I CONSTRUCTION

PLAN AND ELEVATION

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
INTERSTATE PROJECT in the town of
WESTMINSTER
INTERSTATE STA. 1518+00
OVER
SPUR LINE STA. 54+30.5

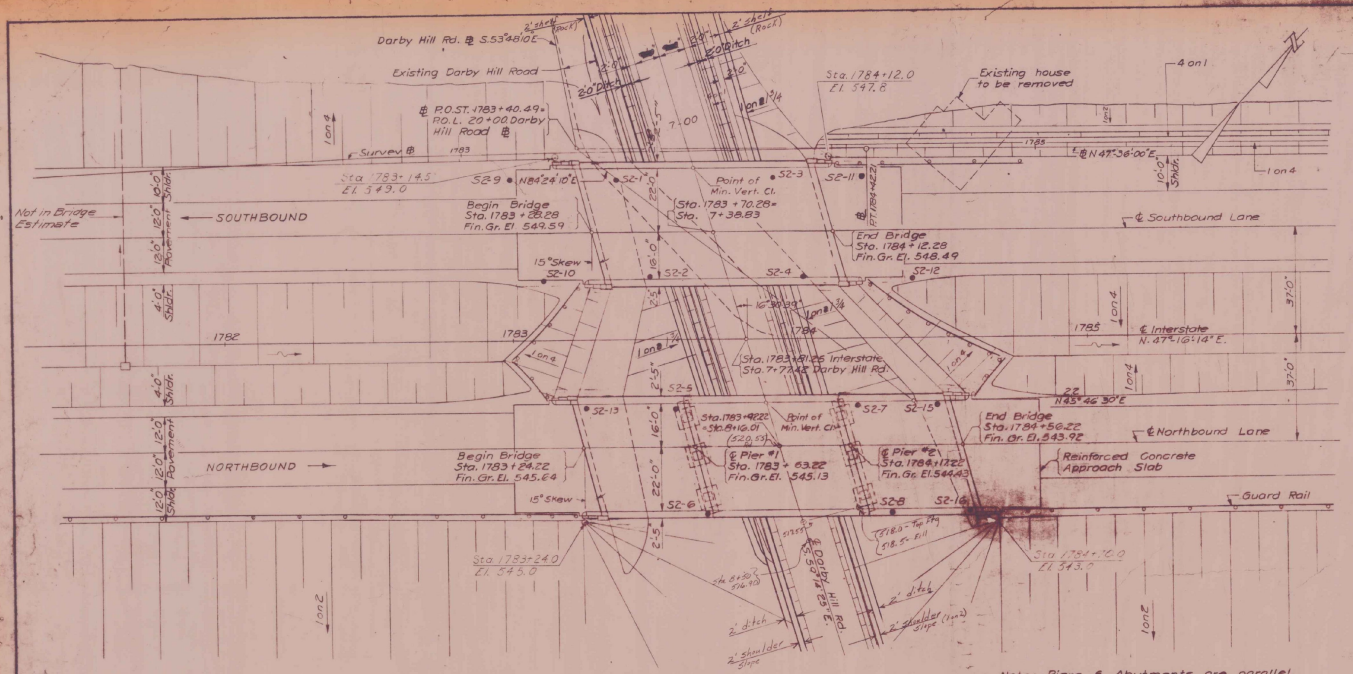
THE CLARKESON ENGINEERING CO., INC.
CONSULTING ENGINEERS
BOSTON MASSACHUSETTS

SURVEYED BY	CHECKED BY G.G.S./J.S.	SCALE AS NOTED
DRAWN BY H.B.C.	IN CHARGE J.J.V.B.	DATE 12-5-58

PROJECT NO. I 91-1(17)123 SHEET 54 OF 192

CONTRACT NO. 2

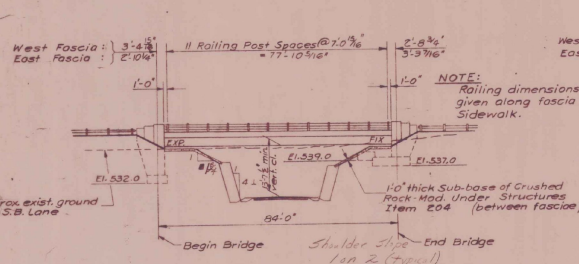
SHEET 46 OF 189 SHEETS



PLAN
Scale: 1" = 20'

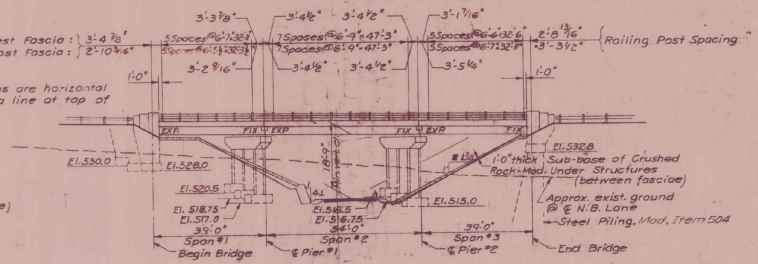
NOTE:—
Where granular material is indicated around bridge abutments rock fill, if available, shall be substituted except in the area where piles are to be driven. Wherever materials from excavation are used in embankments requiring granular material they shall be paid for as indicated under Item 101, Excavation.

Note: Piers & Abutments are parallel.
• Boring Symbol
The embankment for a distance of 100 ft from approach slabs shall be of granular material conforming to the Specification for granular borrow - Item 102-A.



NOTE:
Railing dimensions are horizontal given along fascia line at top of Sidewalk.

ELEVATION - S.B. BRIDGE
Scale: 1" = 20'



ELEVATION - N.B. BRIDGE
Scale: 1" = 20'-0"

SUMMARY OF QUANTITIES

	ITEM-NO.	ITEM	UNIT	QUANTITIES ⊕ S.B. BRIDGE	QUANTITIES ⊕ N.B. BRIDGE
	107	Structure Excavation	C.Y.	269	317
	204	Sub-base of Crushed Rock (Mod. under Structures)	C.Y.	14	161
	222	Gravel Backfill	C.Y.	90	100
*	318	Tar Emulsion for Bridge Floors	gal.	227	308
*	401-E	Bituminous Concrete Pavement	ton	72	98
*	401-B	Concrete Class B, Mod.	C.Y.	529	535
	502	Reinforcing Steel	lb.	43,482	70,942
	503	Spiral Reinforcement (SB-2850, NB-4960)	L.S.	Nec.	Nec.
	104 A	Structural Steel	lb.	148,540	131,690
	407	Asphaltic Asbestos Coating	S.Y.	10	46
	501	Furnishing Equipment for Driving Piles	L.S.	-	Nec.
	503	Splices for Steel Piling	ea.	-	3
	504	Steel Piling	L.F.	-	240
	556 C	Granite Bridge Curb, Mod.	L.F.	199	295
	572	Bridge Railing	L.F.	159	256
*	372	Joint Sealer - Hot-poured elastic type	L.F.	78	158

* these items to be included in the roadway estimate

⊕ For Final Quantities See Original Tracing SH 38 OF 187 BRIDGE SHEET 1 OF 10

GENERAL NOTES:

1. Materials and Construction shall conform to State of Vermont Department of Highways Standard Specifications for Highway and Bridge Construction dated 1936.
2. All design in accordance with A.A.S.H.O. Standard Specifications for Highway Bridges, dated 1957. Loading is H20-S16-44 truck as modified for National System of Interstate Highways.
3. Concrete shall attain a minimum strength of 2000 p.s.i. prior to the addition of any superimposed load.
4. All concrete to be Class "B".
5. All welding to conform with the American Welding Society Standard Specifications for Welded Highway and Railway Bridges.
6. The haunch over each beam to vary in order to compensate for camber remaining after dead load deflection. Beam seat elevations have been lowered to account for difference between actual camber and required camber.
7. Minimum cover for reinforcing bars shall be 2" unless noted.
8. All piles to be 12 BP 53 and driven to ledge rock or refusal as directed by Engineer. Minimum bearing capacity = 46 Tons.
9. Chamfer all exposed edges of concrete 1" unless otherwise shown.
10. Care must be exercised in removing the ledge rock in the area of piers & abutments founded on ledge rock.
11. All expansion material shall be prepmolded cork containing no bituminous or asphalt.

REFERENCE SHEET FOR VERNON-ROCKINGHAM IR-91-1(3) SHEET 24 OF 32

INDEX OF DRAWINGS

Standard Drawings
SCB-D-60
SCB-36-60
SB-5G-60 - Sheet 1 of 2
SB-20-60
SB-22-60

BRIDGE 32 N & S

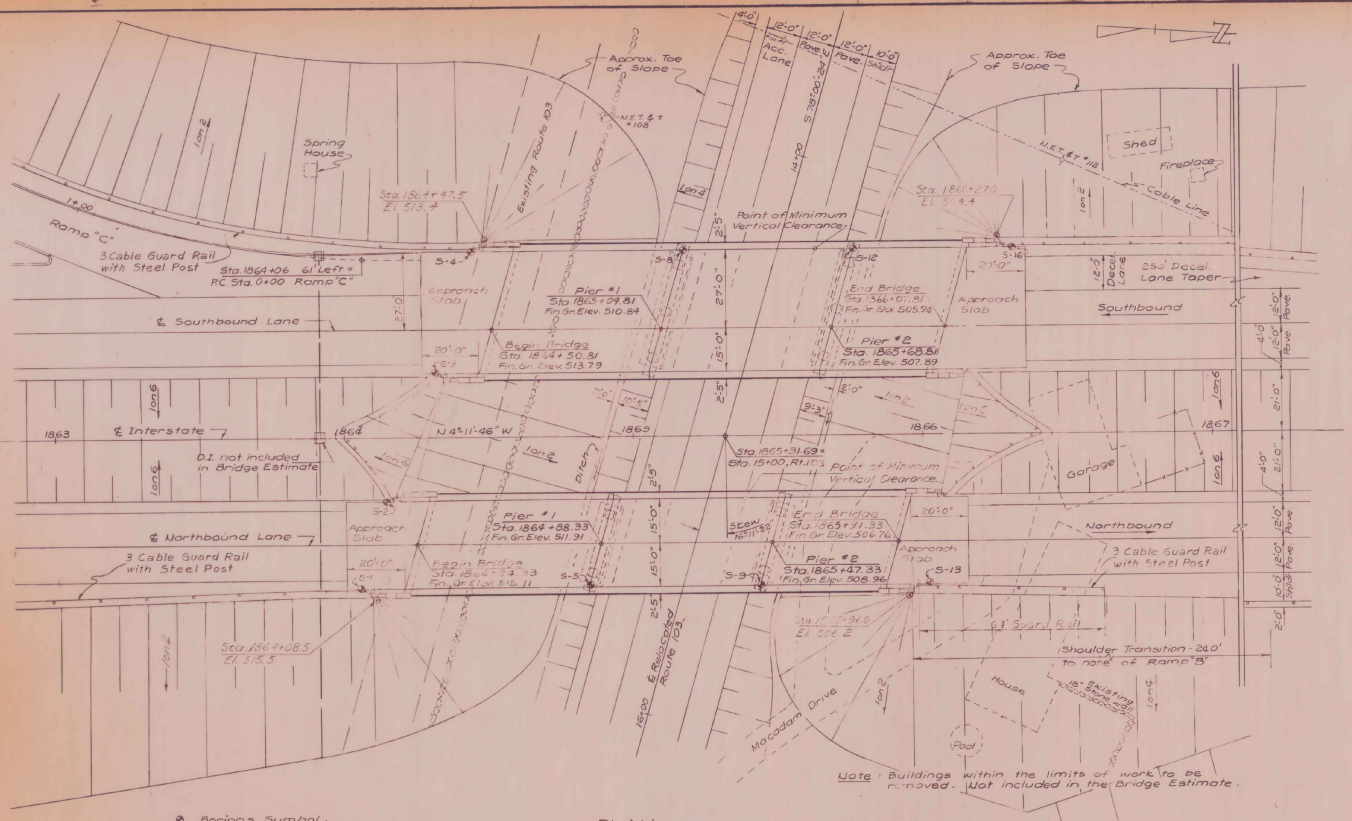
VERMONT
STATE HIGHWAY DEPARTMENT
TOWNS OF WESTMINSTER ROCKINGHAM
INTERSTATE ROUTE 91

DARBY HILL ROAD BRIDGE
GENERAL PLAN AND ELEVATIONS

WM. H. McFARLAND
ENGINEER
BINGHAMTON, N.Y.

DESIGNED: L.H.S. CHECKED: L.H.S. DATE: 12-30-60
DRAWN: A. TIETZ IN CHARGE: H.G.C. SCALE: 1" = 20'
PROJ. I 91-1(15) CONT. 3 SH. 38 OF 187
BRIDGE SHEET 1 OF 10

PRELIMINARY INFORMATION SHEET FOR BRIDGES



℄ Borings Symbol.

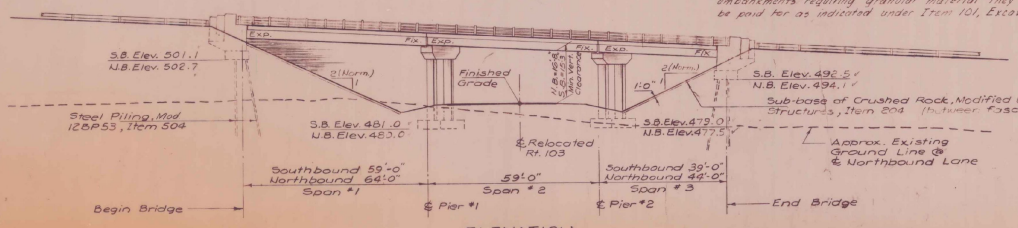
PLAN

Scale: 1"=20'

NOTES:~

1- The embankment for a distance of 100ft. from approach slabs shall be of granular material conforming to the Specification for Granular Borrow, Item 106-A.

2- Where granular material is indicated around bridge abutments rock fill, if available, shall be substituted except in the area where piles are to be driven. Wherever materials from excavation are used in embankments requiring granular material they shall be paid for as indicated under Item 101, Excavation.



ELEVATION

Scale: 1"=20'

SUMMARY OF QUANTITIES

ITEM NO.	ITEM		QUANTITIES S.B. BRIDGE		QUANTITIES N.B. BRIDGE	
107	Structure Excavation,	C.Y.	175	~~192~~	146	~~138~~
204	Sub-base of Crushed Rock, Mod., Under Structure	C.Y.	131	~~146~~	120	~~122~~
222	Gravel Backfill	C.Y.	88	~~100~~	66	~~90~~
* 318	Tar Emulsion for Bridge Floors	gal.		391		288
* 361-B	Bituminous Concrete Pavement, Mod.	ton		158		115
401 B	Concrete Class B, Mod.	c.y.	637	649	493	502
402	Reinforcing Steel * (S.B-102547 N.B-80.790)	lb.	*	101.712	*	78.445
403	Spiral Reinforcement (7010 S.B, 5210 N.B.)	l.s.		Nec.		Nec.
404A	Structural Steel @ Total: S.B. & N.B.=306,048	lb.	@	~~170,400~~	@	~~142,756~~
407	Asphaltic - Asbestos Coating	s.y.	48	48'	36	36'
501	Furnishing Equipment for Driving Piles	l.s.	Nec.	Nec'	Nec.	Nec'
503	Splices for Steel Piling	ea.	0	~~36~~	0	~~36~~
504	Steel Piling	l.f.	1,257	~~1,436~~	1,011	~~1,008~~
556C	Granite Bridge Curb, Mod.	l.f.	366	~~366~~	383	~~378~~
572	Bridge Railing	l.f.	327	327'	343	343'
* 372	Joint Sealer, hot poured elastic type	l.f.		~~178~~		~~229~~
			FINAL		FINAL	

* These items to be included in the roadway estimate

GENERAL NOTES

1. Materials and Construction shall conform to State of Vermont Department of Highways Standard Specifications for Highway and Bridge Construction dated 1956.
2. All design in accordance with A.A.S.H.O. Standard Specifications for Highway Bridges, dated 1957. Loading is H20-S16-44 truck as modified for National System of Interstate Highways.
3. Concrete shall attain a minimum strength of 2,000 p.s.i. prior to the addition of any superimposed load.
4. All concrete to be Class "B".
5. All welding to conform with the American Welding Society Standard Specifications for Welded Highway and Railway Bridges.
6. The haunch over each beam to vary in order to compensate for camber remaining after dead load deflection. Beam seat elevations have been lowered to account for difference between actual camber and required camber.
7. Minimum cover for reinforcing bars shall be 2" unless noted.
8. All piles to be 12 BP 53 and driven to minimum bearing capacity of 90 tons.
9. Chamfer all exposed edges of concrete 1" unless otherwise shown.
10. All expansion material shall be premoulded cork containing no bituminous or asphalt.
11. Refer to SCB-D-60 for cambering of beams & joint material details.

INDEX OF DRAWINGS

1. General Plan and Elevation.
2. Boring Logs, Profiles, Sections & Finishing Plans
3. South Abutment - Southbound.
4. North Abutment - Southbound.
5. South Abutment - Northbound.
6. North Abutment - Northbound.
7. Piers Southbound.
8. Piers Northbound.
9. Approach Slab and Railing Plan.
10. Reinforcement Sheet 1 of 2.
11. Reinforcement Sheet 2 of 2.

STANDARD DRAWINGS:

SCB-30-58 Sheet 1 of 2
" " " " 2 " 2
SCB-42-58 " 1 " 2
" " " " 2 " 2
SB-5G-60 2-SHEETS
SB-A5-(15° Skew)-57
SB-20-56
SB-22-56
SCB-D-60

PRELIMINARY INFORMATION SHEET FOR BRIDGES

REFERENCE SHEET FOR VERNON-ROCKINGHAM IR-91-1(3) SHEET 25 OF 32

BRIDGE 23 N & S

VERMONT
STATE HIGHWAY DEPARTMENT
TOWNS OF WESTMINSTER-ROCKINGHAM
INTERSTATE ROUTE 91

ROUTE 103 INTERCHANGE

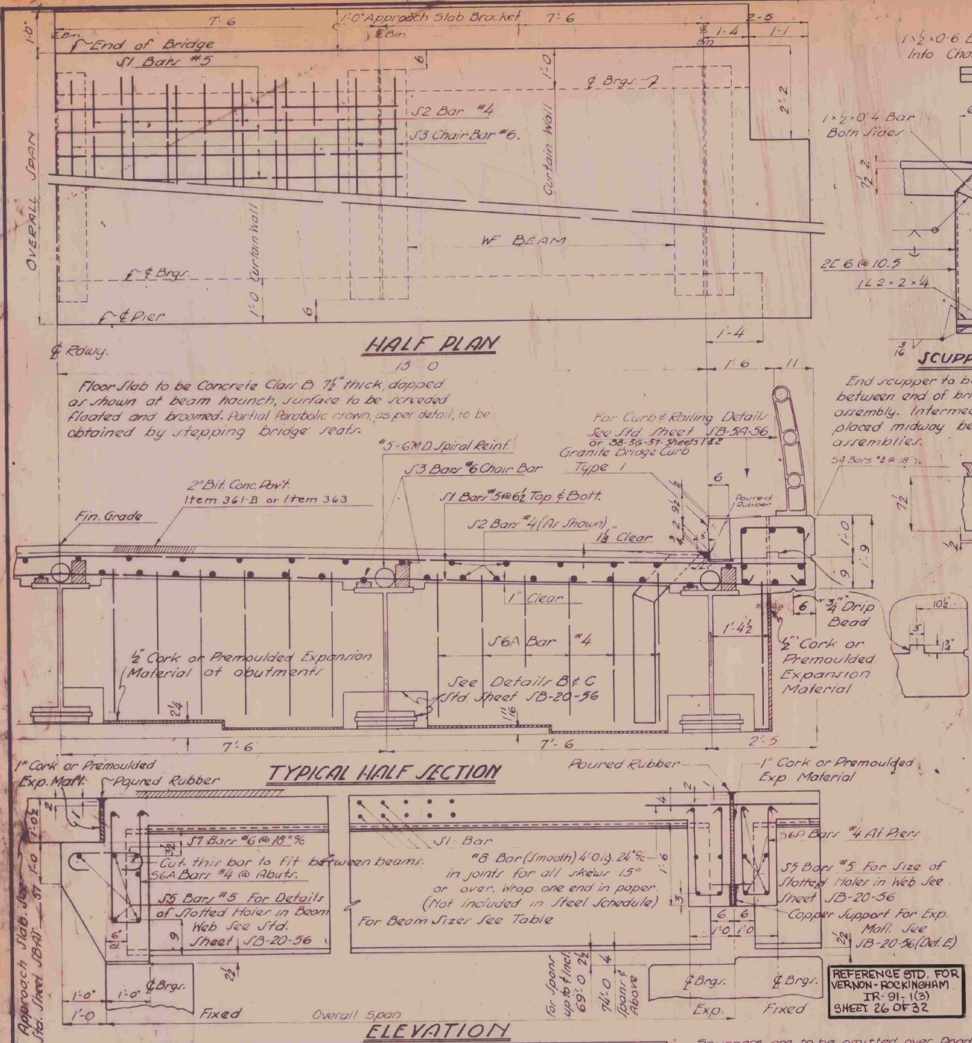
GENERAL PLAN AND ELEVATION

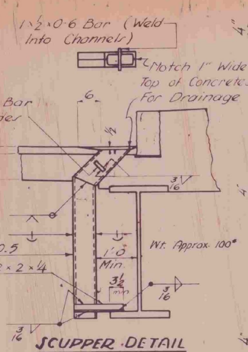
WM. H. McFARLAND
ENGINEER
BINGHAMTON, N.Y.

DESIGNED: L.H.S. | CHECKED: L.H.S. | DATE: 12-30-60
DRAWN: RCOUT | IN CHARGE: H.G.C. | SCALE: As Shown

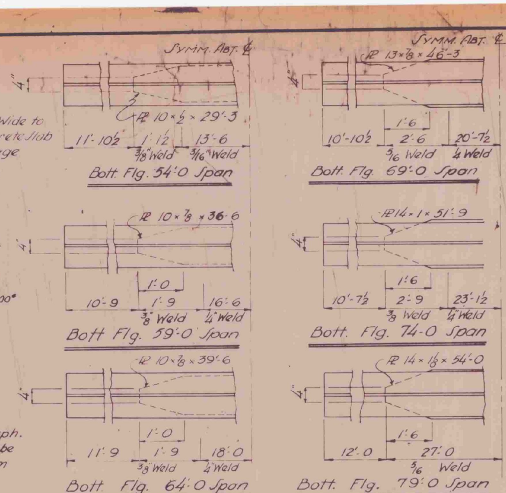
PROJ.# I91-1(15) CONT.#5 SH. 37 OF 141

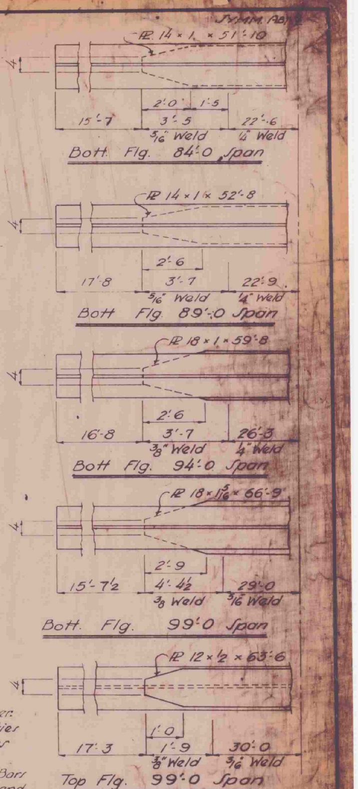
BRIDGE SHEET 1 OF 11

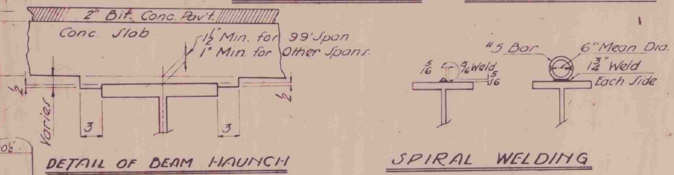

End of Bridge
S1 Bars #5
1'-0" Approach Slab Bracket
S2 Bar #4
S3 Chair Bar #6
Curtain Wall
OVERALL SPAN
WF BEAM
℄ Brgs.
℄ Pier
℄ Rdwy.
HALF PLAN
Floor Slab to be Concrete Class B 7½" thick, dapped as shown at beam haunch, surface to be screeded floated and broomed. Partial Parabolic crown, as per detail, to be obtained by stepping bridge seats.
For Curb & Railing Details See Std. Sheet SB-51-56
Granite Bridge Curb Type 1
2" Bit. Conc. Pav't. Item 361-B or Item 363
Fin. Grade
S3 Bars #6 Chair Bar
S1 Bars #5 @ 6½ Top & Bott.
S2 Bars #4 (As Shown)
1" Clear
S6A Bar #4
½" Cork or Premoulded Expansion Material at abutments
See Details B & C Std. Sheet SB-20-56
¾" Drip Bead
2" Cork or Premoulded Expansion Material
TYPICAL HALF SECTION
1" Cork or Premoulded Exp. Mat'l.
Poured Rubber
S7 Bars #6 @ 18"
Cut this bar to fit between beams
S6A Bars #4 @ Abuts.
S5 Bars #5 For Details of Slotted Holes in Beam Web See Std. Sheet SB-20-56
S1 Bar
#8 Bar (Smooth) 4'-0 lg. 24" c/c in joints for all skews 15" or over. Wrap one end in paper. (Not included in Steel Schedule)
For Beam Sizes See Table
S6P Bars #4 At Piers
S5 Bars #5 For Size of Slotted Holes in Web See Sheet SB-20-56
Copper Support For Exp. Mat'l. See SB-20-56 (Det. E)
Approach Slab See Std. Sheet SB-AS-57
Fixed
Overall Span
Exp.
ELEVATION



End scupper to be placed midway between end of bridge and first diaph. assembly. Intermediate scuppers to be placed midway between diaphragm assemblies.







General Notes

All beams shall be rolled to a true circular camber, full length, and the middle ordinate to be as shown on contract plans.

The final coat of field paint shall be black, unless otherwise directed by Engineer.

Quantities given in accompanying table are for single span square bridge. Quantities for Bituminous Concrete Pavement include 15% overrun and Concrete quantities include 5% overrun.

When bridge is on a skew, transverse bars shall be furnished as for a square span. Bars shall be cut in field to fit skew end and cut-offs shall be used in opposite skew end. In skew spans, the S5 bars shall be lengthened and the S6A and S6P bars shall be increased in number. The length of beams is increased on skew spans as indicated in detail Ⓒ, drwg. SB-20-56.

All materials and construction shall conform to the State of Vermont, Dep't. of Highways, Standard Specifications for Road and Bridge Construction, dated Jan. 1956 and the AASHO Specifications dated 1953. Designed for H20-S16(44) loading modified for National System of Interstate Highways, applied in accordance with the provisions of the AASHO Standard Specifications Art. 3.2.8.

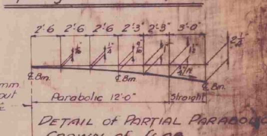
For location of fixed and expansion bearings see contract plans. For details of bearing devices see drwg. SB-20-56 detail Ⓒ.

Diaphragms shall be 15" [33.9 for beams up to and including 30" and 18" [42.7 for 33 and 36" beams. For details see drwg. SB-20-56, detail Ⓕ or Ⓖ.

All welding of cover plates to be done in such a manner that no internal stresses are introduced into beam flanges. When cover plate is wider than beam flange, the weld is to be omitted one inch either side of the intersection of the cover plate and the edge of the beam flange. All welds on cover plates shall be continuous fillets of size noted.

Scuppers are to be omitted over Roadways or Sidewalks under a bridge and placed at least 2'-0" outside of shoulder point or edge of sidewalk, but not within 4'-0" of face of Abutment or Pier. On a banked Bridge, Scuppers are to be placed on the lower side only.

All exposed edges of Concrete to be chamfered 1". All construction joints to be made as on drwg. SB-20-56 details Ⓗ and Ⓚ unless otherwise noted.



Details of Shear Connectors showing laps, shall be submitted to the State for approval. A ALS-4-4 long may be substituted for each pitch of spiral reinforcing, or for each pair of ¾" studs. Channel flanges to face center of span & shall have a ¼ fillet weld 4" long at heel & toe of channel.

REFERENCE STD. FOR VERNON-ROCKINGHAM IR-91-1(3) SHEET 26 OF 32

Revisions & Corrections

Cover Plate Revised 84' Span	
Slot Added to Back of Scupper	2/26/57
Note on Scupper Location added	8/29/57
Added reference to Std. SB-56-57-Sh. 1 & 2	11/25/57
Added approx. Scupper weight (100#)	11/25/57
Changed ref. to Std. SB-AS-30-56 to SB-AS-57	11/25/57
Curb dim. changed from ½ to ⅜	11/26/57
Added Const. Joint & Chamfer notes	6/2/58

Drawn By: F.H.D. 10/31/56
Traced By: F.H.B. 10/3/56
Checked By: D.T.B.
Correct: 12/17/56 — A.S.B. Bridge Engineer
Approved: 12/18/56 — Chief Engineer

DETAILS OF 30 Ft. ROADWAY COMPOSITE BEAM BRIDGES

DEPARTMENT OF HIGHWAYS
STANDARD STRUCTURES

SCB-30-56

TABLE OF QUANTITIES FOR SINGLE SPAN (Square)

Span, Out to Out	99'-0"	94'-0"	89'-0"	84'-0"	79'-0"	74'-0"	69'-0"	64'-0"	59'-0"	54'-0"	49'-0"	44'-0"	39'-0"	34'-0"
Span c. to c. Brngs.	97'-0"	92'-0"	87'-0"	82'-0"	77'-0"	72'-0"	67'-0"	62'-0"	57'-0"	52'-0"	47'-0"	42'-0"	37'-0"	32'-0"
Length of Bms.	98'-0"	93'-0"	88'-0"	83'-0"	78'-0"	73'-0"	68'-0"	63'-0"	58'-0"	53'-0"	48'-0"	43'-0"	38'-0"	33'-0"
Size WF Beam	36"@300#	36"@300#	36"@300#	36"@245#	36"@194#	36"@170#	36"@160#	36"@150#	33"@130#	33"@130#	33"@141#	33"@130#	30"@108#	27"@94#
Lgth. & Size Bot. Cover Pl.	66'-0" x 19" x 1⅝"	58'-0" x 19" x 1"	52'-8" x 19" x 1¼"	51'-10½" x 14" x 1"	54'-0" x 19" x 1⅛"	51'-9" x 14" x 1"	46'-3" x 19" x 1⅜"	39'-6" x 19" x 10" x ⅞"	36'-6" x 19" x 10" x ⅞"	30'-3" x 19" x 10" x ½"	—	—	—	—
" " Top " "	63'-6" x 18" x ⅞"	—	—	—	—	—	—	—	—	—	—	—	—	—
Dead Load Deflection	3"	2¾"	2⅝"	2⅜"	1⅞"	1⅝"	1¼"	1"	1"	¾"	½"	⅜"	¼"	¼"
Dia. of Spiral Bars	—	—	—	—	—	—	⅝"	—	—	—	—	—	—	—
Mean Dia. of Spiral "	—	—	—	—	—	—	6"	—	—	—	—	—	—	—
Spiral Pitch 0'-10' from Brng.	4"	4"	4"	4"	4"	4"	4"	4½"	4"	4½"	5"	5"	5"	5"
" " 10'-20' or ℄ Span	4½"	5"	5"	5"	5"	5⅝"	5½"	6"	6"	6½"	7"	8"	8"	8½"
" " 20'-30' or ℄ Span	6"	6½"	7"	7"	7⅝"	8"	8½"	9½"	10"	11⅛"	13⅜"	8"	—	—
" " 30'-40' or ℄ Span	9"	9½"	10"	10"	11½"	13"	15"	9½"	—	—	—	—	—	—
" " 40' ℄ Span	14"	15"	15"	16"	—	—	—	—	—	—	—	—	—	—
Length of ¾" ℄ Studs	(2 Studs required per pitch. 6½" long unless otherwise specified on the plans)													
Tot. Struct. Steel (1 Span)	192,860	169,891	156,403	123,400	99,018	82,950	69,499	59,081	48,883	42,556	39,399	33,392	23,554	18,398
Reinforcing Bars - S1	366	346	328	310	292	274	254	236	218	200	180	162	144	126
" " - S2	192	192	192	192	192	192	192	128	128	128	128	128	128	64
" " - S3	30	30	30	30	30	30	30	20	20	20	20	20	20	10
" " - S4	128	120	114	108	100	94	88	80	74	68	60	54	48	40
" " - S5	16	16	16	16	16	16	16	16	16	16	16	16	16	16
" " - S6A	52	52	52	52	52	52	52	52	52	52	52	52	52	52
" " - S7	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Tot. Weight - Reinf. Bars	20,450	19,416	18,480	17,513	16,551	15,610	14,571	13,478	12,508	11,555	10,525	9,572	8,602	7,502
Approx. Wt. Spiral Reinf.	1,710	1,585	1,510	1,380	1,385	1,275	1,210	1,080	1060	920	790	725	655	580
Tot. Cu. Yds. Conc. Class 'B'	116	110	105	100	95	89	84	79	73	68	62	57	51	45
Tot. Wt. Bitum. Conc. Pavement	42	40	38	36	34	32	29	27	25	23	21	19	17	15

REINFORCING STEEL SCHEDULE

S1 - #5 - 34'-4" - Straight

S2 - #4 Straight

Span	Lgth.
34'-0"	33'-6"
39'-0"	20'-3"
44'-0"	22'-9"
49'-0"	25'-3"
54'-0"	27'-9"
59'-0"	30'-3"
64'-0"	32'-9"
69'-0"	24'-3"
74'-0"	26'-0"
79'-0"	27'-6"
84'-0"	29'-3"
89'-0"	31'-0"
94'-0"	32'-6"
99'-0"	34'-3"

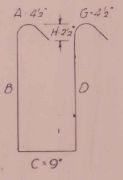
S3 - #6 Straight

Span	Lgth.
34'-0"	33'-6"
39'-0"	20'-6"
44'-0"	23'-0"
49'-0"	25'-6"
54'-0"	28'-0"
59'-0"	30'-6"
64'-0"	33'-0"
69'-0"	24'-6"
74'-0"	26'-3"
79'-0"	28'-0"
84'-0"	20'-6"
89'-0"	31'-3"
94'-0"	33'-0"
99'-0"	34'-6"

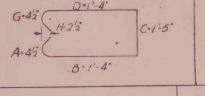
S5 - #5 - 32'-2" - Straight

S6A - #4

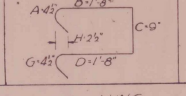
Span	B & D	T.L.
34'-0"	2'-0"	5'-6"
39'-0"	2'-3"	6'-0"
44'-0"	2'-6"	6'-6"
49'-0"	2'-6"	6'-6"
54'-0"	2'-6"	6'-6"
59'-0"	2'-6"	6'-6"
64'-0"	2'-9"	7'-0"
69'-0"	2'-9"	7'-0"
74'-0"	2'-9"	7'-0"
79'-0"	2'-10"	7'-2"
84'-0"	2'-10"	7'-2"
89'-0"	2'-10"	7'-2"
94'-0"	2'-10"	7'-2"
99'-0"	2'-10"	7'-2"



S4 - #4 - T.L. 4'-10"



S6P - #4 - T.L. 4'-10"



S7 - #6 - T.L. 3'-0"

REFERENCE STANDARD FOR VERNON - ROCKINGHAM IR-91-1(3) SHEET 27 OF 32

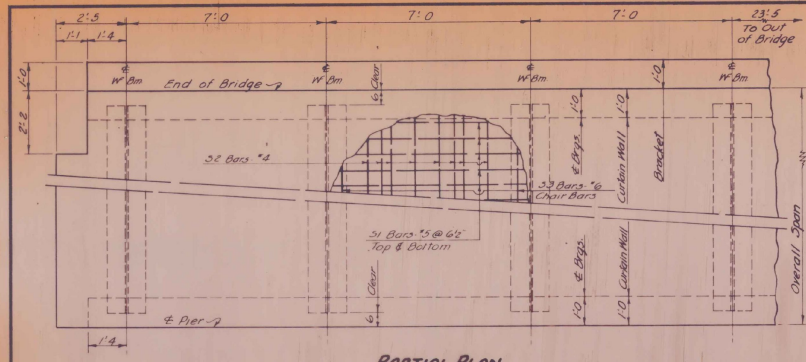
Revisions & Corrections
Structural Steel Rev. for 84'-span 2/26/57

Drawn By H.W.S. Nov. 1956
Traced By H.W.S.
Checked By D.T.B.
Correct 12/17/56
A. B. Twiss
Bridge Engineer
Approved 12/19/56
Chief Engineer

