STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROPOSED IMPROVEMENT

INTERSTATE PROJECT

SOUTH BURLINGTON

COUNTY OF CHITTENDEN

PROJECT I 89-3(14) CONTRACT NO.2 - STAGE 1

BEGINNING AT A POINT IN SOUTH BURLINGTON 3808 FEET WEST OF THE WILLISTON-SOUTH BURLINGTON TOWN LINE AT MUDDY BROOK AND EXTENDING WESTERLY FOR A DISTANCE OF 8168 FEET.

LENGTH OF ROADWAY	1.515 MILES OR 8000.73 FEET
LENGTH OF BRIDGES	0.032 MILE OR 167.04 FEET
LENGTH OF CONTRACT	1.547 MILES OR 8167.77 FEET

DESIGN DESIGNATION

A.D.T. 1959	3710
A.D.T. 1975	8040
D.H.V.	950
D.	54%
T.	5%
V.	70 M.P.H.

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82	G-1	STANDARD STEEL BEAM GUARD RAIL
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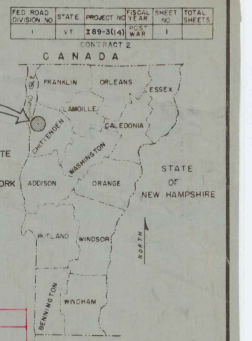
VICINITY MAP

FED. ROAD DIVISION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	VT.	I 89-3(14)	1963	1	

CONTRACT 2



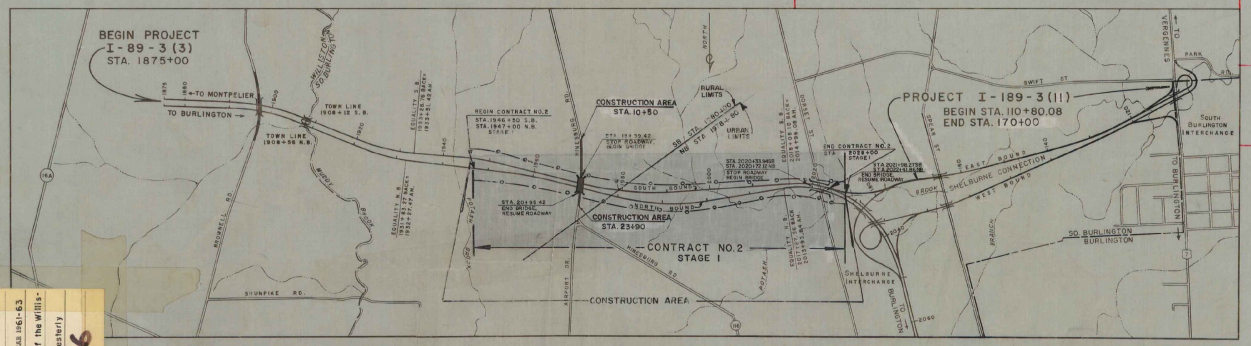
PROJECT NAME & NUMBER	TYPE
WILLISTON-SO. BURLINGTON I 89-3(14), C-2, STAGE 1.	
RECORD PLANS	GRADING & DRAINAGE.

MATERIALS

SUBBASE OF GRAVEL—HINESBURG SAND & GRAVEL CO. INC.-HINESBURG, VT.
SUBBASE OF SAND—S.T. GRISWOLD & CO. INC. PIT.—WILLISTON, VT.
SUBBASE OF CRUSHED ROCK & PENETRATION MACADAM CRUSHED STONE BASE COURSE —
—THE LANE CONSTRUCTION CORP. QUARRY— WILLISTON, VT.
REFINED TAR & ASPHALT—TRIMOUNT BITUMINOUS PRODUCTS CO.—EVERETT, MASS.
TAR EMULSION— KOPPERS PRODUCTS CO. INC. — EVERETT, MASS.
BITUMINOUS CONCRETE—VERMONT PAVING CORP. — BURLINGTON, VT.
CONCRETE CLASS 'B', CABLE GUARD RAIL, STEEL GUIDE & MARKER POSTS, BOUNDARY MARKERS & PROPERTY LINE FENCE—S.T. GRISWOLD & CO. INC.—ESSEX JUNCTION, VT.
REINFORCING & STRUCTURAL STEEL—VT. STRUCTURAL STEEL CORP.—BURLINGTON, VT.
REINFORCED CONCRETE PIPE—CASS-WARNER CORP.—ESSEX JUNCTION, VT.
ASPHALT COATED CORRUGATED GALVANIZED METAL PIPE— NEW ENGLAND METAL CULVERT CORP. — WHITE RIVER JUNCTION, VT.

CONTRACTOR —
THE LANE CONSTRUCTION CORP.
MERIDEN, CONN.
RESIDENT ENGINEER—W.F. MURPHY.
RECORD PLANS - W.F. MURPHY.

CONTRACT
DATED — JUNE 29, 1961.
STARTED — JULY 24, 1961.
COMPLETED — JUNE 25, 1963.
ACCEPTED — JUNE 25, 1963.



KEY MAP

LEGEND: X DESIGNATES ACCESS POINTS

CONTRACT NO 2
STAGE I CONSTRUCTION

CONVENTIONAL SIGNS

R.O.W. FENCE	—X—	R.O.W.	
COUNTY LINE		ACCESS	
TOWN LINE		SLOPE RIGHTS	
FENCE LINE			
STONE WALL			GROUN
UNFENCED PROPERTY			
GUARD RAIL			GRADE
TRAVELED WAY			
RAILROAD			DEFLE
RETAINING WALL			DEGRE
CENTER LINE			RADIU
SURVEY LINE			TANGE
CULVERT			LENGT
DROP INLET			EXTE
TROLLEY POLE			POINT
POWER POLE			POINT
TELEPHONE POLE			POINT
TREES			POINT
HEDGE			POINT

SCALES

TITLE	1" = 1320 FT.
TYPICAL	1" = As Shown
PLAN	1" = 50 FT.
PROFILE HORIZONTAL	1" = 50 FT.
PROFILE VERTICAL	1" = 10 FT.
CROSS-SECTIONS	1" = 10 or 5'

THESE PLANS ARE SUBJECT TO SUCH REVISIONS AS MAY BE REQUIRED BY THE BUREAU OF PUBLIC ROADS OR THE COMMISSIONER OF HIGHWAYS.

CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THE PLANS AND THE STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION OF JANUARY 1956 SUBMITTED TO THE BUREAU OF PUBLIC ROADS AS APPROVED JULY 5, 1956, INCLUDING ALL SUBSEQUENT APPROVED REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE SUBMITTED WITH THE PLANS.

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
APPROVED
DIVISION ENGINEER DATE

SUBMITTED CONSULTING ENGINEER	APPROVED SECONDARY ENGINEER	APPROVED CONSTRUCTION ENGINEER	APPROVED BRIDGE ENGINEER	APPROVED DISTRICT ENGINEER	APPROVED HIGHWAY ENGINEER	APPROVED CHIEF ENGINEER	PROJECT I NO. 89-3(14)
DATE MAY 11, 1960	DATE	DATE 4/6/61	DATE 4/7/61	DATE 4/7/61	DATE 4/7/61	DATE 4/7/61	SHEET

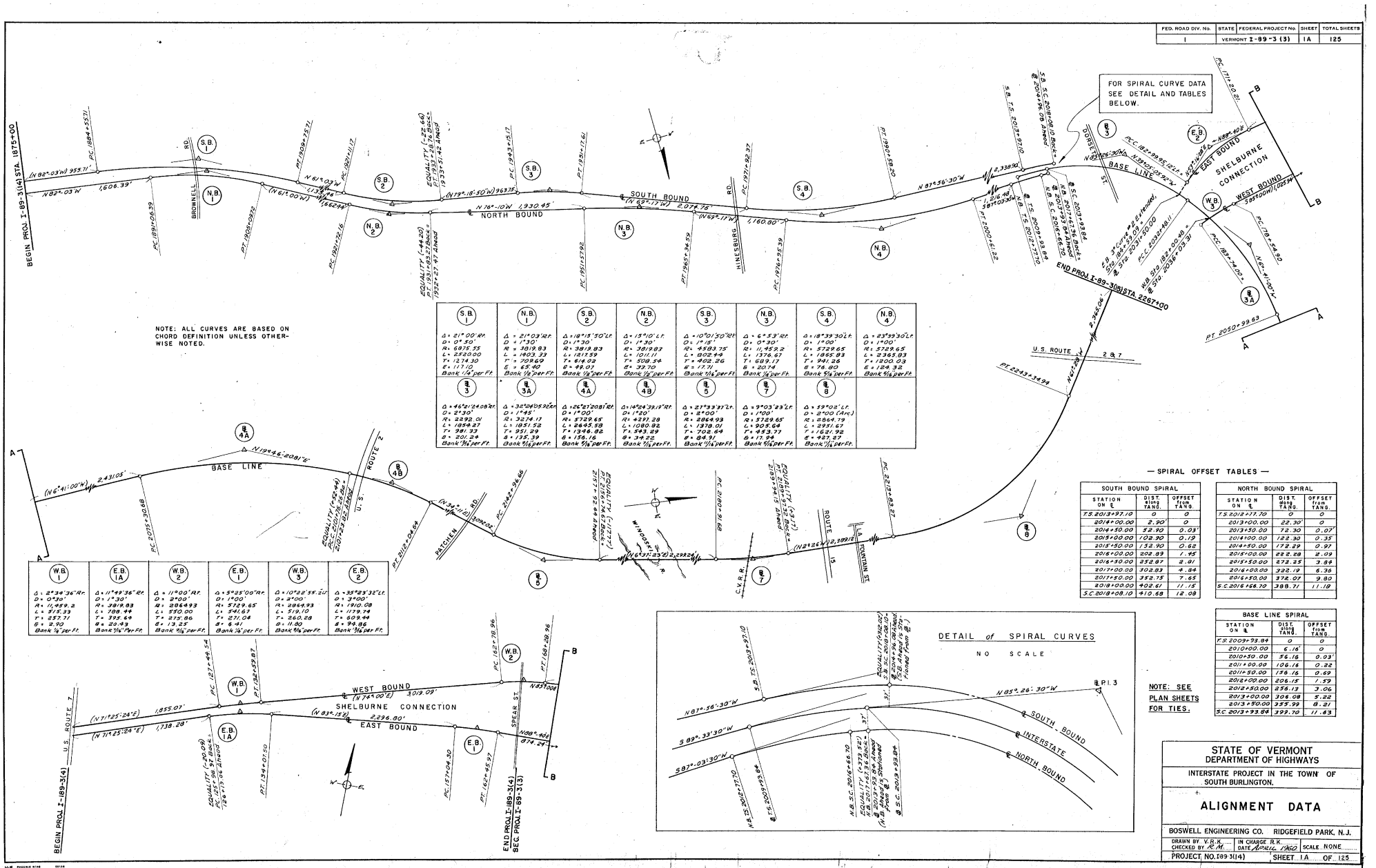
SUBMITTED BY ORDER OF THE STATE HIGHWAY BOARD

PROJECT WILLISTON — SO. BURLINGTON
NUMBER I 89-3(14) Cont. 2 Stage 1 LENGTH 1.547 MI.
TYPE DRAINAGE & GRADING
STAGE 2. See WILLISTON-SO. BURLINGTON I 89-3(23)
CONTRACTOR THE LANE CONSTRUCTION CORP. TEARS 1961-63
MERIDEN, CONN.
LOCATION Beginning at a point in So. Burlington 3,808 feet west of the Willis-ton-So.Burlington Town Line at Muddy Brook and extending westerly 8,168 feet

3357 Box 196

WILLISTON—SO.BURLINGTON I 89-3(14) Cont. 2.
CONTR.-THE LANE CONST. CORP. MERIDEN, CONN.
CONST. COMP.-JUNE 25, 1963.
RECORD PLANS-W.F. MURPHY.

FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No.	SHEET	TOTAL SHEETS
1	VERMONT	I-89-3 (3)	1A	125



S.B. 1	N.B. 1	S.B. 2	N.B. 2	S.B. 3	N.B. 3	S.B. 4	N.B. 4
Δ = 21°00'Rt.	Δ = 21°03'Rt.	Δ = 18°15'50"Lt.	Δ = 15°10'Lt.	Δ = 10°01'50"Rt.	Δ = 6°53'Rt.	Δ = 18°39'30"Lt.	Δ = 23°39'30"Lt.
D = 0°50'	D = 1°30'	D = 1°30'	D = 1°30'	D = 1°15'	D = 0°30'	D = 1°00'	D = 1°00'
R = 6875.55	R = 3819.83	R = 3819.83	R = 3819.83	R = 4583.75	R = 11,459.2	R = 5729.65	R = 5729.65
L = 2520.00	L = 1403.33	L = 1811.59	L = 1011.11	L = 802.44	L = 1376.67	L = 1865.83	L = 2367.83
T = 1274.30	T = 709.69	T = 914.02	T = 508.54	T = 402.26	T = 689.17	T = 941.26	T = 1200.03
E = 117.10	E = 65.90	E = 113.40	E = 33.70	E = 17.71	E = 20.74	E = 76.80	E = 124.32
Bank ¼" per Ft.	Bank ½" per Ft.	Bank ½" per Ft.	Bank ½" per Ft.	Bank ¼" per Ft.	Bank ¼" per Ft.	Bank ⅝" per Ft.	Bank ⅝" per Ft.

S.B. 3	N.B. 3A	S.B. 4A	N.B. 4B	S.B. 5	N.B. 7	S.B. 8
Δ = 46°21'24.08"Rt.	Δ = 38°09'05.92"Lt.	Δ = 26°57'20.81"Rt.	Δ = 14°04'33.19"Rt.	Δ = 21°33'37"Lt.	Δ = 9°03'23"Lt.	Δ = 59°02'Lt.
D = 2°30'	D = 1°45'	D = 1°00'	D = 1°20'	D = 2°00'	D = 1°00'	D = 1°00' (Arc)
R = 2292.01	R = 3274.11	R = 5729.65	R = 4297.28	R = 2864.93	R = 5729.65	R = 2864.79
L = 1854.27	L = 1851.52	L = 2695.58	L = 1080.82	L = 1378.01	L = 905.64	L = 2951.67
T = 981.33	T = 951.29	T = 1344.82	T = 543.29	T = 702.64	T = 463.77	T = 1621.92
E = 201.24	E = 135.39	E = 156.16	E = 34.22	E = 84.91	E = 17.94	E = 427.27
Bank 7/16" per Ft.	Bank 5/16" per Ft.	Bank 5/16" per Ft.	Bank 5/16" per Ft.	Bank 1/4" per Ft.	Bank 5/16" per Ft.	Bank 1/4" per Ft.

W.B. 1	E.B. 1A	W.B. 2	E.B. 1	W.B. 3	E.B. 2
Δ = 2°34'36"Rt.	Δ = 11°49'36"Rt.	Δ = 11°00'Rt.	Δ = 5°35'00"Rt.	Δ = 10°22'35.2"Lt.	Δ = 35°23'32"Lt.
D = 0°30'	D = 1°30'	D = 2°00'	D = 1°00'	D = 2°00'	D = 3°00'
R = 11,459.2	R = 3819.83	R = 2864.93	R = 5729.65	R = 2864.93	R = 1910.08
L = 515.33	L = 788.49	L = 550.00	L = 541.67	L = 519.10	L = 1179.74
T = 257.71	T = 395.69	T = 275.86	T = 271.04	T = 260.28	T = 609.44
E = 2.90	E = 20.93	E = 13.25	E = 6.41	E = 11.80	E = 96.86
Bank ¼" per Ft.	Bank 7/16" Per Ft.	Bank 5/16" per Ft.	Bank ¼" per Ft.	Bank 5/16" per Ft.	Bank 3/16" per Ft.

— SPIRAL OFFSET TABLES —

SOUTH BOUND SPIRAL		
STATION ON ℄	DIST. along TANG.	OFFSET from TANG.
T.S. 2013+97.10	0	0
2014+00.00	2.90'	0
2014+50.00	52.90	0.03
2015+00.00	102.90	0.19
2015+50.00	152.90	0.62
2016+00.00	202.89	1.45
2016+30.00	232.87	2.01
2017+00.00	302.83	4.84
2017+50.00	352.75	7.65
2018+00.00	402.61	11.15
S.C. 2018+08.10	410.68	12.08

NORTH BOUND SPIRAL		
STATION ON ℄	DIST. along TANG.	OFFSET from TANG.
T.S. 2012+17.70	0	0
2013+00.00	22.30'	0
2013+50.00	72.30	0.07
2014+00.00	122.30	0.35
2014+50.00	172.29	0.97
2015+00.00	222.28	2.09
2015+50.00	272.25	3.88
2016+00.00	322.19	6.36
2016+50.00	372.07	9.80
S.C. 2016+98.70	388.71	11.19

BASE LINE SPIRAL		
STATION ON ℄	DIST. along TANG.	OFFSET from TANG.
T.S. 2009+93.84	0	0
2010+00.00	6.16'	0
2010+50.00	56.16	0.03'
2011+00.00	106.16	0.32
2011+50.00	156.16	0.89
2012+00.00	206.15	1.79
2012+50.00	256.13	3.06
2013+00.00	306.08	5.22
2013+50.00	355.99	8.21
S.C. 2013+93.84	399.70	11.63

NOTE: SEE PLAN SHEETS FOR TIES.

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWN OF SOUTH BURLINGTON.

ALIGNMENT DATA

BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.

DRAWN BY V.B.K. | IN CHARGE R.K.
CHECKED BY R.K. | DATE APRIL 1960 | SCALE NONE

PROJECT NO. I-89-3(14) SHEET 1A OF 125

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROPOSED IMPROVEMENT

INTERSTATE PROJECT

SOUTH BURLINGTON

COUNTY OF CHITTENDEN

PROJECT I 89-3(14) CONTRACT NO.2 - STAGE 1

BEGINNING AT A POINT IN SOUTH BURLINGTON 3808 FEET WEST OF THE WILLISTON-SOUTH BURLINGTON TOWN LINE AT MUDDY BROOK AND EXTENDING WESTERLY FOR A DISTANCE OF 8168 FEET.

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A.D.T. 1975	8040
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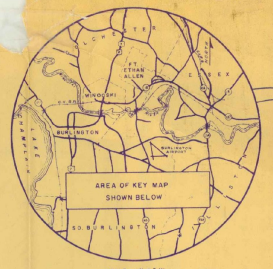
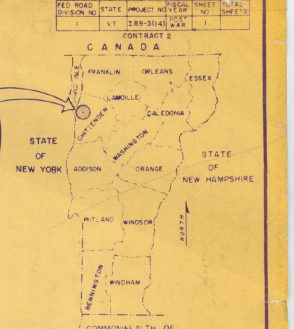
120	SB-20-60
121	SB-22-60
122-125	BLANK



VICINITY MAP

FED. ROAD DIVISION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	VT	I 89-3(14)	1961 WAR	1	

CONTRACT 2



DATE JUNE 29, 1961

~~THE LANE CONSTRUCTION CORP.~~

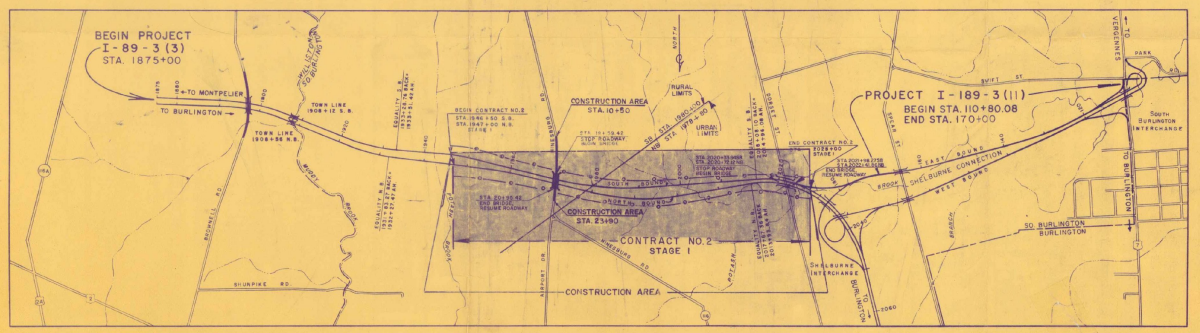
Executive Vice Pres.

Contractor

Commissioner of Highways

By Order of Commissioner of Highways

VERMONT DEPARTMENT OF HIGHWAYS CONTRACT PLANS JUN 29 1961 SIGNED



KEY MAP

LEGEND: X DESIGNATES ACCESS POINTS

CONVENTIONAL SIGNS

R.O.W. FENCE
COUNTY LINE
TOWN LINE
FENCE LINE
STONE WALL
UNFENCED PROPERTY
GUARD RAIL
TRAVELED WAY
RAILROAD
RETAINING WALL
CENTER LINE
SURVEY LINE
CULVERT
DROP INLET
TROLLEY POLE
POWER POLE
TELEPHONE POLE
TREES
HEDGE

R.O.W.
ACCESS
SLOPE RIGHTS
GROUND ELEVATION ... DATUM ... ℄ LINE
GRADE ELEVATION ... DATUM ... ℄ LINE

CURVE DATA

DEFLECTION OF ANGLE	Δ
DEGREE OF CURVE	D
RADIUS OF CURVE	R
TANGENT DISTANCE	T
LENGTH OF CURVE	L
EXTERNAL DISTANCE	E
POINT OF INTERSECTION	P
POINT OF CURVE	P
POINT OF TANGENT	PT
POINT ON TANGENT	PO
POINT ON SUB-TANGENT	POST

SCALES

TITLE	1" = 1320 FT.
TYPICAL	1" = As Shown
PLAN	1" = 50 FT.
PROFILE HORIZONTAL	1" = 50 FT.
PROFILE VERTICAL	1" = 10 FT.
CROSS-SECTIONS	1" = 10 or 5

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SUBMITTED Grisal C. Boswell CONSULTING ENGINEER	APPROVED SECONDARY ENGINEER	APPROVED E.B. Dickens CONSTRUCTION ENGINEER	APPROVED L.M. Bjorn BRIDGE ENGINEER	APPROVED A. Graham DISTRICT ENGINEER	APPROVED G.M. Lane HIGHWAY ENGINEER	APPROVED A.D. Bishop CHIEF ENGINEER
DATE MAY 11, 1960	DATE	DATE 4/10/61	DATE 4/21/61	DATE 4/7/61	DATE 4/7/61	DATE 4/7/61

SUBMITTED BY ORDER OF THE STATE HIGHWAY BOARD

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED

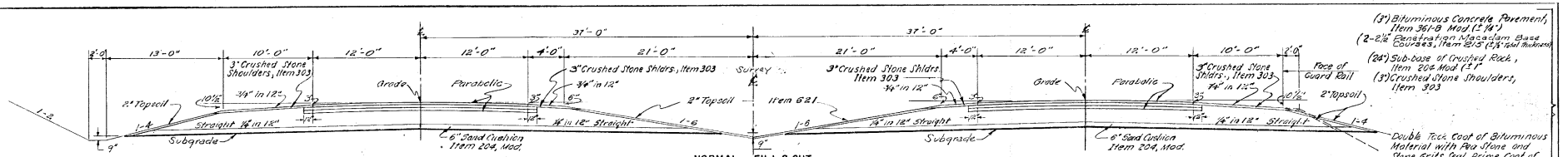
DIVISION ENGINEER DATE

PROJECT I NO. 89-3(14)

SHEET 1 OF 125 SHEETS

CONTRACT NO. 2
STAGE I CONSTRUCTION

225



NOTE: ITEMS ABOVE SUBGRADE NOT PART OF STAGE I CONTRACT.

NORMAL – FILL & CUT

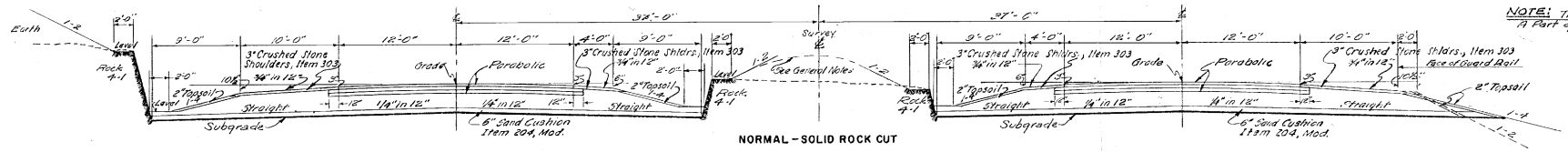
(3") Bituminous Concrete Pavement, Item 361-B Mod. (2 1/4")
(2-2 1/2" Penetration Macadam Base Courses, Item 815 (3") Total Thickness)
(24") Sub-base of Crushed Rock, Item 204 Mod. (1')
(3") Crushed Stone Shoulders, Item 303

Double Tack Coat of Bituminous Material with Pea Stone and Stone Grits Seal, Prime Coat of Refined Tar and Double Seal Coat of Cutback Asphalt Item 315, Mod. on Crushed Stone Shoulders

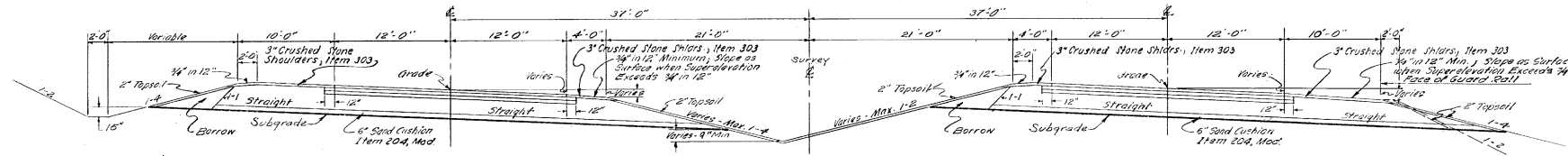
NOTE: These Items Are Not A Part of Stage I Construction

NORMAL SECTIONS

NORTH BOUND	SOUTH BOUND
1967+50 TO 1971+92	1965+35 TO 1969+50



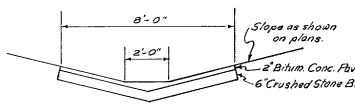
NORMAL – SOLID ROCK CUT



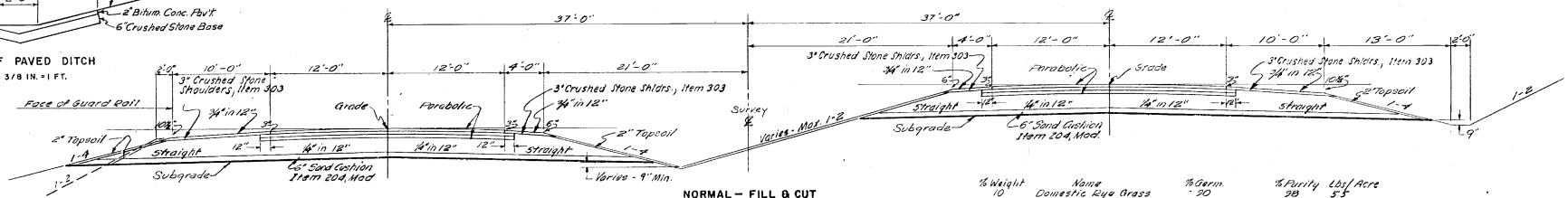
SUPERELEVATED SECTIONS

NORTH BOUND	SOUTH BOUND
1965+35 TO 1967+00	1970+00 TO 1971+92
2018+08 TO 2022+20.07	2018+08 TO 2022+20.07

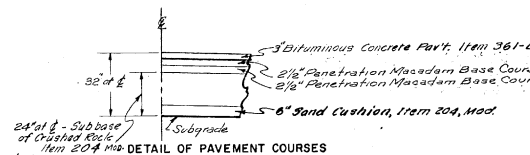
SUPERELEVATED – FILL & CUT



DETAIL OF PAVED DITCH
SCALE: 3/8 IN. = 1 FT.



NORMAL – FILL & CUT
(DIFFERENT GRADES)



DETAIL OF PAVEMENT COURSES
SCALE: 3/8 IN. = 1 FT.

(1')

Permissable Tolerances in parenthesis apply to thickness only.

GENERAL NOTES:

1. Widen shoulders two (2) feet at guard rail locations.
2. For rounding of slopes, see Highway Standard Sheet B-5.
3. Minimum width of top of rock in median shall be ten (10) feet.
4. Steel Marker Posts, Item 548-D, shall be placed as directed by the Engineer.
5. Winter Rye, Item 810, to be applied as directed by the Eng. rate of 50 lbs. per Acre.
6. Mulch, Item 622, shall be applied to all earth slopes at the rate of 1 1/2 Tons per Acre.
7. Seeding, Item 611, to be applied on all earth slopes, at the rate of 55 lbs. per acre. Seed formula as follows:

% Weight	Name	% Germ.	% Purity	Lbs/Acre
14	Creeping Red Fescue	85	97	13.2
16	Kentucky Blue Grass	77	80	8.8
38	Red Top	90	92	20.9

(Contd. next column.)

% Weight	Name	% Germ.	% Purity	Lbs/Acre
10	Domestic Rye Grass	90	98	5.5
5	Dutch White Clover	80	90	2.8
7	Inert Material, Weeds etc.	–	–	3.8

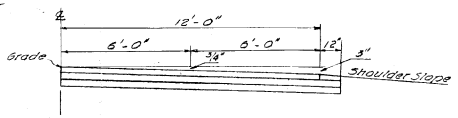
8. Commercial Fertilizer, Item 615, shall be applied to all earth slopes at the rate of 400 lbs per acre, and shall be mixed as follows:

Nitrogen	–	10
Phosphorus	–	10
Potash	–	10

} Rate of Application 800 lbs. per Acre

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

9. Drilling and Blasting of Solid Rock, Sub Grade – Item 114. Mod. (Depth 4" below Sub Grade) - See Standard Sheet A-81



DETAIL FOR PARABOLIC SHOWING QUARTER POINT
SCALE 3/8 IN. = 1 FT.

CONTRACT NO. 2
STAGE I CONSTRUCTION
CONSTRUCTED AS DESIGNED

SCALE: 3/16" = 1 FT. UNLESS OTHERWISE SHOWN.

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

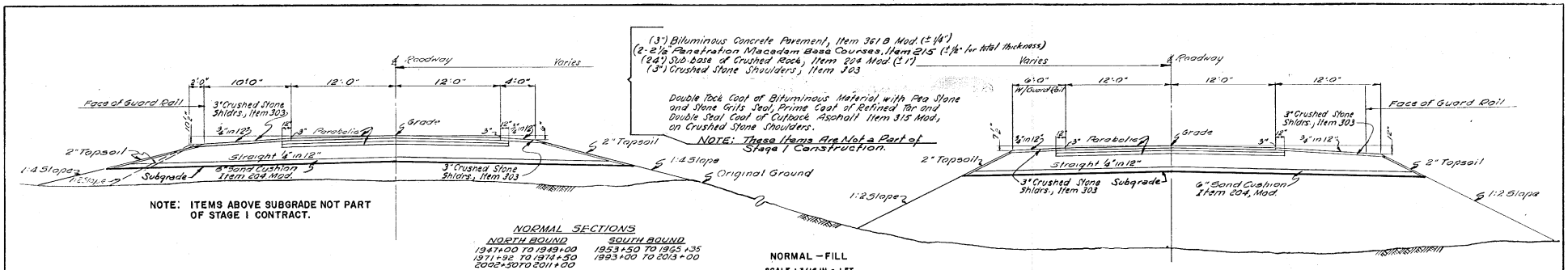
INTERSTATE PROJECT IN THE TOWN OF SOUTH BURLINGTON.

TYPICAL SECTIONS

50' MEDIAN

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

PROJECT NO. I-89-3(14) | SHEET 2 OF 125

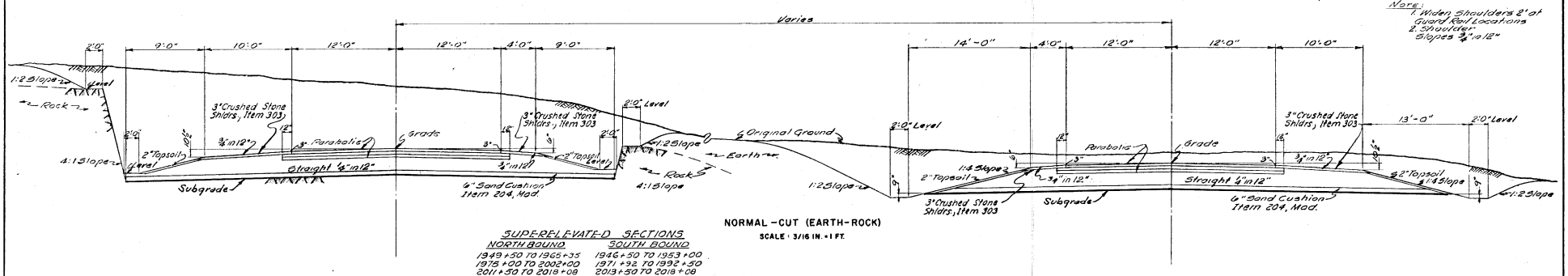


NORMAL SECTIONS

NORTH BOUND	SOUTH BOUND
1947+00 TO 1949+00	1953+50 TO 1965+35
1971+92 TO 1974+50	1993+00 TO 2013+00
2002+50 TO 2011+00	

NORMAL – FILL

SCALE : 3/16 IN. = 1 FT.

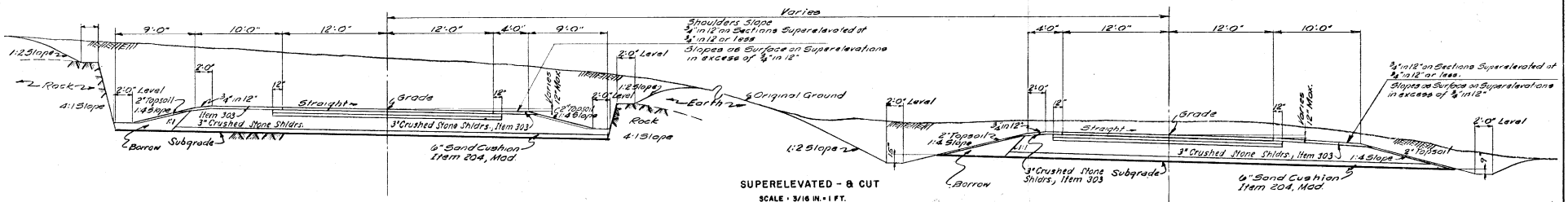


NORMAL – CUT (EARTH-ROCK)

SCALE : 3/16 IN. = 1 FT.

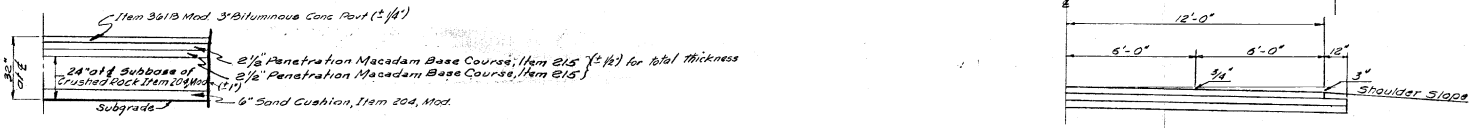
SUPER-ELEVATED SECTIONS

NORTH BOUND	SOUTH BOUND
1949+50 TO 1965+35	1946+50 TO 1953+00
1975+00 TO 2002+00	1971+92 TO 1992+50
2011+50 TO 2018+08	2013+50 TO 2018+08



SUPERELEVATED – B CUT

SCALE : 3/16 IN. = 1 FT.



DETAIL OF PAVEMENT COURSES

SCALE : 3/8 IN. = 1 FT.

PERMISSABLE TOLERANCES APPLY TO THICKNESS ONLY.

DETAIL FOR PARABOLIC SHOWING QUARTER POINT

SCALE : 3/8 IN. = 1 FT.

CONTRACT NO. 2

STAGE I CONSTRUCTION

CONSTRUCTED AS DESIGNED

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWNS OF SOUTH BURLINGTON.

TYPICAL SECTIONS
VARIABLE MEDIAN

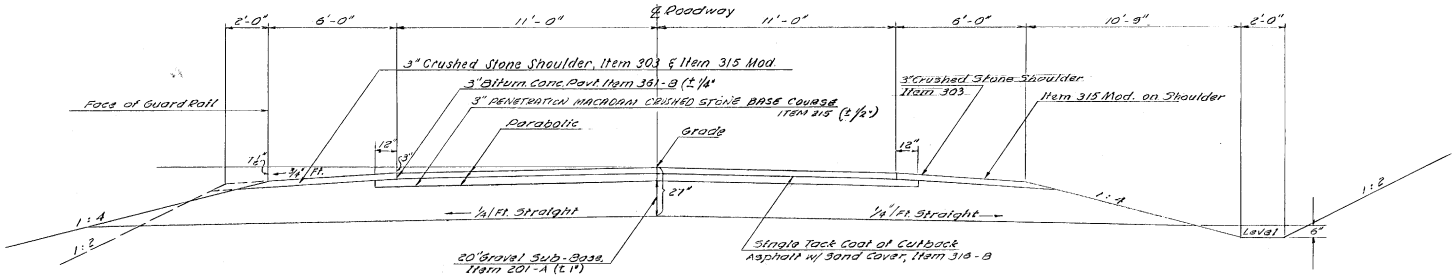
BOSWELL ENGINEERING CO.
CONSULTING ENGINEERS
RIDGEFIELD PARK, N.J.

PROJECT NO. I-89-3(114) | SHEET 3 OF 125

FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No.	SHEET	TOTAL SHEETS
1	VERMONT	I-89-3(3)	4	125

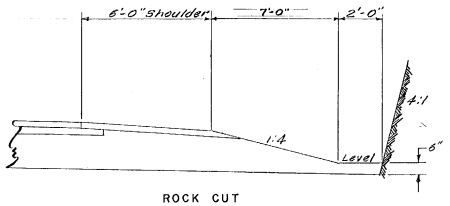
3" Bituminous Concrete Pavement,
Item 361-B Mod. (± 1/4")
3" PENETRATION MACADAM CRUSHED STONE BASE COURSE ITEM 210 (± 1/2")
20" Sub-Base of Gravel,
Item 201-A (± 1")
3" Crushed Stone Shoulder,
Item 303
Single Tack Coat of Cutback Asphalt
with Sand Cover, Item 316-B
Double Tack Coat of Bituminous Material
with Pea Stone and Stone Grits Seal
Prime Coat of Refined Tar and Double
Seal Coat of Cut Back Asphalt,
Item 315 Mod. on Crushed Stone Shoulders

CONSTRUCTED AS DESIGNED



NORMAL – FILL & CUT
HINESBURG ROAD

NOTE: VT. RTE. 116 (RELOCATED HINESBURG ROAD) IS TO BE BUILT IN ITS ENTIRETY DURING STAGE I CONSTRUCTION.



ROCK CUT
HINESBURG ROAD

Note: PERMISSABLE TOLERANCES APPLY TO THICKNESS ONLY.

CONTRACT NO. 2
STAGE I CONSTRUCTION

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWN OF SOUTH BURLINGTON.

TYPICAL SECTION HINESBURG ROAD

BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N. J.

DRAWN BY M.M.	IN CHARGE R. K.	SCALE 3/8" = 1 FT.
CHECKED BY M.M.	DATE May 11, 1960	

PROJECT NO. I-89-3(14) | SHEET 4 OF 125

CONTRACT 2

QUANTITY SHEET

STATE OF VERMONT DEPARTMENT OF HIGHWAYS

PROJECT NO. I 89-3(14) CONTRACT 2

SUMMARY SHEET NO. 5 OF 125 19__

APPROXIMATE SUMMARY OF QUANTITIES

DORSET STREET	DORSET STREET BRIDGE	HINESBURG ROAD BRIDGE	HINESBURG RD. DETOUR	HINESBURG RD. RELOC.	INTERSTATE ROADWAY	QUANTITIES GRAND TOTAL	UNIT	ITEMS (OVERRUN)	ITEM NO.
			2700	900	142,000	145,600	C.Y.	COMMON EXCAVATION	101-A
				50	15,800	15,850	C.Y.	SOLID ROCK EXCAVATION	101-B
				17,900	96,000	113,900	C.Y.	BORROW	102
				5,500	69,500	75,000	C.Y.	GRANULAR BORROW	102-A
110				40	4,650	4,800	C.Y.	TRENCH EXCAVATION of EARTH	103-A
					250	250	C.Y.	TRENCH EXCAVATION of ROCK	103-B
					1	1	L.S.	CLEARING AND GRUBBING(MOD)(11.1 A + indiv.trees)	104
				8,000		8,000	S.Y.	FINE GRADING, SUB-GRADE (689)	105
380					150	530	C.Y.	CHANNEL EXCAVATION of EARTH	106-A
15					5	20	C.Y.	CHANNEL EXCAVATION of ROCK (EST.)	106-B
960	294	289			320	1,870	C.Y.	STRUCTURE EXCAVATION (125)	107
					25	25	DAY	ROADWAY PATROL MAINTENANCE (EST.)	108
					400	400	M/Gal.	DUST CONTROL (EST)	111
					15,200	15,200	S.Y.	DRILLING & BLASTING of SOLID ROCK SUB-GRADE (MODIFIED) (800)	114
					3,100	3,100	C.Y.	MUCK EXCAVATION (Mod.) (285)	116
			20		20	40	HOUR	BULLDOZER RENTAL (EST.)	119
6				4		10	TON	DUST CONTROL w/CALCIUM CHLORIDE (EST.)	121
5			5		10	20	HOUR	POWER GRADER RENTAL (EST.)	122
			2700	4,800		7,500	C.Y.	SUB-BASE OF GRAVEL	201-A
				2,000		2,000	C.Y.	SUB-BASE OF SAND (EST.)	202
	324	131				455	C.Y.	SUB-BASE of CRUSHED ROCK(MOD)UNDER STRUCTURE	204
				320		320	C.Y.	PENETRATION MACADAM CRUSHED STONE BASE COURSE	215
			33000	62000		95,000	CY/MI	GRAVEL OVERHAUL (MOD)(10 MILES)(EST)	221
	114	18			320	452	C.Y.	GRAVEL BACKFILL (26)	222
			540	960	400	1,900	C.Y.	STRIPPING OF GRAVEL PITS (EST)	223
				200		200	C.Y.	CRUSHED STONE SHOULDERS (42)	303
			4600	1800		6,400	GAL.	DOUBLE TACK COAT of BIT.MATERIAL w/PEA STONE & STONE GRITS SEAL, PRIME COAT OF REFINED TAR & DOUBLE SEAL COAT OF CUTBACK ASPHALT (MOD)	315
	735	374				1,109	GAL.	TAR EMULSION FOR BRIDGE FLOORS	316
					1,500	1,500	GAL.	CUTBACK ASPHALT (EST)	322
				6100		6,100	GAL.	ASPHALT CEMENT	323-
197	234	119		660		1,010	TON	BITUMINOUS CONCRETE PAVEMENT (MOD)	361-B
	382	153				485	L.F.	JOINT SEALER, HOT-POURED ELASTIC TYPE	372
	1,178	579			25	1,782	C.Y.	CONCRETE CLASS "B" (MOD) (4)	401-B
	186,145	86,238			1,820	274,203	LBS.	REINFORCING STEEL (124)	402
		REQUIRED				1	L.S.	SPIRAL REINFORCEMENT(7030 lbs.)(Sta.1970+53.89	403
	REQUIRED					1	L.S.	SPIRAL REINFORCEMENT(5570lbs.)(Sta.2121+36.17)	403
	434,498	225,103				659,593	LBS.	STRUCTURAL STEEL (12006)	404-A
	94	47				141	S.Y.	ASPHALTIC ASBESTOS COATING (8)	407
60				3	97	160	C.Y.	CEMENT RUBBLE MASONRY (19)	411
					840	840	L.F.	8" PLAIN CAST IRON PIPE (MOD) (60)	419-C
				110	530	640	L.F.	18" REINFORCED CONCRETE PIPE (56)	421-H
36					40	76	L.F.	24" REINFORCED CONCRETE PIPE (40)	421-K
					400	400	L.F.	36" REINFORCED CONCRETE PIPE (24)	421-M
					30	30	L.F.	18" SPECIAL ASPHALT COATED CORRUGATED GALVANIZED METAL PIPE ELBOWS 25°	422-H
			100		600	700	L.F.	18" ASPHALT COATED CORR.GALV.METAL PIPE (52)	424-H
					190	190	L.F.	36" ASPHALT COATED CORR. GALV. METAL PIPE (14)	424-M
					250	250	L.F.	54" ASPHALT COATED CORR.GALV.METAL PIPE (16)	424-P
					100	100	L.F.	22"x13"ASPH.CTD.CORR.GALV.MET.PIPE ARCH (12)	425-H
50						50	L.F.	58"x36"ASPH.CTD.CORR.GALV.MET.PIPE ARCH (8)	425-O
					300	300	L.F.	RELAYING PIPE CULVERTS (EST)	428
					1	1	L.S.	60" CORR.GALV.METAL PLATE PIPE (284 lf)(Sta. 2024+00)(41,464 lbs.)(Top ga.#10,Bot.ga.#8)	429-A
1						1	L.S.	11'-5"x7'3" CORR.GALV.MET.PLATE PIPE ARCH(100 lf Sta.22+30 Dorset St.)(36,600 lbs.)(Gage top #7,Bot. #5)	429-B
					1	1	L.S.	9'4"x6'3" CORR.GALV.MET.PLATE PIPE ARCH (1997+60 SB)(29,224 lbs.)(Ga. #8 top,#7 bot.)	429-B
					1	1	L.S.	9'4"x6'3" CORR.GALV.MET.PLATE PIPE ARCH(94 lf Sta.2000+05 NB)(26,414 lbs.)(Ga.Top #8,Bot.#7)	429-B
					2	2	EA.	METAL END SECTIONS FOR CORR.GALV.MET.PIPE ARCH	430-11-H
					300	300	L.F.	SLEEVES FOR WATER PIPES (EST)	431
	REQUIRED	REQUIRED				1	L.S.	FURNISHING EQUIPMENT FOR DRIVING PILES	501
	2670					2,670	L.F.	TREATED TIMBER PILING	502-B
	16	2				18	EACH	SPLICES FOR STEEL PILING (2)	503
	2390	250				2,640	L.F.	STEEL PILING (160)	504
					50	50	C.Y.	STONE FILL FOR SLOPE PROTECTION (EST)	522
100					150	250	C.Y.	RIPRAP FOR BANK PROTECTION(MOD.FOR CULVERT ENDS)(19)	526
					4,000	4,000	L.F.	6" PERF.ASPH.COATED CORR.GALVANIZED METAL PIPE UNDERDRAIN (MOD) (376)	531-A
					10	10	EACH	CAST IRON PIPE UNDERDRAIN FLUSHING BASIN WITH CAST IRON COVER	532
					2	2	EACH	PRECAST REINFORCED CONCRETE PIPE DROP INLET WITH COVER (EST.)	537-E
272				528		800	L.F.	THREE CABLE GUARD RAIL WITH STEEL POSTS (48)	543
10				10		20	EACH	ANCHORS FOR THREE CABLE GUARD RAIL w/ST.POSTS(4)	546
7				3		10	EACH	STEEL MARKER POSTS (2)	548-D
					500	500	S.Y.	BITUMINOUS GROUTED STONE GUTTER (EST)	553
	738	504				1,242	L.F.	GRANITE BRIDGE CURB (MOD) (6)	556-C
					30	30	EACH	BOUNDARY MARKERS	567
	648	460				1,108	L.F.	BRIDGE RAILING (8)	572
					16,800	16,800	L.F.	PROPERTY LINE FENCE WITH STEEL POSTS (MOD)	583-B
200						200	MAN/HR	UNIFORMED TRAFFIC OFFICERS	594
					3,500	3,500	S.Y.	PREPARING EXISTING PAVEMENT FOR NEW WEARING SURFACE	596
					300	300	L.F.	3/4" SEAMLESS COPPER WATER TUBE (EST.)	598
					6	6	ACRE	CLEARING AND TRIMMING (1.2)	601
				100	900	1,000	LB.	WINTER RYE (200)	610
				200	900	1,100	LB.	SEEDING (SLOPES) (40)	611
				3100	15,000	18,100	LB.	COMMERCIAL FERTILIZER FOR GRASSES (480)	615
					500	500	C.Y.	TOPSOIL (345)	621
				3	26	29	TON	MULCH (MOD) (2)	622

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS	(OVERRUN)
		COMMON EXCAVATION	
142,000	C.Y.	INTERSTATE ROADWAY	(9791)
900	C.Y.	HINESBURG ROAD	(77)
2,700	C.Y.	HINESBURG ROAD DETOUR	(67)
145,600	C.Y.	TOTAL	
		BORROW	
96,000	C.Y.	INTERSTATE ROADWAY	(11991)
17,900	C.Y.	HINESBURG ROAD	(1907)
113,000	C.Y.	TOTAL	(13898)
		GRANULAR BORROW	
69,500	C.Y.	INTERSTATE ROADWAY	(6950)
5,500	C.Y.	HINESBURG ROAD	(550)
75,000	C.Y.	TOTAL	(7500)
		TRENCH EXCAVATION OF EARTH	
2,110	C.Y.	CULVERTS, INTERSTATE	(191)
2,150	C.Y.	UNDERDRAIN, INTERSTACE	(200)
390	C.Y.	SPECIAL DITCHES, INTERSTATE	(39)
40	C.Y.	CULVERTS, HINESBURG ROAD	(5)
110	C.Y.	CULVERTS, DORSET STREET	(17)
4,800	C.Y.	TOTAL	(452)
		TRENCH EXCAVATION OF ROCK	
250	C.Y.	INTERSTATE UNDERDRAIN	(33)
250	C.Y.	TOTAL	(33)
		CHANNEL EXCAVATION OF EARTH	
150	C.Y.	STREAM RELOCATIONS	(14)
380	C.Y.	INLET & OUTLET CHANNELS	(38)
530	C.Y.	TOTAL	(52)
		DOUBLE TACK COAT OF BITUMINOUS MATERIAL WITH PEA STONE & STONE GRITS SEAL, PRIME COAT OF REFINED TAR & DOUBLE SEAL COAT OF CUTBACK ASPHALT (MOD)	
1,800	GAL.	HINESBURG ROAD	(186)
4,600	GAL.	HINESBURG ROAD DETOUR	(420)
6,400	GAL.	TOTAL	(606)
		PENETRATION MACADAM CRUSHED STONE BASE COURSE	
320	C.Y.	HINESBURG ROAD	(16)
320	C.Y.	TOTAL	(16)
		BITUMINOUS CONCRETE PAVEMENT (MOD)	
660	TON	HINESBURG ROAD	(120)
197	TON	DORSET STREET	(20)
857	TON	TOTAL	(140)
		SUB-BASE OF GRAVEL	
4,630	C.Y.	HINESBURG ROAD	(217)
170	C.Y.	EXTRA DEPTH AT BRIDGE APPROACHES	(10)
2,700	C.Y.	HINESBURG ROAD DETOUR	(167)
7,500	C.Y.	TOTAL	(394)
		SOLID ROCK EXCAVATION	
15,800	C.Y.	INTERSTATE ROADWAY	(1776)
50	C.Y.	HINESBURG ROAD	(19)
15,850	C.Y.	TOTAL	(1795)
		ASPHALT CEMENT	
6,100	GAL.	HINESBURG ROAD	(347)
6,100	GAL.	TOTAL	(347)
[illegible]	[illegible]	[illegible]	[illegible]

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

TYPE OF CONSTRUCTION BITUMINOUS CONCRETE PAVEMENT

STATIONS FROM	STATIONS TO	PAVEMENT WIDTHS 24'	30'	42'	EQUATIONS +	EQUATIONS −	
		NORTHBOUND					
1947+00	2018+93	7566.52			373.52		2017+67.36bk=2013+93 ahd.
2018+93	2020+43	150'					24' to 30' TRANSITION
2020+43	2022+71		228				BRIDGE & APPROACH SLABS
2022+71	2024+21	150'					30' to 24' TRANSITION
2024+21	2025+00	79					
		SOUTHBOUND					
1946+50	2018+52	7514.02			312.02		2018+08.10 Bk=2014+96.08 Ahd
2018+52	2020+02	150'					24' to 42' TRANSITION
2020+02	2022+30			228			BRIDGE & APPROACH SLABS
2022+30	2023+80	"50'					RT.SIDE PAV'T. 15' to 12' LT.SIDE PAV'T-24'(Includes 12' M/L & 12' ACCEL.LANE)
2023+80	2025+00	120					
		HINESBURG ROAD (BITUMINOUS CONCRETE)					
		22'	30'				
10+50	16+67	637					
16+67	18+37	150'					22' to 30' TRANSITION
18+37	21+18		281				BRIDGE & APPROACH SLABS
21+18	22+68	150'					30' to 22' TRANSITION
22+68	23+00	32'					
TOTALS							

LENGTH OF PROJECT

STATIONS		FEET	MILES	REMARKS
1946+75	2020+53.03	7720.80	1.462	ROADWAY
2020+53.03	2022+20.07	167.04	0.032	DORSET ST. BRIDGE
2022+20.07	2025+00	279.93	0.053	ROADWAY
TOTALS		8167.77	1.547	

EARTHWORK SHEET STAGE I

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

FED. ROAD DIVISION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	VT	185-2(16)	1954	8	125

Contract 2

V.C.	% GRADE	STATION	GRADES ELEVATION ON TANGENT	GRADES ELEVATION ON V. CURVES	GRADES CORR V.C.	GRADES DIST.	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.	ROCK AREA	ROCK CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.	BASE AREA	BASE CU. YDS.
		1947	BEGIN CONTRACT N° 2 NORTH BOUND STA 1947+00				27							
		+ 50					173	185						
		1948		C 7229			470	595						
		+ 50					631	1020						
		1949					905	1322						
		+ 50					1108	1864						
		1950					1206	2143						
		+ 50					1078	2115						
		1951		E 6			845	1781						
		+ 50		C 15,070			757	1483	0					
		1952		R 1,157			678	1514	205	190				
		+ 50		Exc 15,572			806	1561	290	458				
		1953					905	1694	226	478				
		+ 50					971	1644	66	270				
		1954					943	1772	0	61				
		+ 50					940	1281			0			
		1955					19	425			7	6		
		+ 50					0	18			338	319		
		1956									870	933		
		+ 50		F 18,562							762	1326		
		1957		C 18							1178	1796		
		+ 50		Fac. 1.25							1622	2593		
		1958		Ex. F 23,185							1538	2926		
		+ 50									1307	2634		
		1959									1100	2229		
		+ 50									1000	2000		
		1960									890	1806		
		+ 50									820	1583		
		1961									572	1288		
		+ 50									394	895		
		1962		F 5,944							350	689		
		+ 50		C 598							270	574		
		1963		Fac. 1.25							204	439		
		+ 50		Ex. F 6832			0				124	304		
		1964					12	11			30	143		
		+ 50					134	135			0	28		
		1965					354	452						
		+ 50					514	806						
		1966					684	1202						
		+ 50		C 15,304			686	1260						
		1967		R 846			768	1346						
		+ 50		Ex. C 15,600			844	1493	0					
		1968					966	1676	19	13				
		+ 50					936	1761	16	28				
		1969					1008	1800	52	63				
		+ 50					1100	1952	256	285				
		1970					962	1969	238	457	0			
		CARRIED FORWARD						0		0		0		
		COLUMN FOOTINGS						38,219		2303		24,512		

V.C.	% GRADE	STATION	GRADES ELEVATION ON TANGENT	GRADES ELEVATION ON V. CURVES	GRADES CORR V.C.	GRADES DIST.	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.	ROCK AREA	ROCK CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.	BASE AREA	BASE CU. YDS.
		1970					962		238		0			
		+ 65.28				65.28	1180	2589	0	288	64	77		
		1971	F 9218			34.72	672	1191			160	271		
		+ 50	C 5121				320	919			0	148		
		1972	R 268				68	359						
		+ 50	Fac 1.25				0	63				0		
		1973	Ex. C 47								136	126		
		+ 50									228	337		
		1974									262	454		
		+ 50									404	617		
		1975									588	919		
		+ 50									782	1269		
		1976	F 16,138								890	1502		
		+ 50	Fac. 1.25								726	1450		
		1977	Ex. F 12,673								436	1076		
		+ 50									426	708		
		1978									588	839		
		+ 50									614	1113		
		1979									446	982		
		+ 50									510	865		
		1980									344	791		
		+ 50					0				308	602		
		1981	F 6,073				30	28			190	569		
		+ 50	C 56				0	28			178	461		
		1982	Fac 1.25								134	341		
		+ 50	Ex. F 7535								156	289		
		1983									368	485		
		+ 50									518	820		
		1984									600	1035		
		+ 50									458	980		
		1985									432	829		
		+ 50									230	613		
		1986									254	448		
		+ 50	F 7,039								232	450		
		1987	Fac. 1.25								406	591		
		+ 50	Ex. F 8,799								428	772		
		1988									492	852		
		+ 50									524	941		
		1989									408	863		
		+ 50									404	752		
		1990									414	757		
		+ 50									504	850		
		1991									440	874		
		+ 50	C 22								470	843		
		1992	F 9,184								484	883		
		+ 50	Fac 1.25								556	969		
			Ex F 11458											
		CARRIED FORWARD						0		0		4413		
		COLUMN FOOTINGS						5177		288		31,881		

V.C.	% GRADE	STATION	GRADES ELEVATION ON TANGENT	GRADES ELEVATION ON V. CURVES	GRADES CORR V.C.	GRADES DIST.	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.	ROCK AREA	ROCK CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.	BASE AREA	BASE CU. YDS.
		1992 + 50									556	1026		
		1993									552			
		+ 50									594	1061		
		1994									506	1019		
		+ 50					0				468	902		
		1995					24	22			356	763		
		+ 50					230	235			0	330		
		1996					400	583						
		+ 50	F 2,326				315	662						
		1997	C 29.90				240	514						
		+ 50	Fac 1.25				135	347			0			
		1998	Ex. F 418				13	137			50	46		
		+ 50					0	12			162	215		
		1999									276	424		
		+ 50									330	561		
		2000									480	750		
		+ 50									580	982		
		2001									638	1128		
		+ 50	F 16,506								634	1178		
		2002	Fac 1.25								840	1365		
		+ 50	Ex. F 20,633								886	1598		
		2003									1012	1758		
		+ 50									1266	2109		
		2004									1349	2421		
		+ 50									1022	2196		
		2005									890	1771		
		+ 50									704	1476		
		2006					0				262	895		
		+ 50	F 3,838				17	18			40	280		
		2007	C 7629				70	61			0	37		
		+ 50	Fac. 1.25				72	131			19	18		
		2008	Exc.C 2831			50	0	67			72	84		
		+ 50				50					210	261		
		2009				50	0				151	334		
		+ 50				50	15	14			84	227		
		2010					130	134			0	87		
		+ 50				50	330	426						
		2011				50	610	870						
		+ 50				50	752	1261						
		2012				50	792	1330						
		+ 50				50	718	1398			0			
		2013				125		1801				139		
		2013 + 75	2010 + 00 Baseline				60				60			
		CARRIED FORWARD						0				0		
		COLUMN FOOTINGS						10,141				27,441		STAGE I

PROJECT SOUTH BURLINGTON STAGE I

PROJECT I 185-2(16) SHEET 8 OF 125 CONTRACT N°2 NORTH BOUND

EARTHWORK SHEET STAGE I

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

FED. ROAD DIVISION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
I	VT.	I89-3(14) Contract 2	POST WAR	9	125

V.C.	% GRADE	STATION	ELEVATION ON TANGENT	ELEVATION ON V. CURVES	CORR. V.C.	DIST.	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION CU. YDS.	ROCK AREA	ROCK CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.	BASE AREA	BASE CU. YDS.
		1946 + 50	BEGIN CONTRACT #2 SOUTHBOUND				49				0			
			STA. 1946+50			50		118				4		
		1947	F	8			78				4			
			C	3,916		50		174				4		
		+ 50	Fac.	1.25			110				0			
			Ex. C	3,906		50		330						
		1948					246							
						50		450						
		+ 50					240							
						50		639						
		1949					450							
						50		998						
		+ 50					628							
						50		1207						
		1950					675							
						50		1292						
		+ 50					720							
						50		1417						
		1951					810							
						50		1683						
		+ 50	F.	241			1008		0					
			C.	14,675		50		1919		44				
		1952	R.	4,045			1064		48					
			Fac.	1.35		50		1765		461				
		+ 50	Ex. C.	15,850			842		450					
						50		1719		1156				
		1953					1014		798					
						50		1961		1280				
		+ 50					1104		584					
						50		1702		822				
		1954					734		304					
						50		948		282				
		+ 50					290		0		0			
						50		269				241		
		1955					0				260			
						50						788		
		+ 50									591			
						50						1390		
		1956									910			
						50						1978		
		+ 50									1226			
			F.	28,223		50						2626		
		1957	Fac.	1.25							1610			
			Ex. F.	35,279		50						3413		
		+ 50									2076			
						50						4113		
		1958									2366			
						50						4112		
		+ 50									2075			
						50						3616		
		1959									1830			
						50						3276		
		+ 50									1708			
						50						2911		
		1960									1436			
						50						2569		
		+ 50									1338			
						50						2211		
		1961									1050			
						50						1732		
		+ 50									820			
						50						1421		
		1962									715			
			F.	10,708		50						1144		
		+ 50	C.	656							521			
			Fac.	1.25		50						814		
		1963	Ex. F.	12,729							358			
						50						535		
		+ 50					0				220			
						50		4				243		
		1964					4				42			
						50		143				39		
		+ 50					150				0			
						50		509						
		1965					400							
						50		874						
		+ 50					544							
						50		1183						
		1966					734							
						50		1404						
		+ 50	F.	148			782							
			C.	15,578		50		1474						
		1967	R.	871			810							
			Fac.	1.35		50		1580						
		+ 50	Ex. C.	15,735			895		0					
						50		1792		2				
		1968					1040		2					
						50		1961		9				
		+ 50					1078		8					
						50		1893		119				
		1969					966		120					
						50		1739		287				
		+ 50					912		190		0			
		CARRIED FORWARD						13,900		417		0		
		COLUMN FOOTINGS						33,147		4462		39,180		

V.C.	% GRADE	STATION	ELEVATION ON TANGENT	ELEVATION ON V. CURVES	CORR. V.C.	DIST.	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION CU. YDS.	ROCK AREA	ROCK CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.	BASE AREA	BASE CU. YDS.
		1969 + 50					912		190		0			
						50		1678		454		148		
		1970					900		300		160			
						50		1789		451		441		
		1970 + 50	F.	1,973			1032		187		316			
			C.	5,658		50								
			R.	846										
			Fac.	1.25				1493		277		293		
		1971	Ex. C.	3,773			580		112		0			
						50		945		107				
		+ 50					440		4					
						50		648		7				
		1972					260		4					
						50		398		4				
		+ 50					170		0		0			
						50		250				37		
		1973					100				40			
						50		109				85		
		+ 50					18				52			
						50		17				259		
		1974					0				228			
						50						443		
		+ 50					0				250			
						50		9				415		
		1975					10				198			
						50		28				280		
		+ 50					20				104			
						50		26				161		
		1976					8				70			
						50		11				152		
		+ 50	F.	1,487			4				94			
			C.	1,594		50		4				209		
		1977	R.	296			0				132			
			Fac.	1.25		50						259		
		+ 50	Ex. F.	61			0				148			
						50		9				187		
		1978					10				54			
						50		19				143		
		+ 50					0				100			
						50		200				94		
		1979					216		0		2			
						50		522		44		2		
		+ 50					348		48		0			
						50		785		252				
		1980					500		224					
						50		983		583				
		+ 50					562		406					
						50		1091		889				
		1981	F.	4,423			616		554					
			C.	4,008		50		1113		902				
		+ 50	R.	2,819			586		420		0			
			Fac.	1.25		50		682		417		2		
		1982	Ex. C.	572			150		30		2			
						50		139		28		204		
		+ 50					0		0		218			
						50						635		
		1983									468			
						50						941		
		+ 50									548			
						50						989		
		1984									520			
						50						891		
		+ 50									442			
						50						761		
		1985									380			
						50						594		
		+ 50									262			
						50						565		
		1986									348			
						50						500		
		+ 50	F.	3,228			0				192			
			C.	419		50		11				226		
		1987	Fac.	1.25			12				52			
			Ex. F.	3,616		50		31				104		
		+ 50					22				60			
						50		26				146		
		1988					6				98			
						50		117				93		
		+ 50					120				2			
						50		169				163		
		1989					62				174			
						50		61				368		
		+ 50					4				223			
						50		4				469		
		1990					0				284			
						50						515		
		+ 50					0				272			
						50		9				393		
		1991					10				152			
						50		9				397		
		+ 50					0				277			
						50						507		
		1992					0				271			
		CARRIED FORWARD						18		0		1812		
		COLUMN FOOTINGS						13,375		4415		13,071		

V.C.	% GRADE	STATION	ELEVATION ON TANGENT	ELEVATION ON V. CURVES	CORR. V.C.	DIST.	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION CU. YDS.	ROCK AREA	ROCK CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.	BASE AREA	BASE CU. YDS.
		1992					0				271			
						50		4				330		
		+ 50					4				85			
			F.	4,751		50		4				225		
		1993	C.	26			0				158			
			FAC.	1.25		50						289		
		+ 50	EX. F.	5,913							154			
						50						417		
		1994									296			
						50						763		
		+ 50									528			
						50						915		
		1995									460			
						50						807		
		+ 50									412			
						50						887		
		1996									546			
						50						1104		
		+ 50	F.	12,396							646			
			Fac.	1.25		50						1259		
		1997	Ex. F.	15,495							714			
						50						1319		
		+ 50									710			
						50						1352		
		1998									750			
						50						1419		
		+ 50									782			
						50						1424		
		1999									756			
						50						1369		
		+ 50									722			
						50						1456		
		2000									850			
						50						1478		
		+ 50									746			
			F.	13,527		50						1385		
		2001	Fac.	1.25							750			
			Ex. F.	16,909		50						1383		
		+ 50									744			
						50						1633		
		2002									1020			
						50						1882		
		+ 50									1012			
						50						1871		
		2003									1008			
						50						1606		
		+ 50									726			
						50						1087		
		2004									446			
						50						711		
		+ 50									320			
						50						491		
		2005					0				210			
			F.	294		50		4				244		
		+ 50	C.	19,953			4				54			
			R.	2,556		50		194				50		
		2006	Fac.	1.35			206				0			
			Ex.C.	20,554		50		561						
		+ 50					400							
						50		820						
		2007					486							
						50		695						
		+ 50					264							
						50		541						
		2008					320		0					
						50		669		7				
		+ 50					402		8					
						50		819		69				
		2009					482		66					
						50		1078		200				
		+ 50					682		150					
						50		1535		302				
		2010					976		176					
						50		2047		357				
		+ 50					1235		210					
						50		2370		402				
		2011					1324		224					
						50		2567		420				
		+ 50					1448		230					
						50		2471		506				
		2012					1220		316					
						50		1993		293				
		+ 50					932		0					
						56		1589						
		2013 + 06	2010 + 00	Baseline			600							
		CARRIED FORWARD												
		COLUMN FOOTINGS						19,961		2,556		29,156		

PROJECT SOUTH BURLINGTON STAGE I

PROJECT I NO. 89-3(14) CONTRACT NO. 2 STAGE I
SHEET 9 OF 125 SHEETS

SOUTHBOUND

EARTHWORK

STAGE 2 FINISHED GRADES SHOWN
STAGE 1 SUBGRADE ELEVATION
2.67 feet (2 feet 8 inches) BELOW

V.C.	% GRADE	STATION	ELEVATION ON TANGENT	ELEVATION ON V. CURVES	CORR. V.C.	DIST.	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.	AREA	CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.	BASE AREA	BASE CU. YDS.
			BASELINE											
		2010 + 00					630				60			
						50		926				116		
		+ 50					370				65			
						50		483				509		
							152				485			
		2011												
			F.	7,652		50		173				1162		
		+ 50	C.	5,598			35				770			
			Fac.	1.25		50		32				1769		
		2012	Ex. F.	3,967			0				1140			
						50		21				1815		
		+ 50					23				820			
						50		232				920		
		2013					228				174			
						50		382				561		
		+ 50					185				432			
						50		574				511		
		2014					435				120			
						50		1074				200		
		+ 50					725				96			
						50		1701				89		
		2015					1112				0			
						50		2505						
		+ 50					1593							
						50		3060						
		2016					1712							
						50		3103						
		+ 50					1640							
						50		2758						
		2017	F.	1,582			1338							
			C.	19,327		50		2285						
		+ 50	Fac.	1.25			1130				0			
			Ex. C.	17,349		50		1699				74		
		2018					705				80			
						50		977				165		
		+ 50					350				98			
						50		876				413		
		2019					596				348			
						50		1183				472		
		+ 50					682				162			
						50		881				458		
		2020					270				333			
			F	73,973		50		769				1929		
		+ 50	C	1,288			560				1750			
			Fac.	1.25		50		519				2634		
		2021	ExF	91,178			0				1095	1014		
											0			
		2025+00	*End Cont 2 Earthwork*	NOTE: 2021+00-2025+00					Total	Embankment =		68,396		
			HINESBURG ROAD											
		9+50	BEGIN APPROACH CONSTRUCTION				0	81						
		10+00					88	153						
		+ 50	420.00	BEGIN	CONST.		77				0			
						50		113				12		
		11 + 00	419.04				45				13			
						50		81				19		
		+ 50	418.07				42				8			
						50		69				15		
		12 + 00	417.11				33				8			
						50		31				69		
		+ 50	416.15				0				66			
						50						181		
		13 + 00	415.18								130			
						50						325		
	1.929%	+ 50	414.22		-0.00						221			
						50						552		
		14 + 00	413.25	413.24	-0.01						376			
						50						834		
		+ 50	412.29	412.24	-0.05						525			
						50						1155		
		15 + 00	411.32	411.20	-0.12						722			
						50						1378		
		+ 50	410.36	410.15	-0.21						766			
						50						1496		
		16 + 00	409.39	409.06	-0.33						850			
						50						1560		
		+ 50	408.43	407.96	-0.47						835			
800 V.C.						50						1480		
		17 + 00	407.46	406.81	-0.65						763			
						50						1417		
		+ 50	406.50	405.66	-0.84						767			
						50						1474		
		18 + 00	405.11	404.46	-0.65						825			
						50						1557		
		+ 50	403.73	403.26	-0.47						856			
						9.42								
	- 2.773%	+ 59.42	STOP	Roadway Begin Bridge										
						40.58								
		19 + 00	402.34	402.01	-0.33									
						50								
		+ 50	400.95	400.74	-0.21									
						50								
		20 + 00	399.57	399.45	-0.12									
		CARRIED FORWARD						528				13,524		
		COLUMN FOOTINGS						26,741				96,731		

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EARTHWORK STAGE I

V.C.	% GRADE	STATION	ELEVATION ON TANGENT	ELEVATION ON V. CURVES	CORR. V.C.	DIST.	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.	AREA	CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.	BASE AREA	BASE CU. YDS.
		+ 50	398.18	398.13	-0.05									
						45.42								
		+ 95.42	End of Bridge	Resume	Roadway						516			
						54.58								
	- 2.773%	21 + 00	396.79	396.78	-0.01									
												1183		
		+ 50	395.41		-0.00						654			
						50						1139		
		22 + 00	394.02								548			
						50						873		
		+ 50	392.64								395			
						50						494		
		23 + 00	391.25	END	CONST.		0		0		138			
						50		17		8		169		
		+ 50	389.75				18		9		45			
						50		61		16		54		
		24 + 00	388.25				48		8		13			
	- 3.00%					50		146		7		16		
		+ 50	386.75				110		0		4			
						50		102				4		
		25 + 00	385.25	END OF APPROACH CONSTRUCTION			0				0			
		COLUMN Totals						326		31		3,932		
		HINESBURG ROAD TOTALS						854		31		17456		
			MUCK EXCAVATION											
		NORTHBOUND												
		1957 + 00					0							
						50		94						
		+ 50					102							
						50		170						
		1958 + 00					82							
						50		76						
		1958 + 50					0							
		1987 + 50					0							
						50		31						
		1988 + 00					34							
						50		62						
		+ 50					34							
						50		31						
		1989 + 00					0							
		1990 + 00					0							
						50		31						
		+ 50					34							
						50		31						
		1991 + 00					0							
		1992 + 00					0							
						50		59						
		+ 50					64							
						50		111						
		1993 + 00					56							
						50		120						
		+ 50					74							
						50		141						
		1994 + 00					78							
						50		144						
		+ 50					78							
						50		144						
		1995 + 00					78							
						50		72						
		1995 + 50					0							
		2003 + 00					0							
						50		72						
		+ 50					78							
						50		181						
		2004 + 00					117							
						50		108						
		+ 50					0							
		SOUTHBOUND												
		1957 + 50					0							
						50		76						
		1958 + 00					82							
						50		76						
		1958 + 50					0							
		1988 + 50					0							
						50		39						
		1989 + 00					42							
						50		136						
		+ 50					105							
						50		171						
		1990 + 00					80							
						50		167						
		+ 50					100							
						50		124						
		1991 + 00					34							
						50		55						
		+ 50					25							
						50		65						
		1992 + 00					45							
						50		42						
		+ 50					0							
		CARRIED FORWARD												
		COLUMN FOOTINGS												

MUCK EXCAVATION

NB	1678
SB	1137
TOTAL	2815

SOUTHBOUND CON'T'D

STATION	DIST.	AREA	CU. YDS.
1994 + 00		0	
	50		93
1994 + 50		100	
	50		93
1995 + 00		0	

EARTHWORK SUMMARY

STATE OF VERMONT DEPARTMENT OF HIGHWAYS

SUMMARY OF BALANCES

STATION	TO STATION	TOTAL EXCAV. EARTH & ROCK CUBIC YARDS	ROCK EXCAV. CUBIC YARDS	EMBANKMENT CUBIC YARDS	EXCESSES CUT	EXCESSES FILL	ACCUMULATIVE EXCESSES CUT	ACCUMULATIVE EXCESSES FILL		BASE CUBIC YARDS
MAINLINE										
1946 + 50	1950 + 00									
N.B.		7229			7229					
S.B.		3916		8	3906					
							11135			
1950 + 00	1955 + 00									
N.B.		15070	1457	6	} 10035					
S.B.		14675	4045	241						
							21170			
1955 + 00	1960 + 00									
N.B.		18		18562						
S.B.				28223		35,279		14,109		
1960 + 00	1965 + 00									
N.B.		598		5944		6832		20,941		
S.B.		656		10708	} 19,139					
1965 + 00	1970 + 00									
N.B.		15304	846							
S.B.		15578	871	148				1,802		
1970 + 00	1975 + 00									
N.B.		5121	288	4218	47					
S.B.		5658	846	1973	3,773					
							2018			
1975 + 00	1980 + 00									
N.B.				10138		12673				
S.B.		1594	296	1487		61				
								10,716		
1980 + 00	1985 + 00									
N.B.		56		6073		7535				
S.B.		4008	2819	4423	418					
								17,833		
1985 + 00	1990 + 00									
N.B.				7039		8799				
S.B.		419		3228		3616				
								30,248		
1990 + 00	1995 + 00									
N.B.		22		9184		11,458				
S.B.		26		4751		5913				
								47,619		
1995 + 00	2000 + 00									
N.B.		2490		2326		418				
S.B.				12,396		15495				
								63,532		
2000 + 00	2005 + 00									
N.B.				16506		20,633				
S.B.				13527		16909				
								101,074		
2005 + 00	2013 +									
N.B.	+ 75	7629		3838	} 24,175					
S.B.	+ 06	19953	2556	294						
								76,699		
BASELINE										
2010 + 00	2015 + 00	5598		7652		3967				
2015 + 00	2020+00	19327		1582	17,349					
2020+00	2025+00	1288		73973		91178		154,695		
MAINLINE TOTAL		146,233	14,024	248446						
HINESBURG RD.										
10 + 50	23 + 00	854	31	17,456		20945				
		147,087	14,055	265,904				175,640		

SUMMARY BY COLUMNS

SHEET NO.	COL. NO.	EXCAVATION TOTAL CU. YDS	EXCAVATION ROCK CU. YDS.	EMBANKMENT CUBIC YARDS		BASE CUBIC YARDS
8	1	38,219	2,303	24,512		
8	2	5,177	288	31,881		
8	3	10,141	-	27,441		
9	1	33,147	4,462	39,180		
9	2	13,375	4,415	13,071		
9	3	19,961	2,556	29,156		
10	1	26,741	-	96,731		
10	2	326	31	3,932		
		147,087	14,055	265,904		

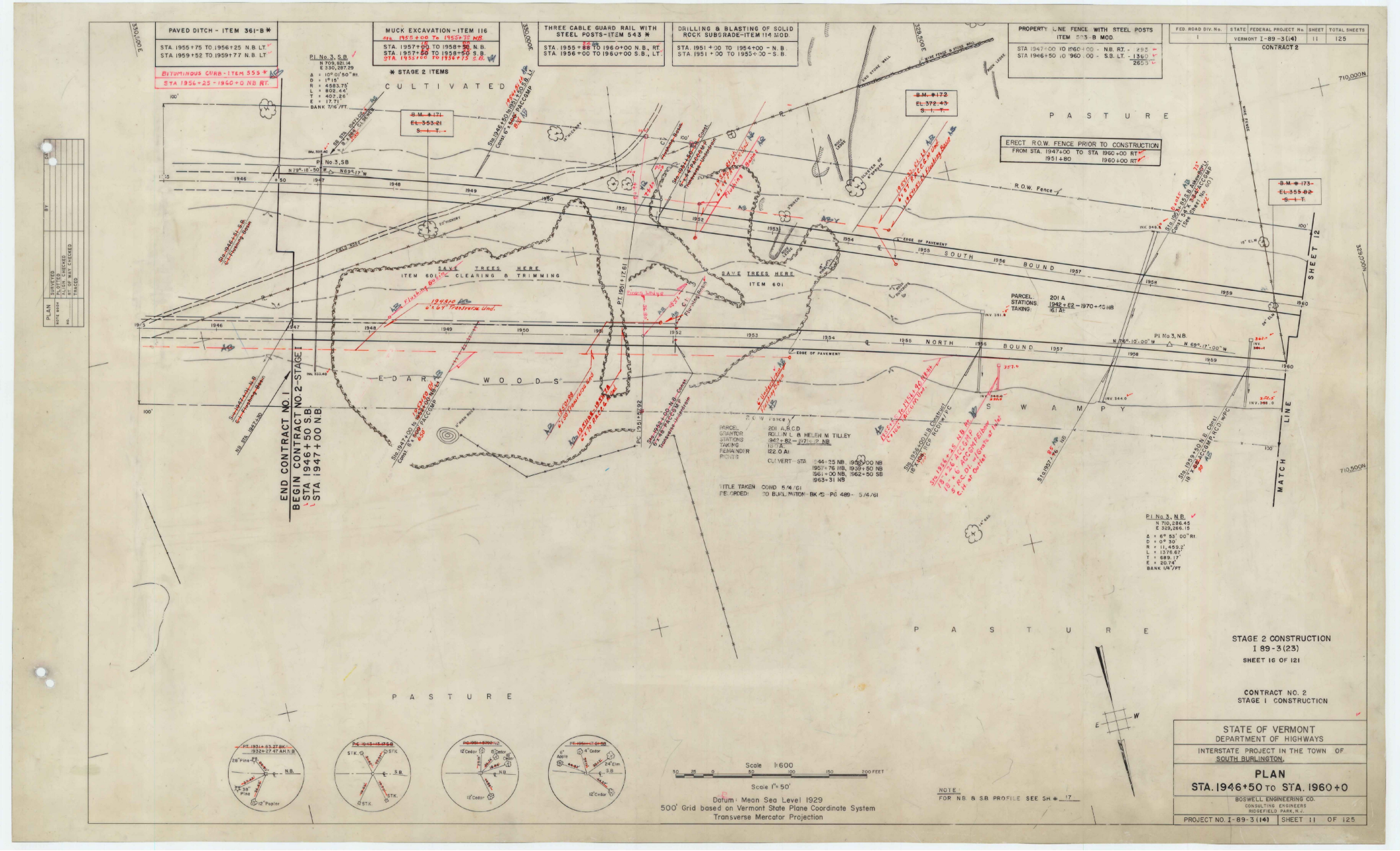
REMARKS

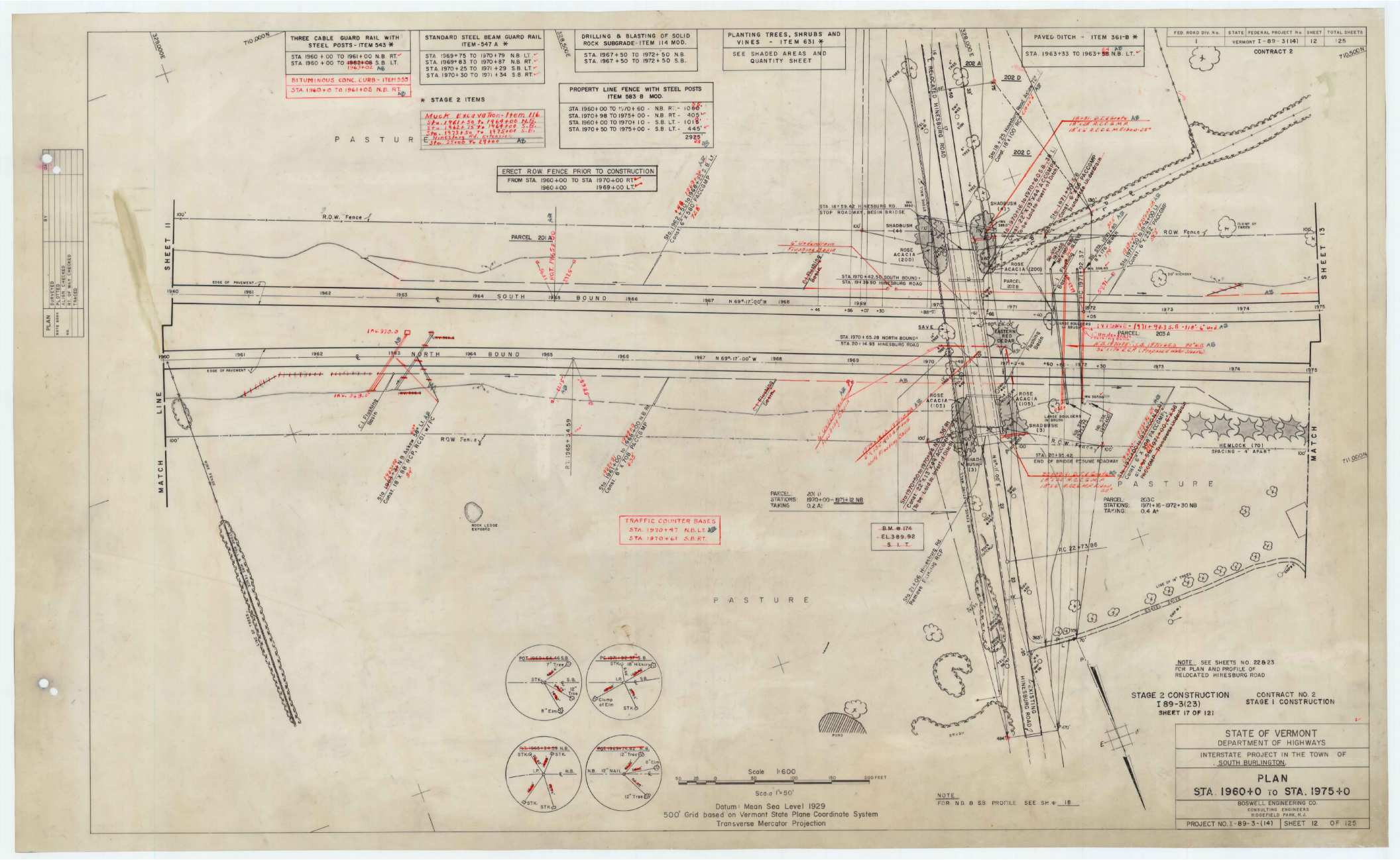
EARTH AND ROCK EXCAVATION	147,087
SOLID ROCK EXCAVATION	14,055
EARTH EXCAVATION	133,032
PLANIMETERED FILL	265,904
LESS FACTORED SOLID ROCK FAC. 1.35	18,974
LESS DISPLACEMENT OF ANY LARGE STRUCTURES	
NET PLANIMETERED FILL	246,930
FACTOR	1.25
PLANIMETERED FILL INCLUDING FACTOR	308,662
FILL ON HIGH SIDE OF BANKED CURVES x1.25	4,048
MATERIALS AVAILABLE FOR FILLS	
EARTH EXCAVATION	133,032
CHANNEL EXCAVATION 525 X 75%	394
UNDERDRAIN EXCAVATION 2167 X 75%	1,625
STRUCTURE EXCAVATION 1745 X 75%	1,309
TOTAL MATERIAL AVAILABLE FOR FILL	136,360
TOTAL FILL INCLUDING FACTOR	312,710
TOTAL MATERIAL FOR FILL	136,360
BORROW	176,350
GRANULAR BORROW	69,500
BORROW	106,850

PROJECT SOUTH BURLINGTON STAGE I

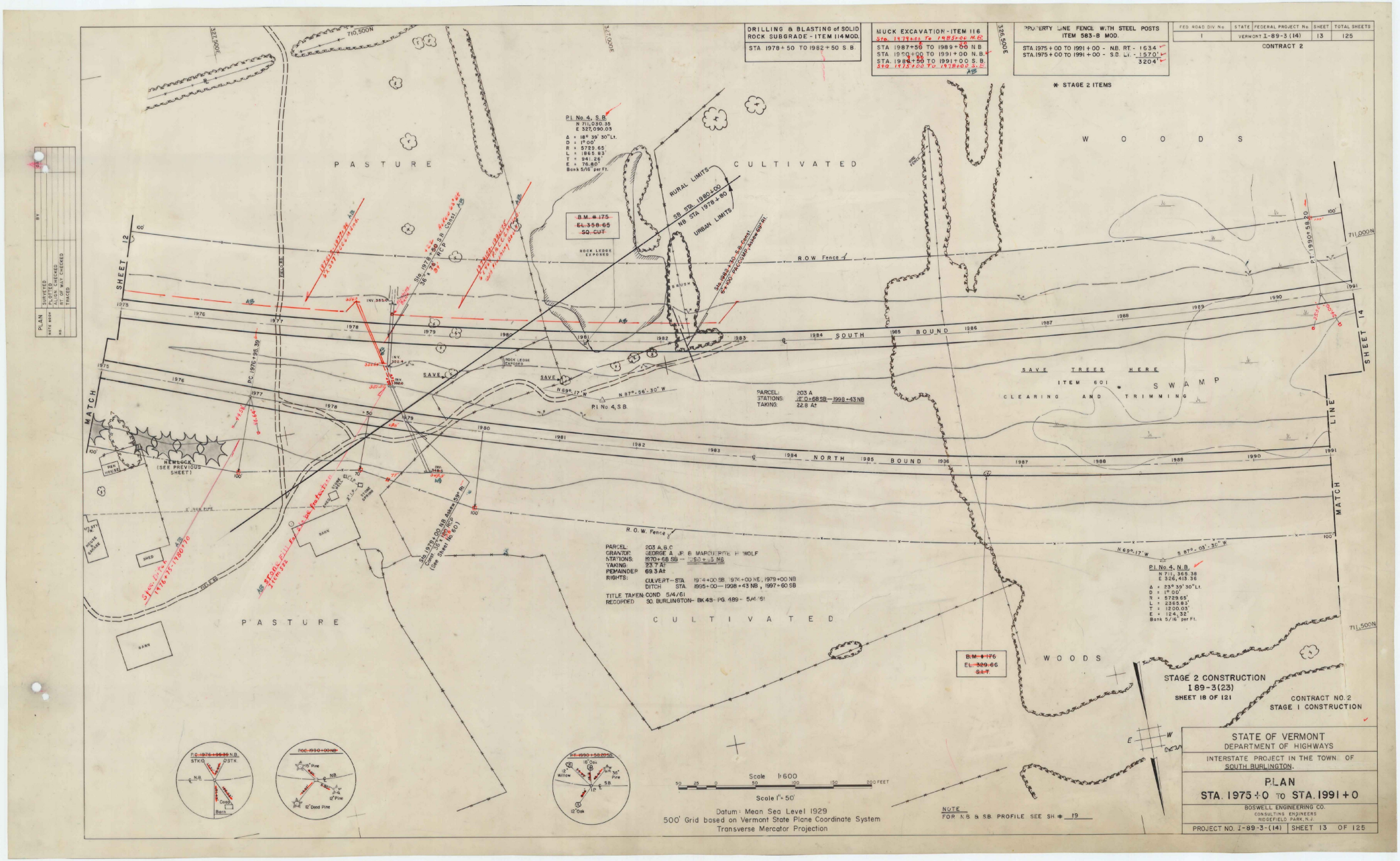
PROJECT I NO. 89-3(14) CONT. 2 STAGE I

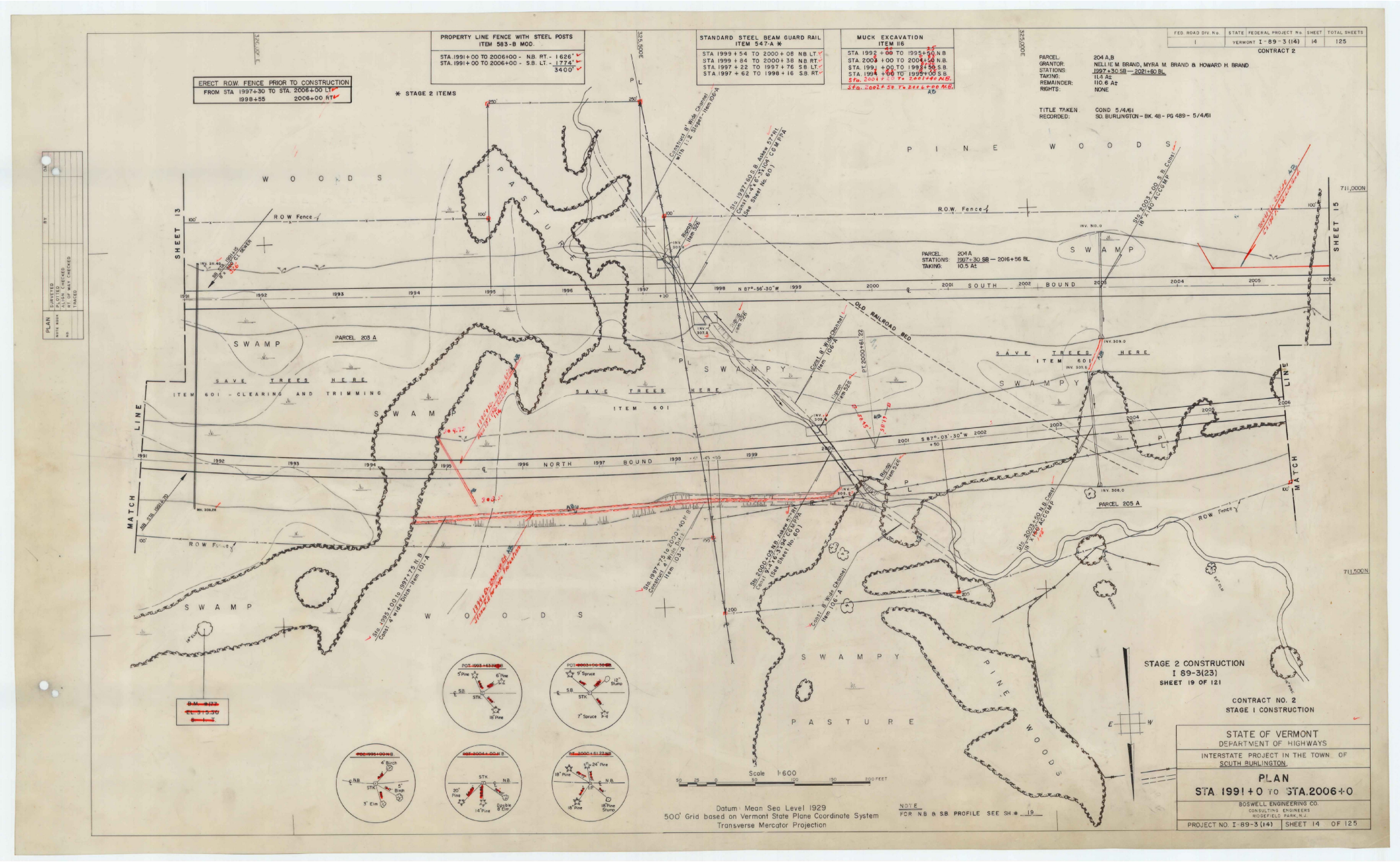
SHEET 10 OF 125 SHEETS

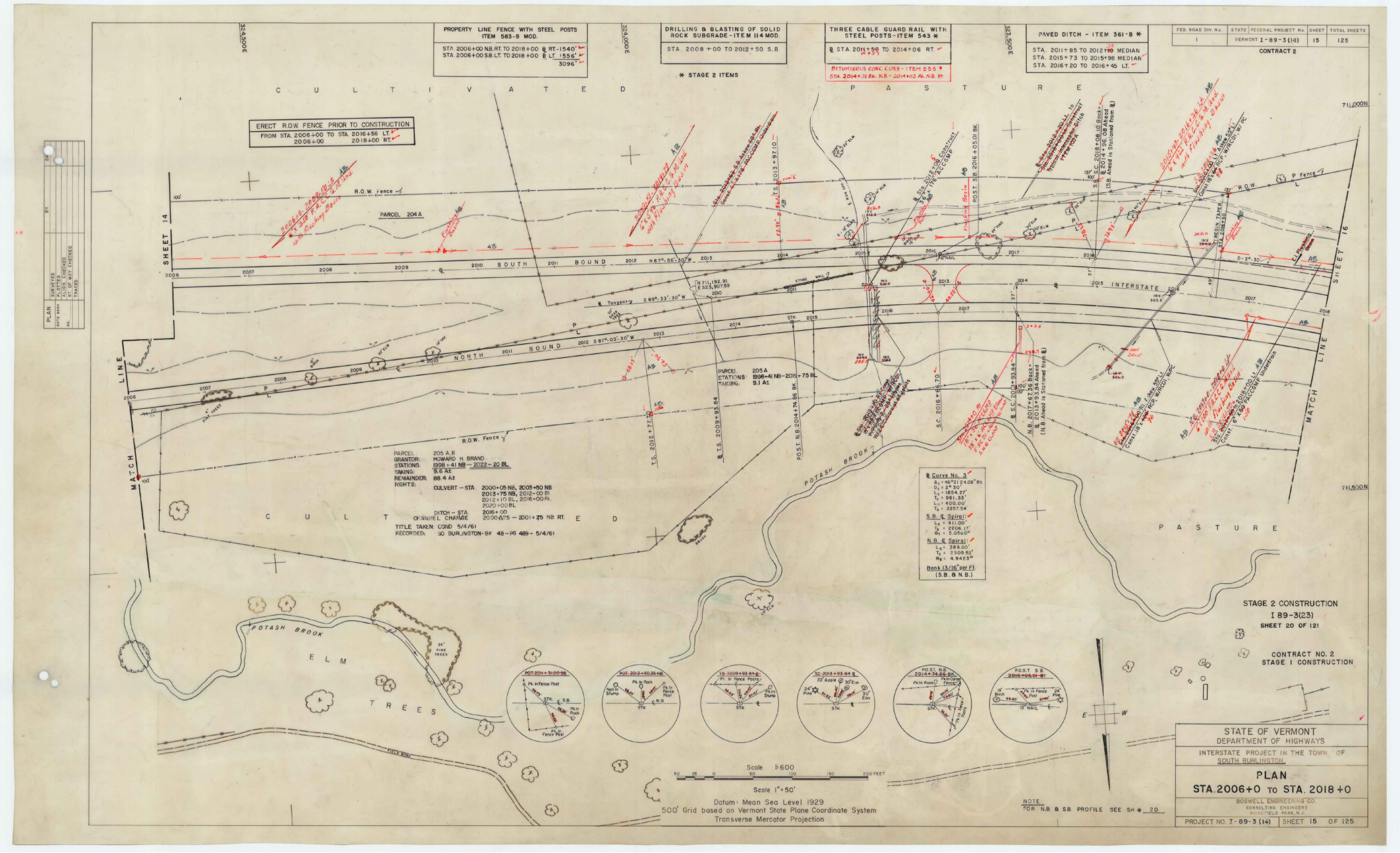

PAVED DITCH - ITEM 361-B *
STA. 1955+75 TO 1956+25 N.B. LT.
STA. 1959+52 TO 1959+77 N.B. LT.
BITUMINOUS CURB - ITEM 555 *
STA 1956+25 - 1960+0 NB RT.
MUCK EXCAVATION - ITEM 116
STA. 1957+00 TO 1958+50 N.B.
STA. 1957+50 TO 1958+50 S.B.
STA. 1955+00 TO 1956+75 S.B.
* STAGE 2 ITEMS
THREE CABLE GUARD RAIL WITH STEEL POSTS - ITEM 543 *
STA. 1955+88 TO 1960+00 N.B., RT.
STA 1956+00 TO 1960+00 S.B., LT.
DRILLING & BLASTING OF SOLID ROCK SUBGRADE - ITEM 114 MOD.
STA. 1951+00 TO 1954+00 - N.B.
STA 1951+00 TO 1953+30 - S.B.
PROPERTY LINE FENCE WITH STEEL POSTS ITEM 543-B MOD.
STA 1947+00 TO 1960+00 - N.B. RT. - 2935'
STA 1946+50 TO 1960+00 - S.B. LT. - 1380'
2605'
ERECT R.O.W. FENCE PRIOR TO CONSTRUCTION
FROM STA. 1947+00 TO STA 1960+00 RT
1951+80 1960+00 RT
FED. ROAD DIV. No. 1 | STATE | FEDERAL PROJECT No. VERMONT I-89-3(14) | SHEET 11 | TOTAL SHEETS 125
CONTRACT 2
PI No.3, S.B.
N 709,821.14
E 330,287.29
Δ = 10°-01'-50" Rt.
D = 1°15'
R = 4583.75'
L = 802.44'
T = 407.26'
E = 17.71'
BANK 7/16"/FT.
PI No.3, N.B.
N 710,286.46
E 325,286.15
Δ = 6° 53' 00" Rt.
D = 0° 30'
R = 11,455.2'
L = 1376.67'
T = 689.17'
E = 20.74'
BANK 1/4"/FT
PI No.3, S.B.
N 79°-18'-50" E
N 89°-17' W
PI No.3, N.B.
N 76°-10'-00" W
N 69°-17'-00" W
CULTIVATED
PASTURE
EDAR WOODS
SWAMPY
SAVE TREES HERE
ITEM 601 CLEARING & TRIMMING
SAVE TREES HERE
ITEM 601
R.O.W. Fence
EDGE OF PAVEMENT
SOUTH BOUND
NORTH BOUND
B.M. #171
EL. 353.21
S.-I.-T.
B.M. #172
EL. 372.43
S.-I.-T.
B.M. #173
EL. 355.82
S.-I.-T.
END CONTRACT NO. 1
BEGIN CONTRACT NO. 2-STAGE I
STA 1946+50 S.B.
STA 1947+00 N.B.
SHEET 12
MATCH LINE
PARCEL 201 A
STATIONS 1942+82 - 1970+40 NB
TAKING 16.1 Ac
PARCEL 201 A,B,C,D
GRANTOR ROLLIN L. & HELEN M. TILLEY
STATIONS 1942+82 - 1971+?? NB
TAKING 1.0 Ac
REMAINDER 122.0 Ac
POINTS
CULVERT STA 1944+25 NB, 1953+00 NB
1957+76 NB, 1939+50 NB
1961+00 NB, 1962+50 SB
1963+31 NB
TITLE TAKEN COND 5/4/61
RECORDED TO BURLINGTON BK 43 PG 489 - 5/4/61
P.I. 1951+17.61
P.C. 1951+52.92
P.I. 1931+63.27 BK
1932+27.47 AH N.B.
P.C. 1943+15.47 S.B.
P.I. 1954+27.04 S.B.
Scale 1"=600
Scale 1"=50'
Datum: Mean Sea Level 1929
500' Grid based on Vermont State Plane Coordinate System
Transverse Mercator Projection
NOTE: FOR N.B. & S.B. PROFILE SEE SH # 17
STAGE 2 CONSTRUCTION
I 89-3(23)
SHEET 16 OF 121
CONTRACT NO. 2
STAGE I CONSTRUCTION
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
INTERSTATE PROJECT IN THE TOWN OF
SOUTH BURLINGTON.
PLAN
STA. 1946+50 TO STA. 1960+0
BOSWELL ENGINEERING CO.
CONSULTING ENGINEERS
RIDGEFIELD PARK, N.J.
PROJECT NO. I-89-3(14) | SHEET 11 OF 125
PLAN SURVEYED PLOTTED NOTE BOOK NO. AT OF MAT. CHECKED TRACED

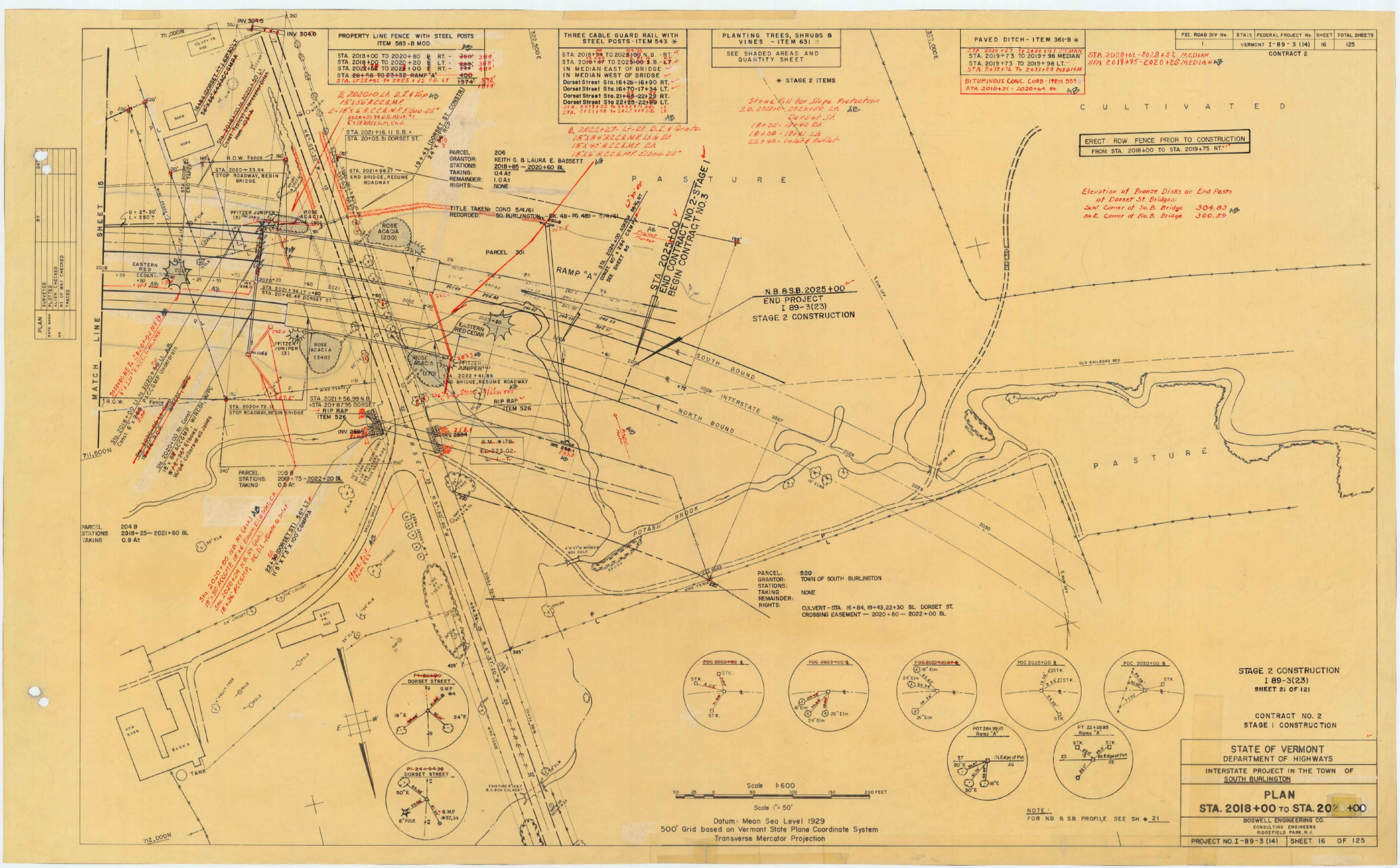


THREE CABLE GUARD RAIL WITH STEEL POSTS - ITEM 543 *
STA 1960 + 00 TO 1961 + 00 N.B. RT.
STA. 1960 + 00 TO 1962+08 S.B. LT.
BITUMINOUS CONC. CURB - ITEM 555
STA. 1960+0 TO 1961+05 N.B. RT.
STANDARD STEEL BEAM GUARD RAIL ITEM-547 A *
STA. 1969+75 TO 1970+79 N.B. LT.
STA. 1969+83 TO 1970+87 N.B. RT.
STA. 1970+25 TO 1971+29 S.B. LT.
STA. 1970+30 TO 1971+34 S.B. RT.
* STAGE 2 ITEMS
Muck Excavation - Item 116
DRILLING & BLASTING OF SOLID ROCK SUBGRADE - ITEM 114 MOD.
STA. 1967+50 TO 1972+50 N.B.
STA. 1967+50 TO 1972+50 S.B.
PLANTING TREES, SHRUBS AND VINES - ITEM 631 *
SEE SHADED AREAS AND QUANTITY SHEET
PAVED DITCH - ITEM 361-B *
STA. 1963+33 TO 1963+58 N.B. LT.
PROPERTY LINE FENCE WITH STEEL POSTS ITEM 583 B MOD.
STA. 1960+00 TO 1970+60 - N.B. RT. - 1060'
STA. 1970+98 TO 1975+00 - N.B. RT. - 405'
STA. 1960+00 TO 1970+10 - S.B. LT. - 1018'
STA. 1970+50 TO 1975+00 - S.B. LT. - 445'
2925'
ERECT R.O.W. FENCE PRIOR TO CONSTRUCTION
FROM STA. 1960+00 TO STA 1970+00 RT.
1960+00 1969+00 LT.
FED. ROAD DIV. No. 1
STATE VERMONT
FEDERAL PROJECT No. I-89-3(14)
SHEET 12
TOTAL SHEETS 125
CONTRACT 2
PASTURE
SHEET 11
SHEET 13
MATCH LINE
SOUTH BOUND
NORTH BOUND
R.O.W. Fence
PARCEL 201 A
PARCEL 202 B
PARCEL 203 A
PARCEL 203 C
RELOCATED HINESBURG ROAD
EXISTING HINESBURG ROAD
STA. 18+59.42 HINESBURG RD. STOP ROADWAY, BEGIN BRIDGE
STA. 1970+42.50 SOUTH BOUND = STA. 19+39.90 HINESBURG ROAD
STA. 1970+65.28 NORTH BOUND = STA. 20+14.93 HINESBURG ROAD
STA. 20+95.42 END OF BRIDGE RESUME ROADWAY
PARCEL: 201 D
STATIONS: 1970+00 - 1971+12 NB
TAKING 0.2 A±
PARCEL: 203 C
STATIONS: 1971+16 - 1972+30 NB
TAKING: 0.4 A±
TRAFFIC COUNTER BASES
STA. 1970+47 N.B. LT.
STA. 1970+61 S.B. RT.
B.M. # 174
EL. 389.92
S. I. T.
HEMLOCK (70) SPACING - 4' APART
ROCK LEDGE EXPOSED
NOTE: SEE SHEETS NO. 22 & 23 FOR PLAN AND PROFILE OF RELOCATED HINESBURG ROAD
STAGE 2 CONSTRUCTION I 89-3(23) SHEET 17 OF 121
CONTRACT NO. 2 STAGE 1 CONSTRUCTION
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
INTERSTATE PROJECT IN THE TOWN OF SOUTH BURLINGTON.
PLAN
STA. 1960+0 TO STA. 1975+0
BOSWELL ENGINEERING CO.
CONSULTING ENGINEERS
RIDGEFIELD PARK, N.J.
PROJECT NO. I-89-3-(14)
SHEET 12 OF 125
Scale 1:600
Scale 1"=50'
Datum: Mean Sea Level 1929
500' Grid based on Vermont State Plane Coordinate System
Transverse Mercator Projection
NOTE
FOR N.B. & S.B. PROFILE SEE SH. # 18


DRILLING & BLASTING of SOLID ROCK SUBGRADE - ITEM 114 MOD.
STA 1978+50 TO 1982+50 S.B.
MUCK EXCAVATION - ITEM 116
STA 1987+50 TO 1989+00 N.B.
STA 1970+00 TO 1991+00 N.B.
STA 1984+50 TO 1991+00 S.B.
PROPERTY LINE FENCE WITH STEEL POSTS ITEM 583-B MOD.
STA. 1975+00 TO 1991+00 - N.B. RT. - 1634'
STA. 1975+00 TO 1991+00 - S.B. LT. - 1570'
3204'
* STAGE 2 ITEMS
FED. ROAD DIV. No. 1
STATE VERMONT
FEDERAL PROJECT No. I-89-3 (14)
SHEET 13
TOTAL SHEETS 125
CONTRACT 2
PASTURE
CULTIVATED
WOODS
SWAMP
CLEARING AND TRIMMING
SAVE TREES HERE
ITEM 601
SOUTH BOUND
NORTH BOUND
RURAL LIMITS
URBAN LIMITS
SB STA 1980+00
NB STA 1978+80
R.O.W. Fence
MATCH LINE
SHEET 12
SHEET 14
Pl No. 4, S.B.
N 711,030.35
E 327,090.03
Δ = 18° 39' 30" Lt.
D = 1° 00'
R = 5729.65'
L = 1865.83'
T = 941.26'
E = 76.80'
Bank 5/16" per ft.
Pl No. 4, N.B.
N 711,365.38
E 326,413.36
Δ = 23° 39' 30" Lt.
D = 1° 00'
R = 5729.65'
L = 2365.83'
T = 1200.03'
E = 124.32'
Bank 5/16" per ft.
B.M. # 175
EL. 358.65
SQ. CUT
B.M. # 176
EL. 329.66
S.I.T.
PARCEL: 203 A
STATIONS: 1970+68 SB — 1998+43 NB
TAKING: 22.8 Ac
PARCEL: 203 A, B, C
GRANTOR: GEORGE A. JR. & MARGUERITE H. WOLF
STATIONS: 1970+68 SB — 150+43 NB
TAKING: 23.7 Ac
REMAINDER: 69.3 Ac
RIGHTS:
CULVERT — STA. 1974+00 SB, 1974+00 NB, 1979+00 NB
DITCH STA. 1995+00 — 1998+43 NB, 1997+60 SB
TITLE TAKEN: COND. 5/4/61
RECORDED: SO. BURLINGTON — BK 48 — PG. 489 — 5/4/61
HEMLOCK (SEE PREVIOUS SHEET)
BARN
SHED
HOUSE
Scale 1"=600
Scale 1"=50'
Datum: Mean Sea Level 1929
500' Grid based on Vermont State Plane Coordinate System
Transverse Mercator Projection
NOTE
FOR N.B. & S.B. PROFILE SEE SH # 19
STAGE 2 CONSTRUCTION
I 89-3(23)
SHEET 18 OF 121
CONTRACT NO. 2
STAGE 1 CONSTRUCTION
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
INTERSTATE PROJECT IN THE TOWN OF SOUTH BURLINGTON.
PLAN
STA. 1975+0 TO STA. 1991+0
BOSWELL ENGINEERING CO.
CONSULTING ENGINEERS
RIDGEFIELD PARK, N.J.
PROJECT NO. I-89-3-(14)
SHEET 13 OF 125


PROPERTY LINE FENCE WITH STEEL POSTS
ITEM 583-B MOD.
STA. 1991+00 TO 2006+00 - N.B. RT. - 1626'
STA. 1991+00 TO 2006+00 - S.B. LT. - 1774'
3400'
ERECT ROW. FENCE PRIOR TO CONSTRUCTION
FROM STA 1997+30 TO STA. 2006+00 LT
1998+55 2006+00 RT
* STAGE 2 ITEMS
STANDARD STEEL BEAM GUARD RAIL
ITEM 547-A *
STA 1999+54 TO 2000+08 NB LT.
STA 1999+84 TO 2000+38 NB RT.
STA 1997+22 TO 1997+76 SB LT.
STA 1997+62 TO 1998+16 SB RT.
MUCK EXCAVATION
ITEM 116
STA 1992+00 TO 1995+50 N.B.
STA 2003+00 TO 2004+50 N.B.
STA 1997+00 TO 1995+00 S.B.
STA 1994+00 TO 1995+00 S.B.
Sta. 2001+20 To 2001+40 NB.
FED. ROAD DIV. No. 1 | STATE VERMONT | FEDERAL PROJECT No. I-89-3(14) | SHEET 14 | TOTAL SHEETS 125
CONTRACT 2
PARCEL: 204 A,B
GRANTOR: NELLIE M. BRAND, MYRA M. BRAND & HOWARD H. BRAND
STATIONS: 1997+30 SB — 2021+60 BL
TAKING: 11.9 Ac
REMAINDER: 110.6 Ac
RIGHTS: NONE
TITLE TAKEN RECORDED: COND 5/4/61 SO. BURLINGTON - BK. 48 - PG 489 - 5/4/61
PARCEL: 204 A
STATIONS: 1997+30 SB — 2016+56 BL
TAKING: 10.5 Ac
PARCEL 203 A
PARCEL 205 A
SHEET 13
SHEET 15
MATCH LINE
MATCH LINE
ROW Fence
SWAMP
PASTURE
WOODS
PINE WOODS
SAVE TREES HERE
ITEM 601 - CLEARING AND TRIMMING
ITEM 601
OLD RAILROAD BED
Sta 1997+50 S.B. Abmt. 27" RCP, Conn. 9'-2"x6'-3" SAA (See Sheet No. 60)
Sta 2000+19 N.B. Abmt. 27" RCP, Conn. 9'-2"x6'-3" SAA (See Sheet No. 60)
Sta 1995+00 to 1997+75 N.B. Construct 4' Wide Ditch Item 101-A
Construct 8' Wide Channel with 1:2 Slope Item 106-A
Sta 2003+00 S.B. 18"x 40' ACCMP.
Sta 2002+50 N.B. Const. 18"x 40' ACCMP.
Construct 8' Wide Channel Item 106-A
B.M. #127 EL. 313.30
Scale 1:600
50 25 0 50 100 150 200 FEET
Datum: Mean Sea Level 1929
500' Grid based on Vermont State Plane Coordinate System
Transverse Mercator Projection
NOTE
FOR N.B. & S.B. PROFILE SEE SH. # 19
STAGE 2 CONSTRUCTION
I 89-3(23)
SHEET 19 OF 121
CONTRACT NO. 2
STAGE 1 CONSTRUCTION
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
INTERSTATE PROJECT IN THE TOWN OF SOUTH BURLINGTON
PLAN
STA 1991+0 TO STA. 2006+0
BOSWELL ENGINEERING CO.
CONSULTING ENGINEERS
RIDGEFIELD PARK, N.J.
PROJECT NO. I-89-3(14) | SHEET 14 OF 125


PROPERTY LINE FENCE WITH STEEL POSTS ITEM 583-B MOD.
STA. 2006+00 NB. RT. TO 2018+00 ℄ RT. 1540'
STA. 2006+00 SB. LT. TO 2018+00 ℄ LT. 1556'
3096'
DRILLING & BLASTING OF SOLID ROCK SUBGRADE - ITEM 114 MOD.
STA. 2008+00 TO 2012+50 S.B.
* STAGE 2 ITEMS
THREE CABLE GUARD RAIL WITH STEEL POSTS - ITEM 543 *
℄ STA. 2011+56 TO 2014+06 RT.
BITUMINOUS CONC. CURB - ITEM 555 *
STA. 2014+31 Bk. N.B. - 2014+62 Ah. N.B. Rt.
PAVED DITCH - ITEM 361-B *
STA. 2011+85 TO 2012+10 MEDIAN
STA. 2015+73 TO 2015+98 MEDIAN
STA. 2016+20 TO 2016+45 LT.
FED. ROAD DIV. No. 1 | STATE | FEDERAL PROJECT No. VERMONT I-89-3(14) | SHEET 15 | TOTAL SHEETS 125
CONTRACT 2
ERECT R.O.W. FENCE PRIOR TO CONSTRUCTION
FROM STA. 2006+00 TO STA. 2016+56 LT.
2006+00 2018+00 RT.
CULTIVATED
PASTURE
SHEET 14
SHEET 16
MATCH LINE
R.O.W. Fence
PARCEL 204 A
SOUTH BOUND
NORTH BOUND
INTERSTATE
℄ Tangent 2 S 89°-33'-30" W
N 87°-56'-30" W
S 87°-03'-30" W
N 711,192.91
E 363,907.59
PARCEL 205 A
STATIONS: 1998+41 NB - 2019+75 BL.
TAKING: 9.1 Ac.
PARCEL 205 A.B
GRANTOR: HOWARD H. BRAND
STATIONS: 1998+41 NB - 2022-20 BL
TAKING: 9.6 Ac
REMAINDER: 88.4 Ac
RIGHTS: CULVERT - STA. 2000+05 NB, 2003+50 NB, 2013+75 NB, 2012+00 Bl, 2012+10 BL, 2016+00 Rl, 2020+00 BL
DITCH - STA. 2015+00 CHANNEL CHANGE 2000-A25 - 2001+25 NB RT.
TITLE TAKEN: COND 5/4/61
RECORDED: SO BURLINGTON - BK 48 - PG 489 - 5/4/61
POTASH BROOK
ELM TREES
FIELD ROAD
℄ Curve No. 3
Δc = 46°21'24.08" Rt.
Dc = 2° 30'
Lc = 1854.27'
Tc = 981.33'
Lc = 400.00'
Ts = 225.7.54
S.B. ℄ Spiral
Ls = 411.00'
Ts = 2206.17'
Θs = 5.0560°
N.B. ℄ Spiral
Ls = 389.00'
Ts = 2305.52'
Θs = 4.9423°
Bank 13/16" per Ft. (S.B. & N.B.)
STAGE 2 CONSTRUCTION
I 89-3(23)
SHEET 20 OF 121
CONTRACT NO. 2
STAGE 1 CONSTRUCTION
Scale 1:600
Scale 1"=50'
Datum: Mean Sea Level 1929
500' Grid based on Vermont State Plane Coordinate System
Transverse Mercator Projection
NOTE FOR N.B & S.B. PROFILE SEE SH # 20
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
INTERSTATE PROJECT IN THE TOWN OF SOUTH BURLINGTON
PLAN
STA. 2006+0 TO STA. 2018+0
BOSWELL ENGINEERING CO.
CONSULTING ENGINEERS
RIDGEFIELD PARK, N.J.
PROJECT NO. I-89-3(14) | SHEET 15 OF 125


PROPERTY LINE FENCE WITH STEEL POSTS ITEM 583-B MOD.
STA. 2018+00 TO 2020+80 ℄ RT. - 280' 308'
STA. 2018+00 TO 2020+20 ℄ LT. - 280' 308'
STA. 2021+56 TO 2025+00 ℄ RT. - 344' 480'
STA. 26+56 TO 23+32 RAMP "A" 400'
STA. 2021+91 To 2022+12 ℄ LT 1374' 1944'
THREE CABLE GUARD RAIL WITH STEEL POSTS - ITEM 543 *
STA. 2018+24 TO 2025+00 N.B. - RT.
STA. 2019+47 TO 2025+00 S.B. - LT.
IN MEDIAN EAST OF BRIDGE
IN MEDIAN WEST OF BRIDGE
Dorset Street Sta. 16+26 - 16+90 RT.
Dorset Street Sta. 16+70 - 17+34 LT.
Dorset Street Sta. 21+65 - 22+29 RT.
Dorset Street Sta. 22+25 - 22+89 LT.
PLANTING TREES, SHRUBS & VINES - ITEM 631 *
SEE SHADED AREAS AND QUANTITY SHEET
* STAGE 2 ITEMS
Stone Fill for Slope Protection
S.B. 2021+00 - 2023+50 Lt. Dorset St.
1 @ 35' - 12" @ 40 EA
1 @ 30' - 12" @ 1 Lt.
22+40 - Inlet & Outlet
PAVED DITCH - ITEM 361-B *
STA. 2019+73 TO 2019+98 MEDIAN
STA. 2019+73 TO 2019+98 LT.
STA. 2032+74 To 2033+00 MEDIAN
STA 2028+42 - 2028+52 MEDIAN
STA 2019+95 - 2020+25 MEDIAN
BITUMINOUS CONC. CURB - ITEM 555
STA. 2018+31 - 2020+64 Rt
FED. ROAD DIV No. 1 | STATE VERMONT | FEDERAL PROJECT No. I-89-3 (14) | SHEET 16 | TOTAL SHEETS 125
CONTRACT 2
ERECT ROW FENCE PRIOR TO CONSTRUCTION FROM STA. 2018+00 TO STA. 2019+75 RT.
Elevation of Bronze Disks on End Posts of Dorset St Bridges:
SW Corner of So. B. Bridge 304.83
NE Corner of No. B. Bridge 300.59
CULTIVATED
PASTURE
PARCEL 206
GRANTOR: KEITH G. & LAURA E. BASSETT
STATIONS: 2018+85 — 2020+60 BL
TAKING: 0.4 A±
REMAINDER: 1.0 A±
RIGHTS: NONE
TITLE TAKEN: COND 5/4/61 RECORDED: SO. BURLINGTON BK. 48 - PG. 480 - 5/4/61
PARCEL 301
RAMP "A"
STA 2025+00 END CONTRACT NO 2 STAGE I BEGIN CONTRACT NO. 3 STAGE I
N.B. & S.B. 2025+00 END PROJECT I 89-3(23) STAGE 2 CONSTRUCTION
SOUTH BOUND
NORTH BOUND
INTERSTATE 2027
OLD RAILROAD BED
POTASH RADOK
PARCEL 205 B
STATIONS: 2019+73 — 2022+20 BL
TAKING: 0.5 A±
PARCEL 204 B
STATIONS: 2018+25 — 2021+60 BL
TAKING: 0.9 A±
PARCEL 520
GRANTOR: TOWN OF SOUTH BURLINGTON
STATIONS:
TAKING: NONE
REMAINDER:
RIGHTS: CULVERT - STA. 16+84, 19+43, 22+30 SL. DORSET ST. CROSSING EASEMENT — 2020+60 — 2022+00 BL
ROSE ACACIA (200)
ROSE ACACIA (170)
ROSE ACACIA (240)
EASTERN RED CEDAR
PFITZER JUNIPER (3)
RIP RAP ITEM 526
STA 2020+72.12 STOP ROADWAY, BEGIN BRIDGE
STA 2020+33.94 STOP ROADWAY, BEGIN BRIDGE
STA 2021+98.27 END BRIDGE, RESUME ROADWAY
STA 2021+16.11 S.B. * STA 20+03.31 DORSET ST
STA 2021+56.99 N.B. =STA 20+87.95 DORSET
STA 2022+41.85 END BRIDGE, RESUME ROADWAY
STA 2024+20
STA 2021+36.12 +80 STA. 20+45.48 DORSET ST
R.O.W. Fence
WIRE FENCE
STONE WALL
EXISTING 8'x6'2" R.C.B.O. CULVERT
INV 2694
INV 2695
INV 2696
INV 2697
INV 2698
INV 2699
INV 3040
B.M. = 178.
EL. 173.02.
PI 20+90 DORSET STREET 12 G.M.P. #64 18"E 24"E
PI 24+94.36 DORSET STREET 12 50"E 6"PINE G.M.P. #637.34
Scale 1:600
Scale 1"= 50'
Datum: Mean Sea Level 1929
500' Grid based on Vermont State Plane Coordinate System
Transverse Mercator Projection
NOTE: FOR N.B. & S.B. PROFILE SEE SH. # 21
STAGE 2 CONSTRUCTION I 89-3(23) SHEET 21 OF 121
CONTRACT NO. 2 STAGE I CONSTRUCTION
STATE OF VERMONT DEPARTMENT OF HIGHWAYS
INTERSTATE PROJECT IN THE TOWN OF SOUTH BURLINGTON
PLAN STA. 2018+00 TO STA. 20[illegible]+00
BOSWELL ENGINEERING CO. CONSULTING ENGINEERS RIDGEFIELD PARK, N.J.
PROJECT NO. I-89-3 (14) | SHEET 16 OF 125

South Burlington
F 82-3(14) Coast #2
Northbound Lane

FINAL EARTHWORK SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

Keith Bowen & Assoc.

P. #1

STATION	DIST	TOTAL EXCAV. EARTH & ROCK NEAT AREA	TOTAL EXCAV. EARTH & ROCK NEAT CU. YDS.	ROCK NEAT AREA	ROCK NEAT CU. YDS.	EARTH + ROCK + CUT AREA	EARTH + ROCK + CUT CU. YDS.	ROCK OVERBREAK AREA	ROCK OVERBREAK CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.
124740		32.				27.										Cut +	7120 / 159
	50	123.	190.			9.	29.										
+50		471.	587.			0.	9.									Rock +	0 / 0
124840		619.	1069.			31.	22.										
+50		881.	1382.			10.	38.									TRANS. Cut. Not incl. in columns	25
		1082.	1821.			10.	12.										
+50		1266.	2132.			27.	56.										
1250		1035.	2131.			25.	50.									Cut +	15112 / 2136
+50		842.	1200.			43.	63.									Rock +	3903 / 1483
1251		746.	1477.	0.		32.	69.	0.									
+50		838.	1467.	580.	537.	218.	231.	202.	187.								
1252		811.	1527.	562.	1058.	223.	321.	240.	483.								
+50		1228.	1478.	420.	894.	252.	532.	164.	374.								
1253		955.	1612.	565.	823.	195.	414.	195.	332.								
+50		916.	1732.	0.		35.	212.	0.	121.								
1254		523.	1339.			17.	46.										
+50		75.	564.			6.	16.										
1255		0.	69.			0.	6.									Cut +	69. / 6.
+50																	
1256																	
+50																	
1257																	
+50																	
1258																	
+50																	
1259																	
+50																	
1260																Cut +	706. / 21.
+50																	
1261																	
+50																	
1262																	
+50																	
1263																Trans. Cut not incl. in Columns	150
+50		0.	13.			0.											
1264		14.	122.			7.	6.										
+50		177.	296.			25.	30.										
1265		381.	962.			34.	85.									C +	16,523 / 1,135
+50		658.	1307.			50.	78.										
1266		733.	1365.			15.	60.									Rock +	2,241 / 457
+50		781.	1427.			60.	62.										
1267		824.	1634.			22.	65.										
+50		228.	1842.			4.	13.										
1268		1058.	1234.			0.	4.										
+50		1022.	1264.	0.	120.	186.	582.	0	35.								
1269	50	1088.	2054.	130.	845.	101.	227.	38.	143.								
+50		1151.	782.			144.	116.										
CARRIED FORWARD			4,417		345		806		178								
COLUMN TOTAL			37,532		4868		3193		1661								

STATION	DIST	TOTAL EXCAV. EARTH & ROCK AREA	TOTAL EXCAV. EARTH & ROCK CU. YDS.	ROCK AREA	ROCK CU. YDS.	EARTH & ROCK + CUT AREA	EARTH & ROCK + CUT CU. YDS.	ROCK OVERBREAK AREA	ROCK OVERBREAK CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.
1969450		1151.		793.		184.		116.									
	50	1016.	2006.	595.	1276.	211.	329.	185.	379.								
1970		1245.	2084.	550.	1260.	41.	198.	41.	175.							Cut +	5643 / 256
+50		748.	1845.	310.	786.	15.	18.	5.	8.								
1971		965.	1668.	70.	352.	7.	20.	7.	11.							Rock +	2273 / 200
+50		141.	505.	0.	65.	7.	13.	0.	6.								
1972		0.	131.			0.	6.										
+50																	
1973																	
+50																	
1974																	
+50																	
1975																	
+50																	
1976																	
+50																	
1977																	
+50																	
1978																	
+50																	
1979																	
+50		0				0.	23.										
1980		0				25.	56.										
+50		0.	28.			35.	102.									Cut +	56. / 335.
1981		30.	28.			75.	83.										
+50		0.				15.	58.										
1982		0				43.	40.										
+50		0				0.											
1983																	
+50																	
1984																	
+50																	
1985																	
+50																	
1986																	
+50																	
1987																	
+50																	
1988																	
+50																	
1989																	
+50																	
1990																	
+50																	
1991																	
+50	50																
1992																	
CARRIED FORWARD		0		0		0		0									
COLUMN TOTAL		9795		3643		243		479									

STATION	DIST	TOTAL EXCAV. EARTH & ROCK NEAT AREA	TOTAL EXCAV. EARTH & ROCK NEAT CU. YDS.	ROCK NEAT AREA	ROCK NEAT CU. YDS.	EARTH + ROCK + CUT AREA	EARTH + ROCK + CUT CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	TRANS. DIST. AREA	TRANS. DIST. CU. YDS.	AREA	CU. YDS.
1992+0																	
	50																
+50																	
1993																	
+50																	
1994																	
+50		0															
1995		80	74.				0.										
+50		215	273.				0.										
1996		360	532.				93.										
+50		350	659.				100.										
1997		286	583.				182.									C	1742
+50		140	389.				165.										
1998		13	142.				139.										
+50		0	12.				44.									C -	2588
1999							2.										
+50							4.										
2000							2.										
+50							8.										
2001							23.										
+50							44.										
2002							26.										
+50							141.										
2003							126.										
+50							234.										
2004							127.										
+50							268.										
2005							464.										
+50							268.										
2006							267.										
+50							261.										
2007							62.										
+50							31.										
2008							39.										
+50							2.										
2009																	
+50																	
2010																	
+50																	
2011																	
+50																	
2012																	
+50																	
2013																	
+50	50																
2014																	
CARRIED FORWARD																	
COLUMN TOTAL			9998				2173										

Cut + 420 / 507 OK

Cut + 6,216 / 1,662 OK

Trans. Cut not incl. in Columns 330

Trans. Cut not incl. in Columns 67

PROJECT Williston - So. Burlington

PROJECT F 82-3(14) NO. Cont #2
SHEET 1 OF 5

FINAL EARTHWORK SHEET

So. Burlington
I-89-2(14) Cont. 2
So. Tabernacle

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

South Bound Lane

STATION	DIST	TOTAL EXCAV. EARTH & ROCK NAT AREA	TOTAL EXCAV. EARTH & ROCK NAT CU. YDS.	ROCK NAT AREA	ROCK NAT CU. YDS.	EARTH + ROCK + AREA	EARTH + ROCK + CU. YDS.	ROCK OVERBREAK AREA	ROCK OVERBREAK CU. YDS.						
1246	+50	51				7									
1247	50	61	104			21	23							Cut + Rock	3815 727
	+50	102	151			10	37								
1248		225	303			30	62								
	+50	244	434			37	124								
1249		437	631			87	204								
	+50	626	884			123	248								
1250		678	1208			145	301							Cut + Rock	14,307 3274
	+50	715	1890			180	233								
1251		781	1335			22	130							Rock +	6531 2642
	+50	837	1520	0	34	68	262	0	74						
1252		887	1782	102	321	215	532	80	414						
	+50	860	1210	860	1676	367	756	367	756						
1253		1024	1245	850	1880	450	736	450	736						
	+50	1277	1264	1280	1428	345	568	345	491						
1254		737	1695	535	422	262	242	125	171						
	+50	249	812	0		0		0							
1255		0	230												
	+50														
1256															
	+50														
1257															
	+50														
1258															
	+50														
1259															
	+50														
1260														Cut +	656 61
	+50														
1261															
	+50														
1262															
	+50														
1263		0	5			0	13								
1264		5	140			14	28								
	+50	147	211			17	25								
1265		305	680			10	29							Cut +	15,687 677
	+50	546	1124			21	53								
1266		744	1432			26	68							Rock +	1212 132
	+50	868	1424			12	36								
1267		910	1529			7	6								
	+50	895	1798			0	17								
1268		1047	1968			12	26								
	+50	1078	1911	0		10		0							
1269	50	926		80	74	44	87	6	6						
CARRIED FORWARD			16,036		80		380		6						
COLUMN TOTAL			21,024		4605		4848		2648						

STATION	DIST	TOTAL EXCAV. EARTH & ROCK NAT AREA	TOTAL EXCAV. EARTH & ROCK NAT CU. YDS.	ROCK NAT AREA	ROCK NAT CU. YDS.	EARTH + ROCK + AREA	EARTH + ROCK + CU. YDS.	ROCK OVERBREAK AREA	ROCK OVERBREAK CU. YDS.						
1269		956		80		44		6							
	+50		1762		437		131		66						
1270		916		372		98		65							
	+50		1469		701		289		120						
1271		886		365		154		65							
	+50	1757		616		143		74						Cut +	5538 678
1272		1012		300		0		15							
	+50	1461		454		51		26						Rock +	1416 138
1273		566		120		85		13							
	+50	910		261		143		35							
1274		416		32		106		14							
	+50	627		85		173		18							
1275		261		0		21		0							
	+50	399				91									
1276		170				13									
	+50	250				29									
1277		109				14									
	+50	109				12									
1278		18				6									
	+50	16				6									
1279		0				6									
	+50	0													
1280		0				0									
	+50	8				17									
1281		10				18									
	+50	27				89								Cut +	1550 316
1282		20				13									
	+50	25				17									
1283		8				5								Rock +	322 39
	+50	11				10									
1284		4				6									
	+50	4				7									
1285		0				2									
	+50	0				2									
1286		0				0									
	+50	9				0									
1287		10				0									
	+50	32				22									
1288		25				24									
	+50	223				31									
1289		216		0		9		0							
	+50	478		81		60		7							
1290		300		87		56		8							
	+50	741		241		128		32							
1291		502		173		83		27							
	50'	983		336		222		57						Cut +	3903 1729
	+50	562		255		222		35							
1292		1039		675		439		128						Rock +	2434 447
	+50	560		474		247		98							
1293		1061		851		376		164							
	+50	586		495		159		79							
1294		681		462		252		88							
	+50	150		54		113		16							
1295		139		50		105		15							
	+50	0		0		0		0							
CARRIED FORWARD			0		0		0		0						
COLUMN TOTAL			14,922		5310		2817		810						

STATION	DIST	TOTAL EXCAV. EARTH & ROCK NAT AREA	TOTAL EXCAV. EARTH & ROCK NAT CU. YDS.	ROCK NAT AREA	ROCK NAT CU. YDS.	EARTH + ROCK + AREA	EARTH + ROCK + CU. YDS.	ROCK OVERBREAK AREA	ROCK OVERBREAK CU. YDS.						
1981	+50														
1982															
	+50														
1983															
	+50														
1984															
	+50														
1985															
	+50														
1986															
	+50														
1987															
	+50														
1988															
	+50														
1989															
	+50														
1990															
	+50														
1991															
	50'														
	+50														
1992															
	+50														
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2000															
	+50														
2001															
	+50														
2002															
	+50														
2003															
	+50														
2004															
	+50														
2005		0		0		0									
	+50	4	4			11	10							Cut +	6268 4662
2006		206	194			226	219								
	+50	408	568			360	543								
2007		469	812			367	673								
	+50	872	686			231	554								
2008		345	505			165	385							Trans Cut ext. imb to Column 201	
	+50	463	692			274	444								
2009		464	849			306	741								
	+50	705	1082			327	1142								
2010		975	1056			740	1358								
	+50	1202	2015			673	1309							Cut +	11082 6360
2011		1339	2316			871	1430								
	+50	1440	2536			710	1464								
2012		1212	2255			504	1128								
	+50	984	1760			668	1088								
CARRIED FORWARD			11,082				0								
COLUMN TOTAL			18050				12,437								

PROJECT Williston - So. Burlington

PROJECT I-89-2(14) NO. Cont. #2
SHEET 2 OF 5

Continued Page 3

p#2

FINAL EARTHWORK SHEET

South Burlington
F 089-3 (14) Cont. # 2
Northbound - Southbound - Mainline - Hinesburg Road - Airport Drive Extn.

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

p23

Northbound Lane - Cont. # P-1

STATION	DIST	TOTAL EXCAV. EARTH & ROCK NET AREA	TOTAL EXCAV. EARTH & ROCK NET CU. YDS.	ROCK NET AREA	ROCK NET CU. YDS.	Earth + Rock + AREA	Earth + Rock + CU. YDS.	Rock Overbreak AREA	Rock Overbreak CU. YDS.						
2014														Cut +	610 303
	50														
+50															
	50													Cut +	610 01
2016															
+50															
2017															
	50														
NB +50	28.50	0													
M 2014	50	80	20												
	50		181												
+50		115	469			0	0								
2015		327	610 302			0	0								
Column at N.B. Sta.															

Southbound Lane - Cont. # P-2

STATION	DIST	TOTAL EXCAV. EARTH & ROCK NET AREA	TOTAL EXCAV. EARTH & ROCK NET CU. YDS.	ROCK NET AREA	ROCK NET CU. YDS.	Earth + Rock + AREA	Earth + Rock + CU. YDS.	Rock Overbreak AREA	Rock Overbreak CU. YDS.						
2012+50		804				608								Cut +	3045 3160
	50		1438				1054								
2013		650	899			530	935								
+50		321				372									
2014		121	424			279	603								
	50		205				464								
+50		30				228									
2015		0	28			0	264								
	50		0				37							Cut +	3524 1372
+50		0	71			40	69								
2016		22	203			35	69								
+50		142				40									
2017		244	357			150	176								
	50		622				394								
+50		428	961			275	538								
SB 2018+0		616				306									
	1252		310				109								
M 2015+0		785				182									
Col. Tot. SB Tot.			5567				4552								

Hinesburg Road Extn. Airport Drive

STATION	DIST	TOTAL EXCAV. EARTH & ROCK NET AREA	TOTAL EXCAV. EARTH & ROCK NET CU. YDS.	ROCK NET AREA	ROCK NET CU. YDS.	Earth + Rock + AREA	Earth + Rock + CU. YDS.	Rock Overbreak AREA	Rock Overbreak CU. YDS.						
0+50	25	0	42			0								Cut +	658 0
+75	25	70	112												
1+00	25	166	182												
+25	25	122	129												
+50	50	100	151												
2+00	50	62	58												
+50	50	0				0									
Total			658				0								

Mainline - 2015-2025

STATION	DIST	TOTAL EXCAV. EARTH & ROCK NET AREA	TOTAL EXCAV. EARTH & ROCK NET CU. YDS.	ROCK NET AREA	ROCK NET CU. YDS.	Earth + Rock + AREA	Earth + Rock + CU. YDS.	Rock Overbreak AREA	Rock Overbreak CU. YDS.	Roof Embankment AREA	Roof Embankment CU. YDS.				
2015+0		116				182								Cut +	18783 4589
	50		2463				478								
+50		1548				324									
2016		1657	2967			143	442								
	50		3011				193								
+50		1575				65									
2017		1327	2707			58	113								
	50		2243				77								
+50		1095				28									
2018		696	1659			9	31								
	50		972				15								
+50		355				7									
2019		641	921			12	18								
	50		1257				25								
+50		376				15									
2020		291	733			178	197								
	244		330				122							Cut +	350 483 122
+50		241				0									
2021															
	50														
2022															
+50															
2023															
	50														
2024															
+50															
2025														Cut +	3524 1372
Col. tot.			13983				1711								
M. tot.			12488				1711								

Hinesburg Road

STATION	DIST	TOTAL EXCAV. EARTH & ROCK NET AREA	TOTAL EXCAV. EARTH & ROCK NET CU. YDS.	ROCK NET AREA	ROCK NET CU. YDS.	Earth + Rock + AREA	Earth + Rock + CU. YDS.	Rock Overbreak AREA	Rock Overbreak CU. YDS.	Roof Embankment AREA	Roof Embankment CU. YDS.				
0+50		0													
	10		14												
10		20	153							0					
+50		55								9	8				
11		71	117							5	13				
+50		41	76							8	12				
12		26	62							8	69				
+50		0	24							66	181				
13										130	335				
+50										211	553				
14										376	811				
+50										580	1118				
15										696	1322				
+50										732	1468				
16										850	1860	0	66		
+50										846	1980	70	199		
17										763	1977	145	295		
+50										767	1960	120	173		
18										816	1775	67	79		
Col. tot. of Bridge Stone										816		5			
19															
+50															

Hinesburg Road - Cont.

STATION	DIST	TOTAL EXCAV. EARTH & ROCK NET AREA	TOTAL EXCAV. EARTH & ROCK NET CU. YDS.	ROCK NET AREA	ROCK NET CU. YDS.	Earth + Rock + AREA	Earth + Rock + CU. YDS.	Rock Overbreak AREA	Rock Overbreak CU. YDS.	NEAT EMBANKMENT AREA	NEAT EMBANKMENT CU. YDS.	+ Embank AREA	+ Embank CU. YDS.		
19+50															
	50														
20															
+50															
21									55'	530	118	46	47		
+50										690	108	0		FILL	16936
22										470	765			+ Fill	813
+50										345	423	0	5		
	50									116	150	5	5		
23		0	11							50	60	0		Cut	1689
+50		12	48							15	14			+ Fill	100
24		20	101							0	93				
+50		69	92							100	244				
25		80	35							163	274				
+50		8	7							133	282				
26		0								172	343				
+50										198	355				
27										195	238				
+50		0	1							78	83				
28		1	19							20	39				
+50		19	22							16	24				
29		5	16							10	10				
+50		12	108							1	5				
30		105	124							4	6				
+50		105	221							3	3				
31		134	263							0					
+50		150	280												
32		152	135			0	48							FILL	2219
+50		49	86			52	52							+ Fill	5
33		46				4									
Col. Tot			1689				100								
H.R. Tot			2135				100			N HRDT 19,155 + Fill 818					
Northern Hwy Total			638												
			4853												

CARRIED FORWARD
COLUMN TOTAL

PROJECT W. Milton - South Burlington

PROJECT F 089-3 (14) NO. Cont # 2
SHEET 3 OF 5

FINAL EARTHWORK SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

STATION	DIST	TOTAL EXCAV. EARTH & ROCK AREA	CU. YDS.	ROCK AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.
Plan Granular Borrow															
67,500	✓	Plan Neat													
+ 2,593	✓	Shim - Nov-62													
+ 3,563	✓	H.B. Gr. Sh.		in place in fill	2850 ∴	2850 × 1.25									
+ 2,176	✓	2024+2025		in place in fill	5741 ∴	5741 × 1.25		Replace Common							
+ 2,805	✓	2025+2026		in place in fill	2244 ∴	2244 × 1.25		Cont #3							
669	✓	2025+2030		in place in fill	535 ∴	535 × 1.25		Shim Cont #3							
+ 3,799		Replace Hinesburg Road													
+ 4,415		Replace Dorset St.													
+ 258	✓	Under pipes I													
+ 300	✓	Backfill Hinesburg Rd. Br. Str.													
93,069		New Plan total													
Pits															
108,607	✓	Total Pits													
-10,338	✓	2024+2025		in place in fill	8270 ∴	8270 × 1.25		Common @ Gr. Pit							
- 250		Nov 24, 1961		Contractor's Haul Road											
- 1,000	✓	June 6-8		NB+SB 1946-1976		Common load count									
97,019															

STATION	DIST	TOTAL EXCAV. EARTH & ROCK AREA	CU. YDS.	ROCK AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.
Granular Pits															
		Grisweld - 1961			6615										
		" 1962			52,091										
		" Shim			2,593										
		Edlund #1			746										
		#2			7571										
		WVM #1			12,678										
		#2			16,378										
		O'Brian #2			10,085										
					108,607										

STATION	DIST	TOTAL EXCAV. EARTH & ROCK AREA	CU. YDS.	ROCK AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.
Granular on Cont #3															
		Ar.	Vol.												
2025		1405													
			1772												
+50		510													
			472												
2026		0													
Hinesburg Rd. Gran Fill															
12+15		0													
			283												
+35		765													
			426												
+50		767													
			1460												
18+0		810													
			1491												
+50		800													
			296												
+60		800													
			296												
+70		0													
20+80		0													
			144												
+95		516													
			95												
21		516													
			1083												
+50		654													
			1113												
22		548													
			370												
+20		455													
			42												
+25		0													

Common - 2023+50 - 2025+0 @ Grisweld Pit
May 7, 1962

Sta.	A°	Vol.
2025	1405	
		2805
+50	1710	
		3500
2024	2070	
2024	1040	
		481
+25	0	
		463
2023+50		
2024	625	
		382
2023+75	0	

102

8270 × 1.25 = 10,338

7248 × 1.15 = 8,335

Dorset St. Gran Fill

Sta.	A°	Vol.
2019+50	120	
		389
20	300	
		1852
+50	1700	
		2771
21	1300	
		963
+40	0	
2021+40	0	
		119
+50	640	
		4393
22	4104	
		9181
+50	5800	
		11176
23	6270	
		11380
+50	6020	
		8778
24	3460	
		2563
+50	0	
25+0	0	

7097 × 1.25 = 8164 / 8164 / 4950 / Excess 3,214

53572 × 1.15 = 66965
Plan 62550
Excess 4415 cy

Plan Called @ Common Granular Used

Sta.	A°	Vol.
NB 2024	0	
		623
+35	960	
		457
+50	690	
		639
2025	0	
NB 2023+80	0	
		312
24	241	
		1440
+20	1750	
		1111
+50	1250	
		1127
2025	0	

5741 × 1.25 = 7,176

I 89 - C2
102 A

Sta.	Area	Cu. Yds.
2019	0	
		150
+50	162	
		459
2020	333	
		1929
+50	1750	
		1426
+72	1750	
		1475
2021	1095	
		811
+40	0	
		119
+50	640	
		4393
2022	4104	
		4585
+25	5800	
		5371
+50	6800	
		11,176
2023+10	6270	
		11,472
+50	6120	
		9763
2024+10	4370	
		7895
+50	4157	
		3849
2025+10	0	
TOTAL		64,822
Fac		1.15
		74,545
From yellow sheet		10,480
Total		85,025

HAH 8-9-63

Common Borrow - Plan

STATION	DIST	TOTAL EXCAV. EARTH & ROCK AREA	CU. YDS.	ROCK AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.
99,102		99,102	✓	Plan Neat											
-7,176		-7,176	✓	2025+50 2026		Replaced by Gran.									
-9,318		-9,318	✓	Min by Cont #3											
-8,516		-8,~~266~~	✓	Sold Rock over design		(Just Factors)									
-2,593		-2,593	✓	Shim - Gran - Nov-62											
71,499		71,809													
Pits															
28,374		28,374	✓	Total Pits (Common)											
10,338		10,338	✓	@ Grisweld Gran. Pit											
800		800	✓	@ Gran Pit											
32,670		32,843		Job Slopes											
72,182		72,355													

#3 Common on Cont #2

Sta.	Area	Cu. Yds.
2024+0	0	
		1982
+50	2140	
		5472
2025	3770	

7454 cy

Common Pits
BK #6-P6-M4

Grisweld	1488
Brand #1	10537
O'Brian #1	15413
Economer #2	936
	28,374

Total Borrow	169,574
Total Plan	165,319
Difference	4,255

Plan w/D Not used	1625	waste	✓
" Channel " "	394	waste	✓
Exc. under plan	6000		✓
Waste Cont trench	2482	Roll in-p	

1925-1927 - Mat. Rep. by 202 - used in roadway
1962-1

CARRIED FORWARD
COLUMN TOTAL

CARRIED FORWARD
COLUMN TOTAL

PROJECT Williston So. Bard.

PROJECT I-89-3(14) NO. Cont #2
SHEET 4 OF 5

9/27/63

Williston – South Burlington

I-89-3(14) C#2

Fill Factor –

Design = 1.25

Actual = 1.256

Total Material Available for Fill –

Item 101-A	Interstate	123,413	
	Hinesburg Road	5,688	
	Hinesburg Road Detour	1,583	
	Total		130,684
Item 102 –	Borrow	71,381	
Item 102-A	Granular Borrow	95,900	
	Total		167,281

Design Maximum Fill	265,904	
Less Fac. C. (21,349 x 1.35)	28,821	
Sub Total	237,083	
Fac. Fill (1.25)	59,271	
Total Net Fill	296,354	
Total Com Exc.	130,684	297,965
Borrow Required	165,674	
Borrow Used	167,281	

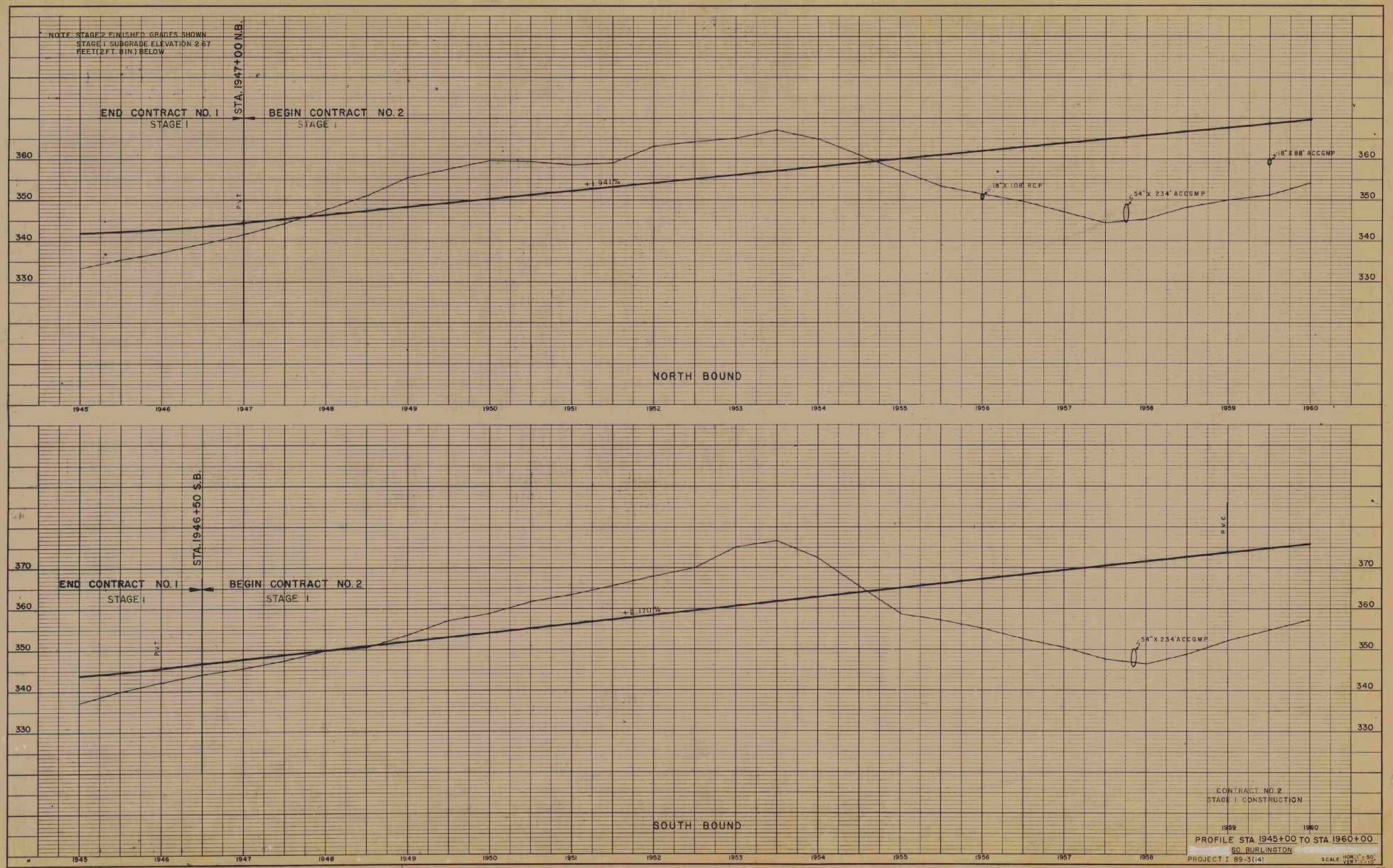
Factor: 297,965 ÷ 237,083 = 1.256

Design Factor = 1.25

FINAL EARTHWORK SUMMARY SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

NOTES	STATIONS		TOTAL EXCAVATION DESIGN	TOTAL EXCAVATION FINAL	TOTAL EXCAVATION DIFFERENCE	ROCK DESIGN	ROCK FINAL	ROCK DIFFERENCE	EMBANKMENT DESIGN	EMBANKMENT FINAL	EMBANKMENT DIFFERENCE	UNAUTHORIZED WASTE DESIGN	UNAUTHORIZED WASTE FINAL	UNAUTHORIZED WASTE DIFFERENCE
	1996+50	1950+0												
	N.B.		7229	7128	-101	0	0	—	0					
	S.B.		3916	3815	-101	0	0	—	8					
	1950+0	1955+0												
	N.B.		15,070	15,112	+42	1457	3903	+2446	6					
	S.B.		19,675	19,307	-368	4045	6531	+2486	241					
	1955+0	1960+0												
	N.B.		18	69	+51	0	0	—	16,562					
	S.B.		0	0	0	0	0	—	28,223					
	1960+0	1965+0												
	N.B.		598	706	+108	0	0	—	5744					
	S.B.		656	656	—	0	0	—	10,708					
	1965+0	1970+0												
	N.B.		15,304	16,523	+1219	846	2241	+1395	0					
	S.B.		15,578	15,687	+109	871	1212	+341	148					
	1970+0	1975+0												
	N.B.		5121	5643	+522	288	2273	+1985	4218					
	S.B.		5658	5538	-120	896	1416	+570	1973					
	1975+0	1980+0												
	N.B.		0	0	—	0	0	—	10138					
	S.B.		1594	1550	-44	296	322	+26	1487					
	1980+0	1985+0												
	N.B.		56	56	—	0	0	—	6073					
	S.B.		4008	3903	-105	2819	2437	-386	4923					
	1985+0	1990+0												
	N.B.		0	0		0	0	—	7039					
	S.B.		419	419	—	0	0	—	3228					
	1990+0	1995+0												
	N.B.		22	74	+52	0	0	—	9184					
	S.B.		26	26	0	0	0	—	9751					
	1995+0	2000+0												
	N.B.		2490	2588	+98	0	0	—	2326					
	S.B.		0	0	—	0	0	—	12,396					
	2000+0	2005+0												
	N.B.		0	0	—	0	0	—	16,506					
	S.B.		0	0	—	0	0	—	13,587					
NOT BROKEN THE SAME AS ORIG.	2005+0	2010+0												
	N.B.		443	420	-23	0	0	—	5177					
	S.B.		6216	6268	+52	578	0	-578	294					
	N.B.	2010+00 — NL 2015+40	25821	~~29643~~	~~+3822~~	1978	0	-1978	6315					
	S.B.	2010+00 — NL 2015+40		23,977	-1844									
		NL												
	2015+40	2020+0	19327	19,135	-192	0	0	—	1582					
	2020+0	2025+0	1288	350	-938	0	0	—	73,973					
					-2888				(+9249)					
					+2563				(-2431)					
	MAINLINE	TOTALS	146,735	144,648	-1585	14,224	20,332	+6108						
	Less Rock			-21,399		5%	+ 1,417							
				123,249			21,749							
	HINESBURG ROAD													
	9750	12450	854	506	-348	31	0	-31	17456					
NOT INCLUD. IN ORIGINAL	2210	3310	0	1689	+1689	0	0	—	0					
	AIRPORT DR. EXT.		0	658	+658	0	0	—	0					
				2855										
11-8-32-33	HINESBURG RD DETOUR	2200	4235						1424					



CONTRACT NO. 2
STAGE 1 CONSTRUCTION

PROFILE STA. 1945+00 TO STA. 1960+00

SO. BURLINGTON

PROJECT I 89-3(14)

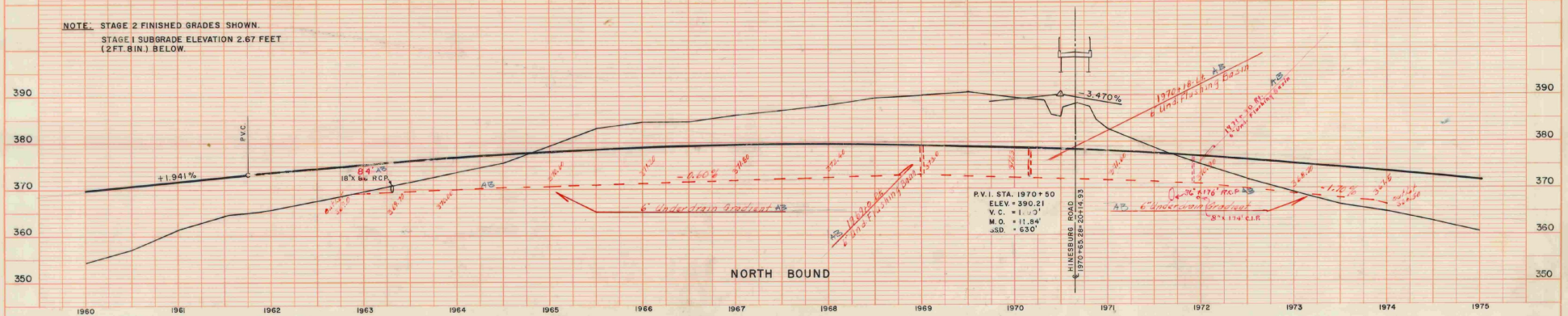
SCALE: HOR. 1" = 50'
VERT. 1" = 10'

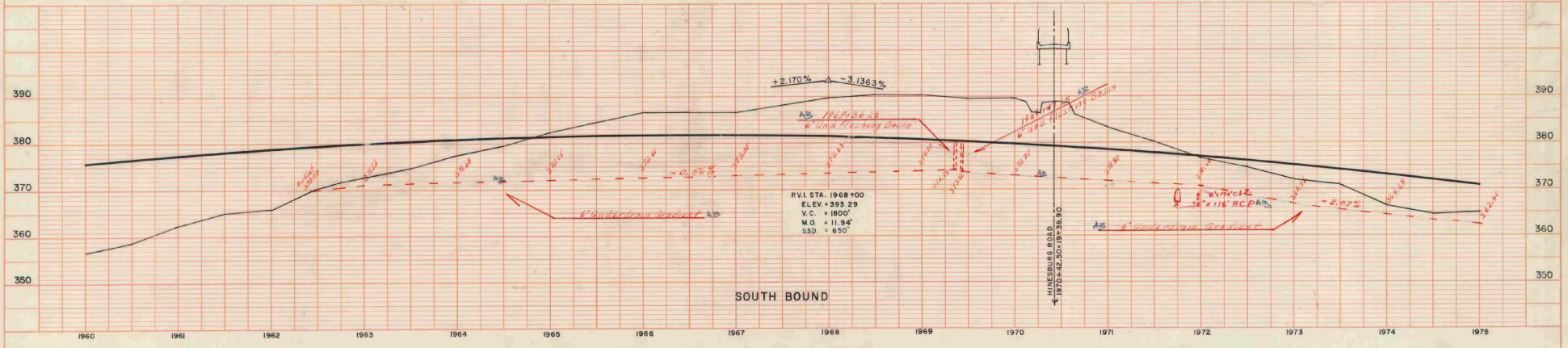
BOSWELL ENGINEERING CO. CONSULTANTS
WAYNESFIELD PARK, N. J.

NOTE FOR N.B. & S.B. PLAN SEE SH. # 11

SHEET NO 17 OF 125

NOTE: STAGE 2 FINISHED GRADES SHOWN.
STAGE I SUBGRADE ELEVATION 2.67 FEET
(2FT. 8IN.) BELOW.





STAGE 2 CONSTRUCTION
I 89-3(23)
SHEET 26 OF 121

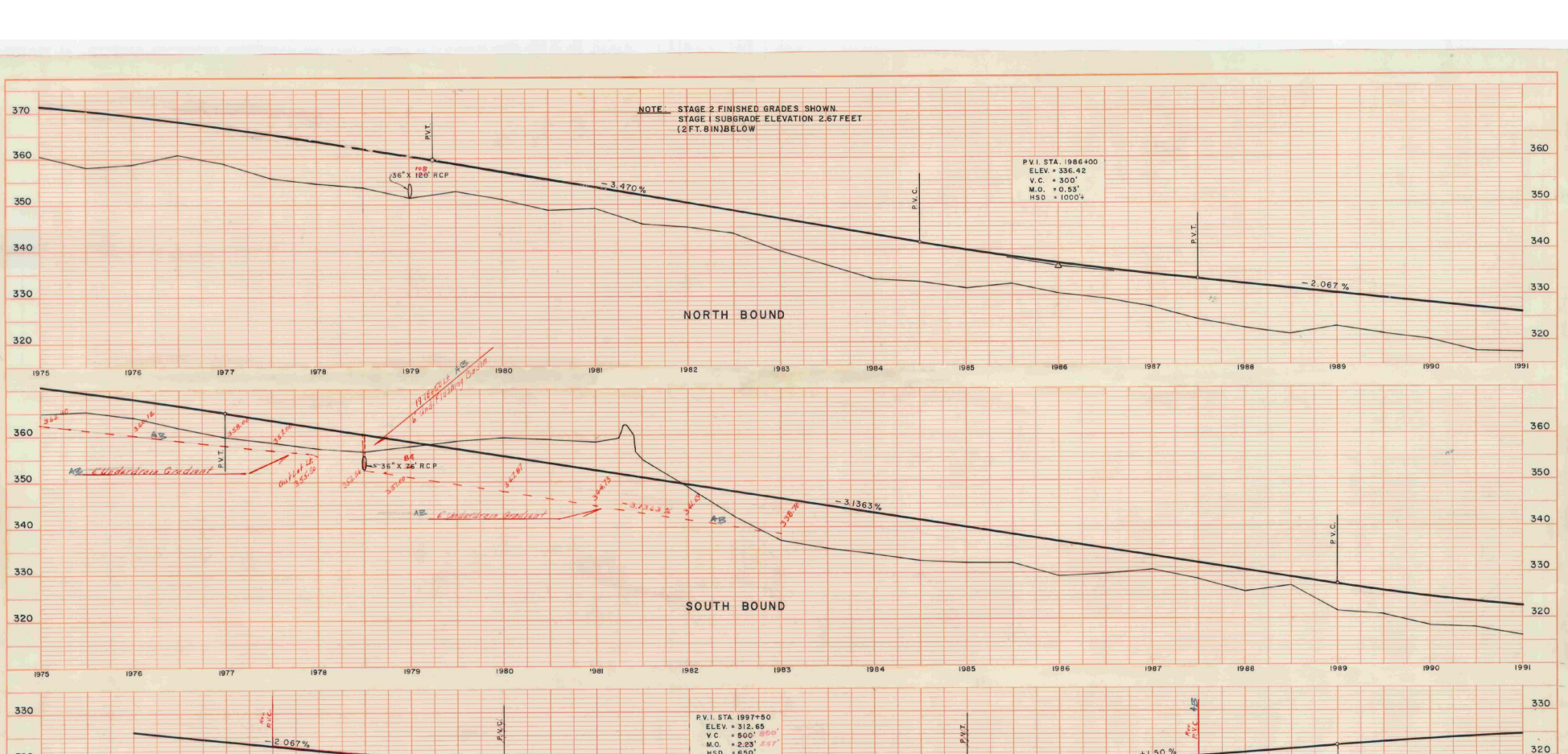
CONTRACT NO. 2
STAGE I CONSTRUCTION

PROFILE STA 1960+00 TO STA 1975+00
SO. BURLINGTON
PROJECT I 89-3(41)
SCALE: HORIZ. 1"=50'
VERT. 1"=10'

NOTE: FOR N.B. & S.B. PLAN SEE SH. # 12

SHEET NO. 18 OF 125

BOSWELL ENGINEERING CO., CONSULTANTS
RIDGEFIELD PARK, N. J.

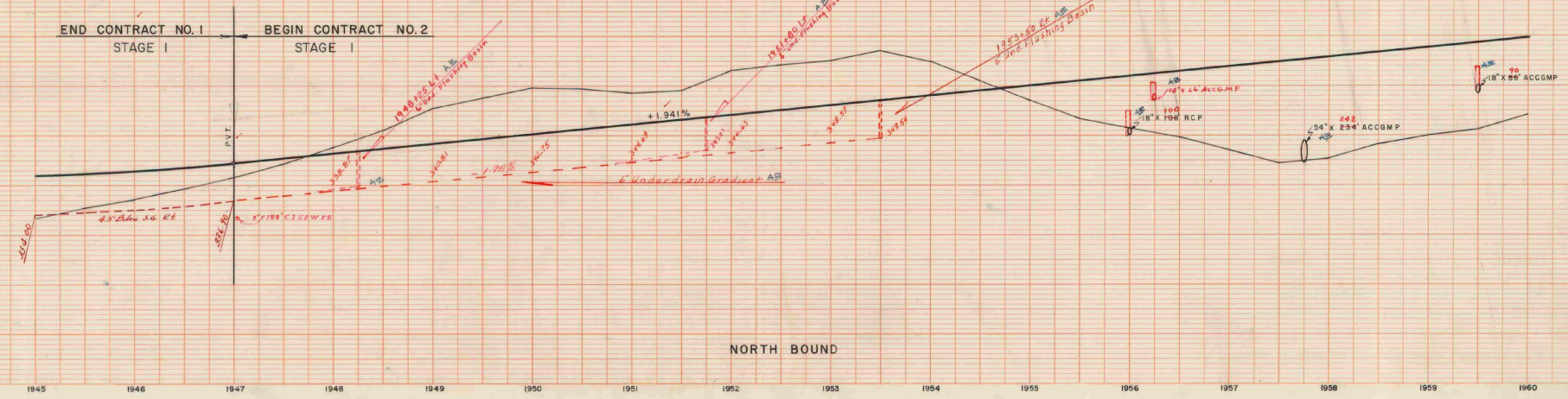


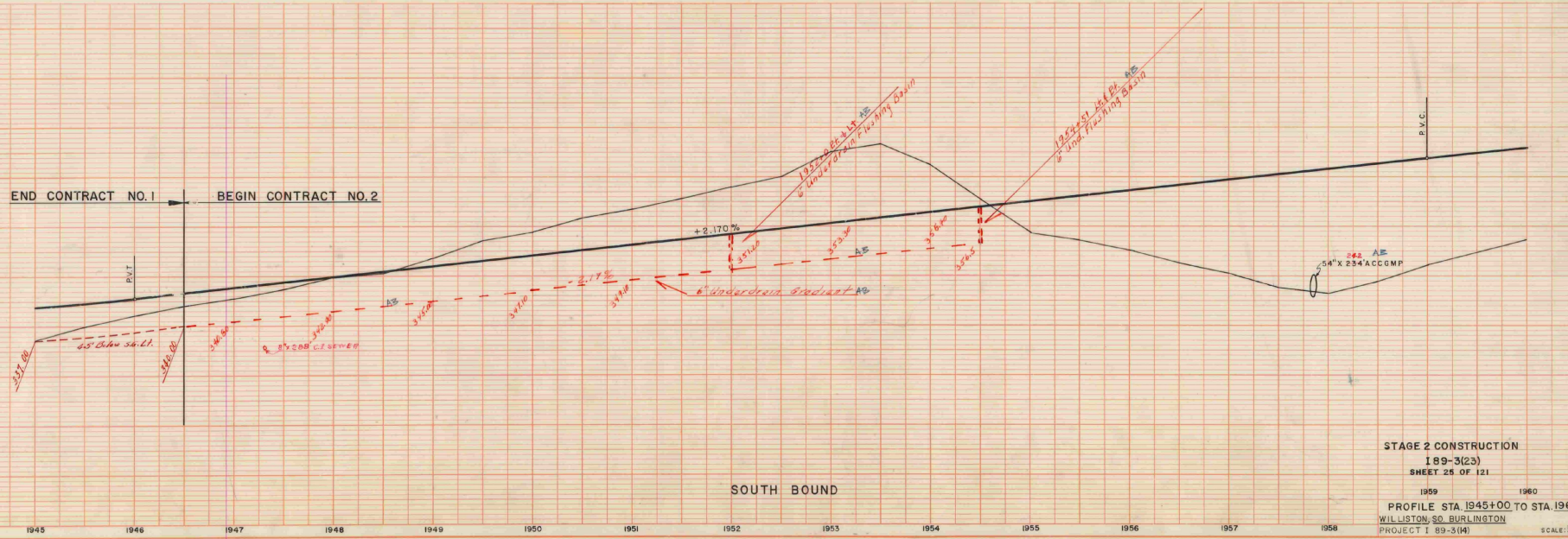
NOTE: FOR N.B. & S.B. PLAN SEE SH. # 13 & 14

SHEET NO. 19 OF 125

BOSWELL ENGINEERING CO., CONSULTANTS
RIDGEFIELD PARK, N. J.