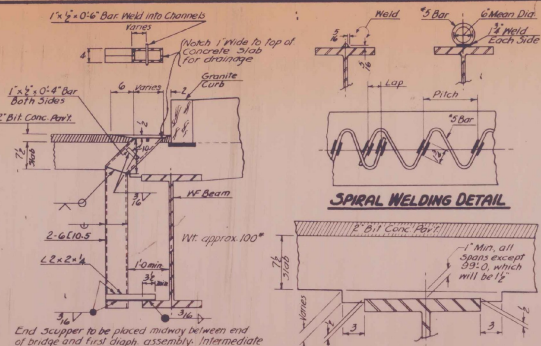
TABLES TO BE USED IN CONNECTION WITH SCB-30-56

DEPARTMENT OF HIGHWAYS
STANDARD STRUCTURES

SCB-30-56



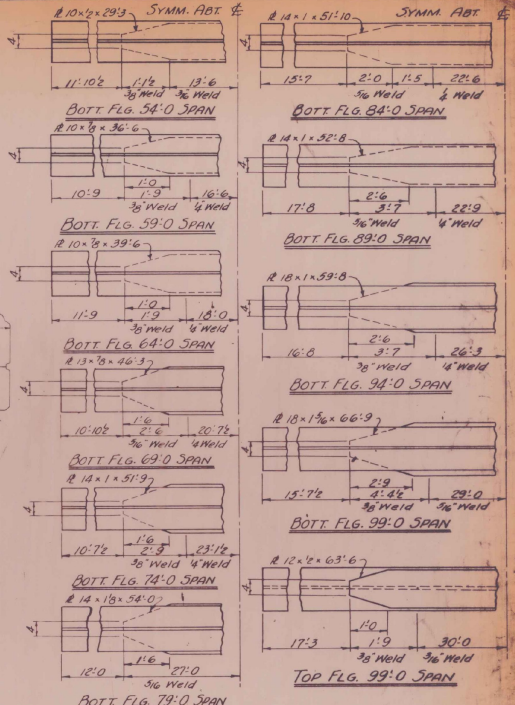
PARTIAL PLAN

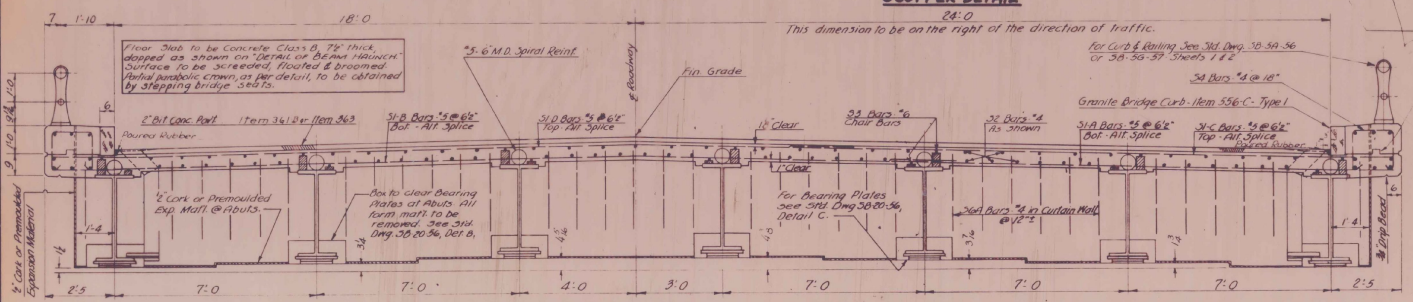


SCUPPER DETAIL

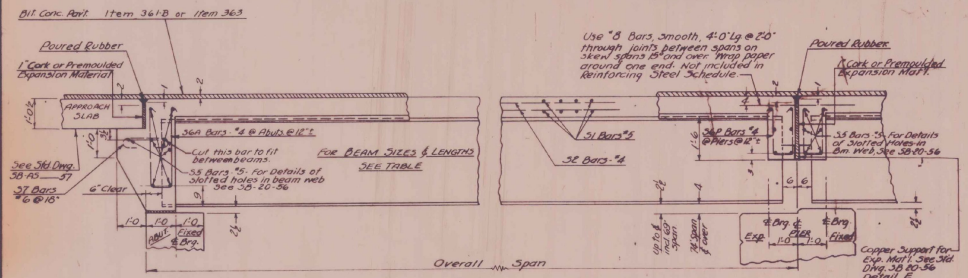
SPIRAL WELDING DETAIL

DETAIL OF BEAM HAUNCH

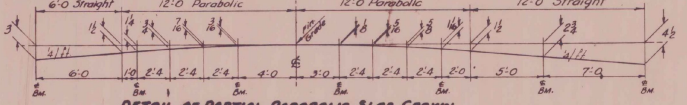




TYPICAL SECTION



ELEVATION



DETAIL OF PARTIAL PARABOLIC SLAB CROWN

THIS IS SHEET 1 OF 2 SHEETS

REFERENCE STANDARD FOR VERNON - ROCKINGHAM IR-91-1(3) SHEET 28 OF 32

GENERAL NOTES

All beams shall be rolled to a true circular camber, full length, and the middle ordinate to be as shown on contract plans.
The finish coat of field paint shall be black, unless otherwise directed by the Engineer.
Quantities given in accompanying table are for single span square bridge. Quantities for Bituminous Concrete Pavement include 15% overrun; Concrete quantities include 5% overrun.
When bridge is on a skew, transverse bars shall be furnished as for a square span. Bars shall be cut in field to fit skew end, and cut-offs shall be used in opposite skew end. In skew spans, the 55 bars shall be lengthened, and the 36A and 36B bars shall be increased in number. The length of beams is increased on skew spans as indicated in detail © on Std. Dwg. 38-20-56.
All materials and construction shall conform to the State of Vermont Dept. of Highways Standard Specifications for Road and Bridge Construction, dated Jan. 1956, and the A.A.S.H.O. Standard Specifications dated 1935. Designed for H 20-S16 (44) loading modified for National System of Interstate Highways, applied in accordance with the provisions of the A.A.S.H.O. Standard Specifications Art. 3.2.3.
For location of fixed and expansion bearings see contract plans; for details of bearing devices see Std. Dwg. 38-20-56, detail ℄.
Diaphragms shall be L5L 33.9 for beams up to and including 36" beams, and L8L 42.7 for 33 and 36" beams. For details see Std. Dwg. 38-20-56, detail ©.
All welding of cover plates to be done in such a manner that no internal stresses are introduced into beam flanges. When cover plate is wider than beam flange, the weld is to be omitted one inch either side of the intersection of the cover plate and the edge of the beam flange. All welds on cover plates shall be continuous fillets of size noted.
Details of shear connectors shall be submitted to the State for approval. A 4"C5.4 x 4" tang may be substituted for each pitch of spiral reinforcing, or for each pair of ¾" ø studs. Channel flanges to face center of span, and shall have a ¼" fillet weld 4" long at heel and toe of channel.
Scuppers to be omitted over Roadways or Sidewalks under a bridge and placed at least 2'-0" outside of shoulder point or edge of sidewalk, but not within 4'-0" of face of Abutment or Pier. Grate blanked Bridge Scuppers are to be placed on the lower edge only.
All exposed edges of Concrete to be chamfered ¾". All Const. Joints to be made as on dwg 38-20-56 details ⓐ & ⓚ unless otherwise noted.

REVISIONS & CORRECTIONS

Cover Plate Revised - 84' Span	
Notch Added to Back of Scupper	8/26/57
Note on Scupper Location Added	9/29/57
Added reference to Std. 38-56-57 Shts 1 & 2	11/25/57
Added Approx. Scupper Weight (100#)	11/25/57
Changed ref. to Std. 38-A5-42-56 to 38-A5-57	11/25/57
Added Const. Joint & Chamfer notes	6/2/58

DRAWN BY: R.T.B. 11/13/56
TRACED BY: R.T.B. 11/13/56
CHECKED BY: H.W.S. Dec. 56
CORRECT 12/17/56
C.O.S. Tirrell
BRIDGE ENGINEER
APPROVED 12/18/56
H. Dalrymple
CHIEF ENGINEER

DETAILS OF 42 FT. ROADWAY-COMPOSITE BEAM BRIDGES

DEPARTMENT OF HIGHWAYS
STANDARD STRUCTURES

SCB-42-56

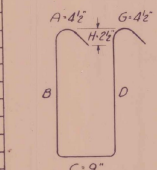
TABLE OF QUANTITIES FOR A SINGLE SPAN (SQUARE)

Span - Out to Out	99'-0	94'-0	89'-0	84'-0	79'-0	74'-0	69'-0	64'-0	59'-0	54'-0	49'-0	44'-0	39'-0	34'-0
Span & Tg. & Bearings	97'-0	92'-0	87'-0	82'-0	77'-0	72'-0	67'-0	62'-0	57'-0	52'-0	47'-0	42'-0	37'-0	32'-0
Length of Beams	98'-0	93'-0	88'-0	83'-0	78'-0	73'-0	68'-0	63'-0	58'-0	53'-0	48'-0	43'-0	38'-0	33'-0
Size W^{e} Beam	36WF300	36WF300	36WF300	36WF245	36WF194	36WF170	36WF160	36WF150	33WF130	33WF130	33WF121	33WF130	30WF108	27WF94
Lgth. & Size Bot. Cover Pl	86'-9 Lg. 18"×1⅝"	39'-2 Lg. 18"×1	32'-8 Lg. 14"×1	81'-10 Lg. 14"×1	34'-0 Lg. 14"×⅞	31'-3 Lg. 14"×⅝	46'-3 Lg. 18"×⅞	39'-6 Lg. 10"×⅝	36'-8 Lg. 10"×⅜	29'-3 Lg. 10"×½	NONE	NONE	NONE	NONE
Lgth. & Size Top Cover Pl	63'-6 Lg. 12"×½	←	←	←	←	←	NONE	←	←	←	←	←	←	←
Dead Load Deflection	3"	2⅞"	2⅞"	2¼"	1⅞"	1½"	1¼"	1"	1"	¾"	½"	⅜"	¼"	¼"
Dia. of Spiral Bars	←	←	←	←	←	←	⅝"	←	←	←	←	←	←	←
Mean Dia. of Spiral	←	←	←	←	←	←	6"	←	←	←	←	←	←	←
Spiral Pitch 0'-10' From Brg.	4"	4"	4"	4"	4"	4"	4"	4½"	4"	4½"	5"	5"	5"	5"
" " 10'-20' or ℄ Span	4½"	5"	5"	5"	5"	5½"	5½"	6"	6"	6½"	7"	8"	8"	8½"
" " 20'-30' " " "	6"	6½"	7"	7"	7½"	8"	8½"	9½"	10"	11½"	13½"	8"		
" " 30'-40' " " "	9"	9½"	10"	10"	11½"	13"	15"	9½"						
" " 40' ℄ Span	14"	15"	15"	16"										
Length of ¾" ϕ Studs	←	6½" Long unless otherwise specified on the plans. 2 studs required per pitch.												
Tot. Struct. Steel (1 Span)	269,750	237,600	218,700	172,600	138,400	115,925	97,125	82,550	68,275	59,425	55,000	46,575	32,850	25,700
Reinforcing Bars - 31-A	183	174	164	155	146	137	127	118	109	100	91	81	72	63
" " 31-B	183	174	164	155	146	137	127	118	109	100	91	81	72	63
" " 31-C	183	174	164	155	146	137	127	118	109	100	91	81	72	63
" " 31-D	183	174	164	155	146	137	127	118	109	100	91	81	72	63
" " 32	252	252	252	252	252	252	252	168	168	168	168	168	168	84
" " 33	42	42	42	42	42	42	42	28	28	28	28	28	28	14
" " 34	128	122	114	108	102	94	88	82	74	68	62	54	48	42
" " 35	32	32	32	32	32	32	32	32	32	32	32	32	32	32
" " 36A	76	76	76	76	76	76	76	76	76	76	76	76	76	76
" " 37	62	62	62	62	62	62	62	62	62	62	62	62	62	62
Tot. Weight Reinf. Bars	28,290	26,970	25,570	24,235	22,920	21,610	20,175	18,680	17,330	16,015	14,700	13,275	11,935	10,430
Approx. Wt. Spiral Reinf.	2395	2215	2110	1930	1935	1780	1690	1505	1475	1285	1100	1010	915	810
Total C.Y. Conc. Class B	151.0	144.0	137.3	130.6	123.7	116.8	110.1	103.3	95.4	88.6	82.0	75.2	67.0	59.0
Tot. Wt. Bit. Conc. Pavt. (Tons)	60	57	54	51	48	45	42	39	36	33	30	27	24	21

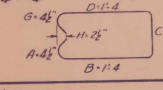
REINFORCING STEEL SCHEDULE

31-A	#5	17'-3	Straight	31-B	#5	31'-3	Straight
31-C	#5	20'-9	Straight	31-D	#5	27'-9	Straight

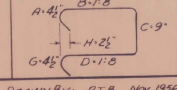
32 - #4 Straight		33 - #6 Straight		35 - #5		23'-3	Straight
Span	Lgth.	Span	Lgth.	36A - #4			
				Span	B & D	T.L.	
34'-0	33'-6	34'-0	33'-6	34'-0	2'-0	5'-6	
39'-0	20'-3	39'-0	20'-6	39'-0	2'-3	6'-0	
44'-0	22'-9	44'-0	23'-0	44'-0	2'-6	6'-6	
49'-0	25'-3	49'-0	25'-6	49'-0	2'-6	6'-6	
54'-0	27'-9	54'-0	28'-0	54'-0	2'-6	6'-6	
59'-0	30'-3	59'-0	30'-6	59'-0	2'-6	6'-6	
64'-0	32'-9	64'-0	33'-0	64'-0	2'-9	7'-0	
69'-0	24'-3	69'-0	24'-6	69'-0	2'-9	7'-0	
74'-0	26'-0	74'-0	26'-3	74'-0	2'-9	7'-0	
79'-0	27'-6	79'-0	28'-0	79'-0	2'-10	7'-2	
84'-0	29'-3	84'-0	29'-6	84'-0	2'-10	7'-2	
89'-0	31'-0	89'-0	31'-3	89'-0	2'-10	7'-2	
94'-0	32'-6	94'-0	33'-0	94'-0	2'-10	7'-2	
99'-0	34'-3	99'-0	34'-6	99'-0	2'-10	7'-2	



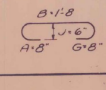
34 - #4 T.L. 4'-10



36P - #4 T.L. 4'-10



37 - #6 T.L. 3'-0



REFERENCE STANDARD FOR VERNON - ROCKINGHAM IR-91-1(3) SHEET 29 OF 32

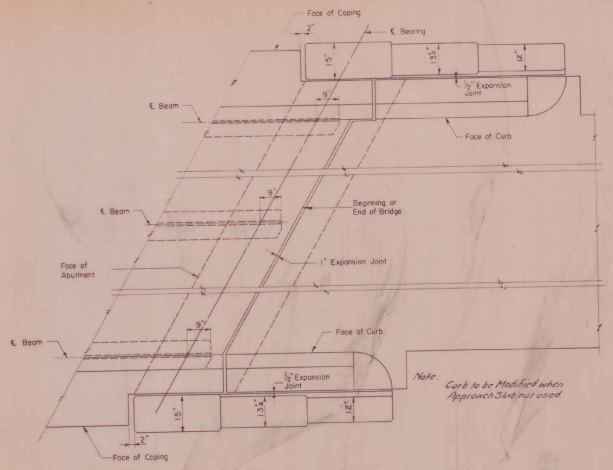
Revisions & Corrections
Structural Steel Rev. for 84' Span 2/26/57

Drawn By: R.T.B. Nov. 1956
Traced By: R.T.B. Nov. 1956
Checked By: H.L.V.J. Dec. '56
Correct 2/17/56
Bridge Engineer
Approved 12/18/56
Chief Engineer

TABLES TO BE USED IN CONNECTION WITH SCB-42-56

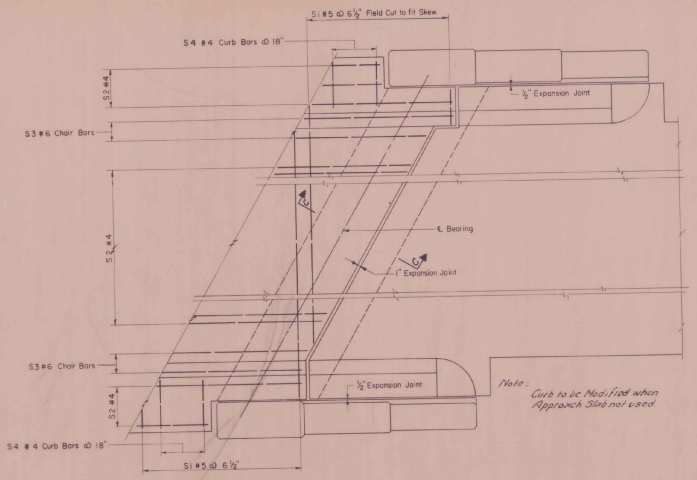
DEPARTMENT OF HIGHWAYS
STANDARD STRUCTURES

SCB-42-56 2 of 2



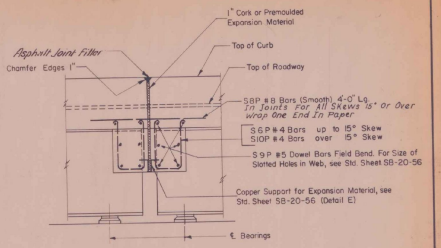
PLAN AT ABUTMENT

Scale: ½" = 1'-0"



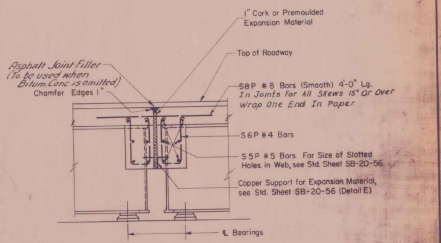
REINFORCEMENT LAYOUT AT ABUTMENT

Scale: ½" = 1'-0"



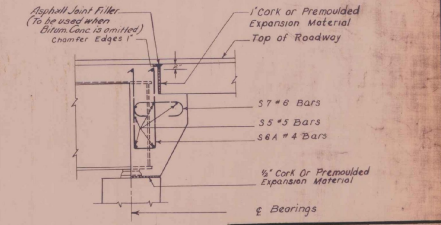
SECTION A-A

Scale: ½" = 1'-0"



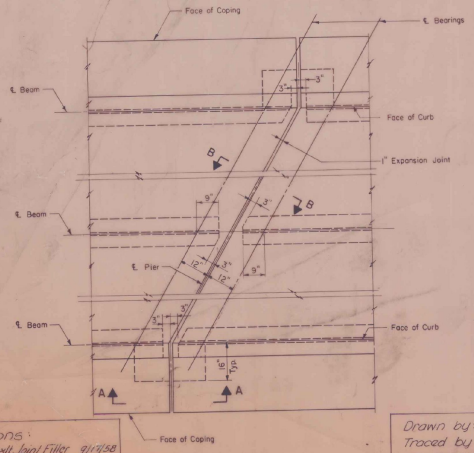
SECTION B-B

Scale: ½" = 1'-0"



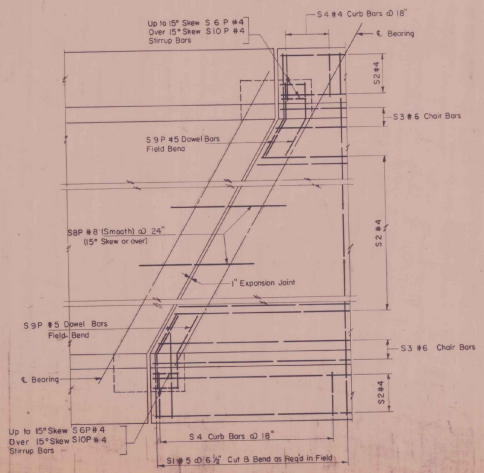
SECTION C-C

Scale ½" = 1'-0"



PLAN AT PIER

Scale: ½" = 1'-0"



REINFORCEMENT LAYOUT AT PIER

Scale: ½" = 1'-0"

Divisions & Corrections:
Changed Poured Rubber to Asphalt Joint Filler 9/17/58

Drawn by:
Traced by:
Checked by:

Clarkson Engineering Co.

Correct
A. S. Bixby 5/22/58
Bridge Engineer

Approved
5/22/58
State Highway Engineer

REFERENCE STANDARD FOR VERNON-ROCKINGHAM IR-91-1(3) SHEET 31 OF 32

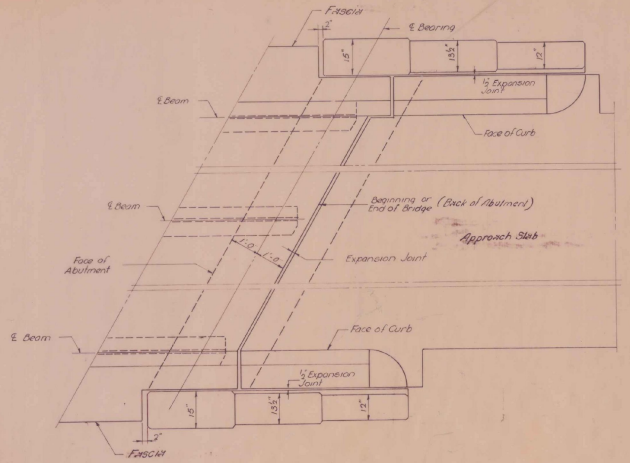
DETAIL OF EXPANSION JOINT OVER PIERS AND AT ABUTMENTS

DEPARTMENT OF HIGHWAYS
STANDARD STRUCTURES

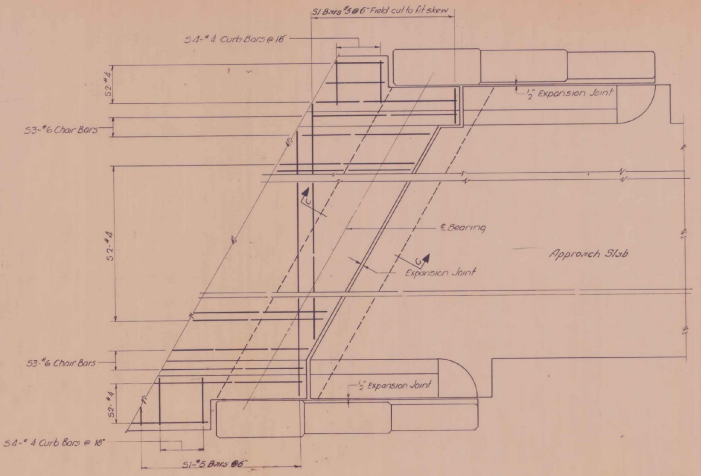
SB-22-58

231

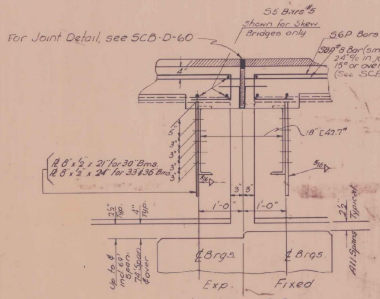
GENERAL NOTES



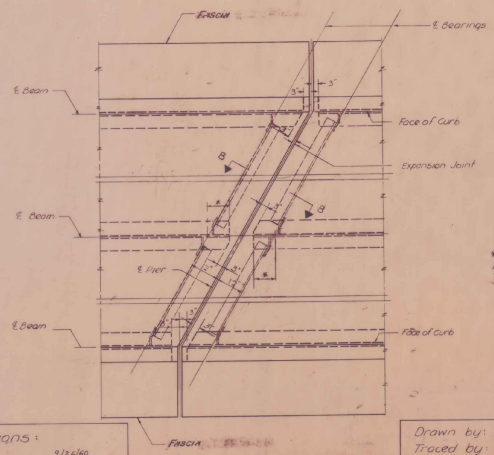
PLAN AT ABUTMENT
Scale ½" = 1'-0"



REINFORCEMENT LAYOUT AT ABUTMENT
Scale ½" = 1'-0"

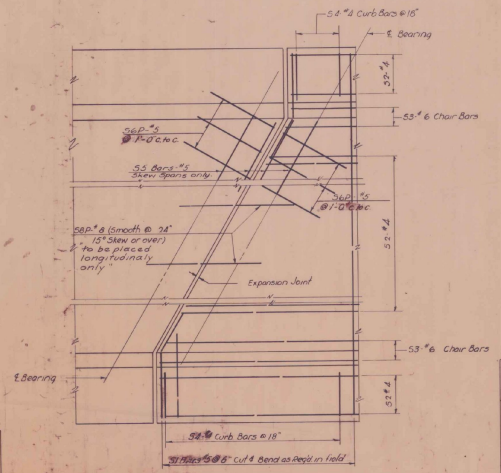


SECTION B-B
scale ½" = 1'-0"

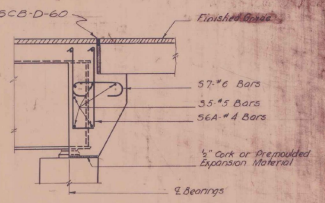


* This dimension varies according to the skew. See Standards SCB-D-60

PLAN AT PIER
Scale ½" = 1'-0"



REINFORCEMENT LAYOUT AT PIER
Scale ½" = 1'-0"



SECTION C-C
scale ½" = 1'-0"

REFERENCE STANDARD FOR VERNON-ROCKINGHAM IR-91-1(3)
SHEET 32 OF 32

Revisions & Corrections:

Remove # 4 Bar Sec BB	9/26/60
Added General Note	10/6/60
Corrected Joint Detail	12-8-60
Added note to 38 bars	3-2-61

Drawn by: H.W.S. June 1960
Traced by: H.W.S. June 1960
Checked by: R.S.H. & R.T.B. June 1960

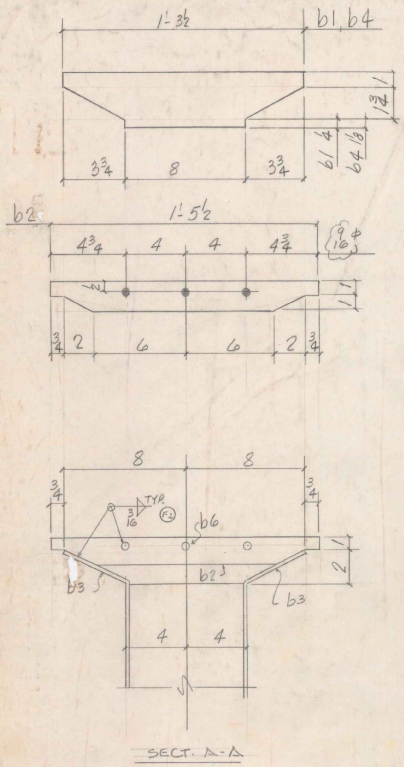
Correct: 13 July 1960
Bridge Engineer

Approved: 13 July 1960
Chief Engineer

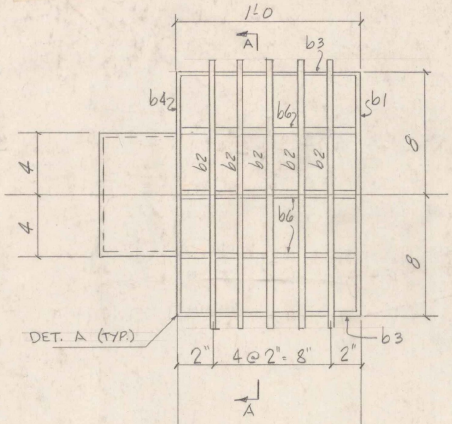
DETAIL OF EXPANSION JOINT OVER PIERS AND AT ABUTMENTS

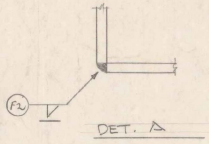
DEPARTMENT OF HIGHWAYS
STANDARD STRUCTURES

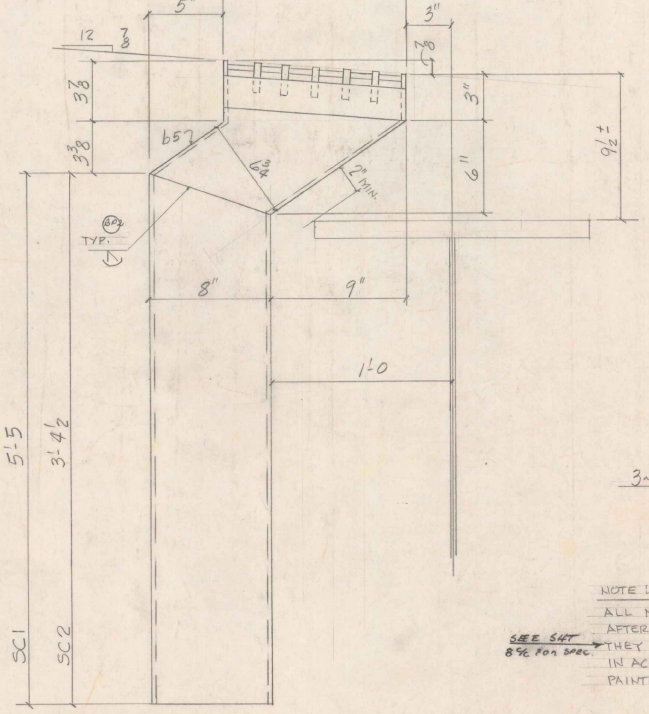
SB-22-60



SECT. A-A







FOR SHOP NOTES SEE DWG. E1

3~SC-5 L 2×2×5/16 × 1'-7

NOTE :
ALL MATERIAL SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION PER ASTM-A123, THEY SHALL BE PAINTED GRAY (FED. COLOR 26493) IN ACCORDANCE WITH SPECIAL PROVISION 708.09 PAINTING OF HOT DIPPED GALVANIZED STEEL.

SEE SHT 8 for spec.

ONE SC-1
2~SC2

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT	
		ONE SC-1, 2~SC-2					
3	b1	B 3 × ¼	1	3½	S-K A36	(10)	
15	b2	B 2 × ½	1	5½		(74)	
6	b3	B 4½ × ¼		11½		(22)	
3	b4	B 3¾ × ¼	1	3½		(13)	
3	b5	B 7½ × ¼		6		(10)	
9	b6	B ½ ϕ		11½	S-K	(6)	(135)
1	(SC1)	TS 8 × 8 × ¼	6	9	A500 OR A501	STR.	
2	(SC2)	DO	4	8½	DO		(421)
3	SC-5	L 2 × 2 × ⅜	1	7	A36 S-K		(22)
							(578)

JOB NO. ..... SHEET NO. .....

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT	
		ONE SC-1, 2~SC-2					
3	b1	B 3 × ¼	1	3½	S-K A36	(10)	
15	b2	B 2 × ½	1	5½		(74)	
6	b3	B 4½ × ¼		11½		(22)	
3	b4	B 3¾ × ¼	1	3½		(13)	
3	b5	B 7½ × ¼		6		(10)	
9	b6	B ½ ϕ		11½	S-K	(6)	(135)
1	(SC1)	TS 8 × 8 × ¼	6	9	A500 OR A501	STR.	
2	(SC2)	DO	4	8½	DO		(421)
3	SC-5	L 2 × 2 × ⅜	1	7	A36 S-K		(22)
							(578)

REVISION RECORD

DATE	REV.#	BY	REVISION

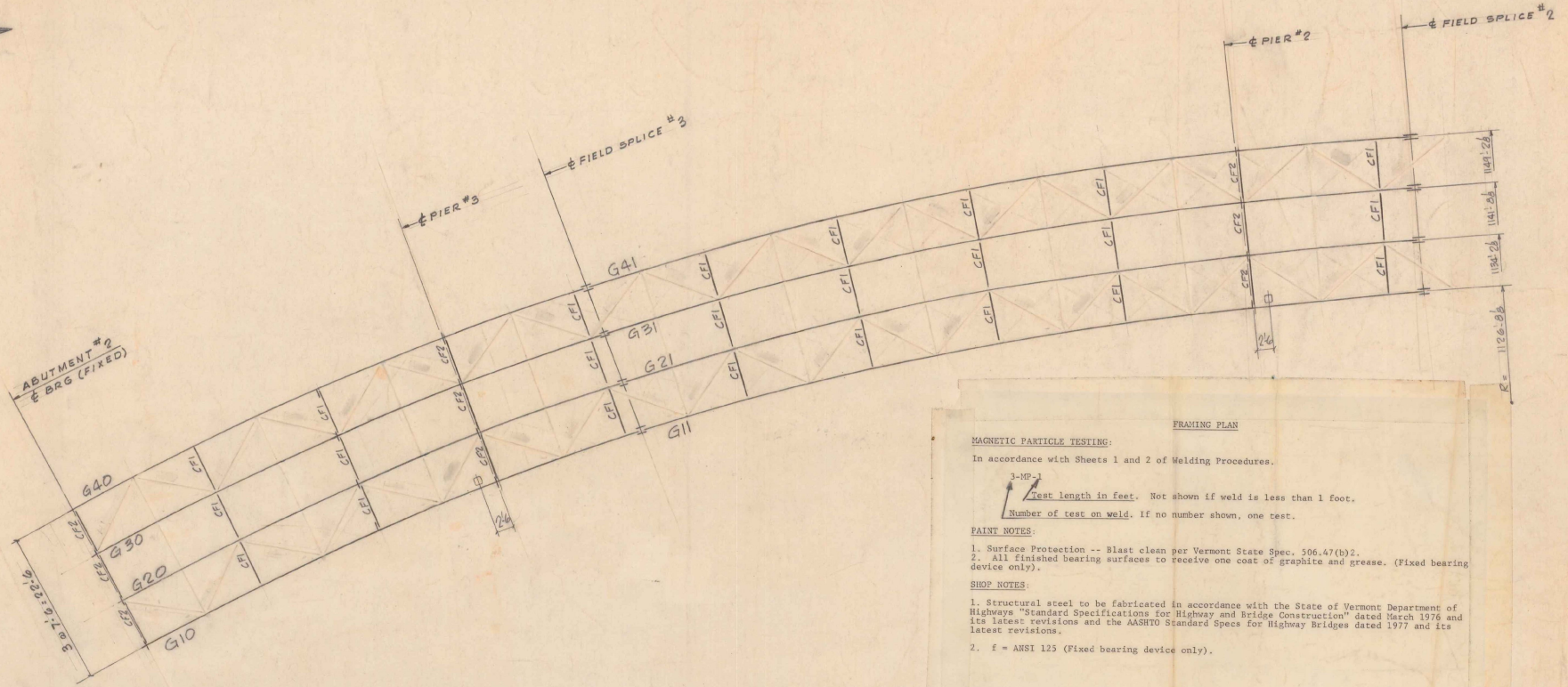
VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT FAP I 93-1(3) 9/3

		DATE
DRAWN BY	GB	3/81
CK'D BY	SHD	
HOLES		
BOLTS		
PAINT		

PROJECT RAMP WTDS OVER I91
LOCATION WATERFORD, VT.
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V.A.O.T.
JOB NO. 80-3591 SHEET NO. 46

PRINT RECORD

NO.	FOR	DATE
5	APP	5-6
1	JF	7-9
30	SHOP	7-13
2	STATE	9/8



FRAMING PLAN

MAGNETIC PARTICLE TESTING:

In accordance with Sheets 1 and 2 of Welding Procedures.

3-MP-1

Test length in feet. Not shown if weld is less than 1 foot.

Number of test on weld. If no number shown, one test.

PAINT NOTES:

1. Surface Protection -- Blast clean per Vermont State Spec. 506.47(b)2.
2. All finished bearing surfaces to receive one coat of graphite and grease. (Fixed bearing device only).

SHOP NOTES:

1. Structural steel to be fabricated in accordance with the State of Vermont Department of Highways "Standard Specifications for Highway and Bridge Construction" dated March 1976 and its latest revisions and the AASHTO Standard Specs for Highway Bridges dated 1977 and its latest revisions.

2. f = ANSI 125 (Fixed bearing device only).

SEE E4 FOR SCUPPER AND DRAIN DETAIL.

DELV. SEQ. PCS. MARK END OF BEAM AT TRAILER END.