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





STAGE 2 CONSTRUCTION
189-3(23)
SHEET 25 OF 121

PROFILE STA. 1945+00 TO STA. 1960+00
WILLISTON, SO. BURLINGTON
PROJECT I 89-3(14)

SCALE: HOR: 1" = 50'
VERT: 1" = 10'

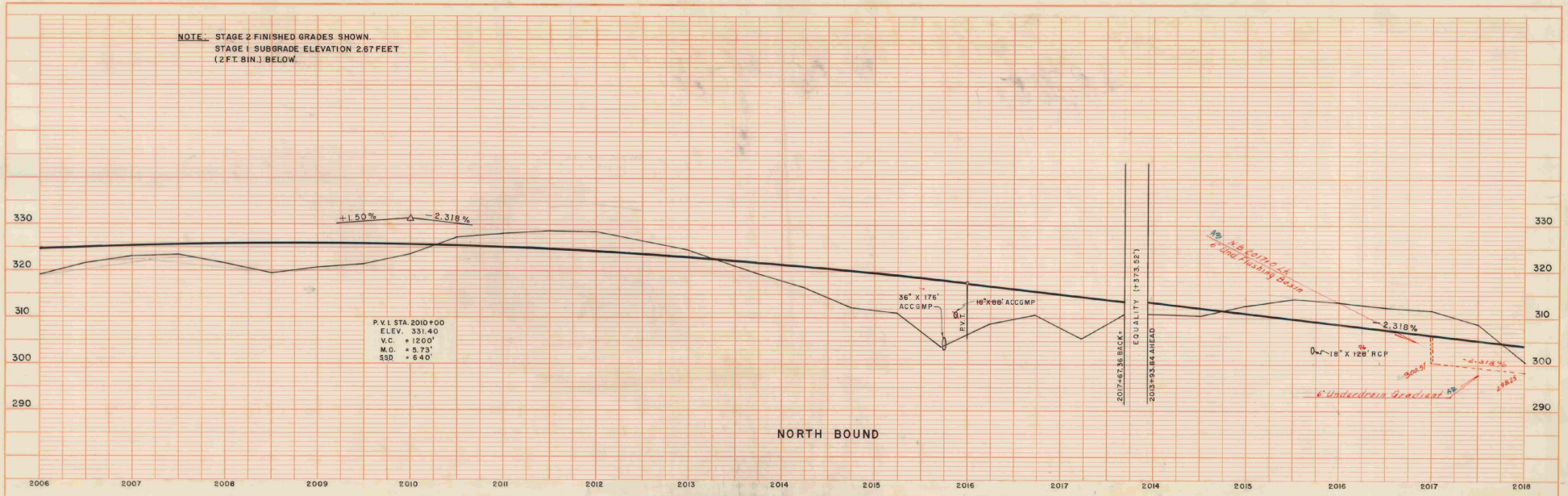
SHEET NO. 29 OF 119
CONTRACT I

NOTE: FOR N.B. & S.B. PLAN SEE SH. # 16

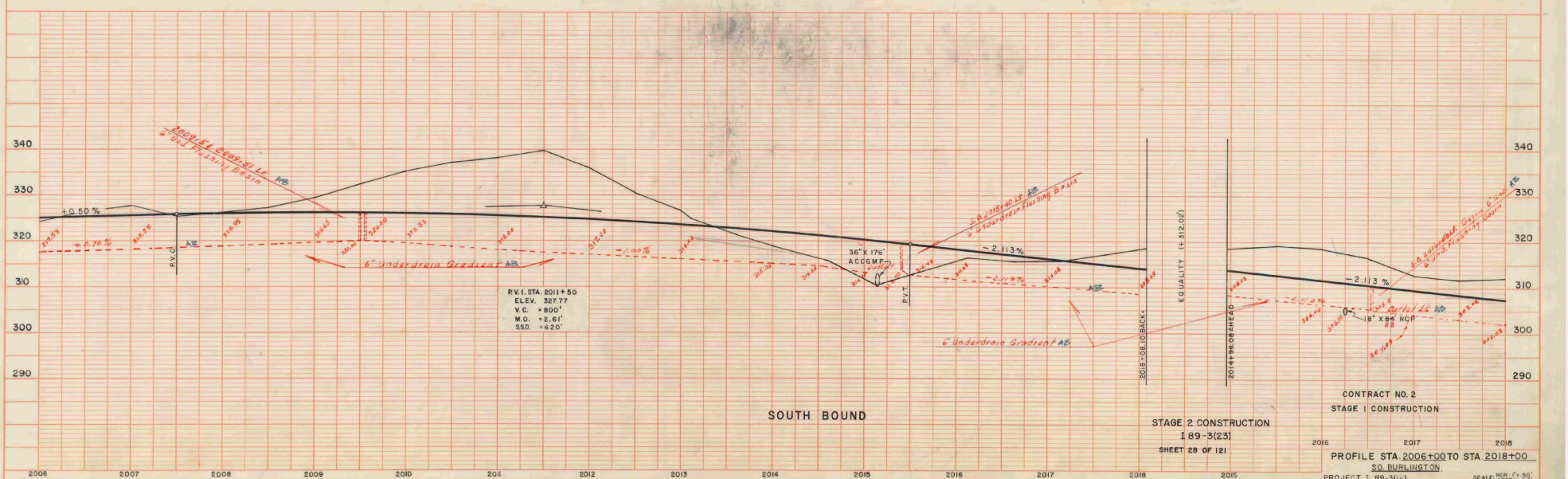
STAGE I

BOSWELL ENGINEERING CO., CONSULTANTS
RIDGEFIELD PARK, N. J.

NOTE: STAGE 2 FINISHED GRADES SHOWN.
STAGE 1 SUBGRADE ELEVATION 2.67 FEET
(2 FT. 8 IN.) BELOW.



NORTH BOUND



SOUTH BOUND

STAGE 2 CONSTRUCTION
I 89-3(23)
SHEET 28 OF 121

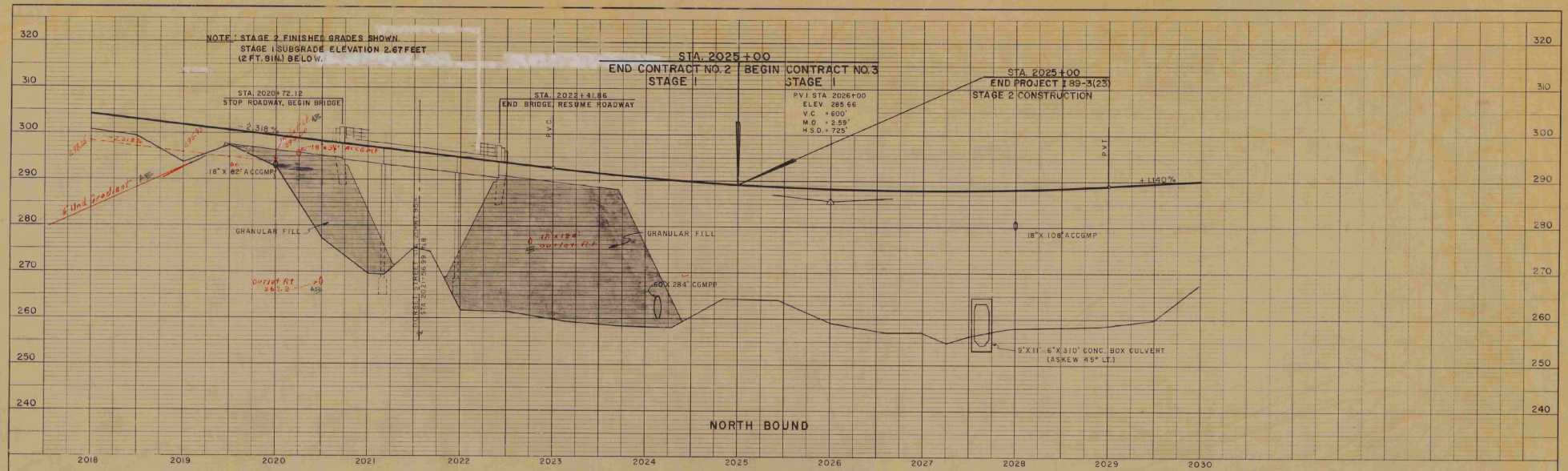
CONTRACT NO. 2
STAGE I CONSTRUCTION

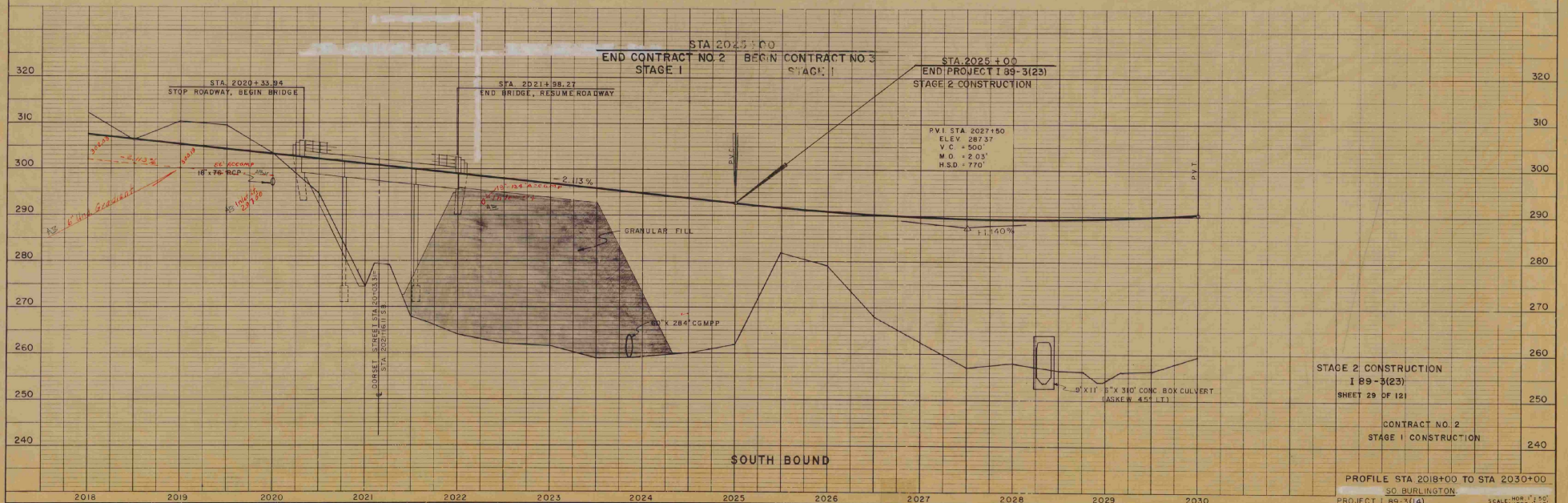
PROFILE STA. 2006+00 TO STA. 2018+00
SO. BURLINGTON.
PROJECT I 89-3(14)
SCALE: HOR. 1" = 50'
VERT. 1" = 10'

NOTE: FOR N.B. & S.B. PLAN SEE SH. # 15

SHEET NO. 20 OF 125

BOSWELL ENGINEERING CO., CONSULTANTS
RIDGEFIELD PARK, N. J.





STAGE 2 CONSTRUCTION
I 89-3(23)
SHEET 29 OF 121

CONTRACT NO. 2
STAGE 1 CONSTRUCTION

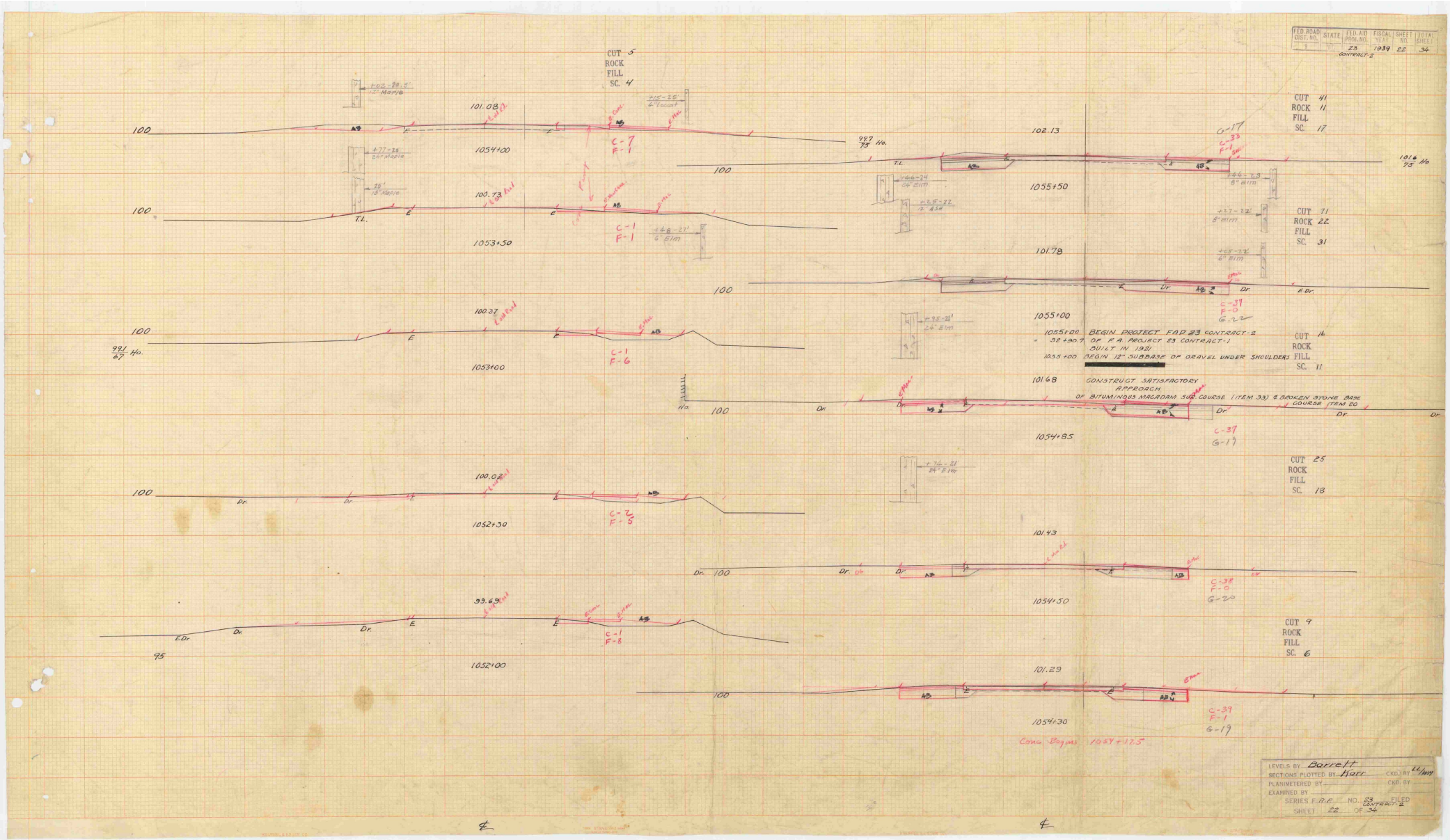
PROFILE STA 2018+00 TO STA 2030+00
SO. BURLINGTON

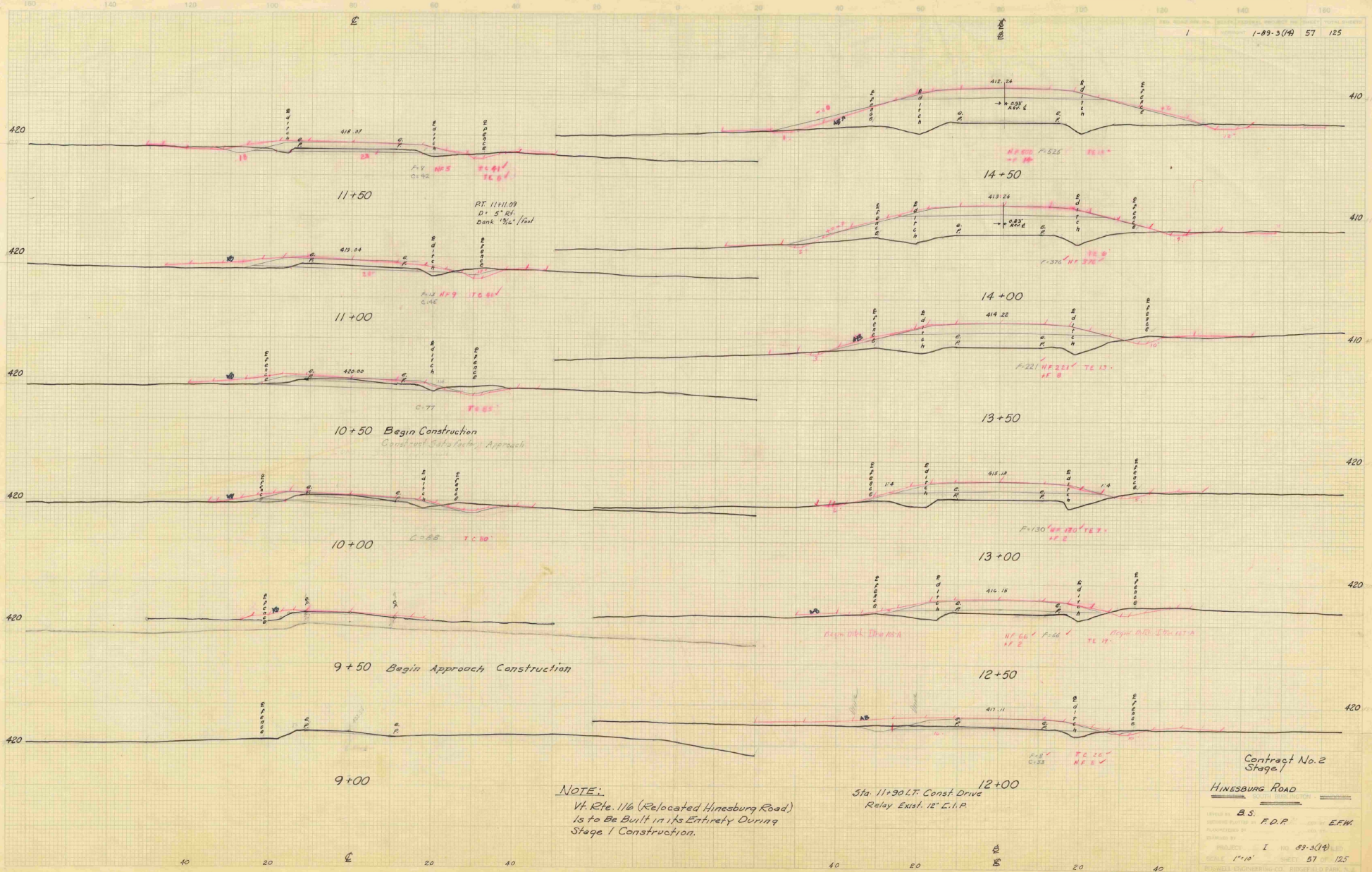
PROJECT I 89-3(14) SCALE: HOR. 1"=50' VERT. 1"=10'

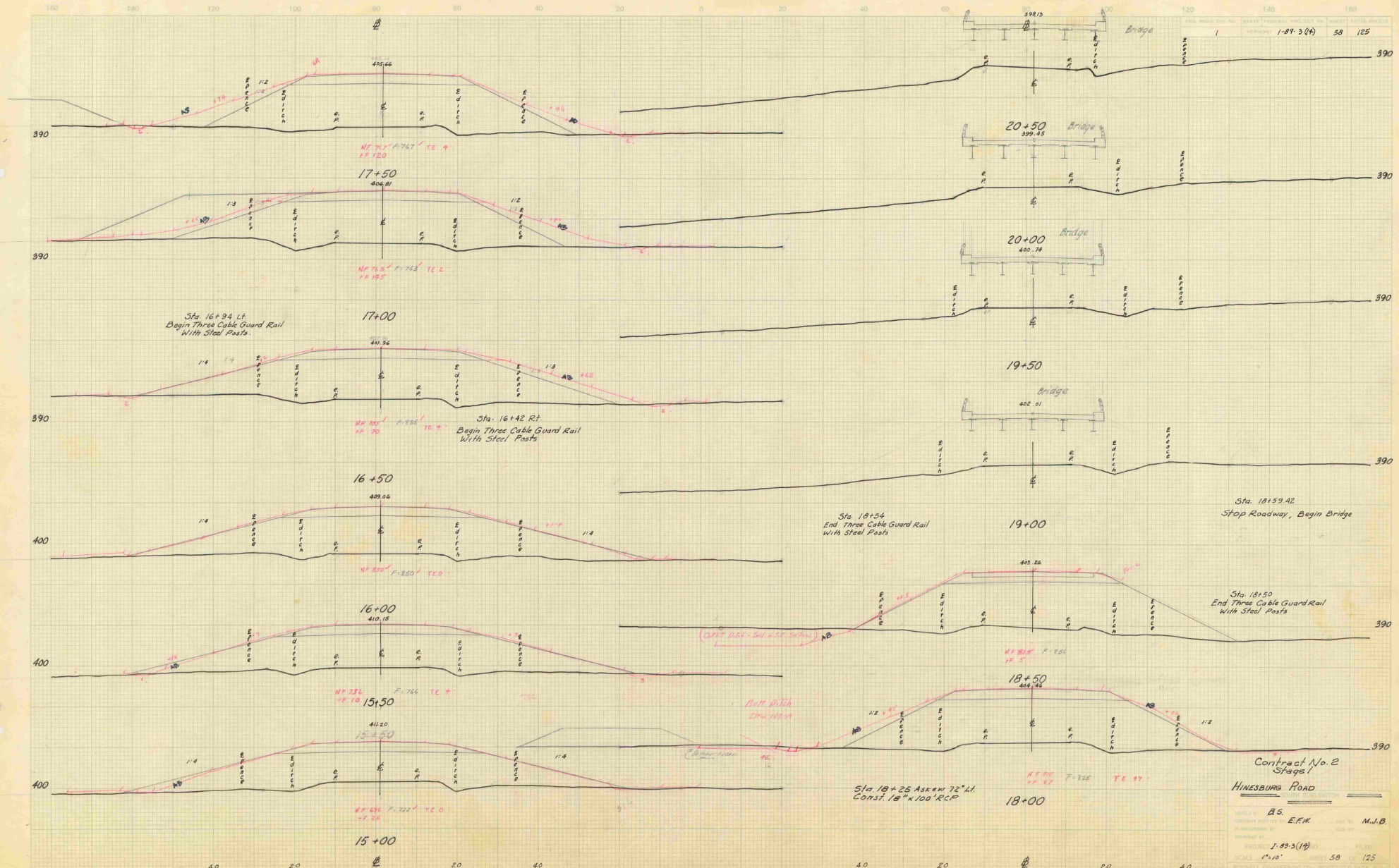
BOSWELL ENGINEERING CO., CONSULTANTS
RIDGEFIELD PARK, N. J.

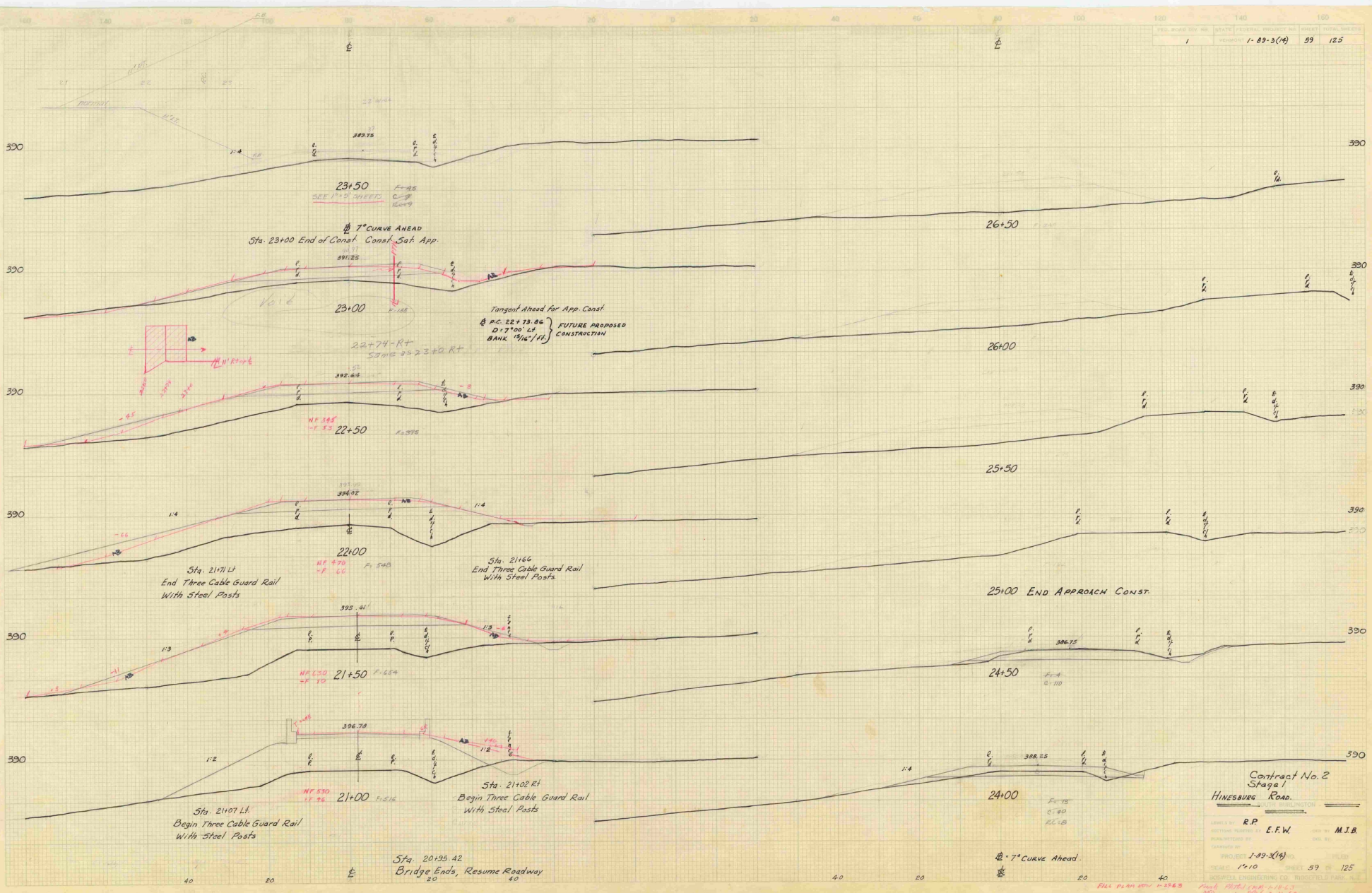
NOTE FOR N.B. & S.B. PLAN SEE SH. # 16

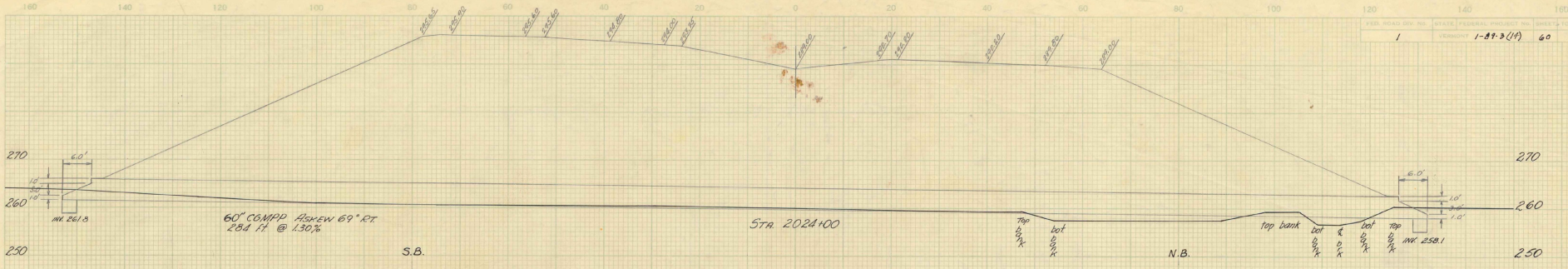
SHEET NO. 21 OF 125

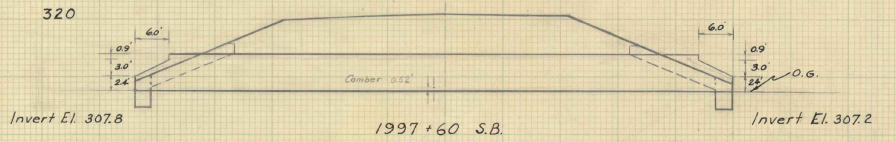

FED. ROAD DIST. NO. 9
STATE
FED. AID PROJ. NO.
FISCAL YEAR 1939
SHEET NO. 22
TOTAL SHEETS 34
CONTRACT-2
CUT 5
ROCK
FILL
SC. 4
CUT 41
ROCK 11
FILL
SC. 17
CUT 71
ROCK 22
FILL
SC. 31
CUT 14
ROCK
FILL
SC. 11
CUT 25
ROCK
FILL
SC. 18
CUT 9
ROCK
FILL
SC. 6
1054+00
1053+50
1053+00
1052+50
1052+00
1055+50
1055+00
1054+85
1054+50
1054+30
101.08
100.73
100.37
100.02
99.69
102.13
101.78
101.68
101.43
101.29
C-7
F-1
C-1
F-1
C-1
F-6
C-1
F-5
C-1
F-8
C-33
F-1
C-39
F-0
C-37
G-19
C-38
F-0
G-20
C-39
F-1
G-19
1055+00 BEGIN PROJECT F.A.P. 23 CONTRACT-2
= 32+30.7 OF F.A. PROJECT 23 CONTRACT-1
BUILT IN 1921
1055+00 BEGIN 12" SUBBASE OF GRAVEL UNDER SHOULDERS
CONSTRUCT SATISFACTORY APPROACH OF BITUMINOUS MACADAM SUR. COURSE (ITEM 33) & BROKEN STONE BASE COURSE ITEM 20
Conc. Bagms 1054+17.5
LEVELS BY Barrett
SECTIONS PLOTTED BY Marr CKD. BY 11/1/39
PLANIMETERED BY CKD. BY
EXAMINED BY
SERIES F.A.P. NO. 23 CONTRACT-2 FILED
SHEET 22 OF 34


11+50
11+00
10+50 Begin Construction
Construct Safety Facility Approach
10+00
9+50 Begin Approach Construction
9+00
14+50
14+00
13+50
13+00
12+50
12+00
Sta. 11+90 LT. Const. Drive
Relay Exist. 12" C.I.P.
NOTE:
Vt. Rte. 116 (Relocated Hinesburg Road)
Is to be Built in its Entirety During
Stage 1 Construction.
Contract No. 2
Stage 1
HINESBURG ROAD
B.S.
F.O.P.
E.F.W.
1-89-3(14)
57
125

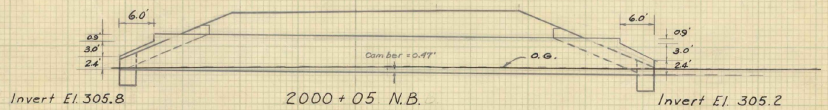

15+00
15+50
16+00
16+50
17+00
17+50
18+00
18+50
19+00
19+50
20+00
20+50
Bridge
Sta. 16+94 Lt.
Begin Three Cable Guard Rail
With Steel Posts.
Sta. 16+42 Rt.
Begin Three Cable Guard Rail
With Steel Posts
Sta. 18+54
End Three Cable Guard Rail
With Steel Posts
Sta. 18+59.42
Stop Roadway, Begin Bridge
Sta. 18+50
End Three Cable Guard Rail
With Steel Posts
Sta 18+25 Askew 72° Lt.
Const. 18"x100' RCP
Contract No. 2
Stage I
HINESBURG ROAD
B.S.
E.F.W.
M.J.B.
J-89-3(14)
1"=10'
1-89-3(14)
58
125


23+50
SEE 1"=5' SHEETS
℄ 7° CURVE AHEAD
Sta. 23+00 End of Const. Const. Sat. App.
23+00
Tangent Ahead for App. Const.
℄ P.C. 22+73.86
D=7°00' Lt
BANK 5/16"/Ft.
FUTURE PROPOSED CONSTRUCTION
22+74-Rt
SAME AS 23+00 Rt
22+50
22+00
Sta. 21+71 Lt
End Three Cable Guard Rail
With Steel Posts
Sta. 21+66
End Three Cable Guard Rail
With Steel Posts.
21+50
21+00
Sta. 21+07 Lt.
Begin Three Cable Guard Rail
With Steel Posts
Sta. 21+02 Rt
Begin Three Cable Guard Rail
With Steel Posts
Sta. 20+95.42
Bridge Ends, Resume Roadway
26+50
26+00
25+50
25+00 END APPROACH CONST.
24+50
24+00
℄ 7° CURVE Ahead.
Contract No. 2
Stage 1
HINESBURG ROAD.
R.P.
E.F.W.
M.J.B.
1-89-3(14)
1"=10'
59
125

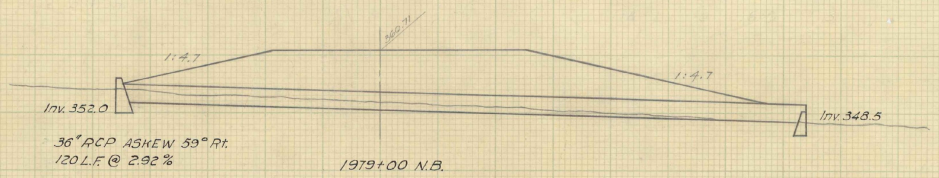




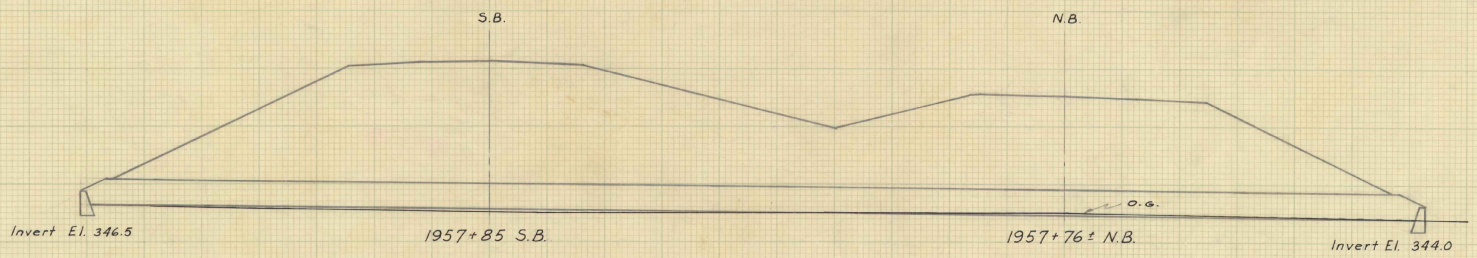
9¼" x 6⅜" C.G.M.P.P.A. ASKEW 57° Rt.
104 L.F. @ 0.577% GAGE #8 top #7 bottom



9¼" x 6⅜" C.G.M.P.P.A. ASKEW 57° Rt.
94 L.F. @ 0.639% GAGE #8 top #7 bottom



36" RCP ASKEW 59° Rt.
120 L.F. @ 2.92%



54" A.C.C.G.M.P. ASKEW 80° Lt. S.B.
234 L.F. @ 1.07% GAGE "B"

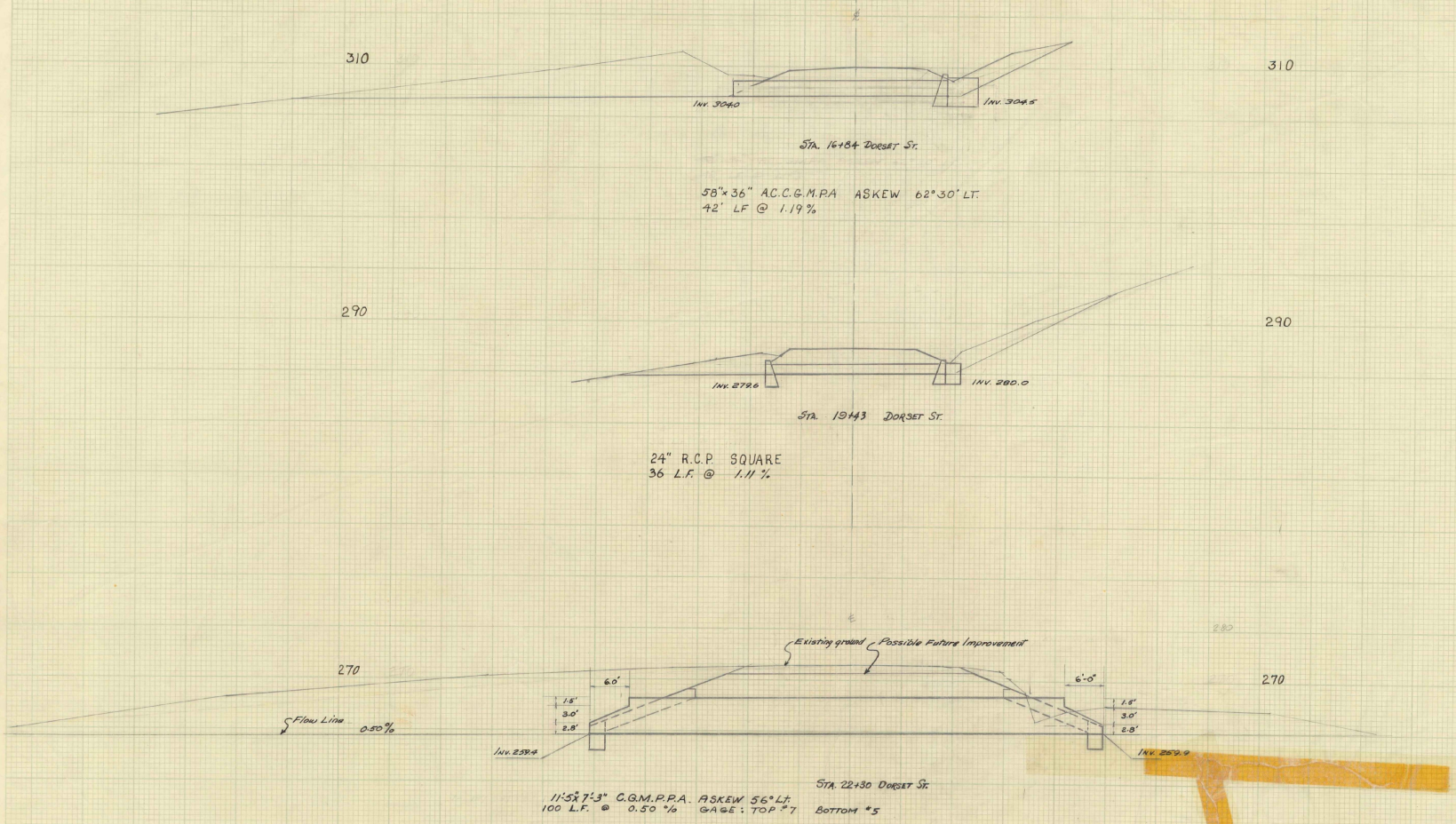
GRAVEL BACKFILL

Contract No. 2
Stage I

SOUTH BURLINGTON

PROJECT I NO. 89-3(14)
SCALE 1"=10' SHEET 60 OF 125

FED. ROAD DIV. No.	STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
1	VERMONT	I-89-3(14)	61	125



Contract No. 2
Stage 1

DORSET STREET

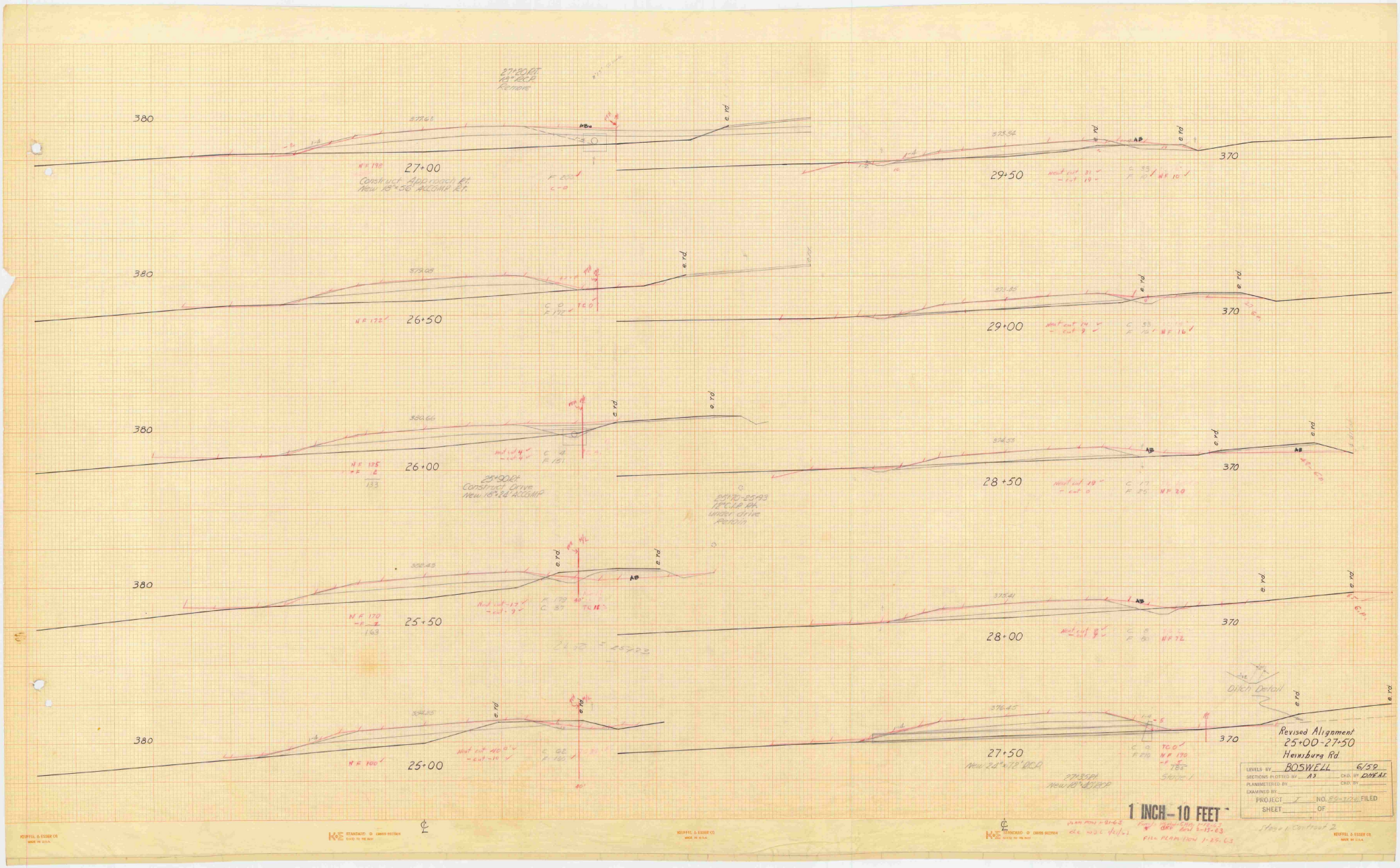
SOUTH BURLINGTON

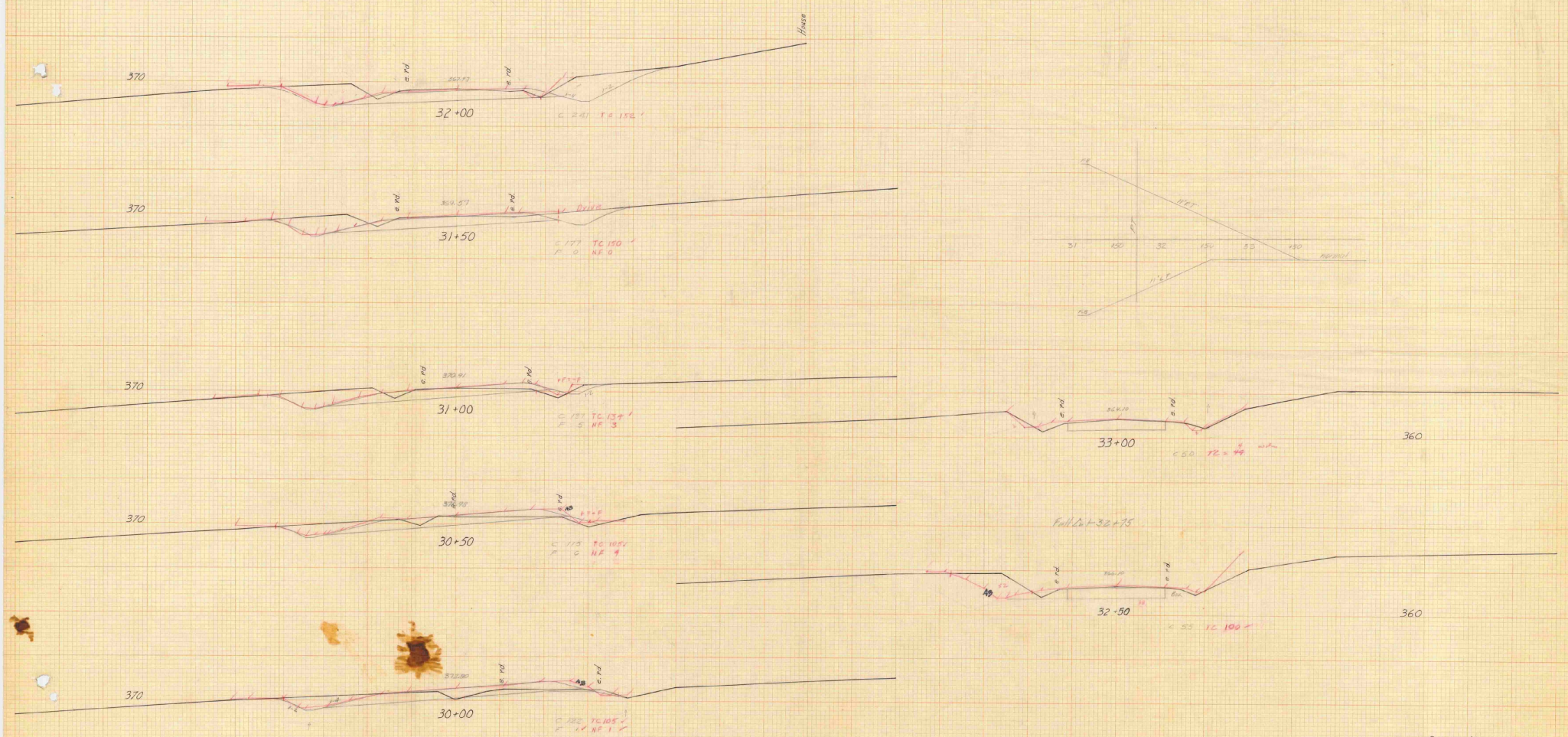
LEVELS BY
SECTIONS PLOTTED BY E.C. CKD. BY R.V.
PLANIMETERED BY CKD. BY
EXAMINED BY
PROJECT I NO. 89-3(14) SHEET
SCALE 1"=10' SHEET 61 OF 125

BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.



Revised-Sections
South Burlington
I-89-3(14) Cont. #2
Relocated Hinesburg Road
Sta. 23+0-24+50


27+20 Rt.
18" R.C.P.
Remove
380
377.63
27+00
Construct Approach Rt.
New 18"x56' ACCGMP Rt.
N F 198
F 200
C - 0
e. rd
373.34
29+50
Neut cut 31
- cut 19
C 33
F 10
N F 10
370
380
379.08
26+50
N F 172
C 0
F 172
TC 0
e. rd
373.85
29+00
Neut cut 14
- cut 9
C 33
F 16
N F 16
370
380
380.66
26+00
N F 135
F 2
133
Neut cut 4
- cut 4
C 4
F 151
25+90 Rt.
Construct Drive
New 18"x24' ACCGMP
25+70-25+93
12" C.I.P. Rt.
under drive
Retain
374.53
28+50
Neut cut 19
- cut 0
C 17
F 25
N F 20
370
380
382.43
25+50
N F 170
F 7
163
Neut cut -13
- cut -9
F 179
C 37
TC 18
e. rd
375.41
28+00
Neut cut 8
- cut 9
C 8
F 80
N F 72
370
Ditch Detail
380
384.25
25+00
N F 100
Neut cut 40
- cut -10
C 62
F 160
40'
376.45
27+50
New 24"x72' R.C.P.
27+35 Rt.
New 18"x48' R.C.P.
C 0
F 210
TC 0
N F 170
F 5
165
Stage 1
370
Revised Alignment
25+00-27+50
Heinsburg Rd.
LEVELS BY BOSWELL 6/59
SECTIONS PLOTTED BY AS CKD. BY DHEAT
PLANIMETERED BY CKD. BY
EXAMINED BY
PROJECT J NO. 89-37(4) FILED
SHEET OF
1 INCH - 10 FEET
Stage 1 Contract 2
KEUFFEL & ESSER CO.
K+E STANDARD CROSS SECTION
PLAN FROM 1-21-63
CKD 2-13-63
FILE PLAN FROM 1-29-63



Revised Alignment
30+00 - 33+00
Hinesburg Rd.

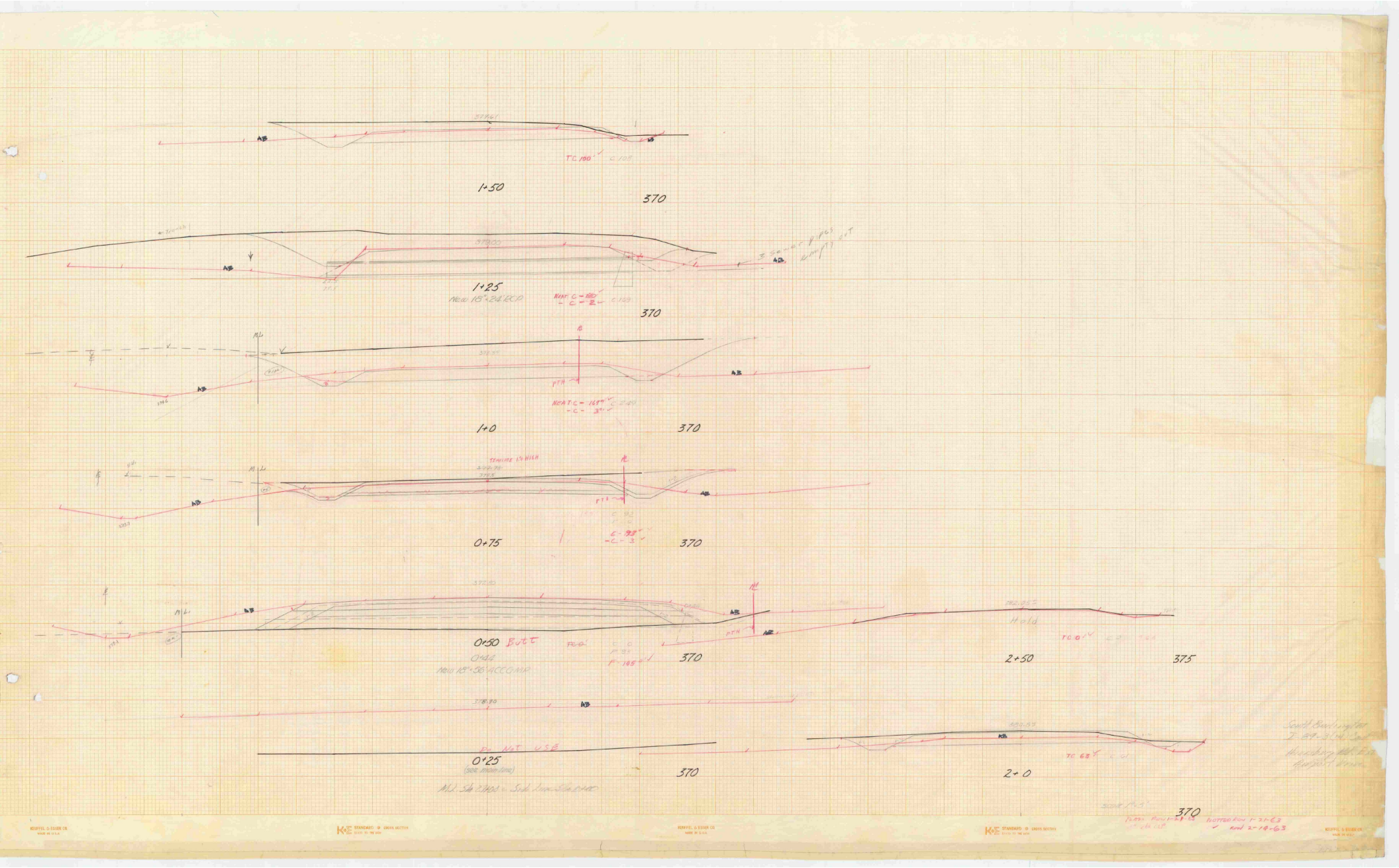
STAGE I

LEVELS BY BOSWELL 6/59
SECTIONS PLOTTED BY AS CKD. BY AS-DH
PLANIMETERED BY CKD. BY
EXAMINED BY
PROJECT I NO. 89-3(14) FILED
SHEET OF

1" INCH = 10 FEET

PLOTTED CKD. Rev 2-17-63
PLAN Rev 1-21-63
Stage 1 Contract 2

KEUFFEL & ESSER CO. MADE IN U.S.A.
K+E STANDARD CROSS SECTION

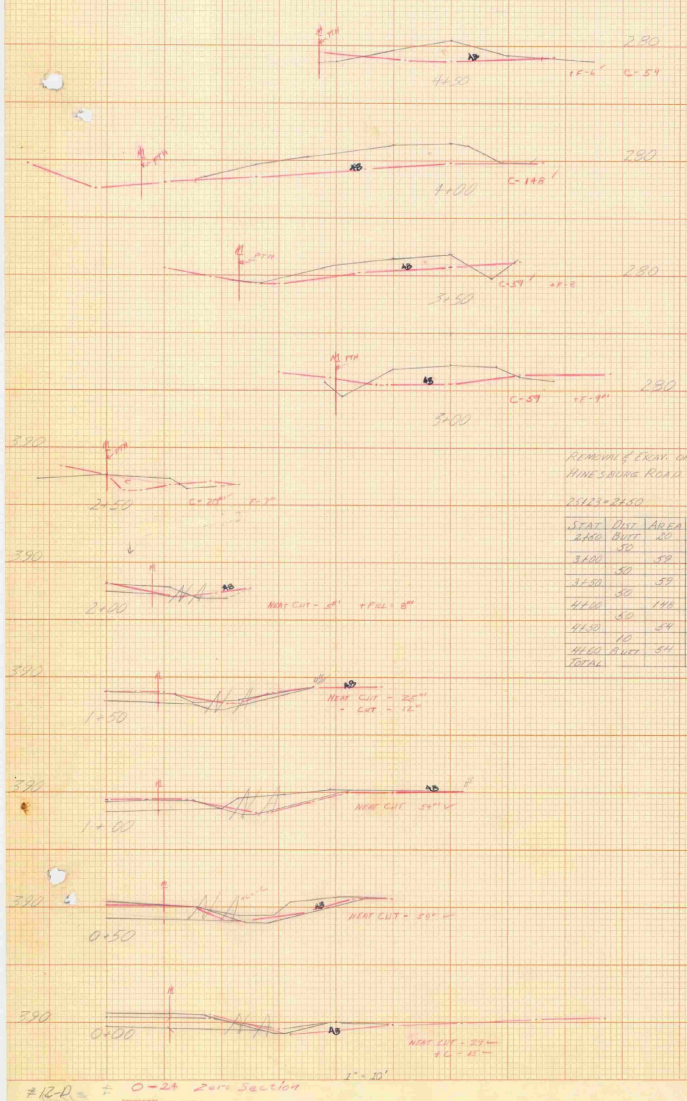


1+50
370
1+25
New 18"×24' RCP
370
1+0
370
0+75
370
0+50 Butt
0+44
New 18"×56' ACCGMP
370
2+50
375
Hold
0+25
(see main line)
370
2+0
370
Do Not USE

#12-D

Sections along Hinesburg Road ℄

4+60 - Butt - USE 4+50 Section



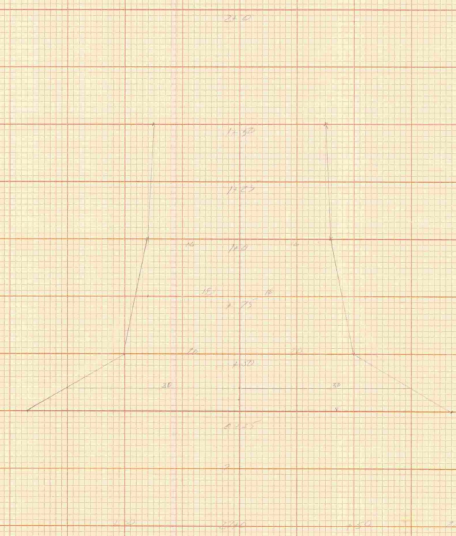
REMOVAL & EXCAV. OF EXISTING HINESBURG ROAD

25+23 = 2+50

STAT	DIST	AREA	VOL
2+50	BUTT	20	
	50		73
3+00		59	
	50		109
3+50		59	
	50		192
4+00		148	
	50		187
4+50		54	
	10		20
4+60	BUTT	54	
TOTAL			581

2/5/69

Posted BK #6
Pg - 17



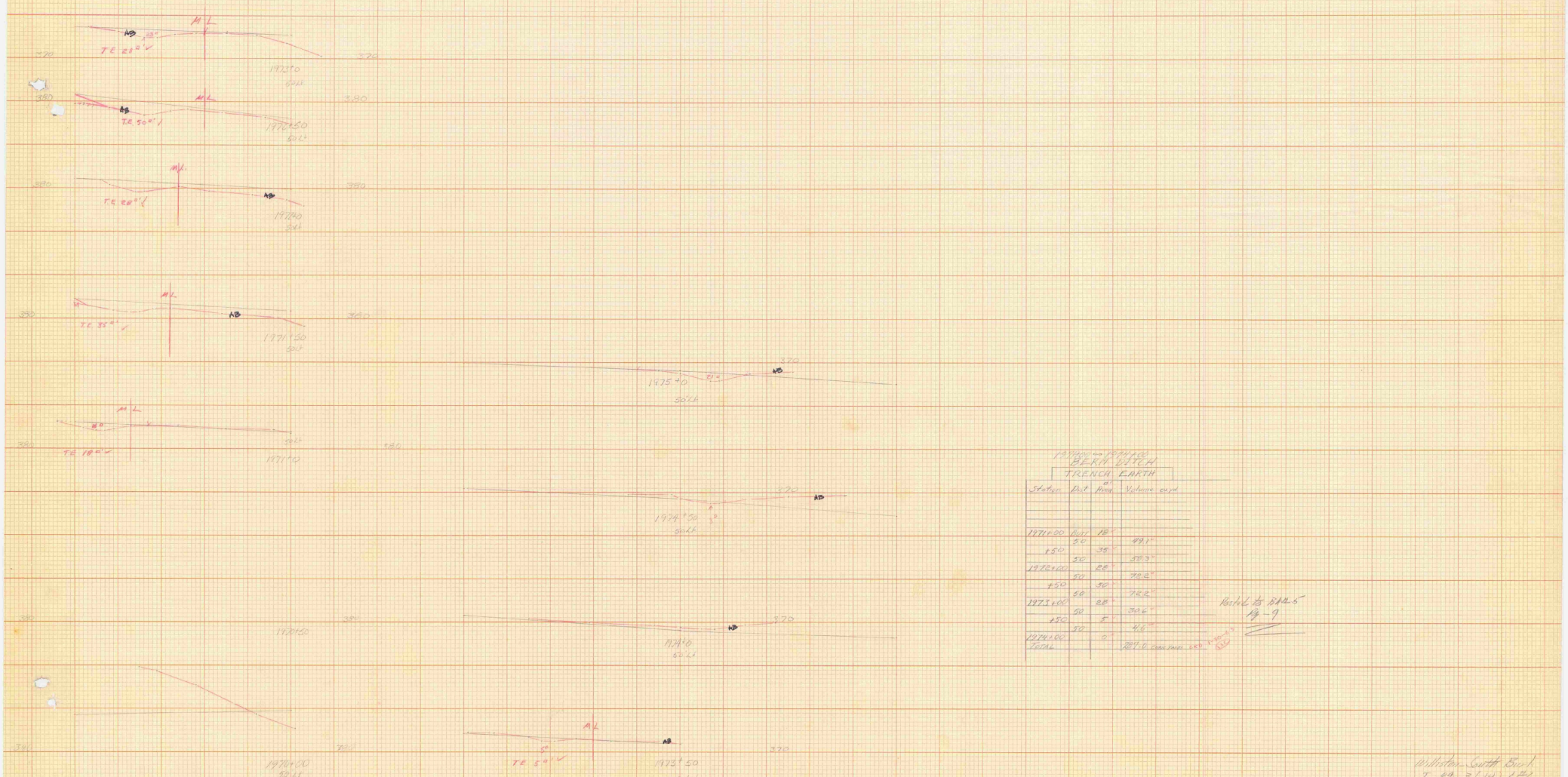
Williston - South Bank

LEVELS BY Murphy
SECTIONS PLOTTED BY [illegible] CKD. BY
PLANIMETERED BY [illegible] CKD. BY
EXAMINED BY
PROJECT I NO. 87-3(4) FILED
SHEET OF

#12-D ± 0-24 Zero Section

Roll #12-D

"PERFECT" CROSS SECTION 10 X 10 = ONE INCH EUGENE DIETZGEN CO.
PRINTED IN U.S.A. ON 100% RAG PAPER MADE IN U.S.A.

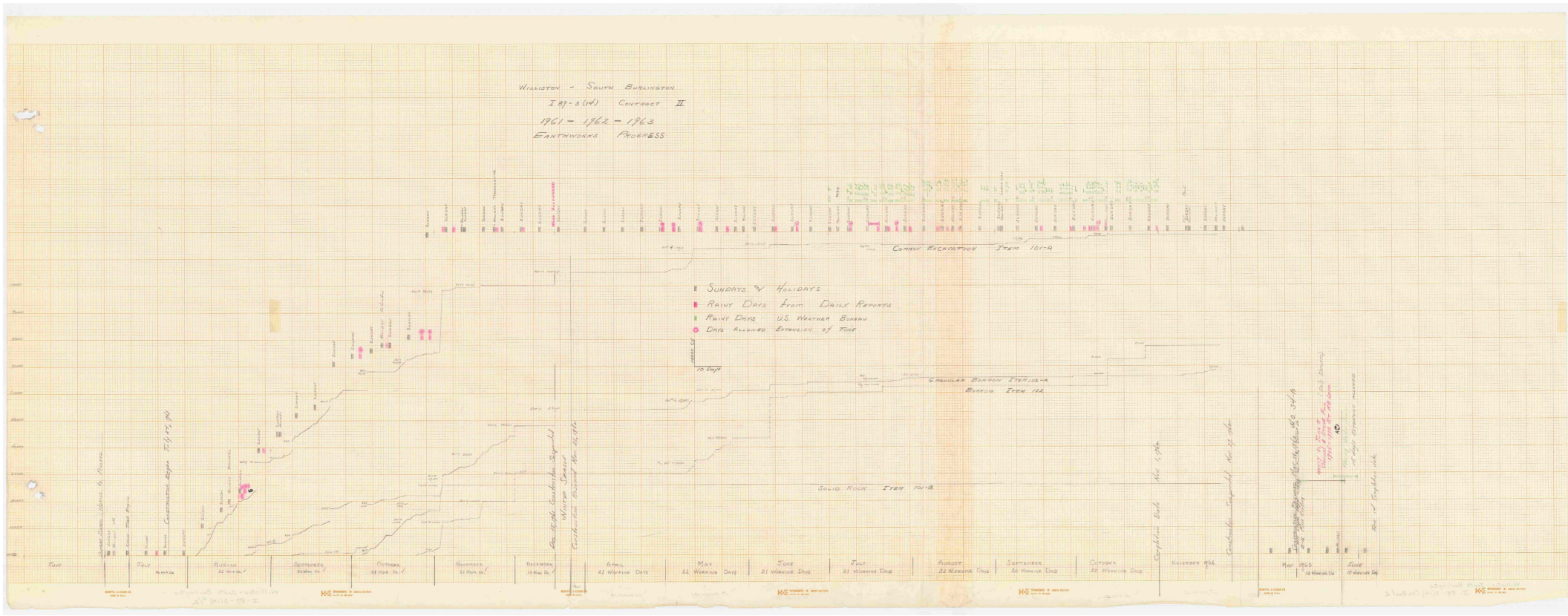

1973+50
1974+00
1974+50
1975+00
1975+50
1976+00
1976+50
1977+00
1977+50
1978+00
1978+50
1979+00
1979+50
1980+00
1980+50
1981+00
1981+50
1982+00
1982+50
1983+00
1983+50
1984+00
1984+50
1985+00
1985+50
1986+00
1986+50
1987+00
1987+50
1988+00
1988+50
1989+00
1989+50
1990+00
1990+50
1991+00
1991+50
1992+00
1992+50
1993+00
1993+50

WILLISTON - SOUTH BURLINGTON

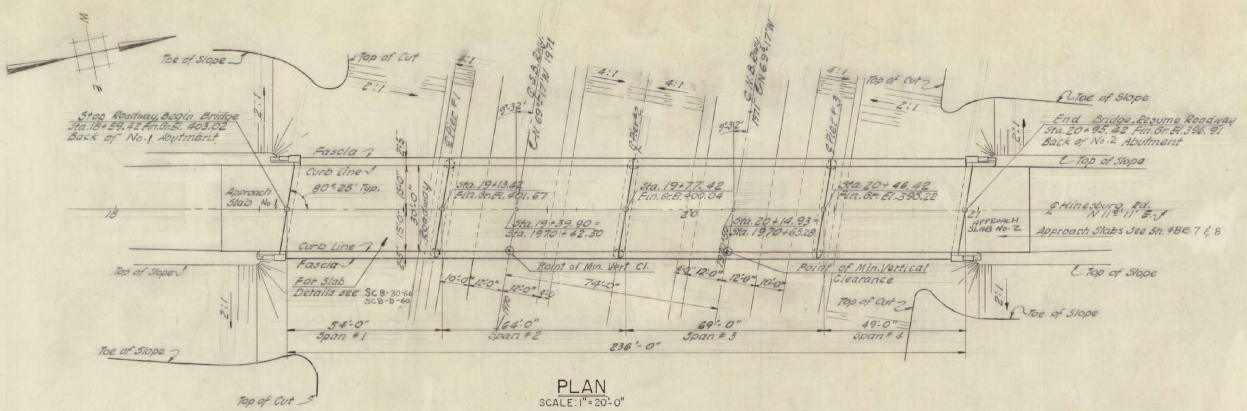
I 89-3(14) CONTRACT II

1961 - 1962 - 1963

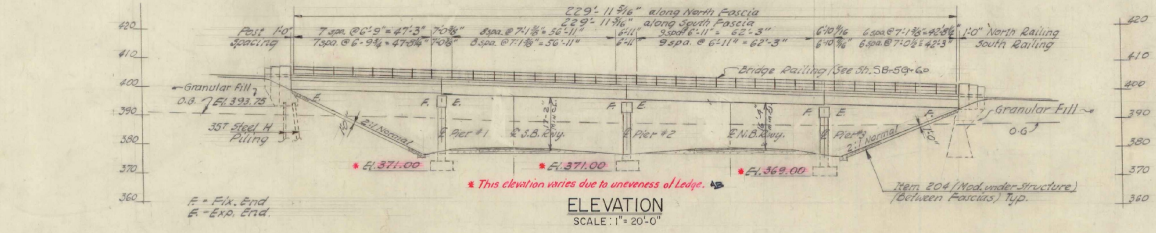
EARTHWORKS PROGRESS



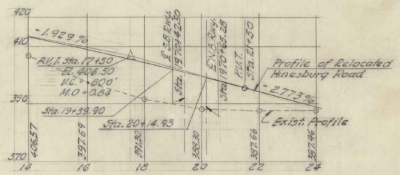
FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No.	SHEET	TOTAL SHEETS
	VERMONT	I 89-3(14)	88	125



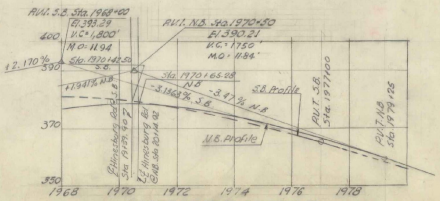
PLAN
SCALE: 1" = 20'-0"



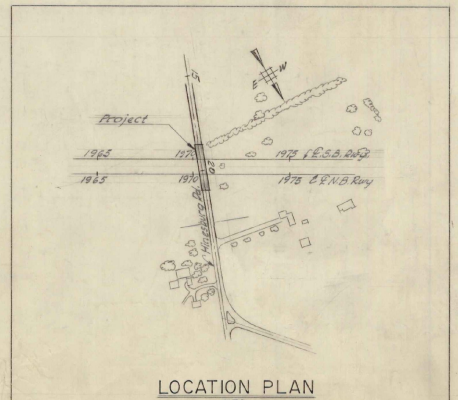
ELEVATION
SCALE: 1" = 20'-0"



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



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



LOCATION PLAN
N.T.S.

ESTIMATED QUANTITIES

ITEM #	ITEM	UNIT	NEAT	OVERRUN	TOTAL	FINAL
107	Structure Excavation	C.Y.	~~284~~	~~25~~	~~289~~	265
204	Subsoil Excavation (Rock Modification)	C.Y.	~~723~~	~~8~~	~~731~~	100
361-B	Bit. Conc. Pavt. (Incl. Appr. Slab) Mod.	Ton	103	16	119	*
401-B	Conc. Class B Mod. (Incl. Appr. Slab)	C.Y.	~~551~~	~~28~~	~~579~~	505
602	Reinforcing Steel (Incl. Appr. Slab)	Lb.	~~86838~~	—	~~86238~~	86,340
603	Spiral Reinforcement* (7030")	L.S.	Required			1 L.S.
604-A	Structural Steel	Lb.	~~220634~~	~~1414~~	~~222103~~	221,790
607	Asphaltic Asbestos Coating	S.Y.	47	—	47	47
501	Furnishing Equipment for Driving Piles	L.S.	Required			1/2 L.S.
503	Splices for Steel Piling	Each	~~2~~	—	~~2~~	0
504	Steel H Piling (12 BP 53)	L.F.	~~250~~	—	~~250~~	196
556	Granite Bridge Curb (Incl. Appr. Slab) Mod.	L.F.	504	—	504	504
572	Bridge Railing	L.F.	~~460~~	—	~~460~~	463
222	Gravel Backfill	C.Y.	~~15~~	~~2~~	~~15~~	0
318	Tar Emulsion for Bridge Floors	Gal.	374	—	374	*
312	Joint Sealer Hot Poured Elastic Type	L.F.	153	—	153	*

* Shall be included in Roadway Est.mate.

GENERAL NOTES

1. All materials and construction shall conform to the State of Vermont, Department of Highways, Standard Specifications for Road and Bridge Construction dated Jan. 1956 and the AASHO, Standard Specifications dated 1957 Designed for H-20 - S16 - 44 loading modified for National System of Interstate Highways applied in accordance with the provision of the AASHO Standard Specifications, Article 1.2.8.
2. Where rock is encountered, no footings shall be poured until all blasting in an area 300 ft. from the structure has been completed.
3. Final coat of field paint shall be green unless otherwise directed by the Engineer.
4. All dimensions given are measured horizontally or vertically unless otherwise noted.
5. All dimensions given at 68° F.
6. All reinforcing to have a clear cover of 3" unless otherwise noted.
7. All exposed edges of concrete shall be chamfered ¾" unless otherwise noted.
8. Borings indicated on the drawings have been made for design purposes only and are not warranted to show actual subsurface conditions.
9. Elevation datum 3rd Level based on Bench Line U.S.C.G.S. Survey Level Line Vermont 25 (Second Order)
10. Steel Bearing Piles shall be driven to ledge Rock unless otherwise approved by the Engineer. Where Piles are driven in fill, the material should be such as to have no stones large enough to interfere with the driving of piles.
11. Cross Slope of Approach Slab to conform with the Cross Slope of Bridge
12. The top surfaces of all piers and abutments shall be sloped ¼" per foot from the front edge of abutment Curtain wall or centerlines of piers, except for bearing pads projecting 1" or more above the general area, which surfaces shall be level. The entire exposed Top surface of Abutments & Piers shall be coated with Asphaltic Asbestos Coating ¼" Thick as per Item 607 of the Specifications
13. Unless otherwise called for all beams shall be rolled to a true circular camber the middle ordinate being that shown in A.I.S.C. handbook as being the minimum camber likely to remain permanent.

REFERENCE DRAWINGS

Plan, Interstate Sh. # 12
Profile Interstate Sh. # 18
Cross sections Interstate Sh. # 31, # 32, # 33, # 43 # 44 # 45
Plan & Profile Hinesburg Road Sh. # 22 & Sh. # 23
Cross sections Hinesburg Rd. Sh. # 37, # 38 & Sh. # 39

LIST OF DRAWINGS

General Plan & Elevation ____ Sh. # BR 1
Pier Elevations ____ Sh. # BR 2
Typical Pier Details ____ Sh. # BR 3
No. 1 Abutment Details ____ Sh. # BR 4
No. 2 Abutment Details ____ Sh. # BR 5
Framing Plan ____ Sh. # BR-6
Approach Slab # 1 ____ Sh. # BR 7
Approach Slab # 2 ____ Sh. # BR 8
Boring Logs ____ Sh. # BR 9
Bar Schedule ____ Sh. # BR-10
Preliminary Information Sheet ____ Sh. # BR-11
SCB-30-60 ____ Sh. # 115
SCB-D-60 ____ Sh. # 117
SB-SG-60 1 of 2 & 2 of 2 ____ Sh. # 118 & 119
SB-20-60 ____ Sh. # 120
SB-22-60 ____ Sh. # 121

BR. 1 of 11

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWN OF SOUTH BURLINGTON.

UNDERPASS STA. 1970+53.89
Rte. 116 HINESBURG ROAD

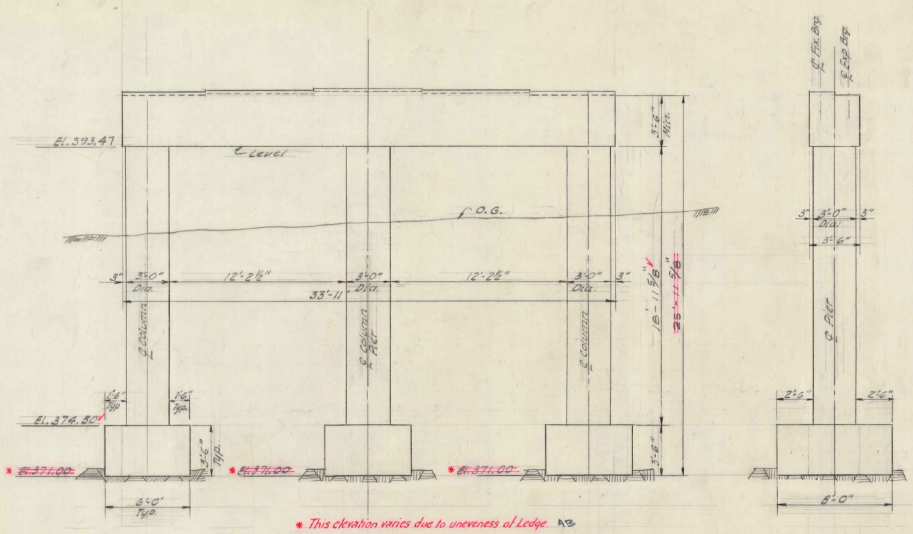
GENERAL PLAN & ELEVATION

BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.

DRAWN BY A.M.	IN CHARGE A.J.I.	SCALE AS SHOWN
CHECKED BY M.J.C.	DATE	

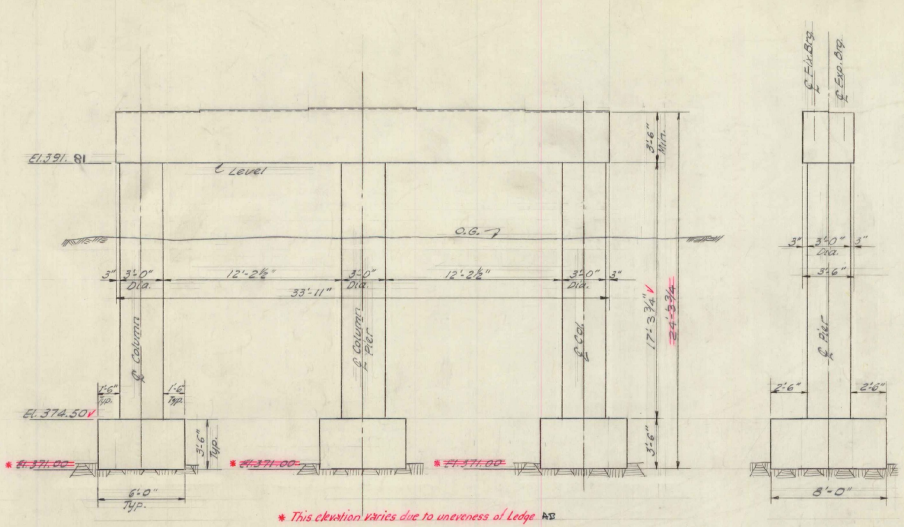
PROJECT NO. I 89-3(14) SHEET 88 OF 125

FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No.	SHEET	TOTAL SHEETS
	VERMONT	I 89-3 (14)	89	125



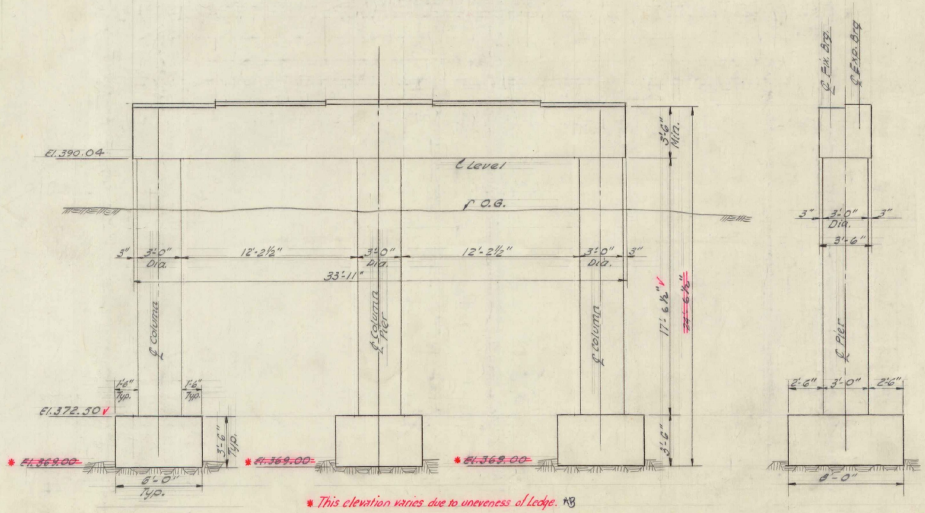
* This elevation varies due to unevenness of Ledge. NB

PIER #1



* This elevation varies due to unevenness of Ledge. NB

PIER #2



* This elevation varies due to unevenness of Ledge. NB

PIER #3

ESTIMATED QUANTITIES

ITEM #	ITEM	UNIT	PIER # 1 NEAT	PIER # 1 OVERRUN	PIER # 1 TOTAL	PIER #2 NEAT	PIER #2 OVERRUN	PIER #2 TOTAL	PIER # 3 NEAT	PIER # 3 OVERRUN	PIER # 3 TOTAL	Final Quantities NB Pier #1	Pier #2	Pier #3
107	Structure Excavation	C.Y.	~~54~~	~~5~~	~~59~~	~~54~~	~~5~~	~~59~~	~~54~~	~~5~~	~~59~~	63	46	60
401A	Concrete Class B Mod.	C.Y.	~~30~~	~~3~~	~~33~~	~~48~~	~~3~~	~~51~~	~~48~~	~~3~~	~~51~~	54	54	53
402	Reinforcing Steel	Lb.	See bar schedule Sh. # BR 10									7,990	7,420	7,450
407	Asphaltic Asbestos Coating	S.Y.	13 V	—	13 V	13 V	—	13 V	13 V	—	13 V	13	13	13

NOTES:

1. For General Notes see Sh. # BR 1
2. For pier details see Sh. # BR 3
3. All Elevations looking toward increasing Stations.
4. For bearing elevations see Sh. # BR 3
5. Footings shall be constructed entirely on ledge, unless otherwise directed in writing by the Engineer.
6. Maximum allowable footing pressure equals 5 T.S.F.

BR. 2 of 11

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWN OF SOUTH BURLINGTON.

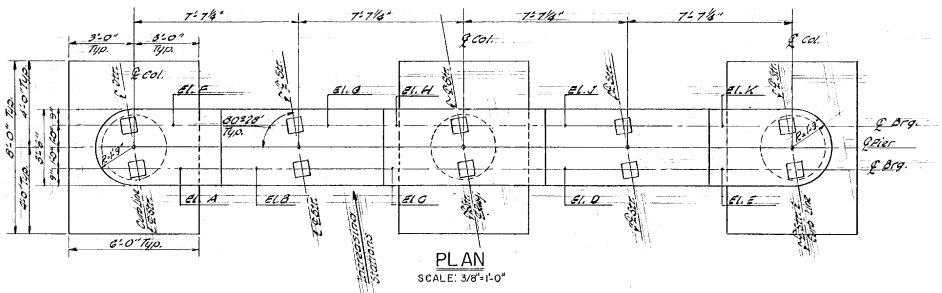
UNDERPASS STA. 1970 + 53.89
HINESBURG ROAD
PIER ELEVATIONS

BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.