DELV. SEQ.	PCS. MKS	DELV. SEQ.	PCS. MKS	DELV. SEQ.	PCS. MKS	DELV. SEQ.	PCS. MKS
1	G10	5	G41	9	G42	13	G43
2	G20	6	G31	10	G32	14	G33
3	G30	7	G21	11	G22	15	~~G32~~ SHOULD BE G23
4	G40	8	G11	12	G12	16	~~G31~~ SHOULD BE G13

(2)

FIELD CONNECTIONS ⅞ϕ A325F (TYPE 3) BOLTS, ONE WASHER

ABUTMENT AND PIER CROSSFRAMES ~ 720 x 2½

INTERMEDIATE CROSSFRAMES ~ 2304 x 2¼

SPLICE WEB ~ 1192 x 3

SPLICE #1 FLANGE ~ 416 x 4¼

SPLICE #2 FLANGE ~ 416 x 4

SPLICE #3 FLANGE ~ 416 x 3½

FRAMING PLAN

△ MCB 8-4-81 REV DELV SEQ AS PER A. BECK

△ REMOVE HORIZ. BRACING 6-23-81

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

FAP I 93-1(8)5/3

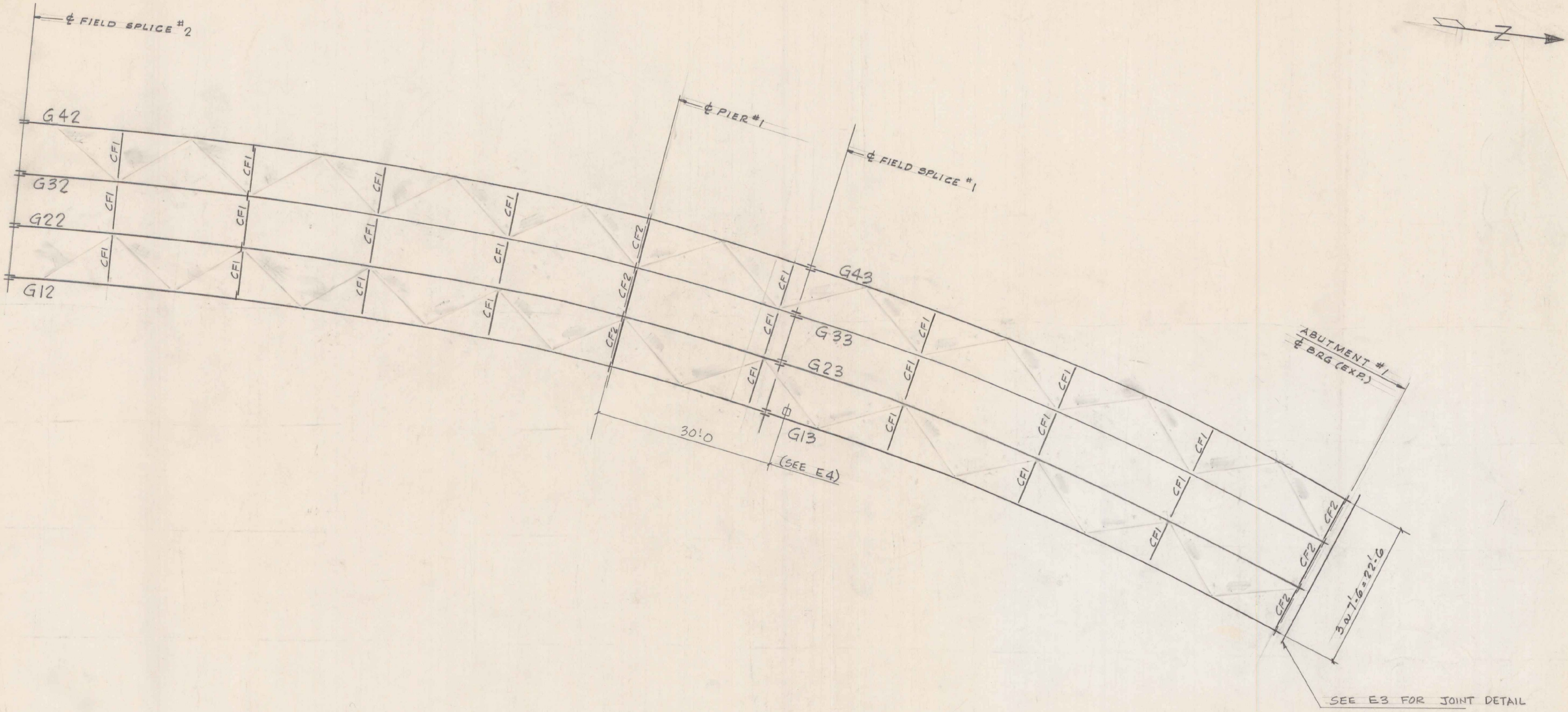
		DATE
DRAWN BY	VTU	3/81
CK'D BY	CB	
HOLES		
BOLTS		
PAINT		

PROJECT RAMP W105 OVER I 91 N.B. & S.B.
LOCATION WATERFORD, VT.
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V. A.O.T.
JOB NO. 80-3591 SHEET NO. E1

PRINT RECORD

NO.	FOR	DATE
5	ADD	5-6
3	ADD & ADD	5-7
3	SADD	6-1
5	ADD	6-23
4	ADD & DELD	6-28

N.C 2 STATE 7/8/81 4 SHEET ADD 8-4-81



FOR SHOP NOTES
SEE DWG. E1

FRAMING PLAN

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

⚠1 REMOVE HORIZ BRACING 6-23-81

FAP I93-1(3) C/3

		DATE
DRAWN BY	VTU	
CK'D BY	CB	

HOLES
BOLTS
PAINT

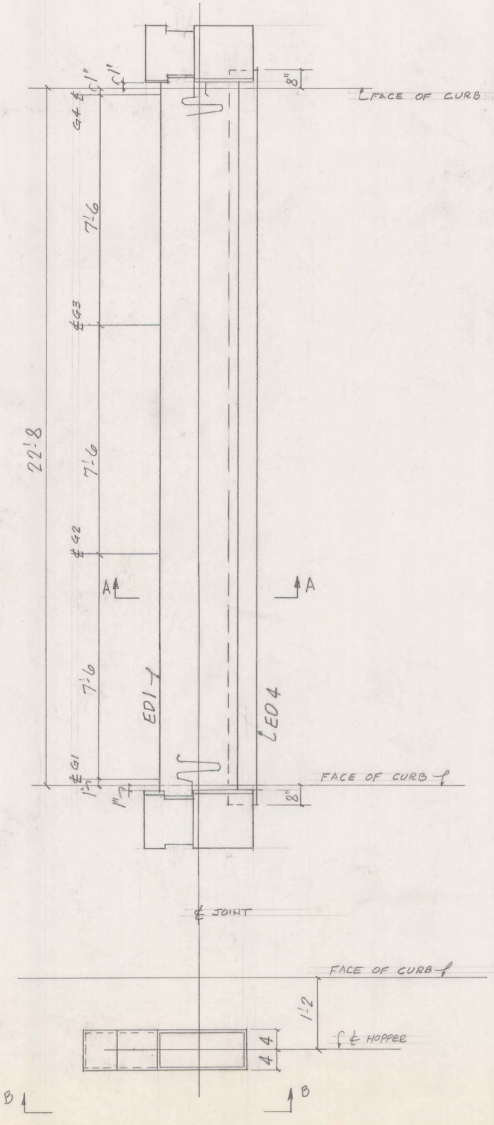
PROJECT RAMP W TO S OVER I91 N.B. & S.B.
LOCATION WATERFORD, VT.
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V.A.O.T.
JOB NO. 80-3591 SHEET NO. E2

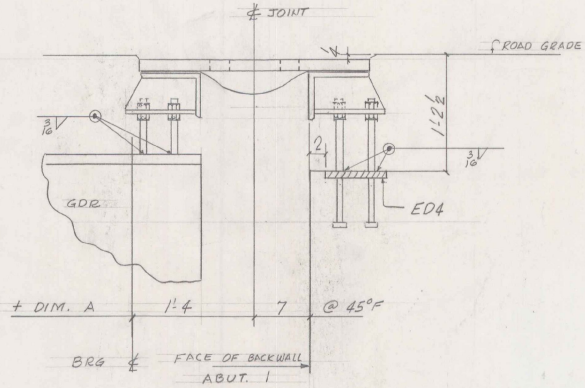
PRINT RECORD

NO.	FOR	DATE
5	APP	5-6
3	INFO CUST	5-7
3	SHOP	6-1
5	APP	6-23
4	SHOP FIELD	6-24

N.C

2 STATE 9/8/81

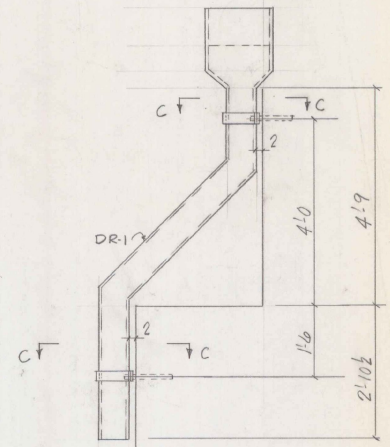




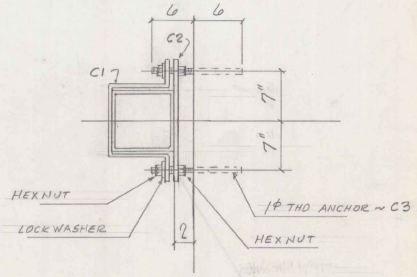
SECT. A-A

EXPANSION (DIM. A)

TEMP.	DIM. A
0°	+1½"
15°	+1"
30°	+½"
45°	0
60°	-½"
75°	-1"
90°	-1½"
105°	-2"



SECT. B-B

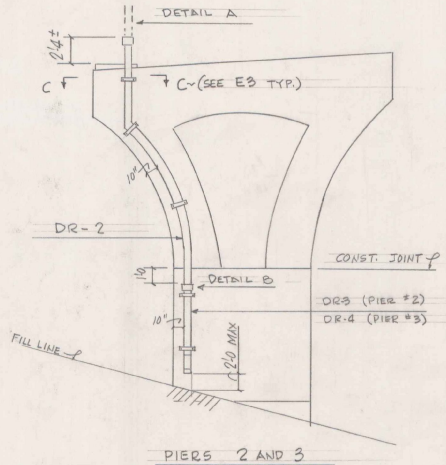


FOR SHOP NOTES SEE DWG. E1

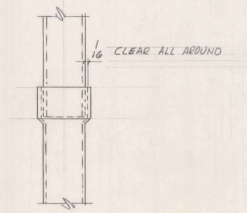
SECT. C-C

VERMONT STRUCTURAL STEEL CORPORATION BURLINGTON, VT.					
			PROJECT	RAMP W TO S OVER I 91	FAP I 93-1(3) C/3
DRAWN BY	C.B.	3/81	LOCATION	WATERFORD, VT.	
CK'D BY	SWB		CUSTOMER	BECK & BELLUCCI	
HOLES			ARCHITECT	S.O.V. A.O.T.	
BOLTS			JOB NO.	80-3591	SHEET NO. E3
PAINT					

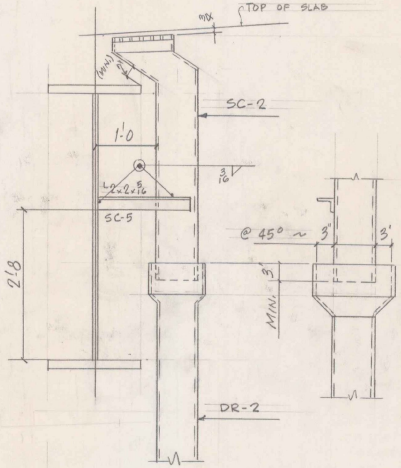
PRINT RECORD		
NO.	FOR	DATE
5	ADD STOPS & FILLS	6-23 6-24
4	SHOP	7/23/81
1	STATUS	9/14/81
2		



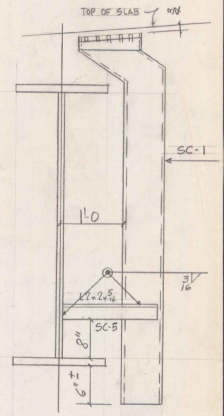
PIERS 2 AND 3



DETAIL B



DETAIL A



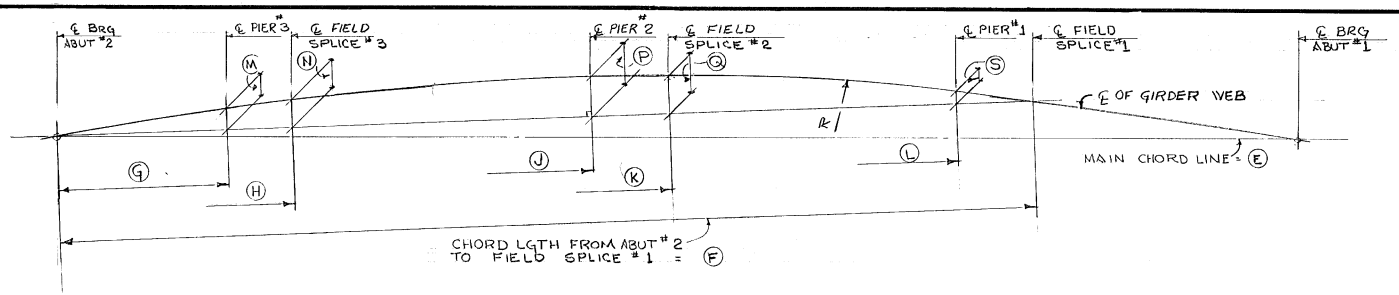
SCUPPER AT STA. 16+97±

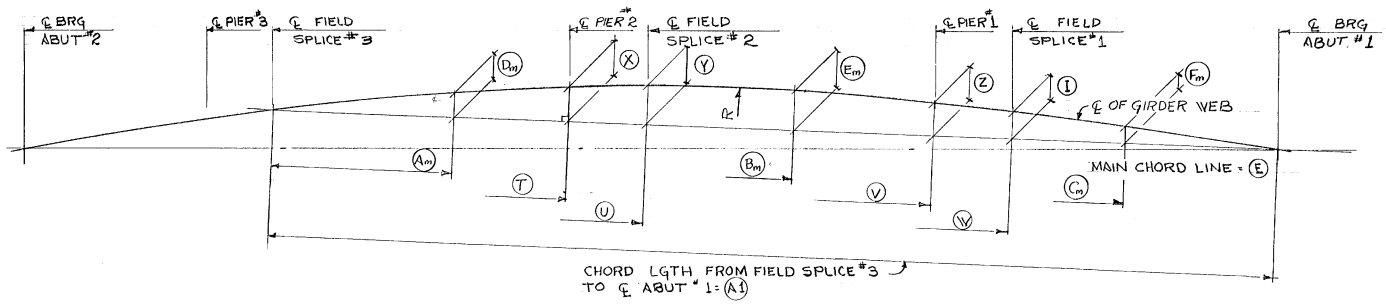
FOR SHOP NOTES
SEE DWG. E1

FAP I 93-1(3) 6/3

VERMONT STRUCTURAL STEEL CORPORATION BURLINGTON, VT.					
		DATE	PROJECT	RAMP W TO S OVER I 91	PRINT RECORD
DRAWN BY	CB	3/81	LOCATION	WATERFORD, VT.	NO. / FOR / DATE
CK'D BY	SWB		CUSTOMER	BECK & BELLUCCI	5 / AMD / 5-6
HOLES			ARCHITECT	S.O.V.A.O.T.	5 / AMD / 6-23
BOLTS			JOB NO.	80-3591 SHEET NO. E4	4 / SHOP DRGS / 6-29
PAINT					2 / STATE / 9/8/81

NL.





ABUT. # 2 TO FIELD SPLICE # 1

	E	F	G	H	J	K	L	M	N	P	Q	S	R
LINE 1	402-10 3/8	318-2 3/16	58-7 1/8	80-4 1/2	176-5 1/16	201-3 1/16	293-11 1/8	6-9 1/8	8-6 1/2	11-2	10-6 3/16	3-2 5/16	1126-8 1/8
LINE 2	405-7	320-4 1/4	58-11 1/8	80-10 15/16	177-10 1/4	202-7 1/16	296-0 3/4	6-10 1/8	8-7 1/8	11-2 13/16	10-6 13/16	3-2 3/8	1134-2 1/8
LINE 3	408-3 3/16	322-3 11/16	59-5 1/16	81-4 1/4	178-10 1/8	203-9 7/16	298-0 1/4	6-10 1/16	8-7 5/8	11-3 1/2	10-7 1/8	3-2 3/8	1141-8 1/8
LINE 4	410-11 5/16	324-3 7/16	59-8 3/8	81-8	179-11 5/16	204-11 3/16	300-0	6-11 1/8	8-8 1/8	11-4 9/16	10-8 7/16	3-2 3/8	1149-2 1/8

FIELD SPLICE # 3 TO ABUT # 1

	E	A1	T	U	V	W	X	Y	Z	I	Am	Bm	Cm	Dm	En	Fm
LINE 1	402-10 3/16	323-1 3/8	95-7 5/16	120-5	213-7 1/16	237-10 1/16	9-9 7/16	10-10 5/8	10-5 1/4	9-0 5/8	47-9 1/4	167-0 3/4	280-7 11/16	5-10 1/16	11-7 1/2	5-3 15/16
LINE 2	405-7	325-3 3/16	96-2 15/16	121-2 5/8	214-11 1/2	239-5 1/16	9-9 3/8	10-11 5/8	10-6 3/16	9-1 7/16	48-0 1/4	168-1 1/8	282-5 1/8	5-11 1/16	11-8 1/2	5-4 1/2
LINE 3	408-3 3/16	327-6 1/8	97-0 3/8	121-11 3/8	216-5 11/16	240-11 1/4	9-10 7/16	11-0 9/16	10-7 1/16	9-2 3/8	48-5 1/16	169-2 9/16	284-3 11/16	5-11 11/16	11-9 9/16	5-5 1/16
LINE 4	410-11 5/16	329-10 1/2	97-9 11/16	122-6 7/16	218-1 5/8	242-7 3/16	9-11 3/16	11-1 1/2	10-8	9-3 1/4	48-9 1/16	170-5 5/16	286-3 1/16	6-0 1/16	11-10 7/16	5-5 5/8

8-27-81 MCB ✓ LOCATED ADD'N POINTS
SEE SHT C1B FOR ADDL INFO.

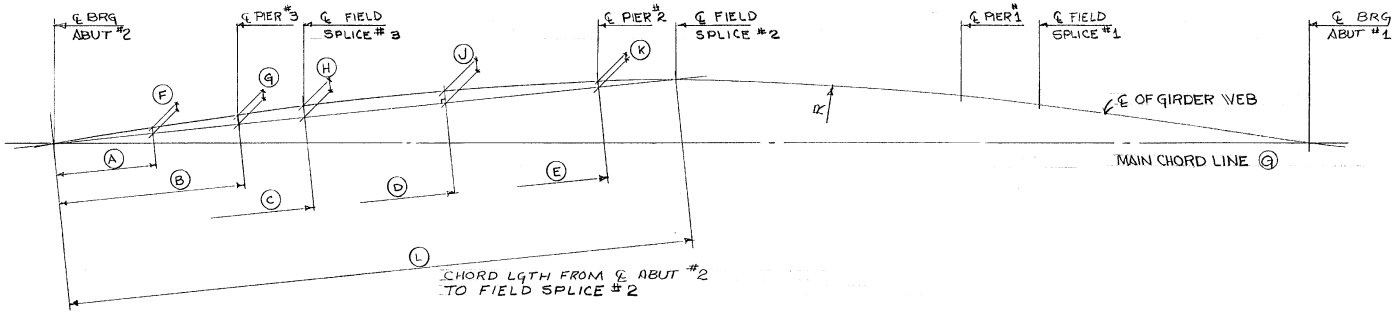
VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

		DATE
DRAWN BY	MCB	7-6-81
CKD BY		
HOLES		
BOLTS		
PAINT		

PROJECT RAMP W TO S OVER I91
LOCATION WATERFORD VT
CUSTOMER Beck & BELLUCCI
ARCHITECT S.O.V. A.O.T
JOB NO. 80-3591 SHEET NO. C1A

PRINT RECORD		
NO.	FOR	DATE
3	SHOP	7-16
3	SHOP	8-27

1509 10-74 OCP



~ ABUT #2 TO FIELD SPLICE #2 ~

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(J)	(K)	(L)	(Q)	(R)
LINE 1	29-4 15/16	58-10 7/16	80-8 9/16	128-10 5/8	176-9 7/16	2-3 1/16	3-8 13/16	4-4 1/16	4-2	1-11 3/8	201-6 1/2	402-10 13/16	1126-8 1/8
LINE 2	29-7 1/4	59-3 1/8	81-3	129-7 9/16	177-11 9/16	2-3 1/4	3-9 1/8	4-4 3/8	4-2 5/16	1-11 9/16	202-10 5/8	405-7	1134-2 1/8
LINE 3	29-9 9/16	59-8 1/16	81-8 5/16	130-5 5/8	179-2 5/16	2-3 3/8	3-9 3/8	4-4 5/8	4-2 9/16	1-11 1/2	204-0 1/4	408-3 3/16	1141-8 1/8
LINE 4	30-0	60-0 1/4	82-0 1/8	131-2 1/8	180-3 7/16	2-3 1/2	3-9 5/8	4-4 7/8	4-2 3/4	1-11 9/16	205-2 1/2	410-11 5/16	1149-2 1/8

SEE SHT C1A FOR ADD'L INFO.

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

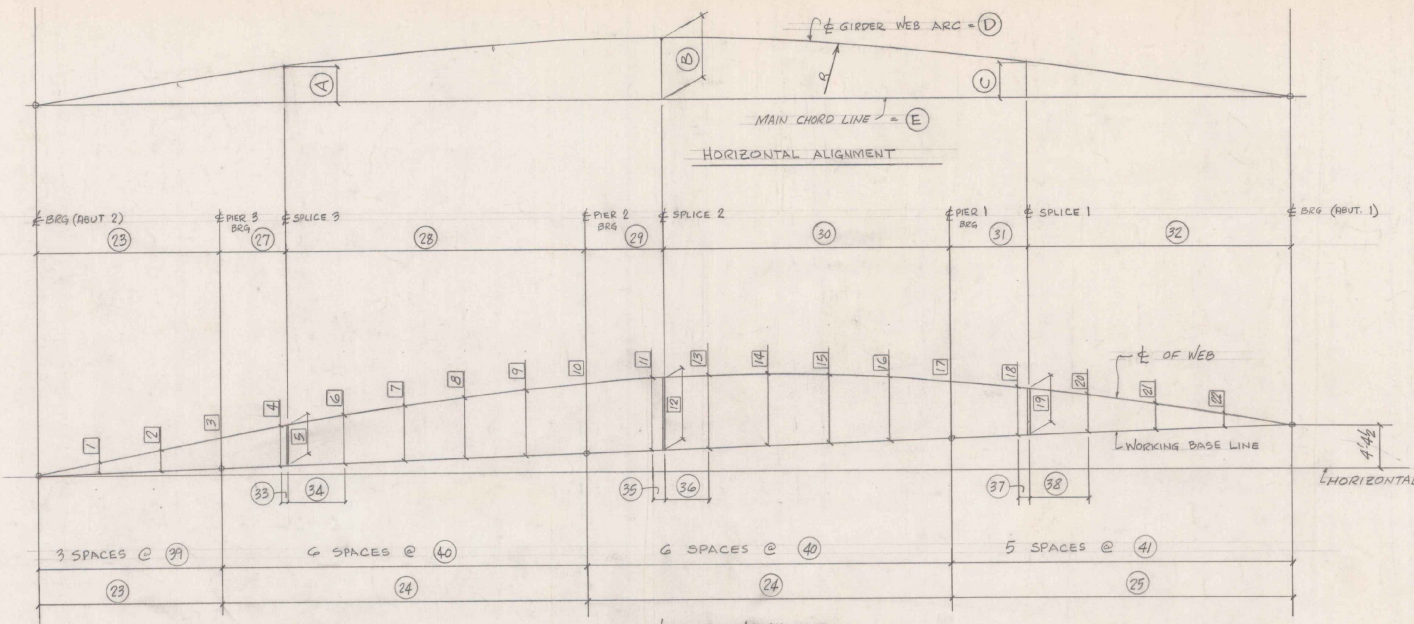
		DATE
DRAWN BY	MCG	8-24-81
CK'D BY		

HOLES —
BOLTS —
PAINT —

PROJECT RAMP WTS OVER I91
LOCATION WATERFORD VT
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V. A.O.T.
JOB NO. 80-3591 SHEET NO. C1B

PRINT RECORD		
NO.	FOR	DATE
3	SHOP	8-27

1100 10-72 CCP



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
2½"	4 9/16"	6 3/8"	8 3/4"	9"	11"	1'-0½"	1'-1"	1'-0 11/16"	1'-0 5/8"	1'-0 13/16"	1'-0 15/16"	1'-1"	1'-0 13/16"	11 7/8"	10 3/4"	9½"	8 3/4"	8 5/8"	8"	6 3/8"	3 3/4"

FOR SHOP NOTES SEE DWG. E1

	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	R
LINE 1	58'-11 7/8"	117'-11 3/16"	110'-1 7/16"		22'-0"	95'-11 3/16"	25'-0"	92'-11 3/16"	24'-6"	85'-7 7/16"	2'-4"	17'-4"	5'-4"	14'-4"	2'-5 1/4"	19'-6 5/8"	19'-8"	19'-8"	22'-0 5/8"	1126-8 5/8
LINE 2	59'-4 5/8"	118'-9 1/4"	110'-10 3/16"		22'-0"	96'-9 1/4"	25'-0"	93'-9 1/4"	24'-6"	86'-4 5/16"	2'-2 7/16"	17'-7 1/8"	5'-2 7/16"	14'-7 1/8"	2'-3 1/16"	19'-10 1/8"	19'-9 9/16"	19'-9 9/16"	22'-2 1/16"	1134-2 1/8
LINE 3	59'-9 5/16"	119'-6 11/16"	111'-7"		22'-0"	97'-6 11/16"	25'-0"	94'-6 11/16"	24'-6"	87'-1"	2'-0 7/8"	17'-10 1/4"	5'-0 7/8"	14'-10 1/4"	2'-2 3/16"	20'-1 5/8"	19'-11 1/8"	19'-11 1/8"	22'-3 1/16"	1141-8 5/8
LINE 4	60'-2 1/16"	120'-4 1/16"	112'-3 13/16"		22'-0"	98'-4 1/16"	25'-0"	95'-4 1/16"	24'-6"	87'-9 13/16"	1'-11 5/16"	18'-1 3/8"	4'-11 5/16"	15'-1 3/8"	2'-0 7/16"	20'-5 1/8"	20'-0 11/16"	20'-0 11/16"	22'-5 7/16"	1149-2 3/8

	A	B	C	D	E	
LINE 1	11'-7 1/4"	18'-1 7/8"	12'-1 1/8"	405'-0 15/16"	402'-10 1/2"	20.5977°
LINE 2	11'-7 11/16"	18'-3 5/16"	12'-2 5/8"	407'-7 7/16"	405'-7"	20.5978°
LINE 3	11'-8 1/16"	18'-4 3/4"	12'-3 7/16"	410'-5 1/16"	408'-3 5/16"	20.5979°
LINE 4	11'-9 1/16"	18'-6 1/4"	12'-4 5/8"	413'-2"	410'-11 1/16"	20.5977°

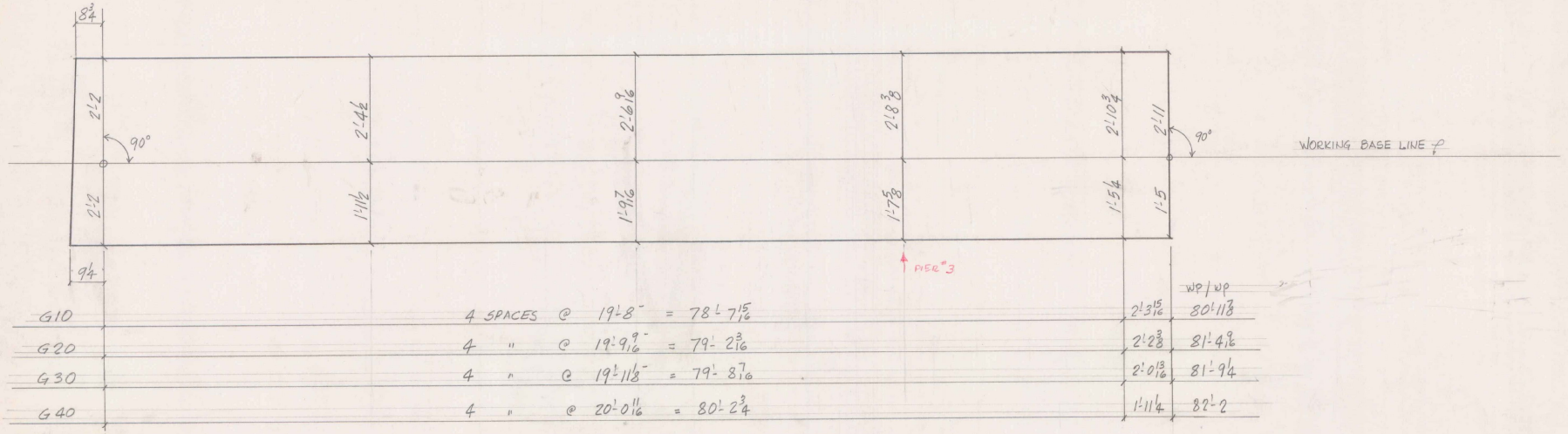
VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.
FAP I93-1(3) C/3

		DATE
DRAWN BY	CB	
CK'D BY	SWB	
HOLES		
BOLTS		
PAINT		

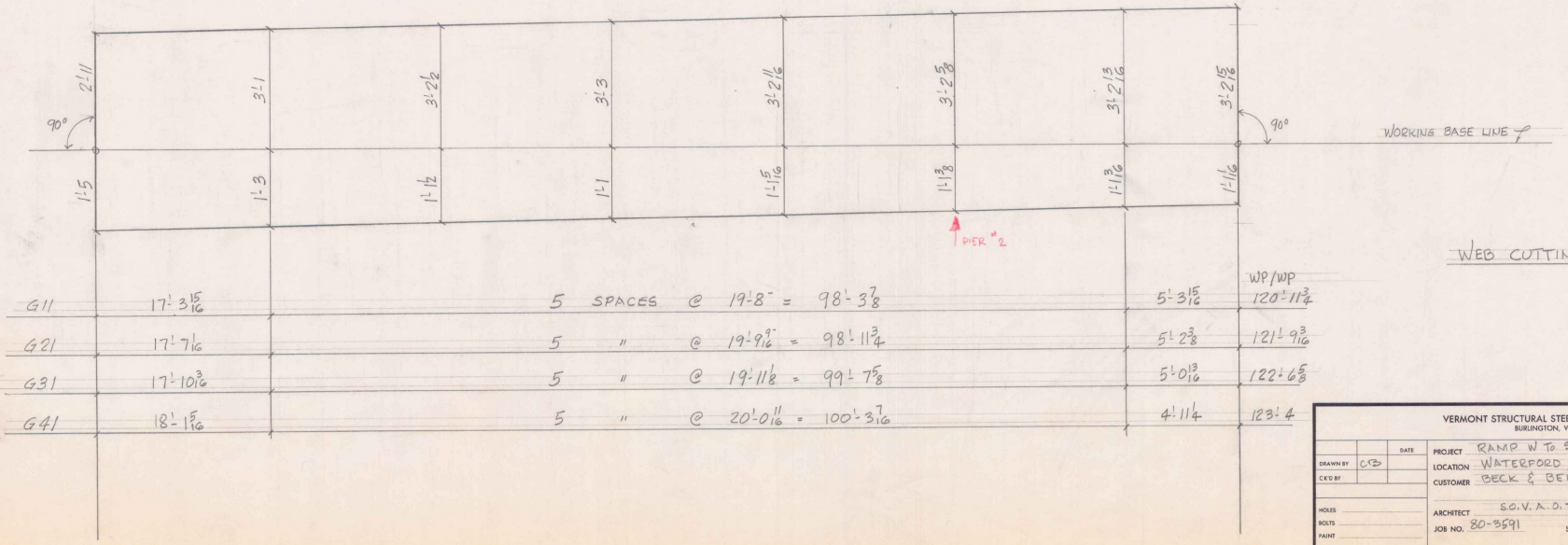
PROJECT RAMP W TO S OVER I91
LOCATION WATERFORD, VT.
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V. A.O.T
JOB NO. 80-3571 SHEET NO. C1

PRINT RECORD		
NO.	FOR	DATE
5	APP	5-6
5	APP Shop Rev	6-22
6	Fab Rev	6-24

N.C



			WP/WP
G10	4 SPACES @ 19'-8" = 78'-7 15/16	2'-3 15/16	80'-11 7/8
G20	4 " @ 19'-9 9/16" = 79'-2 3/16	2'-2 3/8	81'-4 9/16
G30	4 " @ 19'-11 7/8" = 79'-8 7/16	2'-0 13/16	81'-9 1/4
G40	4 " @ 20'-0 11/16" = 80'-2 3/4	1'-11 1/4	82'-2



				WP/WP
G11	17'-3 15/16	5 SPACES @ 19'-8" = 98'-3 7/8	5'-3 15/16	120'-11 3/4
G21	17'-7 1/16	5 " @ 19'-9 9/16" = 98'-11 3/4	5'-2 3/8	121'-9 3/16
G31	17'-10 3/16	5 " @ 19'-11 7/8" = 99'-7 5/8	5'-0 13/16	122'-6 5/8
G41	18'-1 5/16	5 " @ 20'-0 11/16" = 100'-3 7/16	4'-11 1/4	123'-4

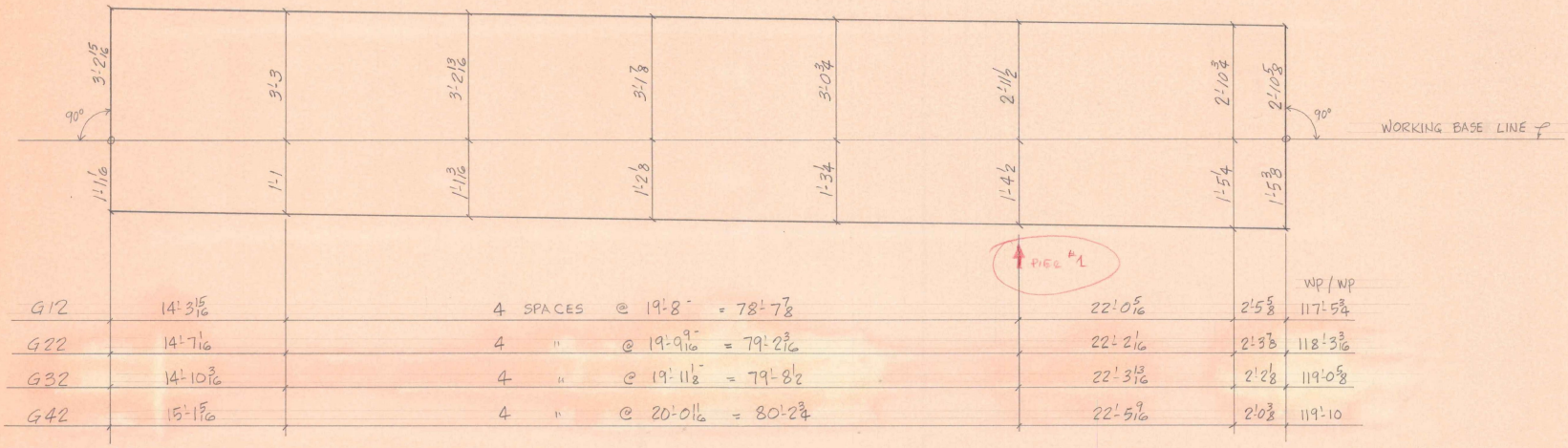
WEB CUTTING DIAGRAM

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

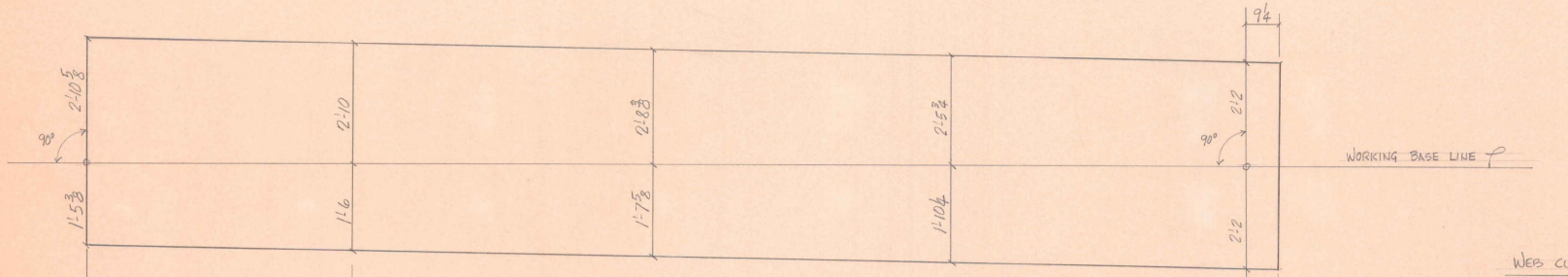
		DATE
DRAWN BY	CB	
CK'D BY		
HOLES		
BOLTS		
PAINT		

PROJECT RAMP W TO S OVER I91
LOCATION WATERFORD, VT.
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V. A.O.T.
JOB NO. 80-3591 SHEET NO. C2

PRINT RECORD		
NO.	FOR	DATE
5	SHOP	6-23
6	FIELD	6-29
3	SHOP	7/6



					WP / WP
G12	14'-3 15/16	4 SPACES @ 19'-8"	= 78'-7 7/8	22'-0 5/16	2'-5 5/8	117'-5 3/4
G22	14'-7 1/16	4 " @ 19'-9 9/16"	= 79'-2 3/16	22'-2 1/16	2'-3 7/8	118'-3 3/16
G32	14'-10 3/16	4 " @ 19'-11 1/8"	= 79'-8 1/2	22'-3 13/16	2'-2 1/8	119'-0 5/8
G42	15'-1 5/16	4 " @ 20'-0 11/16	= 80'-2 3/4	22'-5 9/16	2'-0 3/8	119'-10



WEB CUTTING DIAGRAM

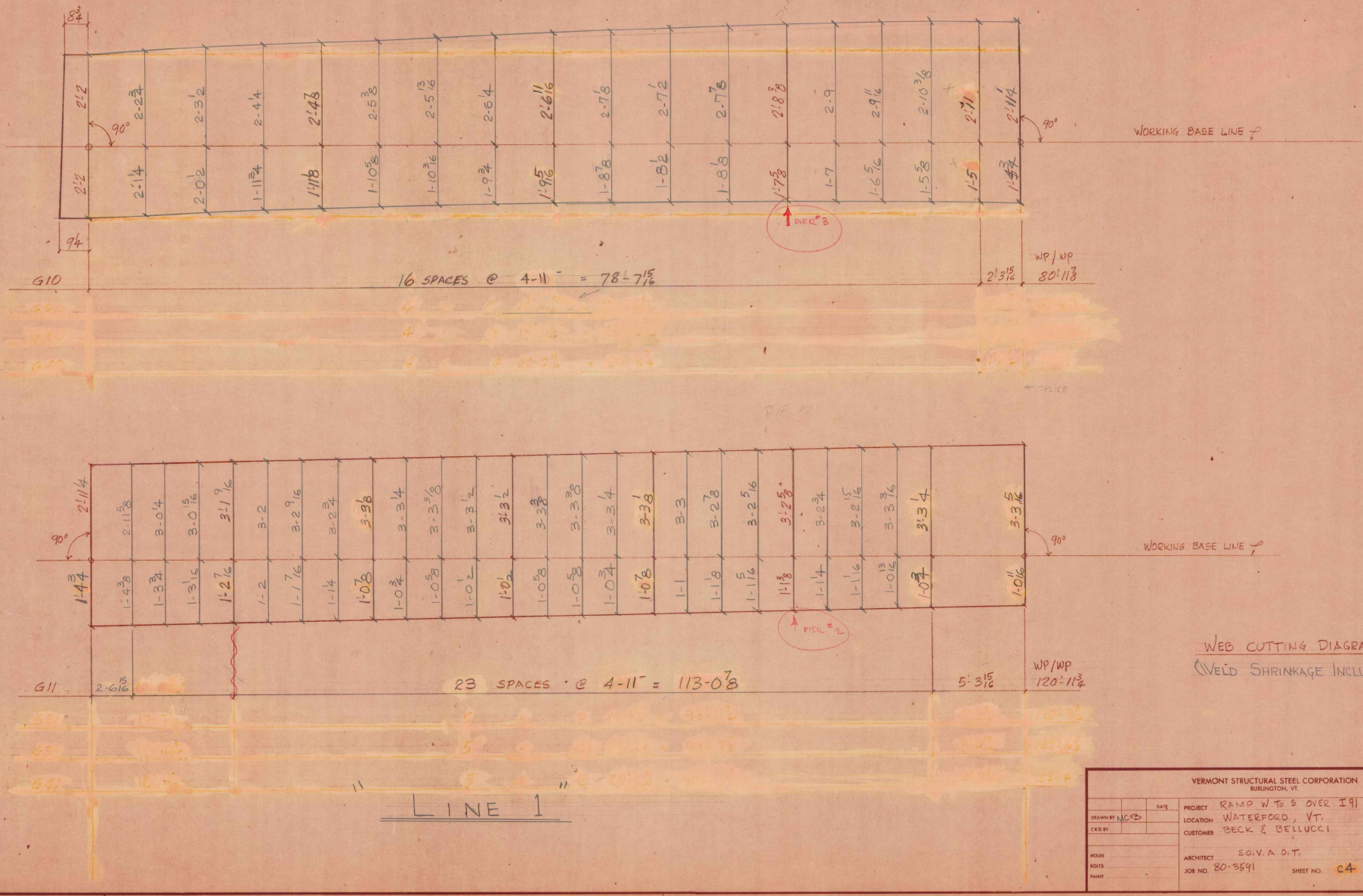
					WP/WP
G13	19'-6 9/16	3 SPACES @ 22'-0 5/16"	= 66'-0 7/8	8 3/4	85'-7 7/16
G23	19'-10 1/16	3 " @ 22'-2 1/16"	= 66'-6 1/8		86'-4 3/16
G33	20'-1 9/16	3 " @ 22'-3 13/16	= 66'-11 7/16		87'-1
G43	20'-5 1/16	3 " @ 22'-5 9/16"	= 67'-4 3/4		87'-9 13/16

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

		DATE
DRAWN BY	CG	
CK'D BY		
HOLES		
BOLTS		
PAINT		

PROJECT RAMP WTDS OVER I91
LOCATION WATERFORD, VT.
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V. A.O.T.
JOB NO. 80-3591 SHEET NO. 23

PRINT RECORD		
NO.	FOR	DATE
5	SHOP	6-23
6	SHOP REVISED	6-24
3	SHOP	6-17



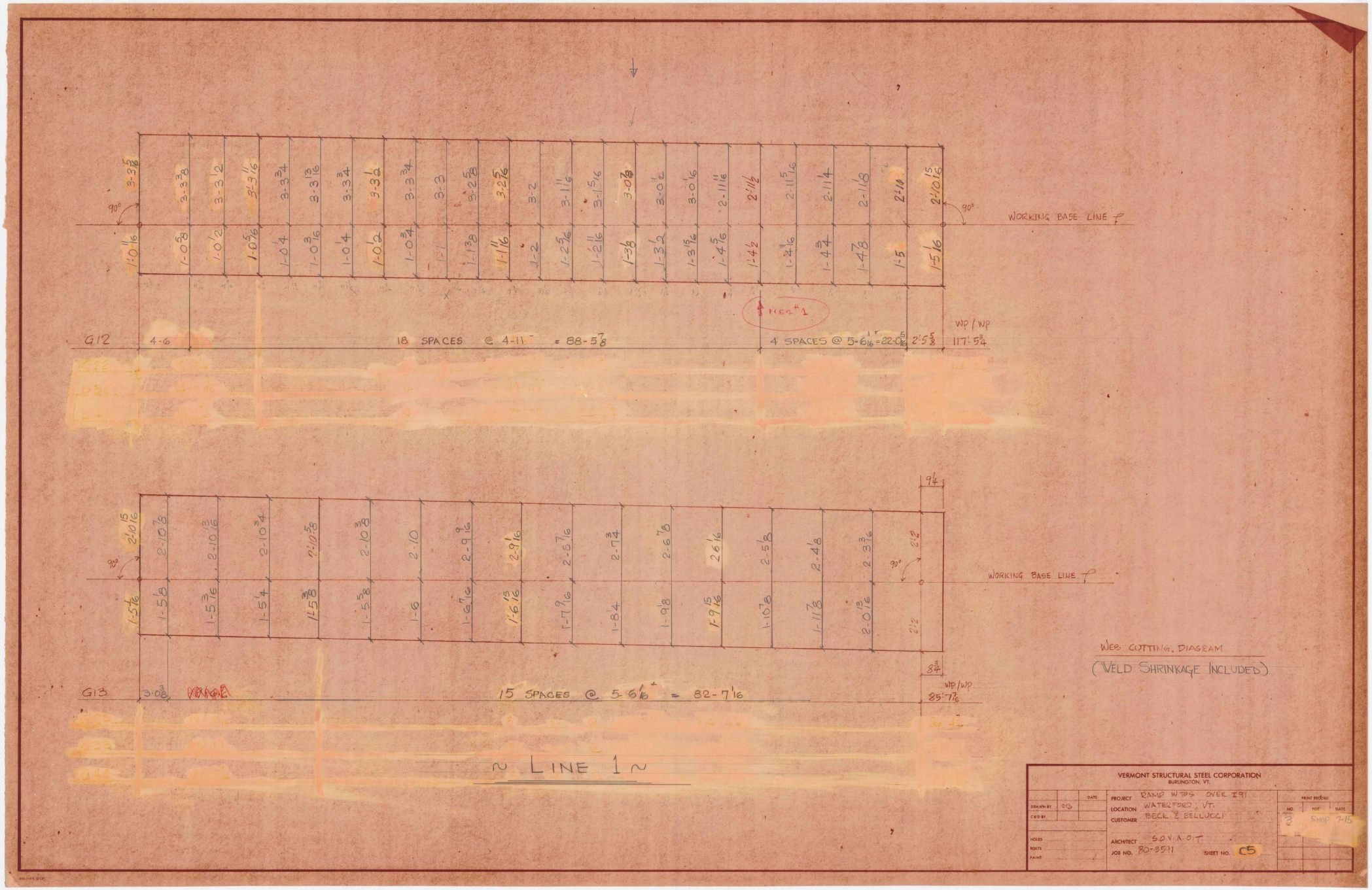
WEB CUTTING DIAGRAM.
(WELD SHRINKAGE INCLUDED)

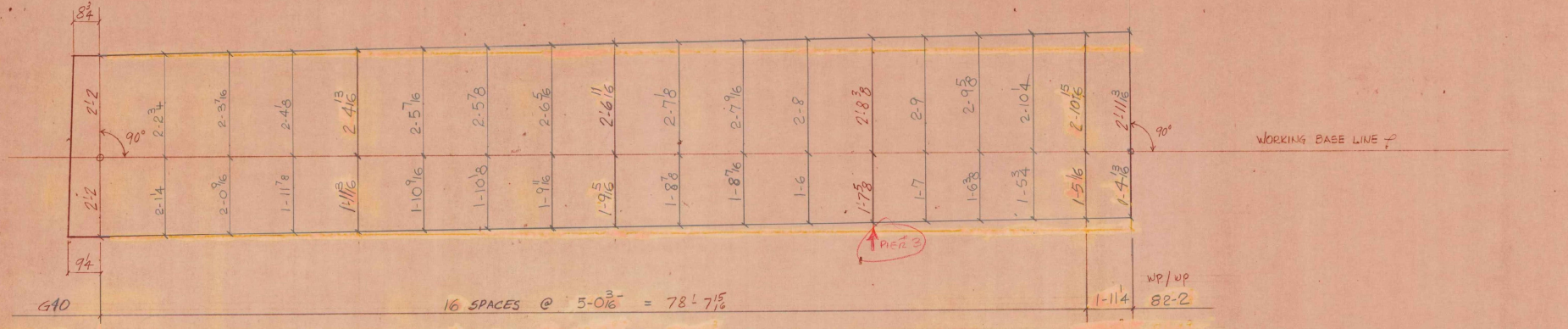
VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

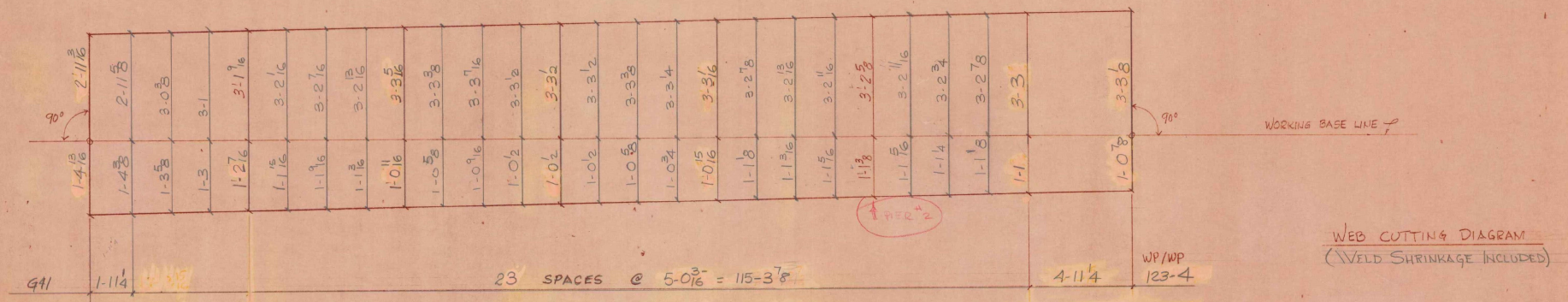
		DATE
DRAWN BY	MCS	
CK'D BY		
HOLES		
BOLTS		
PAINT		

PROJECT RAMP W TO S OVER I91
LOCATION WATERFORD, VT.
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V.A. O.T.
JOB NO. 80-3591 SHEET NO. C4

PRINT RECORD		
NO.	FOR	DATE
3	SHOP	7/16


WORKING BASE LINE ℄
G12
4-6
18 SPACES @ 4-11" = 88-5 7/8
4 SPACES @ 5-6 1/16" = 22-0 6/16
2'-5 5/8
WP / WP
117'-5 3/4
WORKING BASE LINE ℄
G13
3-08
15 SPACES @ 5-6 1/16" = 82-7 1/16
WP/WP
85'-7 1/16
WEB CUTTING DIAGRAM
(WELD SHRINKAGE INCLUDED)
℄ LINE 1 ℄
VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.
PROJECT RAMP WORK OVER I91
LOCATION WATERFORD, VT.
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V.A.O.T.
JOB NO. 80-3591
SHEET NO. C5
DRAWN BY CG
C.K'D BY
HOLES
BOLTS
PAINT
PRINT RECEIVED
NO.
BY
DATE
Shop 7-15





WEB CUTTING DIAGRAM
(WELD SHRINKAGE INCLUDED)

LINE 4

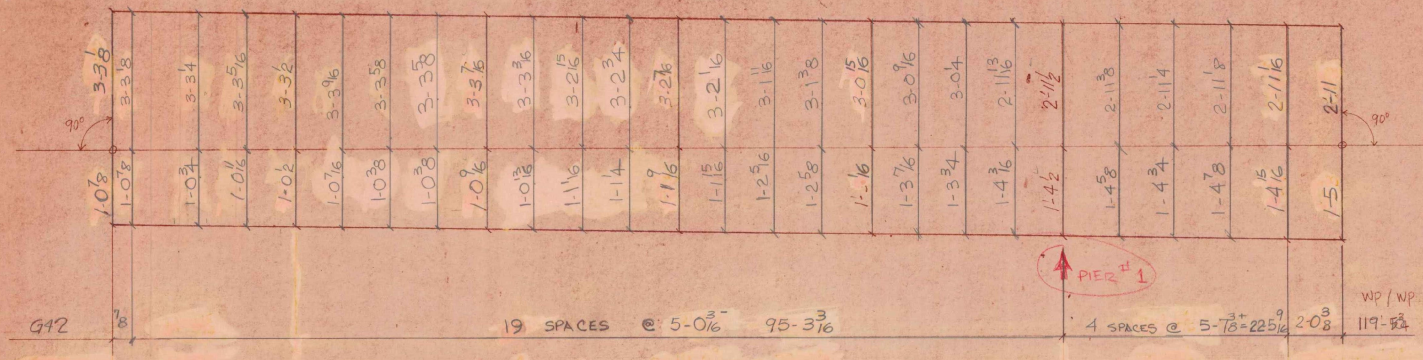
VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

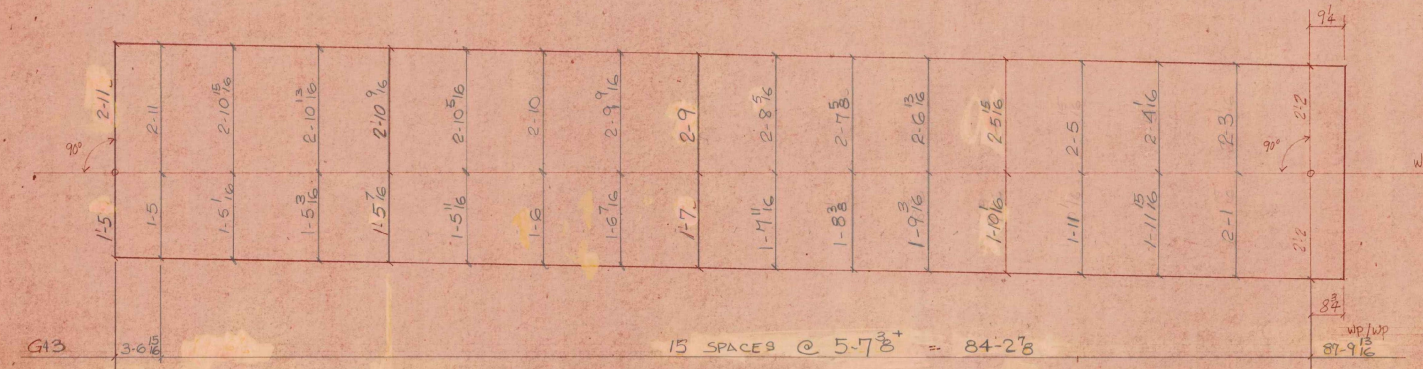
		DATE
DRAWN BY	CB	
CK'D BY		
HOLES		
BOLTS		
PAINT		

PROJECT RAMP W TO S OVER I91
LOCATION WATERFORD, VT.
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V.A.O.T. C6
JOB NO. 80-3591 SHEET NO. 25

PRINT RECORD

NO.	FOR	DATE
3	SHOP	7-16
6		





WEB CUTTING DIAGRAM

~ WELD SHRINKAGE INCLUDED ~

"LINE 4"

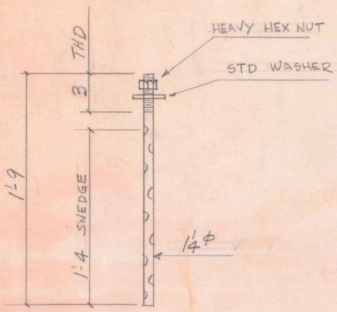
VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

		DATE
DRAWN BY	BG	
C'K'D BY		
HOLES		
ROSTS		
PAINT		

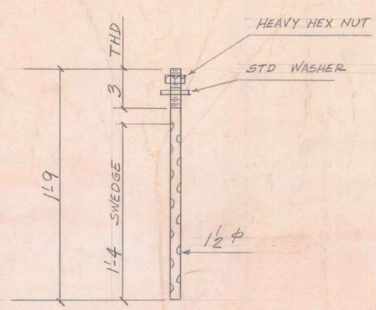
PROJECT RAMP WPS OVER I 91
LOCATION WATERFORD, VT.
CUSTOMER BECK & BELLUCCI
ARCHITECT S.V.S.A.O.T.
JOB NO. 80-3591
SHEET NO. C7 ~~C6~~

PRINT RECORD

NO.	FOR	DATE
3	SHOP	7-12



16 - AB1
(GALVANIZE)



32 - AB2
(GALVANIZE)

IN SHOP
3-25-81
DELV 5-11-81

BILL OF MATERIAL

	NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT	

JOB NO. .... SHEET NO. ....

ASTM-A36

BILL OF MATERIAL

	NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT	
	16	AB1	1¼ Φ ROD	1	9	STK will need 2 bars	117	
			H. H. NUT, WASHER (HEAVY.)			In stk - Hvy. nuts + washers	13	
							2	
								132
	32	AB2	1½ Φ ROD	1	9	A588 Res stk 3 c 20'	336	
			H. H. NUT WASHER (HEAVY)			ord. Am. Bolt + Nut	42	
						#60434 Galv.	3	
						Hvy. nuts + washers		381
								513

REVISION RECORD

DATE	REV. #	BY	REVISION

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT

		DATE
DRAWN BY	CB	
C'K'D BY	WR	

HOLES

BOLTS

PAINT GALVANIZE

PROJECT RAMP W. to S. OVER I91

LOCATION WATERFORD, VT.

CUSTOMER BECK & BELLUCCI

ARCHITECT S.O.V. A.O.T

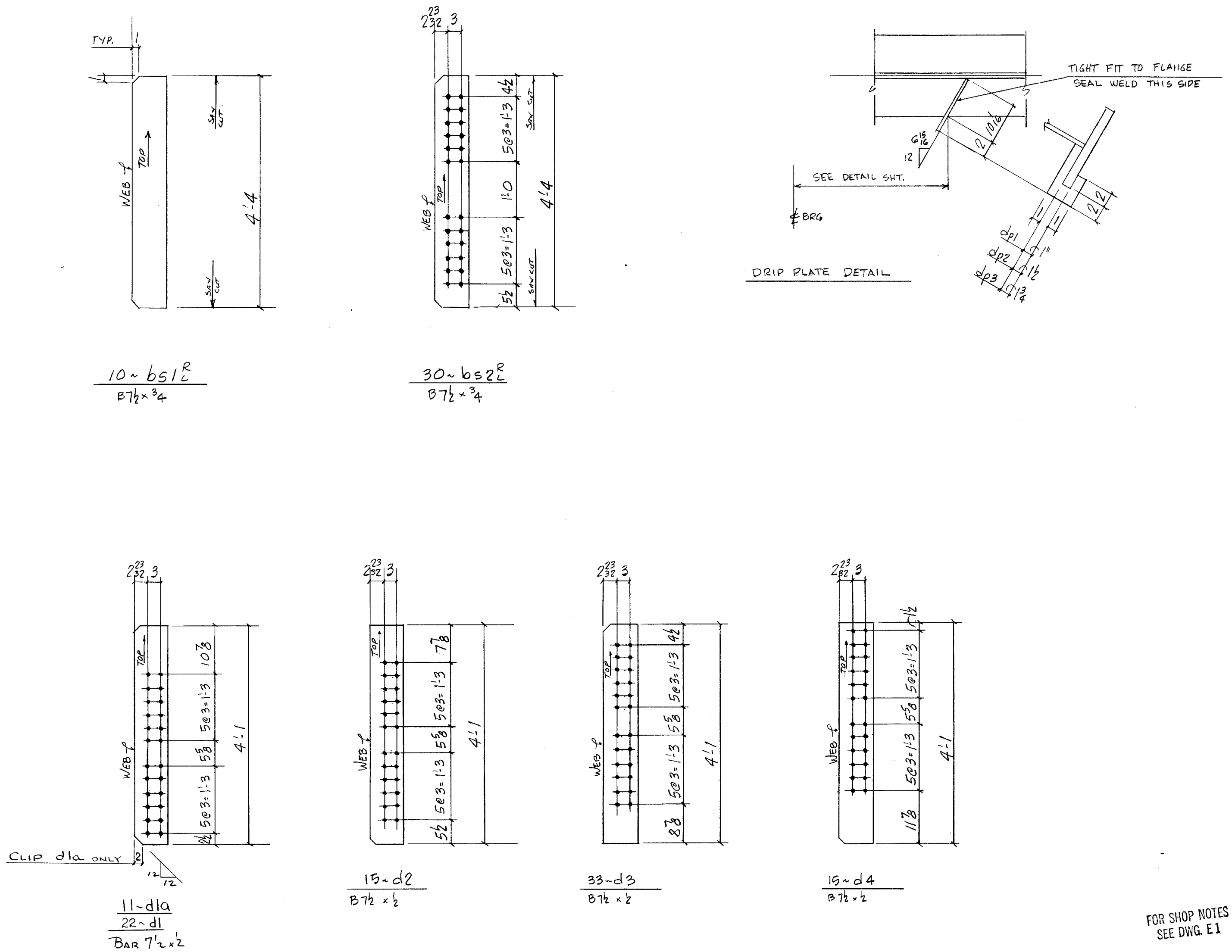
JOB NO. 80-3591-61

SHEET NO. AB1

PRINT RECORD

NO.	FOR	DATE
5	APPD	3-2
① SEPIA	JI	3-2
1-[illegible]	SHOP	3-2
3 ①	do	3-25

BRUNING 40-135 39726



FOR SHOP NOTES SEE DWG. E1

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT

JOB NO. .... SHEET NO. ....

ASTM-A588

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
					ALL A588	
					ord. USSC 60428	
10	bs1 R/L	B 7½ × ¾ SCZE	4	4	fr 21-Bar ¾ × 7½ × 22-25 (comb. w/ 3590)	
30	bs2 R/L	DO SCZE	4	4		3311
					(see JFI for HT)	
22	d1	B 7½ × ½	4	1	fr. stk 1-A588 PL ½ × 59" × 5-0 (for 7 pcs)	
11	d1a	DO	4	1	" " 1- " " ½ × 40" × 5-0 (for 5 pcs)	
15	d2	DO	4	1	" " 1- " " ½ × 34" × 4-8 (for 4 pcs)	
					" " 1- " " ½ × 50" × 4-9 (for 6 pcs)	
33	d3	DO	4	1	" " 1- " " ½ × 54" × 5-0 (for 7 pcs)	
					ord. USSC 60428 fr 40-A588 Bars	
15	d4	DO	4	1	½" × 7½" × 20-23' (for 72 pcs)	
					(comb. w/ 3590)	
						5018
					A588	
4	dp1	B 3 × ¼	1	0⅛	STK-PL	10
2	dp2	B 3½ × ¼	1	0⅛		6
2	dp3	B 3¾ × ¼	1	0⅛		6
						8351

REVISION RECORD

DATE	REV. #	BY	REVISION

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT FAP I93-1(3) C/3

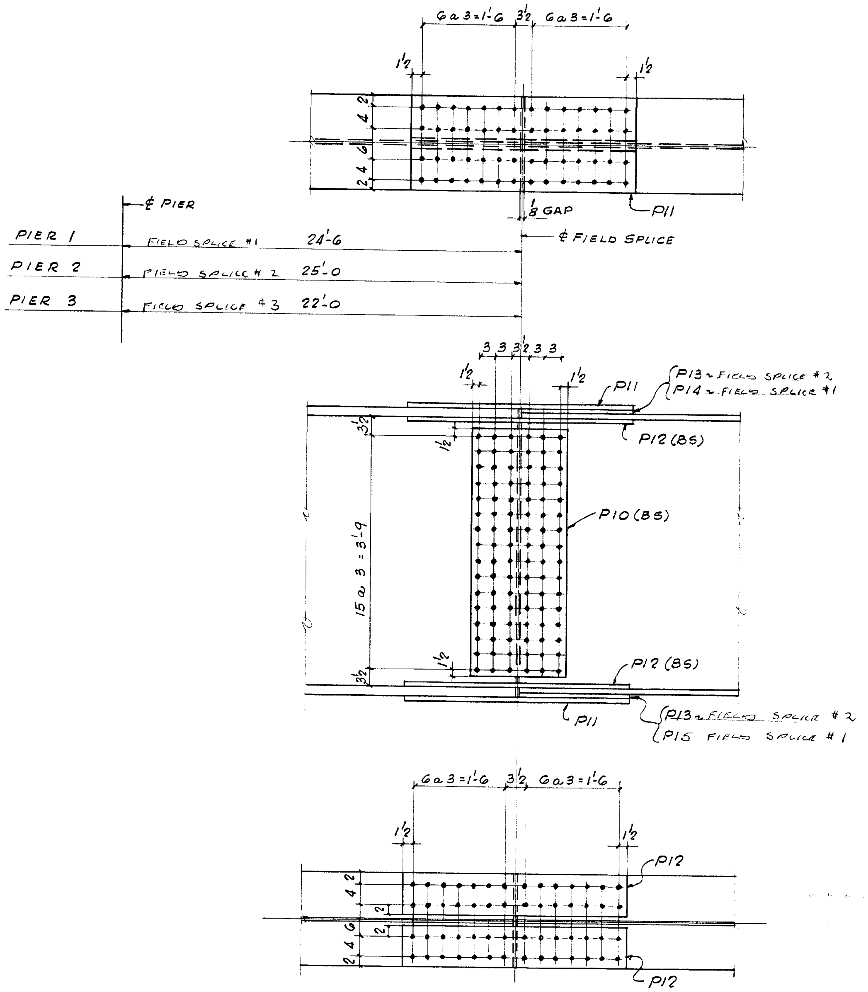
		DATE
DRAWN BY	CB	3/81
C'K'D BY	SWB	

HOLES 15/16 φ
BOLTS
PAINT NONE

PROJECT RAMP W. to S. OVER I91
LOCATION WATERFORD, VT.
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V. A.O.T.
JOB NO. 80-3591 SHEET NO. 1

PRINT RECORD

NO.	FOR	DATE
5	APP	5-6
5	APP	6-23
3	SHOP	6-29
2	STATE	9/8



FIELD SPLICE DETAIL

FOR SHOP NOTES SEE DWG. E1

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT

JOB NO. .... SHEET NO. ....

ASTM-A588

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
24	P10	PL 9/16 × 18½	4	0	ord. Beth. 60429 fr. 1-PL 9/16 × 18½ × 32-3 (comb.)	3398
24	P11	PL 9/16 × 18	3	6½	ord. Beth. 60429 1-PL 9/16 × 18 × 28-7 (comb.)	2924
48	P12	PL 9/16 × 8	3	6½	Raw stk 1-PL 9/16 × 50" × 7-10 (for 12 pcs) HT # 411K2711	2601
8	P13	PL 5/8 × 18	1	9	Raw stk. 1-A588 PL 5/8 × 20" × 10-1 (comb - enough for 8 pcs)	536
4	P14	PL 7/8 × 18	1	9	(These pcs. are already cut + marked)	375
4	P15	PL ½ × 18	1	9		214
						10048

REVISION RECORD

DATE	REV. #	BY	REVISION
8-25-81	1	G	REMOVED STAGGERED HOLES FROM P11 & P12

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT

		DATE
DRAWN BY	VTU	
C'K'D BY	CB	

HOLES ____
BOLTS ____
PAINT ____

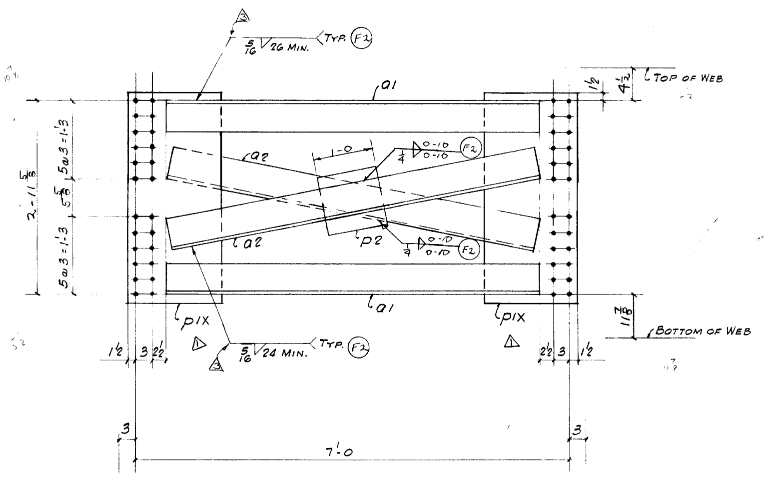
PROJECT RAMP W TO S OVER I91 N.B. & S.B
LOCATION WATERFORD, VT.
CUSTOMER ____
ARCHITECT S.O.V.A.O.T.
JOB NO. 80-3591 SHEET NO. 3

PRINT RECORD

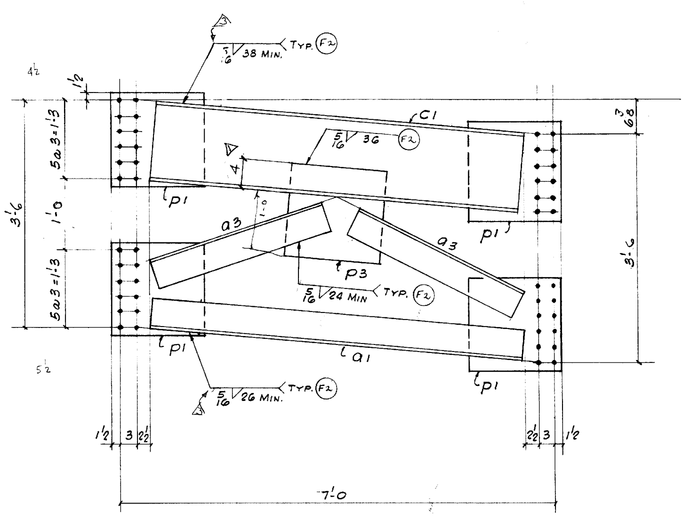
NO.	FOR	DATE
5	APP	5-6
5	APP	6-23
3	SHOP	6-24
5	APP	8-25
3	SHOP	8-25
2	STATE	9/8

N.C.

BRUNING 40-135 39726



48 - CF1



15 - CF2

FOR SHOP NOTES
SEE DWG. E1

BILL OF MATERIAL

	NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT	

JOB NO. .... SHEET NO. ....