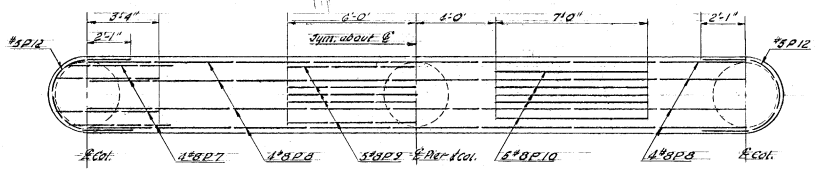
DRAWN BY A.M.	IN CHARGE A.J.T.	SCALE 1/4" = 1'-0"
CHECKED BY M.F.C.	DATE	

PROJECT NO. I 89-3(14) SHEET 89 OF 125

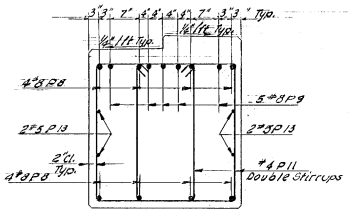
FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No.	SHEET	TOTAL SHEETS
	VERMONT	I 89 3 (14)	90	123



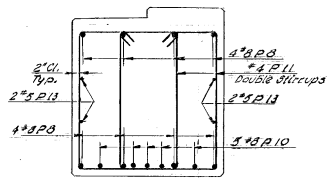
PLAN
SCALE: 3/8"=1'-0"



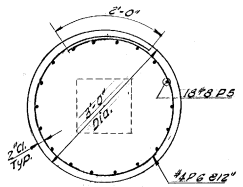
TOP REINFORCING PLAN BOTTOM
SCALE: 3/8"=1'-0"



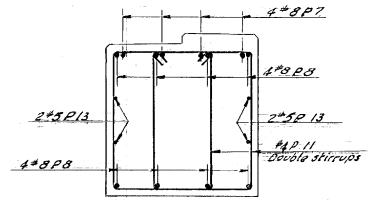
SECTION A-A
SCALE: 3/4"=1'-0"



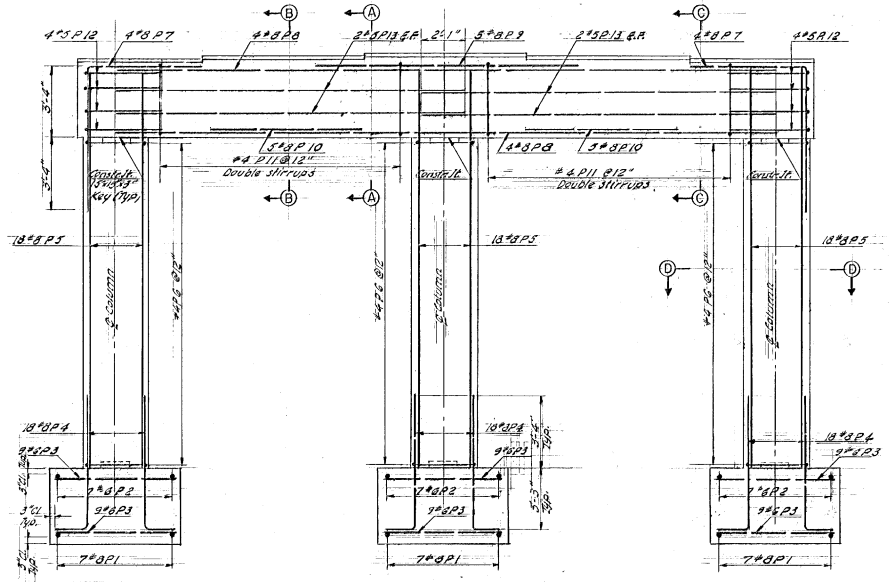
SECTION B-B
SCALE: 3/4"=1'-0"



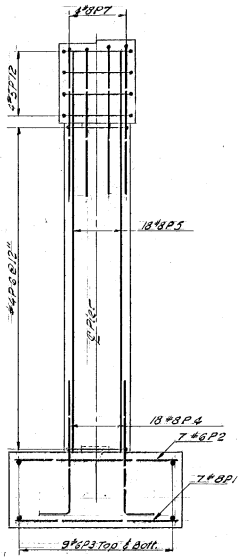
SECTION D-D
N.T.S.
Typ. for all columns



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



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



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

BEARING ELEVATIONS

	A	B	C	D	E	F	G	H	J	K
PIER # 1	397.08	397.39	397.53	397.45	397.20	396.71	397.29	397.42	397.35	397.10
PIER # 2	395.39	395.70	395.83	395.77	395.52	395.31	395.62	395.75	395.68	395.44
PIER # 3	393.59	393.86	393.99	393.92	393.63	393.59	393.91	394.04	393.98	393.72

NOTES

1. For General Notes see Sh. # BR 1
2. For pier elevations see Sh. # BR 2
3. For estimate of quantities see Sh. # BR 2

BR. 3 of 11

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWN OF SOUTH BURLINGTON,

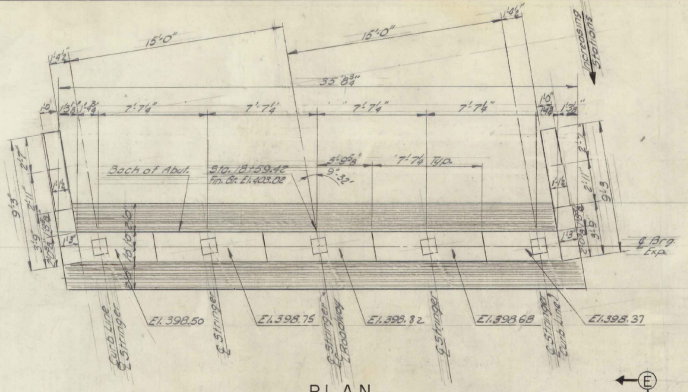
UNDERPASS STA. 1970+53.89
HINESBURG ROAD

TYPICAL PIER DETAILS

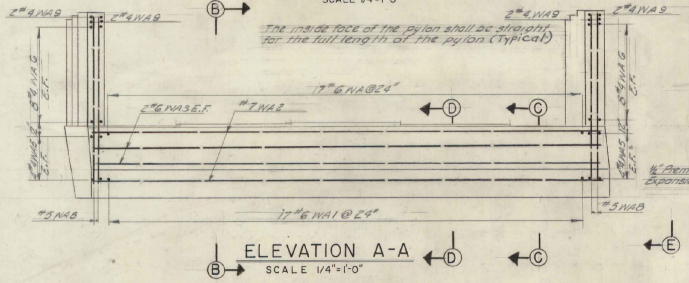
BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.

DRAWN BY A.M.	IN CHARGE A.J.T.	SCALE AS SHOWN
CHECKED BY A.J.T.	DATE	
PROJECT NO. I 89-3(14)	SHEET 90 OF 123	

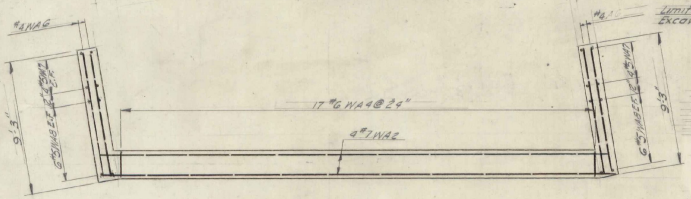
FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No.	SHEET	TOTAL SHEETS
	VERMONT	I 89-3 (14)	91	125



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



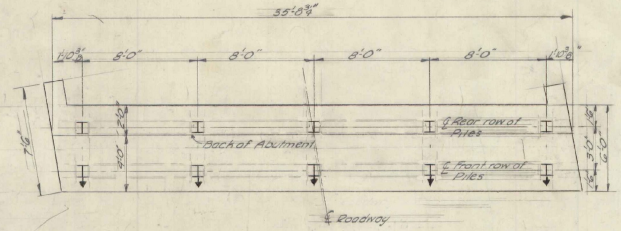
ELEVATION A-A
SCALE 1/4"=1'-0"



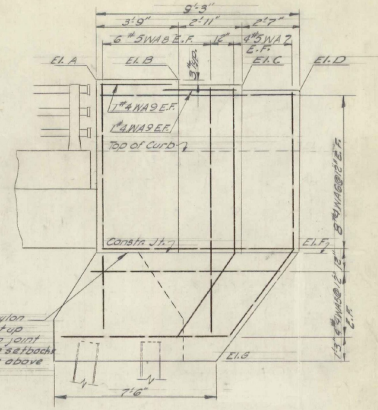
TOP REINFORCING PLAN
SCALE 1/4"=1'-0"

BOTTOM REINFORCING PLAN
SCALE 1/4"=1'-0"

5 Piles Vertical
5 Piles Battered 6:1
Estimated Length of Piles = 25'
▼ Indicates piles battered

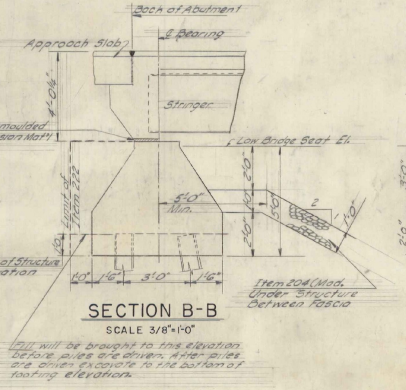


PILE PLAN
SCALE 1/4"=1'-0"



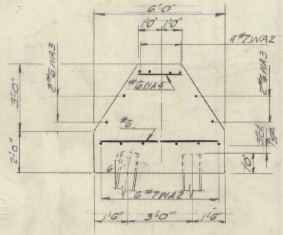
Outside face of pylon shall be straight up to construction joint elev. F and the setback shall be made above the joint.

SECTION E-E
SCALE 3/8"=1'-0"

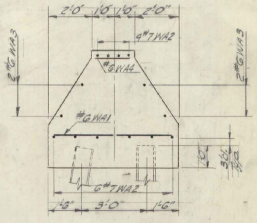


Fill will be brought to this elevation before piles are driven. After piles are driven excavate to the bottom of footing elevation.

SECTION B-B
SCALE 3/8"=1'-0"



SECTION C-C
SCALE 3/8"=1'-0"



SECTION D-D
SCALE 3/8"=1'-0"

ELEV.	LEFT PYLON	RIGHT PYLON
A	406.85	406.97
B	406.94	407.06
C	406.77	406.88
D	406.58	406.70
E		
F	398.37	398.50
G	393.37	393.37

NOTES

1. For General Notes see Sht. # BR.1
2. For additional details see 38-20-60 & 38-22-60.
3. Left & Right are determined by looking toward increasing stations.

ESTIMATED QUANTITIES

ITEM #	ITEM	UNIT	NEAT	OVERRUN	TOTAL	AB FINAL
107	Structure Excavation	C.Y.	11	~~+~~	~~11~~	11
401.B	Concrete, Class B (Mod.)	C.Y.	~~40~~	~~+~~	~~40~~	41
602	Reinforcing Steel	Lbs	See Sch.		Schedule BR.D	1,983
607	Asphaltic Asbestos Coating	S.Y.	4	V		4
608	Splices for Steel Piling	Ea.	~~0~~			~~0~~
609	Steel H Piling (12 B 53)	L.F.	~~250~~			194
622	Gravel Backfill	C.Y.	~~11~~	~~+~~	~~11~~	0

BR 4 of 11

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWN OF SOUTH BURLINGTON

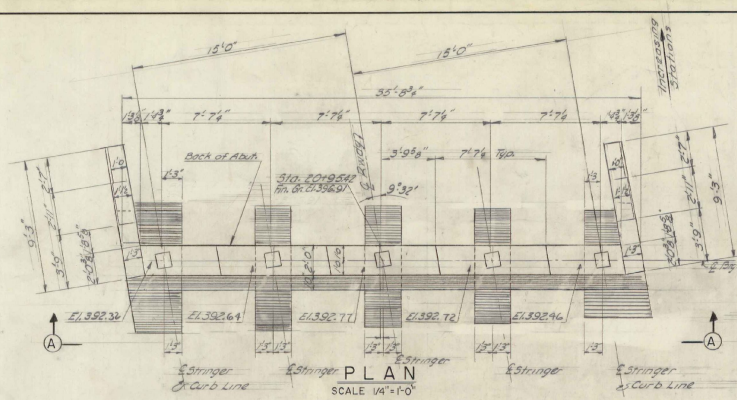
UNDERPASS STA. 1970+53.89
HINESBURG ROAD
No. 1. ABUTMENT DETAILS

BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.

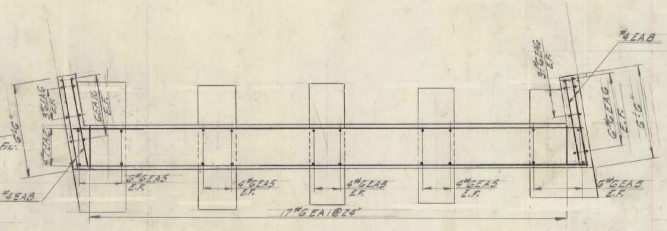
DRAWN BY R.H.E.	IN CHARGE A.J.I.	SCALE As Shown
CHECKED BY A.J.I.	DATE	

PROJECT NO. I 89-3 (14) SHEET 91 OF 125

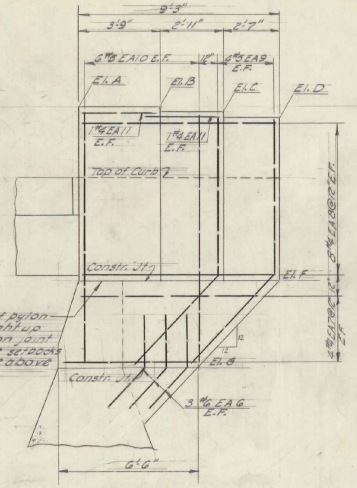
FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No.	SHEET	TOTAL SHEETS
	VERMONT	I-89-3 (14)	92	125



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

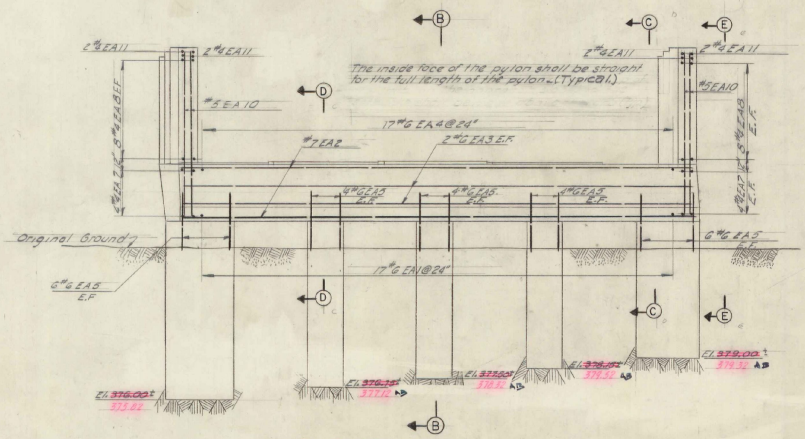


BOTTOM REINFORCING PLAN
SCALE 1/4"=1'-0"

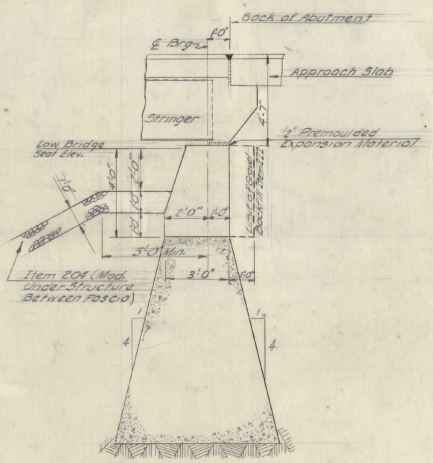


Outside face of pylon shall be straight up to construction joint Elev. F and the setback shall be made above the joint.

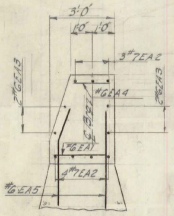
SECTION E-E
SCALE 3/8"=1'-0"



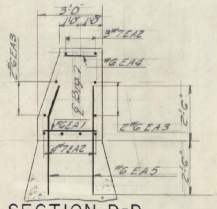
ELEVATION A-A
SCALE 1/4"=1'-0"



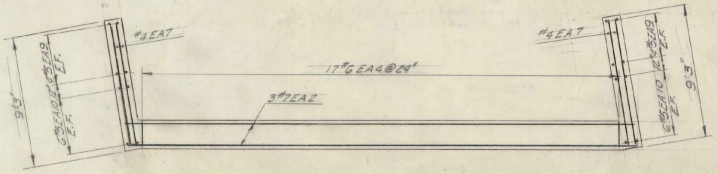
SECTION B-B
SCALE 3/8"=1'-0"



SECTION C-C
SCALE 3/8"=1'-0"



SECTION D-D
SCALE 3/8"=1'-0"



TOP REINFORCING PLAN
SCALE 1/4"=1'-0"

ELEV.	LEFT PYLON	RIGHT PYLON
A	400.83	400.96
B	400.73	400.86
C	400.40	400.54
D	400.08	400.23
F	392.32	392.46
G	388.32	388.32

AS FINAL

ESTIMATED QUANTITIES

ITEM #	ITEM	UNIT	NEAT	OVERRUN	TOTAL
85	107 Structure Excavation	C.Y.	97	3	100
57	401B Concrete Class B Mod.	C.Y.	60	3	63
2037	602 Reinforcing Steel	Lbs	See Bar Schedule BR. 10		
4	707 Asphaltic Asbestos Coating	S.Y.	4 V	—	4 V
0	222 Gravel Backfill	C.Y.	0	0	0

NOTES

1. For General Notes see Sh. BR. 1
2. For additional details see SB-20-66 & SB-12-66
3. Footings shall be constructed entirely on ledge unless otherwise directed in writing by the engineer
4. Maximum allowable footing pressure equals 2 T.S.F.
5. Left & Right are determined by looking Forward increasing stations

13R. 5 of 11

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWN OF SOUTH BURLINGTON.

UNDERPASS STA. 1970+53.89
HINESBURG ROAD

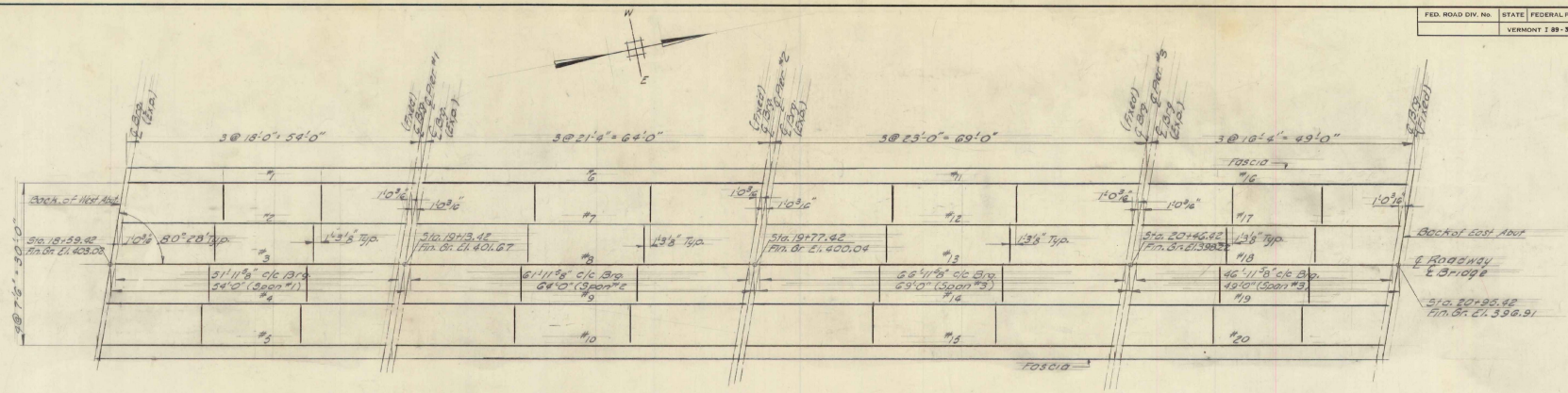
No. 2 ABUTMENT DETAILS

BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.

DRAWN BY R.M.E.	IN CHARGE A.J.I.	SCALE As Shown
CHECKED BY M.J.C.	DATE	

PROJECT NO. I-89-3 (14) SHEET 92 OF 125

FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No.	SHEET	TOTAL SHEETS
	VERMONT	I 89-3 (14)	93	125



FRAMING PLAN
SCALE 1"=10'

ESTIMATED QUANTITIES						AB FINAL
ITEM#	ITEM	UNIT	NEAT	OVERRUN	TOTAL	
	FRAMING PLAN					
403	Spiral Reinforcement (7030)	L.S	Required			1. L.S.
404-A	Structural Steel	lb	220689	4414	225103	221,798#

NOTES

1. For General Notes see BR 1
2. For additional details see SB-20-60 & SB-22-60
3. For superstructure details see SCB-30-60 & SCB-D-60

BR. 6 of 11

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

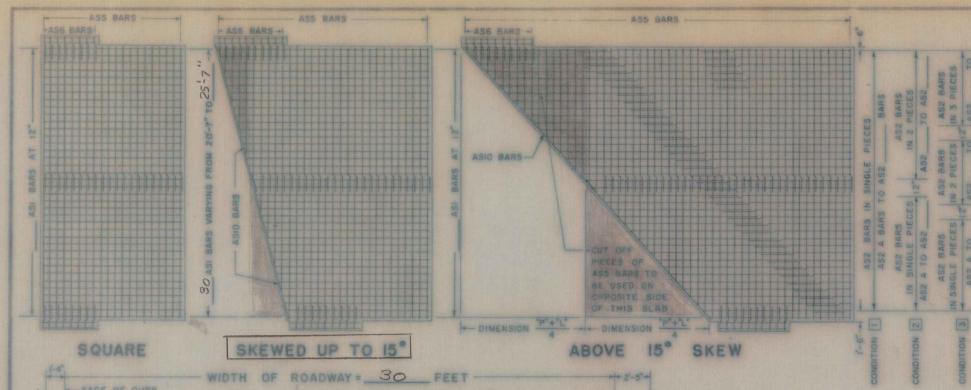
INTERSTATE PROJECT IN THE TOWN OF SOUTH BURLINGTON.

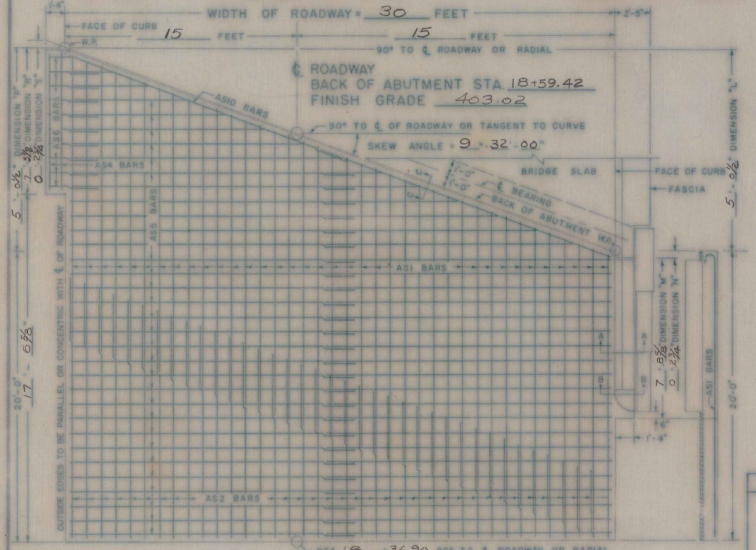
UNDERPASS STA. 1970+53.89
HINESBURG ROAD
FRAMING PLAN

BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.

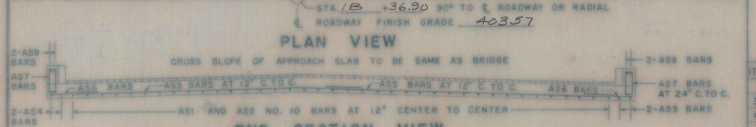
DRAWN BY R.H.E. CHECKED BY A.J.I. | IN CHARGE A.J.I. DATE | SCALE As Shown

PROJECT NO. I 89-3 (14) | SHEET 93 OF 125





PLAN VIEW

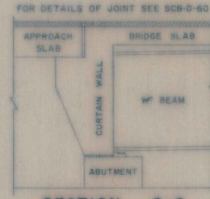


END SECTION VIEW

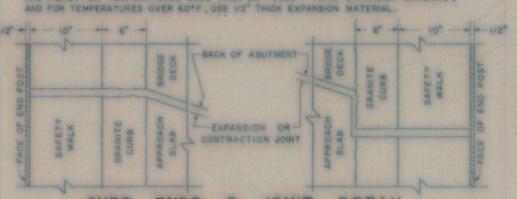
30' ROADWAY						38' ROADWAY						42' ROADWAY						44' ROADWAY						___ ROADWAY					
NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS	NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS	NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS	NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS	NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS
SQUARE OR SKEWED						SQUARE OR SKEWED						SQUARE OR SKEWED						SQUARE OR SKEWED						SQUARE OR SKEWED					
X3*	10	7'-3"	AS3	STR.		2	10		AS3	STR.		2	10		AS3	STR.		2	10		AS3	STR.		2	10		AS3	STR.	
2	10	7'-0"	AS4	STR.		2	10		AS4	STR.		2	10		AS4	STR.		2	10		AS4	STR.		2	10		AS4	STR.	
16	5	3'-6"	AS6	STR.		5	3'-6"		AS6	STR.		5	3'-6"		AS6	STR.		5	3'-6"		AS6	STR.		5	3'-6"		AS6	STR.	
8	5	5'-0"	AS7	S6		5	5'-0"		AS7	S6		5	5'-0"		AS7	S6		5	5'-0"		AS7	S6		5	5'-0"		AS7	S6	
2	5	5'-7"	AS8	STR.		2	5		AS8	STR.		2	5		AS8	STR.		2	5		AS8	STR.		2	5		AS8	STR.	
2	5	5'-4"	AS9	STR.		2	5		AS9	STR.		2	5		AS9	STR.		2	5		AS9	STR.		2	5		AS9	STR.	
SQUARE						SQUARE						SQUARE						SQUARE						SQUARE					
30	10	20'-7"	AS1	1		38	10	20'-7"	AS1	1		42	10	20'-7"	AS1	1		44	10	20'-7"	AS1	1		10	20'-7"		AS1	1	
20	5	29'-6"	AS5	STR.		40	5	19'-9"	AS5	STR.		40	5	21'-9"	AS5	STR.		40	5	22'-9"	AS5	STR.		5			AS5	STR.	
SKEWED UP TO 15°						SKEWED UP TO 15°						SKEWED UP TO 15°						SKEWED UP TO 15°						SKEWED UP TO 15°					
30	10	23'-1" AVE.	AS1	1	L.	38	10	AVE.	AS1	1	L.	42	10	AVE.	AS1	1	L.	44	10	AVE.	AS1	1	L.	10	AVE.		AS1	1	L.
23	5	29'-6"	AS5	STR.	2.	5		19'-9"	AS5	STR.	3.	5		21'-9"	AS5	STR.	3.	5		22'-9"	AS5	STR.	3.	5			AS5	STR.	2-3
ALL SKEWED SPANS						ALL SKEWED SPANS						ALL SKEWED SPANS						ALL SKEWED SPANS						ALL SKEWED SPANS					
2	5	16'-1"	AS10	STR.		5			AS10	STR.		5			AS10	STR.		5			AS10	STR.		5			AS10	STR.	
ABOVE 15° SKEW						ABOVE 15° SKEW						ABOVE 15° SKEW						ABOVE 15° SKEW						ABOVE 15° SKEW					
30	10	20'-7"	AS1	1		38	10	20'-7"	AS1	1		42	10	20'-7"	AS1	1		44	10	20'-7"	AS1	1		10	20'-7"		AS1	1	
29	10	AVE.	AS2	STR.	4.	37	10	AVE.	AS2	STR.	4.	41	10	AVE.	AS2	STR.	4.	43	10	AVE.	AS2	STR.	4.	10	AVE.	AS2	STR.	4.	
5		29'-6"	AS5	STR.	5.	3		19'-9"	AS5	STR.	3.	5		21'-9"	AS5	STR.	3.	5		22'-9"	AS5	STR.	3.	5			AS5	STR.	2-3

REMARKS: ① AS1 BAR 'B' DIMENSION VARIES FROM 19'-6" TO 24'-6" ② 20 + DIMENSION ("M"+"L")÷4 (IN FEET) + NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. ③ 40 + DIMENSION ("M"+"L") ÷ 2 (IN FEET) + NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. ④ THE LENGTH OF AS2 BARS VARIES FROM ____ TO ____. THE AS2 BARS MAY BE DIVIDED INTO TWO OR MORE PIECES, AS MAY BE NECESSARY, TO LIMIT THE MAXIMUM BAR LENGTH TO 30 FEET. THE LOCATION OF SPLICES IS LEFT TO THE OPTION OF THE DESIGNER. THE NO. PIECES SHOWN ARE FOR CONDITION L (FOR CONDITION 2 & 3, SEE REINF. SCHEDULE.)

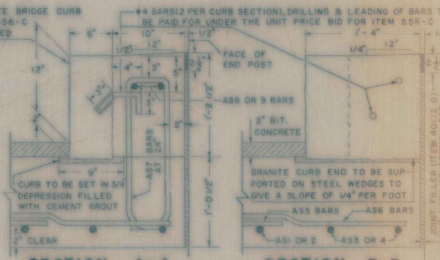
GENERAL NOTES: ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. WHEN A BAR LENGTH VARIES IN INCREMENTS EACH BAR MUST BE DETAILED. SPLICES SHALL BE 2'-1" FOR NUMBER 5 BARS, AND 4'-3" FOR NUMBER 10 BARS. ALL WORK AND MATERIALS SHALL CONFORM TO THE STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED JANUARY 1956, AND THE A.A.S.H.O. SPECIFICATIONS DATED 1957. DESIGNED FOR H20-S16-44.



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



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



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

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

DETAILS OF REINFORCING BARS

TYPE 1
A = 1'-1" J = 0'-9"
B = 19'-6" OR VARIES

TYPE S6
A = 0'-6"
B = 1'-9"
C = 0'-6"
D = 1'-9"
G = 0'-6"

ITEM NO.	ITEM	UNIT	NET	OVERRUN	TOTAL	FINAL
318	TAR EMULSION FOR BRIDGE FLOORS	GAL.	30	—	30	
361-B	BITUMINOUS CONCRETE PAVEMENT (MOD.)	TONS	8	1	9	8
401-B	CONCRETE CLASS B (MOD.)	CY.	27 ✓	1	28	27
402	REINFORCING STEEL	LB.	3997 ✓	—	3997	3,980
556-C	GRANITE BRIDGE CURB (MOD.)	L.F.	16 ✓	—	16 ✓	16

REINFORCING STEEL

BAR NO.	NO. PIECES	A	B LENGTH	C	WEIGHT PER FT. IN LBS.	A x B x C WEIGHT IN LBS.
AS1	30		23'-(6½)	4.303	2979.40	
AS2						
AS3	3*		7'-3"	4.303	93.59	
AS4	2		7'-6"	4.303	60.24	
AS5	23		29'-6"	1.043	707.63	
AS6	16		5'-6"	1.043	58.41	
AS7	8		5'-0"	1.043	41.72	
AS8	2		5'-7"	1.043	11.65	
AS9	2		5'-4"	1.043	11.13	
AS10	2		16'-1"	1.043	33.55	
TOTAL WEIGHT =						3997.37

QUANTITY COMPUTATION

W = WIDTH OF ROADWAY Z = 20 + DIMENSION $\frac{"M"+"L"}{4}$ T = DIMENSION $\frac{"M"+"R"}{2}$

W = 30 Z = 22.5191 T = 7.6094

BITUMINOUS CONCRETE = W x Z x 0.0123 = TONS 30 x 22.52 x 0.0123 = 8 TONS

TAR EMULSION = W x Z x 0.0444 = GALLONS 30 x 22.52 x 0.0444 = 30 GALLONS

CONCRETE CLASS B = W x Z x 0.0586 + T x 0.1029 + (T - 1.8333) x 0.0753 = CUBIC YARDS

30 x 22.52 x 0.0586 + 7.61 x 0.1029 + (7.61 - 1.8333) x 0.0753 = 27 CUBIC YARDS

GRANITE BRIDGE CURB = 2(Z + 0'-3") = LINEAR FEET 2(7.61 + 0.25) = 16 LINEAR FEET

ADD AN OVERRUN OF 15% TO BIT. CONCRETE, AND AN OVERRUN OF 5% TO CONCRETE CLASS B

BAR LENGTHS: AS3 BARS = DIMENSION "M" = 0'-6"
AS4 BARS = DIMENSION "R" = 0'-6"
AS6 BARS = 5'-6"
AS7 BARS = 5'-0"
AS8 BARS = DIMENSION "M" = 2'-2"
AS9 BARS = DIMENSION "R" = 2'-2"

* DENOTES ONE BAR ADDED FOR TESTING

REVISIONS AND CORRECTIONS

APPROVED

DRAWN BY: R.S. HAUPT NOV. 1960
TRACED BY: R.S. HAUPT NOV. 1960
CHECKED BY: A.H. SMALLEY NOV. 1960
CORRECT: Nov 21 1960 BRIDGE ENGINEER
APPROVED: Nov 28 1960 CHIEF ENGINEER

DETAILS OF APPROACH SLAB FOR 30 FOOT BRIDGE
(WIDTH)

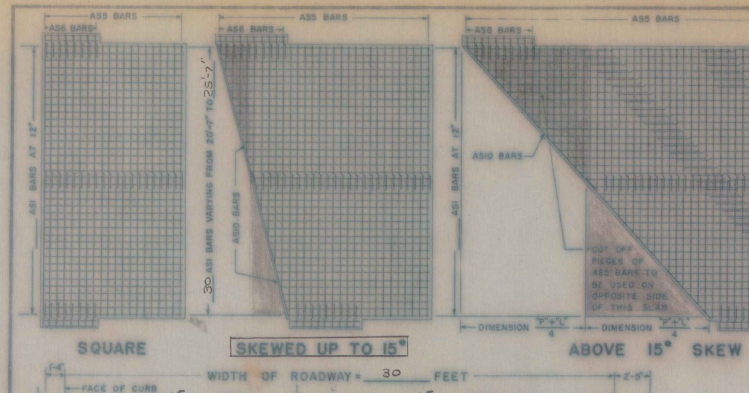
TO BE USED FOR BRIDGE AT STATION 1970+53.89

LOCATION APPROACH SLAB No. 1 HINESBURG RD. UNDERPASS

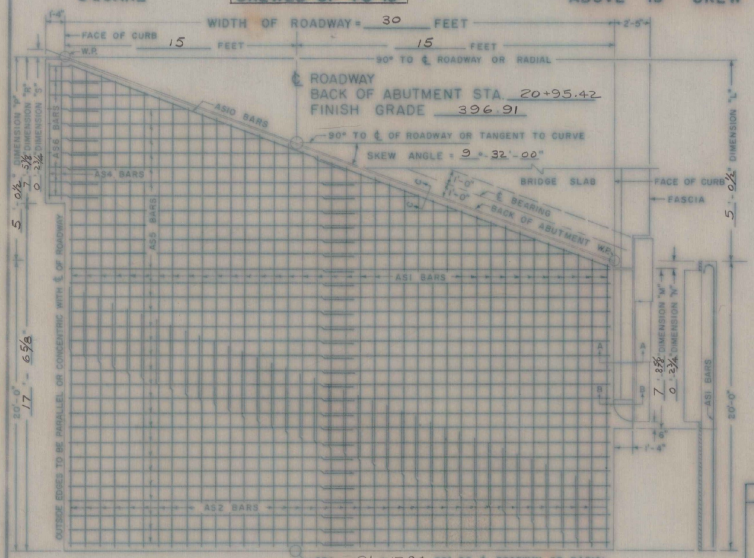
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
STANDARD STRUCTURE

SB-AS-60

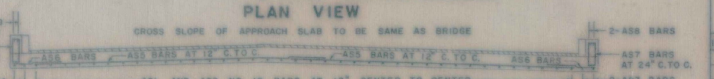
TOWN OF So. BURLINGTON
ROUTE NO. 89
LOG STA. ____
SCALE AS NOTED
DESIGNED BY G.V.K. CHECKED BY AGC
PROJECT NO. I-89-3(14)
BR. 7 OF 11 SHEET 94 OF 125



SQUARE | SKEWED UP TO 15° | ABOVE 15° SKEW



PLAN VIEW

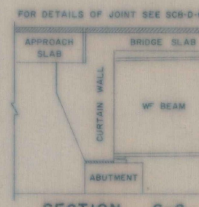


END SECTION VIEW

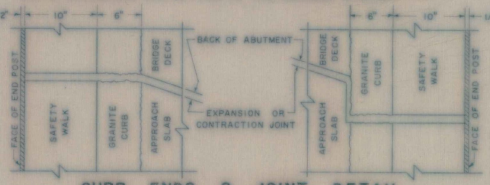
30' ROADWAY						38' ROADWAY						42' ROADWAY						44' ROADWAY						ROADWAY					
NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS	NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS	NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS	NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS	NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS
SQUARE OR SKEWED						SQUARE OR SKEWED						SQUARE OR SKEWED						SQUARE OR SKEWED						SQUARE OR SKEWED					
2	10	7'-3"	AS3	STR.		2	10		AS3	STR.		2	10		AS3	STR.		2	10		AS3	STR.			10		AS3	STR.	
2	10	7'-0"	AS4	STR.		2	10		AS4	STR.		2	10		AS4	STR.		2	10		AS4	STR.		2	10		AS4	STR.	
16	5	3'-6"	AS6	STR.			5	3'-6"	AS6	STR.			5	3'-6"	AS6	STR.			5	3'-6"	AS6	STR.			5	3'-6"	AS6	STR.	
8	5	5'-0"	AS7	S6			5	5'-0"	AS7	S6			5	5'-0"	AS7	S6			5	5'-0"	AS7	S6			5	5'-0"	AS7	S6	
2	5	5'-7"	AS8	STR.		2	5		AS8	STR.		2	5		AS8	STR.		2	5		AS8	STR.		2	5		AS8	STR.	
2	5	5'-4"	AS9	STR.		2	5		AS9	STR.		2	5		AS9	STR.		2	5		AS9	STR.		2	5		AS9	STR.	
SQUARE						SQUARE						SQUARE						SQUARE						SQUARE					
30	10	20'-7"	AS1	1		38	10	20'-7"	AS1	1		42	10	20'-7"	AS1	1		44	10	20'-7"	AS1	1			10	20'-7"	AS1	1	
20	5	29'-6"	AS5	STR.		40	5	19'-9"	AS5	STR.		40	5	21'-9"	AS5	STR.		40	5	22'-9"	AS5	STR.			5		AS5	STR.	
SKEWED UP TO 15°						SKEWED UP TO 15°						SKEWED UP TO 15°						SKEWED UP TO 15°						SKEWED UP TO 15°					
30	10	23'-1" AVE.	AS1	1	1.	38	10	AVE.	AS1	1	1.	42	10	AVE.	AS1	1	1.	44	10	AVE.	AS1	1	1.		10	AVE.	AS1	1	1.
23	5	29'-6"	AS5	STR.	2.		5	19'-9"	AS5	STR.	3.		5	21'-9"	AS5	STR.	3.		5	22'-9"	AS5	STR.	3.		5		AS5	STR.	2-3.
ALL SKEWED SPANS						ALL SKEWED SPANS						ALL SKEWED SPANS						ALL SKEWED SPANS						ALL SKEWED SPANS					
2	8	16'-1"	AS10	STR.			5		AS10	STR.			5		AS10	STR.			5		AS10	STR.			5		AS10	STR.	
ABOVE 15° SKEW						ABOVE 15° SKEW						ABOVE 15° SKEW						ABOVE 15° SKEW						ABOVE 15° SKEW					
30	10	20'-7"	AS1	1		38	10	20'-7"	AS1	1		42	10	20'-7"	AS1	1		44	10	20'-7"	AS1	1			10	20'-7"	AS1	1	
29	10	AVE.	AS2	STR.	4.	37	10	AVE.	AS2	STR.	4.	41	10	AVE.	AS2	STR.	4.	43	10	AVE.	AS2	STR.	4.		10	AVE.	AS2	STR.	4.
5	29'-6"		AS5	STR.	2.		5	19'-9"	AS5	STR.	3.		5	21'-9"	AS5	STR.	3.		5	22'-9"	AS5	STR.	3.		5		AS5	STR.	2-3

REMARKS: ① AS1 BAR 'B' DIMENSION VARIES FROM 19'-6" TO 24'-6" ② 20 + DIMENSION ("F"+"L") ÷ 4 (IN FEET) × NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. ③ 40 + DIMENSION ("F"+"L") ÷ 2 (IN FEET) × NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. ④ THE LENGTH OF AS2 BARS VARIES FROM ____ TO ____. THE AS2 BARS MAY BE DIVIDED INTO TWO OR MORE PIECES, AS MAY BE NECESSARY, TO LIMIT THE MAXIMUM BAR LENGTH TO 30 FEET. THE LOCATION OF SPLICES IS LEFT TO THE OPTION OF THE DESIGNER. THE NO. PIECES SHOWN ARE FOR CONDITION I. (FOR CONDITION 2. & 3. SEE REINF. SCHEDULE.)

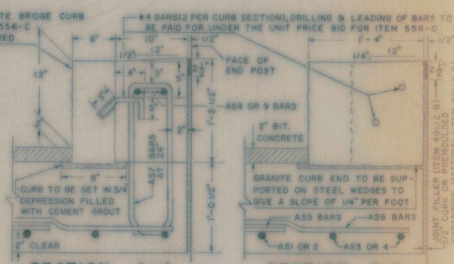
GENERAL NOTES: ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. WHEN A BAR LENGTH VARIES IN INCREMENTS EACH BAR MUST BE DETAILED. SPLICES SHALL BE 2'-1" FOR NUMBER 5 BARS, AND 4'-3" FOR NUMBER 10 BARS. ALL WORK AND MATERIALS SHALL CONFORM TO THE STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED JANUARY 1956, AND THE A.A.S.H.O. SPECIFICATIONS DATED 1957. DESIGNED FOR H20-S16-44.



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



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



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

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

DETAILS OF REINFORCING BARS

TYPE I
A = 1'-1" J = 0'-9"
B = 19'-6" OR VARIES

TYPE S6
A = 0'-6"
B = 1'-9"
C = 0'-6"
D = 1'-9"
G = 0'-6"

ITEM NO.	ITEM	UNIT	NET	OVERRUN	TOTAL	FINAL
318	TAR EMULSION FOR BRIDGE FLOORS	GAL.	30	—	30	
361-B	BITUMINOUS CONCRETE PAVEMENT (MOD.)	TONS	8	1	9	
401-B	CONCRETE CLASS B (MOD.)	C.Y.	27	1	28	27
402	REINFORCING STEEL	LB.	3966	—	3966	3991
556-C	GRANITE BRIDGE CURB (MOD.)	L.F.	16	—	16	16

REINFORCING STEEL

BAR NO.	A NO. PIECES	B LENGTH	C WEIGHT PER FT.	A×B×C WEIGHT IN LBS.
AS1	30	23'-1"	4.303	2979.40
AS2			4.303	
AS3	2	7'-3"	4.303	62.39
AS4	2	7'-0"	4.303	60.24
AS5	23	29'-6"	1.043	707.68
AS6	16	3'-6"	1.043	58.41
AS7	8	5'-0"	1.043	41.72
AS8	2	5'-7"	1.043	11.65
AS9	2	5'-4"	1.043	11.13
AS10	2	16'-1"	1.043	33.55
			TOTAL WEIGHT =	3966.17

QUANTITY COMPUTATION

W = WIDTH OF ROADWAY Z = 20 + DIMENSION "F"+"L"/4 T = DIMENSION "M"+"R"/2

W = 30 Z = 22.5191 T = 7.6094

BITUMINOUS CONCRETE = W×Z×0.0123 × TONS: 30 × 22.52 × 0.0123 × 8 TONS

TAR EMULSION = W×Z×0.0444 = GALLONS: 30 × 22.52 × 0.0444 = 30 GALLONS

CONCRETE CLASS B = W×Z×0.0386 + T×0.1029 + (T−1.83333)×0.0733 = CUBIC YARDS

[30 × 22.52 × 0.0386] + [7.61 × 0.1029] + [7.62 − 1.83333] × 0.0733] = 27 CUBIC YARDS

GRANITE BRIDGE CURB = (21'+0'-3") = LINEAR FEET: 21.761 + 0.25 L. = 16 LINEAR FEET
ADD AN OVERRUN OF 15% TO BIT. CONCRETE, AND AN OVERRUN OF 5% TO CONCRETE CLASS B

BAR LENGTHS: AS3 BARS = DIMENSION "M" − 0'-6"
AS4 BARS = DIMENSION "R" − 0'-6"
AS6 BARS = 3'-6"
AS7 BARS = 5'-0"
AS8 BARS = DIMENSION "M" − 2'-8"
AS9 BARS = DIMENSION "R" − 2'-8"

REVISIONS AND CORRECTIONS

APPROVED

DRAWN BY: R.S. HAUPT NOV. 1960
TRACED BY: R.S. HAUPT NOV. 1960
CHECKED BY: A.H. SMALLEY NOV. 1960
CORRECT: Nov. 21, 1960 — BRIDGE ENGINEER
APPROVED: Nov. 22, 1960 — CHIEF ENGINEER

DETAILS OF APPROACH SLAB FOR 30 (WIDTH) FOOT BRIDGE

TO BE USED FOR BRIDGE AT STATION 1970+53.89

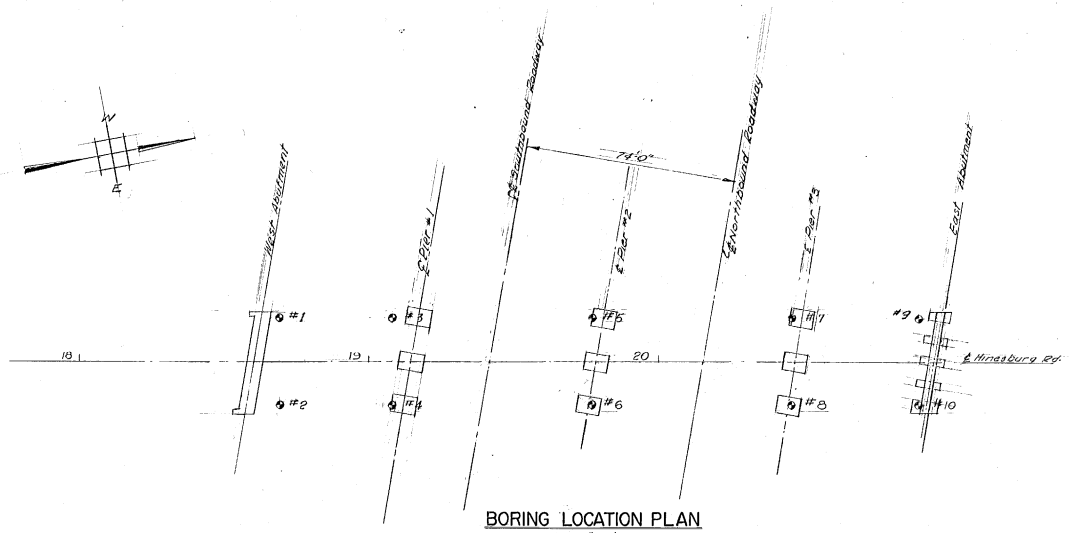
LOCATION APPROACH SLAB NO. 2 HINESBURG RD. UNDERPASS

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
STANDARD STRUCTURE

SB-AS-60

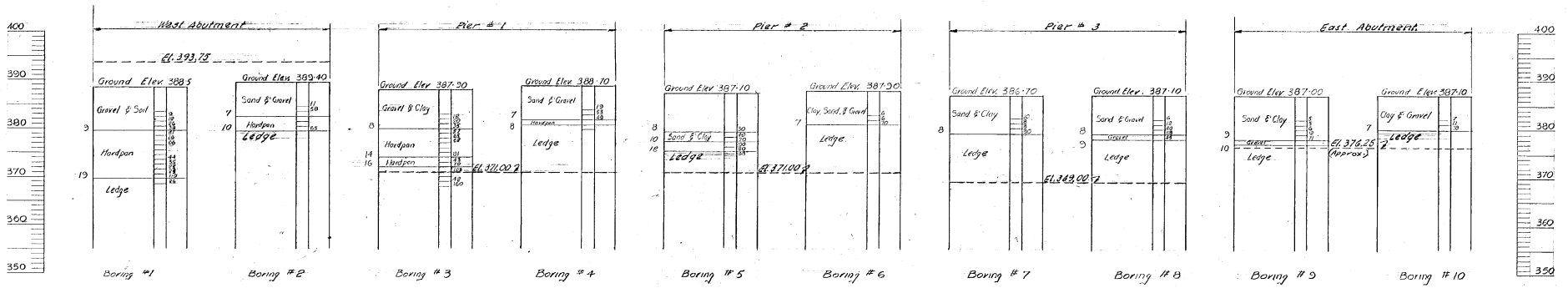
TOWN OF So. BURLINGTON
ROUTE NO. I-89
LOG STA. ____
SCALE AS NOTED
DESIGNED BY G.V.K. CHECKED BY A.G.C.
PROJECT NO. I-89-3(14)
BR. 8 OF 11 SHEET 95 OF 125

FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No.	SHEET	TOTAL SHEETS
	VERMONT	I 89-3 (14)	96	125



BORING LOCATION PLAN

Scale 1"= 20'



NOTES

1. For general notes see sh. # B.R. 1
2. Blows per foot indicate the number of blows necessary to drive a casing whose outside diameter is 2.5" and whose thickness is ⅛" and test using a hammer which weighs 350 lbs. and drops 24".
3. ——— indicates bottom of boring elevation

BR. 9 OF 11

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWN OF SOUTH BURLINGTON.

UNDERPASS STA. 1970+53.89
HINESBURG ROAD
BORING LOGS

BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.

DRAWN BY M.J.S.	IN CHARGE A.J.F.	SCALE AS SHOWN
CHECKED BY A.O.M.	DATE	
PROJECT NO. I 89-3(14)	SHEET 98	OF 125

Item	No Pieces	Size	Length	Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
1					SPAN # 1												
2																	
3	216	#5	34'-4"	151	str.												
4	128	#4	27'-9"	152	str.												
5	20	#6	28'-0"	153	str.												
6	68	#4	5'-3"	154	33	5"	1'-6"	1'-5"	1'-6"			5"	3"				
7	11	#5	32'-7"	155	str.												
8	28	#4	7'-6"	156A	32	5"	3'-0"	8"	3'-0"			5"	3"				
9	31	#5	4'-2"	156P	310		2'-6"	8"	1'-0"								
10	22	#6	3'-0"	157	1	8"	1'-8"					8"		6"			
11																	
12																	
13																	
14					SPAN # 2												
15																	
16	256	#5	34'-4"	251	str.												
17	128	#4	32'-9"	252	str.												
18	20	#6	33'-0"	253	str.												
19	80	#4	5'-3"	254	33	5"	1'-6"	1'-5"	1'-6"			5"	3"				
20	6	#5	32'-7"	255	str.												
21	62	#5	4'-2"	256P	310		2'-6"	8"	1'-0"								
22																	
23																	
24																	
25					SPAN # 3												
26																	
27	276	#5	34'-4"	351	str.												
28	*193	#4	24'-3"	352	str.												
29	*31	#6	24'-6"	353	str.												
30	88	#4	5'-3"	354	33	5"	1'-6"	1'-5"	1'-6"			5"	3"				
31	*7	#5	32'-7"	355	str.												
32	62	#5	4'-2"	356P	310		2'-6"	8"	1'-0"								
33																	
34																	
35																	
36					SPAN # 4												
37																	
38	196	#5	34'-4"	451	str.												
39	128	#4	25'-3"	452	str.												
40	20	#6	25'-6"	453	str.												
41	60	#4	5'-3"	454	33	5"	1'-6"	1'-5"	1'-6"			5"	3"				
42	11	#5	32'-7"	455	str.												
43	26	#4	7'-6"	456A	32	5"	3'-0"	8"	3'-0"			5"	3'-0"				
44	31	#5	4'-2"	456P	310		2'-6"	8"	1'-0"								
45	22	#6	3'-0"	457	1	8"	1'-8"					8"		6"			
46																	
47																	
48																	
49																	
50																	
51																	
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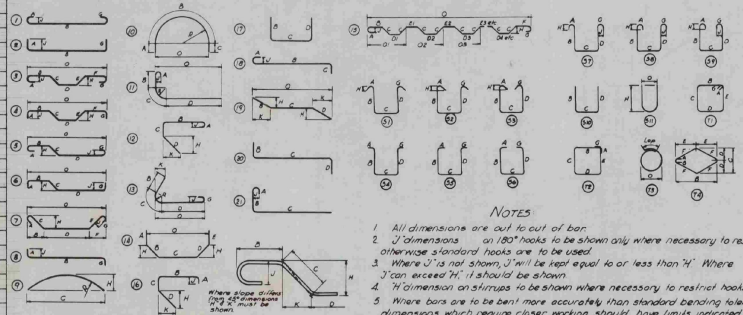
Item	No Pieces	Size	Length	Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
82																	
83					WEST ABUTMENT												
84																	
85	*18	#6	5'-6"	WA1	str.												
86	*11	#7	35'-2"	WA2	str.												
87	4	#6	35'-2"	WA3	str.												
88	17	#6	1'-6"	WA4	str.												
89	*17	#4	8'-0"	WA5	str.												
90	32	#4	8'-9"	WA6	str.												
91	16	#5	11'-11"	WA7	14	7'-3"	6'-8"						4'-0"				
92	*25	#5	11'-6"	WA8	str.												
93	8	#4	3'-3"	WA9	str.												
94																	
95																	
96																	
97					EAST ABUTMENT												
98																	
99	17	#6	2'-6"	EA1	str.												
100	7	#7	35'-2"	EA2	str.												
101	4	#6	35'-2"	EA3	str.												
102	17	#6	1'-6"	EA4	str.												
103	48	#6	5'-0"	EA5	str.	(Bend 24 bars in field as required)											
104	12	#6	5'-0"	EA6	14	2'-6"	2'-6"						1'-9"				
105	16	#4	6'-0"	EA7	str.												
106	32	#4	8'-9"	EA8	str.												
107	16	#5	12'-9"	EA9	14	7'-3"	5'-6"						4'-0"				
108	24	#5	11'-6	EA10	str.												
109	8	#4	3'-3"	EA11	str.												
110																	
111																	
112																	
113					PIER # 1												
114																	
115	*22	#8	7'-6"	1P1	str.												
116	21	#6	7'-6"	1P2	str.												
117	54	#6	5'-6"	1P3	str.												
118	54	#8	7'-10"	1P4	2	1'-5"	6'-7"					0					
119	54	#8	22'-5"	1P5	str.												
120	60	#4	10'-4"	1P6	T3												2'-8"
121	8	#8	11'-7"	1P7	17		6'-8"	4'-11"									
122	8	#8	30'-5"	1P8	str.												
123	5	#8	12'-0"	1P9	str.												
124	10	#8	7'-0"	1P10	str.												
125	48	#4	11'-7"	1P11	T1	4'-6"	2'-3"	3'-2"	2'-3"	3'-2"		4'-6"					
126	8	#5	8'-11"	1P12	10	2'-1"	4'-9"	2'-1"								1'-7"	3'-2"
127	8	#5	16'-3"	1P13	str.												
128																	
129																	
130																	
131					PIER # 2												
132																	
133					Same as Pier #1 except as noted												
134					(No test bars required)												
135																	
136	54	#8	20'-9"	2P5	str.												
137	54	#4	10'-4"	2P6	T3												2'-8"
138																	
139																	
140																	
141					PIER # 3												
142					Same as Pier # 1 except as noted												
143					(No test bars required)												
144																	
145	54	#8	21'-0"	3P5	str.												
146	54	#4	10'-8"	3P6	T3												2'-8"
147																	
148					APPROACH SLAB NO. 1												
149	1	10	20'-7"	1AS1A	1	1-1	19-6							0-9			
150	↓	↓	20-9	B	↑	↑	19-8							↑			
151			20-11	C			19-10										
152			21-1	D			20-0										
153			21-3	E			20-2										
154			21-5	F			20-4										
155			21-7	G			20-6										
156			21-9	H			20-8										
157			21-11	I			20-10										
158			22-1	J			21-0										
159			22-3	K			21-2										
160			22-5	L			21-4										
161	↓	↓	22-7	M	↓	↓	21-6							↓			
162	1	10	22-9	1AS1N	1	1-1	21-8							0-9			

TYPICAL BAR BENDS



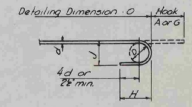
NOTES

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

Item	No. Pieces	Size	Length	Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
163	1	10	22-11	1AS10	1	1-1	21-10							0-9			
164	↑	↑	23-1	P	↑	↑	22-0							↑			
165			23-3	Q			22-2										
166			23-5	R			22-4										
167			23-7	S			22-6										
168			23-9	T			22-8										
169			23-11	U			22-10										
170			24-1	V			23-0										
171			24-3	W			23-2										
172			24-5	X			23-4										
173			24-7	Y			23-7										
174			24-10	Z			23-9										
175			25-1	AA			24-0										
176			25-3	BB			24-2										
177	↓	↓	25-5	CC	↓	↓	24-4							↓			
178	1	10	25-7	1AS1DD	1	1-1	24-6							0-9			
179	3*	10	7-3	1AS3	STR.												
180	2	10	7-0	1AS4	STR.												
181	23	5	29-6	1AS5	STR.												
182	16	5	3-6	1AS6	STR.												
183	8	5	5'-0	1AS7	36	0-6	1-9	0-6	1-9				0-6				
184	2	5	5'-7	1AS8	STR.												
185	2	5	5'-4	1AS9	STR.												
186	2	5	16-1	1AS10	STR.												
187					APPROACH SLAB NO. 2												
188					SAME AS APPROACH SLAB NO. 1 EXCEPT NO. TEST BARS												
189					MARK 2AS3, 2AS4, 2AS5 ETC												
190																	

* Denotes one bar added for testing.

Detailing Dimension O



STANDARD HOOK DETAIL

BAR SIZES

Equivalent Size	Present (Numbers)
⅛"	#2
⅜"	#3
½"	#4
⅝"	#5
¾"	#6
⅞"	#7
1"	#8
1⅛"	#9
1¼"	#10
1⅜"	#11

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

ESTIMATED QUANTITIES

FINAL	Location	Pounds
11,925	Span # 1	11,924
13,712	Span # 2	13,712
14,980	Span # 3	14,946
10,892	Span # 4	10,891
3,941	No.1 Approach Slab	3,937
3,960	No.2 Approach Slab	3,966
1,703	No.1 Abutment	1,983
2,037	No.2 Abutment	2,036
1,996	Pier #1	2,279
1,420	Pier #2	1,414
1,438	Pier #3	1,490
88,340	Total	86,238

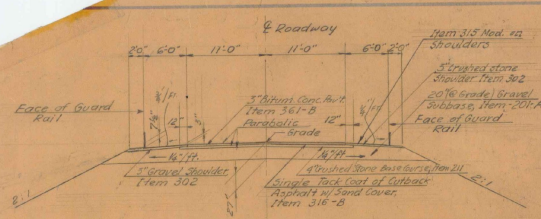
UNDERPASS STA. 1970+53.89 HINESBURG ROAD
BAR SCHEDULE

BR.10 of 11

BOSWELL ENGINEERING CO.
RIDGEFIELD PARK, N.J.

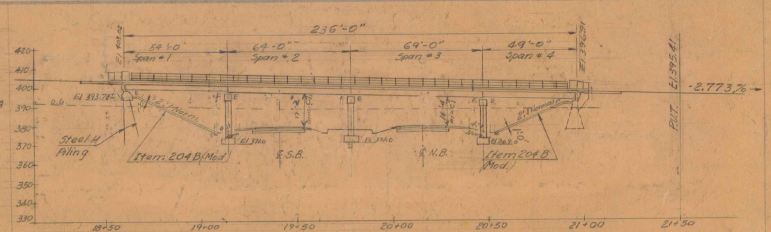
Sheet 1 of 1

Surveyed by
Designed by M.J.C.
Drawn by A.M.
Traced by
Checked by A.J.I.
Series No. 1 89-3 (19) Filed
Sheet 97 of 125 Sheets



NEW HIGHWAY SECT. STA. 17+25 TO STA. 18+50

SCALE 1/8" = 1'-0"



NEW HIGHWAY PROFILE ALONG ℄ HINESBURG RD.

SCALE 1"=30'-0"

HIGHWAY NO. 89 NAME OF HIGHWAY INTERSTATE

STRUCTURE NO. Underpass at Hinesburg Road COUNTY CHITTENDEN TOWN SOUTH BURLINGTON

PROJECT NO I-89-3(14) LOCATION Sta. 18+60± To 20+96± Hinesburg Rd.

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

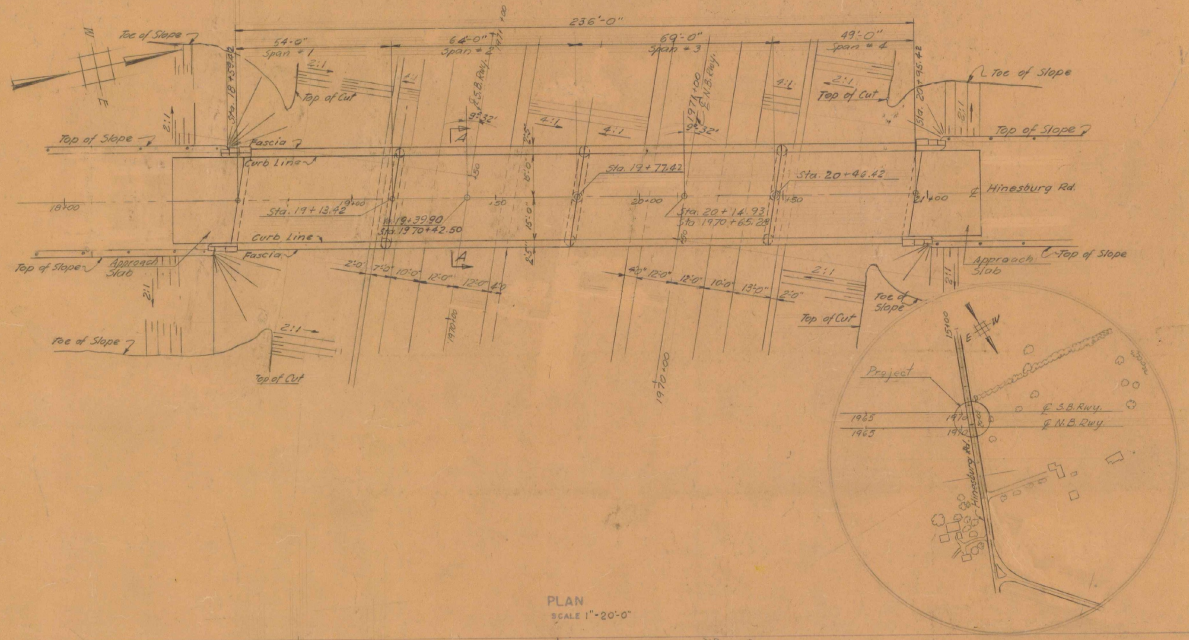
NEW STRUCTURE

1 RECOMMENDED TYPE OF STRUCTURE Four Span Simple Supported Composite Beam Construction
2 RECOMMENDED CLEAR SPAN OR SPANS
MEASURED - PARALLEL TO ℄ NEW HIGHWAY 50.25', 60.50', 65.50', 65.25';
MEASURED AT RIGHT ANGLES TO ℄ STREAM —
3 ARE THERE OBJECTIONS TO A PIER IN THE STREAM, ANSWER YES OR NO —
4 ORDINARY HIGH WATER ELEVATION AT NEW STRUCTURE —
5 EXTREME HIGH WATER ELEVATION AT NEW STRUCTURE — SOURCE OF INFORMATION —
6 IS ALL WATER INTENDED TO PASS THROUGH NEW STRUCTURE? —
7 DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY? — IS ORDINARY RISE RAPID? —
8 LOW WATER ELEVATION AT NEW STRUCTURE —
9 DRAINAGE AREA IN ACRES ABOVE STRUCTURE — CHARACTER OF TERRAINE —
10 IS STREAM EVER DRY? —
11 VELOCITY OF STREAM AT HIGH WATER STAGE — ESTIMATED DISCHARGE —
12 AREA FULL OPENING — AREA BELOW ORDINARY H.W. —
13 CHARACTER OF SCOUR — DRIFT — ICE —
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 7½" Reinforced Concrete + 2" Bituminous Conc.
18 TRAFFIC TO BE MAINTAINED UNDER ITEM NO No 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? Yes DATE LATCH 25 FT. Sheet H Pile Varies
35T/pile, 5T/S.F.-Ledge

FOUNDATION INFORMATION

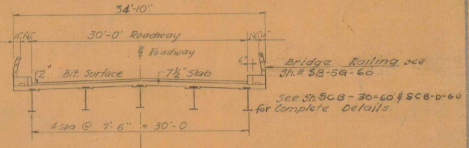
OBTAINED FOR DESIGN PURPOSES ONLY, AND THE STATE ASSUMES NO RESPONSIBILITY WHATSOEVER FOR THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN. BOULDERS MAY BE ENCOUNTERED AT ANY PIER OR ABUTMENT LOCATION.

#1 Design Loading: H 20-44 Modified for National System of Interstate Highways.
#2 For Borings See Sh. #97



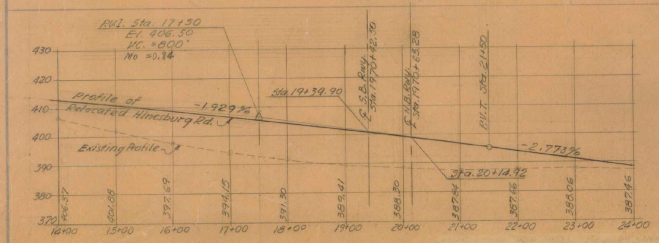
PLAN

SCALE 1"=20'-0"



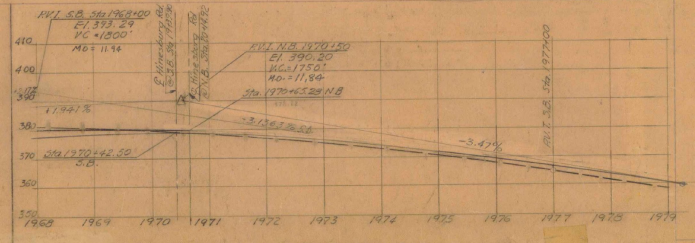
SECTION A-A (TYP.)

SCALE ⅜" = 1'-0"



HINESBURG ROAD PROFILE

SCALE HOR. 1" = 100'-0"
VERT. 1" = 20'-0"



N.B. & S.B. INTERSTATE PROFILES

SCALE HOR. 1" = 100'-0"
VERT. 1" = 20'-0"

INCORRECT — APPROVED —
BRIDGE ENGINEER — CHIEF ENGINEER

BR 11 of 11

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

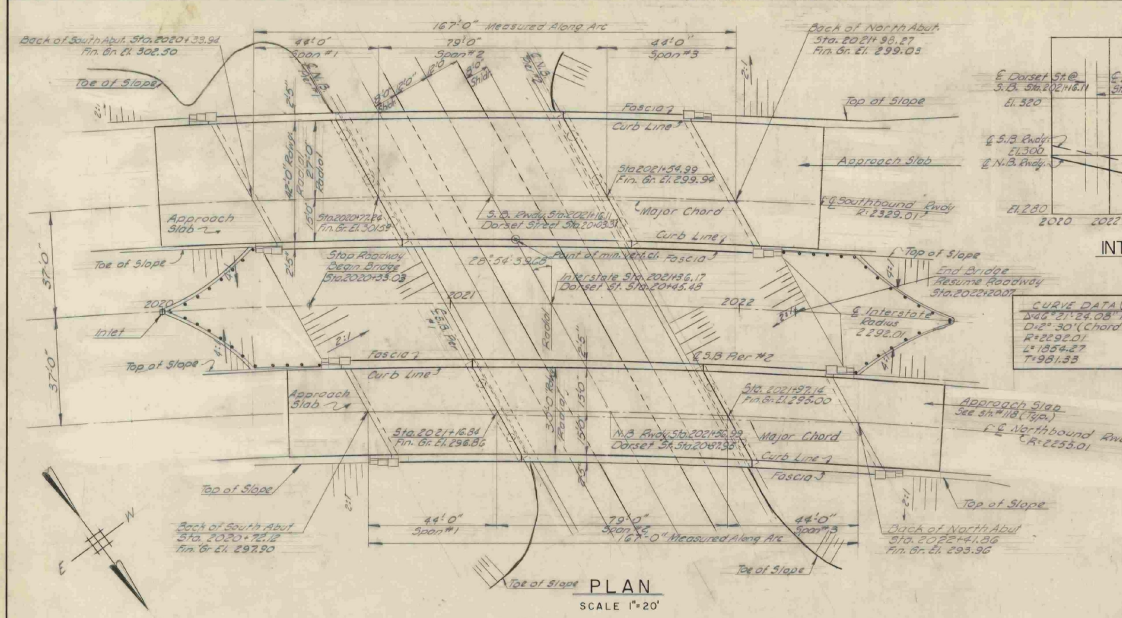
INTERSTATE IN THE TOWNS OF
SO. BURLINGTON
ROUTE NO. 89 LOG STA.

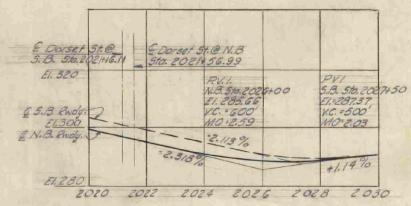
UNDERPASS N.B. & S.B. INTERSTATE
HINESBURG ROAD STA 1970+53.89

SURVEYED BY — DRAWN BY A.M. — CHECKED BY A.J.I. — QUANTITIES BY A.J.I. — SCALE As Noted — DATE June 10, 1969

PROJECT NO I-89-3(14) SHEET 98 OF 125

FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No.	SHEET	TOTAL SHEETS
	VERMONT	I 89-3 (14)	99	125

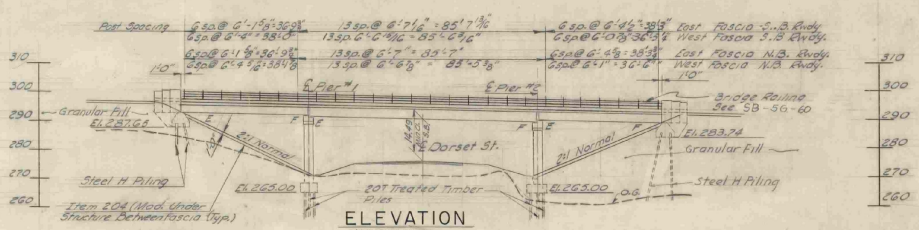




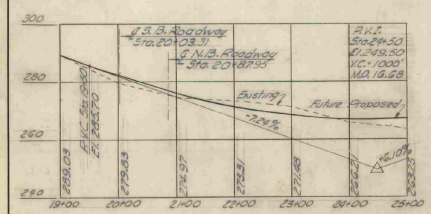
INTERSTATE PROFILE
SCALE HOR 1"=200'
VERT. 1"=20'

CURVE DATA (℄ Interstate)
Δ = 21°24.08" Rt.
D = 30' (Chord Definition)
R = 2292.01
L = 1354.27
T = 1981.33

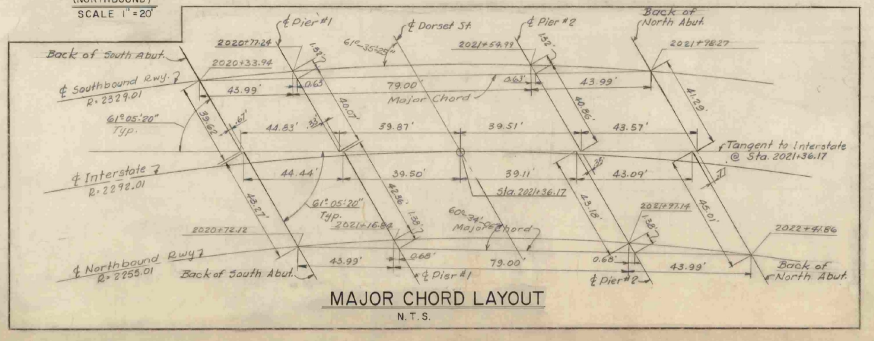




ELEVATION
(NORTHBOUND)
SCALE 1"=20'



DORSET ST. PROFILE
SCALE HOR 1"=200'
VERT. 1"=20'



MAJOR CHORD LAYOUT
N.T.S.

ESTIMATED QUANTITIES

ITEM #	ITEM	UNIT	NORTHBOUND NEAT	NORTHBOUND OVERRUN	NORTHBOUND TOTAL	SOUTHBOUND NEAT	SOUTHBOUND OVERRUN	SOUTHBOUND TOTAL	
107	Structure Excavation	C.Y.	76	8	84	191	19	210	422 / 292
204	Subbase of Crushed Rock (Mod. Under Str.)	C.Y.	132	6	138	177	9	186	*
361 B	Bit. Conc. Pvmt. Mod. (Incl. Approach Slab)	Ton	84	13	97	119	18	137	1,143
401 B	Conc. Class B Mod. (Incl. Appr. Slab)	C.Y.	480	24	504	642	32	674	107,544
402	Reinforcing Steel (Incl. Appr. Slab)	LB	76,194	—	76,194	109,951	—	109,951	1,153
403	Spiral Reinforcement (Sizes 3/4" & 1/2")	L.S.	Required			Required			408,553
404 A	Structural Steel	LB	177,520	3,550	181,070	248,450	4,970	253,420	98
407	Asphaltic Asbestos Coating	S.Y.	40	—	40	54	—	54	14.12
501	Furnishing Equip. for Driving Piles	L.S.	Required			Required			24.18
502 B	Treated Timber Piles	L.F.	1650	—	1650	1020	—	1020	1
503	Splices for Steel Piling	Each	4	—	4	12	—	12	2,340
504	Steel H Piling (12 BP 53)	L.F.	850	—	850	1540	—	1540	739
506 C	Granite Bridge Curb Mod. (Incl. Appr. Slab)	L.F.	369	—	369	369	—	369	64.2
512	Bridge Railing	L.F.	324	—	324	324	—	324	6
622	Gravel Backfill	C.Y.	42	4	46	62	6	68	*
618 *	Tar Emulsion for Bridge Floors	Gal.	300	—	300	435	—	435	*
572 *	Joint Sealer Hot Poured Elastic Type	L.F.	138	—	138	194	—	194	*

* THIS ITEM TO SHALL BE INCLUDED IN ROADWAY ESTIMATE

FINAL 4/6/84

GENERAL NOTES

1. All materials and construction shall conform to the State of Vermont, Department of Highways, Standard Specifications for Road and Bridge Construction dated Jan. 1956 and the A.A.S.H.O. Standard Specifications dated 1957 Designed for M 20-S16-44 loading modified for National System of Interstate Highways applied in accordance with the provision of the A.A.S.H.O. Standard Specification, Article 1.2.8.
2. Cross slope of approach slab to conform with the cross slope of Bridge.
3. Final coat of field paint shall be green; unless otherwise directed by the Engineer.
4. All stations referred to interstate base line between the two roadways.
5. All dimensions given are measured horizontally or vertically unless otherwise noted.
6. All dimensions given at 68° F.
7. All reinforcing to have a clear cover of 3" unless otherwise noted.
8. All exposed edges of concrete shall be chamfered 1"x1" unless otherwise noted.
9. Borings indicated on the drawings here been made for design purposes only and are not warranted to show actual subsurface conditions.
10. Elevation Datum sea level based on bench line U.S.C.G.S. survey level line Vermont 251 (Second Order)
11. Unless otherwise called for all beams shall be rolled to a true circular camber the middle ordinate being that shown in A.I.S.C. handbook as being the minimum camber likely to remain permanent.
12. Steel bearing piles shall be driven to ledge rock unless otherwise approved by the Engineer. When piles are driven to refusal, the material should be such as to have no stones large enough to interfere with the driving of piles.
13. The top surface of all piers and abutments shall be sloped ½" per foot from the front edge of abutment curtain wall or centerlines of piers except for bearing pads projecting 1" or more above the general area, which surfaces shall be level. The entire exposed top surfaces shall be coated with asphaltic asbestos coating ⅛" thick as per item 407 of Specifications.

LIST OF DRAWINGS

General Plan Elevation ..... Br 1
Pier Elevations ..... Br 2
Typical Northbound Pier Details ..... Br 3
Typical Southbound Pier Details ..... Br 4
Northbound Abutment Details ..... Br 5
Southbound Abutment Details ..... Br 6
Framing Plan & Typical Sections ..... Br 7
Approach Slab ..... Br 8 – 11
Boring Logs ..... Br 12
Bar Schedule Northbound ..... Br 13
Bar Schedule Southbound ..... Br 14
Bar Schedule Approach Slabs ..... Br 15
Preliminary Information Sheet ..... Br 16
SCB-30-60 ..... Sht #115
SCB-42-60 ..... Sht #116
SCB-50-60 ..... Sht #117
SB-56-60 1 of 2, 2 of 2 ..... Sht #118, Sht #119
SB-20-60 ..... Sht #120
SB-22-60 ..... Sht #121

REFERENCE DRAWINGS

Plan Interstate Sh. #16
Profile Interstate Sh. #21
Cross Section Interstate Sh. 34, Sh. 35, Sh. 36

Br 1 of Br 16

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWN OF SOUTH BURLINGTON

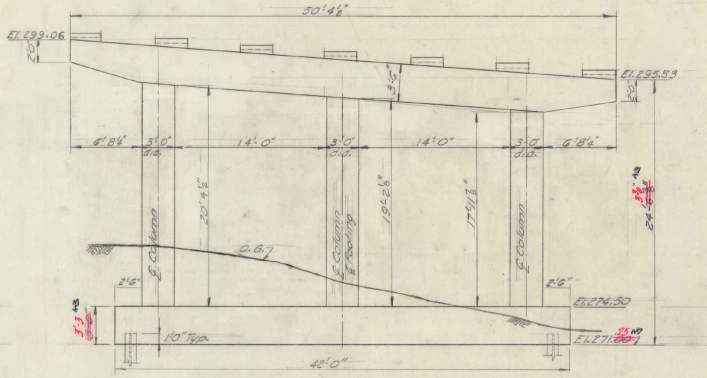
OVERPASS STA. 2021+36.17
DORSET STREET
GENERAL PLAN & ELEVATION

BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.

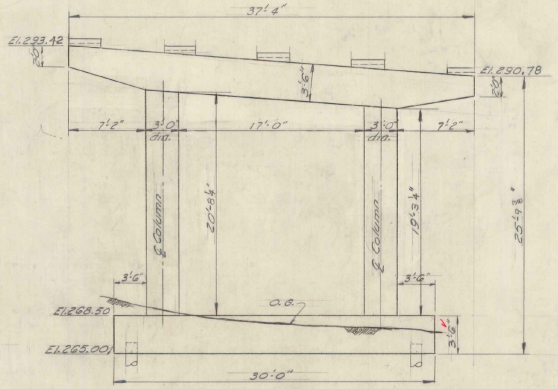
DRAWN BY R.H.E. CHECKED BY A.J.I. | IN CHARGE A.J.I. DATE | SCALE As Shown

PROJECT NO. I 89-3 (14) | SHEET 99 OF 125

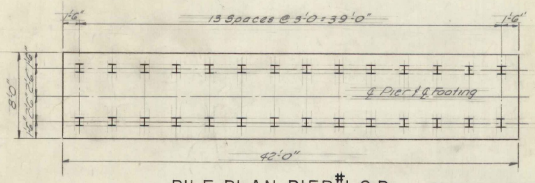
FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No.	SHEET	TOTAL SHEETS
	VERMONT	I 89-3 (14)	100	125



PIER #1 S.B.

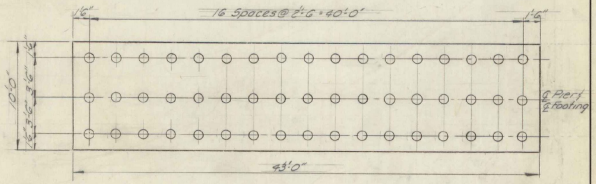


PIER #1 N.B.



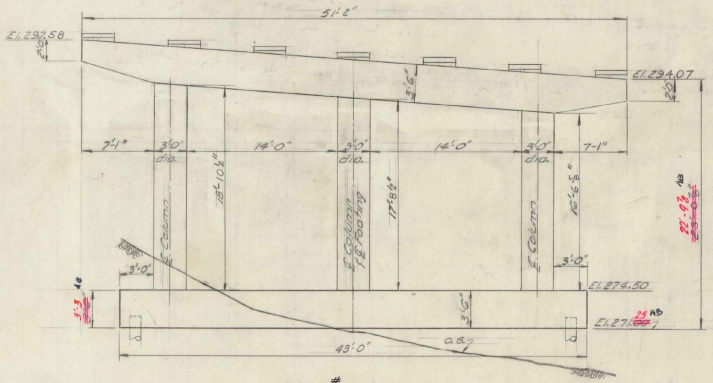
PILE PLAN PIER #1 S.B.

28 Steel H Piles
Estimated Average Pile Length 80'

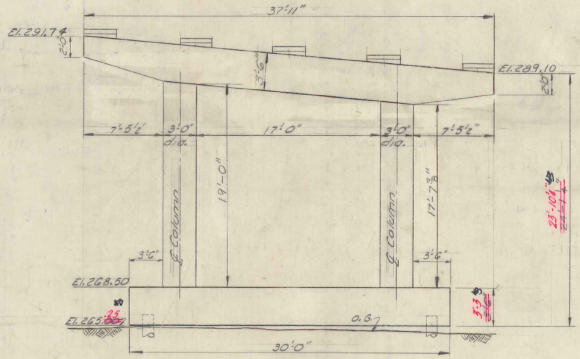


PILE PLAN PIER #2 S.B.

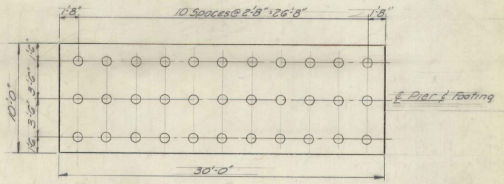
51 Treated Timber Piles
Estimated Pile Length 20'



PIER #2 S.B.



PIER #2 N.B



PILE PLAN PIERS 1 & 2 N.B.