ASTM - A588

BILL OF MATERIAL

	NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT	
			48 - CF1					
						ord. USSC 60428		
	96	a1	L 6 x 6 x 5/8	6	1	fr 12-L 6x6x5/8 x 49-0	(14133)	
	96	a2	L 6 x 6 x 3/8	6	1	fr 8-L 6x6x3/8 x 50-0 + 4 c 60-0 + 6 c 35-0	(8702)	
						ord. Beth 60429		
1	96	p1X	PL 7/16 x 18	3	2 5/8	15-PL 9/16 x 18 x 25-10 1/2 (cont - save stub) e 11-0	8280	
2	48	p2	PL 7/16 x 11	1	0		787	
			15 - CF2					
						ord. Beth. 60430		
	15	C1	C 15 x 33.9	6	0	15 e 6-1 w/7 mults	(3051)	
						ord. USSC 60428		
	15	a1				2-L 6x6x5/8 x 49-0	(2208)	
	30	a3	L 6 x 6 x 3/8	2	11	ord. USSC 60428 2-L 6x6x3/8 x 45-4	(1304)	
	60	p1	PL 7/16 x 18	1	6		(2412)	?
	15	p3	PL 7/16 x 16 △1	1	6		536	
							(9511)	
							(4143)	

REVISION RECORD

DATE	REV. #	BY	REVISION
9-25	4	wt	WEIGHTS
9-1-81	△3	HP	REV. TO WELDS REMOVE ALL AROUND SYMBOL
8-27-81	△2	HP	REV. TO PLATE P2 AND WELD
8/13/81	△1		REVISED PER CONVERSATION W/DICK HAUPT

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT
FAP I93-1(3) C/3

		DATE
DRAWN BY	VTU	3/81
C'K'D BY	SWB	

HOLES 15/16 Φ
BOLTS
PAINT NONE

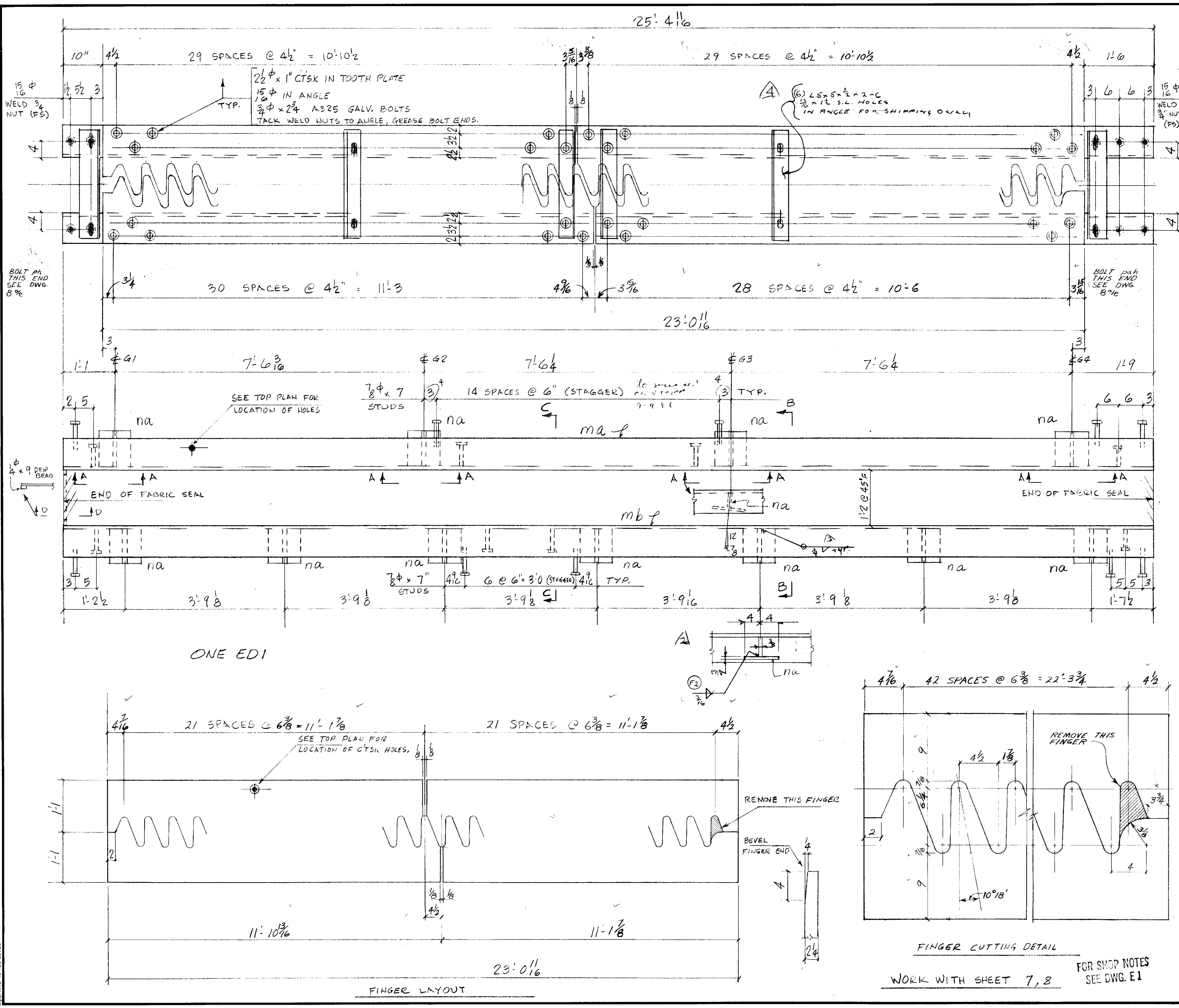
PROJECT RAMP W TO S OVER I91 N.B. & S.B
LOCATION WATERFORD, VT
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V. A.O.T.
JOB NO. 80-3591 SHEET NO. 4

PRINT RECORD

NO.	FOR	DATE
5	APP	5-6
5	APP	6-23
3/10	SHOP FIELD	6-24
5	F APP'L	8/13
3 ①	SHOP	8/13
5	APP	8-27
8	SHOP APP	9-1

N.C
2 STATE 9/8/81
2◯ STATE 9/25/81

BRUNING 40-135 39726



25'-4 11/16
29 SPACES @ 4 1/2" = 10'-10 1/2
29 SPACES @ 4 1/2" = 10'-10 1/2
2 1/2 φ x 1" CTSK IN TOOTH PLATE
15/16 φ IN ANGLE
3/4 φ x 2 3/4 A325 GALV. BOLTS
TACK WELD NUTS TO ANGLE, GREASE BOLT ENDS.
TYP.
WELD 3/4 NUT (FS)
(6) L5x5x1/2x2-6
15/16 x 1 1/2 S.L. HOLES
IN ANGLE FOR SHIPPING ONLY
BOLT PL THIS END SEE DWG. 8 9/6
30 SPACES @ 4 1/2" = 11'-3
28 SPACES @ 4 1/2" = 10'-6
23'-0 11/16
7'-6 3/16
7'-6 1/4
7'-6 1/4
SEE TOP PLAN FOR LOCATION OF HOLES
7/8 φ x 7 STUDS
14 SPACES @ 6" (STAGGER)
TYP.
END OF FABRIC SEAL
END OF FABRIC SEAL
ma
mb
na
7/8 φ x 7" STUDS
6 @ 6" = 3'-0 (STAGGER)
TYP.
1'-2 1/2
3'-9 1/8
3'-9 1/8
3'-9 1/8
3'-9 1/16
3'-9 1/8
3'-9 1/8
1'-7 1/2
ONE ED1
21 SPACES @ 6 3/8 = 11'-1 7/8
21 SPACES @ 6 3/8 = 11'-1 7/8
SEE TOP PLAN FOR LOCATION OF CTSK HOLES
REMOVE THIS FINGER
BEVEL FINGER END
11'-10 13/16
11'-1 7/8
23'-0 11/16
FINGER LAYOUT
42 SPACES @ 6 3/8 = 22'-3 3/4
REMOVE THIS FINGER
10°18'
FINGER CUTTING DETAIL
WORK WITH SHEET 7, 8
FOR SHOP NOTES SEE DWG. E1

NOTE "A"

33" WIDE 2 PLY POLYESTER DRAIN THROUGH.
(MATERIAL SHALL CONFORM TO SUPPLEMENTAL SPECIFICATION 707.13 PREFORMED FABRIC MATERIAL)

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
6		L5x5x1/2	2	6 1/2	NO PAY WT	

JOB NO. 80-3591-63 SHEET NO. 6 b/b

ASTM-A588

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		ONE ED1			ALL A588	
1		PL 2 1/4 x 26	23	0 11/16	ord. Beth. 60429 CO1 1-PL 2 1/4 x 26" x 23-2	4587
1	ma	L 8x6x1	25	4 11/16	Beth 60523 ord. 2-L 8x6x1 x 26-6	
1	mb	Do	25	4 11/16		2245
11	na	~~PL 4 x 3/8~~ PL 8 x 3/4	~~0~~ 0	~~10~~ 10	~~CUT FR 48 x 3/8~~ CUT FR. 3/4 x 60 x 12-0	~~47~~ 187
122		3/4 φ A325 + NUT GALV.		3 1/4	ORD. AMER. 61490	90
10		Do GALV.		2 1/2		7 / 7163
1		33" PREFORMED FABRIC SEAL SPEC. 707.13	25	4 3/4	SEE NOTE A FAB. 61145 TO SHOP	
4		1/16 x 3" BUTYL RUBBER	23	0 3/4	A.H HARRIS 61133 TO SHOP	
8	nb	1 φ THD ROD		7	ASTM ORD. 1 BAR 1 φ ROD x 20-0	
14	nc	Do		9		
		TWO NUTS, TWO 3/8" THICK WASHERS				

REVISION RECORD

DATE	REV. #	BY	REVISION
6-15-81	1	LLB	FINGER PL DESIGN & HOLE LOCATIONS
7-13	2	HO	REV. MAT.
9-4	3	HO	REV. WELD ADDED
	4		

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT FAP I93-1(3) C/C

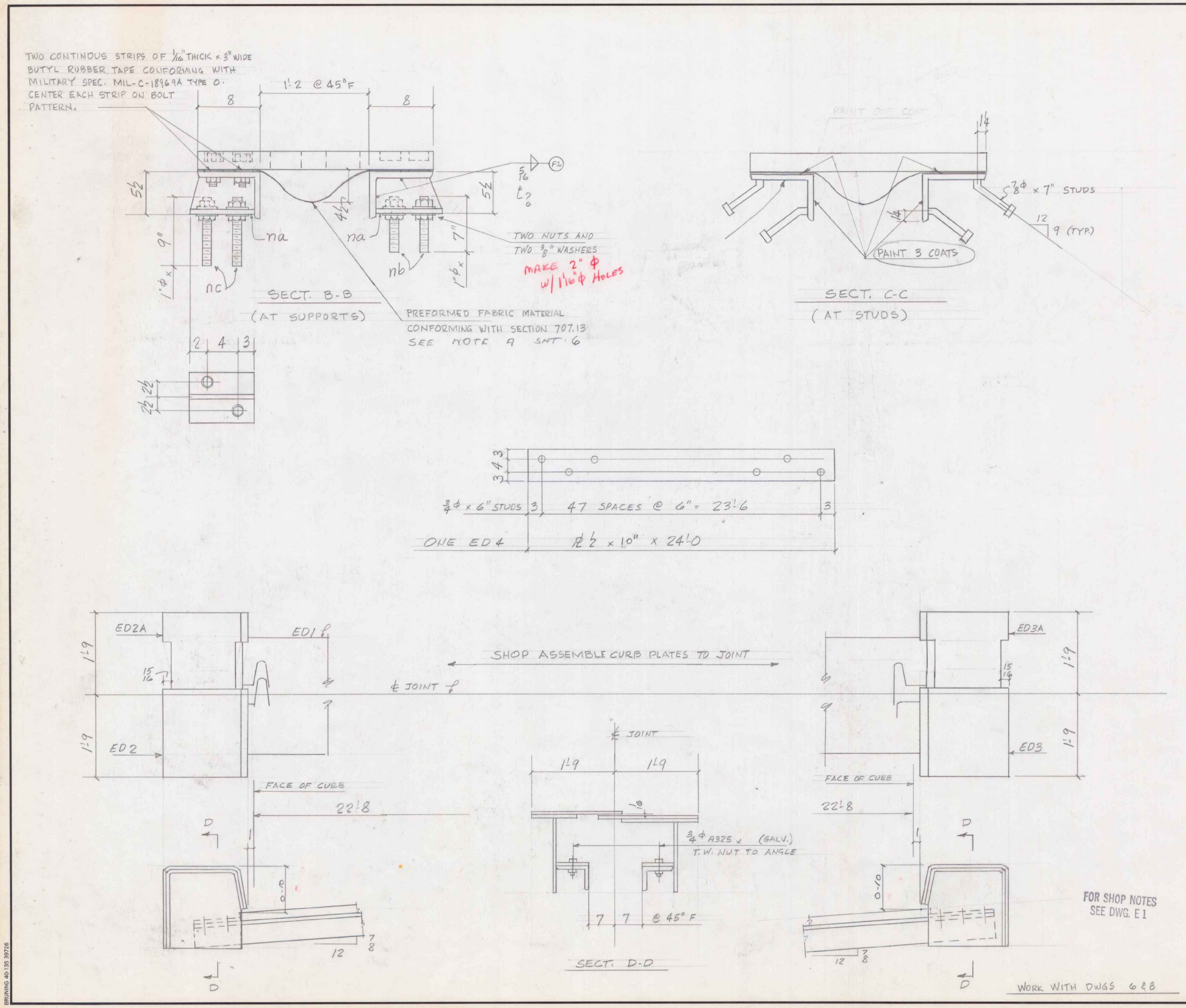
		DATE
DRAWN BY	CB	3/81
C'K'D BY	SUB	

HOLES
BOLTS
PAINT

PROJECT RAMP W TO S OVER I91
LOCATION WATERFORD, VT
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V. A.O.T.
JOB NO. 80-3591-63 SHEET NO. 6 a/b

PRINT RECORD

NO.	FOR	DATE
5	APP	5-6
3	SHOP	6-1
5	APP	6-23
3	SHOP	6-24
2	JT	7-9
3	SHOP	7-13
1	do	9-28



TWO CONTINOUS STRIPS OF 1/16" THICK x 3" WIDE BUTYL RUBBER TAPE CONFORMING WITH MILITARY SPEC. MIL-C-18969A TYPE O. CENTER EACH STRIP ON BOLT PATTERN.
1'-2 @ 45° F
8
8
TWO NUTS AND TWO 7/8" WASHERS
MAKE 2" ϕ w/ 1 1/16" ϕ HOLES
na
na
nb
nc
SECT. B-B
(AT SUPPORTS)
PREFORMED FABRIC MATERIAL CONFORMING WITH SECTION 707.13 SEE NOTE 9 SHT. 6
7/8ϕ x 7" STUDS
9 (TYP.)
PAINT 3 COATS
SECT. C-C
(AT STUDS)
3/4ϕ x 6" STUDS
47 SPACES @ 6" = 23'-6
ONE ED4
PL 1/2 x 10" x 24'-0
ED2A
ED1 ℄
SHOP ASSEMBLE CURB PLATES TO JOINT
℄ JOINT ℄
ED3A
ED2
ED3
FACE OF CURB
22'-8
D
℄ JOINT
1'-9
1'-9
3/4ϕ A325 x (GALV.)
T.W. NUT TO ANGLE
7 7 @ 45° F
SECT. D-D
FOR SHOP NOTES
SEE DWG. E1
WORK WITH DWGS 6 & 8

BILL OF MATERIAL

	NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT

JOB NO. .... SHEET NO. ....

ASTM - A588 *

BILL OF MATERIAL

	NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
*	1	ED4	PL 1/2 x 10	24	0	ord. Beth. 60429 CO#1 1-PL 1/2 x 10" x 26-6 (TO BE WT AS PL 1/2 x 8	408
	48		3/4ϕ STUDS		6	ORD. NELSON STUD 61491 ⚠1	42
							450

REVISION RECORD

DATE	REV. #	BY	REVISION
7-13	1	HP	Res. MAT.
7-23-81	2	LLB	REV. CURBS ED2A, ED3A

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT FAP I93-1(3) C/3

		DATE
DRAWN BY	CB	3/81
C'K'D BY	SWB	

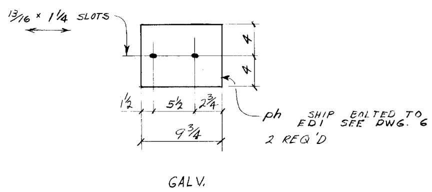
HOLES
BOLTS
PAINT

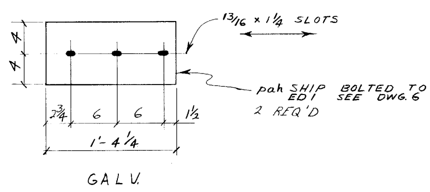
PROJECT RAMP W TO S OVER I91
LOCATION WATERFORD, VT.
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V. A.O.T.
JOB NO. 80-3591-63 SHEET NO. 7

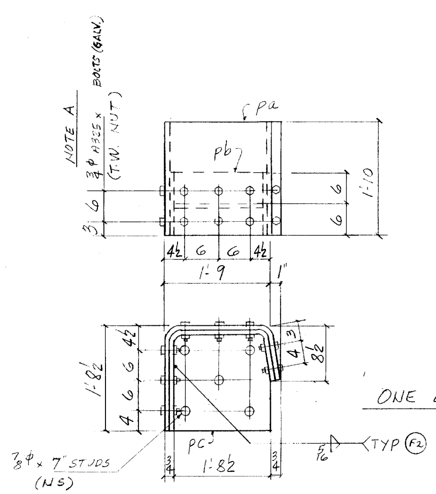
PRINT RECORD

NO.	FOR	DATE
5	APP	5-6
3①	SHOP	6-1
5	APP	6-23
3①	SHOP	6-29
1	JI	7-9
3①	SHOP	7-17
1	SHOP	7-23-81

N.C.

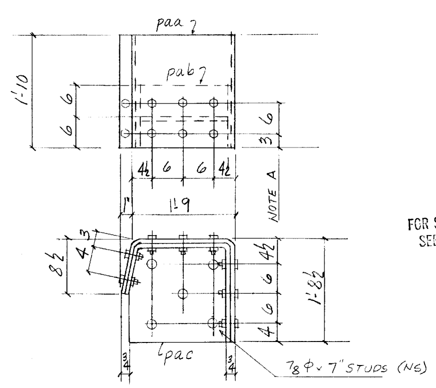






ONE ED2

ONE ED3



FOR SHOP NOTES
SEE DWG. E1

NOTE

HOT DIP GALVANIZE AFTER FABRICATION PER ASTM-A123.
SEE SHT 8 e/e FOR SPEC. → PAINT GRAY (FED. COLOR 26473)
SHOP ASSEMBLE TO JOINT ED1, SHT. 7

WORK WITH DWGS 6 & 7

ASTM-A36

BILL OF MATERIAL

	NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT	
	1	ED3						
	1	paa	PL ⅜ × 22	4	3	ord. Beth. 60429 col 1-PL ⅜ × 48 × 13-2 comb w/ paf (AS88)	119	
	1	pab	PL ⅜ × 12	4	1½		63	?
	1	pac	PL ⅜ × 19¾	1	8½	Rec. stk. 1-PL ⅜ × 25" × 4-0 comb w/ pah	43	
	5		⅞ϕ STUDS		7		7	
	16		¾ϕ A325 (GALV)		1¾	HEX NUT	9	
							241	
	2	ph	PL ⅜ × 8 GALV.	0	9¾			
	2	pah	PL ⅜ × 8 GALV.	1	4¼		44	
							285	

JOB NO. 80-3591-63 SHEET NO. 8 b/e

ASTM-A36

BILL OF MATERIAL

	NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT	
	1	ED2						
	1	pa	PL ⅜ × 22	4	3		119	
	1	pb	PL ⅜ × 12	4	1½		63	
	1	pc	PL ⅜ × 19¾	1	8½		43	
	5		⅞ϕ STUDS		7		7	
	16		¾ϕ A325 (GALV)		1¾	HEX NUT	9	
							241	

REVISION RECORD

DATE	REV. #	BY	REVISION
6-9-81	△	LLB	ED2A & ED3A REMOVED SEE SHT 8 d/e

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT FAP I93-1(3) C/3

		DATE
DRAWN BY	CB	3/81
C'K'D BY	SUB	

HOLES
BOLTS
PAINT GALV AS NOTED

PROJECT RAMP W to S OVER I91
LOCATION WATERFORD, VT
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V.A.O.T.
JOB NO. 80-3591-63 SHEET NO. 8 a/e

PRINT RECORD

NO.	FOR	DATE
5	APP	5-6
3 (1)	SHOP	6-1
5 (1)	APP	6-23
3 (1)	SHOP	6-29
3	Shop	7/23/81

C △

BRUNING 40-135 39726

SECTION 708 -- PAINT MATERIALS & MIXED PAINTS

105. 708.09, PAINTING OF HOT DIP GALVANIZED STEEL, is hereby made a new subsection of the Specifications as follows:

708.09, PAINTING OF HOT DIP GALVANIZED STEEL. Whenever painting of hot dip galvanized steel is called for on the plans, it shall be done in accordance with this section.

All steel requiring coating after it has been hot dip galvanized shall be coated by the galvanizer in his own plant. All coating shall be completed within six hours after galvanizing.

Surface Preparation. All surfaces to be coated shall be completely free of oil, grease, dirt and other contaminants. Solvent wipe surfaces, if necessary.

Coating Material - Shall be a Vinyl-epoxy, specifically formulated for use over untreated galvanized steel. It shall meet the requirements of A.S.T.M. specifications D-1475, D-1200, D-1310 and D-609. It shall have demonstrated 100% adhesion and freedom from failure when subjected to a minimum of 1,250 hours of 5% salt spray as per A.S.T.M. B-117. The manufacturer shall be capable of furnishing documentation that the coating has demonstrated 100% adhesion and complete freedom from failure for a period greater than five years when used on untreated hot dip galvanized steel in the field.

The coating material shall also meet the following requirements:

(1) Compatibility with acrylic, latex and epoxy coatings.

(2) 98% hiding power over galvanized steel, at 1 mil thickness.

(3) Air dry in ten minutes at 45° F.

(4) Recoatable within sixty minutes at 45° F.

(5) Solvent flashpoint not less than 100° F.

(6) Hardness of 2H-3H.

Application - Shall be by hot, airless spray only.

Film Thickness. A minimum dry film thickness of six mils shall be applied in two 3 mil coats (2nd coat to be applied not more than 3 hours after the initial coat).

Color. The color of the coating material shall match that specified for the paint system to be used except that for A-588 Steel the color shall be Gray to be an acceptable match to Federal Color Standard 26493

Certification. The coating material furnished under this specification shall be covered by a Type A Certification in accordance with Subsection 700.02.

BILL OF MATERIAL

	NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT	

JOB NO. ..... SHEET NO. .....

BILL OF MATERIAL

	NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT	

FOR PAINT SPEC. ONLY

REVISION RECORD

DATE	REV. #	BY	REVISION

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT

F.A.P. I 93-1(3) 5/3

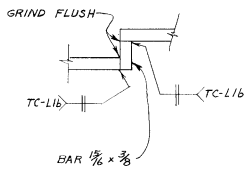
		DATE
DRAWN BY		4-29-81
CK'D BY		
HOLES		
BOLTS		
PAINT		

PROJECT: RAMP N TO S OVER I 91
LOCATION: WATERFORD, VT
CUSTOMER: BECK & BRUCCI
ARCHITECT: S.O.Y.A.O.T.
JOB NO. 80-3591-63 SHEET NO. 8 of 8

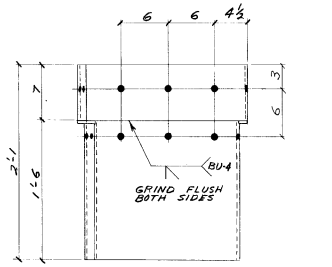
PRINT RECORD

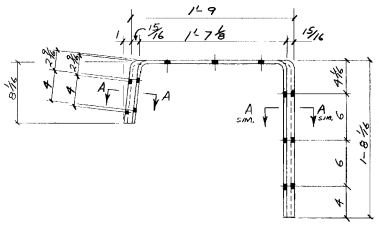
NO.	FOR	DATE
5	ADD	5-6
3	SHOP	6-1
5	ADD	6-22
3	SHOP	6-24
3	Shop	7/23/81

BRUNING 40-135 39726



SECTION A-A

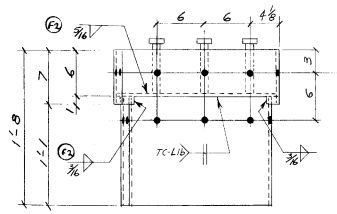




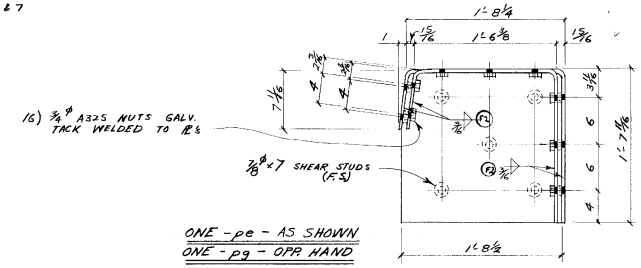
ONE - CURB ASSEMBLY - ED2A
pd & pe

ONE - CURB ASSEMBLY - ED3A
pf & pg

ONE - pd - AS SHOWN
ONE - pf - (OPP. HAND)



NOTE:
WORK WITH DWGS 6 & 7



16) 3/4" A325 NUTS GALV. TACK WELDED TO 12's

7/8" x 7 SHEAR STUDS (F3)

ONE - pe - AS SHOWN
ONE - pg - OPP. HAND

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.	WEIGHT
		ONE ED3A			
ONE	pf				
ONE		PL 3/8 x 7	4	1 1/4	37
ONE		PL 3/8 x 18	3	11 7/16	91
ONE		BAR 1 15/16 x 3/8	1	8 1/16	
ONE		BAR 1 3/16 x 3/8	0	8 1/8	3
ONE	pg				
ONE		PL 3/8 7	3	11 3/4	36
ONE		PL 3/8 14	3	9 7/8	67
ONE		PL 3/8 20 1/2	1	7 5/16	42
5		7/8" ϕ SHEAR STUD	0	7	7
16		3/4" ϕ A325 BOLT W/NUT (GALV.)			9
					292

JOB NO. 80-3591-63 SHEET NO. 8 A

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.	WEIGHT
		ONE - ED2A			
ONE	pd				
ONE		PL 3/8 x 7	4	1 1/4	37
ONE		PL 3/8 x 18	3	11 7/16	91
ONE		BAR 1 15/16 x 3/8	1	8 1/16	
ONE		BAR 1 3/16 x 3/8	0	8 1/8	3
ONE	pe				
ONE		PL 3/8 x 7	3	11 3/4	36
ONE		PL 3/8 x 14	3	9 7/8	68
ONE		PL 3/8 x 20 1/2	1	7 5/16	42
5		7/8" ϕ SHEAR STUD	0	7	7
16		3/4" ϕ A325 BOLT W/NUT (GALV.)			9
					293

REVISION RECORD

DATE	REV. #	BY	REVISION

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT

F.A.P. I 93-1(3) S/3

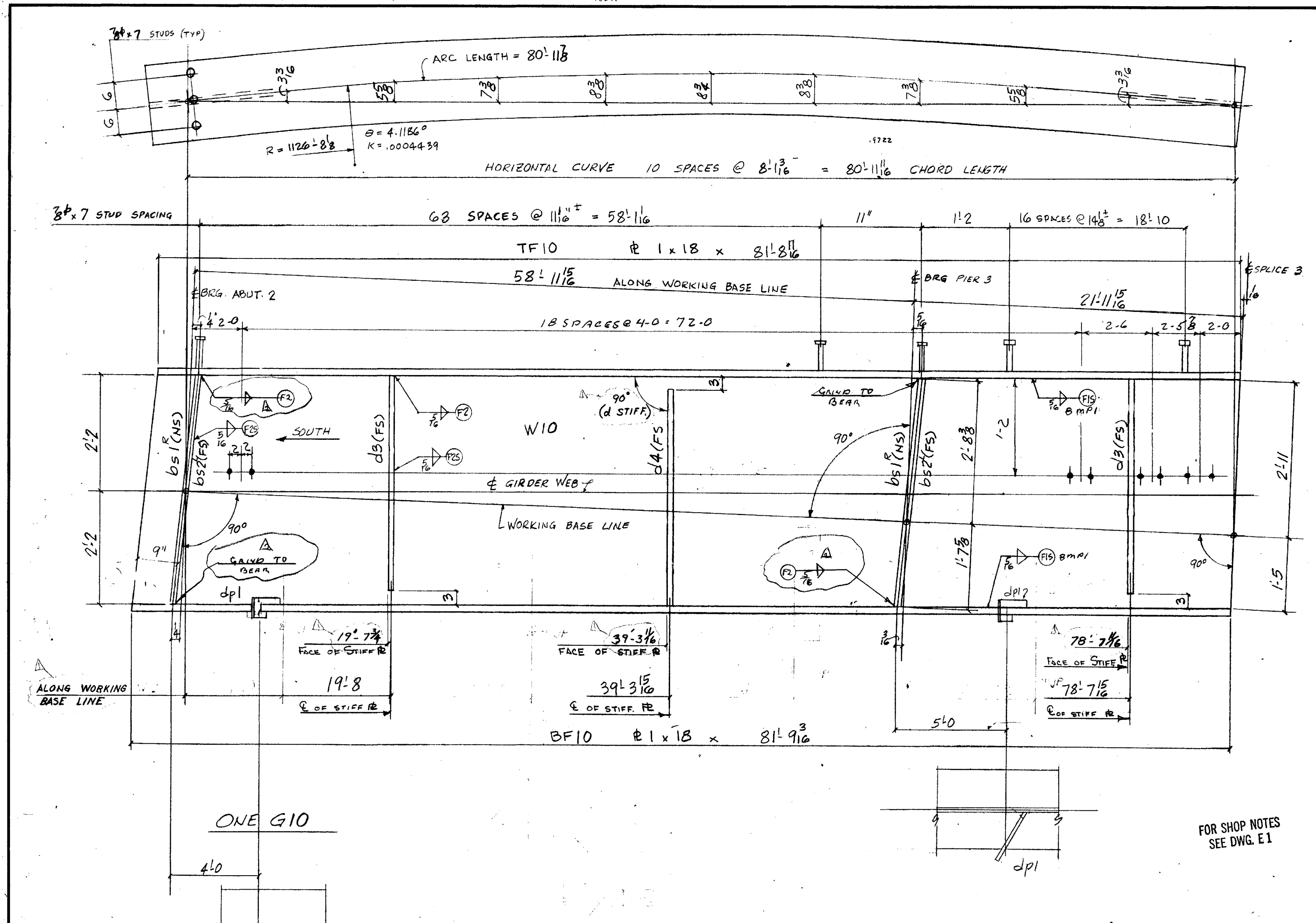
		DATE
DRAWN BY	LLB	6-9-81
CK'D BY		
HOLES	13/16" ϕ	
BOLTS		
PAINT	SEE NOTE SHT. 8A GALV.	

PROJECT RAMP W. TO S. OVER I 91
LOCATION WATERFORD VT
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V. A.O.T.
JOB NO. 80-3591-63 SHEET NO. 8 B

PRINT RECORD

NO.	FOR	DATE
5	BOM	6-23
4	shop	6-24
3	Shop	7/24/81

BRUNING 40-135-39726



⅞φ × 7 STUDS (TYP)
ARC LENGTH = 80'-11⅞
R = 1126'-8⅜
θ = 4.1186°
K = .0004439
HORIZONTAL CURVE 10 SPACES @ 8'-1 3/16 = 80'-11 1/16 CHORD LENGTH
⅞φ × 7 STUD SPACING
68 SPACES @ 11 1/16 = 58'-1 1/16
16 SPACES @ 14⅛ = 18'-10
TF10 ℘ 1 × 18 × 81'-8 11/16
58'-11 15/16 ALONG WORKING BASE LINE
℄ BRG. ABUT. 2
℄ BRG PIER 3
℄ SPLICE 3
21'-11 15/16
18 SPACES @ 4-0 = 72-0
W10
SOUTH
℄ GIRDER WEB
WORKING BASE LINE
GRIND TO BEAR
90° (d STIFF.)
bs1R (NS)
bs2L (FS)
d3 (FS)
d4 (FS)
dp1
19'-7¾ FACE OF STIFF ℘
39'-3 1/16 FACE OF STIFF ℘
78'-7 1/16 FACE OF STIFF ℘
ALONG WORKING BASE LINE
19'-8 ℄ OF STIFF ℘
39'-3 15/16 ℄ OF STIFF. ℘
78'-7 15/16 ℄ OF STIFF ℘
BF10 ℘ 1 × 18 × 81'-9 3/16
ONE G10

FOR SHOP NOTES SEE DWG. E1

NOTES:

FOR CAMBER, WEB CUTTING AND HORIZONTAL ALIGNMENT SEE C1.
FOR STIFFENER DETAILS SEE SHT. 1
~~FOR GUSSET PLATE DETAILS SEE SHT 2~~
FOR SPLICE DETAIL SEE SHT 3.

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	FT.	IN.		WEIGHT

JOB NO. .... SHEET NO. ....

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		ONE G10			ALL A588 ord. Beth. 60429 1-PL 9/16 × 53" mill edge × 87-0	
1	W10	℘ 9/16 × 52	81	9 3/16	↗ C.V.N.	(8150)
1	TF10	℘ 1 × 18	81	8 11/16	ord. Beth 60214 1-PL 1 × 18 × 82-0⅞	(5002)
1	BF10	Do	81	9 3/16	1-PL 1 × 18 × 82-0⅞	(5004)
2	bs1R	B 7½ × ¾	4	4	SEE #1	
2	bs2L	Do	4	4	Do	(331)
2	dp1	B 3 × ¼	1	0 1/16	SEE #1	(5)
2	d3	B 7½ × ½	4	1	SEE #1	
1	d4	Do	4	1	Do	(157)
						(18649)
		Cont 3591-62				
246		⅞φ STUDS		7		(324)

REVISION RECORD

DATE	REV. #	BY	REVISION
6-1-81	△1	LLB	Dims to FACE OF ℘'s & ANGLE OF ℘'s
6-23	△2	HO	VICO REV.

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT
FAP I93-1(3) C/3

		DATE
DRAWN BY	CB	3/81
C'K'D BY	SUB	

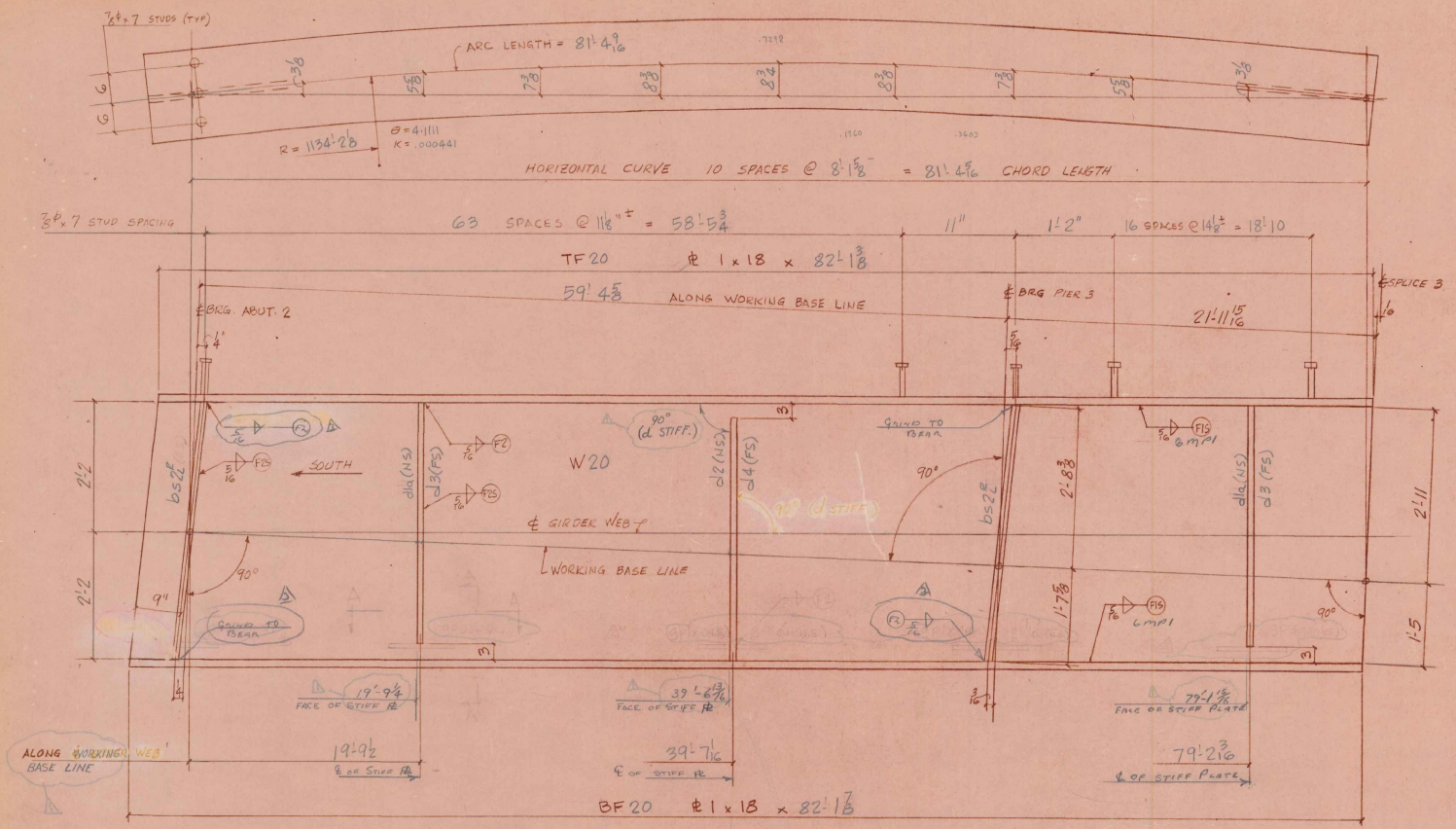
HOLES ______
BOLTS ______
PAINT NONE

PROJECT RAMP W. to S. OVER I91
LOCATION WATERFORD, VT.
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V. A.O.T.
JOB NO. 80-3591 80-3591-62 STUDS
SHEET NO. 10

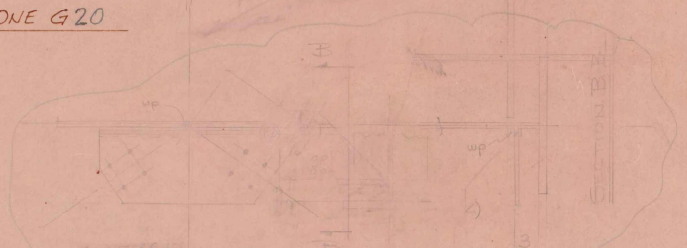
PRINT RECORD

NO.	FOR	DATE
5	APPR	5-6
1	PRELIM SHOP	6-17
5	APPR	6-21
3	SHOP	6-29
2	STATE	9/12

C A X A



ONE G20



FOR SHOP NOTES SEE DWG. E1

NOTES:

FOR CAMBER, WEB CUTTING AND HORIZONTAL ALIGNMENT SEE C1.
FOR STIFFENER DETAILS SEE SHT. 1.
FOR GUSSET PLATE DETAILS SEE SHT 2.
FOR SPLICE DETAIL SEE SHT 3.

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT

JOB NO. ..... SHEET NO. .....

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		ONE G20			ALL A588	
1	W20	PL 9/16 x 52	82	1 3/8	C.V.N.	(818)
1	TF20	PL 1 x 18	82	1 3/8	1-PL 1x18x82-5 3/8	(5025)
1	BF20	Do	82	1 3/8	1-PL 1x18x82-5 3/8	(5028)
4	bs2E	B 7 1/2 x 3/4	4	4	SEE #1	(33)
2	d1a	B 7 1/2 x 1/2	4	1	SEE #1	
1	d2		4	1		
2	d3		4	1		
1	d4		4	1		(31)
		Cont. Bo-3591-62				(1886)
246		7/8ϕ STUDS	7			(32)

REVISION RECORD

DATE	REV. #	BY	REVISION
6-1-81	1	LLB	DIM. TO FACE OF STIFF PL's & ANGLE OF PL's
6-11-81	2	MCB	REV. GP's
6-23	3	"	YIELD REV.