33 Treated Timber Piles
Estimated Pile Length
Pier 1 = 20'
Pier 2 = 30'

NOTES

1. For General Notes see Br 1
2. For pier details see Br 3, Br 4
3. All elevations looking toward increasing stations
4. For bearing elevations see Br 3, Br 4

ESTIMATED QUANTITIES

ITEM #	ITEM	UNIT	NORTHBOUND PIER #1 NEAT	NORTHBOUND PIER #1 OVERRUN	NORTHBOUND PIER #1 TOTAL	NORTHBOUND PIER #2 NEAT	NORTHBOUND PIER #2 OVERRUN	NORTHBOUND PIER #2 TOTAL	SOUTHBOUND PIER #1 NEAT	SOUTHBOUND PIER #1 OVERRUN	SOUTHBOUND PIER #1 TOTAL	SOUTHBOUND PIER #2 NEAT	SOUTHBOUND PIER #2 OVERRUN	SOUTHBOUND PIER #2 TOTAL	Final Quant. N. Bnd. Pier 1	N. Bnd. Pier 2	S. Bnd. Pier 1	S. Bnd. Pier 2
107	Structure Excavation	C.Y.	~~37~~	~~—~~	~~37~~	16 ✓	~~—~~	~~16~~	~~35~~	~~—~~	~~70~~	~~47~~	~~—~~	~~82~~	53	14	204	23
601A	Concrete Class B	C.Y.	66 ✓	~~—~~	~~66~~	~~66~~	~~—~~	~~66~~	~~82~~	~~—~~	~~82~~	~~93~~	~~—~~	~~93~~	66	62	78	89
602	Reinforcing Steel	lbs.	See Bar Schedule Br 13						See Bar Schedule Br 14						11,327	11,270	17,287	17,490
607	Aggregate Asbestos Coating	S.Y.	~~73~~	—	~~73~~	16 ✓	—	16 ✓	21 ✓	—	21 ✓	21 ✓	—	21 ✓	15	16	21	21
508A	Treated Timber Piles	L.F.	~~660~~	—	~~660~~	~~990~~	—	~~990~~	—	—	—	~~1020~~	—	~~1020~~	427	1,065	-	906
509	Splices for Steel Piling	Each	—	—	—	—	—	—	~~6~~	—	~~6~~	—	—	—	-	0	-	-
509	Steel H Piling 12 BP 53	L.F.	—	—	—	—	—	—	~~360~~	—	~~360~~	—	—	—	-	-	348	-

Br 2 of Br 16

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWN OF SOUTH BURLINGTON

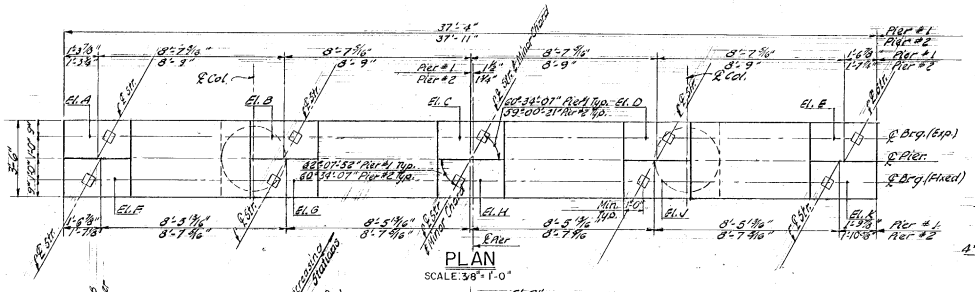
OVERPASS STA. 2021+36.17
DORSET STREET
PIER ELEVATIONS

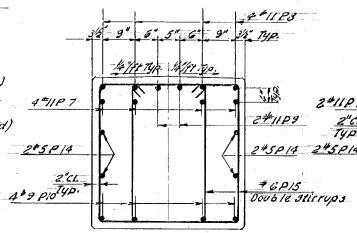
BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.

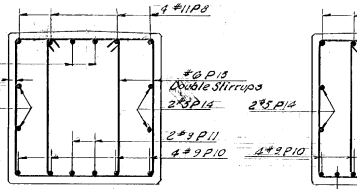
DRAWN BY R.H.E. CHECKED BY M.J.C. | IN CHARGE A.J.T. DATE | SCALE 3/16" = 1'-0"

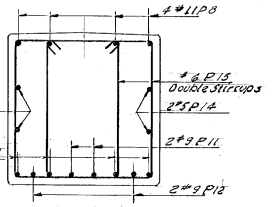
PROJECT NO. I 89-3 (14) | SHEET 100 OF 125

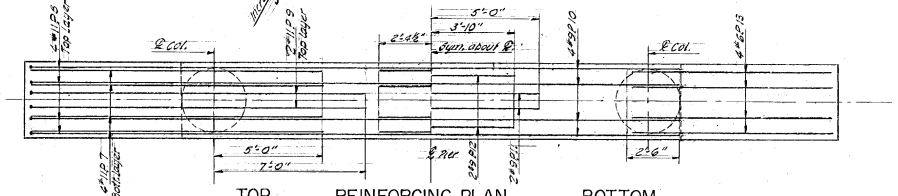
FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No.	SHEET	TOTAL SHEETS
	VERMONT	1 89-3(14)	101	125

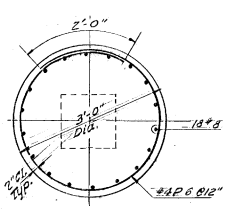


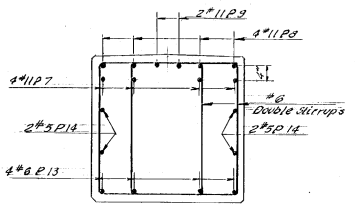


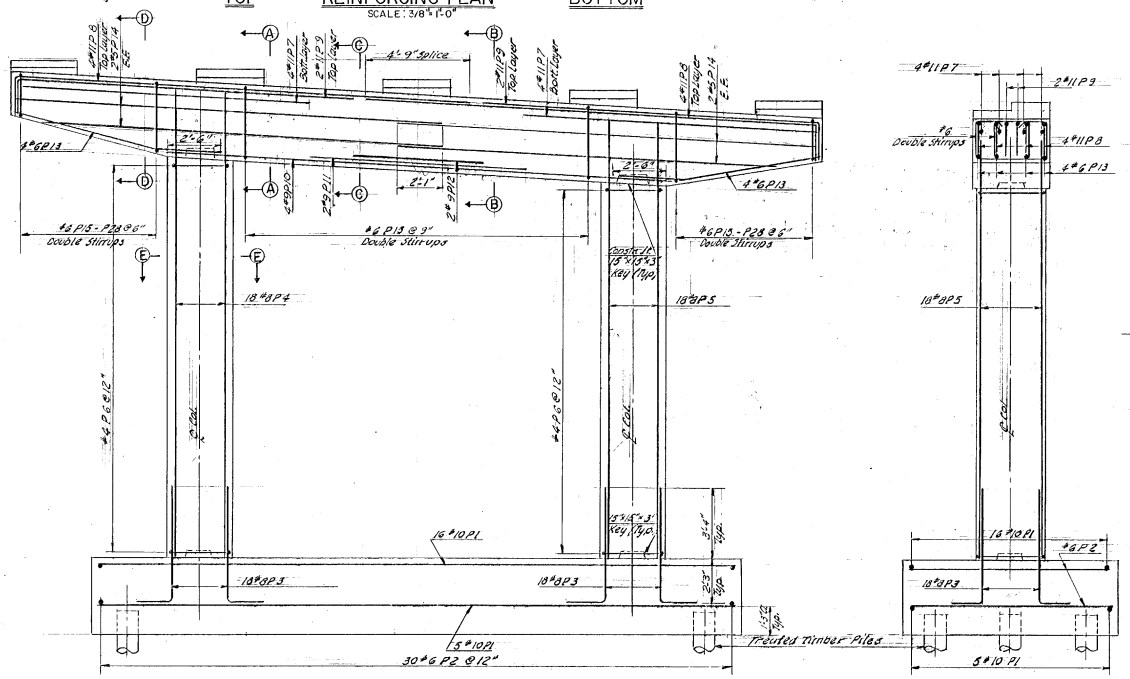


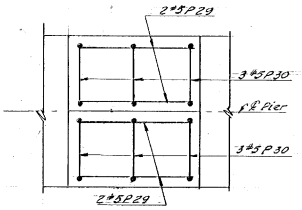












BEARING ELEV.		
ELEV.	PIER # 1	PIER # 2
A	293.59	292.02
B	292.98	291.41
C	292.37	290.79
D	291.76	290.18
E	291.16	289.56
F	293.91	291.91
G	293.31	291.30
H	292.71	290.70
J	292.11	290.09
K	291.51	289.48

NOTES

1. For General Notes see Br 1
2. For pier elevations see Br 2
3. For estimate of quantities see Br 2

Br 3 of Br 16

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWN OF SOUTH BURLINGTON

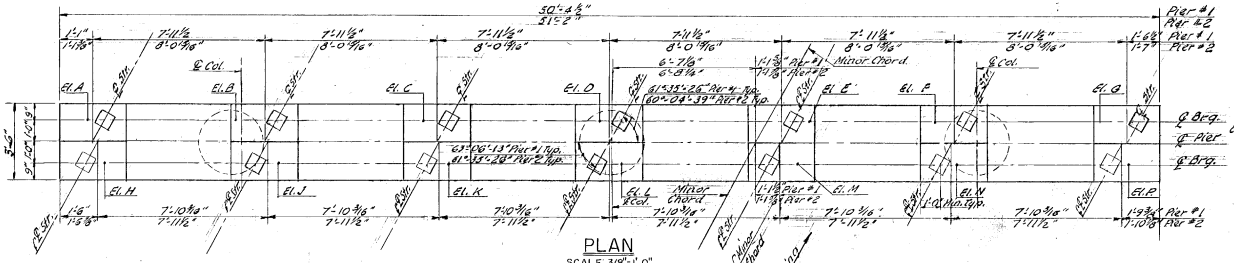
OVERPASS STA. 2021+36.17
DORSET STREET

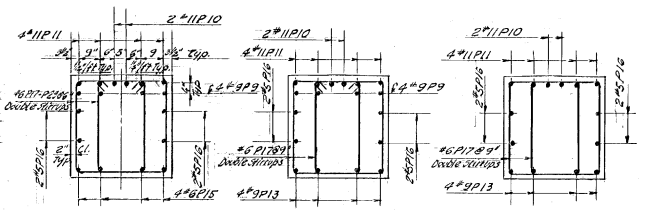
TYPICAL N.B. PIER DETAILS

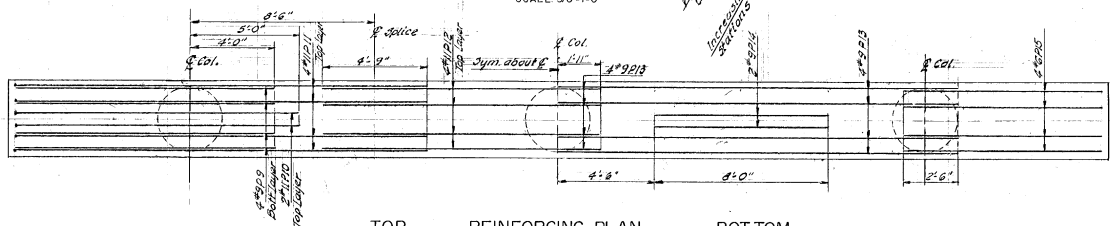
BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.

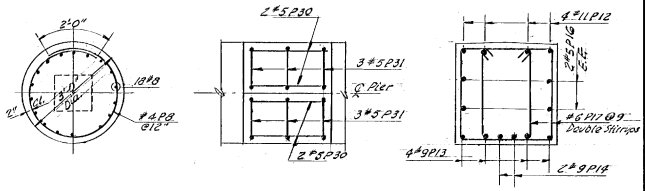
DRAWN BY A.M. CHECKED BY M.J.C.	IN CHARGE A.J.I. DATE	SCALE AS SHOWN
PROJECT NO. I 89-3(14)	SHEET 101 OF 125	

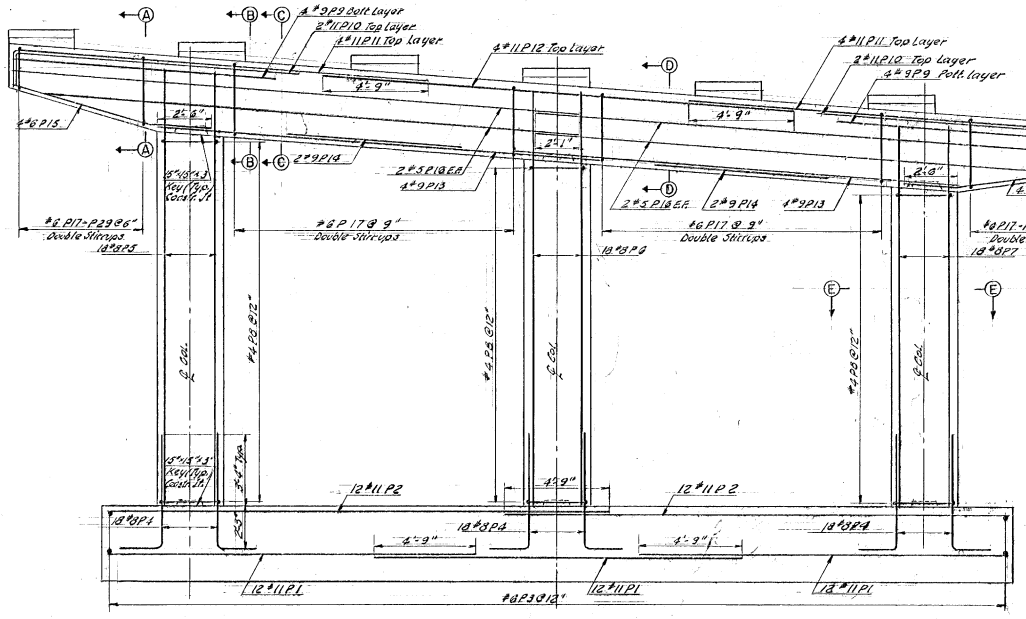
FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No.	SHEET	TOTAL SHEETS
	VERMONT	I 89-3(14)	102	125

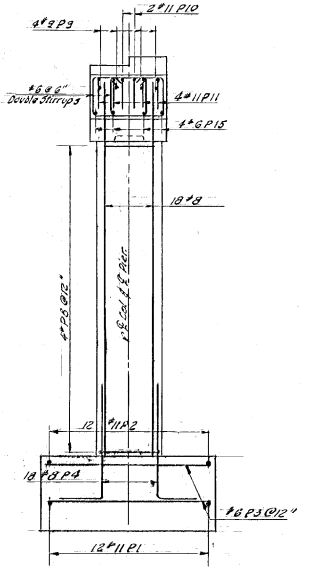












BEARING ELEV.

ELEV.	PIER #1	PIER #2
A	299.23	297.90
B	298.68	297.34
C	298.12	296.78
D	297.57	296.22
E	297.02	295.66
F	296.46	295.10
G	295.91	294.54
H	295.54	297.75
J	299.00	297.20
K	298.45	296.65
L	297.90	296.10
M	297.35	295.55
N	296.81	295.00
P	296.26	294.45

NOTES

1. For General Notes see Br 1
2. For pier elevations see Br 2
3. For estimate of quantities see Br 2

Br 4 of Br 16

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWN OF SOUTH BURLINGTON

OVERPASS STA. 2021+36.17
DORSET STREET

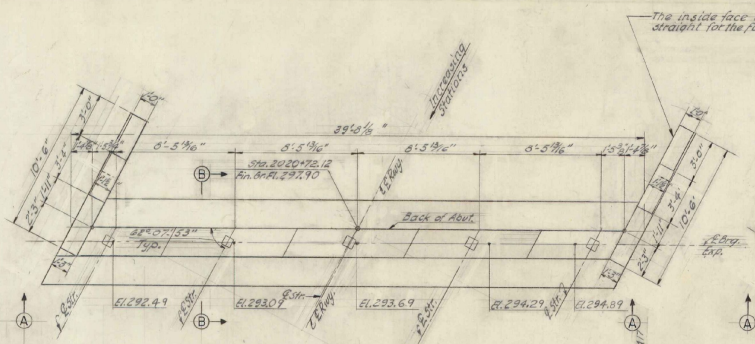
TYPICAL S.B. PIER DETAILS

BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.

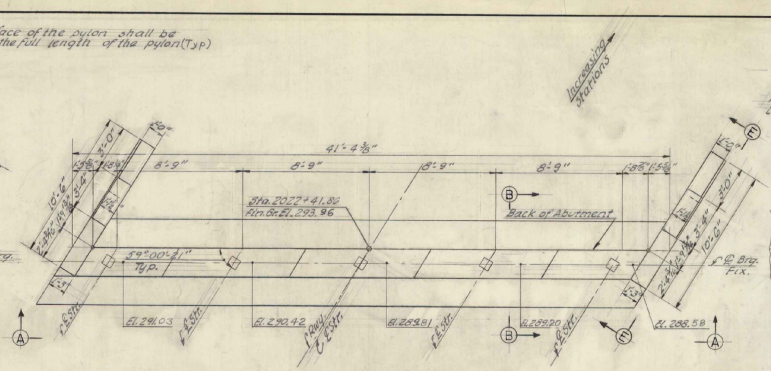
DRAWN BY A.M.	IN CHARGE A.J.I.	SCALE AS SHOWN
CHECKED BY M.J.C.	DATE	

PROJECT NO. I 89-3(14) SHEET 102 OF 125

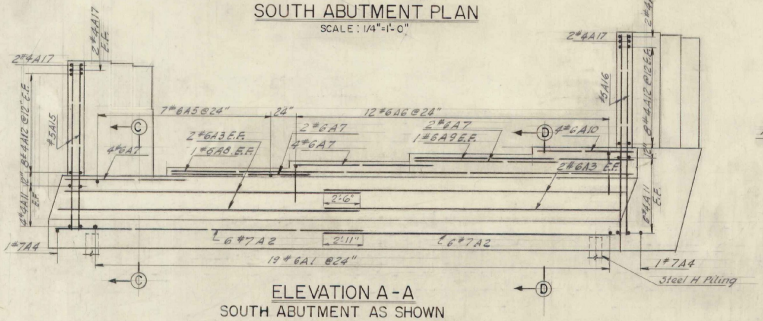
FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No.	SHEET	TOTAL SHEETS
	VERMONT	I 89 - 3 (14)	103	125



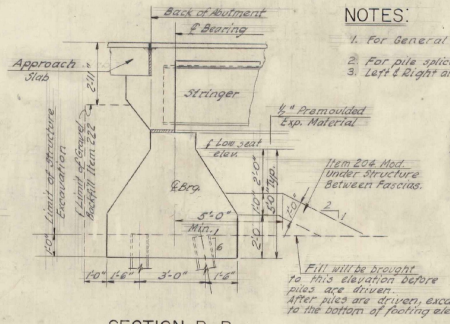
SOUTH ABUTMENT PLAN
SCALE: 1/4"=1'-0"



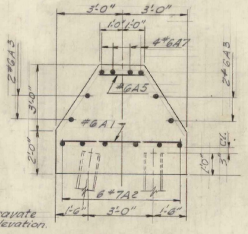
NORTH ABUTMENT PLAN
SCALE: 1/4"=1'-0"



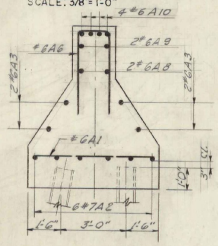
ELEVATION A-A
SOUTH ABUTMENT AS SHOWN
NORTH ABUTMENT OPP. HAND
SCALE: 1/4"=1'-0"



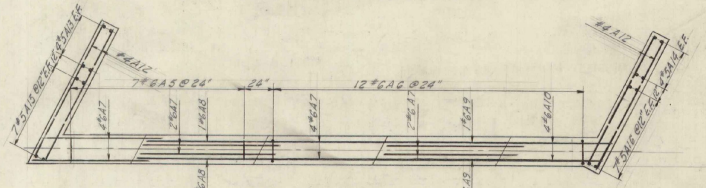
SECTION B-B
SCALE: 3/8"=1'-0"



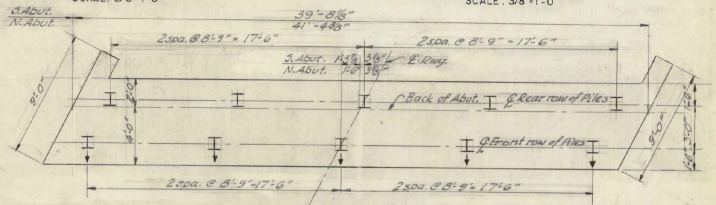
SECTION C-C
SCALE: 3/8"=1'-0"



SECTION D-D
SCALE: 3/8"=1'-0"

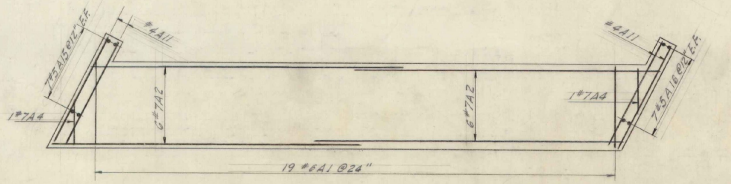


TOP REINFORCING PLAN
SCALE: 1/4"=1'-0"



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

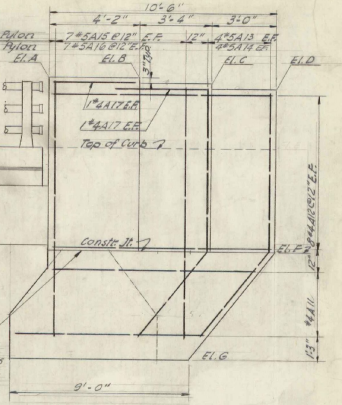
5 Piles battered 6:1 each Abut.
5 Piles vertical each Abut.
10 Piles total each Abut.
Estimated avg Pile length - South abut. 45'
North abut. 40'
Indicates piles battered



BOTTOM REINFORCING PLAN
SCALE: 1/4"=1'-0"

ELEV.	SOUTH ABUTMENT		NORTH ABUTMENT	
	RIGHT PYLON	LEFT PYLON	RIGHT PYLON	LEFT PYLON
A	300.94	303.37	297.08	299.59
B	301.04	303.47	296.98	299.49
C	300.87	303.30	296.66	299.16
D	300.69	303.12	296.34	298.84
E				
F	292.49	294.89	288.58	291.03
G	287.49	287.49	283.58	283.58

NOTES:
1. For General Notes see Br 1
2. For pile splice detail see SB-20-60
3. Left & Right are determined by looking toward increasing Stations.



SECTION E-E
SCALE: 3/8"=1'-0"

Outside face of pylon shall be straight up to construction joint at elev. F and the setbacks shall be made above the joint. (Typ.)

ESTIMATED QUANTITIES

ITEM #	ITEM	UNIT	NORTH ABUTMENT NEAT	NORTH ABUTMENT OVERRUN	NORTH ABUTMENT TOTAL	SOUTH ABUTMENT NEAT	SOUTH ABUTMENT OVERRUN	SOUTH ABUTMENT TOTAL	Final Quant. N. Abut.	Final Quant. S. Abut.
107	Structure Excavation	C.Y.	13	1	14	13	1	13	14	14
601.8	Class B Concrete (Mod.)	C.Y.	30	3	33	46	3	49	49	52
602	Reinforcing Steel	Lb.	See Bar Schedule Br 13						2,534	2,556
407	Asphaltic - Asbestos Coating	S.Y.	4	—	4	4	—	4	5	5
503	Splices for Steel Piling	Ea.	2	—	2	2	—	2	1	0
504	Steel H Piling (12 BP 53)	L.F.	400	—	400	450	—	450	531	404
222	Gravel Backfill	C.Y.	21	2	23	21	2	23	0	0

Br 5 of Br 16

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWN OF SOUTH BURLINGTON

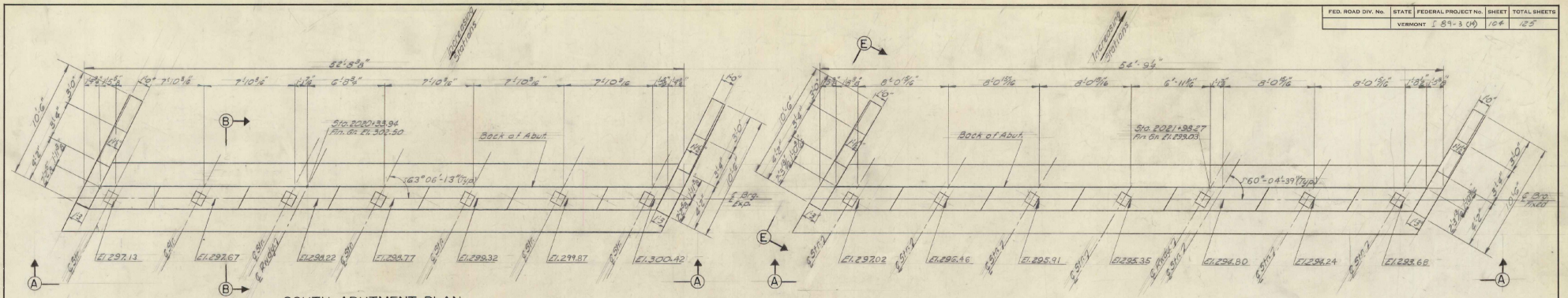
OVERPASS STA. 2021+36.17
DORSET STREET
N.B. ABUTMENT DETAILS

BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.

DRAWN BY A.M.	IN CHARGE A.J.I.	SCALE AS SHOWN
CHECKED BY A.J.I.	DATE	

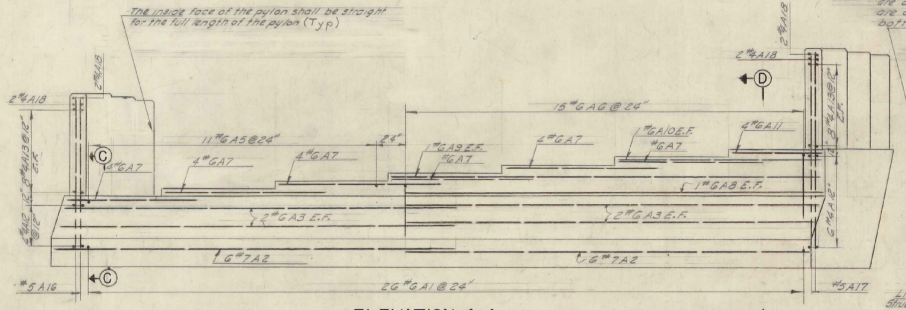
PROJECT NO. I 89 - 3 (14) SHEET 103 OF 125

FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No.	SHEET	TOTAL SHEETS
	VERMONT	S 89-3 (14)	104	125

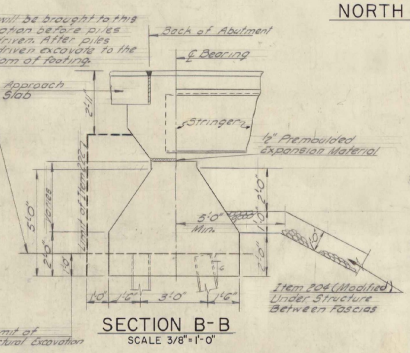


SOUTH ABUTMENT PLAN
SCALE 1/4"=1'-0"

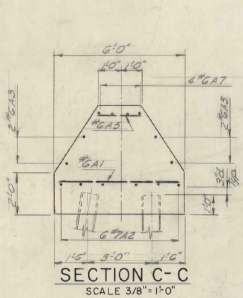
NORTH ABUTMENT PLAN
SCALE 1/4"=1'-0"



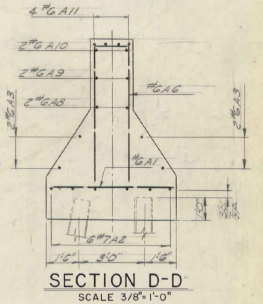
ELEVATION A-A
SOUTH ABUTMENT AS SHOWN
NORTH ABUTMENT OPP. HAND
SCALE 1/4"=1'-0"



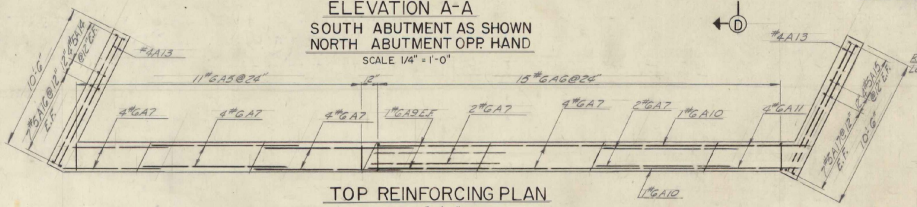
SECTION B-B
SCALE 3/8"=1'-0"



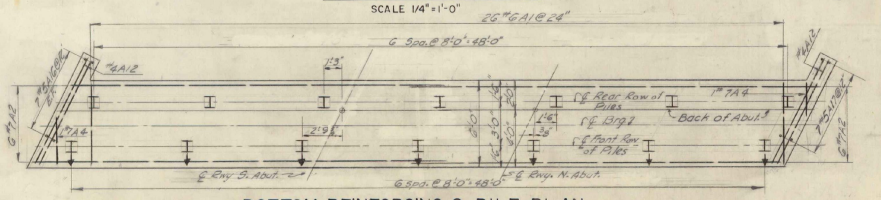
SECTION C-C
SCALE 3/8"=1'-0"



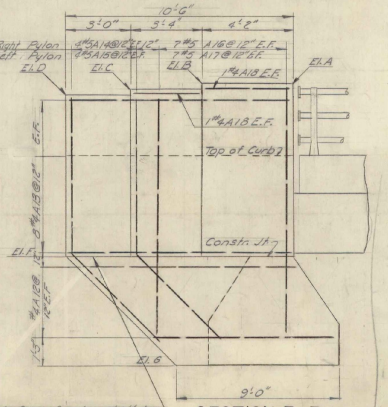
SECTION D-D
SCALE 3/8"=1'-0"



TOP REINFORCING PLAN
SCALE 1/4"=1'-0"



BOTTOM REINFORCING & PILE PLAN
SCALE 1/4"=1'-0"



SECTION E-E
SCALE 3/8"=1'-0"

7 Piles battered 6:1 each abut.
7 Piles vertical each abut.
14 Piles total each abut.
Estimated average pile length South Abut. 30' North Abut. 40'
\ Indicates piles battered

Outside face of pylon shall be straight up to construction joint elev. F and the setbacks shall be made above the joint

ESTIMATED QUANTITIES

ITEM #	ITEM	UNIT	SOUTHBOUND NORTH ABUTMENT NEAT	NORTH ABUTMENT OVERRUN	NORTH ABUTMENT TOTAL	SOUTH ABUTMENT NEAT	SOUTH ABUTMENT OVERRUN	SOUTH ABUTMENT TOTAL
107	Structure Excavation	C.Y.	42	2	44	32	3	35
401B	Class B Concrete (Modified)	C.Y.	55	3	58	63	3	66
602	Reinforcing Steel	Lb.	See Bar Schedule Br 14					
607	Asphaltic Asbestos Coating	S.Y.	6	—	6	6	—	6
503	Splices for Steel Piling	Ea.	3	—	3	3	—	3
504	Steel H Piling (12 BP 53)	L.F.	360	—	360	420	—	420
222	Gravel Backfill	C.Y.	32	3	35	30	3	33

ELEV.	NORTH ABUTMENT RIGHT PYLON	NORTH ABUTMENT LEFT PYLON	SOUTH ABUTMENT RIGHT PYLON	SOUTH ABUTMENT LEFT PYLON
A	302.18	305.58	305.58	308.90
B	302.69	305.49	305.67	308.99
C	301.77	305.17	305.49	308.80
D	301.45	304.86	305.31	308.62
E				
F	293.68	297.02	297.13	300.42
G	288.68	288.68	292.13	292.13

Final Quantities

Item	N. Abut.	S. Abut.
107	78	118
222	0	0
401-a	61	94
504	372	324
607	6	6
503	3	3
504	360	420

Br 6 of Br 16

NOTES

1. For General Notes see Br. 1
2. For pile splice detail see SB-20-60
3. Right & Left determined by looking toward increasing stations.

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWN OF SOUTH BURLINGTON

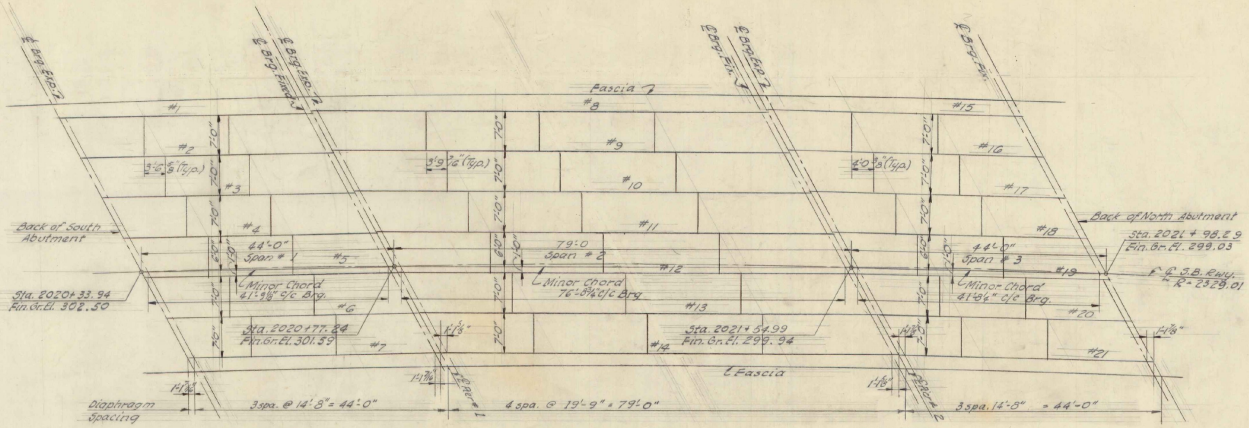
OVERPASS STA. 2021+36.17 DORSET STREET S.B. ABUTMENT DETAILS

BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.

DRAWN BY R.H.E. CHECKED BY A.J.I. IN CHARGE A.J.I. DATE. SCALE As Shown.

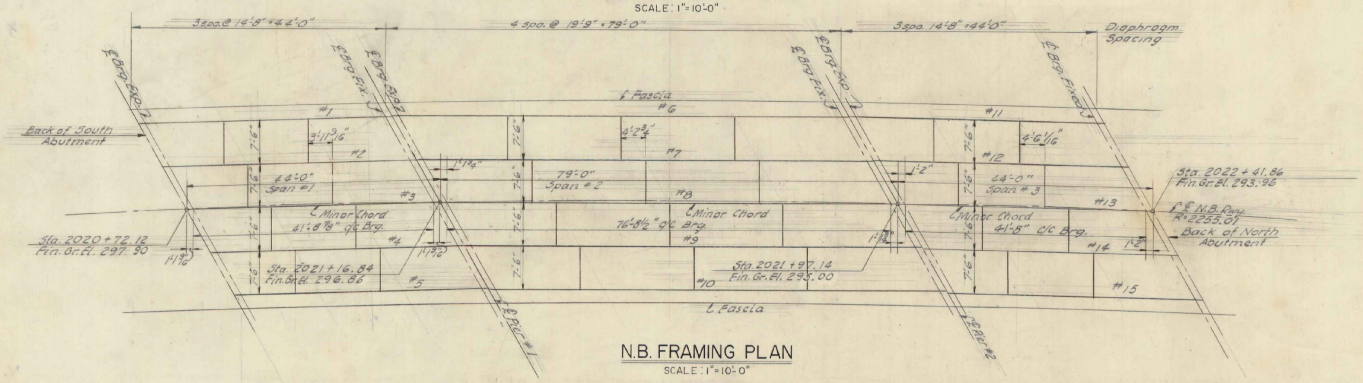
PROJECT NO. I 89-3 (14) SHEET 104 OF 125

FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No.	SHEET	TOTAL SHEETS
	VERMONT	89-3(14)	105	125



S.B. FRAMING PLAN

SCALE: 1" = 10'-0"



N.B. FRAMING PLAN

SCALE: 1" = 10'-0"

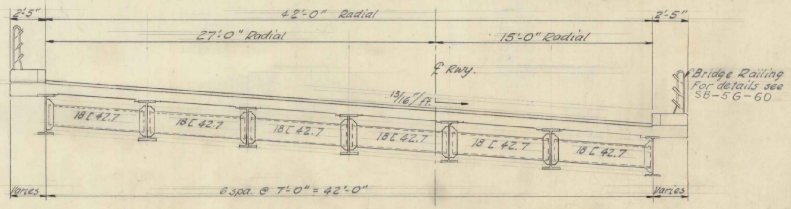
ESTIMATED QUANTITIES

ITEM #	ITEM	UNIT	NEAT	OVERRUN	TOTAL
	SOUTHBOUND ROADWAY				
403	Spiral Reinforcement (3250#)	L.S.	Required		
404-A	Structural Steel	Lb.	~~248,450~~	~~4,970~~	~~253,420~~
	NORTHBOUND ROADWAY				
403	Spiral Reinforcement (2320#)	L.S.	Required		
404-A	Structural Steel	Lb.	~~177,520~~	~~3,550~~	~~161,070~~

AS FINAL
S. Bnd. Req. 246,300
N. Bnd. Req. 170,352

NOTES

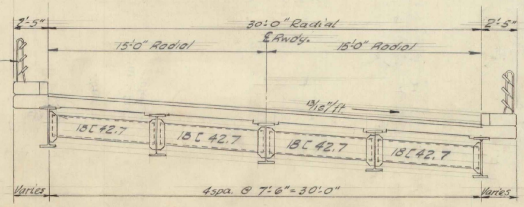
1. For General Notes see Br 1
2. For additional details see SB-20-60, SB-22-60
3. For Superstructure details see SCB-30-60, SCB-42-60, SCB-D-60
4. All stringers in each span are parallel to the minor chord of that span



S.B. TYPICAL SECTION

SCALE: 1/4" = 1'-0"

(Looking toward increasing station)



N.B. TYPICAL SECTION

SCALE: 1/4" = 1'-0"

(Looking toward increasing stations)

Br 7 of Br 16

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

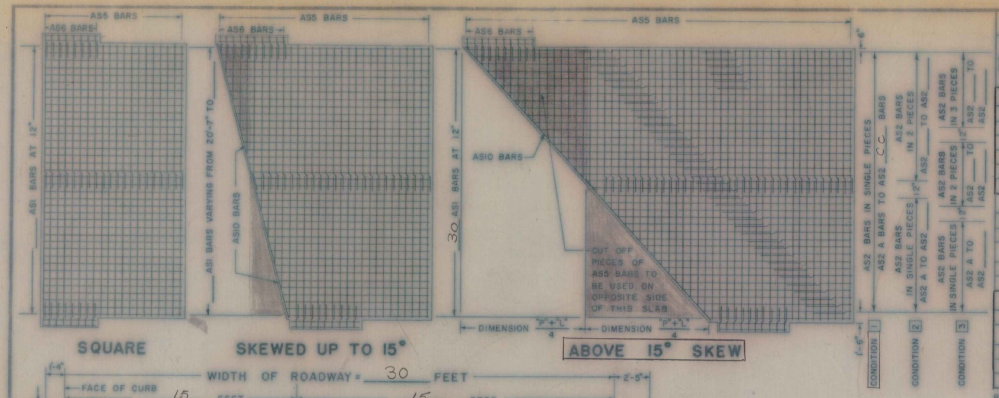
INTERSTATE PROJECT IN THE TOWN OF SOUTH BURLINGTON

OVERPASS STA. 2021+36.17
DORSET STREET
FRAMING PLAN & TYPICAL SECTIONS

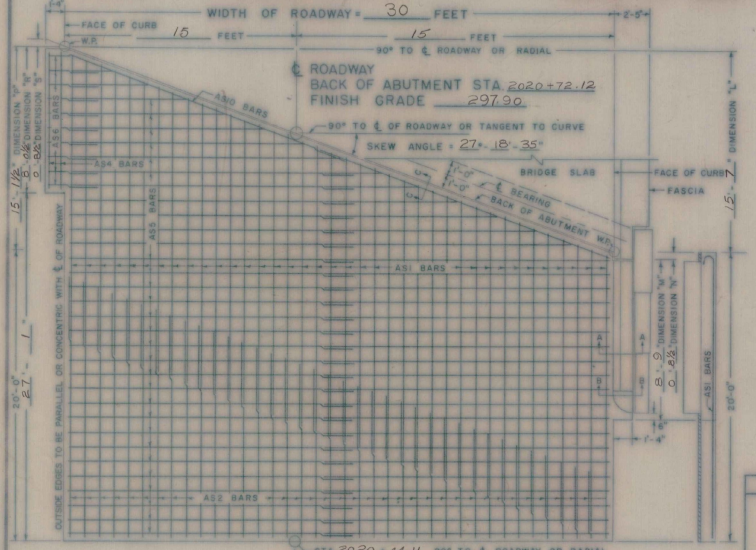
BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.

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

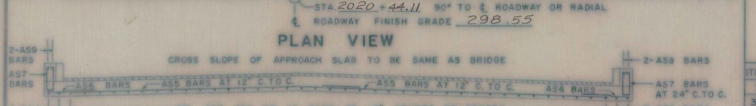
PROJECT NO.: 89-3(14) SHEET 105 OF 125



SQUARE SKEWED UP TO 15° ABOVE 15° SKEW



PLAN VIEW

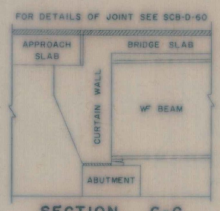


END SECTION VIEW

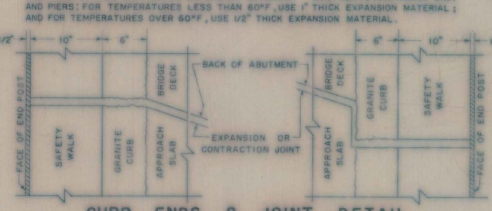
30' ROADWAY						38' ROADWAY						42' ROADWAY						44' ROADWAY						ROADWAY					
NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS	NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS	NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS	NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS	NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS
SQUARE OR SKEWED						SQUARE OR SKEWED						SQUARE OR SKEWED						SQUARE OR SKEWED						SQUARE OR SKEWED					
2	10	8'-3"	AS3	STR.		2	10		AS3	STR.		2	10		AS3	STR.		2	10		AS3	STR.		2	10		AS3	STR.	
2	10	7'-7"	AS4	STR.		2	10		AS4	STR.		2	10		AS4	STR.		2	10		AS4	STR.		2	10		AS4	STR.	
17	5	3'-6"	AS6	STR.			5	3'-6"	AS6	STR.			5	3'-6"	AS6	STR.			5	3'-6"	AS6	STR.			5	3'-6"	AS6	STR.	
10	5	5'-0"	AS7	S6			5	5'-0"	AS7	S6			5	5'-0"	AS7	S6			5	5'-0"	AS7	S6			5	5'-0"	AS7	S6	
2	5	6'-7"	AS8	STR.		2	5		AS8	STR.		2	5		AS8	STR.		2	5		AS8	STR.		2	5		AS8	STR.	
2	5	5'-11"	AS9	STR.		2	5		AS9	STR.		2	5		AS9	STR.		2	5		AS9	STR.		2	5		AS9	STR.	
SQUARE						SQUARE						SQUARE						SQUARE						SQUARE					
30	10	20'-7"	AS1	1		38	10	20'-7"	AS1	1		42	10	20'-7"	AS1	1		44	10	20'-7"	AS1	1		10	20'-7"	AS1	1		
20	5	29'-6"	AS5	STR.		40	5	19'-9"	AS5	STR.		40	5	21'-9"	AS5	STR.		40	5	22'-9"	AS5	STR.		5			AS5	STR.	
SKEWED UP TO 15°						SKEWED UP TO 15°						SKEWED UP TO 15°						SKEWED UP TO 15°						SKEWED UP TO 15°					
30	10	AVE.	AS1	1	L.	38	10	AVE.	AS1	1	L.	42	10	AVE.	AS1	1	L.	44	10	AVE.	AS1	1	L.	10	AVE.	AS1	1	L.	
5	29'-6"		AS5	STR.	2.	5	19'-9"		AS5	STR.	3.	5	21'-9"		AS5	STR.	3.	5	22'-9"		AS5	STR.	3.	5			AS6	STR.	2-3
ALL SKEWED SPANS						ALL SKEWED SPANS						ALL SKEWED SPANS						ALL SKEWED SPANS						ALL SKEWED SPANS					
2	5	17'-8"	AS10	STR.		5			AS10	STR.		5			AS10	STR.		5			AS10	STR.		5			AS10	STR.	
ABOVE 15° SKEW						ABOVE 15° SKEW						ABOVE 15° SKEW						ABOVE 15° SKEW						ABOVE 15° SKEW					
30	10	20'-7"	AS1	1		38	10	20'-7"	AS1	1		42	10	20'-7"	AS1	1		44	10	20'-7"	AS1	1		10	20'-7"	AS1	1		
29	10	12.29 AVE.	AS2	STR.	4.	37	10	AVE.	AS2	STR.	4.	41	10	AVE.	AS2	STR.	4.	43	10	AVE.	AS2	STR.	4.	10	AVE.	AS2	STR.	4.	
28	5	29'-6"	AS5	STR.	2.	5	19'-9"		AS5	STR.	3.	5	21'-9"		AS5	STR.	3.	5	22'-9"		AS5	STR.	3.	5			AS5	STR.	2-3

REMARKS: (1) AS1 BAR 'B' DIMENSION VARIES FROM 15'-6" TO ____. (2) 20 + DIMENSION ("F"+"L")÷4 (IN FEET) × NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. (3) 40 + DIMENSION ("F"+"L") ÷ 2 (IN FEET) × NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. (4) THE LENGTH OF AS2 BARS VARIES FROM 5'-0 TO 19'-7". THE AS2 BARS MAY BE DIVIDED INTO TWO OR MORE PIECES, AS MAY BE NECESSARY, TO LIMIT THE MAXIMUM BAR LENGTH TO 30 FEET. THE LOCATION OF SPLICES IS LEFT TO THE OPTION OF THE DESIGNER. THE NO. PIECES SHOWN ARE FOR CONDITION 1. (FOR CONDITION 2, & 3, SEE REINF. SCHEDULE.)

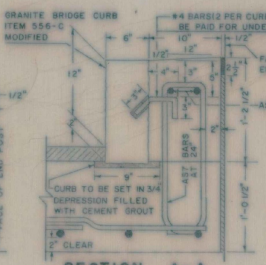
GENERAL NOTES: ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. WHEN A BAR LENGTH VARIES IN INCREMENTS EACH BAR MUST BE DETAILED. SPLICES SHALL BE 2'-1" FOR NUMBER 5 BARS, AND 4'-3" FOR NUMBER 10 BARS. ALL WORK AND MATERIALS SHALL CONFORM TO THE STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED JANUARY 1956, AND THE A.A.S.H.O. SPECIFICATIONS DATED 1957. DESIGNED FOR H20-S16-44.



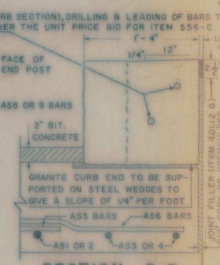
SECTION C-C
SCALE 1/2" = 1'-0"



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



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



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

DETAILS OF REINFORCING BARS

TYPE I
A = 1'-1" J = 0'-9"
B = 19'-6" OR VARIES

TYPE S6
A = 0'-6"
B = 1'-9"
C = 0'-6"
D = 1'-9"
G = 0'-6"

ITEM NO.	ITEM	UNIT	NET	OVERRUN	TOTAL	FINAL
318	TAR EMULSION FOR BRIDGE FLOORS	GAL.	37	—	37	
361-B	BITUMINOUS CONCRETE PAVEMENT (MOD.)	TONS	10	2	12	AS
401-B	CONCRETE CLASS B (MOD.)	C.Y.	33	~~2~~	~~35~~	33
402	REINFORCING STEEL	LB.	5366	—	5366	5364
556-C	GRANITE BRIDGE CURB (MOD.)	L.F.	17	—	17	17

REINFORCING STEEL

BAR NO.	NO. PIECES	A	B LENGTH	C	A x B x C WEIGHT IN LBS.	WEIGHT PER FT.
AS1	30	20'-7"		4.303	2657.10	
AS2	29	12.29 (AV.)		4.303	1533.63	
AS3	2	8'-3"		4.303	71.00	
AS4	2	7'-7"		4.303	65.26	
AS5	28	29'-6"		1.043	861.52	
AS6	17	3'-6"		1.043	62.06	
AS7	10	5'-0"		1.043	52.15	
AS8	2	6'-7"		1.043	13.73	
AS9	2	5'-11"		1.043	12.34	
AS10	2	17'-8"		1.043	36.85	
TOTAL WEIGHT =					5365.64	

QUANTITY COMPUTATION

W = WIDTH OF ROADWAY = 30 Z = 20 + DIMENSION ("F"+"L")/4 = 27.67 T = DIMENSION ("M"+"N")/2 = 8.41

BITUMINOUS CONCRETE = W x Z x 0.0123 x TONS = 30 x 27.67 x 0.0123 = 10 TONS

TAR EMULSION = W x Z x 0.0444 = GALLONS = 30 x 27.67 x 0.0444 = 37 GALLONS

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

[30 x 27.67 x 0.0386] + [8.41 x 0.1029] + [(8.41 - 1.8333) x 0.0733] = 33 CUBIC YARDS

GRANITE BRIDGE CURB = (2LT + 0'-3") = LINEAR FEET 2(8.41 + 0.25) = 17 LINEAR FEET

ADD AN OVERRUN OF 15% TO BIT. CONCRETE, AND AN OVERRUN OF 5% TO CONCRETE CLASS B

BAR LENGTHS: AS3 BARS = DIMENSION "N" - 0'-6"
AS4 BARS = DIMENSION "N" - 0'-6"
AS6 BARS = 3'-6"
AS7 BARS = 5'-0"
AS8 BARS = DIMENSION "N" - 2'-2"
AS9 BARS = DIMENSION "N" - 2'-2"

REVISIONS AND CORRECTIONS

APPROVED

DRAWN BY: R.S. HAUPT NOV. 1960
TRACED BY: R.S. HAUPT NOV. 1960
CHECKED BY: A.H. SMALLEY NOV. 1960
CORRECT: Nov 21 1960 BRIDGE ENGINEER
APPROVED: Nov 22 1960 CHIEF ENGINEER

DETAILS OF APPROACH SLAB FOR 30 (WIDTH) FOOT BRIDGE

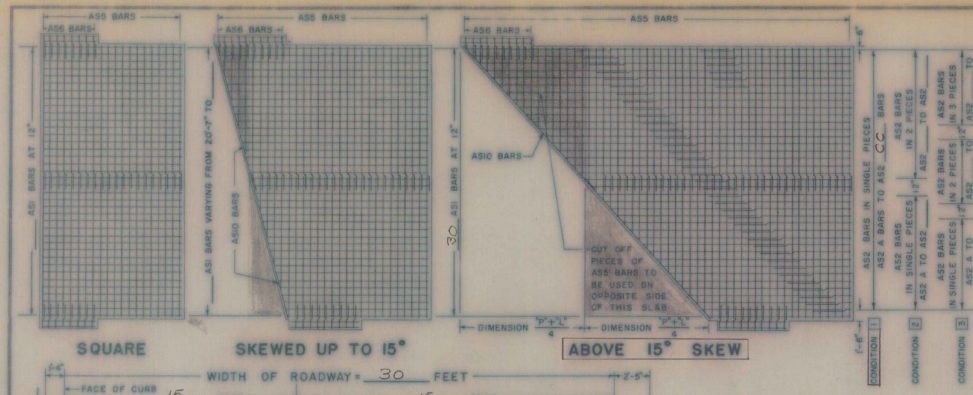
TO BE USED FOR BRIDGE AT STATION 2021+36.17

LOCATION DORSET ST. OVERPASS APPROACH SLAB NO. 1 N.B.

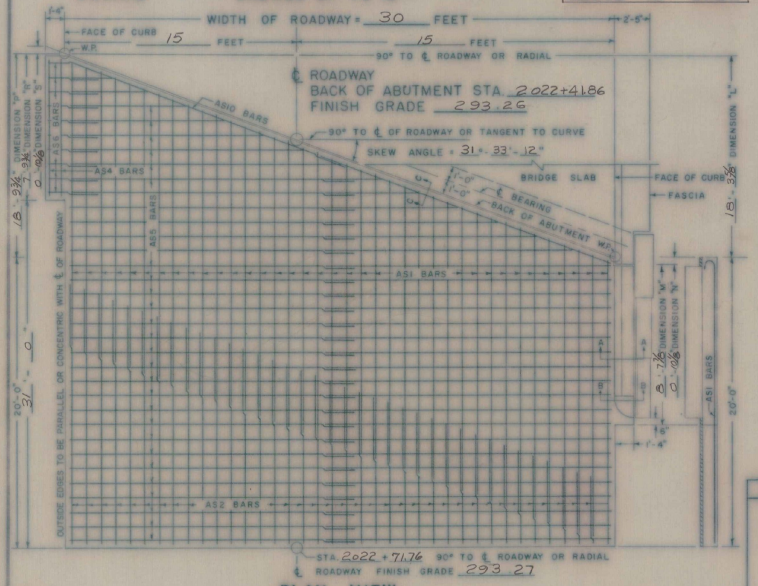
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
STANDARD STRUCTURE

SB-AS-60

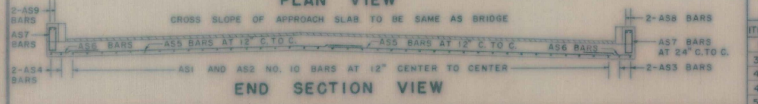
TOWN OF So. BURLINGTON
ROUTE NO. I-89
LOG STA. ____
SCALE AS NOTED
DESIGNED BY G.V.K. CHECKED BY AGC
PROJECT NO. I-89-3(14)
BR. 8 OF 16 SHEET 106 OF 125



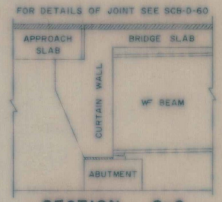
SQUARE SKEWED UP TO 15° ABOVE 15° SKEW



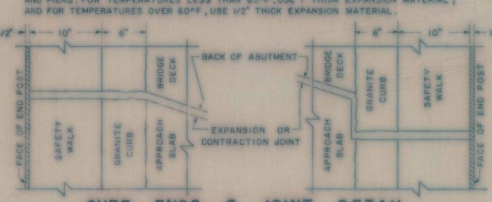
PLAN VIEW



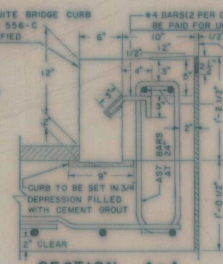
END SECTION VIEW



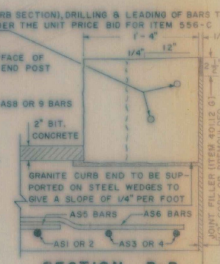
SECTION C-C
SCALE 1/2" = 1'-0"



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



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



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

30' ROADWAY						38' ROADWAY						42' ROADWAY						44' ROADWAY						ROADWAY					
NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS	NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS	NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS	NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS	NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS
SQUARE OR SKEWED						SQUARE OR SKEWED						SQUARE OR SKEWED						SQUARE OR SKEWED						SQUARE OR SKEWED					
2	10	8'-2"	AS3	STR.		2	10		AS3	STR.		2	10		AS3	STR.		2	10		AS3	STR.		2	10		AS3	STR.	
2	10	7'-4"	AS4	STR.		2	10		AS4	STR.		2	10		AS4	STR.		2	10		AS4	STR.		2	10		AS4	STR.	
17	5	3'-6"	AS6	STR.			5	3'-6"	AS6	STR.			5	3'-6"	AS6	STR.			5	3'-6"	AS6	STR.			5	3'-6"	AS6	STR.	
9	5	5'-0"	AS7	S6			5	5'-0"	AS7	S6			5	5'-0"	AS7	S6			5	5'-0"	AS7	S6			5	5'-0"	AS7	S6	
2	5	6'-6"	AS8	STR.		2	5		AS8	STR.		2	5		AS8	STR.		2	5		AS8	STR.		2	5		AS8	STR.	
2	5	5'-8"	AS9	STR.		2	5		AS9	STR.		2	5		AS9	STR.		2	5		AS9	STR.		2	5		AS9	STR.	
SQUARE						SQUARE						SQUARE						SQUARE						SQUARE					
30	10	20'-7"	AS1	I		38	10	20'-7"	AS1	I		42	10	20'-7"	AS1	I		44	10	20'-7"	AS1	I			10	20'-7"	AS1	I	
20	5	29'-6"	AS5	STR.		40	5	19'-9"	AS5	STR.		40	5	21'-9"	AS5	STR.		40	5	22'-9"	AS5	STR.			5		AS5	STR.	
SKEWED UP TO 15°						SKEWED UP TO 15°						SKEWED UP TO 15°						SKEWED UP TO 15°						SKEWED UP TO 15°					
30	10	AVE.	AS1	I	L.	38	10	AVE.	AS1	I	L.	42	10	AVE.	AS1	I	L.	44	10	AVE.	AS1	I	L.		10	AVE.	AS1	I	L.
5	29'-6"		AS5	STR.	2.	5	19'-9"		AS5	STR.	3.	5	21'-9"		AS5	STR.	3.	5	22'-9"		AS5	STR.	3.		5		AS5	STR.	2-3
ALL SKEWED SPANS						ALL SKEWED SPANS						ALL SKEWED SPANS						ALL SKEWED SPANS						ALL SKEWED SPANS					
2	5	19'-5"	AS10	STR.		5			AS10	STR.		5			AS10	STR.		5			AS10	STR.			5		AS10	STR.	
ABOVE 15° SKEW						ABOVE 15° SKEW						ABOVE 15° SKEW						ABOVE 15° SKEW						ABOVE 15° SKEW					
30	10	20'-7"	AS1	I		38	10	20'-7"	AS1	I		42	10	20'-7"	AS1	I		44	10	20'-7"	AS1	I			10	20'-7"	AS1	I	
29	10	13.71	AVE. AS2	STR.	4.	37	10	AVE.	AS2	STR.	4.	41	10	AVE.	AS2	STR.	4.	43	10	AVE.	AS2	STR.	4.		10	AVE.	AS2	STR.	4.
29	5	29'-6"	AS5	STR.	2.		5	19'-9"	AS5	STR.	3.		5	21'-9"	AS5	STR.	3.		5	22'-9"	AS5	STR.	3.		5		AS5	STR.	2-3

REMARKS: (1) ASI BAR 'B' DIMENSION VARIES FROM 19'-6" TO ____. (2) 20 + DIMENSION ("P"+"L")÷4 (IN FEET) = NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. (3) 40 + DIMENSION ("P"+"L")÷2 (IN FEET) = NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. (4) THE LENGTH OF AS2 BARS VARIES FROM 5'-2" TO 22'-3". THE AS2 BARS MAY BE DIVIDED INTO TWO OR MORE PIECES, AS MAY BE NECESSARY, TO LIMIT THE MAXIMUM BAR LENGTH TO 30 FEET. THE LOCATION OF SPLICES IS LEFT TO THE OPTION OF THE DESIGNER. THE NO. PIECES SHOWN ARE FOR CONDITION 1. (FOR CONDITION 2. & 3. SEE REINF. SCHEDULE.)

GENERAL NOTES: ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. WHEN A BAR LENGTH VARIES IN INCREMENTS EACH BAR MUST BE DETAILED. SPLICES SHALL BE 2'-1" FOR NUMBER 5 BARS, AND 4'-3" FOR NUMBER 10 BARS. ALL WORK AND MATERIALS SHALL CONFORM TO THE STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED JANUARY 1956, AND THE A.A.S.H.O. SPECIFICATIONS DATED 1957. DESIGNED FOR H20-S16-44.

DETAILS OF REINFORCING BARS

TYPE I
A = 1'-1" J = 0'-9"
B = 19'-6" OR VARIES

TYPE S6
A = 0'-6"
B = 1'-9"
C = 0'-6"
D = 1'-9"
G = 0'-6"

REINFORCING STEEL

BAR NO.	A NO. PIECES	B LENGTH	C WEIGHT PER FT.	A x B x C WEIGHT IN LBS.
AS1	30	20'-7"	4.303	2657.10
AS2	29	13'-8½"	4.303	1710.83
AS3	2	8'-2"	4.303	70.27
AS4	2	7'-4"	4.303	63.13
AS5	29	29'-6"	1.043	892.29
AS6	17	3'-6"	1.043	62.06
AS7	9	5'-0"	1.043	46.94
AS8	2	6'-6"	1.043	13.56
AS9	2	5'-8"	1.043	11.82
AS10	2	19'-5"	1.043	40.50
TOTAL WEIGHT =				5568.50

QUANTITY COMPUTATION

W = WIDTH OF ROADWAY Z = 20 + DIMENSION ("P"+"L")/4 T = DIMENSION ("M"+"R")/2

W = 30 Z = 29.28 T = 8.23

BITUMINOUS CONCRETE = W x Z x 0.0123 = TONS 30 x 29.28 x 0.0123 = 11 TONS

TAR EMULSION = W x Z x 0.0444 = GALLONS 30 x 29.28 x 0.0444 = 39 GALLONS

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

[30 x 29.28 x 0.0386] + [8.23 x 0.1029] + [8.23 - (1.8333) x 0.0733] = 35 CUBIC YARDS

GRANITE BRIDGE CURB = 2(T + 0'-3") = LINEAR FEET 2(____ + 0.25) = 17 LINEAR FEET

ADD AN OVERRUN OF 15% TO BIT. CONCRETE, AND AN OVERRUN OF 5% TO CONCRETE CLASS B

BAR LENGTHS: AS3 BARS = DIMENSION "M" - 0'-6"
AS4 BARS = DIMENSION "M" - 0'-6"
AS6 BARS = 3'-6"
AS7 BARS = 5'-0"
AS8 BARS = DIMENSION "M" - 2'-2"
AS9 BARS = DIMENSION "M" - 2'-2"

ITEM NO.	ITEM	UNIT	NET	OVERRUN	TOTAL	FINAL
318	TAR EMULSION FOR BRIDGE FLOORS	GAL.	39	—	39	
361-B	BITUMINOUS CONCRETE PAVEMENT (MOD.)	TONS	11	2	13	AS
401-B	CONCRETE CLASS B (MOD.)	CY.	35	2	37	35
402	REINFORCING STEEL	LB.	5568	—	5568	5572
556-C	GRANITE BRIDGE CURB (MOD.)	L.F.	17	—	17	18

REVISIONS AND CORRECTIONS

APPROVED

DRAWN BY: R.S. HAUPT NOV. 1960

TRACED BY: R.S. HAUPT NOV. 1960

CHECKED BY: A.H. SMALLEY NOV. 1960

CORRECT: Nov. 21, 1960 BRIDGE ENGINEER

APPROVED: Nov. 22, 1960 CHIEF ENGINEER

DETAILS OF APPROACH SLAB FOR 30 (WIDTH) FOOT BRIDGE

TO BE USED FOR BRIDGE AT STATION 2021+36.17

LOCATION Dorset St. Overpass Approach Slab No. 2 N.B.

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
STANDARD STRUCTURE

SB-AS-60

TOWN OF So. Burlington

ROUTE NO. I-89

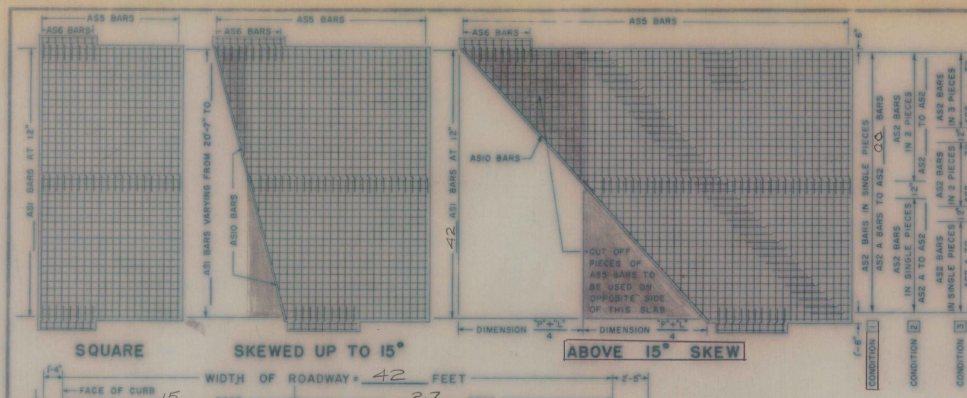
LOG STA. ____

SCALE AS NOTED

DESIGNED BY G.V.K. CHECKED BY A.G.C.

PROJECT NO. I-89-3(14)

BR. 9 OF 10 SHEET 107 OF 125

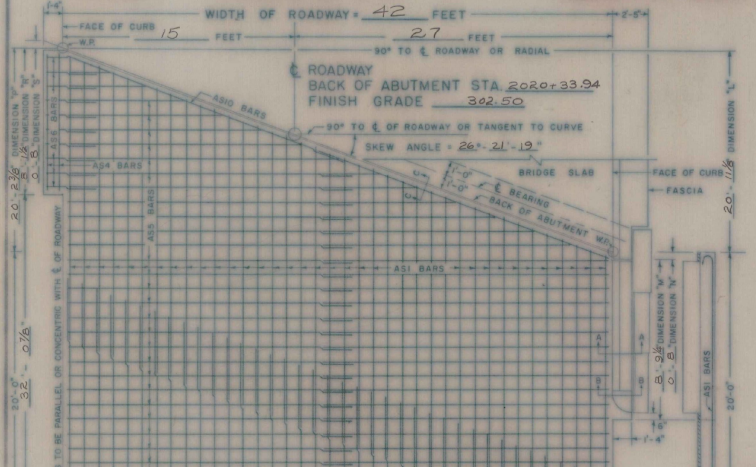


SQUARE SKEWED UP TO 15° ABOVE 15° SKEW

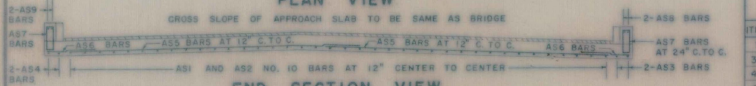
30' ROADWAY						38' ROADWAY						42' ROADWAY						44' ROADWAY						ROADWAY					
NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS	NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS	NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS	NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS	NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS
SQUARE OR SKEWED						SQUARE OR SKEWED						SQUARE OR SKEWED						SQUARE OR SKEWED						SQUARE OR SKEWED					
2	10		AS3	STR.		2	10		AS3	STR.		2	10	8-3	AS3	STR.		2	10		AS3	STR.		2	10		AS3	STR.	
2	10		AS4	STR.		2	10		AS4	STR.		2	10	7-8	AS4	STR.		2	10		AS4	STR.		2	10		AS4	STR.	
5	3'-6"		AS6	STR.		5	3'-6"		AS6	STR.		17	5	3'-6"	AS6	STR.		5	3'-6"		AS6	STR.		5	3'-6"		AS6	STR.	
5	5'-0"		AS7	S6		5	5'-0"		AS7	S6		9	5	5'-0"	AS7	S6		5	5'-0"		AS7	S6		5	5'-0"		AS7	S6	
2	5		AS8	STR.		2	5		AS8	STR.		2	5	6-7	AS8	STR.		2	5		AS8	STR.		2	5		AS8	STR.	
2	5		AS9	STR.		2	5		AS9	STR.		2	5	6-0	AS9	STR.		2	5		AS9	STR.		2	5		AS9	STR.	
SQUARE						SQUARE						SQUARE						SQUARE						SQUARE					
30	10	20'-7"	AS1	1		38	10	20'-7"	AS1	1		42	10	20'-7"	AS1	1		44	10	20'-7"	AS1	1		10	20'-7"	AS1	1		
20	5	29'-6"	AS5	STR.		40	5	19'-9"	AS5	STR.		40	5	21'-9"	AS5	STR.		40	5	22'-9"	AS5	STR.		5			AS5	STR.	
SKEWED UP TO 15°						SKEWED UP TO 15°						SKEWED UP TO 15°						SKEWED UP TO 15°						SKEWED UP TO 15°					
30	10	AVE.	AS1	1	L	38	10	AVE.	AS1	1	L	42	10	AVE.	AS1	1	L	44	10	AVE.	AS1	1	L	10	AVE.	AS1	1	L	
5	29'-6"		AS5	STR.	2.	5	19'-9"		AS5	STR.	3.	5	21'-9"		AS5	STR.	3.	5	22'-9"		AS5	STR.	3.	5			AS5	STR.	2-3
ALL SKEWED SPANS						ALL SKEWED SPANS						ALL SKEWED SPANS						ALL SKEWED SPANS						ALL SKEWED SPANS					
2	5		AS10	STR.		5			AS10	STR.		2	5	24-3	AS10	STR.		5			AS10	STR.		5			AS10	STR.	
ABOVE 15° SKEW						ABOVE 15° SKEW						ABOVE 15° SKEW						ABOVE 15° SKEW						ABOVE 15° SKEW					
30	10	20'-7"	AS1	1		38	10	20'-7"	AS1	1		42	10	20'-7"	AS1	1		44	10	20'-7"	AS1	1		10	20'-7"	AS1	1		
29	10	AVE.	AS2	STR.	4.	37	10	AVE.	AS2	STR.	4.	41	10	4'-7 AVE.	AS2	STR.	4.	43	10	AVE.	AS2	STR.	4.	10	AVE.	AS2	STR.	4.	
5	29'-6"		AS5	STR.	2.	5	19'-9"		AS5	STR.	3.	61	5	21'-9"	AS5	STR.	3.	5	22'-9"		AS5	STR.	3.	5			AS5	STR.	2-3

REMARKS: (1) AS1 BAR 'B' DIMENSION VARIES FROM 19'-6" TO ____ (2) 20 + DIMENSION ("P"+"L")÷4 (IN FEET) + NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. (3) 40 + DIMENSION ("P"+"L")÷8 (IN FEET) + NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. (4) THE LENGTH OF AS2 BARS VARIES FROM 4'-9" TO 24'-6" THE AS2 BARS MAY BE DIVIDED INTO TWO OR MORE PIECES, AS MAY BE NECESSARY, TO LIMIT THE MAXIMUM BAR LENGTH TO 30 FEET. THE LOCATION OF SPLICES IS LEFT TO THE OPTION OF THE DESIGNER. THE NO. PIECES SHOWN ARE FOR CONDITION 1. (FOR CONDITION 2. & 3. SEE REINF. SCHEDULE.)

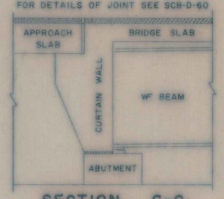
GENERAL NOTES: ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. WHEN A BAR LENGTH VARIES IN INCREMENTS EACH BAR MUST BE DETAILED. SPLICES SHALL BE 2'-1" FOR NUMBER 5 BARS, AND 4'-3" FOR NUMBER 10 BARS. ALL WORK AND MATERIALS SHALL CONFORM TO THE STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED JANUARY 1956, AND THE A.A.S.H.O. SPECIFICATIONS DATED 1957. DESIGNED FOR H20-S16-44.



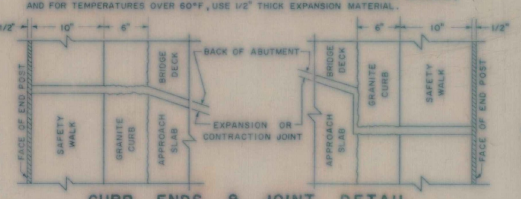
PLAN VIEW



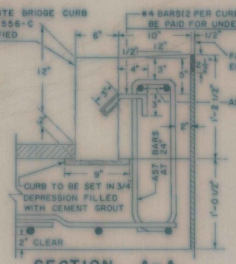
END SECTION VIEW



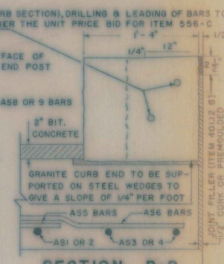
SECTION C-C
SCALE 1 1/2" = 1'-0"



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



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



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

DETAILS OF REINFORCING BARS

TYPE I
A = 1'-1" J = 0'-9"
B = 19'-6" OR VARIES

TYPE S6
A = 0'-6"
B = 1'-9"
C = 0'-6"
D = 1'-9"
G = 0'-6"

ITEM NO.	ITEM	UNIT	NET	OVERRUN	TOTAL	FINAL
318	TAR EMULSION FOR BRIDGE FLOORS	GAL.	56	—	56	
361-B	BITUMINOUS CONCRETE PAVEMENT (MOD.)	TONS	16	2	18	AD
401-B	CONCRETE CLASS B (MOD.)	C.Y.	50	3	53	51
402	REINFORCING STEEL	LB.	8000	—	8000	7999
556-C	GRANITE BRIDGE CURB (MOD.)	L.F.	17	—	17	18

REINFORCING STEEL

BAR NO.	A NO. PIECES	B LENGTH	C WEIGHT PER FT.	A x B x C WEIGHT IN LBS.
AS1	42	20-7	4.303	3719.94
AS2	41	14-7	4.303	2572.83
AS3	2	8-3	4.303	71.00
AS4	2	7-8	4.303	66.01
AS5	61	21-9	1.043	1383.80
AS6	17	3'-6"	1.043	62.06
AS7	9	5'-0"	1.043	46.94
AS8	2	6-7	1.043	13.73
AS9	2	6-0	1.043	12.52
AS10	2	24-3	1.043	50.59
TOTAL WEIGHT =				7999.94

QUANTITY COMPUTATION

W = WIDTH OF ROADWAY Z = 20 + DIMENSION $\frac{"P"+"L"}{4}$ T = DIMENSION $\frac{"M"+"N"}{2}$

W = 42 Z = 30.28 T = 8.45

BITUMINOUS CONCRETE = W x Z x 0.0123 = TONS 42 x 30.28 x 0.0123 = 16 TONS

TAR EMULSION + W x Z x 0.0444 = GALLONS 42 x 30.28 x 0.0444 = 56 GALLONS

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

[42 x 30.28 x 0.0386] + [845 x 0.1029] + [845 - (8333) x 0.0733] = 50 CUBIC YARDS

GRANITE BRIDGE CURB = 2(T + 0'-3") = LINEAR FEET (BIAS + 0.25) x 17 LINEAR FEET

ADD AN OVERRUN OF 5% TO BIT. CONCRETE, AND AN OVERRUN OF 5% TO CONCRETE CLASS B

BAR LENGTHS: AS3 BARS = DIMENSION "M" - 0'-6"
AS4 BARS = DIMENSION "R" - 0'-6"
AS6 BARS = 3'-6"
AS7 BARS = 5'-0"
AS8 BARS = DIMENSION "N" - 2'-2"
AS9 BARS = DIMENSION "R" - 2'-2"

REVISIONS AND CORRECTIONS

APPROVED

DRAWN BY: R.S. HAUPT NOV. 1960

TRACED BY: R.S. HAUPT NOV. 1960

CHECKED BY: A.H. SMALLEY NOV. 1960

CORRECT: Nov. 7, 1960 — BRIDGE ENGINEER

APPROVED: Nov. 22, 1960 — CHIEF ENGINEER

DETAILS OF APPROACH SLAB FOR 42 FOOT (WIDTH) BRIDGE

TO BE USED FOR BRIDGE AT STATION 2021+36.17

LOCATION DORSET ST. OVERPASS APPROACH SLAB NO. 1 S.B

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
STANDARD STRUCTURE

SB-AS-60

TOWN OF So. BURLINGTON

ROUTE NO. I-89

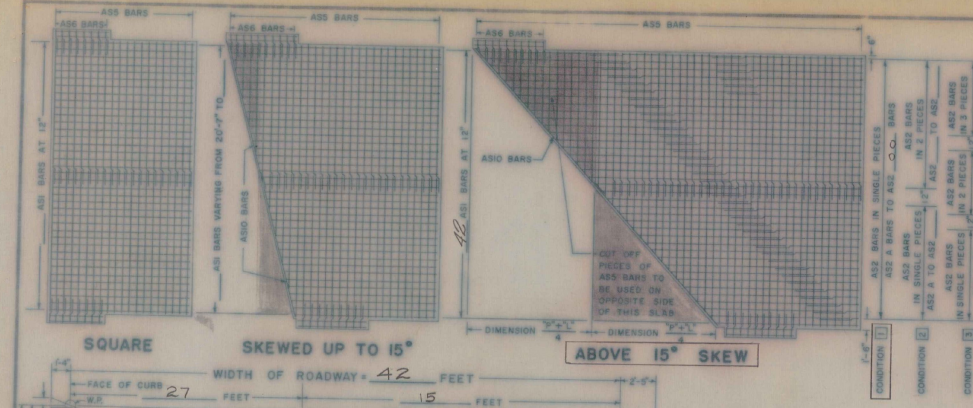
LOG STA.

SCALE AS NOTED

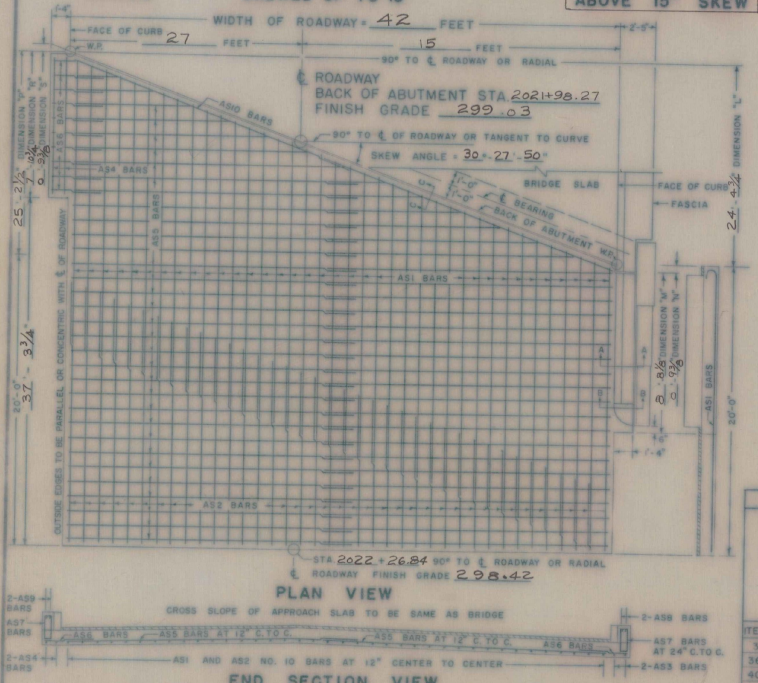
DESIGNED BY G.V.K CHECKED BY AHS

PROJECT NO. I-89-3(14)

BR. 10 OF 16 SHEET 108 OF 125



SQUARE SKEWED UP TO 15° ABOVE 15° SKEW



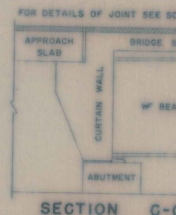
PLAN VIEW

END SECTION VIEW

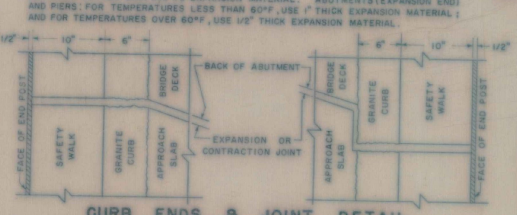
30' ROADWAY						38' ROADWAY						42' ROADWAY						44' ROADWAY						ROADWAY					
NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS	NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS	NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS	NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS	NO. PIECES	SIZE	LENGTH	MARK	TYPE	REMARKS
SQUARE OR SKEWED						SQUARE OR SKEWED						SQUARE OR SKEWED						SQUARE OR SKEWED						SQUARE OR SKEWED					
2	10		A53	STR.		2	10		A53	STR.		2	10	8'-2"	A53	STR.		2	10		A53	STR.		2	10		A53	STR.	
2	10		A54	STR.		2	10		A54	STR.		2	10	7'-5"	A54	STR.		2	10		A54	STR.		2	10		A54	STR.	
5	3'-6"		A56	STR.		5	3'-6"		A56	STR.		17	5	3'-6"	A56	STR.		5	3'-6"		A56	STR.		5	3'-6"		A56	STR.	
5	5'-0"		A57	S6		5	5'-0"		A57	S6		9	5	5'-0"	A57	S6		5	5'-0"		A57	S6		5	5'-0"		A57	S6	
2	5		A58	STR.		2	5		A58	STR.		2	5	6'-6"	A58	STR.		2	5		A58	STR.		2	5		A58	STR.	
2	5		A59	STR.		2	5		A59	STR.		2	5	5'-9"	A59	STR.		2	5		A59	STR.		2	5		A59	STR.	
SQUARE						SQUARE						SQUARE						SQUARE						SQUARE					
30	10	20'-7"	A51	1		38	10	20'-7"	A51	1		42	10	20'-7"	A51	1		44	10	20'-7"	A51	1			10	20'-7"	A51	1	
20	5	29'-6"	A55	STR.		40	5	19'-9"	A55	STR.		40	5	21'-9"	A55	STR.		40	5	22'-9"	A55	STR.			5	"	A55	STR.	
SKEWED UP TO 15°						SKEWED UP TO 15°						SKEWED UP TO 15°						SKEWED UP TO 15°						SKEWED UP TO 15°					
30	10	AVE.	A51	1	1.	38	10	AVE.	A51	1	1.	42	10	AVE.	A51	1	1.	44	10	AVE.	A51	1	1.		10	AVE.	A51	1	1.
5	29'-6"		A55	STR.	2.	5	19'-9"		A55	STR.	3.	5	21'-9"		A55	STR.	3.	5	22'-9"		A55	STR.	3.		5		A55	STR.	2-3
ALL SKEWED SPANS						ALL SKEWED SPANS						ALL SKEWED SPANS						ALL SKEWED SPANS						ALL SKEWED SPANS					
2	5		A510	STR.		5			A510	STR.		2	5	25'-2	A510	STR.		5			A510	STR.			5		A510	STR.	
ABOVE 15° SKEW						ABOVE 15° SKEW						ABOVE 15° SKEW						ABOVE 15° SKEW						ABOVE 15° SKEW					
30	10	20'-7"	A51	1		38	10	20'-7"	A51	1		42	10	20'-7"	A51	1		44	10	20'-7"	A51	1			10	20'-7"	A51	1	
29	10	AVE.	A52	STR.	4.	37	10	AVE.	A52	STR.	4.	41	10	17'-1" AVE.	A52	STR.	4.	43	10	AVE.	A52	STR.	4.		10	AVE.	A52	STR.	4.
5	29'-6"		A55	STR.	2.	5	19'-9"		A53	STR.	3.	65	5	21'-9"	A55	STR.	3.	5	22'-9"		A55	STR.	3.		5		A55	STR.	2-3

REMARKS: (1) A51 BAR 'E' DIMENSION VARIES FROM 19'-6" TO _____ OPPOSITE HALF OF SLAB. (2) 40 + DIMENSION ("M"+"L") ÷ 2 (IN FEET) + NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. (3) 20 + DIMENSION ("M"+"L") ÷ 4 (IN FEET) + NUMBER OF PIECES. CUT BARS IN THE FIELD USING CUT OFF PIECES ON OPPOSITE HALF OF SLAB. (4) THE LENGTH OF A52 BARS VARIES FROM _____ TO _____. THE A52 BARS MAY BE DIVIDED INTO TWO OR MORE PIECES, AS MAY BE NECESSARY, TO LIMIT THE MAXIMUM BAR LENGTH TO 30 FEET. THE LOCATION OF SPLICES IS LEFT TO THE OPTION OF THE DESIGNER. THE NO. PIECES SHOWN ARE FOR CONDITION 1 (FOR CONDITION 2 & 3, SEE REINF. SCHEDULE.)

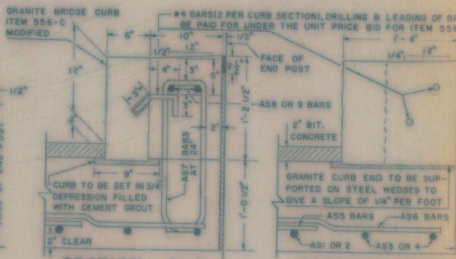
GENERAL NOTES: ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. WHEN A BAR LENGTH VARIES IN INCREMENTS EACH BAR MUST BE DETAILED. SPLICES SHALL BE 2'-1" FOR NUMBER 5 BARS, AND 4'-3" FOR NUMBER 10 BARS. ALL WORK AND MATERIALS SHALL CONFORM TO THE STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED JANUARY 1956, AND THE A.A.S.H.O. SPECIFICATIONS DATED 1957. DESIGNED FOR H20-S16-44.



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



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



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

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

DETAILS OF REINFORCING BARS

TYPE I
A = 1'-1" J = 0'-9"
B = 19'-6" OR VARIES

TYPE S6
A = 0'-6" C
B = 1'-9" B D
C = 0'-6"
D = 1'-9" A G
G = 0'-6"

ITEM NO.	ITEM	UNIT	NET	OVERRUN	TOTAL	FINAL
318	TAR EMULSION FOR BRIDGE FLOORS	GAL.	60	—	60	
361-B	BITUMINOUS CONCRETE PAVEMENT (MOD.)	TONS	17	3	20	AB
401-B	CONCRETE CLASS B (MOD.)	C.Y.	54	~~3~~	~~57~~ 54	
402	REINFORCING STEEL	LB.	~~8530~~	—	~~8530~~ 8,540	
556-C	GRANITE BRIDGE CURB (MOD.)	L.F.	~~47~~	—	~~47~~ 18	

REINFORCING STEEL

BAR NO.	NO. PIECES	A LENGTH	B LENGTH	C	WEIGHT PER FT.	A x B x C WEIGHT IN LBS.
A51	42	20'-7"			4.303	379.94
A52	41	17'-1" (AVG.)			4.303	3013.89
A53	2	8'-2"			4.303	70.28
A54	2	7'-5"			4.303	63.83
A55	65	21'-9"			1.043	1474.54
A56	17	3'-6"			1.043	62.06
A57	9	5'-0"			1.043	46.94
A58	2	6'-6"			1.043	13.56
A59	2	5'-9"			1.043	11.99
A510	2	25'-2"			1.043	52.50

TOTAL WEIGHT = 8530.25

QUANTITY COMPUTATION

W = WIDTH OF ROADWAY = 42 Z = 20 + DIMENSION "P"+"L"/4 = 32.40 T = DIMENSION "M"+"R"/2 = 8.29

BITUMINOUS CONCRETE = W x Z x 0.0123 = TONS 42 x 32.40 x 0.0123 = 17 TONS

TAR EMULSION = W x Z x 0.0444 = GALLONS 42 x 32.40 x 0.0444 = 60 GALLONS

CONCRETE CLASS B = W x Z x 0.0386 + T x 0.1029 + (T - 1.8333) x 0.0733 = CUBIC YARDS
[42 x 32.40 x 0.0386] + [8.29 x 0.1029] + [(8.29 - 1.8333) x 0.0733] = 54 CUBIC YARDS

GRANITE BRIDGE CURB = 2(T + 0'-3") = LINEAR FEET 2(8.29 + 0.25) = 17 LINEAR FEET
ADD AN OVERRUN OF 15% TO BIT. CONCRETE, AND AN OVERRUN OF 5% TO CONCRETE CLASS B

BAR LENGTHS: A53 BARS = DIMENSION "M" - 0'-6"
A54 BARS = DIMENSION "R" - 0'-6"
A56 BARS = 3'-6"
A57 BARS = 5'-0"
A58 BARS = DIMENSION "M" - 2'-2"
A59 BARS = DIMENSION "R" - 2'-2"

REVISIONS AND CORRECTIONS

DRAWN BY: R.S. HAUPT NOV. 1960
TRACED BY: R.S. HAUPT NOV. 1960
CHECKED BY: A.H. SMALLEY NOV. 1960

APPROVED

CORRECT: Nov. 21, 1960 BRIDGE ENGINEER

APPROVED: Nov. 22, 1960 CHIEF ENGINEER

DETAILS OF APPROACH SLAB FOR 42 (WIDTH) FOOT BRIDGE

TO BE USED FOR BRIDGE AT STATION 2021+36.17

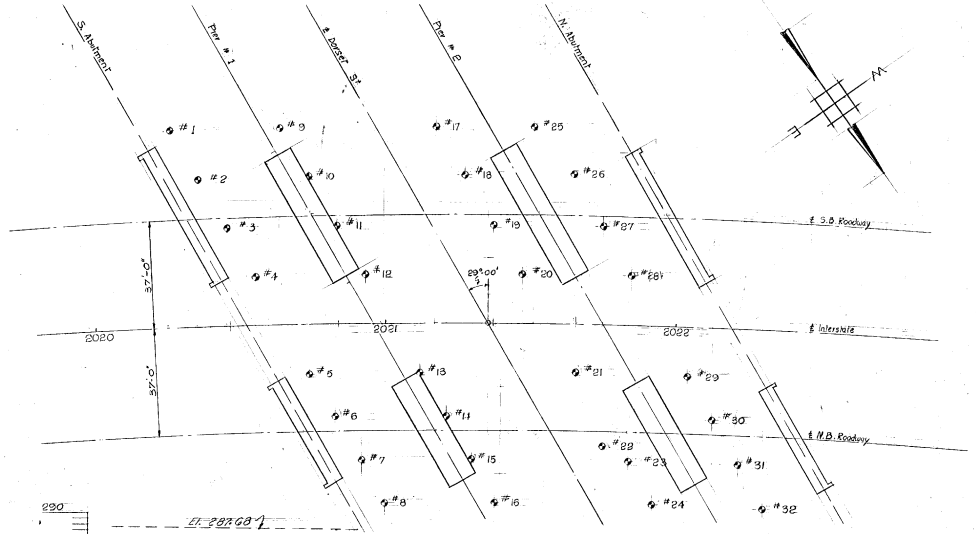
LOCATION DORSET ST. OVERPASS APPROACH SLAB No. 2 S.B

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
STANDARD STRUCTURE

SB-AS-60

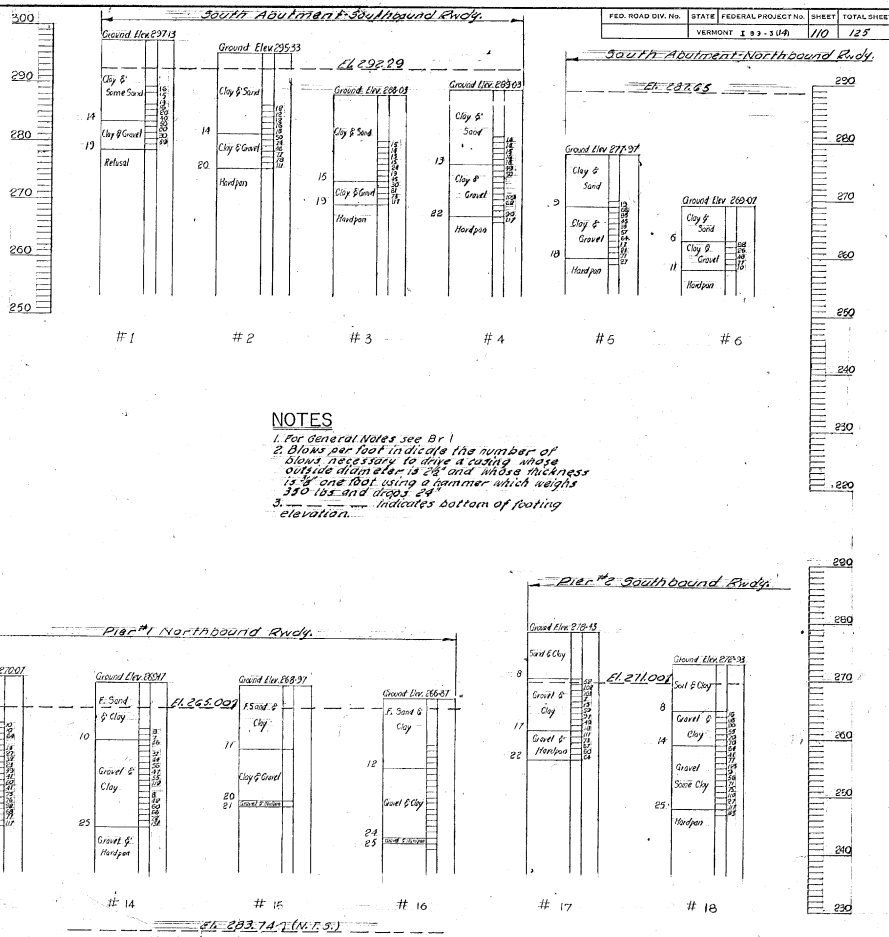
TOWN OF So. BURLINGTON
ROUTE NO. I-89
LOG STA. _____
SCALE AS NOTED
DESIGNED BY G.V.K. CHECKED BY AHS
PROJECT NO. I-89-3(14)
BR. 11 OF 16
SHEET 109 OF 125

FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No.	SHEET	TOTAL SHEETS
	VERMONT	I 89-3(14)	110	125



BORING LOCATION PLAN

Scale 1"=20'



NOTES

1. For General Notes see Br 1
2. Blows per foot indicate the number of blows necessary to drive a casing whose outside diameter is 2½" and whose thickness is ¼" one foot using a hammer which weighs 350 lbs. and drops 24"
3. — — — — indicates bottom of footing elevation.

Br 12 of Br 16

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWN OF SOUTH BURLINGTON

OVERPASS STA. 2021+36.17
DORSET STREET
BORING LOGS

BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.

DRAWN BY M.J.B.	IN CHARGE A.J.I.	SCALE As Shown
CHECKED BY A.J.I.	DATE	
PROJECT NO. I 89-3(14)	SHEET 110 OF 125	

Item	No. Pieces	Size	Length	Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
								SPAN #1									
4	176	#5	36'-4"	NB151	Str.												
5	*129	#4	22'-9"	NB152	Str.												
6	*21	#6	23'-0"	NB153	Str.												
7	39	#4	5'-3"	NB154	53	5"	1'-6"	1'-5"	1'-6"			.5"	3"				
8	*23	#5	20'-0"	NB155	Str.												
9	30	#4	7'-6"	NB156A	52	5"	3'-0"	8"	3'-0"			.5"	3"				
10	36	#5	4'-2"	NB156B	510		2'-6"	8"	1'-0"								
11	26	#6	3'-0"	NB157	1	8"	1'-8"					8"					
12	#17	#8	4'-0"	NB158A	Str.		Smooth										
13																	
14																	
15																	
16																	
17								SPAN #2									
18																	
19	316	#5	36'-4"	NB251	Str.												
20	192	#4	27'-6"	NB252	Str.												
21	30	#6	28'-0"	NB253	Str.												
22	106	#4	5'-3"	NB254	53	5"	1'-6"	1'-5"	1'-6"			.5"	.3"				
23	12	#5	20'-0"	NB255	Str.												
24	72	#5	4'2"	NB256A	510		2'-6	8"	1'-0								
25																	
26																	
27																	
28																	
29																	
30								SPAN #3									
31				Same as Span #1 (except no test bars required)													
32																	
33																	
34								SOUTH ABUTMENT									
35																	
36	19	#6	5'-6"	SANBA1	Str.												
37	*13	#7	21'-1"	SANBA2	Str.												
38	8	#6	20'-11"	SANBA3	Str.												
39	2	#7	3'-3"	SANBA4	Str.												
40	7	#6	1'-6"	SANBA5	Str.												
41	12	#6	11'-0"	SANBA6	17		4'-9"	1'-6"	4'-9"								
42	12	#6	10'-8"	SANBA7	Str.												
43	2	#6	32'-0"	SANBA8	Str.												
44	2	#6	15'-0"	SANBA9	Str.												
45	*5	#6	6'-9"	SANBA10	Str.												
46	*21	#8	9'-6"	SANBA11	Str.												
47	32	#4	10'-0"	SANBA12	Str.												
48	8	#5	12'-3"	SANBA13	14	7'-3"	5'-0"						4'-0"				
49	8	#5	14'-9"	SANBA14	14	7'-3"	7'-6"						6'-6"				
50	*15	#5	11'-6"	SANBA15	Str.												
51	14	#5	14'-0"	SANBA16	Str.												
52	8	#4	3'-10"	SANBA17	Str.												
53																	
54																	
55								NORTH ABUTMENT									
56																	
57	19	#6	5'-6"	NANBA1	Str.												
58	12	#7	22'-0"	NANBA2	Str.												
59	8	#6	21'-9"	NANBA3	Str.												
60	2	#7	3'-3"	NANBA4	Str.												
61	7	#6	1'-6"	NANBA5	Str.												
62	12	#6	11'-0"	NANBA6	17		4'-9"	1'-6"	4'-9"								
63	12	#6	11'-0"	NANBA7	Str.												
64	2	#6	33'-6"	NANBA8	Str.												
65	2	#6	16'-0"	NANBA9	Str.												
66	4	#6	7'-3"	NANBA10	Str.												
67	20	#4	9'-6"	NANBA11	Str.												
68	32	#4	10'-0"	NANBA12	Str.												
69	8	#5	12'-3"	NANBA13	14	7'-3"	5'-0"						4'-0"				
70	8	#5	14'-9"	NANBA14	14	7'-3"	7'-6"						6'-6"				
71	14	#5	11'-6"	NANBA15	Str.												
72	14	#5	14'-0"	NANBA16	Str.												
73	8	#4	3'-10"	NANBA17	Str.												
74																	
75																	
76																	
77																	
78																	
79																	
80																	
81																	

Item	No. Pieces	Size	Length	Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
82																	
83																	
84								PIER #1									
85																	
86	21	#10	29'-6"	NB1P1	Str.												
87	60	#6	9'-6"	NB1P2	Str.												
88	36	#8	6'-10"	NB1P3	2	1'-3"	5'-7"										
89	18	#8	23'-7"	NB1P4	Str.												
90	18	#8	22'-2"	NB1P5	Str.												
91	41	#4	10'-4"	NB1P6	T3												2'-8"
92	*9	#11	13'-5"	NB1P7	Str.												
93	8	#11	22'-4"	NB1P8	17		1'-6"	20'10"	0"								
94	4	#11	16'-11"	NB1P9	17		1'-6"	15'-5"									
95	4	#9	23'0"	NB1P10	Str.												
96	2	#9	10'-0"	NB1P11	Str.												
97	#3	#9	7'-8"	NB1P12	Str.												
98	8	#6	9'-8"	NB1P13	14	2'-6"	6'-9"	0	0	0			6'-8"				
99	8	#5	19'-6"	NB1P14	Str.												
100	50	#6	12'-2"	NB1P15	T1	7"	2'-5"	3'-1"	2'-5"	3'-1"							
101	Yea	#6	12'-0"	NB1P16	T1	7	2'-5"	3'-0"	2'-5"	3'-0"							
102							Yo	Yo									
103	Total 52		9'-0"	NB1P28	T1	7	2'-5"	1'-6"	2'-5"	1'-6"		Avg. length 10'-7"					
104	20	#5	2'-6"	NB1P29	Str.												
105	30	#5	6'-3"	NB1P30	17		2'-6"	1'-3"	2'-6"								
106																	
107																	
108								PIER #2									
109																	
110	#22	#10	29'-6"	NB2P1	Str.												
111	60	#6	9'-6"	NB2P2	Str.												
112	36	#8	6'-10"	NB2P3	2	1'-3"	5'-7"					0					
113	18	#8	21'-11"	NB2P4	Str.												
114	#19	#8	20'-6"	NB2P5	Str.												2'-8"
115	38	#4	10'-4"	NB2P6	T3												
116	8	#11	13'-9"	NB2P7	Str.												
117	8	#11	22'-8"	NB2P8	17		1'-6"	21'-2"									
118	4	#11	17'-3"	NB2P9	17		1'-6"	15'-9"									
119	4	#9	23'-0"	NB2P10	Str.												
120	2	#9	10'-0"	NB2P11	Str.												
121	2	#9	7'-8"	NB2P12	Str.												
122	8	#6	9'-7"	NP2P13	14	2'-6"	7'-1"						7'-0"				
123	8	#5	19'-9"	NP2P14	Str.												
124	50	#6	12'-2"	NP2P15	T1	7"	2'-5"	3'-1"	2'-5"	3'-1"		7"					
125	Yea.	#6	12'-0"	NP2P16	T1	7"	2'-5"	3'0"	2'-5"	3'-0"		7"					
126							Yo			Yo		Avg. length 10'-7"					
127	Total 52		9'-0"	NP2P28	T1	7"	2'-5"	1'-6"	2'-5"	1'-6"		7					
128	20	#5	2'-6"	NP2P29	Str.												
129	30	#5	6'-3"	NP2P30	17		2'-6"	1'-3"	2'-6"								
130																	
131																	
132																	
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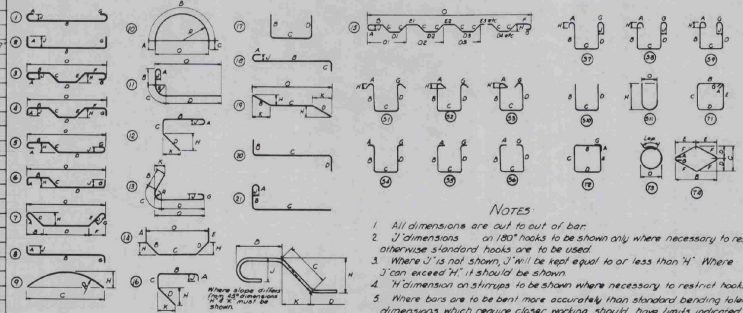
162																	

TYPICAL BAR BENDS



NOTES

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

Item	No. Pieces	Size	Length	Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
163																	
164																	
165																	
166																	
167																	
168																	
169																	
170																	
171																	
172																	
173																	
174																	
175																	
176																	
177																	
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187																	
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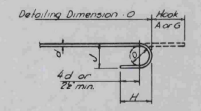
189																	
190																	



STANDARD HOOK DETAIL

BAR SIZES

Equivalent Size	Present (Numbers)
⅛"	#2
⅜"	#3
½"	#4
⅝"	#5
⅞"	#6
⅞"	#7
1"	#8
1⅛"	#9
1⅜"	#10
1⅝"	#11

* Denotes one bar added for testing

8. Bar reinforcement metal shall conform to the requirements of the Standard Specifications for new Billet-Steel Concrete Reinforcement Bars (Intermediate Grade) Serial Designation A.A.S.H.O. M31-48 or its latest revision. All bars shall be deformed to conform with A.S.T.M. Specifications A 305-49.

ESTIMATED QUANTITIES

FINAL #3	Location	Pounds
10,094	Span #1	~~10,280~~
11,034	Span #2	~~17,040~~
10,038	Span #3	~~10,200~~
2,536	South Abutment	~~2,557~~
4,434	North Abutment	~~2,535~~
11,327	Pier #1	~~11,348~~
11,270	Pier #2	~~11,300~~
342	1" Dowels	
187	Extra in Sidewalk	
65,982	Total	65,260

OVERPASS STA. 2021+36.17
DORSET STREET
NORTHBOUND
BAR SCHEDULE
BOSWELL ENGINEERING
RIDGEFIELD PARK N.J.

Sh. 1 of 2 Br 13 of Br 16

Surveyed by
Designed by A.G.M.
Drawn by A.M.
Traced by
Checked by
Series No. I 89-3 (16) Filed
Sheet 111 of 125 Sheets

Item	No Pieces	Size	Length	Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
2								SPAN #1									
3																	
4	#B9	#5	17'9"	SB1S1A	Str.												
5	8.8	#5	31'3"	SB1S1B	Str.												
6	8.8	#5	20'9"	SB1S1C	Str.												
7	8.8	#5	27'9"	SB1S1D	Str.												
8	#177	#4	22'9"	SB1S2	Str.												
9	#29	#6	23'0"	SB1S3	Str.												
10	56	#4	5'3"	SB1S4	S3	5"	1'6"	1'5"	1'6"			5"	3"				
11	22	#5	27'0"	SB1S5	Str.												
12	44	#4	7'6"	SB1S6A	S2	5"	3'0	8"	3'0			5"	3				
13	88	#5	4'2"	SB1S6P	S10		2'6	8"	1'0								
14	38	#6	3'0"	SB1S7	1	8"	1'8"					8"					
15	#23	#8	4'0"	SB1S8P	Str.			Smooth									
16																	
17																	
18																	
19																	
20								SPAN #2									
21																	
22	158	#5	17'3"	SB2S1A	Str.												
23	158	#5	31'3"	SB2S1B	Str.												
24	158	#5	20'9"	SB2S1C	Str.												
25	158	#5	27'9"	SB2S1D	Str.												
26	264	#4	27'6"	SB2S2	Str.												
27	42	#6	28'0"	SB2S3	Str.												
28	106	#4	5'3"	SB2S4	S3	5"	1'6"	1'5"	1'6"			5"	3"				
29	12	#5	27'0"	SB2S5	Str.												
30	96	#5	4'2"	SB2S6P	S10		2'6"	8"	1'0"								
31																	
32																	
33																	
34																	
35																	
36								SPAN #3									
37				Same as Span #1 (except no test bars required)													
38																	
39																	
40								SOUTH ABUTMENT									
41																	
42	#27	#6	5'6"	SA5BA1	Str.												
43	#13	#7	27'7"	SA5BA2	Str.												
44	8	#6	27'5"	SA5BA3	Str.												
45	2	#7	3'3"	SA5BA4	Str.												
46	11	#6	1'6"	SA5BA5	Str.												
47	15	#6	12'8" *	SA5BA6	17		5'7"	1'6"	5'7"								
48	20	#6	10'2"	SA5BA7	Str.												
49	2	#6	28'6"	SA5BA8	Str.												
50	2	#6	30'0"	SA5BA9	Str.												
51	2	#5	14'0"	SA5BA10	Str.												
52	4	#6	6'3"	SA5BA11	Str.												
53	23	#4	9'6"	SA5BA12	Str.			(Cut in field to fit)									
54	32	#4	10'0"	SA5BA13	Str.												
55	8	#5	13'3"	SA5BA14	14	7'3"	6'0"						4'0"				
56	8	#5	14'3"	SA5BA15	14	7'3"	7'6"						7'0"				
57	#15	#5	11'3"	SA5BA16	Str.												
58	14	#5	14'6"	SA5BA17	Str.												
59	8	#14	3'10"	SA5BA18	Str.												
60																	
61																	
62								NORTH ABUTMENT									
63																	
64	26	#6	5'6"	NA5BA1	Str.												
65	12	#7	28'9"	NA5BA2	Str.												
66	8	#6	28'7"	NA5BA3	Str.												
67	2	#7	3'3"	NA5BA4	Str.												
68	11	#6	1'6"	NA5BA5	Str.												
69	15	#6	12'8"	NA5BA6	17		5'7"	1'6"	5'7"								
70	20	#6	10'5"	NA5BA7	Str.												
71	2	#6	29'6"	NA5BA8	Str.												
72	2	#6	31'0"	NA5BA9	Str.												
73	2	#6	15'10"	NA5BA10	Str.												
74	4	#6	7'0"	NA5BA11	Str.												
75	22	#4	9'6"	NA5BA12	Str.			(Cut in field to fit)									
76	32	#4	10'0"	NA5BA13	Str.												
77	8	#5	13'3"	NA5BA14	14	7'3"	6'0"						4'0"				
78	8	#5	14'3"	NA5BA15	14	7'3"	7'6"						7'0"				
79	14	#5	11'3"	NA5BA16	Str.												
80	14	#5	14'6"	NA5BA17	Str.												
81	8	#4	3'10"	NA5BA18	Str.												

Item	No Pieces	Size	Length	Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
82																	
83																	
84								PIER #1									
85																	
86	#37	#11	17'0"	SB1P1	Str.												
87	24	#11	23'2"	SB1P2	Str.												
88	86	#6	7'6"	SB1P3	Str.												
89	54	#8	6'10"	SB1P4	2	1'3"	5'7"						O				
90	18	#8	23'4"	SB1P5	Str.												
91	18	#8	22'1"	SB1P6	Str.												
92	18	#8	20'11"	SB1P7	Str.												
93	60	#4	10'4"	SB1P8	T3											2'8"	
94	8	#9	11'11"	SB1P9	Str.												
95	4	#11	14'5"	SB1P10	17		1'6"	12'11"	O								
96	8	#11	20'4"	SB1P11	17		1'6"	18'10"	O								
97	4	#11	21'9"	SB1P12	Str.												
98	8	#9	20'6"	SB1P13	Str.												
99	4	#9	8'0"	SB1P14	Str.												
100	8	#6	8'9"	SB1P15	14	2'6"	6'3"	O	O	O			6'2"				
101	8	#5	26'0"	SB1P16	Str.												
102	76	#6	12'2"	SB1P17	T1	7"	2'5"	3'1"	2'5"	3'1"		7"					
103	4 ea.	#6	12'0"	SB1P18	T1	7"	2'5"	3'0"	2'5"	3'0"		7"					
104				to	to			to		to		Avg. length 10'7"					
105	Total 48			9'0"	SB1P19	T1	7"	2'5"	1'6"	2'5"	1'6"	7"					
106	28	#5		2'6"	SB1P20	Str.											
107	42	#5		6'3"	SB1P21	17		2'6"	1'3"	2'6"							
108																	
109																	
110								PIER #2									
111																	
112	36	#11	17'4"	SB2P1	Str.												
113	24	#11	23'8"	SB2P2	Str.												
114	88	#6	9'6"	SB2P3	Str.												
115	54	#8	6'10"	SB2P4	2	1'3"	5'7"						O				
116	18	#8	21'11"	SB2P5	Str.												
117	18	#8	20'8"	SB2P6	Str.												
118	#19	#8	19'6"	SB2P7	Str.												
119	55	#4	10'4"	SB2P8	T3											2'8"	
120	8	#9	12'4"	SB2P9	Str.												
121	4	#11	14'10"	SB2P10	17		1'6"	13'4"	O								
122	8	#11	20'3"	SB2P11	17		1'6"	19'3"	O								
123	4	#11	21'9"	SB2P12	Str.												
124	8	#9	20'6"	SB2P13	Str.												
125	#5	#9	8'0"	SB2P14	Str.												
126	8	#6	9'2"	SB2P15	14	2'6"	6'8"	O	O	O			6'7"				
127	8	#6	26'8"	SB2P16	Str.												
128	76	#6	12'2"	SB2P17	T1	7"	2'5"	3'1"	2'5"	3'1"		7"					
129	4ea.	#6	12'0"	SB2P18	T1	7"	2'5"	3'0"	2'5"	3'0"		7"					
130				to	to			to		to		Avg. length 10'7"					
131	Total 48			9'0"	SB2P19	T1	7	2'5"	1'6"	2'5"	1'6"	7"					
132	28	#5		2'6"	SB2P20	Str.											
133	42	#5		6'3"	SB2P21	17		2'6"	1'3"	2'6"							
134																	
135																	
136																	
137																	
138																	
139																	
140																	
140																	
141																	
142																	
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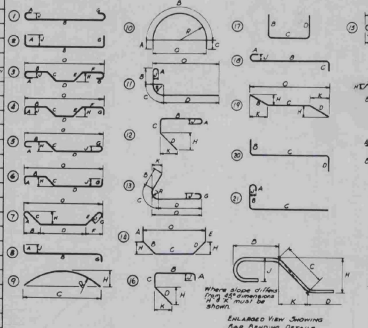
160																	
161																	
162																	

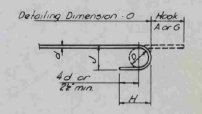
TYPICAL BAR BENDS



NOTES

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

Item	No Pieces	Size	Length	Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
163																	
164																	
165																	
166																2'8"	
167																	
168																	
169																	
170																	
171																	
172																	
173																	
174																	
175																	
176																	
177																	
178																	
179																	
180																	
181																	
182																	
183																	
184																	
185																	
186																	
187																	
188																	
189																	
190																	



STANDARD HOOK DETAIL

BAR SIZES

Equivalent Size	Present (Numbers)
⅜" ø	#2
½" ø	#3
⅝" ø	#4
¾" ø	#5
⅞" ø	#6
1" ø	#7
1⅛" ø	#8
1¼" ø	#9
1⅜" ø	#10
1½" ø	#11

* Denotes one bar added for testing.

8. Bar reinforcement metal shall conform to the requirements of the Standard Specifications for new Billet-Steel Concrete Reinforcement Bars (Intermediate Grade) Serial Designation A.A.S.H.O. M31-48 or its latest revision. All bars shall be deformed to conform with A.S.T.M. Specifications A 305-49.

ESTIMATED QUANTITIES

FINAL #	Location	Pounds
14,030	Span #1	14,275
23,729	Span #2	23,730
13,962	Span #3	14,195
3,174	South Abutment	3,171
3,158	North Abutment	3,152
17,247	Pier #1	17,345
11,496	Pier #2	11,339
470	1" ø Dowels	---
797	Extra in Sidewalk	---
94,087	Total	93,427

OVERPASS STA. 2021+36.17
DORSET STREET
SOUTHBOUND

BAR SCHEDULE

BOSWELL ENGINEERING
RIDGEFIELD PARK N.J.

Sh. 2 of 2 Br 14 of Br 16

Surveyed by
Designed by A.G.M.
Drawn by A.M.
Traced by
Checked by
Series No. I 89-3 (14) Filed
Sheet 112 of 125 Sheets

APPROACH SLAB No.1 N.B

Item	No Pieces	Size	Length	Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
2	30	10	20'-7"	N1AS1	1	1'-1"	19'-6"							0'-9"			
3	1	10	5'-0	N1AS2A	STR												
4	1		5-7	B													
5	1		6-1	C													
6	1		6-7	D													
7	1		7-1	E													
8	1		7-7	F													
9	1		8-1	G													
10	1		8-8	H													
11	1		9-2	I													
12	1		9-8	J													
13	1		10-3	K													
14	1		10-9	L													
15	1		11-3	M													
16	1		11-9	N													
17	1		12-3	O													
18	1		12-9	P													
19	1		13-4	Q													
20	1		13-10	R													
21	1		14-4	S													
22	1		14-10	T													
23	1		15-5	U													
24	1		15-11	V													
25	1		16-5	W													
26	1		16-11	X													
27	1		17-6	Y													
28	1		18-0	Z													
29	1		18-6	AA													
30	1		19-0	BB													
31	1	10	19-7	N1AS2CC													
32	2	10	8-3	N1AS3													
33	2	10	7-7	N1AS4													
34	28	5	29-6	N1AS5													
35	17	5	3-6	N1AS6	STR												
36	10	5	5-0	N1AS7	SG	0-6	1-9	0-6	1-9			0-6					
37	2	5	6-7	N1AS8	STR												
38	2	5	5-11	N1AS9	STR												
39	2	5	17-8	N1AS10	STR												

APPROACH SLAB No.2 N.B.

Item	No Pieces	Size	Length	Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
42	30	10	20-7	N2AS1	1	1'-1"	19-6							0-9			
43	1		5-2	N2AS2A	STR												
44	1		5-9	B													
45	1		6-4	C													
46	1		7-0	D													
47	1		7-7	E													
48	1		8-3	F													
49	1		8-10	G													
50	1		9-5	H													
51	1		10-1	I													
52	1		10-9	J													
53	1		11-4	K													
54	1		11-11	L													
55	1		12-6	M													
56	1		13-2	N													
57	1		13-9	O													
58	1		14-4	P													
59	1		14-11	Q													
60	1		15-7	R													
61	1		16-2	S													
62	1		16-10	T													
63	1		17-5	U													
64	1		18-1	V													
65	1		18-8	W													
66	1		19-3	X													
67	1		19-11	Y													
68	1		20-6	Z													
69	1		21-1	AA													
70	1		21-8	BB													
71	1		22-3	N2AS2CC													
72	2		8'-2	N2AS3													
73	2	10	7-4	N2AS4													
74	29	5	29-6	N2AS5													
75	17	5	3-6	N2AS6	STR												
76	9	5	5-0	N2AS7	SG	0-6	1-9	0-6	1-9			0-6					
77	2	5	6-6	N2AS8	STR												
78	2	5	5-8	N2AS9	STR												
79	2	5	19-5	N2AS10	STR												

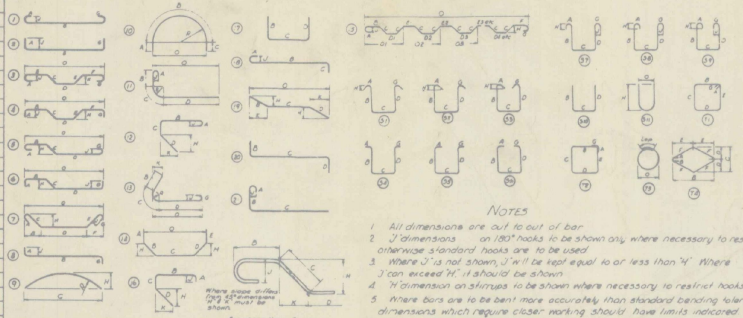
APPROACH SLAB No.1 S.B

Item	No Pieces	Size	Length	Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
84	42	10	20'-9"	S1AS1	1	1'-1"	19'-6"							0'-9"			
85	1		4-9	S1AS2A	STR												
86	1		5-3	B													
87	1		5-9	C													
88	1		6-3	D													
89	1		6-9	E													
90	1		7-2	F													
91	1		7-8	G													
92	1		8-2	H													
93	1		8-8	I													
94	1		9-2	J													
95	1		9-8	K													
96	1		10-2	L													
97	1		10-8	M													
98	1		11-2	N													
99	1		11-8	O													
100	1		12-2	P													
101	1		12-7	Q													
102	1		13-1	R													
103	1		13-7	S													
104	1		14-1	T													
105	1		14-7	U													
106	1		15-1	V													
107	1		15-7	W													
108	1		16-1	X													
109	1		16-7	Y													
110	1		17-1	Z													
111	1		17-6	AA													
112	1		18-0	BB													
113	1		18-6	CC													
114	1		19-0	DD													
115	1		19-6	EE													
116	1		20-0	FF													
117	1		20-6	GG													
118	1		21-0	HH													
119	1		21-6	II													
120	1		22-0	JJ													
121	1		22-5	KK													
122	1		22-11	LL													
123	1		23-5	MM													
124	1		23-11	NN													
125	1		24-5	S1AS200													
126	2		8-3	S1AS3													
127	2	10	7-8	S1AS4													
128	61	5	21-9	S1AS5													
129	17		3-6	S1AS6	STR												
130	9		5-0	S1AS7	SG	0-6	1-9	0-6	1-9			0-6					
131	2		6-7	S1AS8	STR												
132	2		6-0	S1AS9	STR												
133	2	5	24-3	S1AS10	STR												

APPROACH SLAB No.2 S.B.

Item	No Pieces	Size	Length	Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
136	42	10	20-7	S2AS1	1	1-1	19-6							0-9			
137	1		4-10	S2AS2A	STR												
138	1		5-6	B													
139	1		6-1	C													
140	1		6-8	D													
141	1		7-4	E													
142	1		7-11	F													
143	1		8-7	G													
144	1		9-2	H													
145	1		9-9	I													
146	1		10-5	J													
147	1		11-0	K													
148	1		11-7	L													
149	1		12-3	M													
150	1		12-10	N													
151	1		13-6	O													
152	1		14-1	P													
153	1		14-8	Q													
154	1		15-4	R													
155	1		15-11	S													
156	1		16-6	T													
157	1		17-2	U													
158	1		17-9	V													
159	1		18-4	W													
160	1		19-0	X													
161	1		19-7	Y													
162	1		20-3	Z													
163	1	10	20-10	AA	STR												

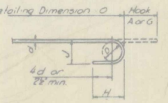
TYPICAL BAR BENDS



NOTES

1. All dimensions are out to out of bar.
2. 'J' dimensions on 180° hooks to be shown only where necessary to restrict hook size otherwise standard hooks are to be used.
3. Where 'J' is not shown, 'J' will be kept equal to or less than '4' Where 'J' can exceed 'H' it should be shown.
4. 'H' dimension on stirrups to be shown where necessary to restrict hooks.
5. Where bars are to be bent more accurately than standard bending tolerances bending dimensions which require closer working should have limits indicated.
6. Figures in circles show types.
7. No allowance for bend curvature is to be made except for standard hook & radii in excess of same.

Item	No Pieces	Size	Length	Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
163	1	10	21-5	S2AS2DB	STR												
164	1		22-1	CC													
165	1		22-8	DD													
166	1		23-3	EE													
167	1		23-11	FF													
168	1		24-6	GG													
169	1		25-2	HH													
170	1		25-9	II													
171	1		26-4	JJ													
172	1		27-0	KK													
173	1		27-7	LL													
174	1		28-2	MM													
175	1		28-10	NN													
176	1		29-5	S2AS200													
177	2		8-2	S2AS3													
178	2	10	7-5	S2AS4													
179	65	5	21-9	S2AS5													
180	17		3-6	S2AS6	STR												
181	9		5-0	S2AS7	SG	0-6	1-9	0-6	1-9			0-6					
182	2		6-6	S2AS8	STR												
183	2		5-9	S2AS9	STR												
184	2	5	25-2	S2AS10	STR												
185																	
186																	
187																	
188																	
189																	
190																	



STANDARD HOOK DETAIL

BAR SIZES

Equivalent Size	Present (Numbers)
¼" ø	#2
⅜" ø	#3
½" ø	#4
⅝" ø	#5
¾" ø	#6
⅞" ø	#7
1" ø	#8
1 1/8" ø	#9
1 3/8" ø	#10
1 3/8" ø	#11

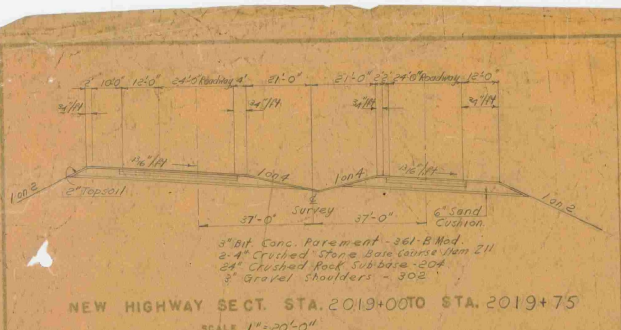
8. Bar reinforcement metal shall conform to the requirements of the Standard Specifications for new Billet-Steel Concrete Reinforcement Bars (Intermediate Grade) Serial Designation A.A.S.H.O. M31-48 or its latest revision. All bars shall be deformed to conform with A.S.T.M. Specifications A 305-49.

ESTIMATED QUANTITIES

FINAL AS	Location	Pounds
5,364	APPROACH SLAB No.1 N.B	~~5366~~
5,572	" " No.2 N.B	~~5568~~
7,401	" " No.1 S.B	~~8000~~
8,540	" " No.2 S.B	~~8530~~
27,015	TOTAL	~~27467~~

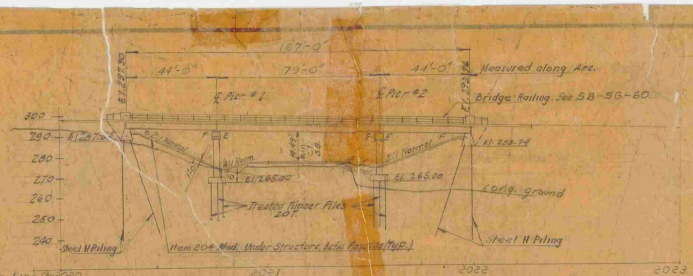
OVERPASS STA. 2021+36.17
DORSET STREET
/ APPROACH SLABS
BAR SCHEDULE
ROUTE No. I 89
PROJECT No. I 89-3-(14)
DESIGN BY G.V.K
CHECKED BY AHS

BR 150F16 SHEET 113 OF 125



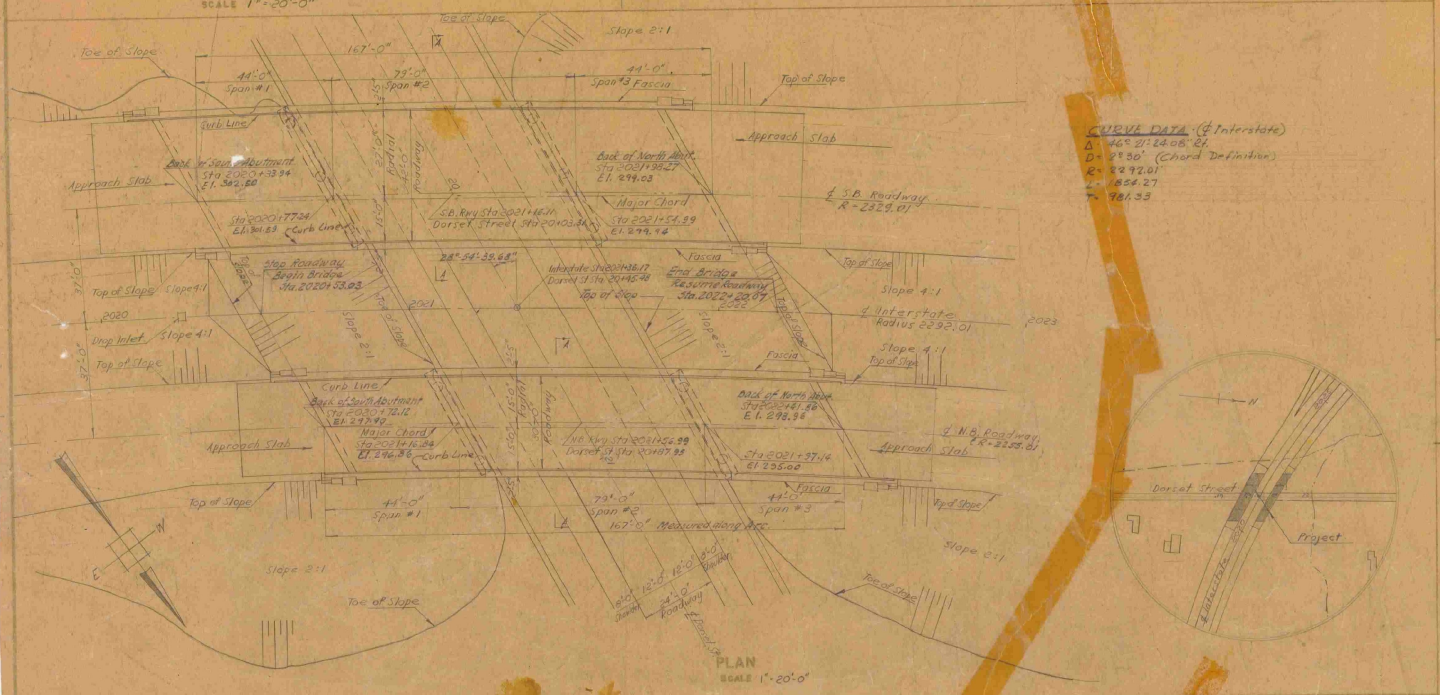
NEW HIGHWAY SECT. STA. 2019+00 TO STA. 2019+75

SCALE 1"=20'-0"



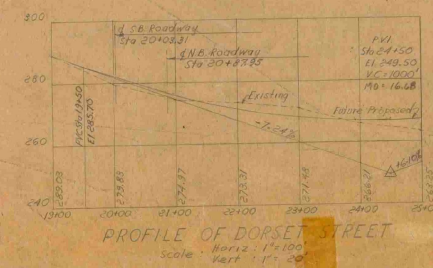
NEW HIGHWAY PROFILE ALONG ℄ NORTH BOUND ROADWAY

SCALE 1"=30'-0"



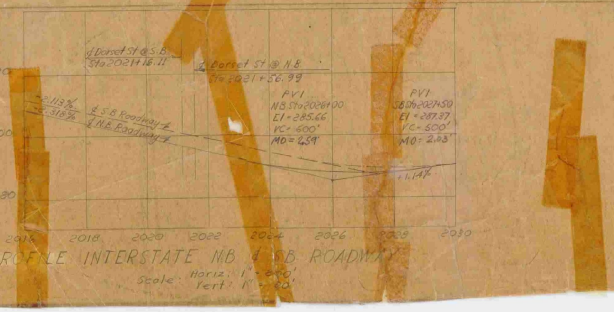
CURVE DATA (℄ Interstate)

Δ = 46°21'24.08" Rt.
D = 2°30' (Chord Definition)
R = 2292.01
L = 1854.27
T = 981.33



PROFILE OF DORSET STREET

Scale: Horiz: 1"=100'
Vert: 1"=20'



PROFILE INTERSTATE NB & SB ROADWAY

Scale: Horiz: 1"=50'
Vert: 1"=20'

HIGHWAY NO. 89 NAME OF
STRUCTURE NO. OVERPASS DORSET ST. COUNTY CHI
PROJECT NO. I 89-3 (14) LOCATION Sta 207

EXISTING

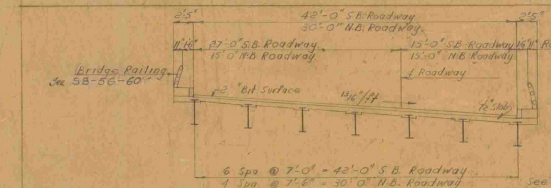
1 RATED LOADING OF EXISTING STRUCTURE
2 TYPE OF EXISTING STRUCTURE NONE
3 UNDERCLEARANCE, ELEVATION OF EXISTING STRU
4 WHAT DISPOSITION SHOULD BE MADE OF EXISTING STRUCT
5 SHOULD EXISTING STRUCTURE BE USED TO MAINTAIN TRAFFIC DURIN
6 SHOULD NEW TEMPORARY STRUCTURE BE BUILT
7 ORDINARY HIGH WATER SURFACE ELEV. AT EXISTING STRUCTURE
8 EXTREME HIGH WATER AT EXISTING STRUCTURE
9 SPAN OF EXISTING BRIDGE UPSTREAM WATERWAY TO EX
SPAN OF EXISTING BRIDGE DOWNSTREAM WATERWAY TO EXT
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 3 SPAN, SIMPLY SUPPORTED, COMPOSITE BEAM CONSTRUCT
2 RECOMMENDED CLEAR SPAN OR SPANS
MEASURED PARALLEL TO ℄ NEW HIGHWAY N.B. 40'-3", 75'-6", 40'-3" S.B. 40'-3", 75'-6", 40'-3"
MEASURED AT RIGHT ANGLES TO ℄ STREAM
3 ARE THERE OBJECTIONS TO A PIER IN THE STREAM, ANSWER YES OR NO
4 ORDINARY HIGH WATER ELEVATION AT NEW STRUCTURE
5 EXTREME HIGH WATER ELEVATION AT NEW STRUCTURE SOURCE OF INFORMATION
6 IS ALL WATER INTENDED TO PASS THROUGH NEW STRUCTURE?
7 DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY? IS ORDINARY RISE RAPI
8 LOW WATER ELEVATION AT NEW STRUCTURE
9 DRAINAGE AREA IN ACRES ABOVE STRUCTURE CHARACTER OF TERRAINE
10 IS STREAM EVER DRY?
11 VELOCITY OF STREAM AT HIGH WATER STAGE ESTIMATED DISCHARGE
12 AREA FULL OPENING AREA BELOW ORDINARY H.W.
13 CHARACTER OF SCOUR DRIFT ICE
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 7½" REINFORCED CONCRETE + 2" BITUMINOUS CONC.
18 TRAFFIC TO BE MAINTAINED UNDER ITEM NO. NO 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 [redacted] SHOULD PILES BE USED? YES EST. LOAD
Treated Timber Piles 20T/pile Steel 35 T/PILE Steel H Piles / Treated Timber Piles

FOUNDATION INFORMATION

OBTAINED FOR DESIGN PURPOSES ONLY, AND THE STATE ASSUMES NO RESPONSIBILITY WHATSOEVER FOR THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN. BOULDERS MAY BE ENCOUNTERED AT ANY PIER OR ABUTMENT LOCATION.
#1 DESIGN LOADING H20-S16-44 MODIFIED FOR NATIONAL SYSTEM OF INTERSTATE HIGHWAYS
#2 FOR BORINGS SEE SHEET #106



SECTION A-A (TYP)

SCALE: 1/8" = 1'-0"

See SCB-30-60, SCB-42-60 for Complete Details

Br 16 of Br 16

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE IN THE TOWNS OF
SO. BURLINGTON
ROUTE NO. 89 LOG STA.
OVERPASS INTERCHANGE STA 2021+38
DORSET STREET

SURVEYED BY A.G.M. CHECKED BY A.G.T. DRAWN BY A.G.M. CHECKED BY A.G.T.
PROJECT I 89-3 (14) SHEET 114 OF 125

BETHLEHEM STEEL

REINFORCING BAR SHOP LIST

15288 (Ke...)
(Old 4023...)

JOB PROJECT I 89.3 (14) CONTRACT #3 LOCATION SOUTH BURLINGTON VERMONT

CUSTOMER W.H. HINMAN IN... DATE 6-13-61

THIS SHEET COVERS SOUTH ABUTMENT - SOUTH BOUND - OVERPASS STA 20.31 + 50.00 SHELBURNE INTERCHANGE E.B. REVISED

MATERIAL SHOWN ON DRAWING No. BR8 CUSTOMER LIST MADE BY ATF

BENT BARS, TIES & STIRRUPS PREFIX BARS SBS

Dimensions Omitted are Zero

Item	No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
1	~~[illegible]~~				H. EAVY BENDING													
2																		
3	11	6	7-6	A5		17		3-0	1-6	3-0								
4																		
5																		
6	8	5	13-5	A13		3		6-11	6-6							5-9	3-1	
7	8	5	11-5	A12		3		6-11	4-6							3-9	2-6	
8																		
9																		
10																		
11																		
12																		
13																		
14																		

STRAIGHT BARS PREFIX BARS SBS

Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN	Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
1	13	7	18-10	A2			15						
2							16						
3							17	3	4	8-6	A11		
4	2	6	28-5	A8			18	21	4	8-0	A10		
5	8	4	18-8	A3			19	8	4	3-2	A16		
6	2	4	13-5	A9			20						
7	12		9-0	A6			21						
8	4	4	5-10	A7			22						
9	18	4	5-6	A1			23						
10	6	6	1-6	A4			24						
11							25						
12							26					GVK 6/19/61	
13	12	5	13-3	A15			27						
14	12	5	11-3	A14			28						

TOTAL WEIGHT

CONTRACT No. F55516 JOB No. approved 6/22/61 JHH SHEET No. 1

BETHLEHEM STEEL

REINF[illegible]CING BAR SHOP LIST

JOB PROJECT I 89-3(4) CONTRACT #3 LOCATION SOUTH BURLINGTON, VERMONT

CUSTOMER W. H. HINMAN LINE

DATE 6-15-61

THIS SHEET COVERS NORTH ABUTMENT, SOUTH BOUND OVERPASS STA 2031 +50.00 SHELBURNE INTERCHANGE E.B.

REVISED

MATERIAL SHOWN ON DRAWING No. BR8 CUSTOMER LIST

MADE BY ATF

BENT BARS, TIES & STIRRUPS PREFIX BARS SBN

Dimensions Omitted are Zero

Item	No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
1				HEAVY BENDING														
2																		
3	11	6	7-6	A5		12	3-0	1-6	3-5									
4																		
5																		
6	8	5	13-5	A13		3	6-11	6-6								5-9	3-1	
7	8	5	11-5	A12		3	6-11	4-6								3-9	2-6	
8																		
9																		
10																		
11																		
12																		
13																		
14																		

STRAIGHT BARS PREFIX BARS SBN

Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN	Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
1	12	7	18-10	A2			15						
2							16						
3							17	3	4	8-6	A11		
4	2	6	28-5	A8			18	20	4	8-0	A10		
5	8	6	18-8	A3			19	8	4	3-2	A16		
6	2	6	13-5	A9			20						
7	12	6	9-0	A6			21						
8	4	6	5-10	A7			22						
9	12	6	5-6	A1			23						
10	6	6	1-6	A4			24						
11							25						
12							26						
13	12	5	13-3	A15			27						
14	12	5	11-3	A14			28						

GUK 6/19/61

CONTRACT No. F 555(6)

JOB No. Approved 6/22/61

TOTAL WEIGHT

SHEET No. 2

BETHLEHEM STEEL

REINF[illegible]ING BAR SHOP LIST

JOB PROJECT I 293(14) CONTRACT #3 LOCATION SOUTH BURLINGTON VERMONT

CUSTOMER M. H. HINMAN INC

THIS SHEET COVERS SOUTH ABUTMENT - NORTHBOUND - OVERPASS STA 20+31 +50.00 SHELBURNE INTERCHANGE E.B.

DATE 6-13-61

REVISED

MADE BY RTE

MATERIAL SHOWN ON DRAWING No. BR 8 CUSTOMER LIST

BENT BARS, TIES & STIRRUPS PREFIX BARS NBS

Dimensions Omitted are Zero

Item	No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
1				HEAVY		BENDING												
2																		
3	11	6	2-6	A5		17	3-0	1-6	3-0									
4																		
5																		
6	8	5	19-5	A13		3	6-11	6-6								5-9	3-1	
7	8	5	11-5	A12		3	6-11	4-6								3-9	2-6	
8																		
9																		
10																		
11																		
12																		
13																		
14																		

STRAIGHT BARS PREFIX BARS NBS

Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
1	12	7	18-10	A2		
2						
3						
4	2	6	28-5	A8		
5	8		18-8	A3		
6	2		13-5	A9		
7	18		9-0	A6		
8	4		5-10	A2		
9	12		5-6	A1		
10	6	6	1-6	A4		
11						
12						
13	12	5	13-3	A15		
14	12	5	11-3	A14		

Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
15						
16						
17	3	4	8-6	A11		
18	28		8-0	A10		
19	8	4	3-2	A16		
20						
21						
22						
23						
24						
25						
26						AUK 6/19/61
27						
28						

CONTRACT No. F55516

JOB No.

Approved 6/27/61

TOTAL WEIGHT

SHEET No. 3

BETHLEHEM STEEL

REINFORCING BAR SHOP LIST

15288 (Rev. A 1-55) (Old 4023)

JOB PROJECT I 89-3(14) CONTRACT #3 LOCATION SOUTH BURLINGTON, VERMONT

CUSTOMER W. H. HINMAN INC

DATE 6-13-61

THIS SHEET COVERS NORTH ABUTMENT - NORTHBOUND - OVERPASS STA 2031 +50.00 SHELBURNE INTERCHANGE E.B.

REVISED

MATERIAL SHOWN ON DRAWING No. BR8 CUSTOMER LIST

MADE BY A.T.F.

BENT BARS, TIES & STIRRUPS PREFIX BARS NBN

Dimensions Omitted are Zero

Item	No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
1					HEAVY BENDING													
2																		
3	11	6	7-6	A5		17		3-0	1-6	3-0								
4																		
5																		
6	8	5	13-5	A13		3		6-11	6-6							5-9	3-1	
7	8	5	11-5	A12		3		6-11	4-6							3-9	2-6	
8																		
9																		
10																		
11																		
12																		
13																		
14																		

STRAIGHT BARS PREFIX BARS NBN

Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN	Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
1	12	7	18-10	A2			15						
2							16						
3							17	3	4	8-6	A11		
4	2	6	28-5	A8			18	20	7	8-0	A10		
5	8		18-8	A3			19	8	4	3-2	A16		
6	2		13-5	A9			20						
7	12		9-0	A6			21						
8	4		5-10	A7			22						
9	17		5-6	A1			23						
10	6	6	1-6	A4			24						
11							25						
12							26						
13	12	5	13-3	A15			27						
14	12	5	11-3	A14			28						

GVK 6/19/61

TOTAL WEIGHT

CONTRACT No. F55516

JOB No.

approved 6/22/61 JFH

SHEET No. 4

BETHLEHEM STEEL

REINFORCING BAR SHOP LIST

15288 (Rev. A 1-55)
(Old 4023)

JOB PROJECT I 89-3(14) CONTRACT #3 LOCATION SOUTH BURLINGTON VERMONT

CUSTOMER W. H. HINMAN INC.

DATE 6-13-61

THIS SHEET COVERS SPAN #1 NORTHBOUND - OVERPASS STA 208+50.00 SHELBURNE INTERCHANGE E.B.

REVISED

MATERIAL SHOWN ON DRAWING No. BES CUSTOMER LIST

MADE BY AFF

BENT BARS, TIES & STIRRUPS PREFIX BARS NBI

Dimensions Omitted are Zero

Item	No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
1				HEAVY BENDING														
2	22	6	3-0	37		1	1-8	1-8					8					
3																		
4				LIGHT BENDING														
5	24	5	4-2	36P		51			2-6	8	1-0							
6																		
7	26	4	7-0	36A		52	5	2-9		8	2-9	5						
8	48	4	5-9	34		53	5	1-6	1-5		1-6	5						
9																		
10																		
11																		
12																		
13																		
14																		

STRAIGHT BARS PREFIX BARS NBI

Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN	Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
1	21	6	20-6	33			15						
2							16						
3							17						
4	15	5	34-4	31			18						
5	11	5	32-2	35			19						
6							20						
7							21						
8	129	4	20-3	32			22			G.V.K	6/20/61		
9							23						
10							24						
11							25						
12							26						
13							27						
14							28						

TOTAL WEIGHT

CONTRACT No. F 555(6)

JOB No.

Approved 6/22/61

SHEET No. 5

BETHLEHEM STEEL

REINFORCING BAR SHOP LIST

13288 (Rev.A 1-58)
(Old 4023)

JOB PROJECT I 89-3(14) CONTRACT #3 LOCATION SOUTH BURLINGTON VERMONT

CUSTOMER W. H. HINMAN INC. DATE 6.13.61

THIS SHEET COVERS SPAN #1 SOUTHBOUND - OVERPASS STA. 2031 + 50.00 SHELBURNE WHITE CHANGE E.B. REVISED

MATERIAL SHOWN ON DRAWING No. BR8 CUSTOMER LIST MADE BY ATF

BENT BARS, TIES & STIRRUPS PREFIX BARS 581

Dimensions Omitted are Zero

Item	No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
1					HEAVY BENDING													
2	22	6	30	32		18	1-8						8					
3																		
4					LIGHT BENDING													
5	24	5	4-2	36P		31			2-6	8	1-0							
6																		
7	26	4	7-0	36A		52		5	2-9	8	2-9	5						
8	48	4	5-3	34		53		5	1-6	1-5	1-6	5						
9																		
10																		
11																		
12																		
13																		
14																		

STRAIGHT BARS PREFIX BARS - 581

Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN	Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
1	20	6	20-6	33			15						
2							16						
3							17						
4	156	5	34-4	31			18						
5	11	5	32-2	35			19						
6							20						
7	128	4	20-3	32			21						
8							22						
9							23						
10							24						
11							25						
12							26						
13							27						
14							28						

G.V.K 6/20/61

CONTRACT No. F 55516 JOB No. Approved 6/22/61 TOTAL WEIGHT SHEET No. 6

BETHLEHEM STEEL

REINFORCING BAR SHOP LIST

15288 (Rev.A 1-53)
(Old 4023)

JOB PROJECT I 89-3(14) CONTRACT 5 LOCATION SOUTH BURLINGTON VERMONT

CUSTOMER W.A. HINMAN INC

THIS SHEET COVERS SPAN #2 NORTH BOUND - OVERPASS 5TH 2031+50.00 SHELBURNE INTERCHANGE E.B.

MATERIAL SHOWN ON DRAWING No. BR8 CUSTOMER LIST

DATE 6-23-61

REVISED

MADE BY A.T.F.

BENT BARS, TIES & STIRRUPS PREFIX BARS NB2

Dimensions Omitted are Zero

Item	No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
1					LIGHT	BENDING												
2																		
3	48	5	4-2	36F		51			2-6	8	1-0							
4																		
5																		
6	114	4	5-3	34		53		5	1-6	1-5	1-6	5						
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		

STRAIGHT BARS PREFIX BARS NB2

Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN	Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
1	30	6	31-3	33			15						
2							16						
3							17						
4	356	5	34-4	31			18						
5	6	5	32-2	35			19				GUK	6/20/61	
6							20						
7							21						
8	192	4	31-0	32			22						
9							23						
10							24						
11							25						
12							26						
13							27						
14							28						

CONTRACT No. F 555(16)

JOB No.

Approved 6/22/61

TOTAL WEIGHT

SHEET No. 7

BETHLEHEM STEEL

REINFORCING BAR SHOP LIST

15288 (Rev. A 1-55) (Old 4023)

JOB PROJECT I 89-3(14) CONTRACT #3 LOCATION SOUTH BURLINGTON VERMONT

CUSTOMER W. H. HINMAN INC. DATE 6-13-61

THIS SHEET COVERS SPAN #2 SOUTHBOUND. OVERPASS STA 2031+50.00 SHELBURNE INTERCHANGE E.B. REVISED

MATERIAL SHOWN ON DRAWING No. BR8 CUSTOMER LIST MADE BY A.T.F.

BENT BARS, TIES & STIRRUPS PREFIX BARS SB2

Dimensions Omitted are Zero

Item	No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
1					LIGHT BENDING													
2																		
3	48	5	4-2	S6P		S1			2-6	8	1-0							
4																		
5																		
6	114	4	5-3	S4		S3		5	1-6	1-5	1-6	5						
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		

STRAIGHT BARS PREFIX BARS SB2

Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN	Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
1	30	6	31-3	S3			15						
2							16						
3							17						
4	356	5	34.4	S1			18						
5	6	5	32-2	S5			19				GUK	6/20/61	
6							20						
7							21						
8	192	4	31-0	S2			22						
9							23						
10							24						
11							25						
12							26						
13							27						
14							28						

TOTAL WEIGHT

CONTRACT No. F55516 JOB No. approved 6/22/61 JAH SHEET No. 8.

BETHLEHEM STEEL

REINFORCING BAR SHOP LIST

15288 (Rev. A 1-55)
(Old 4023)

JOB PROJECT I 89-3(14) CONTRACT #3 LOCATION SOUTH BURLINGTON VERMONT

CUSTOMER W. H. HINMAN INC

DATE 6-13-61

THIS SHEET COVERS SPAN #3 NORTHBOUND OVERPASS STA 2031+50.00 SHELBURNE INTERCHANGE E.B

REVISED

MATERIAL SHOWN ON DRAWING No. BR8 CUSTOMER LIST

MADE BY ATF

BENT BARS, TIES & STIRRUPS PREFIX BARS NB3

Dimensions Omitted are Zero

Item	No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
1						HEAVY BENDING												
2	22	6	3-0	S7		1	8	1-8					8					
3																		
4						LIGHT BENDING												
5	24	5	4-2	S6P		S1			2-6	8	1-0							
6																		
7	26	4	7-6	S6A		S2		5	3-0	8	3-0	5						
8	54	4	5-3	S4		S3		5	1-6	1-5	1-6	5						
9																		
10																		
11																		
12																		
13																		
14																		

STRAIGHT BARS PREFIX BARS NB3

Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN	Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
1	20	6	23-0	S3			15						
2							16						
3							17						
4	176	5	34-4	S1			18						
5	11	5	32-2	S5			19						
6							20						
7							21						
8	128	4	22-9	S2			22						
9							23						
10							24						
11							25						
12							26						
13							27						
14							28						

G.V.K 6/20/61

TOTAL WEIGHT

CONTRACT No. F55516

JOB No.

approved 6/22/61 JHH

SHEET No. 9

BETHLEHEM STEEL

REINFORCING BAR SHOP LIST

15288 (Rev. A 1-55)
(Old 4023)

JOB PROJECT I 89-3(14) CONTRACT #3 LOCATION SOUTH BURLINGTON VERMONT

CUSTOMER W. H. HINMAN INC. DATE 6-13-61

THIS SHEET COVERS SPAN #2 SOUTHBOUND OVERPASS STR. 208'+50.00 SHELBURNE INTERCHANGE E.B. REVISED

MATERIAL SHOWN ON DRAWING No. BRB CUSTOMER List MADE BY A. T. F.

BENT BARS, TIES & STIRRUPS PREFIX BARS SBS

Dimensions Omitted are Zero

Item	No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
1						HEAVY BENDING												
2	22	6	3-0	57		11	8	1-8					8					
3																		
4						LIGHT BENDING												
5	24	5	9-2	56P		31			2-6	8	1-0							
6																		
7																		
8	26	4	7-6	56A		32	5	3-0	8	3-0	5							
9	54	4	5-3	54		33	5	1-6	1-5	1-6	5							
10																		
11																		
12																		
13																		
14																		

STRAIGHT BARS PREFIX BARS SBS

Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN	Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
1	20	6	23-0	59			15						
2							16						
3							17						
4	126	5	34-4	51			18						
5	11	5	32-2	55			19				G.V.K. 6/20/61		
6							20						
7							21						
8	128	4	22-9	58			22						
9							23						
10							24						
11							25						
12							26						
13							27						
14							28						

CONTRACT No. F 555 16 JOB No. Approved 6/22/61 TOTAL WEIGHT SHEET No. 18

BETHLEHEM STEEL

REINFORCING BAR SHOP LIST

15288 (Rev. A 1-55) (Old 4023)

JOB PROJECT I 89-3 (14) CONTRACT #3 LOCATION SO. BURLINGTON VERMONT

CUSTOMER W. H. HINMAN, INC.

DATE 6-14-61

THIS SHEET COVERS PIER #1 NORTHBOUND - OVERPASS STA 2031 + 50.00 SHELBURNE INTERCHANGE E.B.

REVISED

MATERIAL SHOWN ON DRAWING No. BR8 CUSTOMER LIST

MADE BY A.T.F.

BENT BARS, TIES & STIRRUPS PREFIX BARS NB1

Dimensions Omitted are Zero

Item	No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
1				HEAVY BENDING														
2	8	9	12-4	P12		2	1-4	11-0										
3																		
4	60	8	7-0	P5		2	1-5	5-7										
5																		
6	20	5	6-3	P19		17		2-6	1-3	2-6								
7																		
8				LIGHT BENDING														
9	48	4	11-10	P18		T1	5	2-4	3-2	2-4	3-2		5					
10	18		11-6	P9		T1	5	2-8	2-8	2-8	2-8		5					
11	34		9-6	P10		T1	5	2-8	1-8	2-8	1-8		5					
12	32	4	8-4	P11		T1	5	1-6	2-3	1-6	2-3		5					
13																		
14																		

STRAIGHT BARS PREFIX BARS NB1

Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN	Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
1	12	10	17-9	P3			15	8	5	16-11	P17		
2	25	10	73-2	P2			16	75		9-6	P1		
3							17	20	5	1-6	P20		
4	20	9	19-8	P4			18						
5	8		17-9	P15			19						
6	4		17-4	P13			20						
7	2		10-0	P14			21						
8	9	9	8-0	P16			22						
9							23						
10	20	8	20-10	P6			24						
11	20	8	19-11	P7			25						
12	21	8	19-0	P8			26					GUK	6-20-61
13							27						
14							28						

CONTRACT No. F55516

JOB No.

approved 6/22/61 JH

TOTAL WEIGHT

SHEET No. 11

BETHLEHEM STEEL

REINFORCING BAR SHOP LIST

13288 (Rev. 1-55)
(Old 4023)

JOB PROJECT I 89-3(14) CONTRACT #9 LOCATION So BURLINGTON VERMONT

CUSTOMER W. H. HINMAN INC

DATE 6-14-61

THIS SHEET COVERS PIER #2 NORTHBOUND - OVERPASS STA 2081+50.00 SHELBURNE INTERCHANGE E.B

REVISED

MATERIAL SHOWN ON DRAWING No. BRB CUSTOMER LIST

MADE BY ATF

BENT BARS, TIES & STIRRUPS PREFIX BARS NB2

Dimensions Omitted are Zero

Item	No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
1				HEAVY BENDING														
2	8	9	12-4	P12		2	1-4	11-0										
3																		
4	60	8	7-0	P5		2	7-5	5-7										
5																		
6	20	5	6-3	P19		17	2-6	1-3	2-6									
7																		
8				LIGHT BENDING														
9	48	4	11-10	P18		71	5	2-4	3-2	2-4	3-2		5					
10	26		11-6	P9		71	5	2-8	2-8	2-8	2-8		5					
11	50		9-6	P10		71	5	2-8	1-8	2-8	1-8		5					
12	48	4	8-4	P11		71	5	1-6	2-3	1-6	2-3		5					
13																		
14																		

STRAIGHT BARS PREFIX BARS NB2

Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN	Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
1	12	10	12-9	P3			15	8	5	16-7	P17		
2	24	10	13-2	P2			16	24		9-6	P1		
3							17	20	5	1-6	P20		
4	20	9	19-8	P4			18						
5	8		12-9	P15			19						
6	4		12-4	P13			20						
7	2		10-0	P14			21						
8	8	7	8-0	P16			22						
9							23						
10	20	8	28-9	P6			24						
11	20		22-10	P7			25						
12	20	8	26-11	P8			26						G.U.K 6-20-61
13							27						
14							28						

TOTAL WEIGHT

CONTRACT No. F 555 16

JOB No.

Approved 6/23/61 ATF

SHEET No. 12

BETHLEHEM STEEL

REINFORCING BAR SHOP LIST

15288 (Rev.A (Old 4023)

JOB PROJECT I 89-3 (14) CONTRACT #3 LOCATION SOUTH BURLINGTON VERMONT

CUSTOMER VT. H. HINMAN, INC.

THIS SHEET COVERS PIER #1 SOUTHBOUND OVERPASS STA 2031+50.00 SHELBURNE INTERCHANGE E.B.

MATERIAL SHOWN ON DRAWING No. BRS CUSTOMER CUT

DATE 6-14-61

REVISED

MADE BY ATF

BENT BARS, TIES & STIRRUPS PREFIX BARS SB1

Dimensions Omitted are Zero

Item	No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
1						HEAVY BENDING												
2	8	9	12-4	P12		2	1-4	11-0										
3																		
4	60	8	7-0	P5		2	1-5	5-7										
5																		
6	20	5	6-3	P19		1N		2-6	1-3	2-6								
7																		
8						LIGHT BENDING												
9	48	4	11-10	P18		T1	5	2-4	3-2	2-4	3-2		5					
10	18		11-6	P9		T1	5	2-8	2-8	2-8	2-8		5					
11	34		9-6	P10		T1	5	2-8	1-8	2-8	1-8		5					
12	32	4	8-4	P11		T1	5	1-6	2-3	1-6	2-3		5					
13																		
14																		

STRAIGHT BARS PREFIX BARS SB1

Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN	Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
1	12	10	19-9	P3			15	8	5	16-11	P19		
2	24	10	13-2	P2			16	74		9-6	P1		
3							17	20	5	1-6	P20		
4	20	9	19-8	P4			18						
5	8		17-9	P15			19						
6	4		17-4	P13			20						
7	2		10-0	P14			21						
8	8	9	8-0	P16			22						
9							23						
10	20	8	20-10	P6			24						
11	20	8	19-11	P7			25						
12	20	8	9-0	P8			26					G.V.K	6-20-61
13							27						
14							28						

TOTAL WEIGHT

CONTRACT No. F55516

JOB No.

Approved 6/23/61 VAA

SHEET No. 13

BETHLEHEM STEEL

REINFORCING BAR SHOP LIST

15288 (Rev. ...) (Old 4023)

JOB PROJECT I 89-3(14) CONTRACT #3 LOCATION SO. BURLINGTON VERMONT

CUSTOMER W. H. HINMAN, INC

DATE 6-14-61

THIS SHEET COVERS PIER #2 SOUTH BOUND - OVERPASS STA 2031+50.00 SHELBURNE INTERCHANGE E.B.

REVISED

MATERIAL SHOWN ON DRAWING No. BR8 CUSTOMER LIST

MADE BY ATF.

BENT BARS, TIES & STIRRUPS PREFIX BARS SB2

Dimensions Omitted are Zero

Item	No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
1					HEAVY BENDING													
2	8	9	12-4	P12		2	1-4	11-0										
3																		
4	60	8	7-0	P5		2	1-5	5-7										
5																		
6	20	5	6-3	P19		17		2-6	1-3	2-6								
7																		
8					LIGHT BENDING													
9	48	4	11-10	P18		T1	5	2-4	3-2	2-4	3-2		5					
10	26		11-6	P9		T1	5	2-8	2-8	2-8	2-8		5					
11	50		9-6	P10		T1	5	2-8	1-8	2-8	1-8		5					
12	48	4	8-4	P11		T1	5	1-6	2-3	1-6	2-3		5					
13																		
14																		

STRAIGHT BARS PREFIX BARS SB2

Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN	Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
1	12	10	17-9	P3			15	8	5	16-11	P17		
2	24	10	13-2	P2			16	74		9-6	P1		
3							17	20	5	1-6	P20		
4	20	9	19-8	P4			18						
5	8		17-9	P15			19						
6	4		17-4	P13			20						
7	2		10-0	P14			21						
8	8	9	8-0	P16			22						
9							23						
10	20	8	28-9	P6			24						
11	20		27-10	P7			25						
12	20	8	26-11	P8			26					GVK	6/20/61
13							27						
14							28						

TOTAL WEIGHT

CONTRACT No. F55516

JOB No.

approved 6/22/61 JHH

SHEET No. 14

BETHLEHEM STEEL

REINFORCING BAR SHOP LIST

15288 (Rev.A-[illegible]) (Old 4023)

JOB PROJECT I 89-3 (14) CONTRACT #3 LOCATION So. BURLINGTON VERMONT

CUSTOMER W. H. HINMAN INC. DATE 6-14-61

THIS SHEET COVERS SOUTH APPROACH SLAB - NORTH BOUND - OVERPASS STA. 203+50.00 SHELBURNE INTERCHANGE E.B. REVISED

MATERIAL SHOWN ON DRAWING No. BR 8 CUSTOMER LIST MADE BY A.T.F.

BENT BARS, TIES & STIRRUPS PREFIX BARS NBSA

Dimensions Omitted are Zero

Item	No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
1						HEAVY BENDING												
2	3	10	21-5	S1		1	1-1	20-4										
3	3		21-4					20-3										
4	3		21-3					20-2										
5	3		21-2					20-1										
6	3		21-1					20-0										
7	2		21-0					19-11										
8	3		20-11					19-10										
9	3		20-10					19-9										
10	3		20-9					19-8										
11	3		20-8					19-7										
12	2	10	20-7	S1		1	1-1	19-6										
13						LIGHT BENDING												
14	6	5	4-4	S6		S6		6	1-9	6	1-9	6						

STRAIGHT BARS PREFIX BARS NBSA

Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN	Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
1	4	10	7-0	S2			15						
2							16						
3							17						
4	1	5	32-3	S8			18						
5	6		32-2	S4			19						
6	1		30-10	S7			20						
7	13		29-6	S3			21						
8	4	5	5-4	S5			22						
9							23						
10							24						
11							25						
12							26						
13							27						
14							28						

G.U.K 6/20/61

TOTAL WEIGHT

CONTRACT No. F55516 JOB No. approved 6/22/61 SHEET No. 15

BETHLEHEM STEEL

REINFORCING BAR SHOP LIST

15288 (Rev. A 1-65) (Old 4023)

JOB PROJECT I 89-3 (14) CONTRACT #3 LOCATION So. BURLINGTON VERMONT

CUSTOMER W. H. HINMAN INC. DATE 6-14-61

THIS SHEET COVERS SOUTH APPROACH SLAB - SOUTHBOUND OVERPASS STA 2031+50.00 SHELBURNE INTERCHANGE E.B. REVISED

MATERIAL SHOWN ON DRAWING No. BR8 CUSTOMER LIST MADE BY A.T.F.

BENT BARS, TIES & STIRRUPS PREFIX BARS SBSA

Dimensions Omitted are Zero

Item	No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
1					HEAVY BENDING													
2	3	10	21-5	S1		1	1-1	20-4										
3	3		21-4					20-3										
4	3		21-3					20-2										
5	3		21-2					20-1										
6	3		21-1					20-0										
7	2		21-0					19-11										
8	3		20-11					19-10										
9	3		20-10					19-9										
10	3		20-9					19-8										
11	3		20-8					19-7										
12	2	10	20-7	S1		1	1-1	19-6										
13					LIGHT BENDING													
14	6	5	4-4	S6		S6		6	1-9	6	1-9	6						

STRAIGHT BARS PREFIX BARS SBSA

Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN	Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
1	4	10	7-0	S2			15						
2							16						
3							17						
4	1	5	32-3	S8			18						
5	6		32-2	S4			19						
6	1		30-10	S7			20						
7	13		29-6	S3			21						
8	4	5	5-4	S5			22						
9							23						
10							24						
11							25						
12							26						
13							27						
14							28						

GU K 6/20/61

TOTAL WEIGHT

CONTRACT No. F55516 JOB No. approved 6/22/61 SHEET No. 16

BETHLEHEM STEEL

REINFORCING BAR SHOP LIST

15288 (Rev. A-11-55)
(Old 4023)

JOB PROJECT I 89-3(14) CONTRACT #3 LOCATION So. BURLINGTON VERMONT

CUSTOMER W.H. HINMAN & CO. INC. DATE 6-19-61

THIS SHEET COVERS NORTH APPROACH SLAB NORTHBOUND ABUTMENT STA. E 231+50.00 SHELBURNE INTERCHANGE S.B. REVISED

MATERIAL SHOWN ON DRAWING No. BRS CUSTOMER LIST MADE BY ATF

BENT BARS, TIES & STIRRUPS PREFIX BARS NBNA Dimensions Omitted are Zero

Item	No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
1				HEAVY BENDING														
2	3	10	21-5	31		1	1-1	20-4										
3	5		21-4					20-3										
4	3		21-3					20-2										
5	3		21-2					20-1										
6	3		21-1					20-0										
7	2		21-0					19-11										
8	3		20-11					19-10										
9	3		20-10					19-9										
10	3		20-9					19-8										
11	3		20-8					19-7										
12	2	10	20-7	31		1	1-1	19-6										
13				LIGHT BENDING														
14	6	5	7-4	36		36		6-1-9	6	7-9	6							

STRAIGHT BARS PREFIX BARS NBNA

Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN	Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
1	4	10	7-0	32			15						
2							16						
3							17						
4	1	5	32-3	38			18						
5	6		32-2	34			19						
6	1		30-10	37			20						
7	15		29-6	33			21						
8	4	5	5-4	35			22						
9							23						
10							24						
11							25						
12							26						
13							27						
14							28						

GVK 6/20/61

CONTRACT No. F555(6) JOB No. Approved 6/22/61 ATF TOTAL WEIGHT SHEET No. 17

BETHLEHEM STEEL

REINFORCING BAR SHOP LIST

15288 (Rev. A 1-55)
(Old 4023)

JOB PROJECT I 89-3 (14) CONTRACT #3 LOCATION So BURLINGTON VERMONT

CUSTOMER W. H. HINMAN INC. DATE 6-14-61

THIS SHEET COVERS NORTH APPROACH SLAB SOUTHBOUND · OVERPASS STA 2031+50.00 SHELBURNE INTERCHANGE E.B. REVISED

MATERIAL SHOWN ON DRAWING No. BR 8 CUSTOMER LIST MADE BY ATF

BENT BARS, TIES & STIRRUPS PREFIX BARS SBNA

Dimensions Omitted are Zero

Item	No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
1					HEAVY BENDING													
2	3	10	21-5	S1		1	1-1	20-4										
3	3		21-4					20-3										
4	3		21-3					20-2										
5	3		21-2					20-1										
6	3		21-1					20-0										
7	2		21-0					19-11										
8	3		20-11					19-10										
9	3		20-10					19-9										
10	3		20-9					19-8										
11	3		20-8					19-7										
12	2	10	20-7	S1		1	1-1	19-6										
13					LIGHT BENDING													
14	6	5	4-4	S6		S6		6	1-9	6	1-9	6						

STRAIGHT BARS PREFIX BARS SBNA

Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN	Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
1	4	10	7-0	S2			15						
2							16						
3							17						
4	1	5	32-3	S8			18						
5	6		32-2	S4			19						
6	1		30-10	S7			20						
7	13		29-6	S3			21						
8	4	5	5-4	S5			22						
9							23						
10							24						
11							25						
12							26						
13							27						
14							28						

G.V.K. 6/20/61

TOTAL WEIGHT

CONTRACT No. F 55516 JOB No. SHEET No. 18

approved 6/22/61 JAH

BETHLEHEM STEEL

REINFORCING BAR SHOP LIST

(Rev. A 1-59)

JOB PROJECT I 89-3(14) Cont No 2 LOCATION So. BURLINGTON, VERMONT

CUSTOMER THE LANE CONSTRUCTION CORP. DATE 7-18-61

THIS SHEET COVERS WEST ABUTMENT UNDERPASS STA. 1970+53.89 HINESBURG ROAD REVISED

MATERIAL SHOWN ON DRAWING No. LIST MADE BY Bob S

BENT BARS, TIES & STIRRUPS

Dimensions Omitted are Zero

Item	No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
1	HEAVY BENDING																	
2	~~16~~ 8	5	11-11	WA-7		3		7	3 4 8							2	5 4 0	
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		

STRAIGHT BARS

Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN	Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
1	~~11~~	~~7~~	~~33-2~~	~~WA-2~~			15						
2							16						
3	~~4~~	~~6~~	~~35-2~~	~~WA-3~~			17						
4	~~18~~	~~6~~	~~5-6~~	~~WA-1~~			18						
5	~~17~~	~~6~~	~~1-6~~	~~WA-4~~			19						
6							20						
7	~~25~~	~~5~~	~~11-6~~	~~WA-8~~			21						
8							22			• Checked 7-24-61 JJC			
9	~~32~~	~~4~~	~~8-9~~	~~WA-6~~			23						
10	~~17~~	~~4~~	~~8-6~~	~~WA-5~~			24						
11	~~8~~	~~4~~	~~3-3~~	~~WA-9~~			25						
12							26						
13							27						
14							28						

TOTAL WEIGHT

CONTRACT No. 201-56041 JOB No. Approved 7/24/61 SHEET No. 1 ONLY

BETHLEHEM STEEL

REINFORCING BAR SHOP LIST

1953 (Rev. A 1-55)

JOB PROJECT I 89-3(14), Cont #2 LOCATION So. BURLINGTON, VERMONT

CUSTOMER THE LANE CONST. CORP. DATE 7-18-61

THIS SHEET COVERS EAST ABUT. - UNDERPASS STA. 1970+53.89 REVISED

MATERIAL SHOWN ON DRAWING No. LIST HINESBURG ROAD MADE BY B.O.B. S.