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT
FAP I93-1(3) C/3

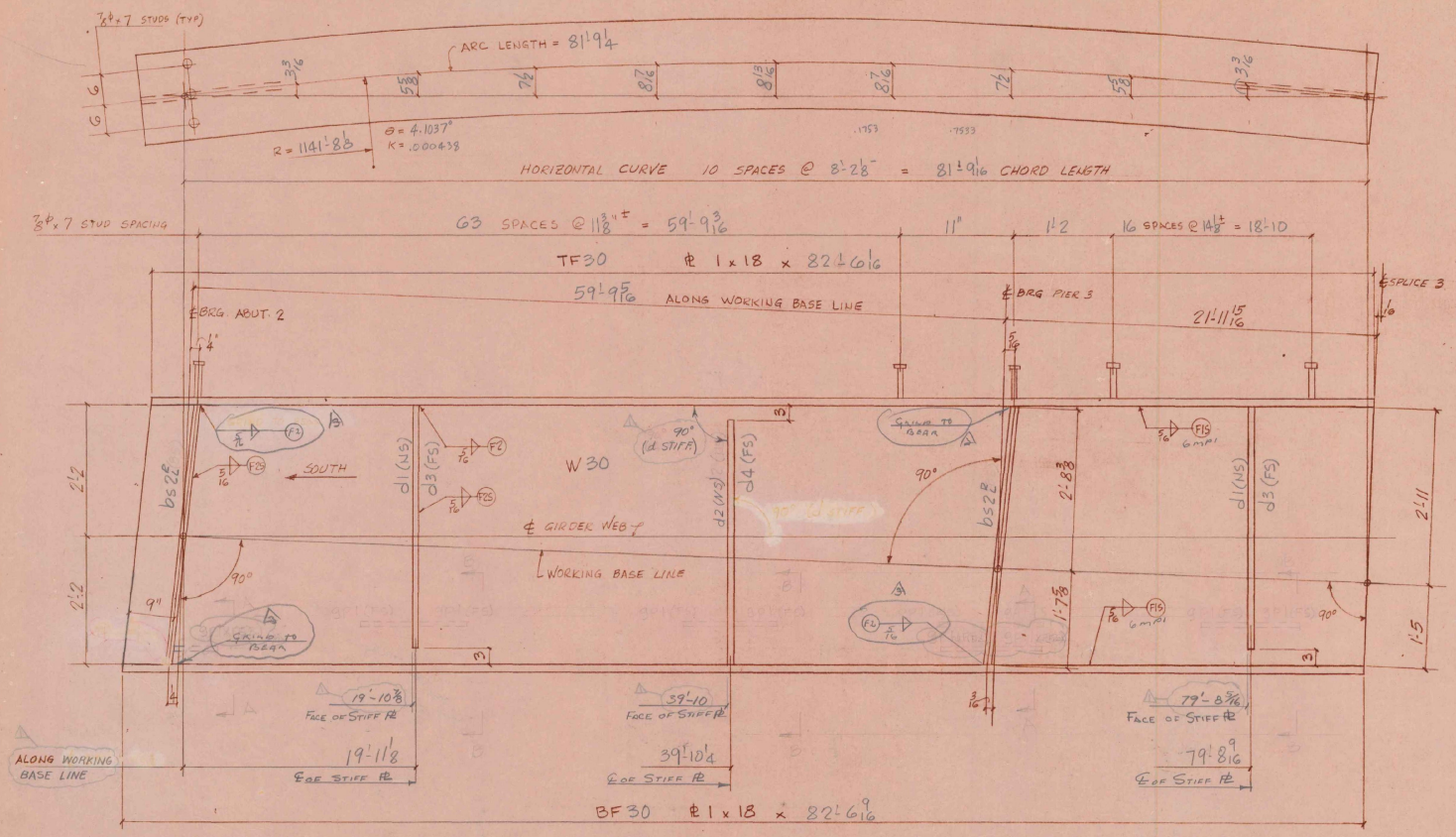
		DATE
DRAWN BY	CB	3/81
CKD BY	SJS	
HOLES		
BOLTS		
PAINT	NONE	

PROJECT RAMP W. to S. OVER I91
LOCATION WATERFORD, VT.
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V. & D.T.
JOB NO. 80-3591 SHEET NO. 20
3591-62 STRINGS

PRINT RECORD

NO.	FOR	DATE
5	APP'D	5-6
1	REVISION SHEET	6-17
5	APP'D	6-23
30	SHOP	6-24
2	STATE	9/8

DRAWING 40 135 39726



ONE G30

FOR SHOP NOTES SEE DWG. E1

NOTES:

FOR CAMBER, WEB CUTTING AND HORIZONTAL ALIGNMENT SEE C1.

FOR STIFFENER DETAILS SEE SHT. 1.

~~FOR GUSSET PLATE DETAILS SEE SHT 2.~~

FOR SPLICE DETAIL SEE SHT 3.

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT

JOB NO. ..... SHEET NO. .....

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		ONE G30			ALL A588	
1	W30	PL PL x 52	82	6 1/16	A C.V.N.	(B22)
1	TF30	PL 1 x 18	82	6 1/16		(S030)
1	BF30	Do	82	6 1/16		(S062)
4	bs2E	B 7 1/2 x 3/4	4	4	SEE #1	(331)
2	d1	B 7 1/2 x 1/2	4	1	SEE #1	
1	d2		4	1		
2	d3		4	1		
1	d4		4	1		(314)
		Spec 80-3590-62				(18975)
246		7/8ϕ STUDS		7		(324)

REVISION RECORD

DATE	REV. #	BY	REVISION
6-1-81	1	LLB	DIM. TO FACE OF STIFF PL, ANGLE OF PL
6-11-81	2	MCB	REV GPS
6-23-81	3	HD	WELD SIZES

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT

FAP I93-1(3) 5/13

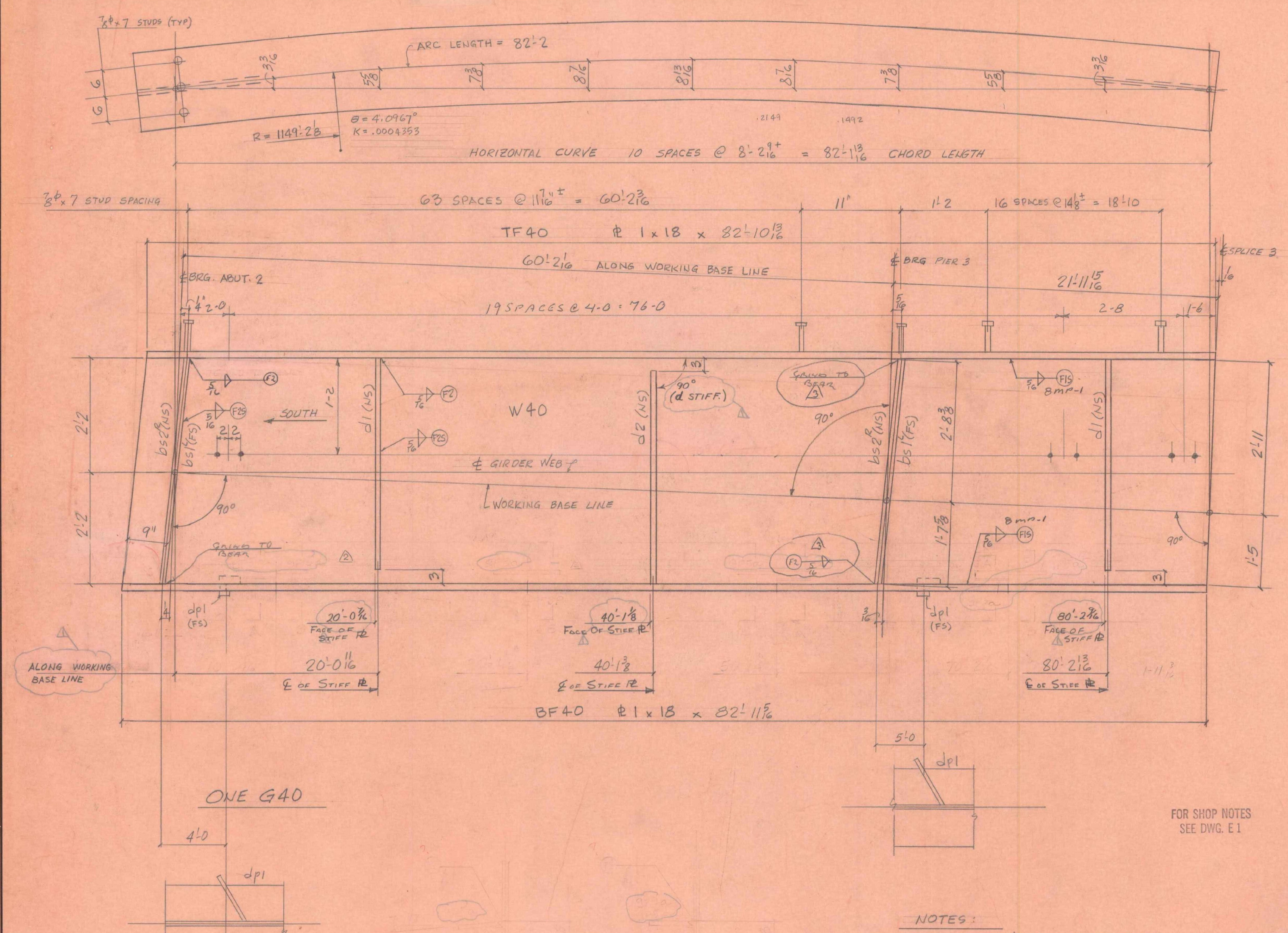
		DATE
DRAWN BY	CB	3/81
CK'D BY	SVS	
HOLES		
BOLTS		
PAINT	NONE	

PROJECT RAMP W. to S. OVER I91
LOCATION WATERFORD, VT.
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V. A.O.T.
JOB NO. 80-3591 80-3591-62 ST403
SHEET NO. 30

PRINT RECORD

NO.	FOR	DATE
5	APP'D	5-6
1	FIELD CHGS	6-17
6	APP'D	6-22
20	SHOP	6-24
2	STATE	9/8

C A A x A



7/8ϕ x 7 STUDS (TYP)
ARC LENGTH = 82'-2
R = 1149'-2 3/8
θ = 4.0967°
K = .0004353
HORIZONTAL CURVE 10 SPACES @ 8'-2 9/16+ = 82'-1 13/16 CHORD LENGTH
7/8ϕ x 7 STUD SPACING
63 SPACES @ 11 7/16± = 60'-2 3/16
16 SPACES @ 14 1/8± = 18'-10
TF40 PL 1 x 18 x 82'-10 13/16
60'-2 1/16 ALONG WORKING BASE LINE
℄ SPLICE 3
℄ BRG. ABUT. 2
℄ BRG PIER 3
21'-11 15/16
19 SPACES @ 4-0 = 76-0
W40
SOUTH
℄ GIRDER WEB
WORKING BASE LINE
GRIND TO BEAR
90° (⊥ STIFF.)
8 mp-1
ALONG WORKING BASE LINE
20'-0 9/16 FACE OF STIFF PL
40'-1 1/8 FACE OF STIFF PL
80'-2 5/16 FACE OF STIFF PL
20'-0 11/16 ℄ OF STIFF PL
40'-1 3/8 ℄ OF STIFF PL
80'-2 13/16 ℄ OF STIFF PL
BF40 PL 1 x 18 x 82'-11 5/16
ONE G40
dp1

FOR SHOP NOTES
SEE DWG. E1

NOTES:

FOR CAMBER, WEB CUTTING AND HORIZONTAL ALIGNMENT SEE C1.

FOR STIFFENER DETAILS SEE SHT. 1.

FOR SPLICE DETAIL SEE SHT 3.

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		ONE G40			ALL A588	
					ord. Beth. 60429 1-PL 9/16 x 53" mill edge x 83-0	
1	W40	PL 9/16 x 52	82	11 5/16	↗ C.V.N.	(8267)
1	TF40	PL 1 x 18	82	10 13/16	ord. Beth. 60214 1-PL 1 x 18 x 83-3 1/16	(5074)
1	BF40	Do	82	11 5/16	1-PL 1 x 18 x 83-3 1/16	(5076)
2	bs1L	B 7 1/2 x 3/4	4	4	SEE #1	
2	bs2R	Do	4	4	DO	(331)
2	d1	B 7 1/2 x 1/2	4	1	SEE #1	
1	d2	Do	4	1	DO	(157)
2	dP1	B 3 x 1/4	1	0 1/16	DO	(5)
						(18910)
246		7/8ϕ STUDS COVT 80-3591-62		7		(324)

JOB NO. .... SHEET NO. ....

REVISION RECORD

DATE	REV. #	BY	REVISION
6-1-81	1	LLB	DIM. TO FACE OF STIFF. PL's, ANGLE OF PL's
6-11-81	2	MCB	Rev gp's
6-23-81	3	[illegible]	WELD REV.

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT
FAP I93-1(3) C/3

		DATE
DRAWN BY	CB	3/81
C'K'D BY	SHJ	

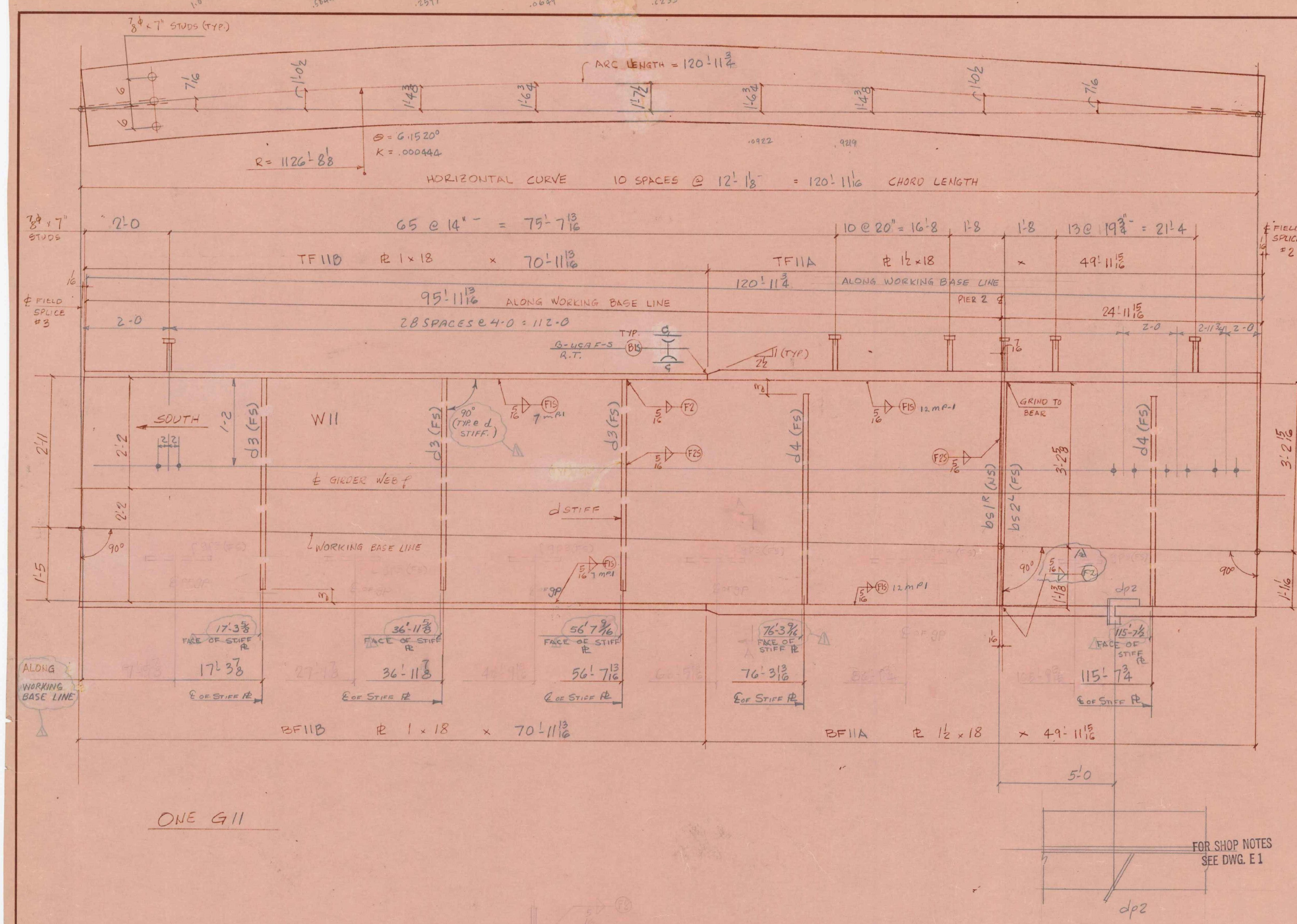
HOLES
BOLTS
PAINT NONE

PROJECT RAMP W. to S. OVER I91
LOCATION WATERFORD, VT.
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V. A.O.T.
JOB NO. 80-3591
80-3591-62 STUDS
SHEET NO. 40

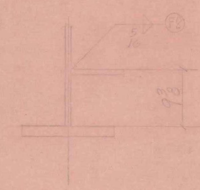
PRINT RECORD

NO.	FOR	DATE
5	APP	5-C
1	PRELIM SHOP	6-17
5	APP	6-23
3	SHOP	6-24
2	STATE	9/8

C 1 2 X A



7/8" x 7" STUDS (TYP.)
ARC LENGTH = 120'-11 3/4
Θ = 6.1520°
K = .000444
R = 1126'-8 8/1
HORIZONTAL CURVE 10 SPACES @ 12'-1 1/8 = 120'-11 1/16 CHORD LENGTH
65 @ 14" = 75'-7 13/16
10 @ 20" = 16'-8
13 @ 19 3/4" = 21'-4
FIELD SPLICE #2
TF11B PL 1 x 18 x 70'-11 13/16
TF11A PL 1 1/2 x 18 x 49'-11 15/16
120'-11 3/4 ALONG WORKING BASE LINE
95'-11 13/16 ALONG WORKING BASE LINE
PIER 2
FIELD SPLICE #3
28 SPACES @ 4-0 = 112-0
24'-11 15/16
SOUTH
W11
GIRDER WEB
WORKING BASE LINE
GRIND TO BEAR
d STIFF
ALONG WORKING BASE LINE
FACE OF STIFF PL
E OF STIFF PL
BF11B PL 1 x 18 x 70'-11 13/16
BF11A PL 1 1/2 x 18 x 49'-11 15/16
5'-0
ONE G11
dp2
FOR SHOP NOTES SEE DWG. E1



NOTES:

FOR CAMBER, WEB CUTTING AND HORIZONTAL ALIGNMENT SEE C1.
FOR STIFFENER DETAILS SEE SHT 1.
~~FOR GUSSET PLATE DETAILS SEE SHT 2.~~
FOR SPLICE DETAIL SEE SHT 3.

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		ONE G11			ALL A588	
1	W11	PL 9/16 x 52	120	11 3/4	ord. Beth 60429 1-PL 9/16 x 56 3/4 x 123-6 C.V.N.	12057
1	TF11A	PL 1 1/2 x 18	49	11 15/16	ord. Beth 60214 1-PL 1 1/2 x 18 x 50-4	4590
1	TF11B	PL 1 x 18	70	11 13/16	1-PL 1 x 18 x 73-5 1/16	4345
1	BF11A	PL 1 1/2 x 18	49	11 15/16	ord. B 60214 1-PL 1 1/2 x 18 x 50-4	4590
1	BF11B	PL 1 x 18	70	11 13/16	C.V.N. 1-PL 1 x 18 x 73-5 1/16	4345
1	bs1R	B 7 1/2 x 3/4	4	4	SEE #1	
1	bs2L	DO	4	4	DO	166
3	d3	B 7 1/2 x 1/2	4	1	SEE #1	
2	d4	DO	4	1	DO	261
1	dp2	B 3 1/2 x 4	1	0 1/16	DO	3
6	gp3	PL 3/4 x 10	1	10	SEE #2	30357
		Cont 3591-62				
273		7/8 Φ STUDS		7		360

REVISION RECORD

DATE	REV. #	BY	REVISION
6-1-81	1	LLB	DIM. TO FACE OF STIFF PL's
6-23-82	2	HP	WELD REV.

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT

FAP I93-1(3) C/3

		DATE
DRAWN BY	CB	3/81
CK'D BY	SWB	

HOLES
BOLTS
PAINT NONE

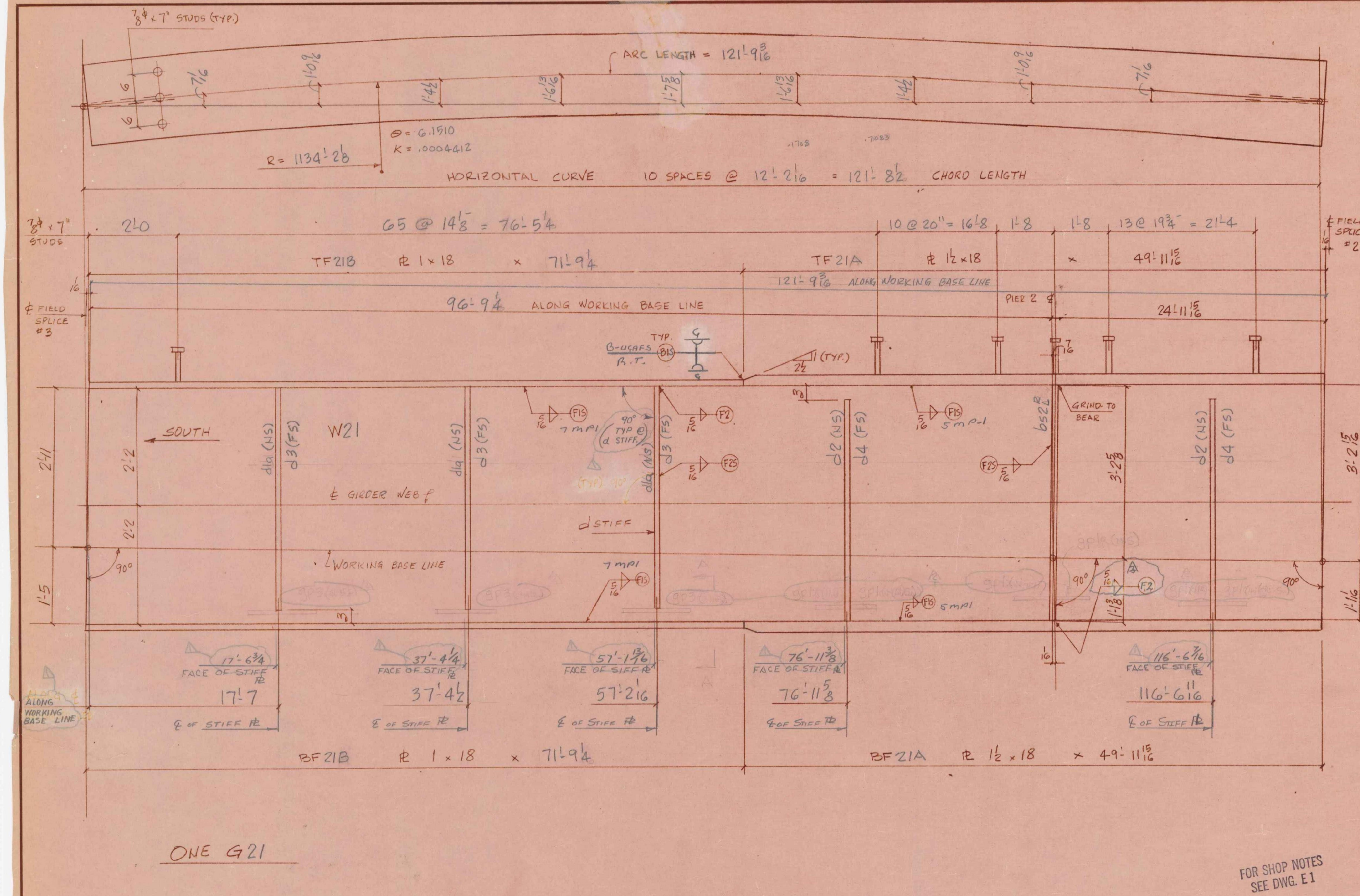
PROJECT RAMP W. to S. OVER I91
LOCATION WATERFORD, VT.
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V. A.O.T.
JOB NO. 80-3591. 80-3591-62 STUDS
SHEET NO. 11

PRINT RECORD

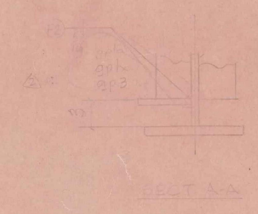
NO	FOR	DATE
5	APP	5-6
1	PRELIM SHOP	6-17
5	APP	6-23
3	SHOP	6-24
2	STATE	9/8

c 4

B


7/8 φ × 7" STUDS (TYP.)
ARC LENGTH = 121'-9 3/16
θ = 6.1510
K = .0004412
R = 1134'-2 1/8
HORIZONTAL CURVE 10 SPACES @ 12'-2 1/16 = 121'-8 1/2 CHORD LENGTH
7/8 × 7" STUDS
2'-0
65 @ 14 1/8 = 76'-5 1/4
10 @ 20" = 16'-8
1'-8
1'-8
13 @ 19 3/4 = 21'-4
℄ FIELD SPLICE #2
TF21B ℔ 1 × 18 × 71'-9 1/4
TF21A ℔ 1 1/2 × 18 × 49'-11 15/16
121'-9 3/16 ALONG WORKING BASE LINE
℄ FIELD SPLICE #3
96'-9 1/4 ALONG WORKING BASE LINE
PIER 2 ℄
24'-11 15/16
TYP.
B-USAFS R.T.
1 (TYP.)
2 1/2
SOUTH
W21
℄ GIRDER WEB ℄
d STIFF
WORKING BASE LINE
GRIND TO BEAR
d1a (NS)
d3 (FS)
d1a (NS)
d3 (FS)
d1a (NS)
d3 (FS)
d2 (NS)
d4 (FS)
bs2R
d2 (NS)
d4 (FS)
7 mpl
5 mp-1
5 mpl
2'-4 1/2
2'-2
2'-2
1'-5
3'-2 1/8
3'-2 15/16
1'-1 1/16
90°
17'-6 3/4
FACE OF STIFF ℔
37'-4 1/4
57'-1 9/16
76'-11 3/8
116'-6 7/16
17'-7
37'-4 1/2
57'-2 1/16
76'-11 5/8
116'-6 11/16
℄ OF STIFF ℔
ALONG WORKING BASE LINE
BF21B ℔ 1 × 18 × 71'-9 1/4
BF21A ℔ 1 1/2 × 18 × 49'-11 15/16
ONE G21

FOR SHOP NOTES SEE DWG. E1



NOTES:
FOR CAMBER, WEB CUTTING AND HORIZONTAL ALIGNMENT SEE C1.
FOR STIFFENER DETAILS SEE SHT 1.
~~FOR GUSSET PLATE DETAILS SEE SHT 2.~~
FOR SPLICE DETAIL SEE SHT 3.

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT

JOB NO. .... SHEET NO. ....

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		ONE G21			ALL A588	
					ord. Beth. 60429 1-PL 9/16 × 56 3/4 ~~2100~~ × 123-6	
1	W21	℔ 9/16 × 52	121	9 3/16	C.V.N.	12136
					ord. B 60214	
1	TF21A	℔ 1 1/2 × 18	49	11 15/16	1-PL 1 1/2 × 18 × 50-4	4590
1	TF21B	℔ 1 × 18	71	9 1/4	1-PL 1 × 18 × 73-5 1/16	4392
1	BF21A	℔ 1 1/2 × 18	49	11 15/16	1-PL 1 1/2 × 18 × 50-4	4590
1	BF21B	℔ 1 × 18	71	9 1/4	C.V.N. 1-PL 1 × 18 × 73-5 1/16	4392
2	bs 2R	B 7 1/2 × 3/4	4	4	SEE #1	166
3	d1a	B 7 1/2 × 1/2	4	1	SEE #1	
2	d2		4	1		
3	d3		4	1		
2	d4		4	1		523
						30789
273		7/8 φ STUDS (CONT) 3590-62		7		360

REVISION RECORD

DATE	REV. #	BY	REVISION
6-1-81	△1	LLB	DIM TO FACE OF STIFF ℔'s
6-11-81	△2	MCB	REV gp's
6-23-81	△3	[illegible]	WELD REV
9/25		[illegible]	WEIGHTS

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT
FAP I93-1(3) C/3

		DATE
DRAWN BY	CB	3/81
C'K'D BY	S4S	

HOLES ______
BOLTS ______
PAINT NONE

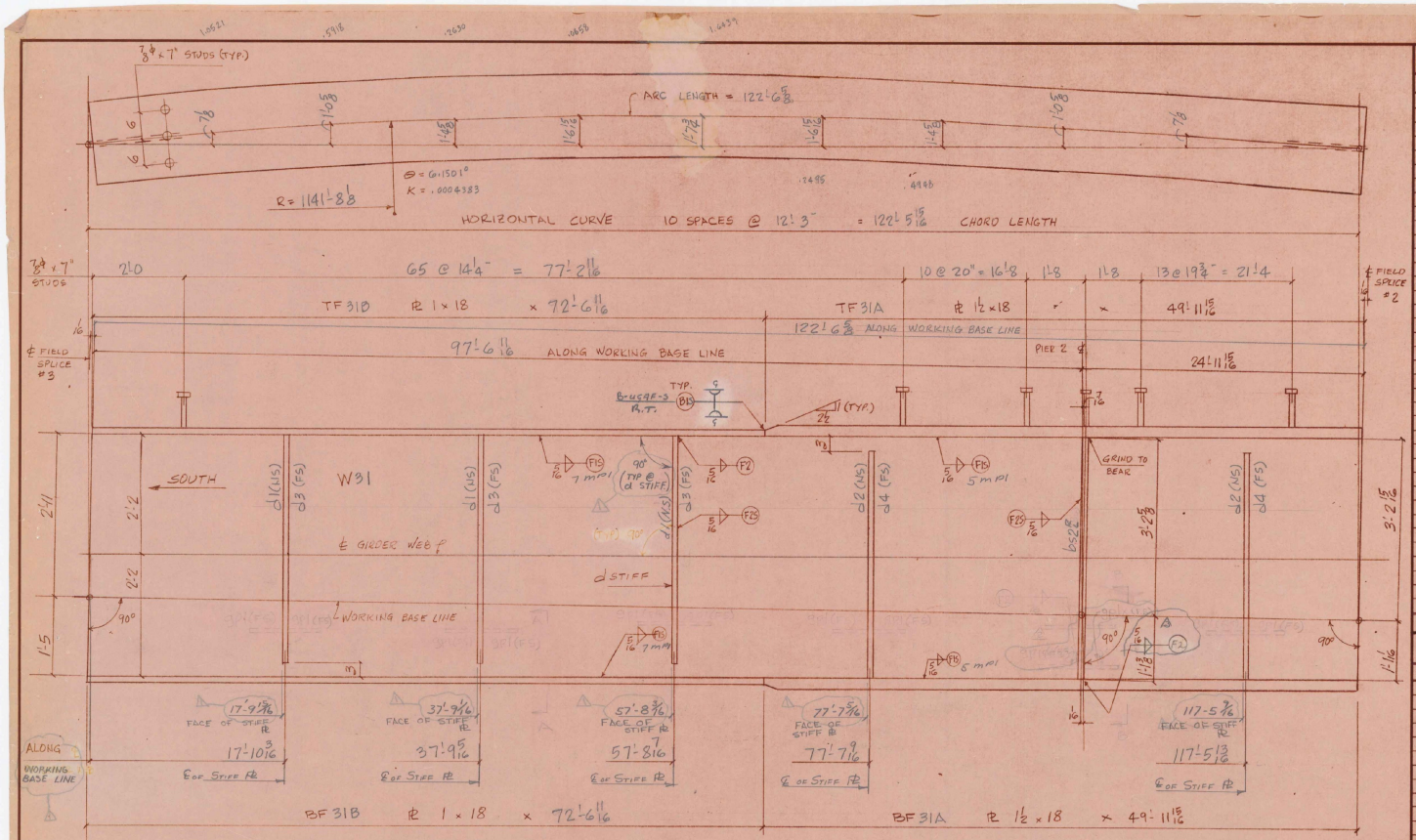
PROJECT RAMP W. to S. OVER I91
LOCATION WATERFORD, VT.
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V. A.O.T.
JOB NO. 80-3591 SHEET NO. 21
80-3591-62 STUDS

PRINT RECORD

NO.	FOR	DATE
5	APP	5-C
1	PRELIM SHOP	6-17
5	APP	6-23
3 (1)	SHOP	6-24
2	STATE	9/8
2 (1)	STATE	9/25

CA△

B



ONE G31

FOR SHOP NOTES SEE DWG. E 1

NOTES;
FOR CAMBER, WEB CUTTING AND HORIZONTAL ALIGNMENT SEE C1.
FOR STIFFENER DETAILS SEE SHT 1.
FOR GUSSET PLATE DETAILS SEE SHT 2.
FOR SPLICE DETAIL SEE SHT 3.

SECT. A-A (INTERMEDIATE)

SECT. B-B (AT PIER)

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT

JOB NO. SHEET NO.

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		ONE G31			ALL A588	
1	W31	PL 9/16 x 52	122	6 5/8	PC. V. N.	(1221¢)
1	TF31A	PL 1 1/2 x 18	49	11 15/16		(459)
1	TF31B	PL 1 x 18	72	6 11/16		(444)
1	BF31A	PL 1 1/2 x 18	49	11 15/16		(459)
1	BF31B	PL 1 x 18	72	6 11/16	C. V. N.	(444)
2	bs2 7/8	B 7 1/2 x 5/4	4	4	SEE #1	(16¢)
3	d1	B 7 1/2 x 1/2	4	1	SEE #1	
2	d2		4	1		
3	d3		4	1		
2	d4		4	1		(523)
						(3076)
		CONTRO-3591-62			SEE #3	
273		7/8 STUDS		7		(360)

REVISION RECORD

DATE	REV. #	BY	REVISION
6-1-81	1	LLB	DIM. TO FACE OF STIFF PL's
6-11-81	2	MCB	REV GPS
6-23-81	3	~~MCB~~	VERM. REV.