BENT BARS, TIES & STIRRUPS

Dimensions Omitted are Zero

Item	No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
1	HEAVY BENDING																	
2	12	6	5-0	EA-6		3		2-6	2-6							1-9	1-9	
3																		
4	16	5	12-9	EA-9		3		7-3	5-6							3-9	4-0	
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		

STRAIGHT BARS

Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN	Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
1	7	7	35-2	EA-2			15						
2							16						
3	4	6	35-2	EA-3			17						
4	48	6	5-0	EA-5			18						
5	17	6	2-6	EA-1			19						
6	17	6	1-6	EA-4			20						
7							21						
8	24	5	11-6	EA-10			22				✓		
9							23				JJC		
10	32	4	8-9	EA-8			24						
11	164	6	6-0	EA-7			25						
12	8	4	3-3	EA-11			26						
13							27						
14							28						

CONTRACT No. 201-56041 JOB No. Approved 7/27/61 JJC TOTAL WEIGHT SHEET No. 2 ONLY

REINFORCING BAR SHOP LIST

PROJECT I 89-3(4) COUT #2 LOCATION SO. BURLINGTON, VT

CUSTOMER THE LANE CONST CORP DATE

THIS SHEET COVERS PIER #1 UNDERPASS STA 1970+55.89 HINESBURG ROAD REVISED

MATERIAL SHOWN ON DRAWING No. LIST MADE BY

BENT BARS, TIES & STIRRUPS

Dimensions Omitted are Zero

No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
PREFIX ALL BARS WITH 1 AS IN 1P7 ETC																	
HEAVY BENDING																	
8	8	11-7	P7		17		6-8	4-11									
54	8	7-10	P4		17		1-5	6-7									
8	5	8-11	P12		10		2-1	4-9	2-1		1-7			3-2	3-8		
LIGHT BENDING																	
48	4	11-7	P11		T1	4½	2-3	3-2	2-3	3-2		4½					
[illegible]	4	10-4	P6		T3		2-0							2-8			

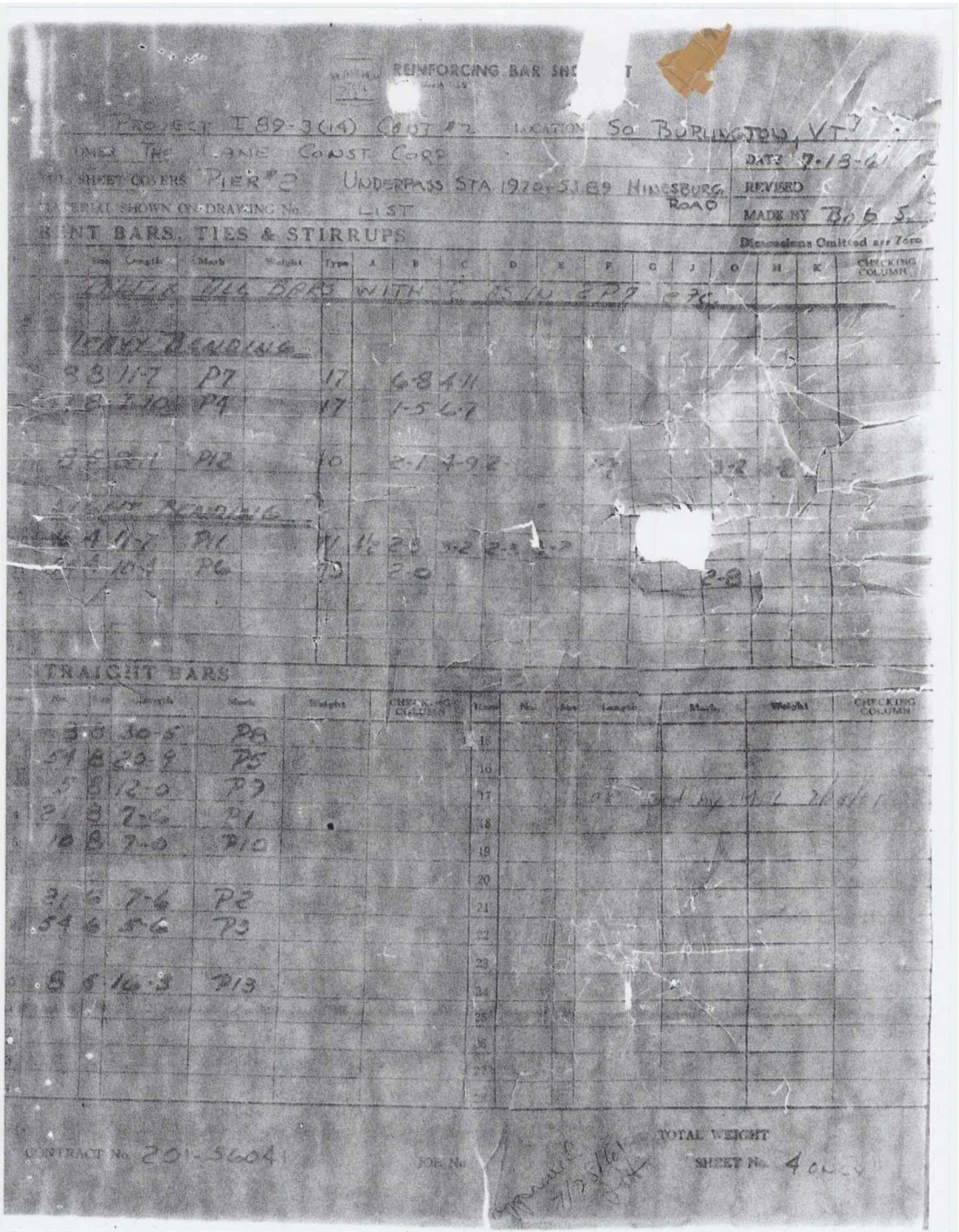
STRAIGHT BARS

No.	Size	Length	Mark	Weight	CHECKING COLUMN	Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
9	8	30-5	P8			15						
54	8	22-5	P5			16						
5	8	12-0	P9			17						
22	8	7-6	P1			18						
10	8	7-0	P10			19						
						20						
21	6	7-6	P2			21						
54	6	5-6	P3			22						
						23						
8	5	16-3	P13			24						
						25						
						26						
						27						
						28						

ok ckd by MEL 7/28/11

CONTRACT No. 201 56041 JOB No. TOTAL WEIGHT SHEET No. 3 ok

approved 7/28/11



REINFORCING BAR SHEET

PROJECT F 89-3(14) CONST #2 LOCATION So. BURLINGTON, VT

OWNER THE LANE CONST. CORP. DATE 7-18-61

THIS SHEET COVERS PIER #2 UNDERPASS STA 1970+51.69 HINESBURG ROAD REVISED

MATERIAL SHOWN ON DRAWING No. LIST MADE BY Bob S.

BENT BARS, TIES & STIRRUPS

Dimensions Omitted are Zero

No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
			CONT. #6 BARS WITH 5 BENT SPA @ 7½														
			END BENDING														
38	11	7	P7		17	6-8	4	11									
18	2	10½	P4		17	1-5	6	1									
5	5	2	P12		10	2-1	4	9	2					3-2		2	
			SIDE BENDING														
4	11	7	P11		W	1½	2-8		3-2	2-4	2-7						
4	10	4	P6		20		2-0								2-8		

STRAIGHT BARS

No.	Size	Length	Mark	Weight	CHECKING COLUMN	Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
30	8	10-5	P9			15						
54	8	23-9	P5			16						
5	8	12-0	P3			17						
21	8	7-6	P1			18						
10	8	7-0	P10			19						
						20						
31	6	7-6	P2			21						
54	6	5-6	P3			22						
						23						
8	8	14-3	P13			24						
						25						
						26						
						27						
						28						

TOTAL WEIGHT

CONTRACT No. 201-5604 JOB No. SHEET No. 4 OF 4

BETHLEHEM STEEL

REINFORCING BAR SHOP LIST

Rev.A 1-59

JOB PROJECT I 89-3(14) CONT. #2 LOCATION SO BURLINGTON, VT.

CUSTOMER THE LANE CONST. CORP. DATE 7-18-61

THIS SHEET COVERS PIER #3 UNDERPASS STA. 1970+53.89 HINESBURG ROAD REVISED

MATERIAL SHOWN ON DRAWING No. LIST MADE BY Bob S.

BENT BARS, TIES & STIRRUPS

Dimensions Omitted are Zero

Item	No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
1	PREFIX ALL BARS WITH 3 AS IN 3 P7 etc.																	
2																		
3	HEAVY BENDING																	
4	8	8	11-7	P7		17		6-8	4-11									
5	54	8	7-10	P4		17		1-5	6-7									
6																		
7	8	5	8-11	P12		10		2-1	4-9	2-1		1-7			3-2	8-8		
8																		
9	LIGHT BENDING																	
10	48	4	11-7	P11		T1	4½	2-3	3-2	2-3	3-2		4½					
11	54	4	10-4	P6		T3		2-0							2-8			
12																		
13																		
14																		

STRAIGHT BARS

Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN	Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
1	8	8	30-5	P8			15						
2	54	8	21-0	P5			16			ok ckd by	MEL		7/28/61
3	5	8	12-0	P9			17						
4	21	8	7-6	P1			18						
5	10	8	7-0	P10			19						
6							20						
7	21	6	7-6	P2			21						
8	54	6	5-6	P3			22						
9							23						
10	8	5	16-3	P13			24						
11							25						
12							26						
13							27						
14							28						

TOTAL WEIGHT

CONTRACT No. 201-56041 JOB No. SHEET No. 5 ONLY

approved 7/28/61 [illegible]

BETHLEHEM STEEL

REINFORCING BAR SHOP LIST

JOB PROJECT I89-3(14) Cont #2 LOCATION So BURLINGTON, VT.

CUSTOMER THELANE CONST CORP. DATE 7-18-61

THIS SHEET COVERS SPAN #1 UNDERPASS STA 1970+53.89 HINESBURG ROAD REVISED

MATERIAL SHOWN ON DRAWING No. LIST MADE BY B.O.S.

BENT BARS, TIES & STIRRUPS

Dimensions Omitted are Zero

Item	No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
1	HEAVY BENDING																	
2	22	6	3-0	157		1	8	1-8					8					
3																		
4	LIGHT BENDING																	
5	31	5	4-2	156P		53			2-6	8	1-0							
6																		
7	26	4	7-6	156A		52		5	3-0	8	3-0	5						
8	68	4	5-3	154		53		5	1-6	1-5	1-6	5						
9																		
10																		
11																		
12																		
13																		
14																		

STRAIGHT BARS

Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN	Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
1							15						
2	20	6	28-0	153			16						
3							17						
4	216	5	34-4	151			18						
5	11	5	32-7	155			19						
6							20						
7	128	4	21-9	152			21						
8							22				✓ 55C		
9							23						
10							24						
11							25						
12							26						
13							27						
14							28						

CONTRACT No. 201-56041 JOB No. Approved 7/24/61 TOTAL WEIGHT SHEET No. 6 ONLY

BETHLEHEM STEEL

REINFORCING BAR SHOP LIST

1528 Rev. A 1-59

JOB PROJECT I 89-3(14) Cont #2 LOCATION So BURLINGTON, VERMONT

CUSTOMER THE LANE CONSTR. CORP DATE 7-18-61

THIS SHEET COVERS SPAN #2. UNDERPASS STA. 1970+53.89 HINESBURG ROAD REVISED

MATERIAL SHOWN ON DRAWING No. LIST MADE BY B.G. S.

BENT BARS, TIES & STIRRUPS

Dimensions Omitted are Zero

Item	No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
1	LIGHT BENDING																	
2	62	5	42	256P		53			2-6	8 1-0								
3																		
4	80	4	53	254		53		5 1-6		1-5		1-6	5					
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		

STRAIGHT BARS

Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN	Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
1							15						
2	20	6	33-0	253			16						
3							17						
4	256	5	31-4	251			18						
5	65		32-7	255			19						
6							20						
7	128	4	32-9	252			21						
8							22				✓ 55C		
9							23						
10							24						
11							25						
12							26						
13							27						
14							28						

CONTRACT No. 201-56041 JOB No. Approved 7/24/61 TOTAL WEIGHT SHEET No. 7 ONLY

BETHLEHEM STEEL

REINFORCING BAR SHOP LIST

1570 (Rev. A 1-55)

JOB PROJECT I 89-3(14) Cont #2 LOCATION So. BURLINGTON, VT.

CUSTOMER THE LANE CONST. CORP.

THIS SHEET COVERS SPAN #3 UNDERPASS STA 1970+53.89 HINESBURG ROAD

MATERIAL SHOWN ON DRAWING No. LIST

DATE

REVISED

MADE BY

BENT BARS, TIES & STIRRUPS

Dimensions Omitted are Zero

Item	No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
1	LIGHT BENDING																	
2	62	5	4-2	356P		53			2-6	8	1-0							
3																		
4	88	4	5-3	354		53		5	1-6	1-5	1-6	5						
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		

STRAIGHT BARS

Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN	Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
1							15						
2	31	6	24-6	353			16						
3							17						
4	276	5	34-4	351			18						
5	7	5	32-7	355			19						
6							20						
7	193	4	24-3	352			21						
8							22				55C		
9							23						
10							24						
11							25						
12							26						
13							27						
14							28						

CONTRACT No. 201-56041

JOB No.

Approved 7/24/61

TOTAL WEIGHT

SHEET No. 8 ONLY

BETHLEHEM STEEL

REINFORCING BAR SHOP LIST

15... Rev. A 1-59

JOB PROJECT I 89-3(14) CONT #2 LOCATION SO. BURLINGTON, VT.

CUSTOMER THE LANE CONST. CORP.

THIS SHEET COVERS SPAN #4 UNDERPASS STA. 1970+53.89 HINESBURG ROAD

MATERIAL SHOWN ON DRAWING No. LIST

DATE 7-18-61

REVISED

MADE BY Bob. S.

BENT BARS, TIES & STIRRUPS

Dimensions Omitted are Zero

Item	No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
1	HEAVY BENDING																	
2	22	6	3-0	457		1	8	1-8					8					
3																		
4	LIGHT BENDING																	
5	31	5	4-2	456P		53			2-6	8	1-0							
6																		
7	60	4	5-3	454		53		5	1-6	1-5	1-6	5						
8	26	4	7-6	456A		52		6	3-0	8	3-0	6						
9																		
10																		
11																		
12																		
13																		
14																		

STRAIGHT BARS

Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN	Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
1	20	6	28-6	453			15						
2							16						
3	196	5	34-4	451			17						
4	11	5	32-7	455			18						
5							19						
6	128	4	28-3	452			20						
7							21						
8							22				✓ 55C		
9							23						
10							24						
11							25						
12							26						
13							27						
14							28						

CONTRACT No. 201-56041

JOB No.

Approved 7/24/61

TOTAL WEIGHT

SHEET No. 9 ONLY

BETHLEHEM STEEL

REINFORCING BAR SHOP LIST

15[illegible] (Rev. 8 1-55)

JOB PROJECT I 89-3(14) Cont #2 LOCATION So. BURLINGTON, VT.

CUSTOMER THE LANE CONSTRUCTION CORP. DATE 7-18-61

THIS SHEET COVERS APPROACH SLAB #1 UNDERPASS STA. 1970+ REVISED

MATERIAL SHOWN ON DRAWING No. LIST 53.89 HINESBURG ROAD MADE BY Bob. S.

BENT BARS PREFIX ALL BARS WITH (1AS) AS IN 1AS1DD etc. Dimensions Omitted are Zero

Item	No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
1	HEAVY BENDING																	
2	1	10	25-7	1DD		1	1-1	24-6						9				
3	1	1	25-5	1CC		1	1-1	24-4						9				
4	1		25-3	1BB			1-1	24-2						9				
5	1		25-1	1AA			1-1	24-0						9				
6	1		24-10	1Z			1-1	23-9						9				
7	1		24-8	1Y			1-1	23-7						9				
8	1		24-5	1X			1-1	23-4						9				
9	1		24-3	1W			1-1	23-2						9				
10	1		24-1	1V			1-1	23-0						9				
11	1		23-11	1U			1-1	22-10						9				
12	1		23-9	1T			1-1	22-8						9				
13	1		23-7	1S			1-1	22-6						9				
14	1		23-5	1R			1-1	22-4						9				
15	1		23-3	1Q			1-1	22-2						9				
16	1		23-1	1P			1-1	22-0						9				
17	1		22-11	1O			1-1	21-10						9				
18	1		22-9	1N			1-1	21-8						9				
19	1		22-7	1M			1-1	21-6						9				
20	1		22-5	1L			1-1	21-4						9				
21	1		22-3	1K			1-1	21-2						9				
22	1		22-1	1J			1-1	21-0						9				
23	1		21-11	1I			1-1	20-10						9				
24	1		21-9	1H			1-1	20-8						9				
25	1		21-7	1G			1-1	20-6						9				
26	1		21-5	1F			1-1	20-4						9			✓	
27	1		21-3	1E			1-1	20-2						9			JJC	
28	1		21-1	1D			1-1	20-0						9				
29	1		20-11	1C		1	1-1	19-10						9				
30	1	10	20-9	1B		1	1-1	19-8						9				

CONTRACT No. 201-56041 JOB No. Approved 7/27/61 JHH TOTAL WEIGHT SHEET No. 10 OF 10-12

BETHLEHEM STEEL

REINFORCING BAR SHOP LIST

1287 (Rev.8 1-55)

JOB PROJECT I 89-3(14) Cont #2 LOCATION So. BURLINGTON, VT.

CUSTOMER THE LANE CONSTR. CORP. DATE 7-19-61

THIS SHEET COVERS APPROACH SLAB #1 / UNDERPASS STA. 1970+53.89 REVISED

MATERIAL SHOWN ON DRAWING No. LIST HINESBURG ROAD MADE BY Bob. S.

BENT BARS PREFIX ALL BARS WITH (1AS) AS IN 1AS1A etc. **Dimensions Omitted are Zero**

Item	No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
1	HEAVY BENDING																	
2	1	10	20-7	1A		1	1'-1	19-6						9				
3																		
4																		
5	LIGHT BENDING																	
6	8	5	50	7		56		6-9		6-9		6						
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		
25																		
26																		
27																		✓ SJC
28																		
29																		
30																		

TOTAL WEIGHT

CONTRACT No. 201-56041 JOB No. Approved 7/24/61 SHEET No. 11 OF 10-12

REINFORCING BAR SHOP LIST

JOB PROJECT I 89-3(14) Cont #2 LOCATION So. BURLINGTON, VT.

CUSTOMER THE LANE CONSTR. CORP. DATE 7-19-61

THIS SHEET COVERS APPROACH SLAB #1 UNDERPASS STA. 1970 +53.89 HINESBURG Rd REVISED

MATERIAL SHOWN ON DRAWING No. LIST MADE BY B.O.B. S.

STRAIGHT BARS PREFIX ALL BARS WITH (IAS) AS IN IAS3 etc.

Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN	Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
1	3	10	7-3	3			31						
2	2	10	7-0	4			32						
3							33						
4	23	5	29-6	5			34						
5	2	1	16-1	10			35						
6	2	1	5-7	8			36						
7	2	1	5-4	9			37						
8	16	5	3-6	6			38						
9							39						
10							40						
11							41						
12							42						
13							43						
14							44						
15							45						
16							46						
17							47						
18							48						
19							49						
20							50						
21							51						
22							52						
23							53						
24							54						
25							55						✓
26							56						JJC
27							57						
28							58						
29							59						
30							60						

CONTRACT No. 201-56041 JOB No. Approved 7/24/61 JHA TOTAL WEIGHT

SHEET No. 12 OF 10-12

BETHLEHEM STEEL

REINFORCING BAR SHOP LIST

JOB PROJECT I 89-3(14) Cont #2 LOCATION So. BURLINGTON, VT

CUSTOMER THE LANE CONSTRUCTION CORP. DATE 7-18-61

THIS SHEET COVERS APPROACH SLAB #2 UNDERPASS STA. 1970+ REVISED

MATERIAL SHOWN ON DRAWING No. LIST 5389 HINESBURG ROAD MADE BY Bob S.

BENT BARS PREFIX ALL BARS WITH (2AS) AS IN 2AS1DD ETC. Dimensions Omitted are Zero

Sheet No.	No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	H	K	CHECKING COLUMN
			HEAVY BENDING															
1	18		25-7	1DD		1	1-1	24-6						9				
1	1		25-5	1CC		1	1-1	24-4						9				
1	1		25-3	1BB		1	1-1	24-2						9				
1	1		25-1	1AA		1	1-1	24-0						9				
1	1		24-10	1Z		1	1-1	23-9						9				
1	1		24-8	1Y		1	1-1	23-7						9				
1	1		24-5	1X		1	1-1	23-4						9				
1	1		24-3	1W		1	1-1	23-2						9				
1	1		24-1	1V		1	1-1	23-0						9				
1	1		23-11	1U		1	1-1	22-10						9				
1	1		23-9	1T		1	1-1	22-8						9				
1	1		23-7	1S		1	1-1	22-6						9				
1	1		23-5	1R		1	1-1	22-4						9				
1	1		23-3	1Q		1	1-1	22-2						9				
1	1		23-1	1P		1	1-1	22-0						9				
1	1		22-11	1O		1	1-1	21-10						9				
1	1		22-9	1N		1	1-1	21-8						9				
1	1		22-7	1M		1	1-1	21-6						9				
1	1		22-5	1L		1	1-1	21-4						9				
1	1		22-3	1K		1	1-1	21-2						9				
1	1		22-1	1J		1	1-1	21-0						9				
1	1		21-11	1I		1	1-1	20-10						9				
1	1		21-9	1H		1	1-1	20-8						9				
1	1		21-7	1G		1	1-1	20-6						9				
1	1		21-5	1F		1	1-1	20-4						9				550
1	1		21-3	1E		1	1-1	20-2						9				
1	1		21-1	1D		1	1-1	20-0						9				
1	1		20-11	1C		1	1-1	19-10						9				
1	18		20-7	1B		1	1-1	19-8						9				

CONTRACT No. 201-56041 JOB No. Approved 7/24/61 Jeff TOTAL WEIGHT

SHEET No. 13 OF 13-15

BETHLEHEM STEEL

REINFORCING BAR SHOP LIST

PROJECT I 89-3(14) Cont #2 LOCATION So. BURLINGTON, VT.

CUSTOMER THE LANG CONSTR. CORP. DATE 7-19-61

THIS SHEET COVERS APPROACH SLAB #2 UNDERPASS STA 1970+5389 REVISED

MATERIAL SHOWN ON DRAWING No. LIST HINESBURG ROAD MADE BY BOB S

BENT BARS PREFIX ALL BARS WITH (2AS) AS IN 2AS1A ETC. Dimensions Omitted are Zero

Item	No.	Size	Length	Mark	Weight	Type	A	B	C	D	E	F	G	J	O	R	K	CHECKING COLUMN
1	HEAVY BENDING																	
2	1	#20	19			1	1'-11"							9				
3																		
4																		
5	LIGHT BENDING																	
6	85	50	7	SL			61-9	61-9	6									
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		
25																		✓
26																		JJ
27																		
28																		
29																		
30																		

TOTAL WEIGHT

SHEET No. 14 OF 13-15

OFF 7/21/61

REINFORCING BAR SHOP LIST

PROJECT I 89-3(14) LOCATION So. BURLINGTON, VT.

CUSTOMER THE LANE CONSTR. CORP DATE 7-19-61

THIS SHEET COVERS APPROACH SLAB" UNDERPASS STA. 1970 +53.89 HINESBURG Rd REVISED

MATERIAL SHOWN ON DRAWING No. LIST MADE BY BO 6.5

STRAIGHT BARS PREFIX ALL BARS WITH (2AS) AS IN 2AS 3 etc.

No.	Size	Length	Mark	Weight	CHECKING COLUMN
2	10	7-3	3		
2	10	7-0	4		
2	5	29-6	5		
2	11	16-1	10		
2	11	5-7	8		
2	11	5-4	9		
16	5	3-6	6		

Item	No.	Size	Length	Mark	Weight	CHECKING COLUMN
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						
41						
42						
43						
44						
45						
46						
47						
48						
49						
50						
51						
52						
53						
54						
55						✓
56						JJC
57						
58						
59						
60						

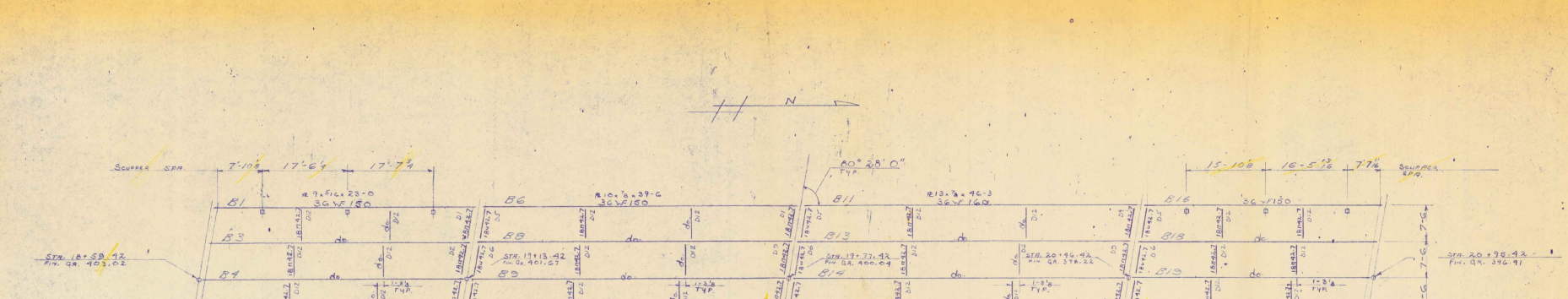
56041

JOB No.

Approved 7/24/61 JJC

TOTAL WEIGHT

SHEET No. 15 of 13-15



Checked. A.J.C.
8/11/61
OK MMB

PLACEMENT PLAN

UNDERPASS HINESBURG ROAD

STA. 1970+53.89 PROJECT I 89-3(14) CONT. #2

approved 8/14/61
JHH

State Copy

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

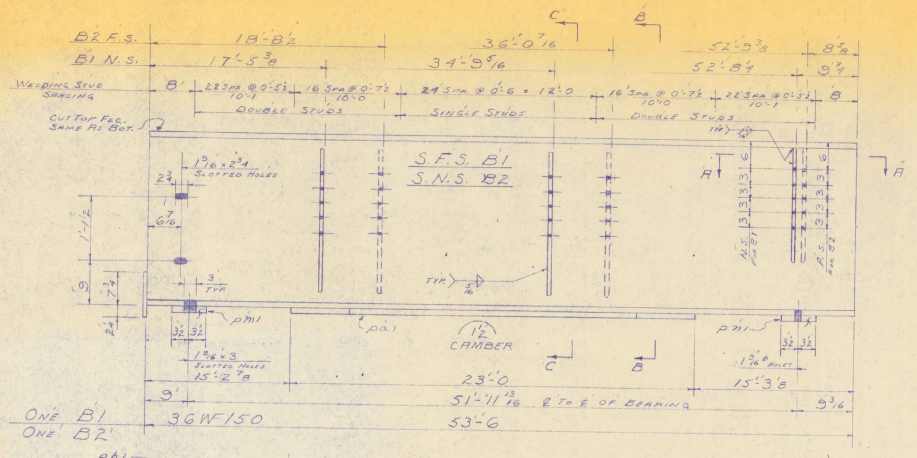
REV. PER APP 8-10-61 Lok

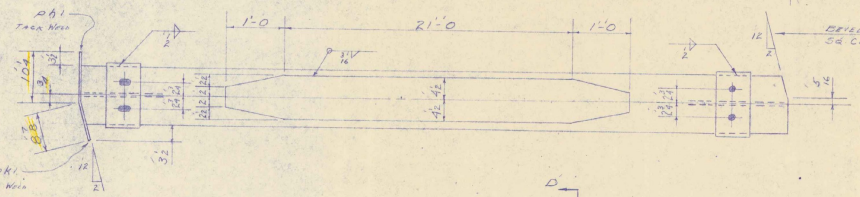
		DATE
DRAWN BY	HP	7-12-61
CK'D BY	K.T.	7/14/61

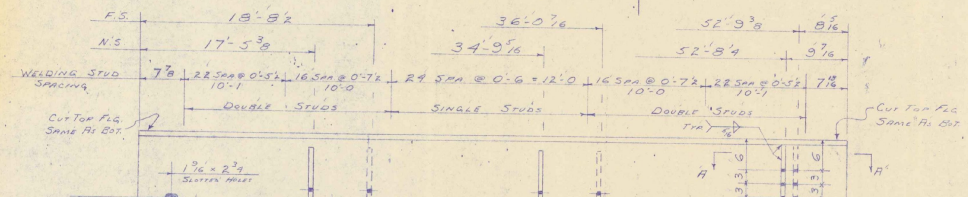
HOLES
RIVETS
PAINT R.L. (VT. SPEC.)

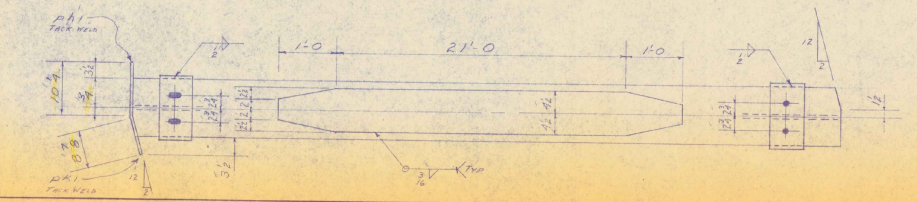
PROJECT UNDERPASS HINESBURG RD.
LOCATION SO. BURLINGTON, VT.
CUSTOMER LANE CONSTRUCTION CO.
ARCHITECT ST. OF VT. DEPT. OF HIGHWAYS
JOB NO. 61-398-1 SHEET NO. P1

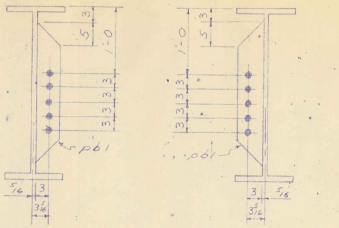
PRINT RECORD		
NO.	FOR	DATE
3	APP.	7-28
4	SHOP'L F. APP.	8-10

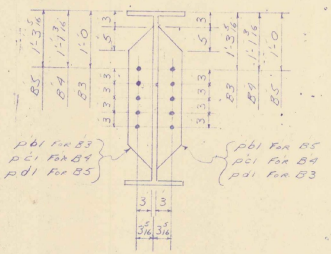


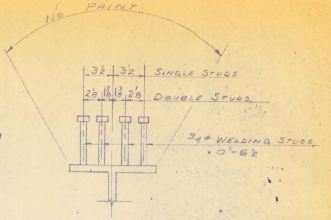


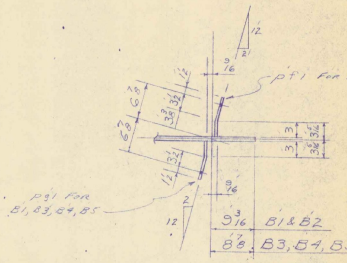












BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		STRINGERS				
2	1-B1, 1-B2	36WF150	53	6	ORD. ST. 53'-5 3/4	8446 lbs
3	1-B1 2-B2	do.	53	5 15/16	ORD. ST. 53'-5 3/4	8446 lbs
5	pa1	PL 9" x 3/16	23	0	ORD. ST. 23'-0	331 lbs
8	pb1	PL 5" x 1/2	2	6	ORD. ST. 2'-6	33 lbs
4	pc1	do.	2	6	84 REQ'D	33 lbs
4	pd1	do.	2	6	84 REQ'D	33 lbs
4	pf1	PL 5" x 1/2	2	0	84 REQ'D 67 REQ'D 17 REQ'D 67 REQ'D	26 lbs
4	pg1	do.	2	0	17 REQ'D 67 REQ'D	26 lbs
5	ph1	PL 10" x 4	0	10 4	1 EA.	28 lbs
5	pk1	do.	0	8 3	1 EA.	22 lbs
5	pm1	Sole PL 7" x 1	1	1	1 EA.	9 lbs
5	pn1	do.	1	1	1 EA.	9 lbs
		3/16" FILLET WELD	233	4		
		5/16" do.	120	0		
		2" do.	11	8		
		PAINT 1 COAT %				
		61-398-2				
		SHEAR STUDS				
1730		¾ø WELD STUDS	0	6½	ORD. STK.	

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT. EB9-3(14) CONT. 2

REV. 8-10-61 FOR FHWA ℄A

	DATE
DRAWN BY	7-18-61
CK'D. BY	7-21-61

PROJECT UNDERPASS, HINESBURG ROAD
LOCATION So. BURLINGTON, VT.
CUSTOMER LANE CONSTRUCTION CO.
ARCHITECT STATE OF VT., DEPT. OF HWYS.
JOB NO. 61-399-1 & 61-399-2 (ERWIN)
SHEET NO. 1

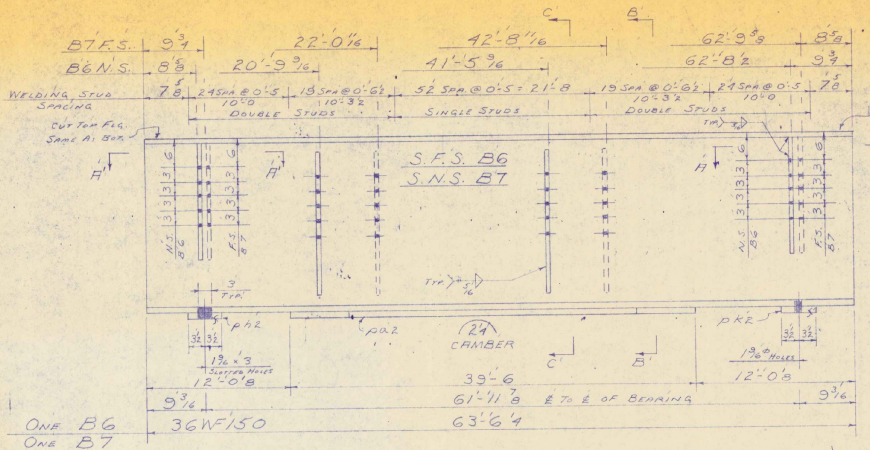
HOLES 15/16ø AT NOTED
RIVETS
PAINT FED. VT. SPECS.

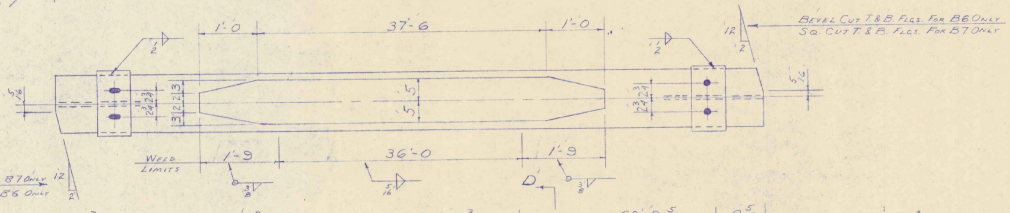
PRINT RECORD		
NO.	FOR	DATE
3	APP.	7-28
6	TRACE & PRINTS	8-10

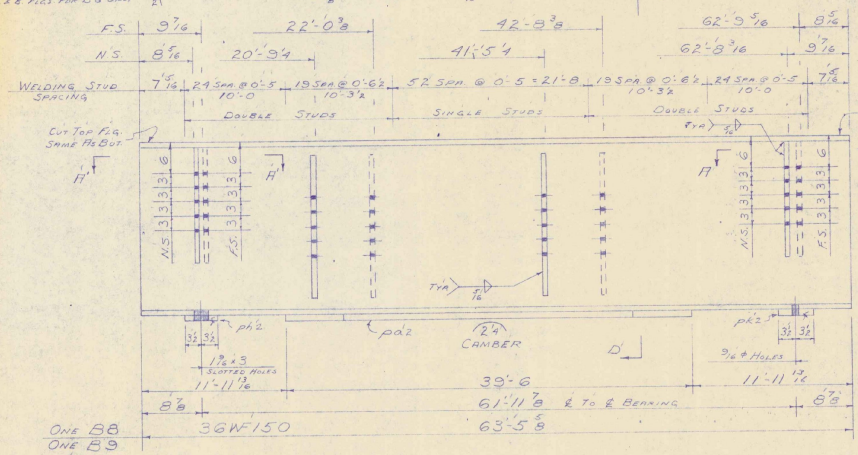
Approved 8/11/61 A.J.C.

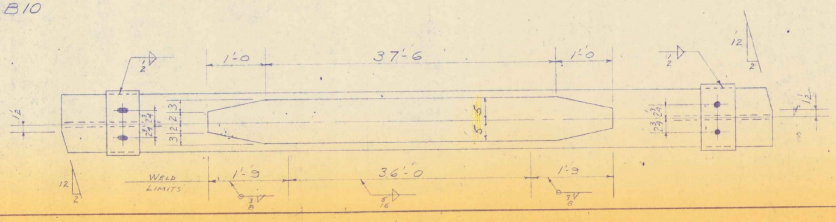
Checked A.J.C. 8/11/61

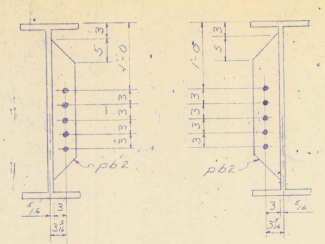
State Copy

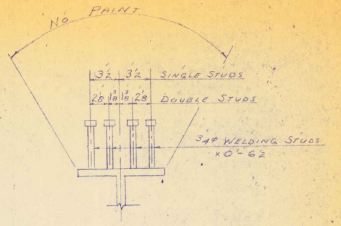




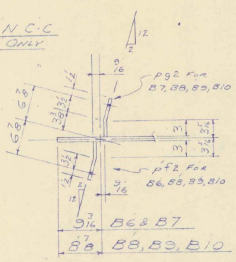




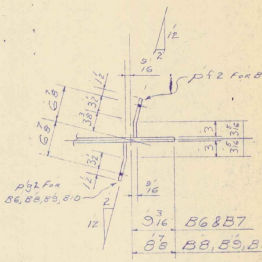




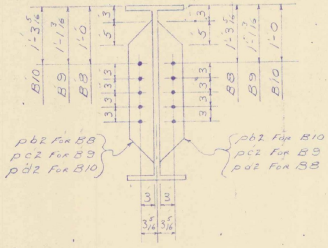
TYPICAL WELDING STUD DETAIL



SECTION A-A'



SECTION A-A



Checked A.J.C. 8/11/61

State Copy

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.	WEIGHT
		STRINGERS			
2		36WF150	63	6	
3		do.	63	5	
5	pa2	PL 10 x 7/8	39	6	
8	pb2	PL 5" x 2	2	6	
4	pc2	do.	2	6	
4	pd2	do.	2	6	
8	pf2	PL 8" x 1/2	2	0	
8	pg2	do.	2	0	
5	ph2	Sole PL 7 x 1	1	1	
5	pk2	do.	1	1	
		3/16" Fillet Weld	320	0	
		3/8" do.	38	9	
		1/2" do.	11	3	
		Paint 2 of 1 3/4			
		61-338-2			
		Shear Studs			
2770		3/4" Weld Studs	0	62	

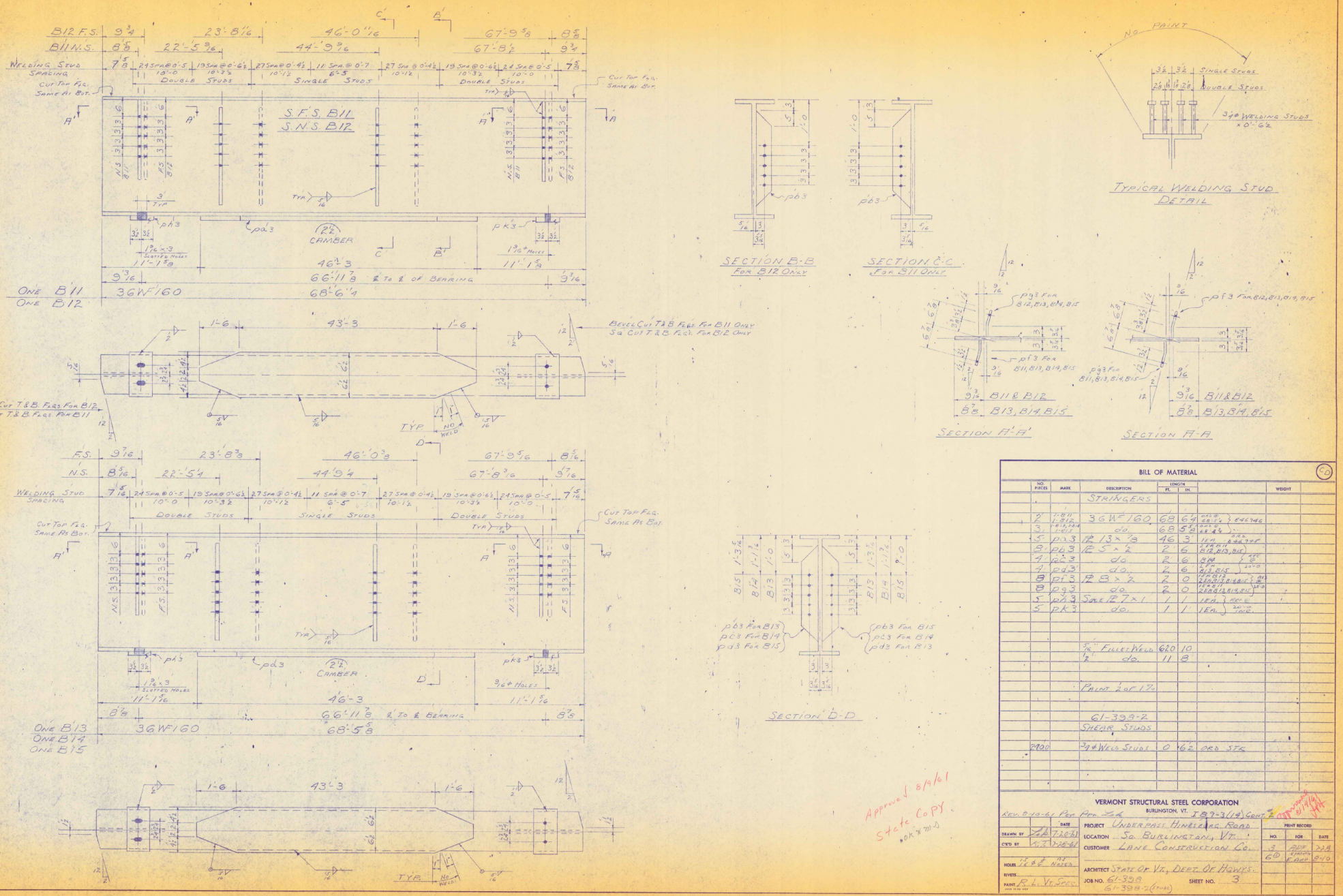
VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

REV. 8/10-61 Per Rem. Ltr. — IB7-3(14) Contract

	DATE
DRAWN BY	Vok 7-19-61
CK'D BY	A.J.C.
HOLES	1/8 & 3/4 Holes
RIVETS	AT Holes
PAINT	Fed. Yt. Spec.

PROJECT: UNDERPASS MINEBURG ROAD
LOCATION: So. BURLINGTON, VT.
CUSTOMER: LANE CONSTRUCTION CO.
ARCHITECT: STATE OF VT., DEPT. OF HGWYS.
JOB NO. 61-338-1
61-338-2 (Rem.)
SHEET NO. 2

PRINT RECORD NO.	FOR	DATE
3	Appr. Shop Fabr.	7-28
6	Shop Fabr.	9-10



BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		STRINGERS				
2	1-B11 1-B12	36WF160	68	6¾	CUT @ 68'-6¾ & 68'-6⅜	
3	1-B13, B14 & B15	do.	68	5⅜	CUT @ 68'-5⅜ & 68'-5	
5	pa3	PL 13" × ⅞"	46	3	1 EA @ 46'-3" 4 EA @ 3'-0"	
5	pb3	PL 5" × ½"	2	6	1 EA @ B12, B13, B14, B15	
4	pc3	do.	2	6	4 EA @ B11	
4	pd3	do.	2	6	4 EA @ B11 & B15	
8	pf3	PL 9" × ½"	2	0	4 EA @ B12 & B13 4 EA @ B14 & B15	
8	pg3	do.	2	0	4 EA @ B12, B13, B14, B15	
5	ph3	SHAPE PL 7" × 1"	1	1	1 EA @ 2'-0" 4 EA @ 1'-0"	
5	pk3	do.	1	1	1 EA @ 2'-0" 4 EA @ 1'-0"	
		5/16" FILLET WELD	620	10		
		½" do.	11	8		
		PAINT 2 OF 1%				
		61-399-2				
		SHEAR STUDS				
2900		¾ WELD STUDS	0	6½	ORD STK	

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

Rev. 8-10-61 Per Mfr. Eng. IB7-3(14) Sheet 2

	DATE
DRAWN BY	7-20-61
CK'D BY	7-25-61

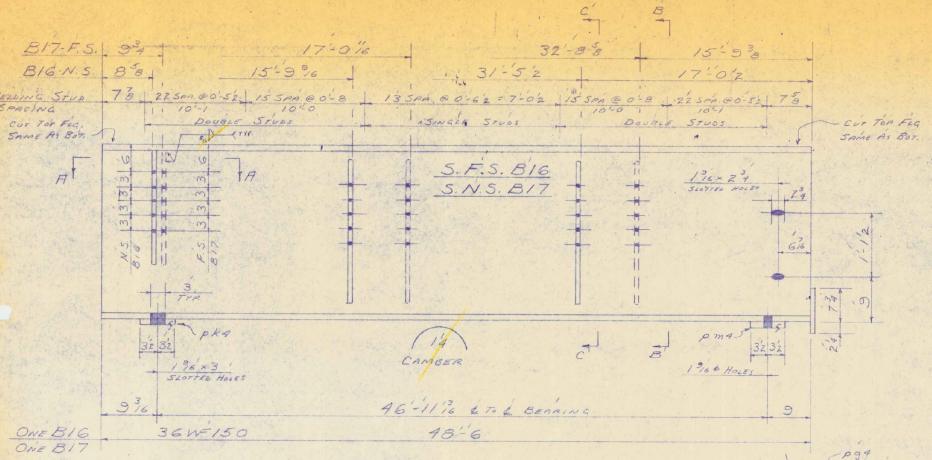
PROJECT UNDERPASS, HINESBURG ROAD
LOCATION So. BURLINGTON, VT.
CUSTOMER LANE CONSTRUCTION CO.
ARCHITECT STATE OF VT., DEPT. OF HIGHWAYS
JOB NO. 61-399 61-399-1 (STUB) SHEET NO. 3

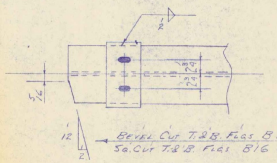
HOLES F.B.F. NOTED
RIVETS
PAINT R.L. VT. SPEC.

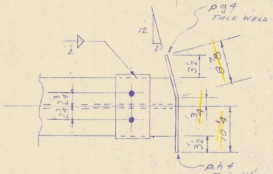
PRINT RECORD

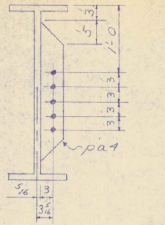
NO.	FOR	DATE
3	APP. STRUCTURAL STEEL	7/28
60	APP.	8/4

Approved 8/9/61
State Copy
OK'd mm

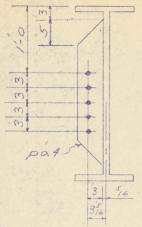




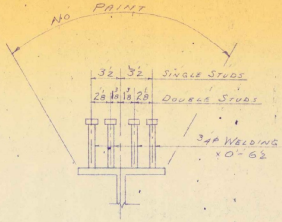




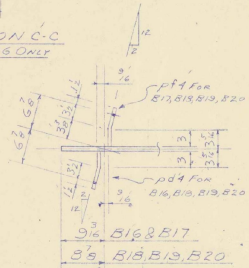
SECTION B-B
FOR B17 ONLY



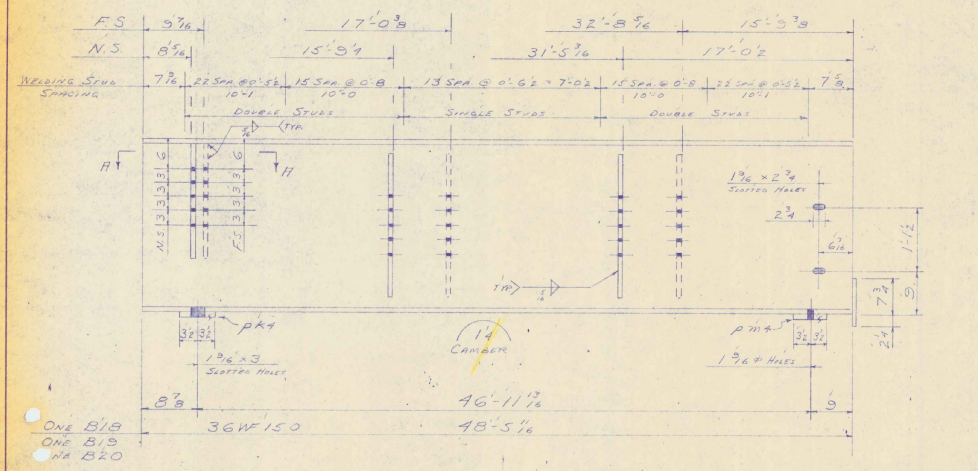
SECTION C-C
FOR B16 ONLY

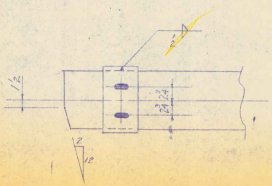


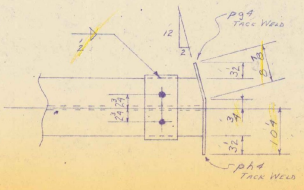
TYPICAL WELDING STUD DETAIL

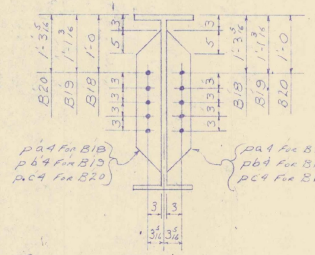


SECTION A-A









SECTION D-D

Checked A.J.P. 8/11/61

State Copy

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		STRINGERS				
2	1-B16 1-B17	36WF150	48	6	(ADD 48'-6" 48'-5")	8946
3	4 EA B16 B20	do.	48	5/16	(48'-5")	
8	pa4	PL 5 x 2	2	6	(FOR B16, B17, B18, B20)	PLT 5.0
4	pb4	do.	2	6	(B19)	20.0
4	pc4	do.	2	6	(FOR B18, B20)	
4	pd4	PL 8 x 2	2	0	(ADD B16, B17, B18, B19, B20)	PLT 5.0
1	pf4	do.	2	0	(FOR B17, B18, B19, B20)	20.0
5	pg4	PL 10 x 1/4	0	9 1/2	1 EA	PLT 7.6
5	ph4	do.	0	10 1/4	1 EA	9.0 - 6 - 1.5
5	pk4	SOLE PL 7 x 1	1	1	1 EA	PLT @ 20.0
5	pm4	do.	1	1	1 EA	20.0
		5/16" FILLET WELD	120	0		
		2" do.	11	8		
		PAINT 2 OF 1 COAT				
		61-339-2 STRING STUDS				
164		3/4 ø WELD STUDS	0	6 1/2	DED. STR.	

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT. I 87-3(14) CONST. #2

Rev 8-10-61 Rm Add'n Tek

	DATE
DRAWN BY Tek	7-21-61
C'KD BY A.T.	7-25-61

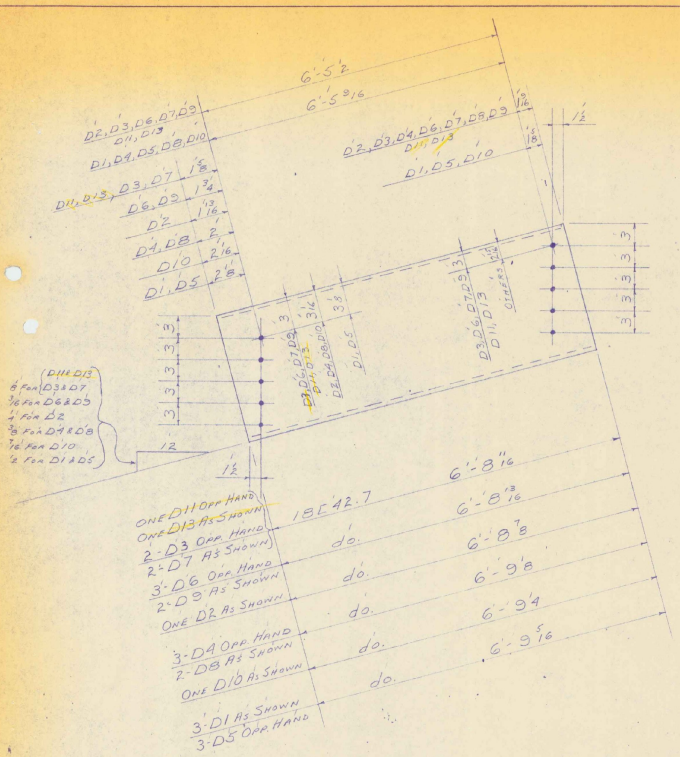
PROJECT UNDERPASS, HINESBURG ROAD.
LOCATION So. BURLINGTON, VT.
CUSTOMER LANE CONSTRUCTION CO.

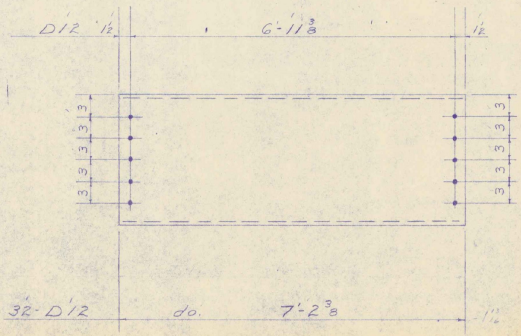
HOLES 15/16 ø AS NOTED
RIVETS
PAINT R & V Spec.

ARCHITECT STATE OF VT., DEPT. OF HIGHWAYS.
JOB NO. 61-339-1
61-339-2 (STUDS)
SHEET NO. 4

PRINT RECORD

NO.	FOR	DATE
3	APP	7-28
4	FINAL PRINT	8-10





Checked A.J.C.
8/11/61
State Copy
OK WM 1

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		DIAPHRAGMS				
3	D1	18[42.7	6	9 5/16		
1	D2	do.	6	8 7/8		
2	D3	do.	6	8 11/16		
3	D4	do.	6	9 1/8		
3	D5	do.	6	9 5/16	RES @ 55/60 INC.	
3	D6	do.	6	8 13/16		
2	D7	do.	6	8 11/16		
2	D8	do.	6	9 1/8		
2	D9	do.	6	8 13/16		
1	D10	do.	6	9 1/4		
1	D11	do.	6	8 11/16		
32	D12	do.	7	2 3/8		
1	D13	do.	6	8 11/16		

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT. I 89-3(14) CONT. #2

REV 8-10-61 PER APP. LCK

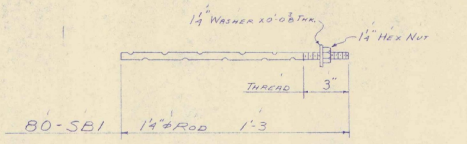
		DATE
DRAWN BY	LCK	7-26-61
C'K'D BY	L.T.	7-27-61

HOLES 15/16 ⌀
RIVETS
PAINT R.L. VT. SPEC.

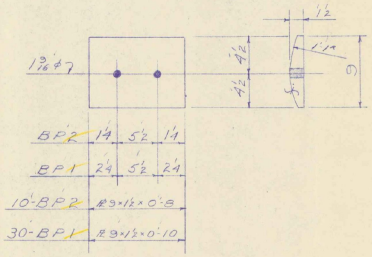
PROJECT UNDERPASS HINESBURG ROAD
LOCATION SO. BURLINGTON, VT.
CUSTOMER LANE CONSTRUCTION CO.
ARCHITECT ST. OF VT. - DEPT. OF HGWYS.
JOB NO. 61-398-1 SHEET NO. 5

PRINT RECORD

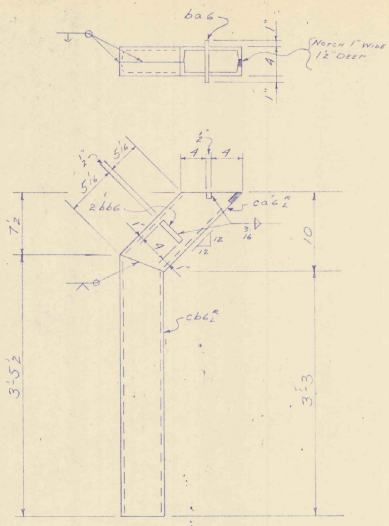
NO.	FOR	DATE
3	APP	7-28
6	SHOP & F. APP.	8-10



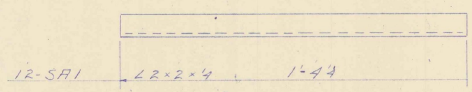
(SB)



(BP)



(S) 12 SCUPPERS S1



(A)

Checked A.J.C. 8/11/61
OK WMS.

State Copy

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		SWEDGE BOLTS			(SB)	
80	SB1	1¼"ϕ ROD	1	3	RES @ 40'-0	
80		1¼" HEX NUTS				
80		1¼"ϕ WASHERS	0	0⅜	THICK	
		BEARING PLATES			(BP)	
30	BP1	PL 9×1½	0	10	RES @ 12'-0	
10	BP2	do.	0	8		
	12	SCUPPERS	S1		(S)	
24	ca6 R L	6 E 10.5	1	4⅝	RES @ 40/50	
24	cb6 R L	do	3	5½		
12	ba6	BAR 1×½	0	6	RES @ 20'-0	
24	bb6	do	0	4		
		ANGLES			(A)	
12	SA1	L 2×2×¼	1	4¼	RES @ 40'-0	
		FIELD MAT'L.			(A)	
580		⅞"ϕ HI-TEN BOLTS	0	2½	INC. STR	
1160		⅞"ϕ H.S. WASHERS				

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

REV 8-10-61 PER APP. LOA — I 89-3(14) CONT. 2

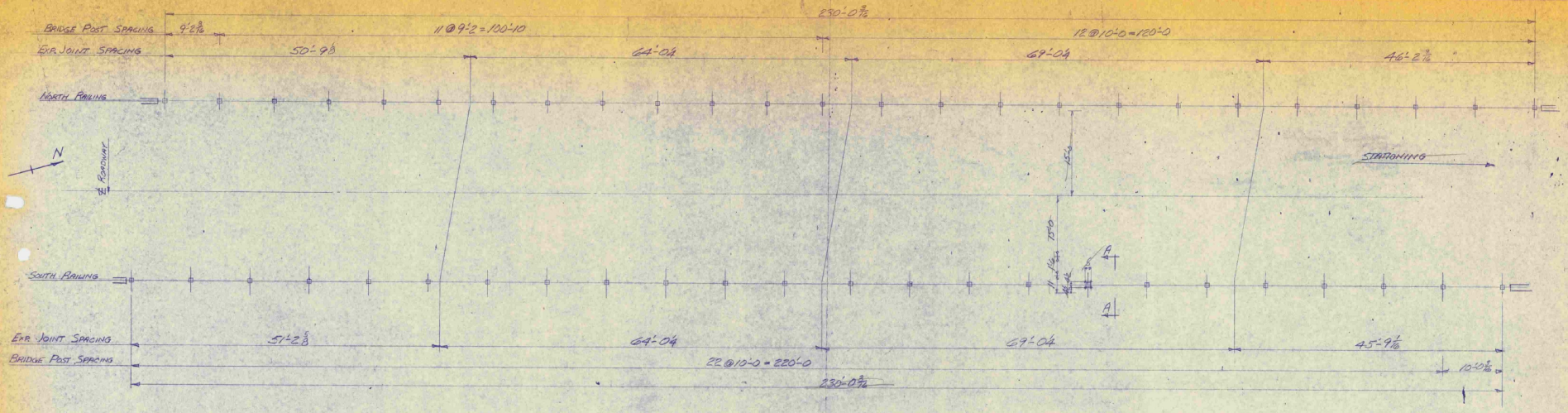
		DATE
DRAWN BY	LOA	7-27-61
CK'D BY	KJT	7-27-61

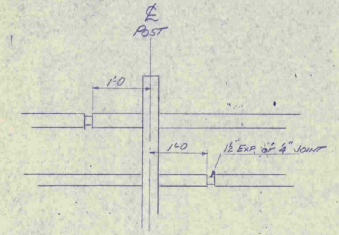
HOLES: AS NOTED
RIVETS:
PAINT: R.L. VT. SPEC.

PROJECT: UNDERPASS HINESBURG ROAD
LOCATION: SO. BURLINGTON, VT.
CUSTOMER: LANE CONSTRUCTION CO.
ARCHITECT: ST. OF VT. DEPT. OF HGWYS.
JOB NO. 61-398-1 SHEET NO. 6

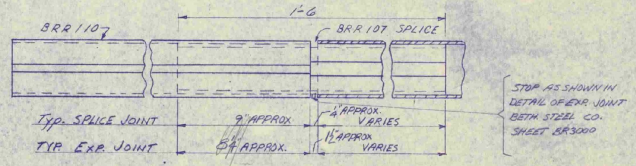
PRINT RECORD NO.	FOR	DATE
3	APP	7-28
6 (1)	SHOP & FAPP.	8-10

Drawn 8/14/61





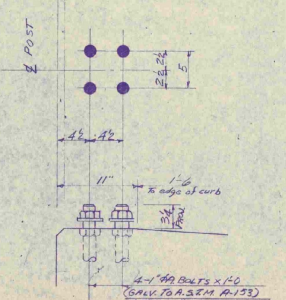
TYPICAL JOINT LOCATION



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

BETHLEHEM STEEL CO.
STANDARD BRIDGE RAILING
AND PIECE MARKS.

DETAIL OF TUBING & TYP. SPLICE JOINTS



SECTION A-A
TYP. A. BOLT DETAIL

checked 11/1/61 HWS

approved 11/1/61 JHA

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		NORTH RAILING				
1	A198 3/4	BRIDGE RAIL BRRING	19	8 3/4	BETH 44512	
2	A220		22	0		
3	A1910 1/4		19	10 1/4		
8	A1911 3/4		19	11 3/4		
2	A1710 1/2		17	10 1/2		
1	A99		9	9		
1	A219		21	9		
10	A183 3/4		18	3 3/4		
2	A204		20	4		
1	A182 1/4		18	2 1/4		
1	A181 3/16		18	1 3/16		
2	A162 1/2		16	2 1/2		
1	A1011 3/16		10	11 3/16		
1	A200 5/16		20	0 5/16		
1	A190 1/4		19	0 1/4		
25	BRR300	BRIDGE RAIL POSTS				
6	BRR104	END CAPS				
25	BRR107	SPLICES				
9	BRR107A	EXP. SPLICES				
75	BRR106	WEDGE BOLTS				
100	BRR500 TO 12	BOLTS 1 ϕ x	1	0		
200		1" HEX NUTS				
100		2" O.D. WASHERS	0	11/64		
25	BRR101	A. BOLT TEMPLATE				

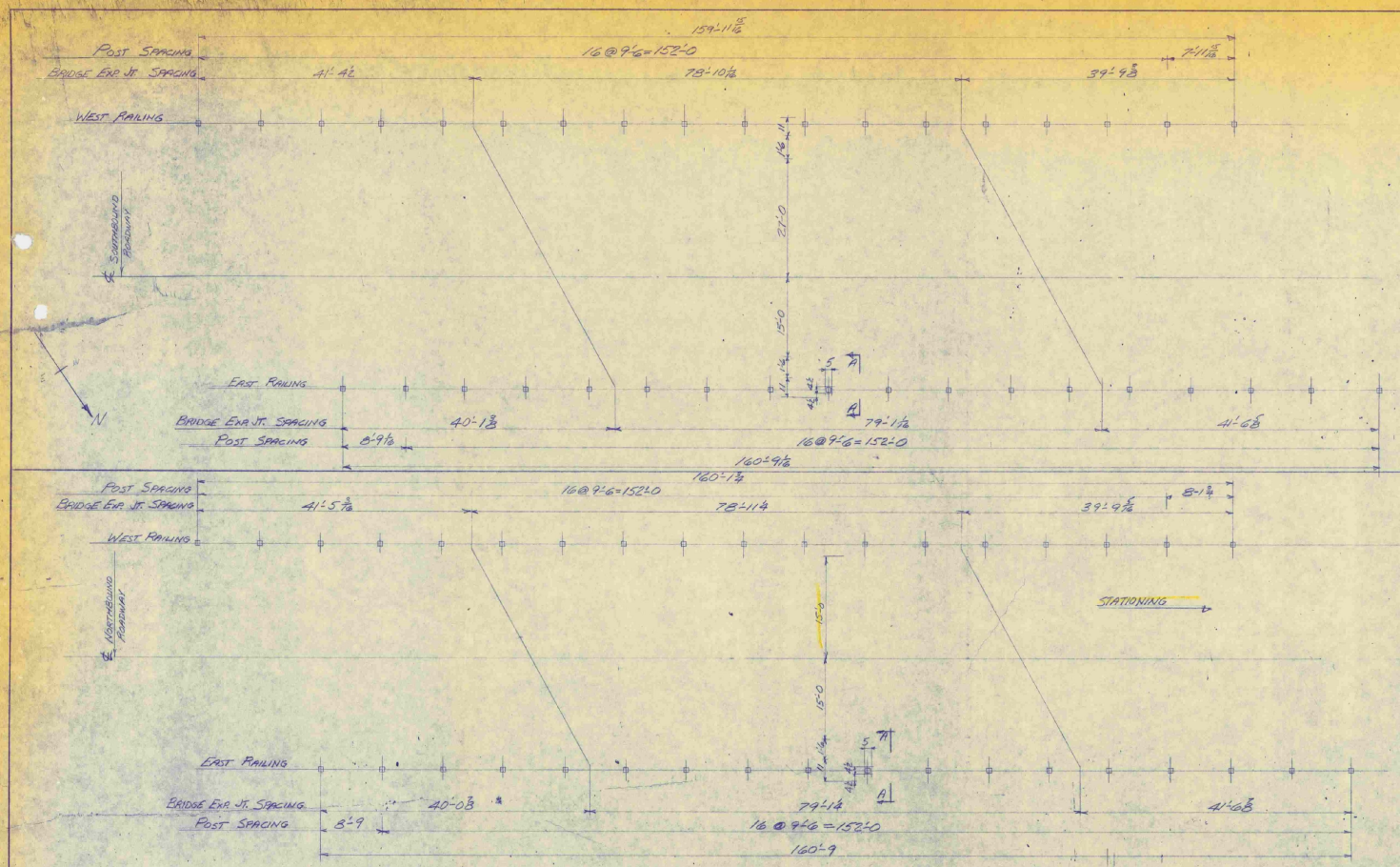
VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

Rt. H. #116 I 89-3 (14) Cont #2

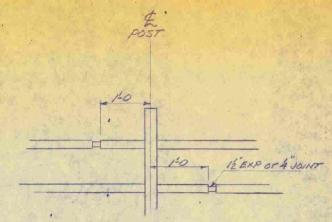
		DATE
DRAWN BY	ELL	7-31-61
CK'D BY		
HOLES		
RIVETS		
PAINT		

PROJECT LINDERPASS STA. 1970+53.89 MINESBURG Rd.
LOCATION So. BURLINGTON, VERMONT
CUSTOMER LANE CONST. CO.
ARCHITECT STATE OF VERMONT DEPT. OF HWYS.
JOB NO. 61-398-6 SHEET NO. 1 a/b

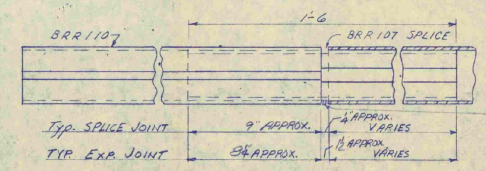
PRINT RECORD NO.	FOR	DATE
12	Copies on hand	7-19
3	APP.	8-2
1	ORD	8-8
3	CONT	8-11
3	APP.	10-26



NOTE:
DIMENSIONS ARE SLOPE DIMENSIONS AND ON CURVE



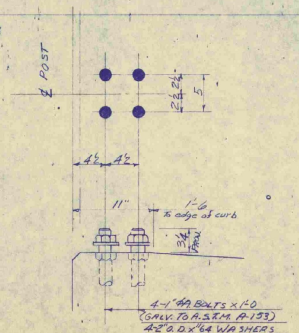
TYPICAL JOINT LOCATION



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

BETHLEHEM STEEL CO.
STANDARD BRIDGE RAILING
AND PIECE MARKS.

DETAIL OF TUBING & TYP. SPLICE JOINTS



SECTION A-A
TYP. A. BOLT DETAIL

BILL OF MATERIAL

SOUTH BOUND ROADWAY	NORTH BOUND ROADWAY NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
			WEST RAILING				
1		A172 15/16	BRIDGE RAIL BRR110	17	2 15/16	BETH 44512	
	1	A174 3/4		17	4 3/4		
1		A78 5/16		7	8 11/16		
	1	A710 1/2		7	10 1/2		
1		A192 15/16		19	2 15/16		
	1	A194 3/4		19	4 3/4		
2	2	A2011 3/4		20	11 3/4		
4	4	A1810 1/2		18	10 1/2		
13	13	A1811 3/4		18	11 3/4		
1	1	A92 3/4		9	2 3/4		
1	1	A209		20	9		
2	2	A1610 1/2		16	10 1/2		
1	1	A112 3/4		11	2 3/4		
18	18	BRR300	BRIDGE RAIL POSTS				
6	6	BRR104	END CAPS				
18	18	BRR107	SPLICES				
6	6	BRR107A	EXP. SPLICE				
54	54	BRR106	WEDGE BOLTS				
72	72	BRR500 1 x 12	BOLTS 1⌀	1	0		
144	144		1" HEX NUTS				
72	72		2" O.D. WASHER	0	11/64		
18	18	BRR101	A. BOLT TEMPLATE				

Final Backcheck - JWB 9/12/61

OFFICE COPY

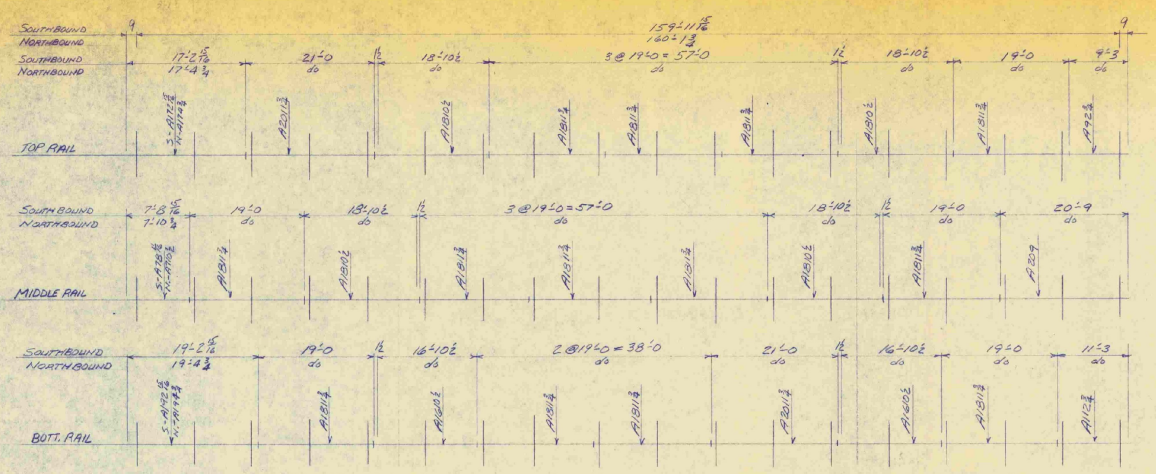
VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

STA 2021+36.17 I 89-3 (14) CONT #2

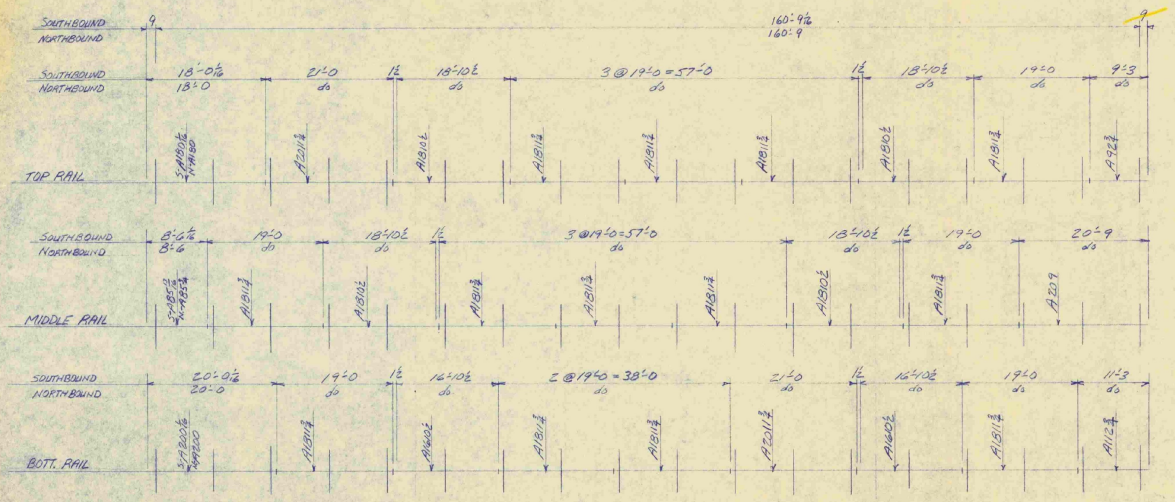
		DATE
DRAWN BY	ELL	8-2-61
CK'D BY	W.T.	8-3-61
HOLES		
RIVETS		
PAINT		

PROJECT OVERPASS DORSET STREET
LOCATION SO. BURLINGTON, VT.
CUSTOMER LANE CONST. CO.
ARCHITECT STATE OF VERMONT DEPT. OF MAINS
JOB NO. 61-398-6 SHEET NO. 2 3/8

PRINT RECORD NO.	FOR	DATE
12	Copies on Back	7-19
3	APP	8-3
1⌀	ORD	8-8
3	CONT	8-11
3	F.APP	9-7



WEST RAILING LOOKING EAST



EAST RAILING LOOKING WEST

BILL OF MATERIAL

SOUTH BOUND ROADWAY	NORTH BOUND ROADWAY	NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
				EAST RAILING				
1			A180 1/16	BRIDGE RAIL BRR110	18	0 1/16	BETH 4A512	
	1		A180		18	0		
1			A85 13/16		8	5 13/16		
	1		A85 3/4		8	5 3/4		
1			A200 1/16		20	0 1/16		
	1		A200		20	0		
2	2		A2011 3/4		20	11 3/4		
4	4		A1810 1/2		18	10 1/2		
13	13		A1811 3/4		18	11 3/4		
1	1		A92 3/4		9	2 3/4		
1	1		A209		20	9		
2	2		A1610 1/2		16	10 1/2		
1	1		A112 3/4		11	2 3/4		
18	18		BRR300	BRIDGE RAIL POSTS				
6	6		BRR104	END CAPS				
18	18		BRR107	SPLICE				
6	6		BRR107A	EXP. SPLICE				
54	54		BRR106	WEDGE BOLTS				
72	72		BRR105 1 x 12	BOLT 1"	1	0		
144	144			1" HEX. NUTS				
72	72			2" O.D. WASHER	0	11/64		
18	18		BRR101	A BOLT TEMPLATE				

Final Backcheck — JLUB @ 9/17/61 LB

OK WMA

OFFICE COPY

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

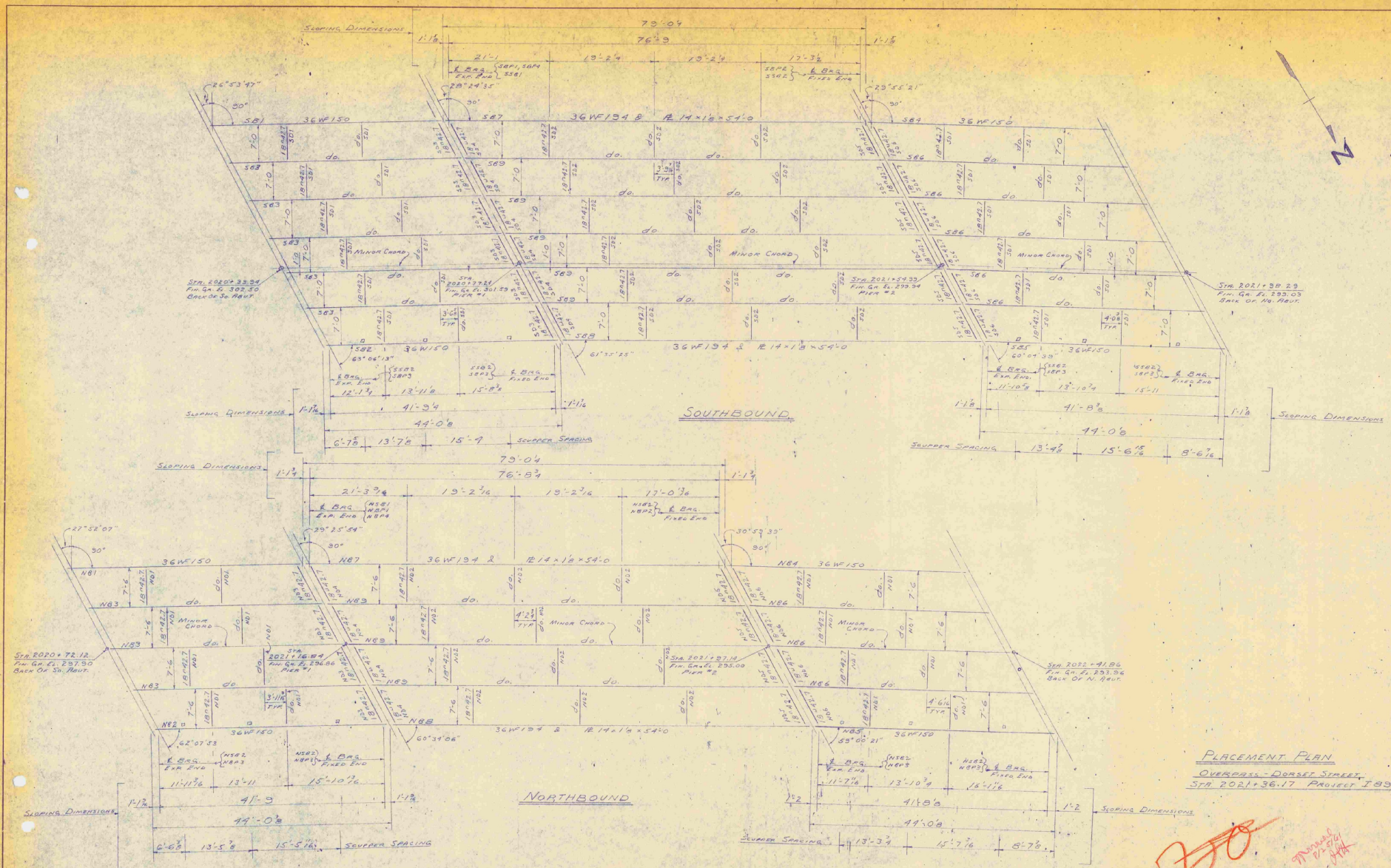
STA 2021+36.17 I 89-3(14) CONT #2

		DATE
DRAWN BY	ELL	8-2-61
CK'D BY	K.T.	8-3-61

HOLES
RIVETS
PAINT

PROJECT OVERPASS DORSET STREET
LOCATION SO. BURLINGTON VERMONT
CUSTOMER LANE CONST. CO.
ARCHITECT STATE OF VERMONT DEPT OF HWYS
JOB NO. 61-398-6 SHEET NO. 2 6/6

PRINT RECORD NO.	FOR	DATE
3	BAP	8-3
1	ORD	8-8
3	COUT	8-11
3	FAAO	9-7



PLACEMENT PLAN

OVERPASS - DORSET STREET

STA. 2021+36.17 PROJECT I 89-3(14) CONT. #2

Checked 8-25-61 JJG

Marcel 8/25/61

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

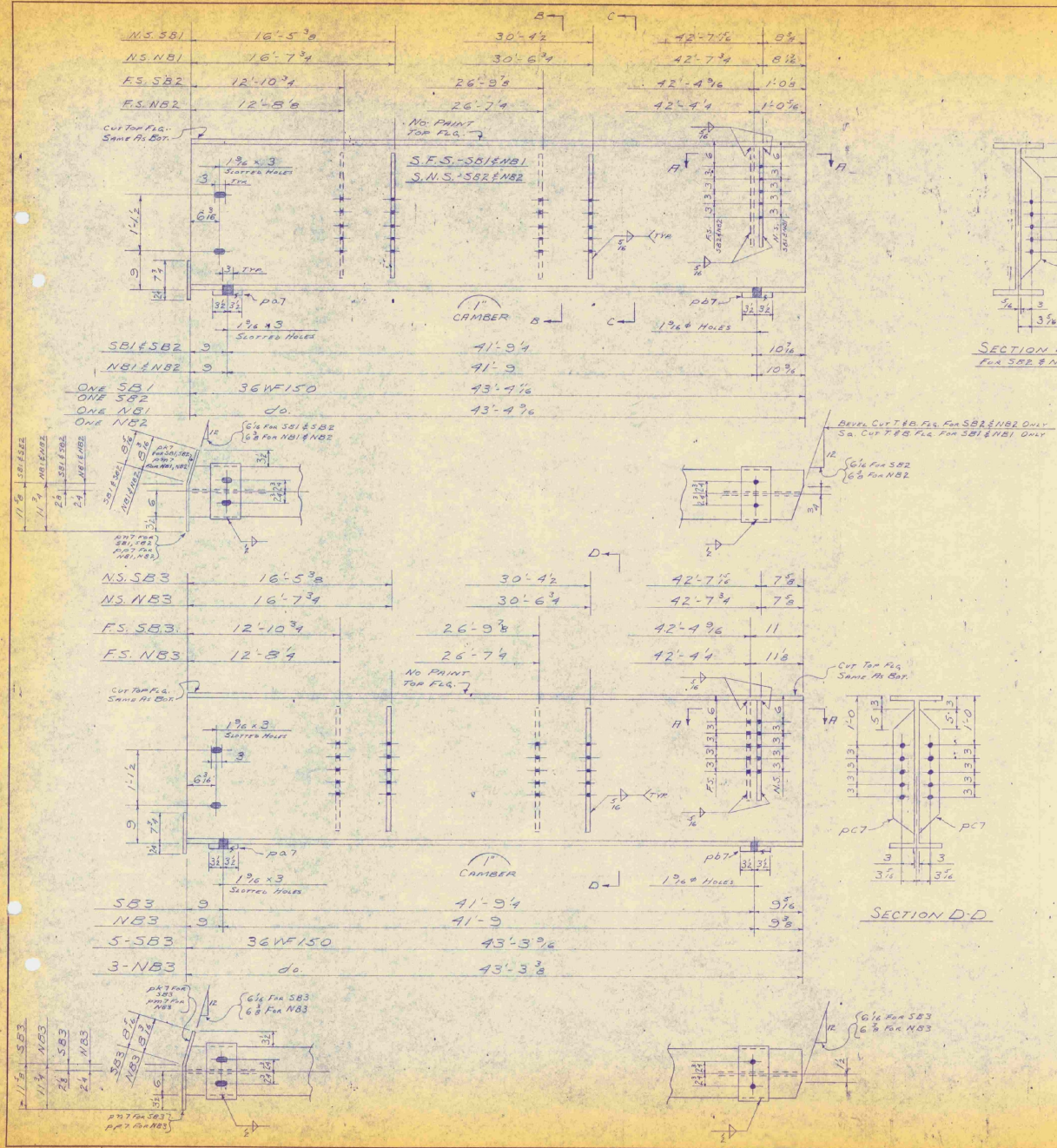
REV. PER APP 8-23-61 Lek

		DATE
DRAWN BY	Lek	8-1-61
CK'D BY	K.T.	8-9-61

HOLES
RIVETS
PAINT R.L. VT. SPEC.
2010 TI-100 GAP

PROJECT OVERPASS DORSET STREET
LOCATION SO. BURLINGTON, VT.
CUSTOMER LANE CONSTRUCTION CO.
ARCHITECT ST. OF VT. - DEPT. OF HGWYS.
JOB NO. 61-398-3 SHEET NO. P2

PRINT RECORD		
NO.	FOR	DATE
5	APP	8-9
7	FAB'T SHOP + FILES	8-23



BILL OF MATERIAL

(5D)

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		STRINGERS				
1	SB1	36 WF150	43	4 11/16		
1	SB2	do.	43	4 11/16	ORD 43'-4	
1	NB1	do.	43	4 9/16		B4L 9x6
1	NB2	do.	43	4 9/16		
5	SB3	do.	43	3 9/16	ORD 43'-3	
3	NB3	do.	43	3 3/8	ORD 43'-3 3/8	
12	pa7	Sole Pl 7 x 1	1	1	1 EA	RES @ 20'-0
12	pb7	do.	1	1	1 EA	
40	pc7	Pl 5 x 1/2	2	6	4 EA SB3, NB3 1 EA OTHERS	RES @ 20'-0
6	pd7	Pl 8 x 1/2	2	0	1 EA SB2, SB3	
4	pf7	do.	2	0	1 EA NB2, NB3	RES @ 20'-0
6	pg7	do.	2	0	1 EA SB1, SB3	
4	ph7	do.	2	0	1 EA NB1, NB3	
7	pk7	Pl 10 x 1/4	0	8 5/16	1 EA SB1, SB2, SB3	RES
5	pm7	do.	0	8 9/16	1 EA NB1, NB2, NB3	FR
7	pn7	do.	0	11 5/8	1 EA SB1, SB2, SB3	RES @ 10'-0
5	pp7	do.	0	11 3/4	1 EA NB1, NB2, NB3	
		5/16" Fillet Weld	300	0		
		1/2" Fillet Weld	28	0		
		Paint 1/2 of 1%				

Checked 8-25-61 JJC

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

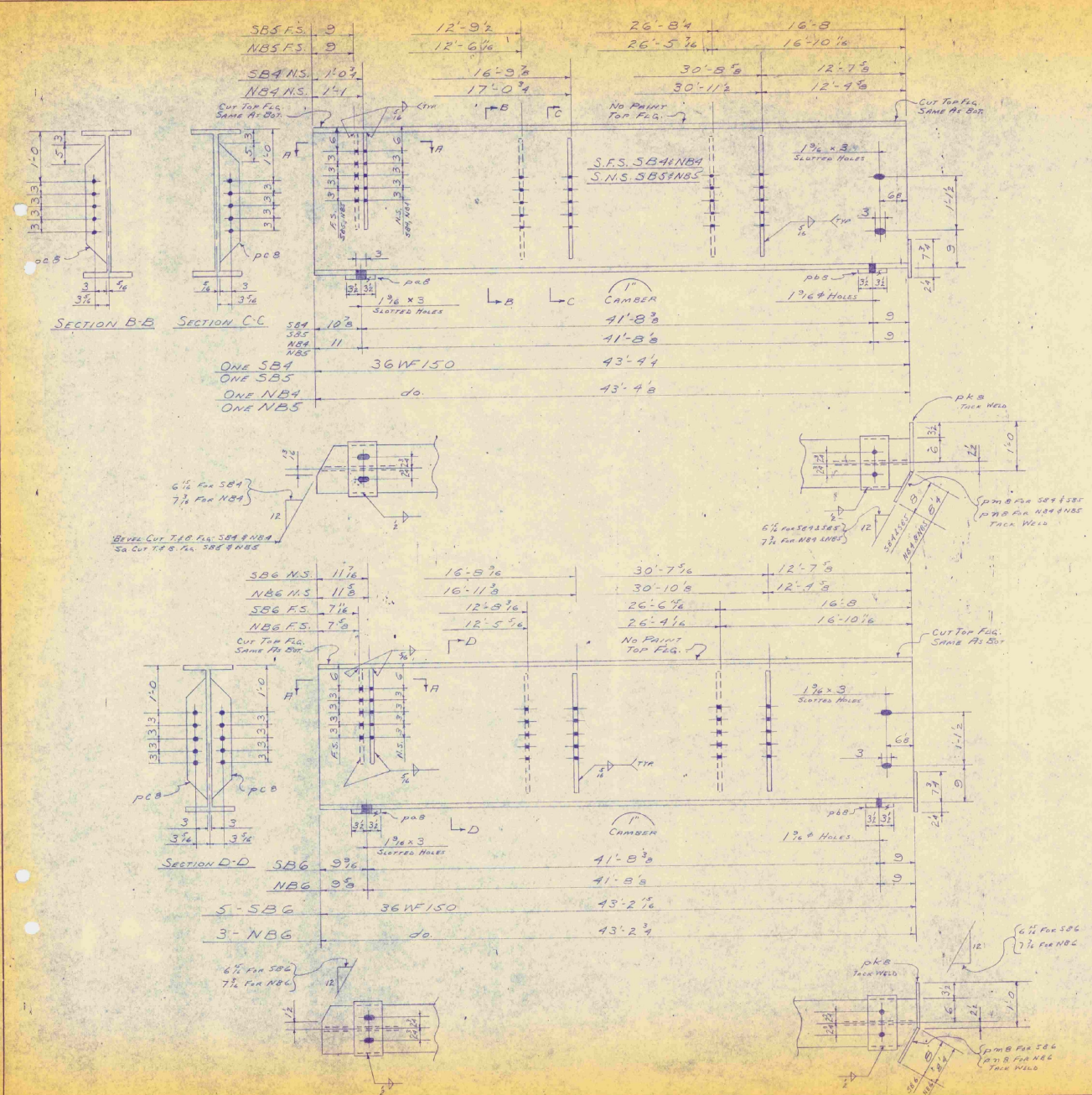
REV. PER APP. 8-23-61 Lah CONT. # 2 Approved 8/25/61

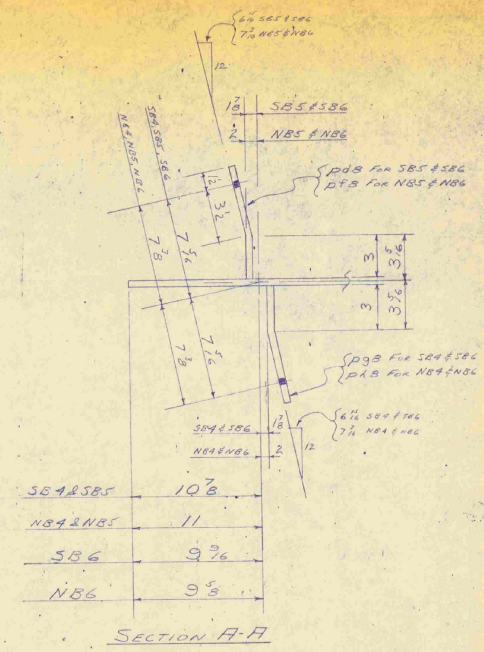
		DATE
DRAWN BY	Lah	8-4-61
CK'D BY	K.T.	8-9-61

HOLES 15/16 ϕ & As Noted
RIVETS
PAINT R.L. Vt. Spec.