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT
FAP I93-1(3) 9/3

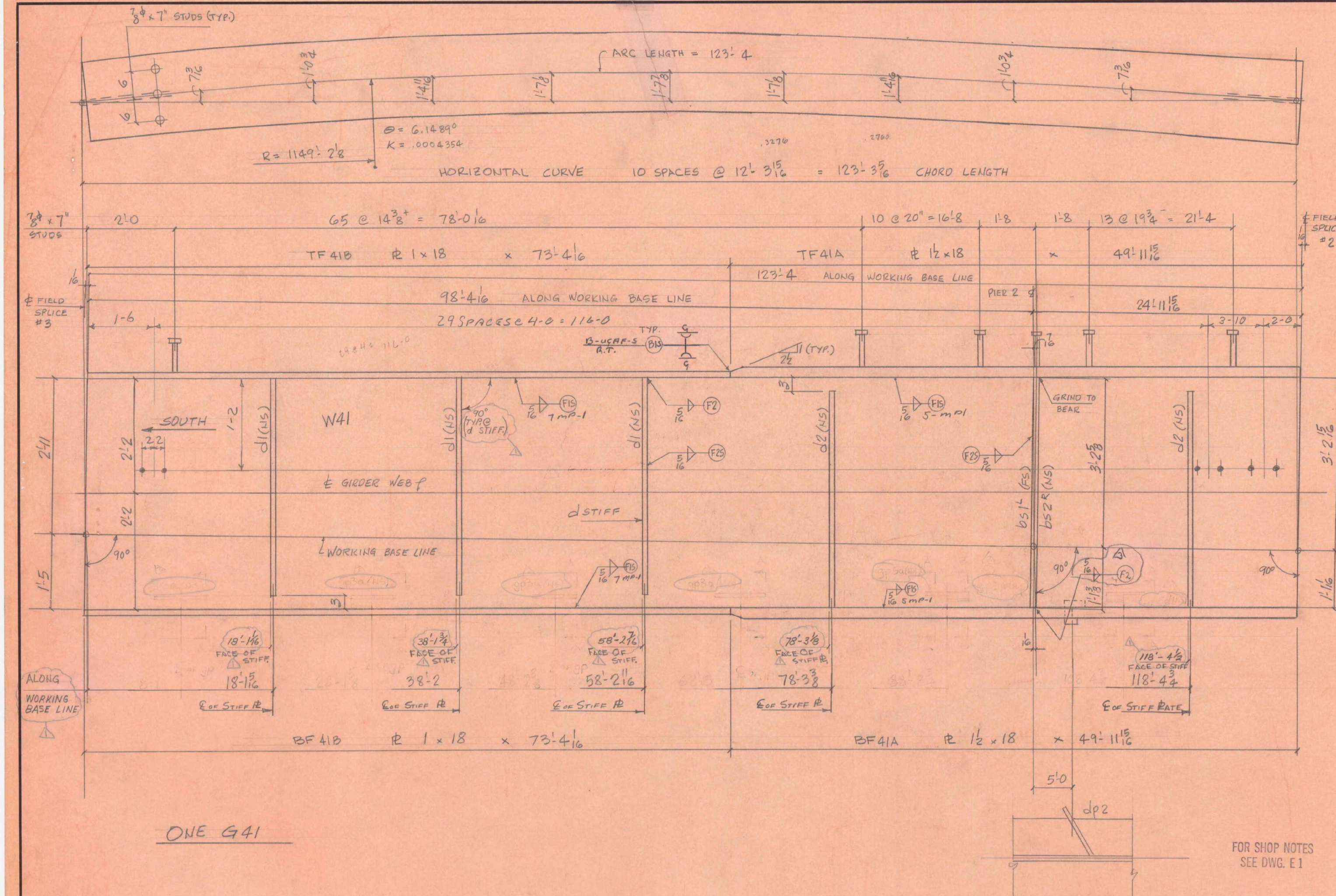
		DATE
DRAWN BY	CB	3/81
CK'D BY	SWD	
HOLES		
BOLTS		
PAINT	NONE	

PROJECT RAMP W. to S. OVER I91
LOCATION WATERFORD, VT.
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V. A.O.T.
JOB NO. 80-3591 Ro-3591-63 STUDS
SHEET NO. 31

PRINT RECORD

NO.	FOR	DATE
5	[illegible]	5-26
1	PRELIM SHOP	6-17
6	SHOP	6-23
3	SHOP	6-24
2	STATE	7/8

B



$\frac{7}{8}\phi \times 7"$ STUDS (TYP.)
ARC LENGTH = 123'-4
R = 1149'-2⅞
θ = 6.1489°
K = .0004354
HORIZONTAL CURVE 10 SPACES @ 12'-3 15/16 = 123'-3 5/16 CHORD LENGTH
65 @ 14 3/8+ = 78'-0 1/16
10 @ 20" = 16'-8
13 @ 19 3/4- = 21'-4
TF 41B ℞ 1 × 18 × 73'-4 1/16
TF41A ℞ 1½ × 18 × 49'-11 15/16
123'-4 ALONG WORKING BASE LINE
98'-4 1/16 ALONG WORKING BASE LINE
24'-11 15/16
PIER 2
℄ FIELD SPLICE #3
℄ FIELD SPLICE #2
29 SPACES @ 4-0 = 116-0
SOUTH
W41
℄ GIRDER WEB ℄
d STIFF
℄ WORKING BASE LINE
GRIND TO BEAR
18'-1 1/16
38'-2
58'-2 11/16
78'-3 3/8
118'-4 3/4
FACE OF STIFF
℄ OF STIFF ℞
ALONG WORKING BASE LINE
BF 41B ℞ 1 × 18 × 73'-4 1/16
BF41A ℞ 1½ × 18 × 49'-11 15/16
dp2
ONE G41
FOR SHOP NOTES SEE DWG. E1

NOTES:
FOR CAMBER, WEB CUTTING AND HORIZONTAL ALIGNMENT SEE C1.
FOR STIFFENER DETAILS SEE SHT 1.

FOR SPLICE DETAIL SEE SHT 3.

BILL OF MATERIAL

	NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT	

JOB NO. .... SHEET NO. ....

BILL OF MATERIAL

	NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT	
			ONE G41			ALL A588 ord. Beth. 60429 1-PL 9/16 × 56¾ UM × 123-6		
	1	W41	℞ 9/16 × 52	123	4	C.V.N.	12292	
	1	TF41A	℞ 1½ × 18	49	11 15/16	ord. Beth 60214 1-PL 1½ × 18 × 50-4	4590	
	1	TF41B	℞ 1 × 18	73	4 1/16	1-PL 1 × 18 × 73-5 1/16	4489	
	1	BF41A	℞ 1½ × 18	49	11 15/16	ord. Beth 60214 1-PL 1½ × 18 × 50-4	4590	
	1	BF41B	℞ 1 × 18	73	4 1/16	C.V.N. 1-PL 1 × 18 × 73-5 1/16	4489	
	1	bs1L	B 7½ × ¾	4	4	SEE #1		
	1	bs2R	Do	4	4	Do	166	
	3	d1	B 7½ × ½	4	1	SEE #1		
	2	d2	Do	4	1	Do	261	
	1	dp2	B 3½ × ¼	1	0 1/16	Do	3	
							30880	
	273		⅞φ STUDS 3590-62 CONT		7		360	

REVISION RECORD

DATE	REV. #	BY	REVISION
6-1-81	1	LLB	DIM. TO FACE OF STIFF. ℞'s
6-11-81	2	MCB	Rev gP's
6-23-81	3	HO	WELD REV.

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT FAP I93-1(3) C/3

		DATE
DRAWN BY	CB	3/81
C'K'D BY	SUS	

HOLES ____
BOLTS ____
PAINT NONE

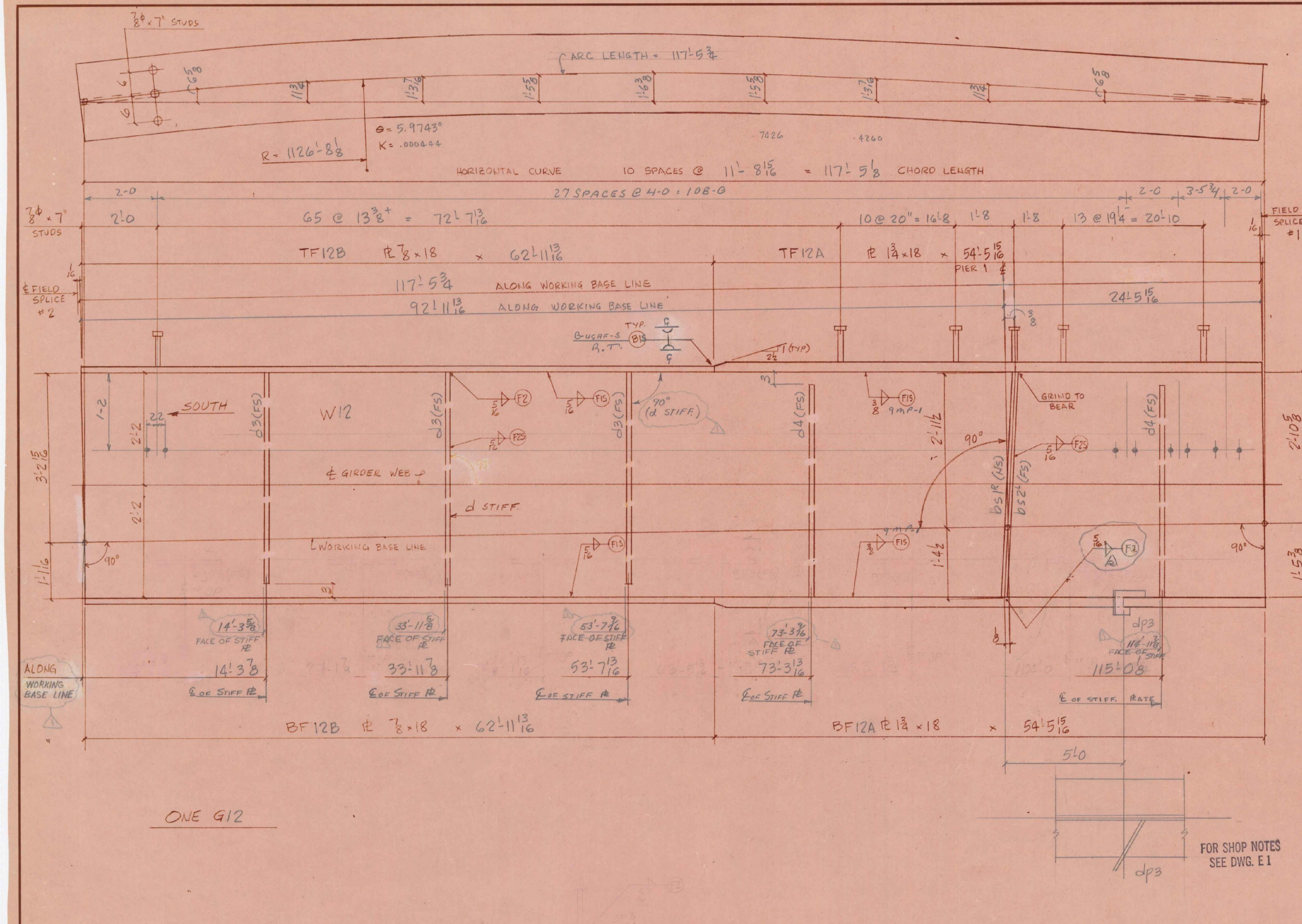
PROJECT RAMP W. to S. OVER I91
LOCATION WATERFORD, VT.
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V. A.O.T.
JOB NO. 80-3591
80-3591-62 STUDS
SHEET NO. 41

PRINT RECORD

NO.	FOR	DATE
5	APP	5-6
1	PRELIM SHOP	6-17
5	APP	6-23
3	SHOP	6-24
2	STATE	9/8

C 1 2

B



7/8φ x 7" STUDS
ARC LENGTH = 117'-5 3/4
R = 1126'-8 3/8
θ = 5.9743°
K = .000444
HORIZONTAL CURVE 10 SPACES @ 11'-8 15/16 = 117'-5 1/8 CHORD LENGTH
27 SPACES @ 4-0 = 108-0
65 @ 13 3/8" = 72'-7 13/16
10 @ 20" = 16'-8
13 @ 19 1/4 = 20'-10
FIELD SPLICE #1
℄ FIELD SPLICE #2
TF12B ℄ 7/8 x 18 x 62'-11 13/16
TF12A ℄ 1 3/4 x 18 x 54'-5 15/16
PIER 1 ℄
117'-5 3/4 ALONG WORKING BASE LINE
92'-11 13/16 ALONG WORKING BASE LINE
24'-5 15/16
SOUTH
W12
℄ GIRDER WEB
d STIFF
90° (d STIFF)
GRIND TO BEAR
WORKING BASE LINE
2'-10 3/8
3'-2 5/8
1'-5 3/8
FACE OF STIFF ℄
ALONG WORKING BASE LINE
14'-3 7/8
33'-11 7/8
53'-7 13/16
73'-3 13/16
115'-0 3/8
℄ OF STIFF ℄
BF12B ℄ 7/8 x 18 x 62'-11 13/16
BF12A ℄ 1 3/4 x 18 x 54'-5 15/16
5'-0
dp3
FOR SHOP NOTES SEE DWG. E1

ONE G12

NOTES:
FOR CAMBER, WEB CUTTING AND HORIZONTAL ALIGNMENT SEE C1.
FOR STIFFENER DETAILS SEE SHT. 1.
~~FOR GUSSET PLATES SEE SHT. 2~~
FOR SPLICE DETAIL SEE SHT. 3.

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT

JOB NO. .... SHEET NO. ....

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		ONE G12			ALL A588 ord. Beth. 60429 1-PL 9/16 x 56 x 120'-0	
1	W12	℄ 9/16 x 52	117	5 3/4	C.V.N.	(11709)
					ord. Beth. 60214	
1	TF12A	℄ 1 3/4 x 18	54	5 15/16	1-PL 1 3/4 x 18 x 54-10	(5837)
1	TF12B	℄ 7/8 x 18	62	11 13/16	1-PL 7/8 x 18 x 65-5 1/16	(3376)
					ord. B 60214	
1	BF12A	℄ 1 3/4 x 18	54	5 15/16	1-PL 1 3/4 x 18 x 54-10	(5837)
1	BF12B	℄ 7/8 x 18	62	11 13/16	C.V.N 1-PL 7/8 x 18 x 65-5 1/16	(3376)
1	bs1R	B 7 1/2 x 3/4	4	4	SEE #1	
1	bs2L	DO	4	4	DO	(166)
3	d3	B 7 1/2 x 1/2	4	1	SEE #1	
2	d4	DO	4	1	DO	(261)
1	dp3	B 3 3/4 x 1/4	1	0 1/16	DO	(3)
						(30565)
		CONT 3591-62				
273		7/8φ STUDS		7		(360)

REVISION RECORD

DATE	REV. #	BY	REVISION
6-1-81	1	LLB	DIM. TO FACE OF STIFF. ℄'s
6-23-81	2	[illegible]	WELD REV.

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT
FAP I93-1(3) C/3

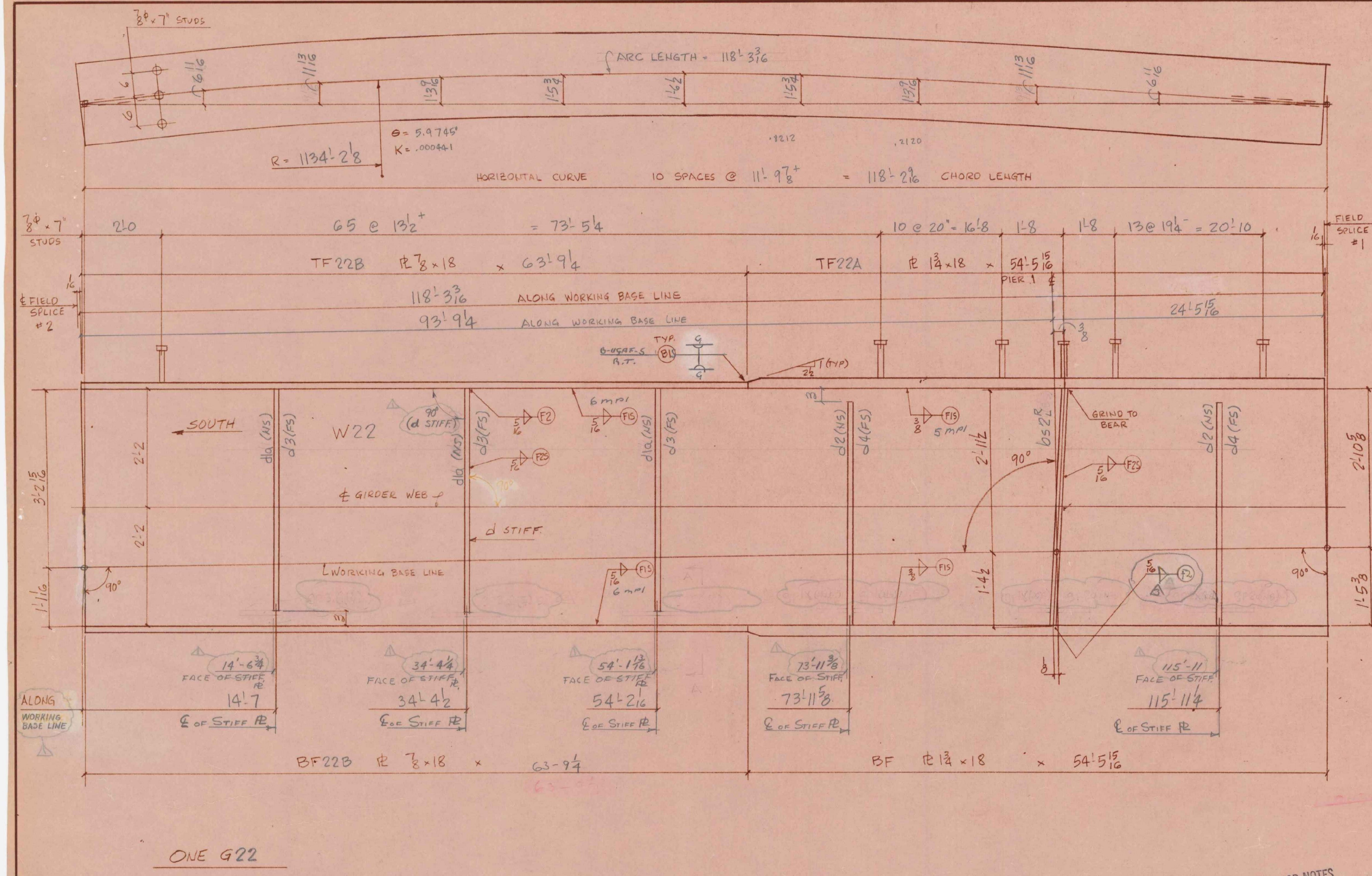
		DATE
DRAWN BY	CB	3/81
C'K'D BY	SGS	

HOLES
BOLTS
PAINT NONE

PROJECT RAMP W. TO S. OVER I91
LOCATION WATERFORD, VT.
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V. A.O.T.
JOB NO. 80-3591
80-3591-62 STUDS
SHEET NO. 12

PRINT RECORD

NO.	FOR	DATE
5	APP	5-6
1	PRELIM SHOP	6-17
5	APP	6-23
3	SHOP	6-24
2	STATE	9/18



7/8φ × 7" STUDS
ARC LENGTH = 118'-3 3/16
R = 1134'-2 1/8
θ = 5.9745°
K = .000441
HORIZONTAL CURVE 10 SPACES @ 11'-9 7/8+ = 118'-2 9/16 CHORD LENGTH
65 @ 13 1/2+ = 73'-5 1/4
10 @ 20" = 16'-8
13 @ 19 1/4- = 20'-10
FIELD SPLICE #1
FIELD SPLICE #2
TF22B PL 7/8 × 18 × 63'-9 1/4
TF22A PL 1 3/4 × 18 × 54'-5 15/16
PIER 1
118'-3 3/16 ALONG WORKING BASE LINE
93'-9 1/4 ALONG WORKING BASE LINE
24'-5 15/16
SOUTH
W22
GIRDER WEB
d STIFF
WORKING BASE LINE
GRIND TO BEAR
FACE OF STIFF PL
14'-7
34'-4 1/2
54'-2 1/16
73'-11 5/8
115'-11 1/4
C OF STIFF PL
ALONG WORKING BASE LINE
BF22B PL 7/8 × 18 × 63-9 1/4
BF PL 1 3/4 × 18 × 54'-5 15/16

ONE G22

FOR SHOP NOTES SEE DWG. E1

NOTES:
FOR CAMBER, WEB CUTTING AND HORIZONTAL ALIGNMENT SEE C1.
FOR STIFFENER DETAILS SEE SHT. 1.
~~FOR GUSSET PLATES SEE SHT. 2~~
FOR SPLICE DETAIL SEE SHT. 3.

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		ONE G22			ALL A588	
					ord. Beth 60429 1-PL 9/16 × 56" Um × 120-0	
1	W22	PL 9/16 × 52	118	3 3/16	C.V.N.	11788
1	TF22A	PL 1 3/4 × 18	54	5 15/16	ord. Beth 60214 1-PL 1 3/4 × 18 × 54-10	5837
1	TF22B	PL 7/8 × 18	63	9 1/4	1-PL 7/8 × 18 × 65-5 1/16	3418
1	BF22A	PL 1 3/4 × 18	54	5 15/16	1-PL 1 3/4 × 18 × 54-10	5837
1	BF22B	PL 7/8 × 18	63	9 1/4	C.V.N. 1-PL 7/8 × 18 × 65-5 1/16	3418
2	bs2R/L	B 7 1/2 × 3/4	4	4	SEE #1	166
1	gp2x	PL 7/16 × 10	0	11 3/4		15
3	d1a	B 7 1/2 × 1/2	4	1	SEE #1	
2	d2		4	1		
3	d3		4	1		
2	d4		4	1		523
						31002
273		7/8φ STUDS (CONF 80-3591-62)		7		360

REVISION RECORD

DATE	REV. #	BY	REVISION
6-1-81	1	LLB	DIM TO FACE OF STIFF. PL's
6-12-81	2	MCB	REV YDS
6-23-81	3	HO	WELD BEV.

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT
FAP I93-1(3) C/3

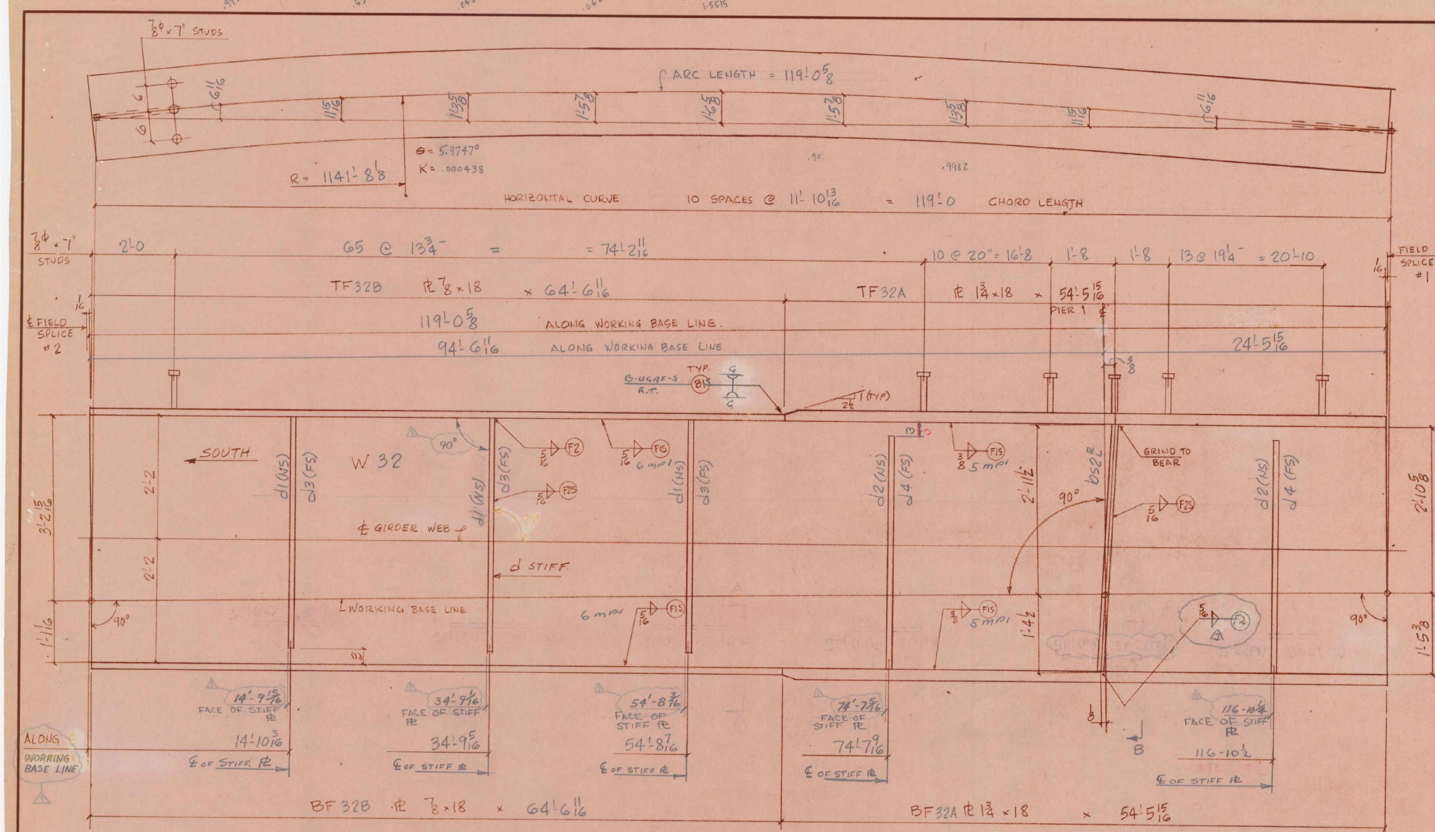
		DATE
DRAWN BY	CB	3/81
C'K'D BY	SHB	

HOLES
BOLTS
PAINT NONE

PROJECT RAMP W. TO S. OVER I91
LOCATION WATERFORD, VT.
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V. A.O.T.
JOB NO. 80-3591
80-3591-62 STUDS
SHEET NO. 22

PRINT RECORD

NO.	FOR	DATE
5	APP	5-6
1	PRELIM SHOP	6-17
5	APP	6-23
3	SHOP	6-29
2	STATE	9/8



7/8φ x 7' STUDS
ARC LENGTH = 119'-0 5/8
R = 1141'-8 1/8
θ = 5.9747°
K = .000438
HORIZONTAL CURVE 10 SPACES @ 11'-10 13/16 = 119'-0 CHORD LENGTH
65 @ 13 3/4 = 74'-2 11/16
10 @ 20" = 16'-8
1'-8
1'-8
13 @ 19 1/4 = 20'-10
FIELD SPLICE #1
TF32B PL 7/8 x 18 x 64'-6 11/16
TF32A PL 1 3/4 x 18 x 54'-5 15/16
PIER 1
℄ FIELD SPLICE #2
119'-0 5/8 ALONG WORKING BASE LINE.
94'-6 11/16 ALONG WORKING BASE LINE
24'-5 15/16
SOUTH
W 32
℄ GIRDER WEB
d STIFF.
WORKING BASE LINE
GRIND TO BEAR
bs2
d1 (NS)
d3 (FS)
d2 (NS)
d4 (FS)
2'-2
2'-2
3'-2 5/8
1'-1 1/16
2'-10 5/8
1'-5 3/8
FACE OF STIFF PL
℄ OF STIFF PL
14'-10 3/16
34'-9 5/16
54'-8 7/16
74'-7 9/16
116'-10 1/2
ALONG WORKING BASE LINE
BF32B PL 7/8 x 18 x 64'-6 11/16
BF32A PL 1 3/4 x 18 x 54'-5 15/16

ONE G32

FOR SHOP NOTES SEE DWG. E1

NOTES:
FOR CAMBER, WEB CUTTING AND HORIZONTAL ALIGNMENT SEE C1.
FOR STIFFENER DETAILS SEE SHT. 1.
~~FOR GUSSET PLATES SEE SHT. 2.~~
FOR SPLICE DETAIL SEE SHT. 3.

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT

JOB NO. .... SHEET NO. ....

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		ONE G32			ALL A588	
					ord. Beth 60429 1-PL 9/16 x 56 UM x 120-0	
1	W32	PL 9/16 x 52	119	0 5/8	C.V.N.	11865
					ord. B 60214	
1	TF32A	PL 1 3/4 x 18	54	5 15/16	1-PL 1 3/4 x 18 x 54-10	5837
1	TF32B	PL 7/8 x 18	64	6 11/16	1-PL 7/8 x 18 x 65-5 1/16	3460
1	BF32A	PL 1 3/4 x 18	54	5 15/16	1-PL 1 3/4 x 18 x 54-10	5837
1	BF32B	PL 7/8 x 18	64	6 11/16	C.V.N. 1-PL 7/8 x 18 x 65-5 1/16	3460
2	bs2	B 7 1/2 x 3/4	4	4	SEE #1	166
3	d1	B 7 1/2 x 1/2	4	1	SEE #1	
2	d2		4	1		
3	d3		4	1		
2	d4		4	1		523
						31148
273		7/8φ STUDS (CONT 3591-62)		7		360

REVISION RECORD

DATE	REV. #	BY	REVISION
6-1-81	1	LLB	DIM TO FACE OF STIFF PL'S
6-12-81	2	MCB	REV gp'S
6-23-	3		WELD REV.
9/25			WEIGHTS

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT

FAP I93-1(3) C/3

		DATE
DRAWN BY	CB	3/81
C'K'D BY	SWB	

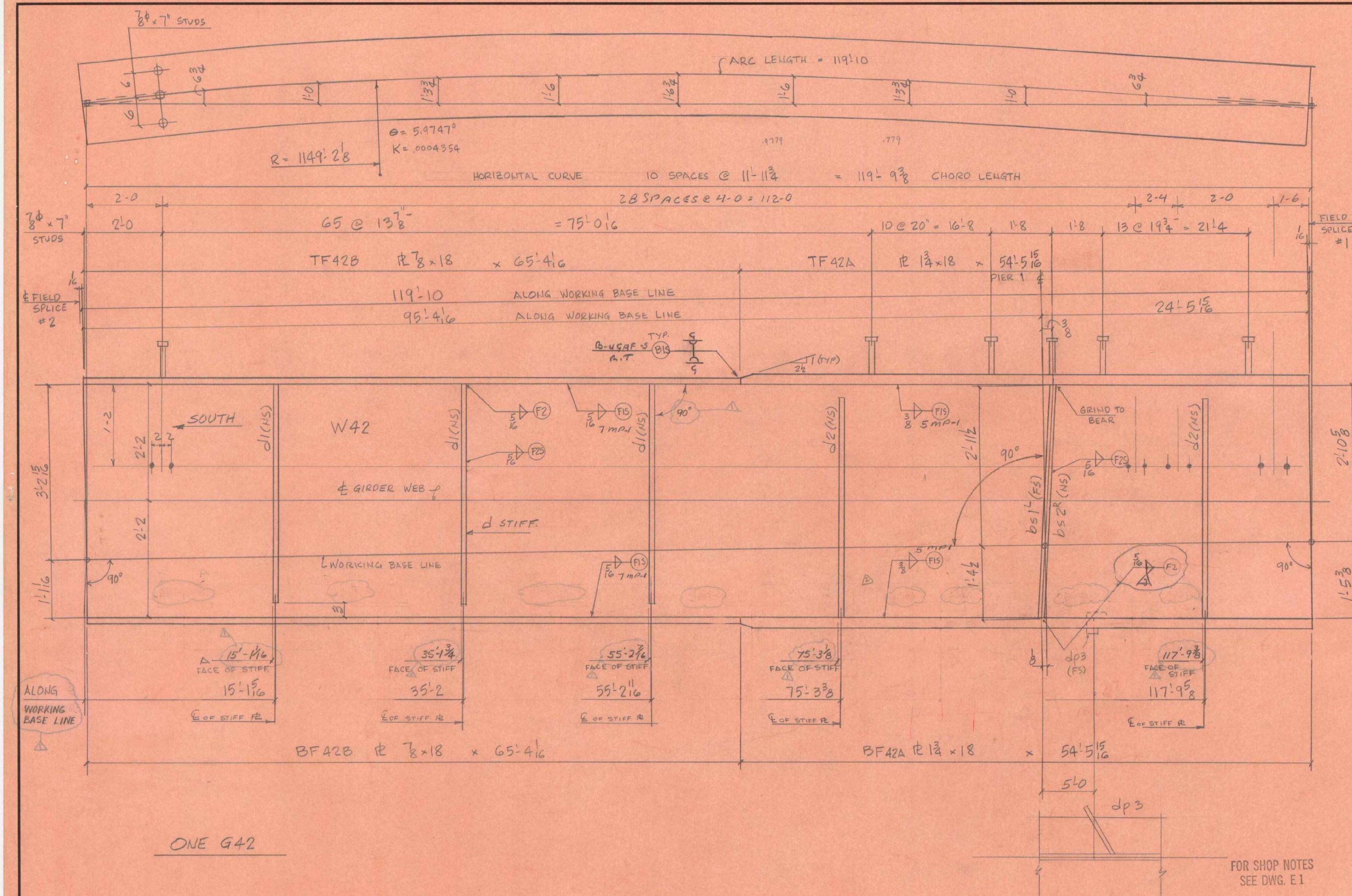
HOLES ______
BOLTS ______
PAINT NONE

PROJECT RAMP W. TO S. OVER I91
LOCATION WATERFORD, VT.
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V. A.O.T.
JOB NO. 80-3591
80-3591-62 STUDS
SHEET NO. 32

PRINT RECORD

NO.	FOR	DATE
5	APP	5-6
1	PRELIM SHOP	6-17
5	APP	6-23
3	SHOP	6-24
2	STATE	9/8
2	STATE	9/25

C



7/8φ x 7" STUDS
ARC LENGTH = 119'-10
R = 1149'-2 1/8
θ = 5.9747°
K = .0004354
HORIZONTAL CURVE 10 SPACES @ 11'-11 3/4 = 119'-9 3/8 CHORD LENGTH
28 SPACES @ 4-0 = 112-0
65 @ 13 7/8" = 75'-0 1/16
10 @ 20" = 16'-8
13 @ 19 3/4" = 21'-4
FIELD SPLICE #1
℄ FIELD SPLICE #2
TF42B ℞ 7/8 x 18 x 65'-4 1/16
TF42A ℞ 1 3/4 x 18 x 54'-5 15/16
PIER 1 ℄
119'-10 ALONG WORKING BASE LINE
95'-4 1/16 ALONG WORKING BASE LINE
24'-5 15/16
GRIND TO BEAR
SOUTH
W42
℄ GIRDER WEB
d STIFF.
WORKING BASE LINE
BF42B ℞ 7/8 x 18 x 65'-4 1/16
BF42A ℞ 1 3/4 x 18 x 54'-5 15/16
ALONG WORKING BASE LINE
FACE OF STIFF
℄ OF STIFF ℞
dp3
ONE G42
FOR SHOP NOTES SEE DWG. E1

NOTES:
FOR CAMBER, WEB CUTTING AND HORIZONTAL ALIGNMENT SEE C1.
FOR STIFFENER DETAILS SEE SHT. 1.
~~FOR GUSSET PLATES SEE SHT. 2.~~
FOR SPLICE DETAIL SEE SHT. 3.

BILL OF MATERIAL

	NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT	

JOB NO. .... SHEET NO. ....

BILL OF MATERIAL

	NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT	
			ONE G42			ALL A588 ord. Beth. 60429 1-PL 9/16 x 56" UM x 120-0		
	1	W42	℞ 9/16 x 52	119	10	C.V.N.	11943	
						ord. Beth 60214		
	1	TF42A	℞ 1 3/4 x 18	54	5 15/16	1-PL 1 3/4 x 18 x 54-10	5837	
	1	TF42B	℞ 7/8 x 18	65	4 1/16	1-PL 7/8 x 18 x 65-5 1/16	3502	
	1	BF42A	℞ 1 3/4 x 18	54	5 15/16	1-PL 1 3/4 x 18 x 54-10	5837	
	1	BF42B	℞ 7/8 x 18	65	4 1/16	C.V.N. 1-PL 7/8 x 18 x 65-5 1/16	3502	
	1	bs1L	B 7 1/2 x 3/4	4	4	SEE #1		
	1	bs2R	DO	4	4	DO	166	
	3	d1	B 7 1/2 x 1/2	4	1	SEE #1		
	2	d2	DO	4	1	DO	261	
	1	dP3	B 3 3/4 x 1/4	1	0 1/16		3	
							31051	
			CONT 80-3591-62					
	273		7/8φ STUDS		7		360	

REVISION RECORD

DATE	REV. #	BY	REVISION
6-1-81	1	LLB	DIM. TO FACE OF STIFF. ℞'s
6-12-81	2	MCB	Rev gp's
6-23-81	3	[illegible]	WELLS REV.

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT FAP I93-1(3) C/3

		DATE
DRAWN BY	CB	3/81
C'K'D BY	SHS	

HOLES ____
BOLTS ____
PAINT NONE

PROJECT RAMP W. TO S. OVER I91
LOCATION WATERFORD, VT.
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V. A.O.T.
JOB NO. 80-3591 / 80-3591-62 STUDS SHEET NO. 42

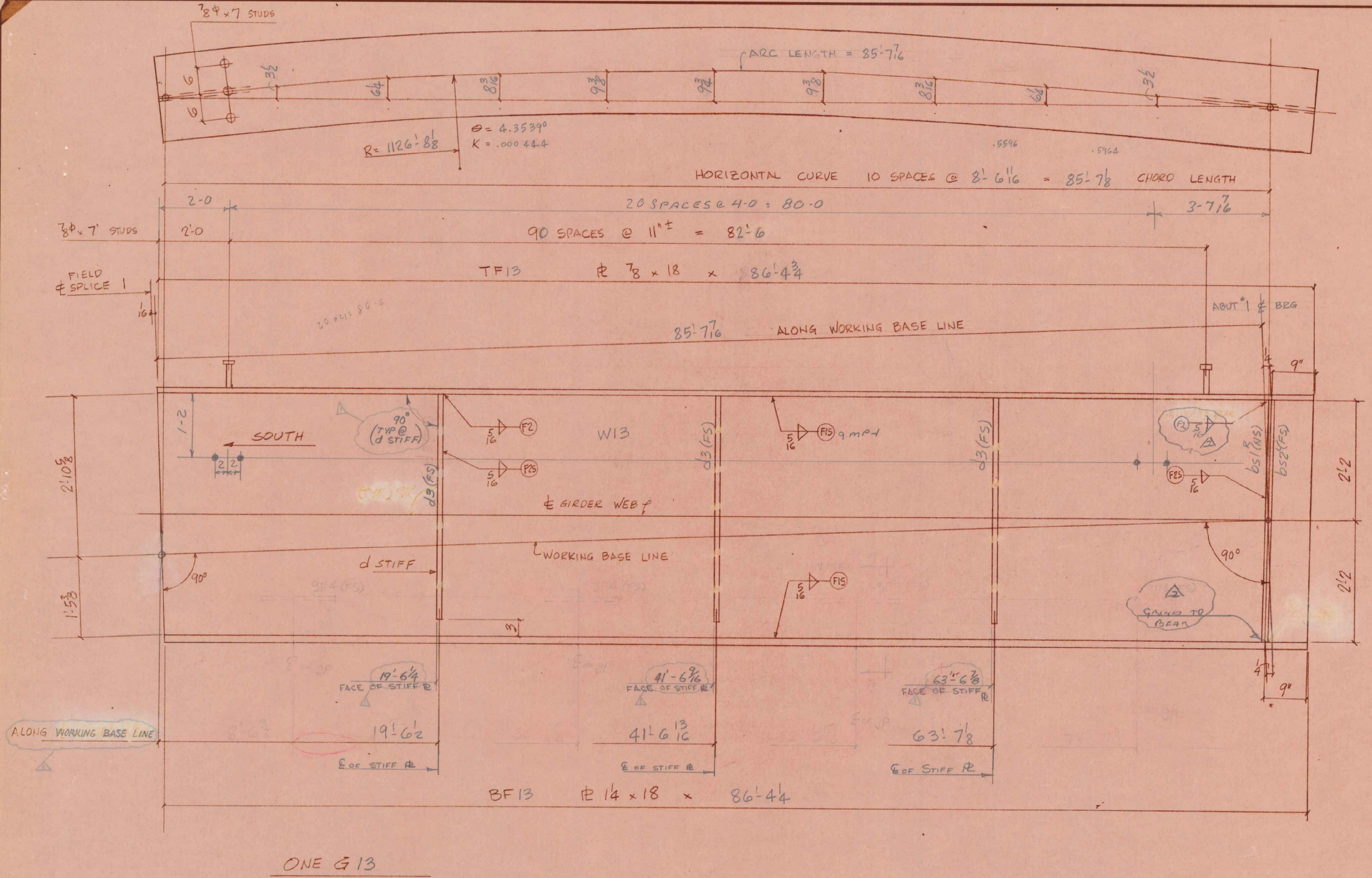
PRINT RECORD

NO.	FOR	DATE
5	[illegible]	5-6
1	PRELIM SHOP	6-17
5	[illegible]	6-23
3	SHOP	6-24
2	STATE	9/8

BRUNING 40-135 39726

C 1 2

C


7/8φ x 7 STUDS
ARC LENGTH = 85'-7 7/16
R = 1126'-8 1/8
θ = 4.3539°
K = .000444
HORIZONTAL CURVE 10 SPACES @ 8'-6 11/16 = 85'-7 7/8 CHORD LENGTH
20 SPACES @ 4-0 = 80-0
2-0
3-7 7/16
7/8φ x 7" STUDS
90 SPACES @ 11"± = 82'-6
FIELD
℄ SPLICE 1
TF13 PL 7/8 x 18 x 86'-4 3/4
ABOUT 1 ℄ BRG
85'-7 7/16 ALONG WORKING BASE LINE
SOUTH
(TYP @ d STIFF)
W13
℄ GIRDER WEB
WORKING BASE LINE
d STIFF
GRIND TO BEAR
2'-10 3/8
1'-5 3/8
2'-2
2'-2
9"
19'-6 1/4 FACE OF STIFF PL
41'-6 9/16 FACE OF STIFF PL
63'-6 7/8 FACE OF STIFF PL
ALONG WORKING BASE LINE
19'-6 1/2
41'-6 13/16
63'-7 1/8
℄ OF STIFF PL
BF13 PL 1 1/4 x 18 x 86'-4 1/4
ONE G13

FOR SHOP NOTES
SEE DWG. E1

NOTES:

FOR CAMBER, WEB CUTTING AND HORIZONTAL ALIGNMENT SEE C1.
FOR STIFFENER DETAILS SEE SHT. 1.
~~FOR GUSSET PLATE DETAILS SEE SHT. 2.~~
FOR SPLICE DETAIL SEE SHT. 3.

BILL OF MATERIAL

JOB NO. .... SHEET NO. ....

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		ONE G13			ALL A588	
1	W13	PL 9/16 x 52	86	4 3/4	ord. Beth 60429 1-PL 9/16 x 53" mill edge x 88-8 C.V.N	8610
1	TF13	PL 7/8 x 18	86	4 3/4	ord. B 60214 1-PL 7/8 x 18 x 86-8 7/16	4631
1	BF13	PL 1 1/4 x 18	86	4 1/4	ord. B 60214 1-PL 1 1/4 x 18 x 86-8 7/16	6606
1	bs1R	B 7 1/2 x 3/4	4	4	SEE #1	
1	bs2L	Do	4	4	Do	166
3	d3	B 7 1/2 x 1/2	4	1	SEE #1	157
						20170
		CONT. 80-3591-62				
273		7/8φ STUDS		7		360

REVISION RECORD

DATE	REV. #	BY	REVISION
6-1-81	1	LLB	DIM. TO FACE OF STIFF. PL'S
6-23	2		WELD REV.

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT

FAP I93-1(3)C/3

		DATE
DRAWN BY	CB	3/81
C'K'D BY	SWB	
HOLES		
BOLTS		
PAINT	NONE	

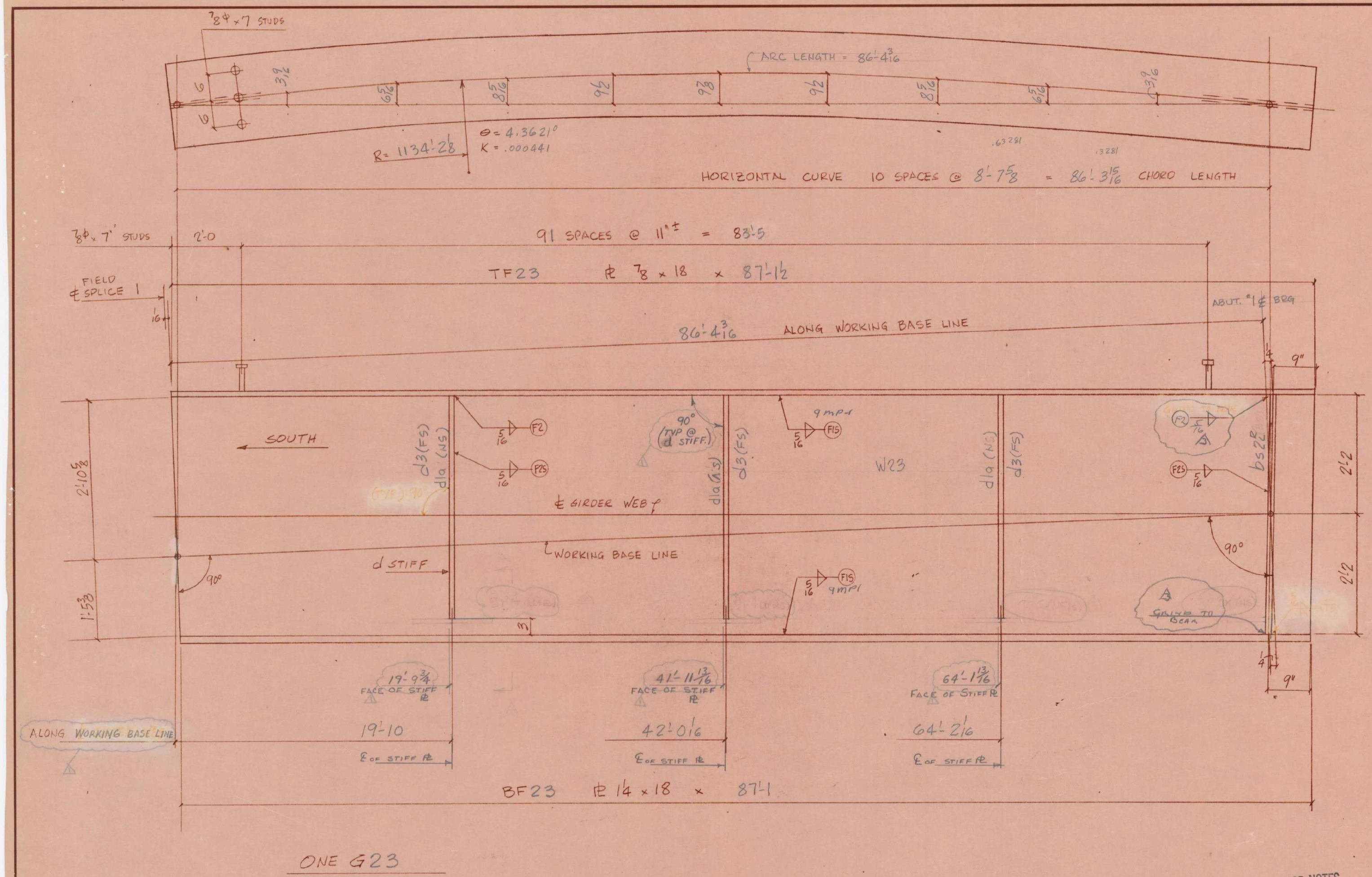
PROJECT: RAMP W. to S. OVER I91
LOCATION: WATERFORD, VT
CUSTOMER: BECK & BELLUCCI
ARCHITECT: S.O.V. A.O.T.
JOB NO. 80-3591
80-3591-62 STUDS
SHEET NO. 13

PRINT RECORD

NO.	FOR	DATE
5	APPD	5-6
1	PRELIM SHOP	6-17
5	APPD	6-23
3	SHOP	6-24
2	STATE	9/8

C A

D



7/8 φ x 7 STUDS
ARC LENGTH = 86'-4 3/16
R = 1134'-2 8
θ = 4.3621°
K = .000441
HORIZONTAL CURVE 10 SPACES @ 8'-7 5/8 = 86'-3 15/16 CHORD LENGTH
7/8 φ x 7" STUDS
2'-0
91 SPACES @ 11"± = 83'-5
FIELD ℄ SPLICE 1
TF23 ℙ 7/8 x 18 x 87'-1 1/2
ABUT. #1 ℄ BRG
86'-4 3/16 ALONG WORKING BASE LINE
9"
SOUTH
d3 (FS)
d1a (NS)
90° (TYP @ d STIFF.)
9 mp's
W23
bs 2R
℄ GIRDER WEB
WORKING BASE LINE
d STIFF
90°
2'-10 3/8
1'-5 3/8
2'-2
2'-2
GRIND TO BEAR
19'-9 3/4 FACE OF STIFF ℙ
41'-11 13/16 FACE OF STIFF ℙ
64'-1 13/16 FACE OF STIFF ℙ
ALONG WORKING BASE LINE
19'-10
42'-0 1/16
64'-2 1/16
℄ OF STIFF ℙ
BF23 ℙ 1 1/4 x 18 x 87'-1
ONE G23

FOR SHOP NOTES
SEE DWG. E1

NOTES:

FOR CAMBER, WEB CUTTING AND HORIZONTAL ALIGNMENT SEE C1.
FOR STIFFENER DETAILS SEE SHT. 1.
~~FOR GUSSET PLATE DETAILS SEE SHT. 2.~~
FOR SPLICE DETAIL SEE SHT. 3.

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		ONE G23			ALL A588	
					ord. Beth 60429 1-PL 9/16 x 53 mill edge x 88-8	
1	W23	ℙ 9/16 x 52	87	1 1/2	C.V.N	8683
						4670
1	TF23	ℙ 7/8 x 18	87	1 1/2	ord. B 60214 1-PL 7/8 x 18 x 87-5 3/16	
						6662
1	BF23	ℙ 1 1/4 x 18	87	1	1-PL 1 1/4 x 18 x 87-5 3/16	
2	bs2R	B 7 1/2 x 3/4	4	4	SEE #1	166
3	d1a	B 7 1/2 x 1/2	4	1	SEE #1	
3	d3	DO	4	1	DO	314
						20495
		Corr. 80-3590-G2				
276		7/8 φ STUDS		7		364

JOB NO. .... SHEET NO. ....

REVISION RECORD

DATE	REV. #	BY	REVISION
6-1-81	1	LLB	DIM. TO FACE OF STIFF. ℙs
6-12-81	2	MCB	Rev gp's
6.23	3	[illegible]	WELD REV

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT

FAP I93-1(3)C/3

		DATE
DRAWN BY	CB	3/81
C'K'D BY	SGS	

HOLES
BOLTS
PAINT NONE

PROJECT RAMP W. to S. OVER I91
LOCATION WATERFORD, VT
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V. A.O.T.
JOB NO. 80-3591
80-3591-G2 STUDS
SHEET NO. 23

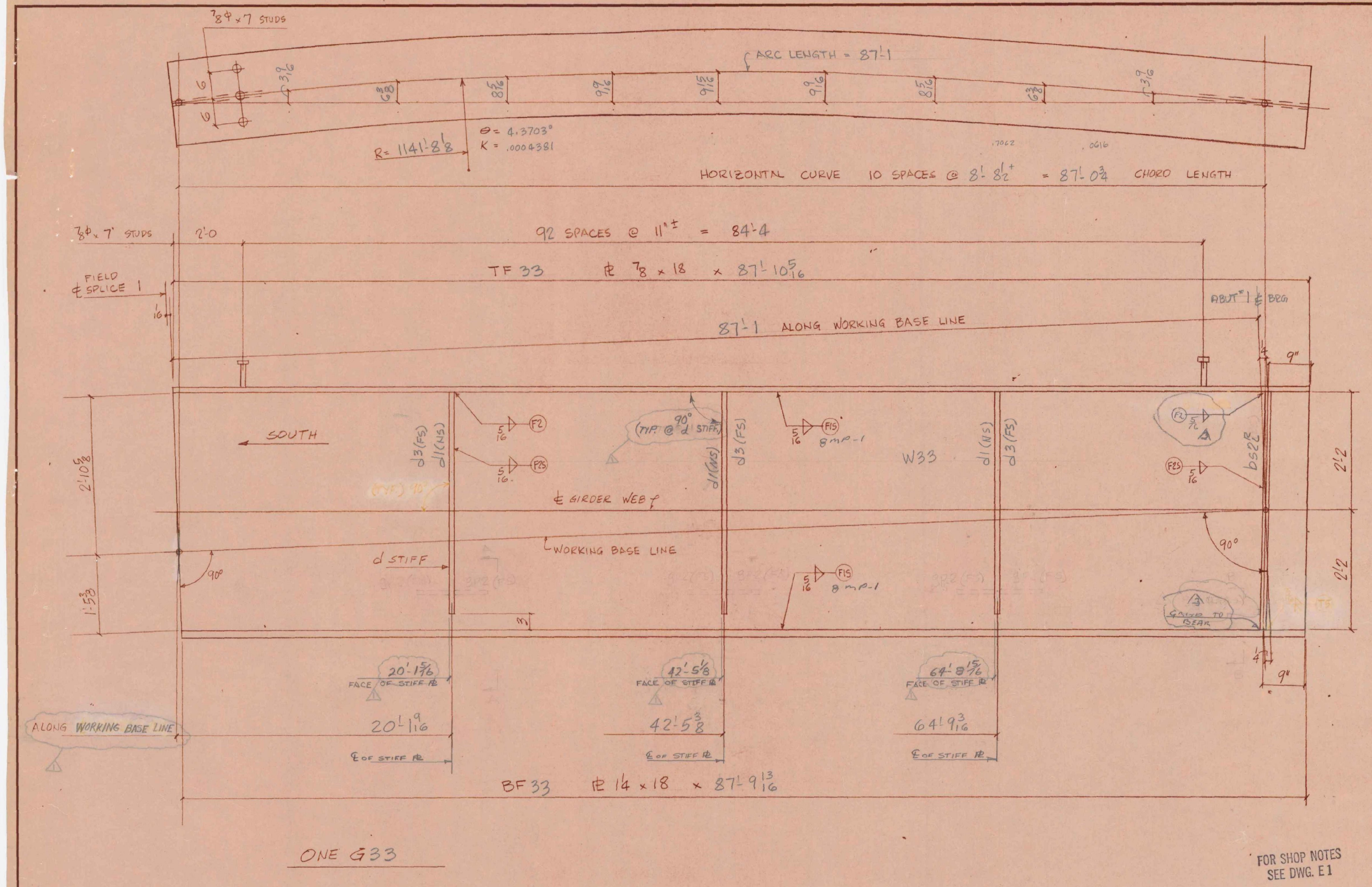
PRINT RECORD

NO.	FOR	DATE
5	APPD	5-6
1	PRELIM SHOP	6-17
5	APPD	6-23
3	SHOP	6-24
2	STATE	9/8

C A A

D

BRUNING 40-135 39726



7/8φ x 7 STUDS
ARC LENGTH = 87'-1
R = 1141'-8 1/8
θ = 4.3703°
K = .0004381
HORIZONTAL CURVE 10 SPACES @ 8'-8 1/2+ = 87'-0 3/4 CHORD LENGTH
3/4φ x 7" STUDS
2'-0
92 SPACES @ 11"± = 84'-4
TF 33 PL 7/8 x 18 x 87'-10 5/16
FIELD ℄ SPLICE 1
ABUT 1 ℄ BRG
87'-1 ALONG WORKING BASE LINE
9"
SOUTH
W33
℄ GIRDER WEB
WORKING BASE LINE
d STIFF
bs2
2'-2
2'-2
2'-10 5/8
1'-5 3/8
90°
8 MP-1
20'-1 9/16
42'-5 3/8
64'-9 3/16
FACE OF STIFF PL
℄ OF STIFF PL
ALONG WORKING BASE LINE
BF 33 PL 1 1/4 x 18 x 87'-9 13/16
ONE G33

FOR SHOP NOTES SEE DWG. E1

NOTES:

FOR CAMBER, WEB CUTTING AND HORIZONTAL ALIGNMENT SEE C1.

FOR STIFFENER DETAILS SEE SHT. 1.

~~FOR GUSSET PLATE DETAILS SEE SHT. 2.~~

FOR SPLICE DETAIL SEE SHT. 3.

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		ONE G33			ALL A588 ord. Beth. 60429 1-PL 9/16 x 53" mill edge x 88-8	
1	W33	PL 9/16 x 52	87	10 5/16	C.V.N	8757
1	TF33	PL 7/8 x 18	87	10 5/16	ord. Beth 60214 1-PL 7/8 x 18 x 88-2	4710
1	BF33	PL 1 1/4 x 18	87	9 13/16	1-PL 1 1/4" x 18" x 88-2	6718
2	bs2	B 7 1/2 x 3/4	4	4	SEE #1	166
3	d1	B 7 1/2 x 1/2	4	1	SEE #1	
3	d3	DO	4	1	DO	314
						20665
		CONT 80-3591-G2				
279		7/8φ STUDS		7		368

JOB NO. .... SHEET NO. ....

REVISION RECORD

DATE	REV. #	BY	REVISION
6-1-81	1	LLB	DIM. TO FACE OF STIFF. PL's
6-12-81	2	MCB	Rev gp's
6-23	3		WELD REV

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT

FAP I93-1(3)C/3

	DATE
DRAWN BY CB	3/81
CK'D BY SGS	

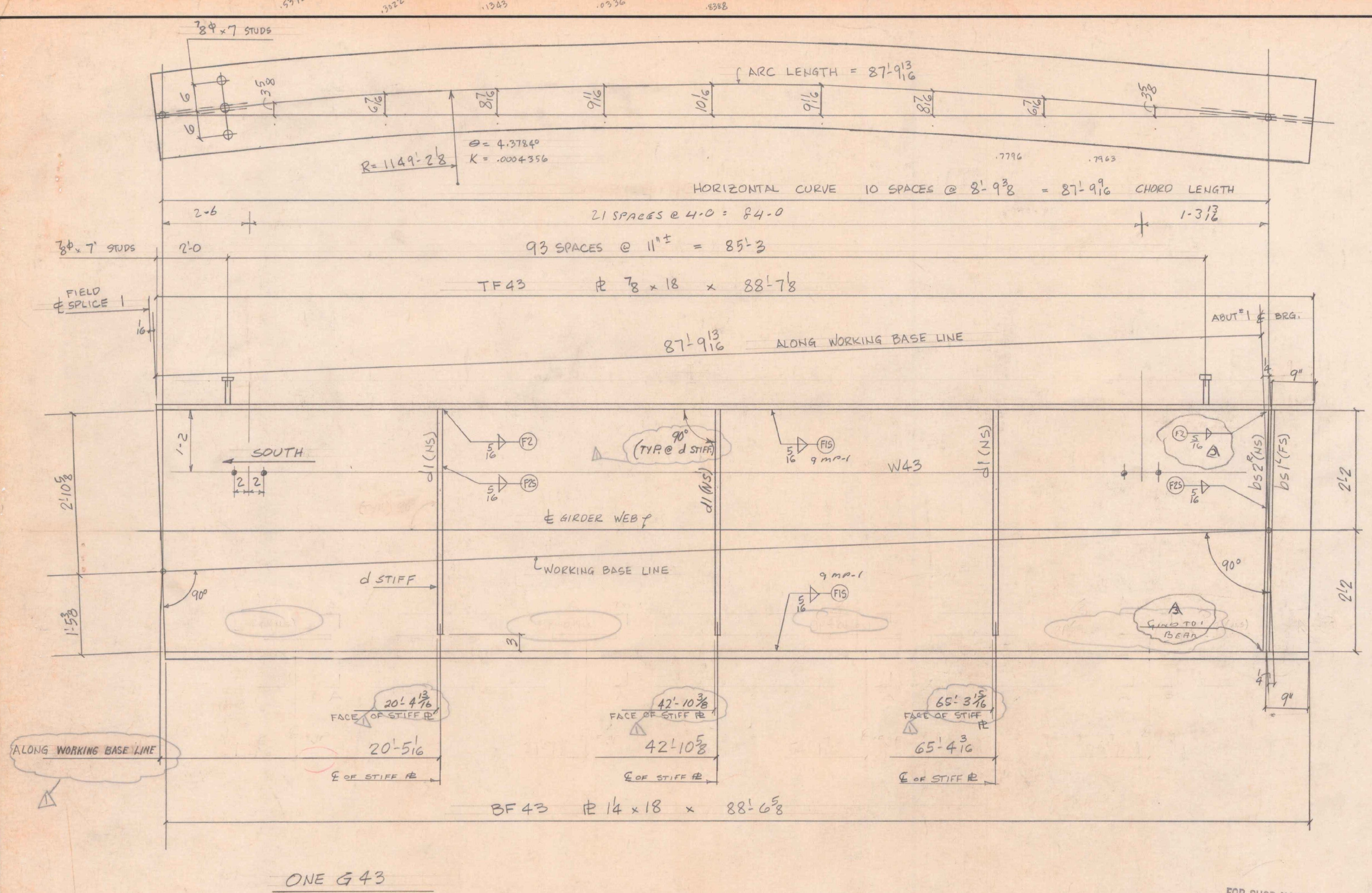
HOLES
BOLTS
PAINT NONE

PROJECT RAMP W. to S. OVER I91
LOCATION WATERFORD, VT
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V. A.O.T.
JOB NO. 80-3591 3591-G2 STUDS
SHEET NO. 33

PRINT RECORD

NO.	FOR	DATE
5	APP	5-6
1	PRELIM SHOP	6-17
5	APP	6-23
30	SHOP	6-24
2	STATE	9/8

D



7/8φ x 7 STUDS
ARC LENGTH = 87'-9 13/16
R = 1149'-2 1/8
θ = 4.3784°
K = .0004356
HORIZONTAL CURVE 10 SPACES @ 8'-9 3/8 = 87'-9 9/16 CHORD LENGTH
21 SPACES @ 4-0 = 84-0
2-6
1-3 13/16
7/8φ x 7' STUDS
2'-0
93 SPACES @ 11"± = 85'-3
TF43 PL 7/8 x 18 x 88'-7 1/8
FIELD
℄ SPLICE 1
ABUT #1 ℄ BRG.
87'-9 13/16 ALONG WORKING BASE LINE
9"
SOUTH
1-2
2'-10 7/8
1'-5 3/8
W43
(TYP. @ d STIFF)
9 MP-1
℄ GIRDER WEB
WORKING BASE LINE
d STIFF
d1 (NS)
d1 (NS)
d1 (NS)
bs2 R (NS)
bs1 L (FS)
2'-2
2'-2
90°
GRIND TO 1' BEAD
20'-4 13/16
FACE OF STIFF PL
42'-10 3/8
FACE OF STIFF PL
65'-3 5/16
FACE OF STIFF PL
ALONG WORKING BASE LINE
20'-5 1/16
42'-10 5/8
65'-4 3/16
℄ OF STIFF PL
BF43 PL 1 1/4 x 18 x 88'-6 5/8
ONE G43

FOR SHOP NOTES
SEE DWG. E1

NOTES:
FOR CAMBER, WEB CUTTING AND HORIZONTAL ALIGNMENT SEE C1.
FOR STIFFENER DETAILS SEE SHT. 1.
~~FOR GUSSET PLATE DETAILS SEE SHT. 2.~~
FOR SPLICE DETAIL SEE SHT. 3.

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		ONE G43			ALL A588	
1	W43	PL 9/16 x 52	88	7 1/8	ord. Beth. 60429 1-PL 9/16 x 53" mill edge 88-8 C.V.N	8830
1	TF43	PL 7/8 x 18	88	7 1/8	ord. Beth. 60214 1-PL 7/8 x 18 x 88-10 13/16	4748
1	BF43	PL 1 1/4 x 18	88	6 5/8	1-PL 1 1/4 x 18 x 88-10 13/16	6774
1	bs1 L	B 7 1/2 x 3/4	4	4	SEE #1	
1	bs2 R	DO	4	4	DO	166
3	d1	B 7 1/2 x 1/2	4	1	SEE #1	157
					20675	20675
		CONT 80-3591-62				
282		7/8φ STUDS		7		372

REVISION RECORD

DATE	REV. #	BY	REVISION
6-1-81	1	LLB	DIM TO FACE OF STIFF. PL'S
6-12-81	2	MCB	REV gp's
6-23-81	3	[illegible]	[illegible] REV
9/25		WH	WEIGHTS

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT
FAP I93-1(3)C/3

		DATE
DRAWN BY	CB	3/81
C'K'D BY	SWS	

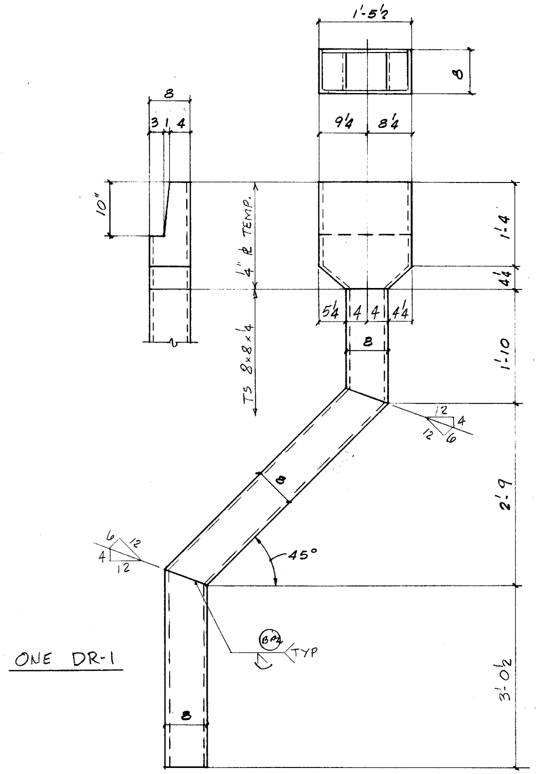
HOLES
BOLTS
PAINT NONE

PROJECT RAMP W. to S. OVER I91
LOCATION WATERFORD, VT
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V. A.O.T.
JOB NO. 80-3591
80-3591-62 STUDS
SHEET NO. 43

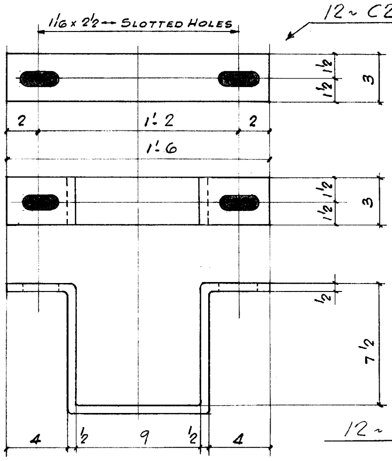
PRINT RECORD

NO.	FOR	DATE
5	APP	5-6
1	PRELIM SHOP	6-17
5	APP	6-23
3 (1)	SHOP	6-24
2	STATE	9/8
2 (1)	STATE	9/25

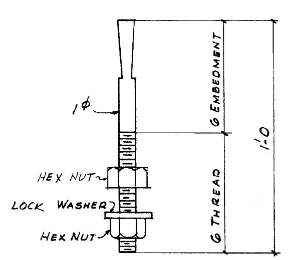
D



12 ~ C2



12 ~ C1



STUD ANCHOR BOLT (SEE NOTE A)

24 ~ C3

NOTE:

ALL MATERIAL HOT DIPPED GALVANIZED (EXCEPT C3) AFTER FABRICATION PER ASTM-A123.

SEE SHT 8⅞ FOR SPEC. → HOPPER AND BRACKETS SHALL BE PAINTED GRAY (FED. COLOR № 26493) IN ACCORDANCE WITH SPECIAL PROVISION 708.09 "PAINTING OF HOT DIPPED GALVANIZED STEEL."

FOR SHOP NOTES SEE DWG. E1

NOTE A

1. BOLT ASSEMBLY SHALL BE CAPABLE OF AN ULTIMATE PULLOUT OF AT LEAST 16,000 LBS, AND AN ULTIMATE SHEAR STRENGTH OF 27,000 LBS.
2. TYPE OF ANCHOR SHALL BE APPROVED BY THE STRUCTURES ENGINEER.
3. MATERIAL FOR THE STUD BOLTS SHALL CONFORM WITH ASTM-A582 TYPE 303.
4. MATERIAL FOR THE WEDGE ANCHOR SHALL CONFORM WITH ASTM-A276 TYPE 304.
5. MATERIAL FOR NUTS AND WASHERS SHALL BE STAINLESS STEEL.

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		~ FIELD MAT ~			60863	
		TYPE III			ORD. MODULUS	572
460		⅞φ ASTM-A325 TYPE III	0	4¼	3 KEGS + 10 PCS FROM STK	554
460		do. do.	0	4	3 KEGS + 10 PCS FROM STK	517
460		do. do.	0	3½	2 KEGS + 110 PCS FROM STK	
1215		do. do.	0	3	7 KEGS	1266 (733)
760		do. do.	0	2½	3 KEGS + 160 PCS FROM STK	2861
3100		do. do.	0	2¼	13 KEGS + 175 PCS FROM STK	442
6455		⅞φ HARD WASH TYPE III			2 KEGS + 1455 PCS FROM STK	
						6945

JOB NO. 80-3591 SHEET NO. 44 6/6

ASTM-A36 UNLESS NOTED BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		1- DR-1			ORD. CONTROL	
					61492 2024-0	
1		TS 8×8×¼	9	3±	A-500 OR A-501	241
2		℞ ¼" TEMP × 8±	1	8¼±	A36 STK	
2		℞ ¼" Temp × 17½±	1	8¼±	A36 STK	73
12	C1	B 3 × ½	2	9	A36 STK	168
12	C2	DO	1	6	A36 STK	92
24	C3	1φ STUD ANCHOR	1	0	NOTE A	64
		2 NUTS, ONE LOCK WASHER			ORD. XOOS	24 4
					61488	
						666

REVISION RECORD

DATE	REV. #	BY	REVISION
9/25		ww	WEIGHTS

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT FAP I93-1(3) C/3

		DATE
DRAWN BY	LV	
C'K'D BY	SWS	

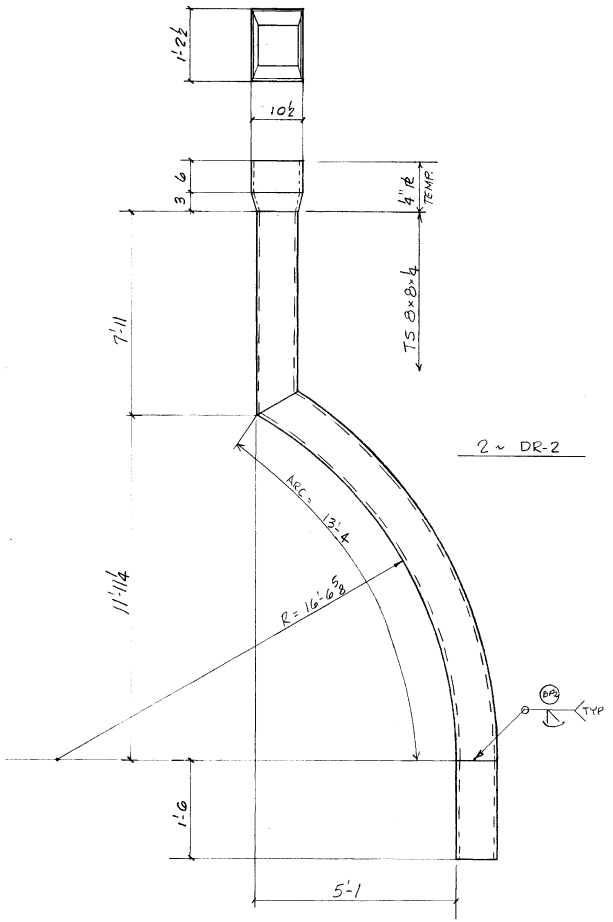
HOLES
BOLTS
PAINT

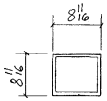
PROJECT RAMP W TO S OVER I 91 N.B. & S.B.
LOCATION WATERFORD, VT.
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V. A.O.T.
JOB NO. 80-3591 SHEET NO. 44 9/6

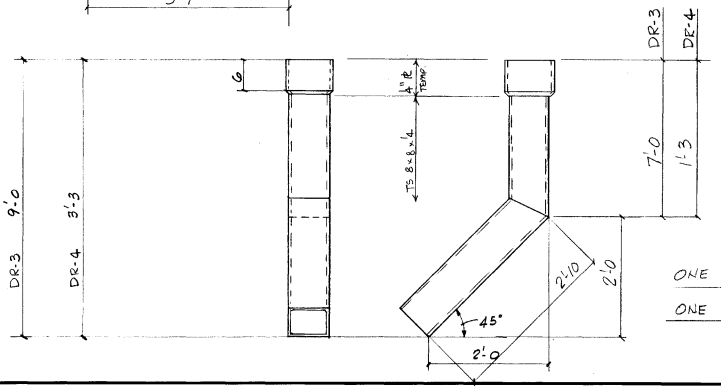
PRINT RECORD

NO.	FOR	DATE
5	MAP	5-6
1	JI	7-9
3	SHOP	7-13
2	STATE	9/8
2	STATE	9/25

BRUNING 40-135 39726







ONE DR-3

ONE DR-4

NOTES:

DRAINS SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION PER ASTM-A123, THEY SHALL BE PAINTED GRAY (FED COLOR 26493) IN ACCORDANCE WITH SPECIAL PROVISION 708.09 "PAINTING OF HOT DIPPED GALVANIZED STEEL,

SEE SHT 8 FOR SPEC.

FOR SHOP NOTES SEE DWG. E1

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT

JOB NO. ..... SHEET NO. .....

ASTM-A36 UNLESS NOTED BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
2	DR2					
4		4" R TEMP x 9±	1	2½±		
4		¼" R TEMP x 9±	0	10½±		(64)
2		TS 8x8x¼	22	9	A-500 OR A-501	1173.
						1237
1	DR3					
1	DR4					O&D CONCRETE
8		¼" R TEMP x 6 3/4±	0	8 3/4±	A36	61992 (33)
1	(DR-3)	TS 8x8x¼	9	4	A500 OR A501	2824.0
1	(DR-4)	DO	3	7	DO	(336)
						1608

REVISION RECORD

DATE	REV. #	BY	REVISION
9/25		WA	WEIGHTS

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT FAP I93-1(3) 9/3

		DATE
DRAWN BY	LV	3/81
CK'D BY	SWS	
HOLES		
BOLTS		
PAINT		

PROJECT RAMP W TO S OVER I91 N.B. & S.B.
LOCATION WATERFORD, VT.
CUSTOMER BECK & BELLUCCI
ARCHITECT S.O.V.A.O.T.
JOB NO. 80-3591 SHEET NO. 45

PRINT RECORD

NO.	FOR	DATE
5	APP	5-6
1	JF	7-9
3RD	S/100	7-13
2	STATE	9/18
2ND	STATE	9/25

Vermont Agency of
Transportation
PHASE 1-INTERSTATE
#122302-01

INITIALS ONE HANGER 374

Bridge BRI BR5MS BR6,7,8,17 11 12 13,14,15 16 17 18 19 20 22 23 Vernon ~ Rockingham

1979 IR-91-1 (3)