PROJECT Overpass Dorset St. I 89-3(14)
LOCATION So. Burlington, Vt.
CUSTOMER Lane Const. Co.
ARCHITECT St. of Vt. - Dept. of Hgwys.
JOB NO. 61-398-3 SHEET NO. 7

PRINT RECORD NO.	FOR	DATE
3	APP	8-9
6	F. APP. SPEC	8-23





BILL OF MATERIAL

(SD)

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		STRINGERS.				
1	SB4	36WF150	43	4 1/4	ORD. 43'-3 3/4	
1	SB5	do.	43	4 1/4		
1	NB4	do.	43	4 1/8	ORD. 43'-3 1/8	
1	NB5	do.	43	4 1/8		
5	SB6	do.	43	2 15/16	ORD. 43'-2 3/4	
3	NB6	do.	43	2 3/4		
12	pa8	SOLE PL 7×1	1	1	1 EA	RES @ 20'-0
12	pb8	do.	1	1	1 EA	
40	pc8	PL 5×1/2	2	6	4 EA SB6, NB6 2 EA OTHERS	RES @ 20'-0
6	pd8	PL 8×1/2	2	0	1 EA SB5 SB6	RES @ 20'-0
4	pf8	do.	2	0	1 EA NB5 NB6	
6	pg8	do.	2	0	1 EA SB4 SB6	
4	ph8	do.	2	0	1 EA NB4 NB6	
12	pk8	PL 10×1/4	1	0	1 EA	RES PR 40'-0 x 10'-0
7	pm8	do.	0	8	1 EA SB4 SB5 SB6	
5	pn8	do.	0	8 1/4	1 EA NB4 NB5 NB6	
		5/16" FILLET WELD	300	0		
		1/2" FILLET WELD	28	0		
		PAINT 1/2 OF 1%				

Checked 8-25-61 JJC

Approved 8/25/61 HH

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

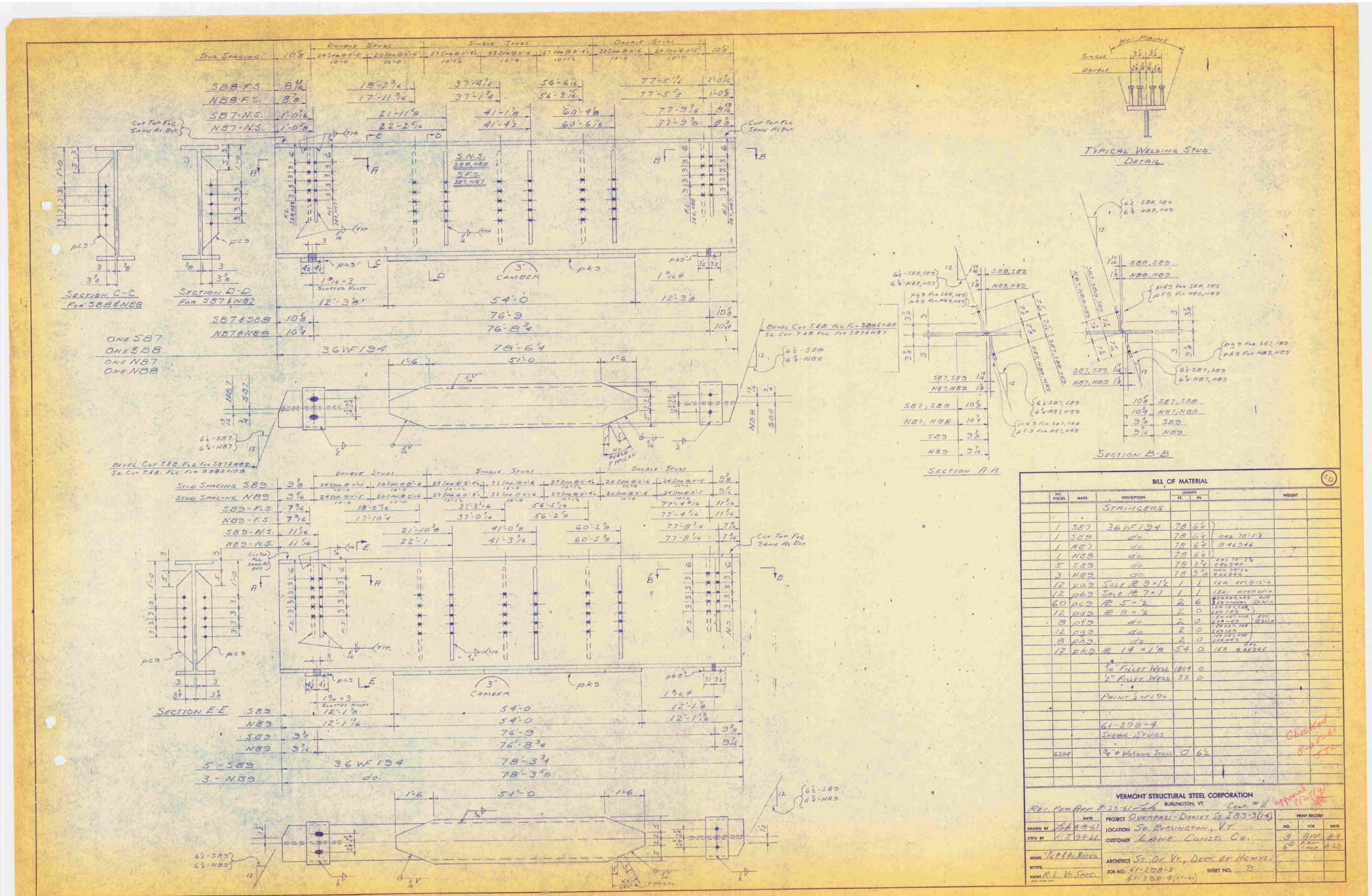
REV. PER APP 8-23-61 Lab CONT. #2

		DATE
DRAWN BY	Lab	8-7-61
CK'D BY	K.T.	8-9-61

HOLES 15/16 ϕ & Ag NOTED
REVETS
PAINT R.L. VT. SPEC.
FOR FIELD OCP

PROJECT OVERPASS-DORSET ST. I 89-3(14)
LOCATION SO. BURLINGTON, VT.
CUSTOMER LANE CONST. CO.
ARCHITECT ST. OF VT., DEPT. OF HGWYS.
JOB NO. 61-398-3 SHEET NO. 8

PRINT RECORD		
NO.	FOR	DATE
3	APP	8-9
6 (1)	F. APP SHOP	8-23



BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.	WEIGHT
		STRINGERS			
1	SB7	36WF194	78	6 1/4	
1	SB8	do.	78	6 1/4	
1	NB7	do.	78	6 1/4	
1	NB8	do.	78	6 1/4	
5	SB9	do.	78	3 3/8	
3	NB9	do.	78	3 3/8	
12	pa9	Sole PL 9 x 1/2	1	1	
12	pb9	Sole PL 7 x 1	1	1	
60	pc9	PL 5" x 2	2	6	
12	pd9	PL 8 x 1/2	2	0	
8	pf9	do.	2	0	
12	pg9	do.	2	0	
8	ph9	do.	2	0	
12	pk9	PL 19 x 1/8	54	0	
		5/16 Fillet Weld	1809	0	
		1/2" Fillet Weld	32	0	
		Paint 2 of 190			
		61-398-9			
		Shear Studs			
6384		3/4" ø Welding Studs	0	6 1/2	

Checked 8-25-61

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT. Cont. # 2

Rev. Pen App 8-23-61

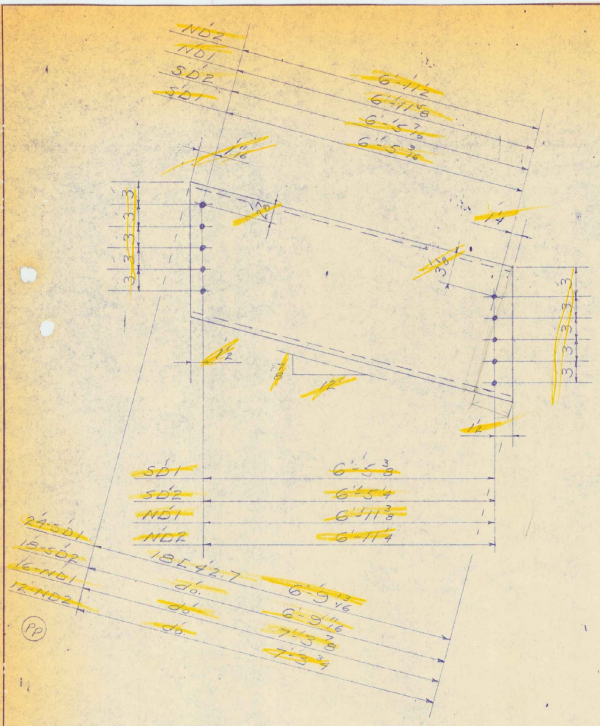
	DATE
DRAWN BY	8-8-61
CK'D BY	8-9-61

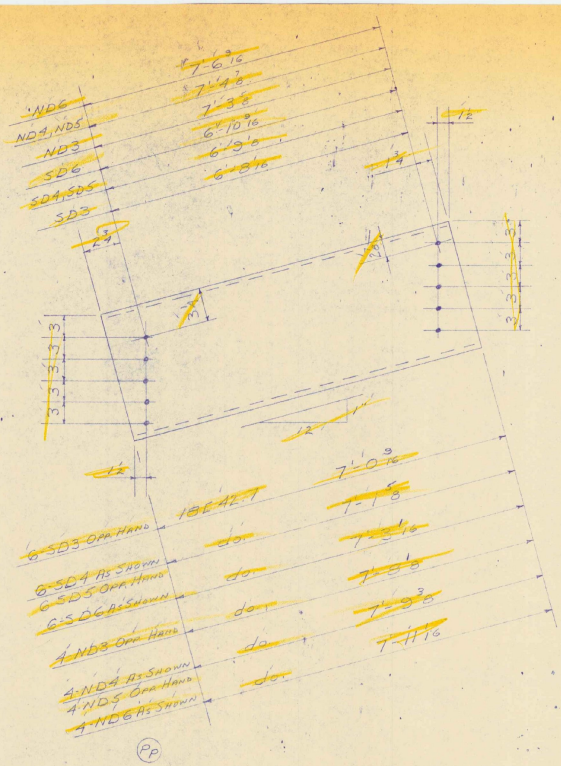
PROJECT Overpass - Dorset St. I 89-3(14)
LOCATION So. Burlington, Vt.
CUSTOMER Lane Const. Co.
ARCHITECT St. Dept. Vt., Dept. of Hgwys.
JOB NO. 61-398-3 / 61-398-9 (Studs)
SHEET NO. 9

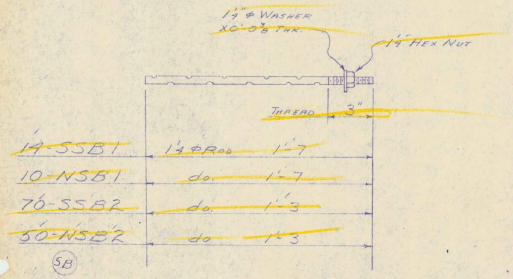
HOLES 7/8" ø All Noted
RIVETS
PAINT Red Vt. Spec.

PRINT RECORD

NO.	FOR	DATE
3	App	8-9
10	Fabn Shop	8-23







BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.	WEIGHT
		DIAPHRAGMS			PP
24	SD1	18L 42.7	6	9 13/16	
18	SD2	do.	6	9 1/16	
16	ND1	do.	7	3 7/8	
12	ND2	do.	7	3 3/4	
6	SD3	do.	7	0 9/16	
6	SD4	do.	7	1 5/8	REST @ SC/CO
6	SD5	do.	7	1 5/8	
6	SD6	do.	7	3 1/8	
4	ND3	do.	7	8 1/4	
4	ND4	do.	7	9 3/8	
4	ND5	do.	7	9 3/8	
4	ND6	do.	7	11 1/16	
		SWEDGE BOLTS			SB
14	SSB1	1¼" ϕ Rod	1	7	
10	NSB1	do.	1	7	REST @ 40'-0
70	SSB2	do.	1	3	
50	NSB2	do.	1	3	
144		1¼" ϕ Washers	0	0 7/8	
144		1¼" Hex. Nuts			

Sheeted 8-22-61 JMA

Changed 8-22-61 JE

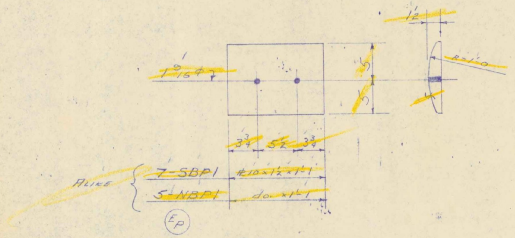
VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

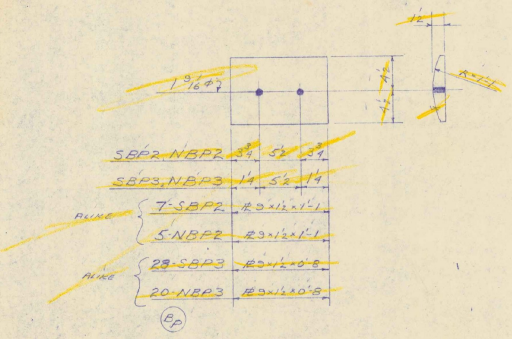
Cont. PP

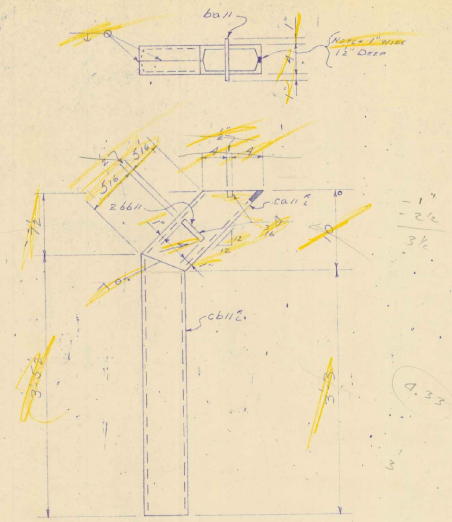
		DATE
DRAWN BY	Zak	8-9-61
CK'D BY	A.T.	8-21-61
HOLES	13/16 ϕ	
RIVETS		
PAINT	R.I. Vt Spec.	

PROJECT Overpass: Dorset St. FBS-3(19)
LOCATION So. Burlington, Vt.
CUSTOMER Lane Const. Co.
ARCHITECT St. of Vt., Dept. of Hghy's.
JOB NO. 61-3928-3 SHEET NO. 10

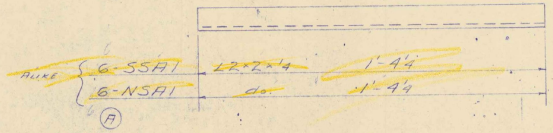
PRINT RECORD		
NO.	FOR	DATE
3	APP	8-9







ALIKE { 6 SCUPPERS SS1
6 SCUPPERS NS1 }
S



BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		EXPANSION PLATES			EP	
7	SBP1	PL 10×1 1/2	1	1	RES @ 20'-0	
5	NBP1	do.	1	1		
		BEARING PLATES			BP	
7	SBP2	PL 9×1 1/2	1	1	RES @ 20'-0	
5	NBP2	do.	1	1		
28	SBP3	do.	0	8		
20	NBP3	do.	0	8		
	6	SCUPPERS	SS1		S	
	6	do.	NS1			
24	cal1 R/L	6 E 10.5	1	4 5/8	RES @ 40/50	
24	cb11 R/L	do.	3	5 1/2		
12	ball	BAR 1×1/2	0	6		
24	bb11	do.	0	4		
		ANGLES			A	
6	SSA1	L2×2×1/4	1	4 1/4	RES @ 40'-0	
6	NSA1	do.	1	4 1/4		
		LUBRITE PLATES			EP	
7	SBP4	LUBRITE 7×1 1/2	1	1	ORD. AT. BRGS. PO 46900	
5	NBP4	do.	1	1		
		FIELD MATL.			A	
1130		7/8" ⌀ HI-TEN BOLTS	0	2 1/2	INC. STK	
2260		7/8" ⌀ H.S. WASHERS				

B. Ckd - [illegible] 8/21/61

Checked 8-21-61 JJC

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

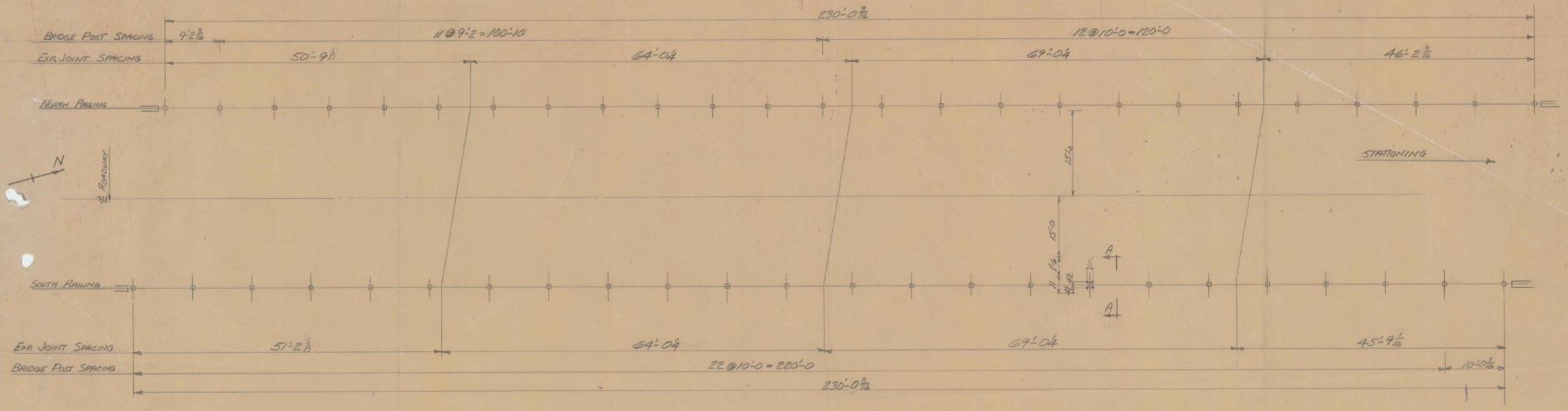
CONT. #2

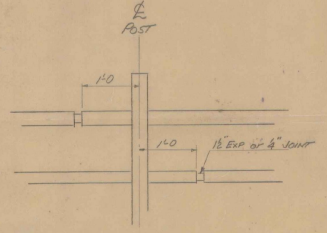
		DATE
DRAWN BY	Lek	8-8-61
CK'D BY	K.J.	8-9-61

HOLES AS NOTED
RIVETS
PAINT R.L. VT. SPEC.

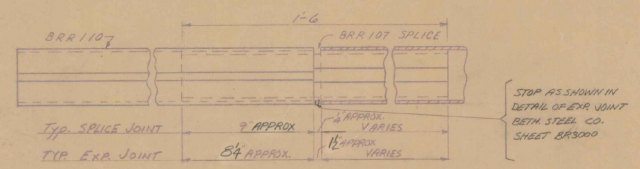
PROJECT OVERPASS DORSET ST. I 89-3(14)
LOCATION SO. BURLINGTON, VT.
CUSTOMER LANE CONST. CO.
ARCHITECT ST. OF VT., DEPT. OF HQWYS.
JOB NO. 61-398-3 SHEET NO. 11

PRINT RECORD		
NO.	FOR	DATE
3	APP	8-9





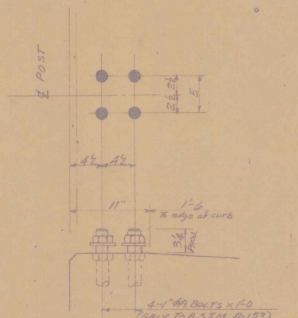
TYPICAL JOINT LOCATION



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

BETHLEHEM STEEL CO.
STANDARD BRIDGE RAILING
AND PIECE MARKS.

DETAIL OF TUBING & TYP. SPLICE JOINTS



SECTION A-A
TYP. A. BOLT DETAIL

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		NORTH RAILING				
1	A198 3/4	BRIDGE RAIL BRR110	19	8 3/4	BETH 44512	
2	A220		22	0		
3	A1910 1/4		19	10 1/4		
8	A1911 3/4		19	11 3/4		
2	A1710 1/2		17	10 1/2		
1	A99		9	9		
1	A219		21	9		
10	A183 3/4		18	3 3/4		
2	A204		20	4		
1	A182 1/4		18	2 1/4		
1	A181 5/16		18	1 5/16		
2	A162 1/2		16	2 1/2		
1	A1011 3/16		10	11 3/16		
1	A200 11/16		20	0 5/16		
1	A1904		19	0 1/4		
25	BRR300	BRIDGE RAIL POSTS				
6	BRR104	END CAPS				
25	BRR107	SPLICES				
9	BRR107A	EXP. SPLICES				
75	BRR106	WEDGE BOLTS				
100	BRR500 FR 76	BOLTS 1 ϕ X	1	0		
200		1" HEX NUTS				
100		2" O.D. WASHERS	0	1/64		
25	BRR101	A. BOLT TEMPLATE				

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

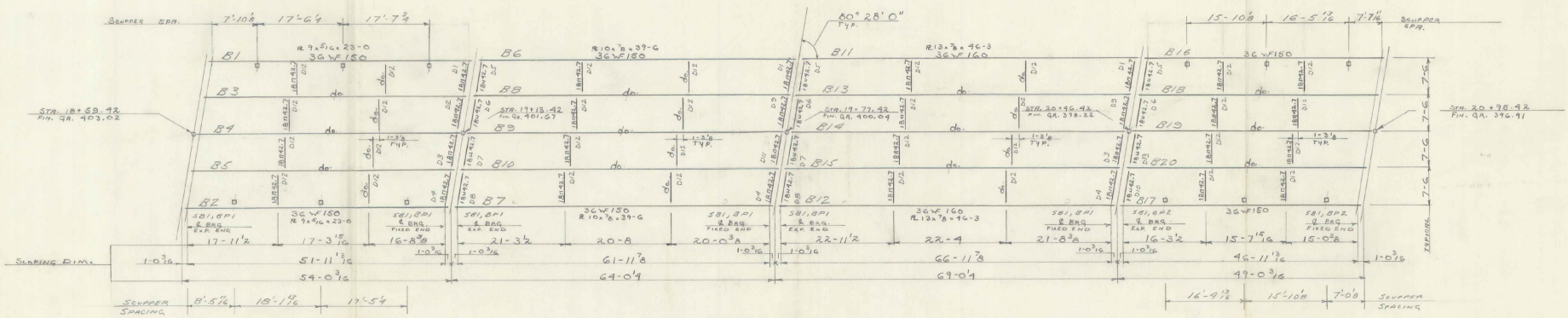
I.89-3 (14) Cont #2

		DATE
DRAWN BY	ELL	7-31-61
CK'D BY	K.T.	8-2-61

PROJECT UNDERPASS STA. 1970+53.89 HINESBURG RD.
LOCATION So. BURLINGTON, VERMONT
CUSTOMER LANE CONST. CO.
ARCHITECT STATE OF VERMONT DEPT. OF HWYS.
JOB NO. 61-398-6 SHEET NO. 1 a/b

PRINT RECORD NO.	FOR	DATE
12	Cont'd on Back	7-19
3	APP.	8-2
1	ORD	8-8
3	Cont	8-11
3	App	10-26

HOLES
RIVETS
PAINT



PLACEMENT PLAN

UNDERPASS HINESBURG ROAD

STA. 1970+53.89 PROJECT I 89-3(19) CONT. #2

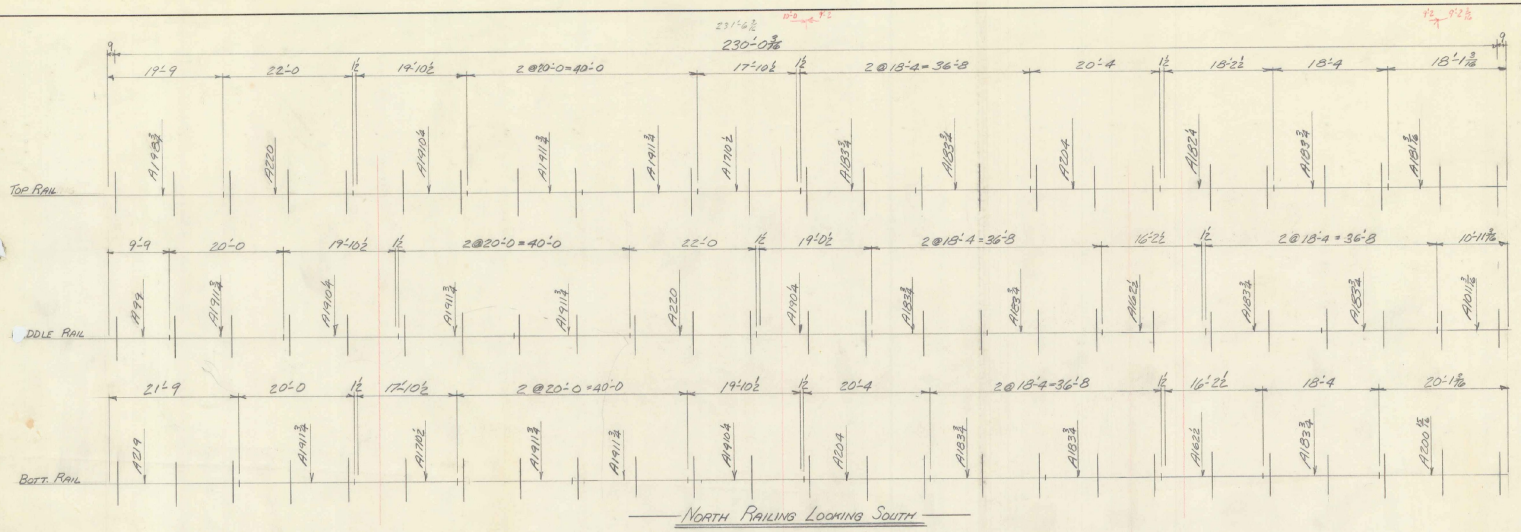
VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

Rev. per App. 8-10-61 [illegible]

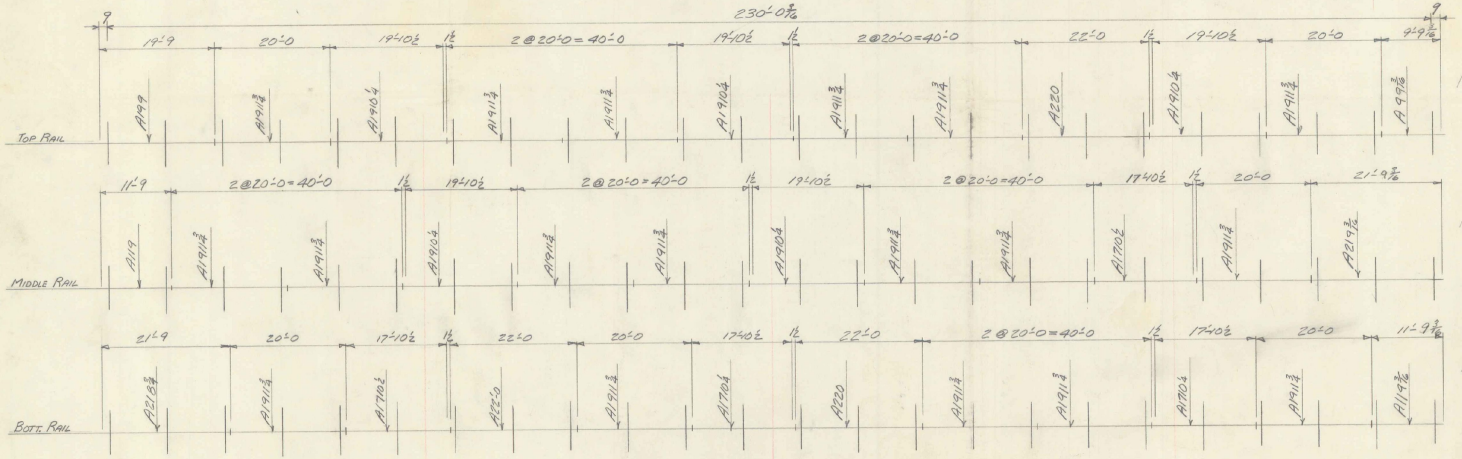
		DATE
DRAWN BY	HP	7-12-61
C'KD BY	[illegible]	[illegible]
HOLES		
RIVETS		
PAINT Red (VT. SPEC)		

PROJECT UNDERPASS HINESBURG RD.
LOCATION SO. BURLINGTON, VT.
CUSTOMER LANE CONSTRUCTION CO.
ARCHITECT ST. OF VT. DEPT. OF HIGHWAYS
JOB NO. GI-398-1 SHEET NO. P1

PRINT RECORD		
NO.	FOR	DATE
3	APP.	7-28
4	SHOP DWGS	8-10
5	CONST.	8-15
1	H.C.	10-11



NORTH RAILING LOOKING SOUTH



SOUTH RAILING LOOKING NORTH

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		SOUTH RAILING				
1	A199	BRIDGE RAIL BRR110	19	9	BETH 44512	
1	A119		11	9		
1	A218 3/4		21	8 3/4		
18	A1911 3/4		19	11 3/4		
5	A1910 1/4		19	10 1/4		
3	A220		22	0		
2	A1710 1/2		17	10 1/2		
2	A1710 1/4		17	10 1/4		
1	A99 3/16		9	9 3/16		
1	A219 3/16		21	9 3/16		
1	A119 3/16		11	9 3/16		
24	BRR300	BRIDGE RAIL POST				
6	BRR104	END CAP				
24	BRR107	SPLICE				
9	BRR107A	EXP. SPLICE				
72	BRR106	WEDGE BOLTS				
96	BRR300 1x12	BOLT 1φ	1	0		
192		1" HEX NUTS				
96		2" O.D. WASHERS	0	7/16		
24		A. BOLT TEMPLATES				

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

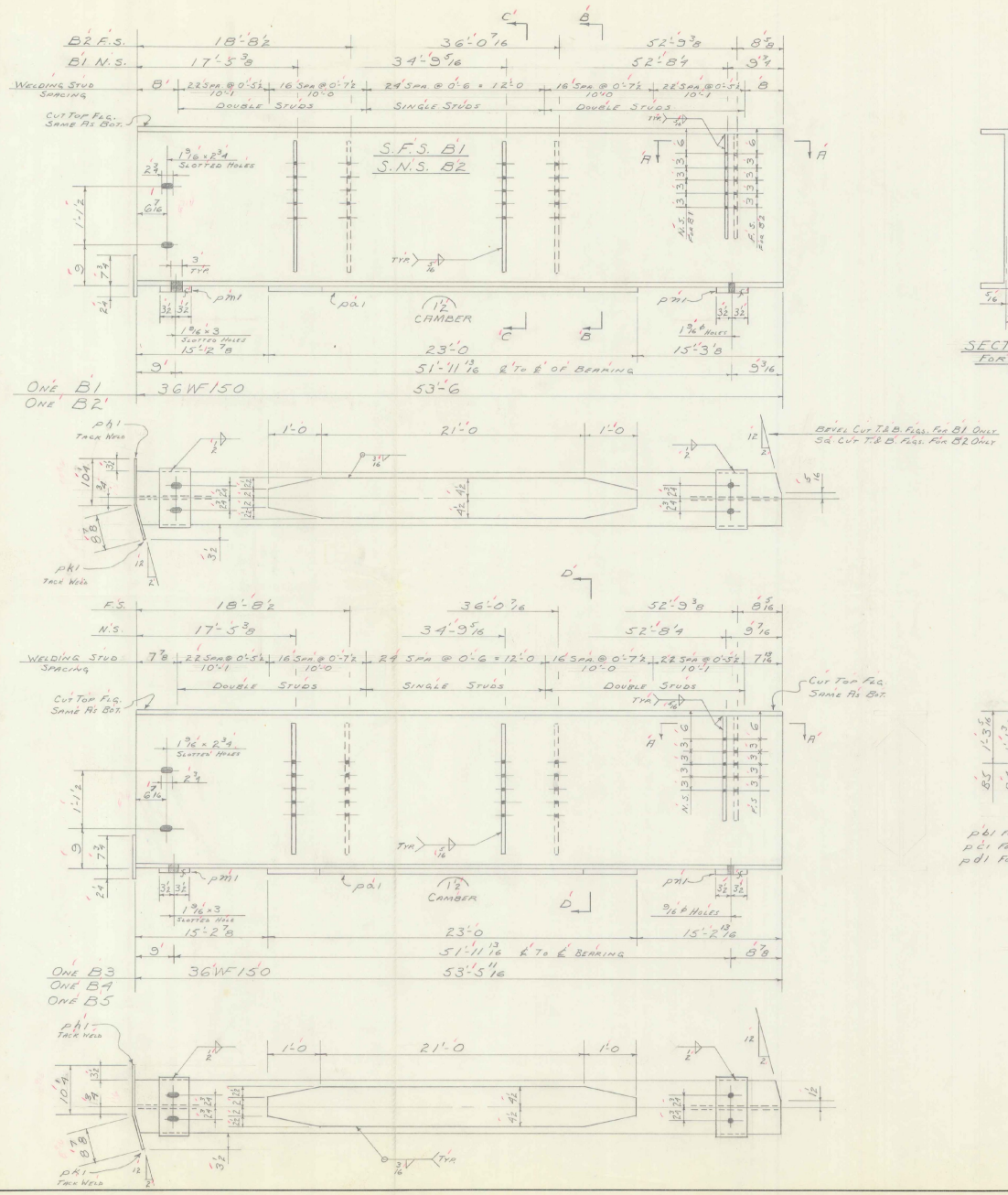
I89-3 (14) CONT #2

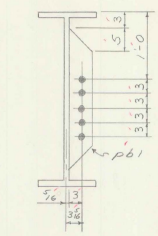
		DATE
DRAWN BY	ELL	7-31-61
CK'D BY	K.T.	8-2-61

HOLES
RIVETS
PAINT

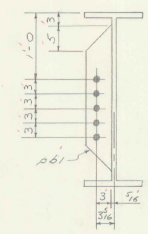
PROJECT UNDERPASS STA. 1970+53.89 HINESBURGH Rd
LOCATION SO. BURLINGTON VT.
CUSTOMER LANE CONST. CO.
ARCHITECT STATE OF VERMONT DEPT. OF MINES
JOB NO. 61-398-6 SHEET NO. 1b

PRINT RECORD NO.	FOR	DATE
3	APP	8-2
1φ	ORD	8-8
3	CONT	8-11
3	APP	10-26

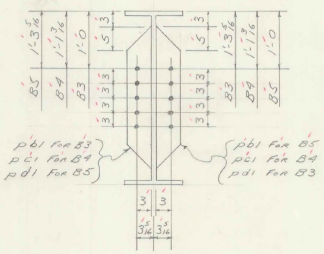




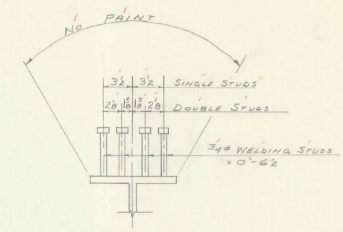
SECTION B-B
FOR B2 ONLY



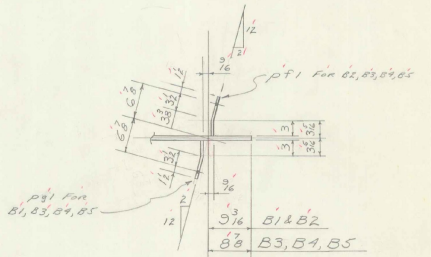
SECTION C-C
FOR B1 ONLY



SECTION D-D



TYPICAL WELDING STUD DETAIL



SECTION A-A

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		STRINGERS				
2	1-B1 1-B2	36WF150	53	6	ORD. @ 53'-5¼ } B46946	
3	1-B3, 1-B4, 1-B5	do.	53	5 11/16	ORD. @ 53'-5 }	
5	pa1	PL 9" x 5/16"	23	0	ORD. @ 46 x 1/16 x 23'-0 B46945	
8	pb1	PL 5" x ½"	2	6	2 EA B1, B2, B3, B5	
4	pc1	do.	2	6	B4 } RES @ 20'-0	
4	pd1	do.	2	6	2 EA B2, B3, B4, B5 }	
4	pf1	PL 8" x ½"	2	0	1 EA B2, B3, B4, B5 } RES @ 20'-0	
4	pg1	do.	2	0	1 EA B1, B3, B4, B5 }	
5	ph1	PL 10" x ¼"	0	10¼	1 EA } RES FR. 4 EA @ 10'-0	
5	pk1	do.	0	8⅞	1 EA }	
5	pm1	SOLE PL 7" x 1"	1	1	1 EA } RES @ 20'-0 INC.	
5	pn1	do.	1	1	1 EA }	
		3/16" FILLET WELD	233	4		
		5/16" do.	120	0		
		½" do.	11	8		
		PAINT ½ OF 1%				
		61-398-2				
		SHEAR STUDS				
1790		3/4φ WELD STUDS	0	6½	ORD. STK	

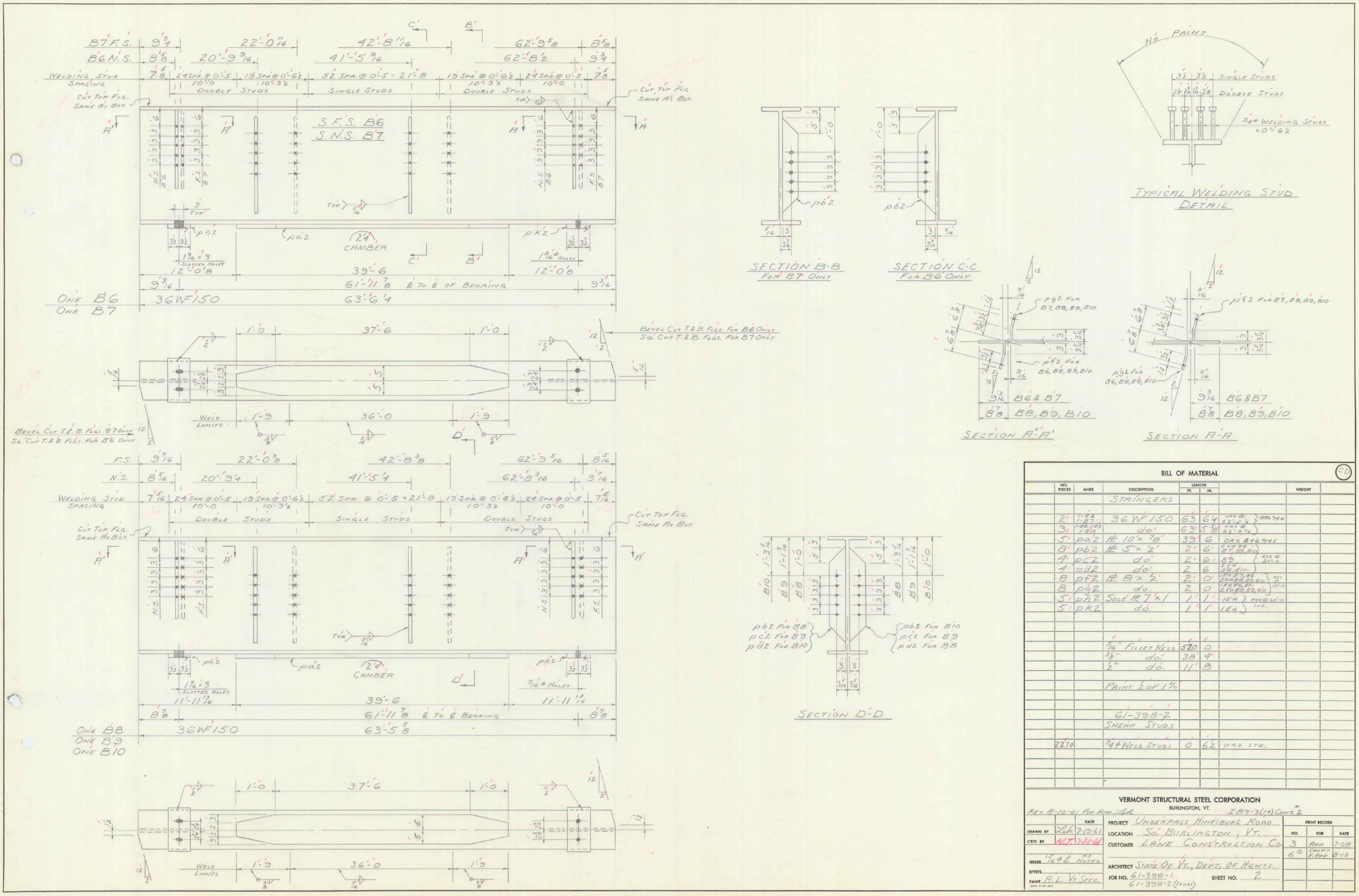
VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT. I 89-3(14) CONT. #2

REV 8-10-61 PER APP. Leh

		DATE
DRAWN BY	Leh	7-18-61
CK'D BY	K.T.	7-21-61
HOLES	15/16 φ ℄ AS NOTED	
RIVETS		
PAINT	R.L. VT. SPEC.	

PROJECT UNDERPASS HINESBURG ROAD
LOCATION SO. BURLINGTON, VT.
CUSTOMER LANE CONSTRUCTION CO.
ARCHITECT STATE OF VT., DEPT. OF HGWYS.
JOB NO. 61-398-1, 61-398-2 (STUDS)
SHEET NO. 1

PRINT RECORD NO.	FOR	DATE
3	APP	7-28
6 ①	SHOP & F. APP	8-10



BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		STRINGERS				
2	1-86 1-87	36 WF 150	63	6 1/4	ORD @ 63'-5 1/4 } A46946	
3	1-88, 1-89 1-810	do.	63	5 5/8	ORD @ 63'-4 1/4 }	
5	pa2	PL 10 x 7/8	39	6	ORD. B46945	
8	pb2	PL 5 x 1/2	2	6	2 EA B6, B7, B8, B10 } RES @ 20'-0	
4	pc2	do.	2	6	B9	
4	pd2	do.	2	6	2 EA B8, B10.	
8	pf2	PL 8 x 1/2	2	0	1 EA B7, B6, 2 EA B8, B9, B10 } RES @ 20'-0	
8	pg2	do.	2	0	1 EA B6, B7, 2 EA B8, B9, B10	
5	ph2	SOLE PL 7 x 1	1	1	1 EA } RES @ 20'-0	
5	pk2	do.	1	1	1 EA } INC.	
		5/16" FILLET WELD	570	0		
		3/8" do.	38	4		
		1/2" do.	11	8		
		PAINT 1/2 OF 1%				
		61-398-2				
		SHEAR STUDS				
2270		3/4 ϕ WELD STUDS	0	6 1/2	ORD. STK.	

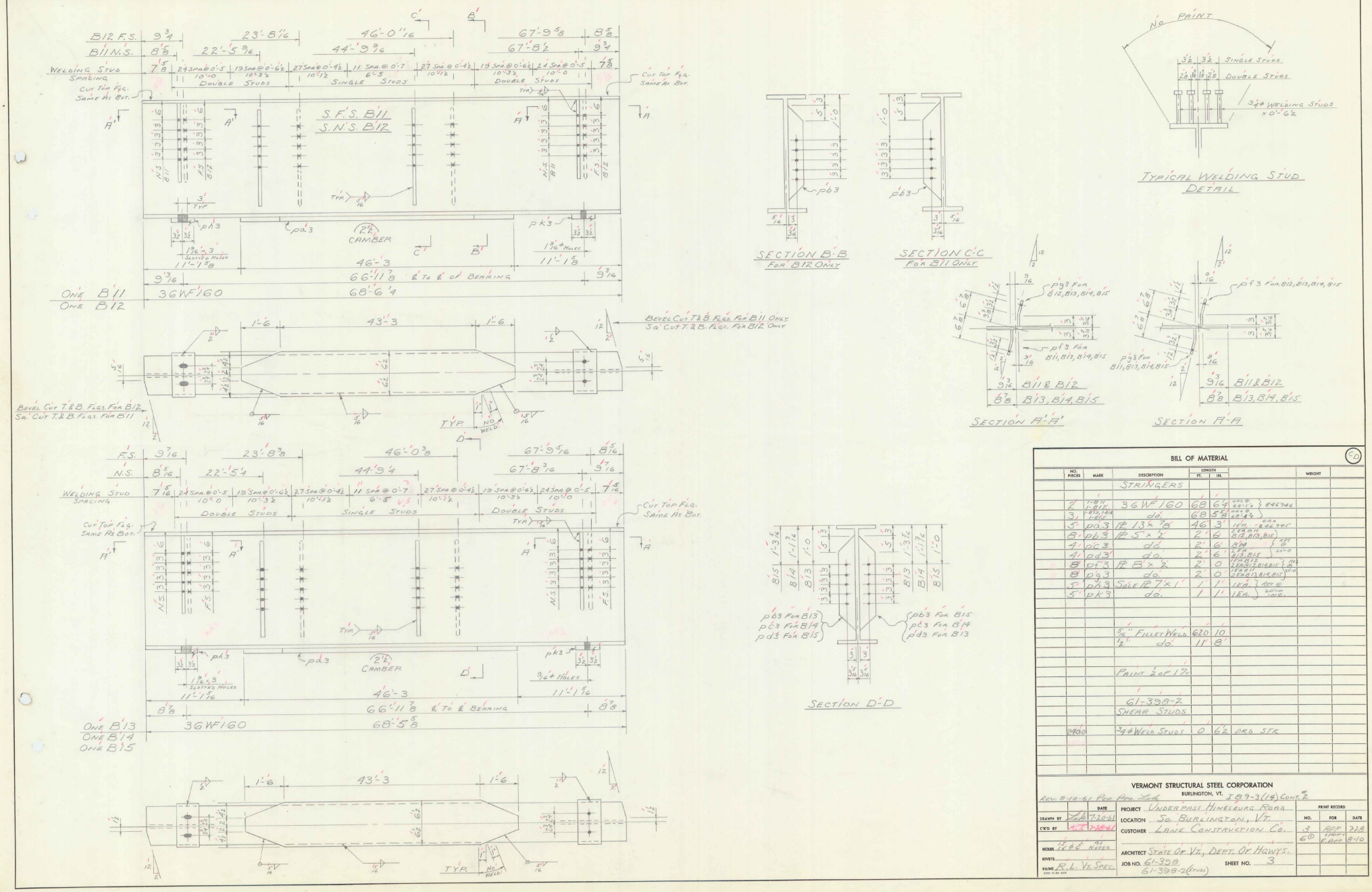
VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

REV. 8-10-61 PER APP. Lok — I89-3(14) CONT. #2

		DATE
DRAWN BY	Lok	7-19-61
CK'D BY	K.T.	7-21-61
HOLES	15/16 ϕ & AS NOTED	
RIVETS		
PAINT	R.L. VT. SPEC.	

PROJECT: UNDERPASS HINESBURG ROAD
LOCATION: SO. BURLINGTON, VT.
CUSTOMER: LANE CONSTRUCTION CO.
ARCHITECT: STATE OF VT., DEPT. OF HGWYS.
JOB NO. 61-398-1, 61-398-2 (STUDS)
SHEET NO. 2

PRINT RECORD NO.	FOR	DATE
3	APP	7-28
6 (1)	SHOP & F. APP	8-10



BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		STRINGERS				
2	1-B11 1-B12	36WF160	68	6 1/4	ORD @ 68'-5 1/4 } 846946	
3	1-B13, 1-B14 1-B15	do.	68	5 5/8	ORD @ 68'-4 1/4 }	
5	pa3	PL 13 x 7/8	46	3	1 EA. ORD 846945	
8	pb3	PL 5 x 1/2	2	6	2 EA B11 B12, B13, B15 } REF @ 20'-0	
4	pc3	do.	2	6	B14	
4	pd3	do.	2	6	2 EA B13, B15	
8	pf3	PL 8 x 1/2	2	0	1 EA B12 2 EA B13, B14, B15 } REF @ 20'-0	
8	pg3	do.	2	0	1 EA B11 2 EA B13, B14, B15	
5	ph3	SOLE PL 7 x 1	1	1	1 EA. } REF @ 20'-0 ING.	
5	pk3	do.	1	1	1 EA.	
		5/16" FILLET WELD	620	10		
		1/2" do.	11	8		
		PAINT 2 OF 1%				
		61-398-2 SHEAR STUDS				
2400		3/4 ϕ WELD STUDS	0	6 1/2	ORD STK	

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

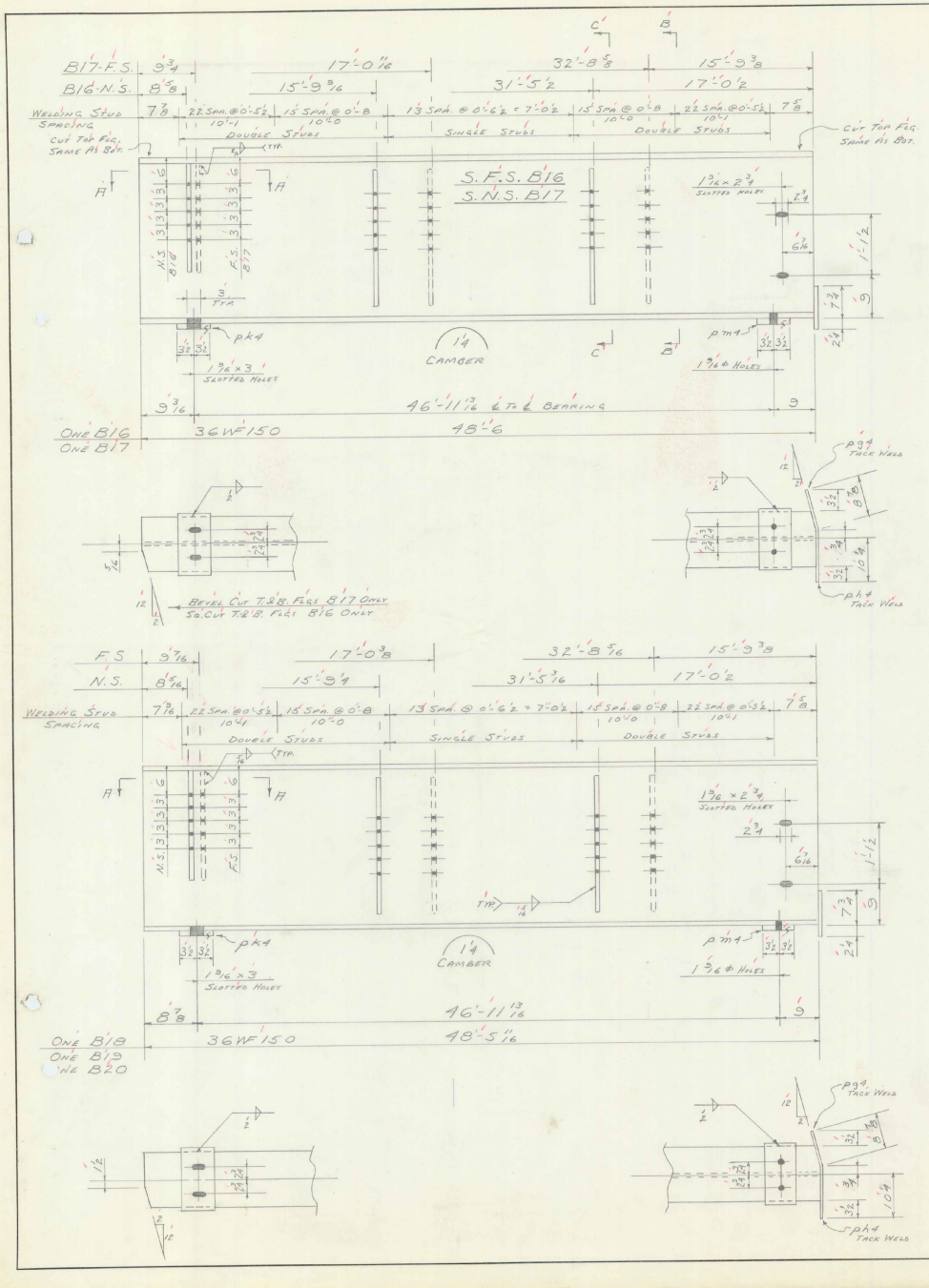
REV. 8-10-61 PER APP. LOK — I89-3(14) CONT. #2

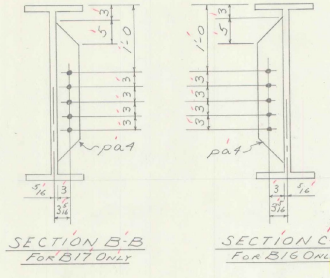
		DATE
DRAWN BY	LOK	7-20-61
CK'D BY	K.T.	7-28-61

HOLES 15/16 ϕ ℄ AS NOTED
RIVETS
PAINT R.L. VT. SPEC.

PROJECT UNDERPASS HINESBURG ROAD
LOCATION SO. BURLINGTON, VT.
CUSTOMER LANE CONSTRUCTION CO.
ARCHITECT STATE OF VT., DEPT. OF HGWYS.
JOB NO. 61-398 61-398-2 (STUDS)
SHEET NO. 3

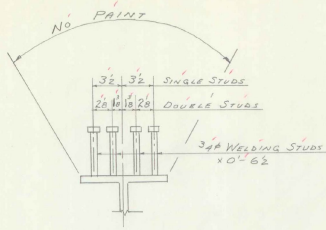
PRINT RECORD NO.	FOR	DATE
3	APP.	7-28
6 ①	SHOP. E. APP.	8-10



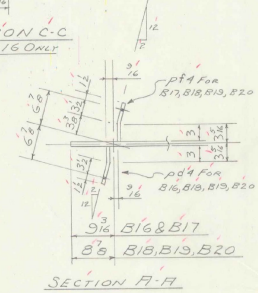


SECTION B-B
FOR B17 ONLY

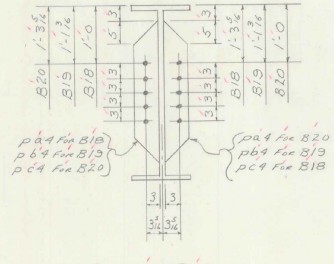
SECTION C-C
FOR B16 ONLY



TYPICAL WELDING STUD DETAIL



SECTION A-A



SECTION D-D

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		STRINGERS				
2	1-B16 1-B17	36WF150	48	6	ORD. @ 48'-5 1/4	846946
3	1-B18, 1-B19 1-B20	do.	48	5 1/16	ORD. @ 48'-5	
8	pa4	PL 5 x 1/2	2	6	2 EA B16 B17, B18, B20	RES. @ 20'-0
4	pb4	do.	2	6	2 EA B19	
4	pc4	do.	2	6	2 EA B18, B20	
4	pd4	PL 8 x 1/2	2	0	1 EA B16, B18, B19, B20	RES. @ 20'-0
4	pf4	do.	2	0	1 EA B17, B18, B19, B20	
5	pg4	PL 10 x 1/4	0	8 7/8	1 EA	RES. FA. 48 x 6 x 14'-0
5	ph4	do.	0	10 1/4	1 EA	
5	pk4	SOLE PL 7 x 1	1	1	1 EA	RES. @ 20'-0 INC.
5	pm4	do.	1	1	1 EA	
		5/16" FILLET WELD	120	0		
		1/2" do.	11	8		
		PAINT 1/2 OF 1%				
		61-398-2 SHEAR STUDS				
1640		3/4" ϕ WELD STUDS	0	6 1/2	ORD. STK.	

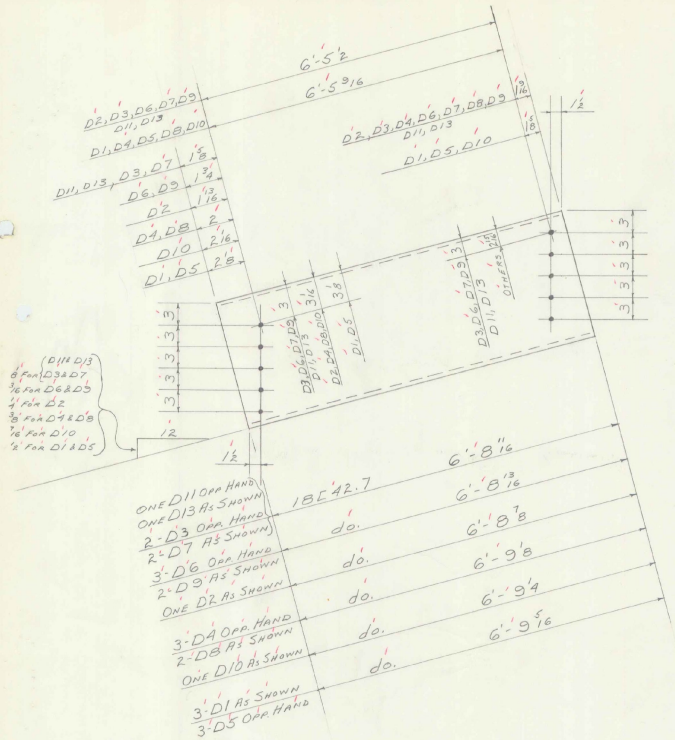
VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

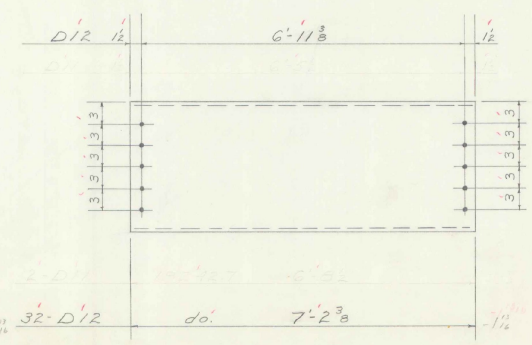
REV. 8-10-61 Per App. Lek I 89-3(14) CONT. #2

		DATE
DRAWN BY	Lek	7-21-61
CK'D BY	K.T.	7-28-61
HOLES	15/16 ϕ & AS NOTED	
RIVETS		
PAINT	R.L. Vt. Spec.	

PROJECT UNDERPASS HINESBURG ROAD
LOCATION SO. BURLINGTON, VT.
CUSTOMER LANE CONSTRUCTION CO.
ARCHITECT STATE OF VT., DEPT. OF HGWYS.
JOB NO. 61-398-1 SHEET NO. 4
61-398-2 (STUDS)

PRINT RECORD NO.	FOR	DATE
3	APP.	7-28
6	SHOP F. APP.	8-10





BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		DIAPHRAGMS				
3'	D1'	18 [42.7	6'	9 5/16		
1'	D2'	do.	6'	8 7/8		
2'	D3'	do.	6'	8 11/16		
3'	D4	do.	6'	9 1/8		
3'	D5	do.	6'	9 5/16	RES @ 55/60 INC.	
3'	D6'	do.	6'	8 13/16		
2'	D7'	do.	6'	8 11/16		
2'	D8'	do.	6'	9 1/8		
2'	D9'	do.	6'	8 13/16		
1'	D10'	do.	6'	9 1/4		
1	D11'	do.	6'	8 11/16		
3/2	D12'	do.	7'	2 3/8		
1	D13	do.	6	8 11/16		

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT. I 89-3(19) CONT. #2

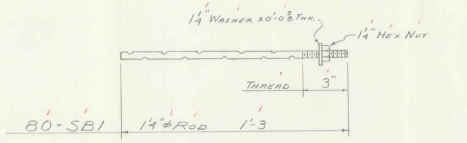
REV 8-10-61 PER APP. LEK

		DATE
DRAWN BY	LEK	7-26-61
CK'D BY	K.T.	7-27-61

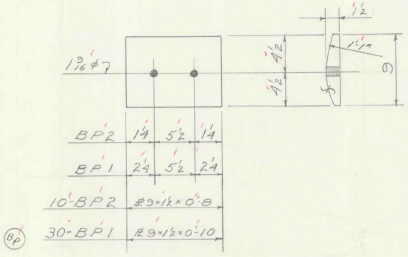
HOLES 15/16 ϕ
RIVETS
PAINT R.L. VT. SPEC.

PROJECT UNDERPASS HINESBURG ROAD
LOCATION SO. BURLINGTON, VT.
CUSTOMER LANE CONSTRUCTION CO.
ARCHITECT ST. OF VT. - DEPT. OF HGWYS.
JOB NO. 61-398-1 SHEET NO. 5

PRINT RECORD NO.	FOR	DATE
3	APP	7-28
6 (1)	SHOP & EAPP	8-10



(SB)



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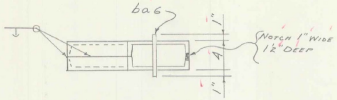
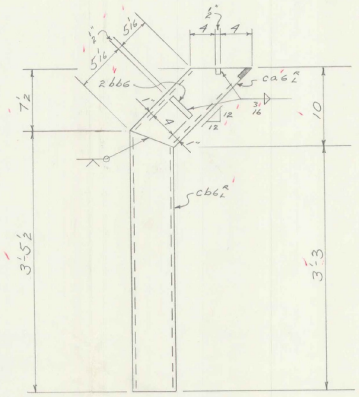
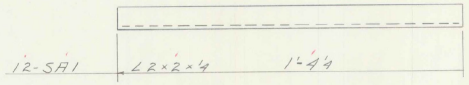




(S) 12 SCUPPERS S1



(A)

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		SWEDGE BOLTS			(SB)	
80	SB1	1¼"ø ROD	1	3	RFS @ 40'-0	
80		1¼" HEX NUTS				
80		1¼"ø WASHERS	0	0⅜	THICK	
		BEARING PLATES			(BP)	
30	BP1	ø 9 x 1½	0	10	} RFS @ 12'-0	
10	BP2	do.	0	8		
	12	SCUPPERS	S1		(S)	
24	ca6	6 E 10.5	1	4¾	} RFS @ 40'-0	
24	cb6	do.	3	5½		
12	ba6	BAR 1" x ½"	0	6	} RFS @ 20'-0	
24	bb6	do.	0	4		
		ANGLES			(A)	
12	SA1	L 2 x 2 x ¼	1	4¼	RFS @ 40'-0	
		FIELD MATL.			(A)	
580		⅞"ø Hi-Ten Bolts	0	2½	} INC. STR.	
1160		⅞"ø H.S. Washers				

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

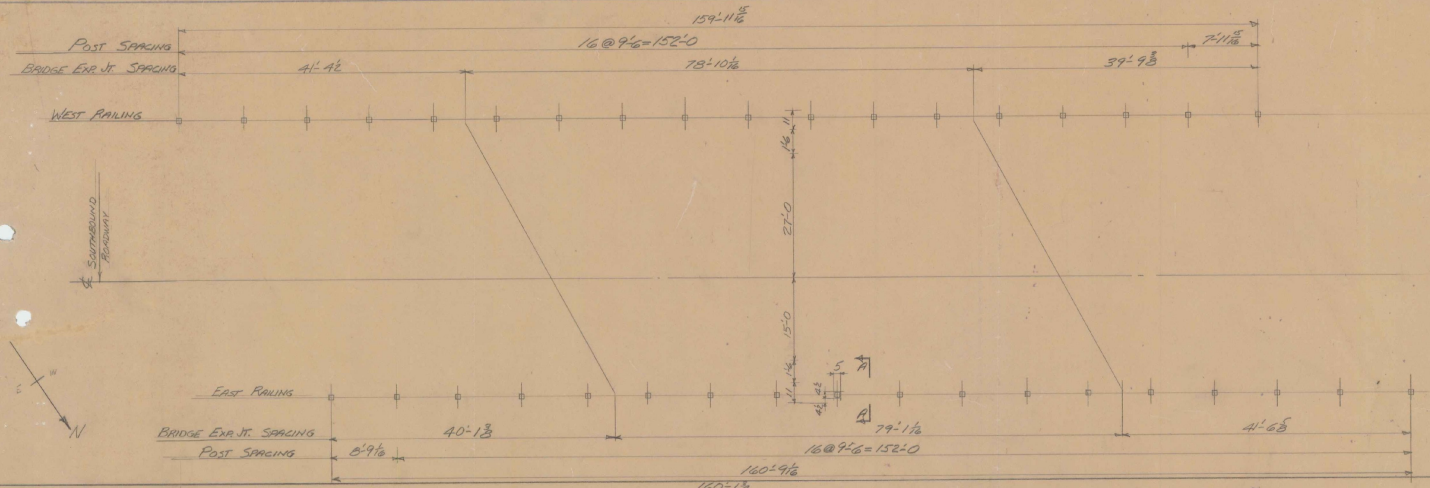
Rev 8-10-61 Per App ZA — I 89-3(14) Cont. 2

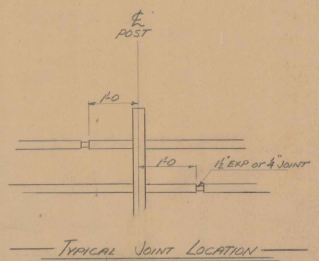
	DATE
DRAWN BY ZA	7-27-61
CK'D. BY KT	7-27-61
HOLES	As Noted
RIVETS	
PAINT	R. L. Vt. Spec.

PROJECT Underpass Hinesburg Road
LOCATION So. Burlington, Vt.
CUSTOMER Lane Construction Co.
ARCHITECT St. of Vt. Dept. of Hghwys.
JOB NO. 61-398-1 SHEET NO. 6

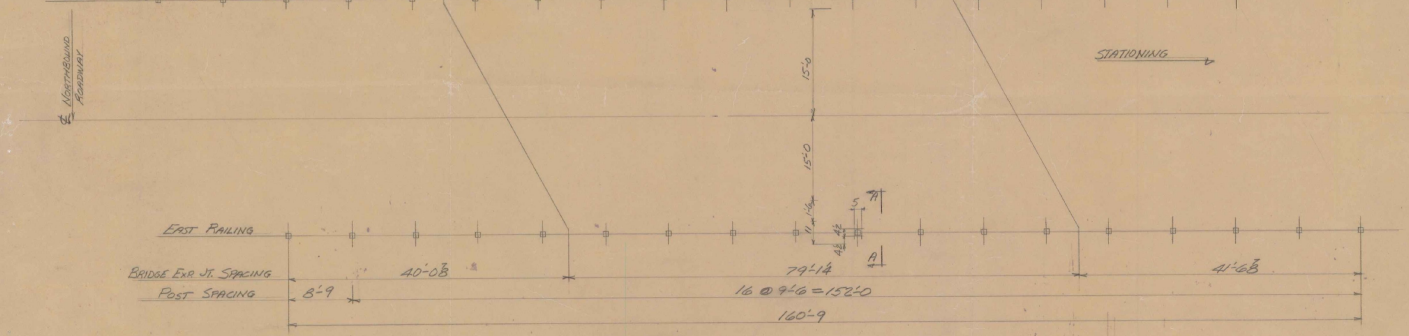
PRINT RECORD

NO.	FOR	DATE
3	App	7-28
6-0	Shop Print	8-10





TYPICAL JOINT LOCATION



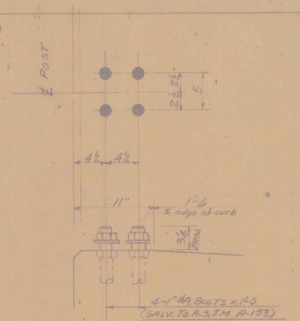
Note:
DIMENSIONS ARE SLOPE DIMENSIONS AND ON CURVE



TUBING
3"x2" STEEL RAIL A.S.T.M. A245
GRADE C. GALV. TO A.S.T.M.
SPEC. A 123-53.

BETHLEHEM STEEL CO.
STANDARD BRIDGE RAILING
AND PIECE MARKS.

DETAIL OF TUBING & TYP. SPLICE JOINTS



SECTION A-A
TYP. A.B. BOLT DETAIL

BILL OF MATERIAL

SOUTH BOUND ROADWAY	NORTH BOUND ROADWAY	NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
				WEST RAILING				
1			AA127 15/16	BRIDGE RAIL BRR10	17	2 15/16	BETH 44570	
	1		AA74 3/4		17	4 3/4		
1			AA78 7/16		7	8 7/16		
	1		AA70 1/2		7	10 1/2		
1			AA92 5/16		19	2 5/16		
	1		AA94 3/4		19	4 3/4		
2	2		AA201 1/2		20	11 1/2		
4	4		AA81 1/2		18	10 1/2		
13	13		AA81 3/4		18	11 3/4		
1	1		AA92 3/4		9	2 3/4		
1	1		AA209		20	9		
2	2		AA160 1/2		16	10 1/2		
1	1		AA112 3/4		11	2 3/4		
18	18	BAR300	BRIDGE RAIL POSTS					
6	6	BRR104	END CAPS					
18	18	BRR107	SPLICES					
6	6	BRR107A	EXP. SPLICE					
54	54	BRR106	WEDGE BOLTS					
72	72	BRR2100 1 1/2	BOLTS 1" ϕ	1	0			
144	144		1" HEX NUTS					
72	72		2" O.D. WASHER	0	7/16			
18	18	BRR101	A.B. BOLT TEMPLATE					

VERMONT STRUCTURAL STEEL CORPORATION
STA 202143(6) BURLINGTON, VT.

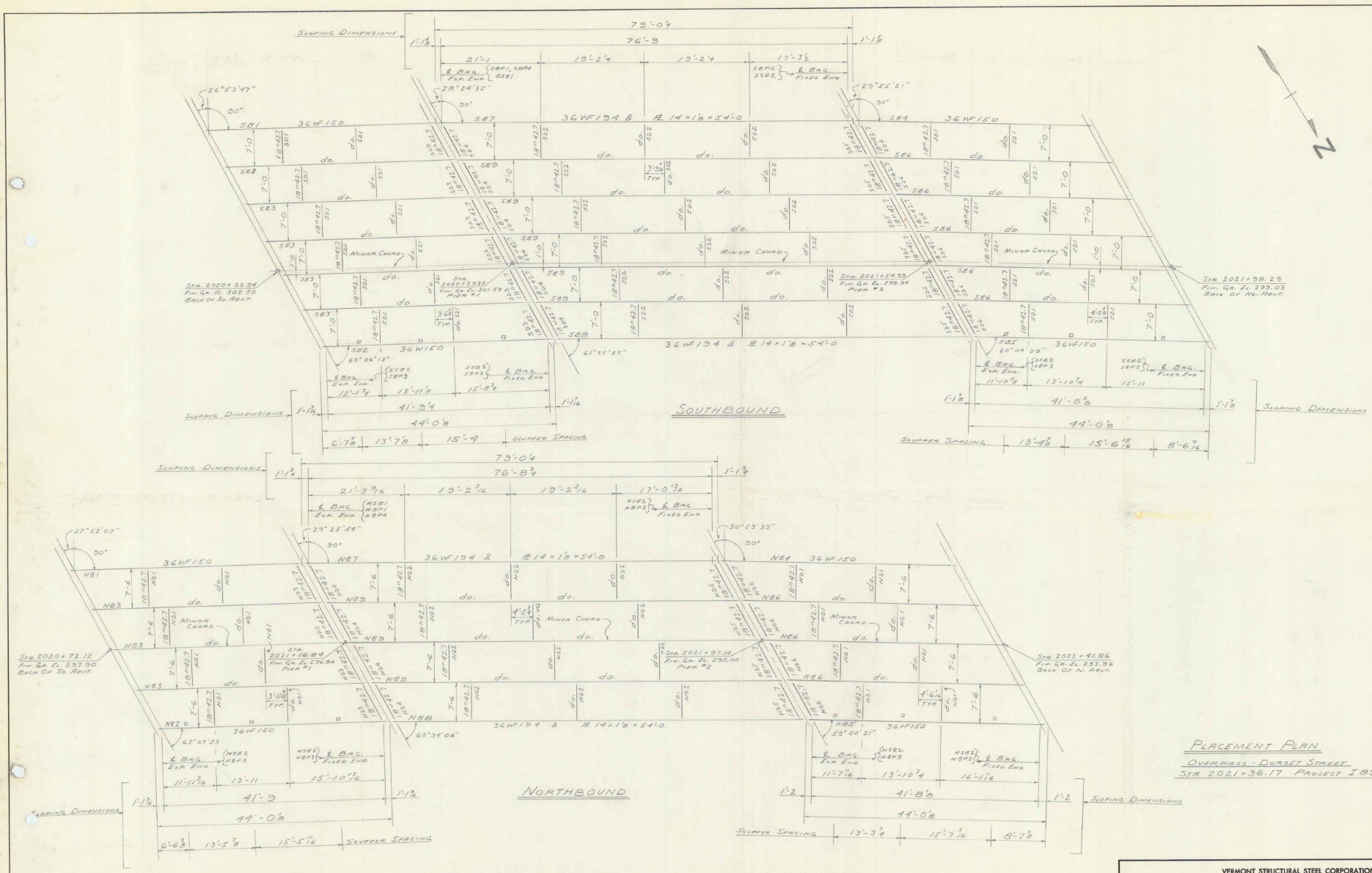
		DATE
DRAWN BY	ELL	8-5-61
CH'D BY	K.J.B.	8-3-61

PROJECT: DIERFASS DORSET STREET
LOCATION: SO. BURLINGTON, VT.
CUSTOMER: LANE CONST. CO.
ARCHITECT: STATE OF VERMONT DEPT. OF HWYS.
JOB NO. 61-398-6 SHEET NO. 28

I 89-3(14) Cont'd

PRINT RECORD

NO.	FOR	DATE
1C	CHANGE SHEET	7-19
3	APP.	8-3
1D	ORD	8-8
3	CONST	8-11
3	FAPO	9-7
3	CONST	9-13



PLACEMENT PLAN

OVERPASS - DORSET STREET

STA. 2021+36.17 PROJECT I 89-3(14) CONT. #2

VERMONT STRUCTURAL STEEL CORPORATION

BURLINGTON, VT.

REV. PER APP 8-23-61 Lek

		DATE
DRAWN BY	Lek	8-1-61
CK'D BY	K.T.	8-9-61

HOLES

RIVETS

PAINT R.L. VT. SPEC.

PROJECT OVERPASS DORSET STREET

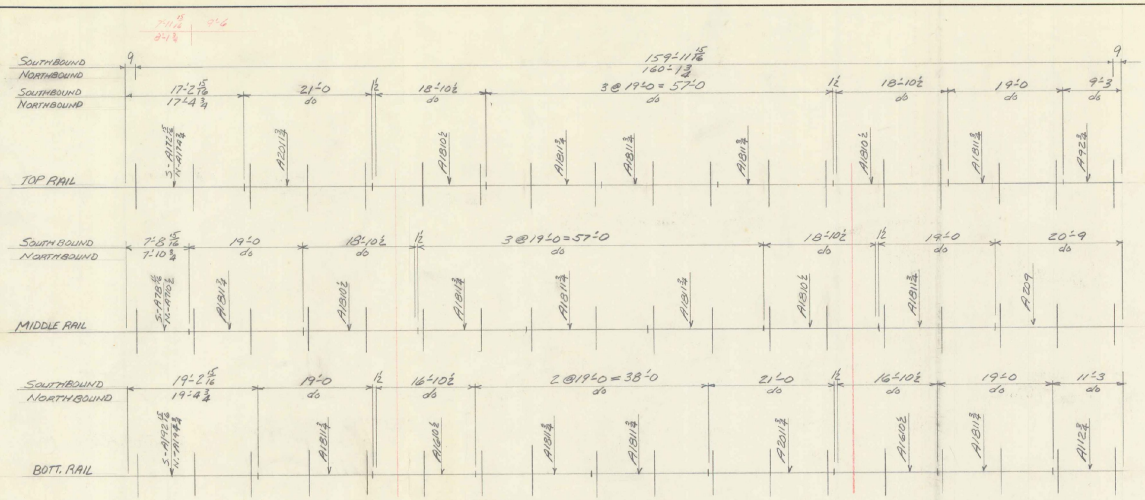
LOCATION SO. BURLINGTON, VT.

CUSTOMER LANE CONSTRUCTION CO.

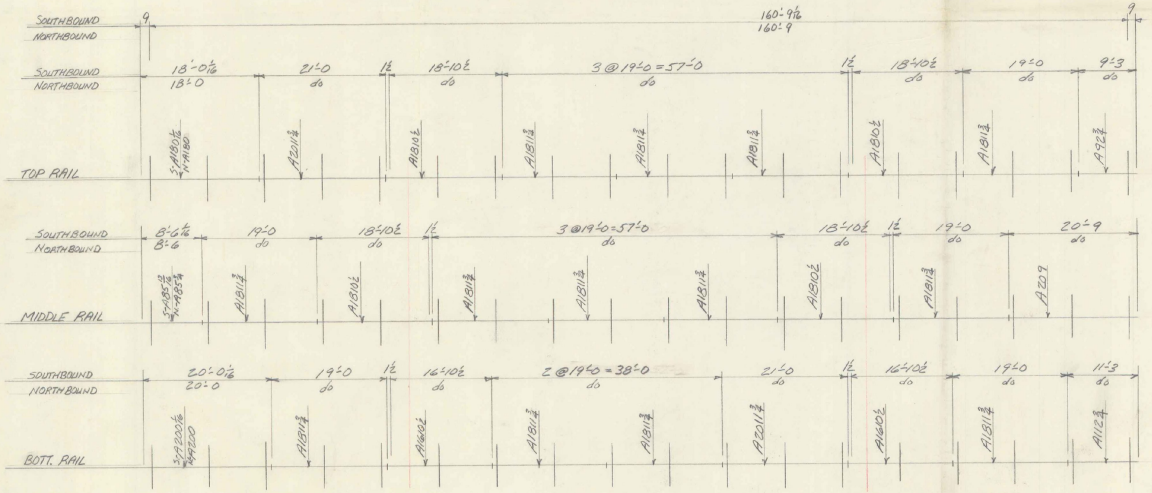
ARCHITECT ST. OF VT. - DEPT. OF HGWYS.

JOB NO. 61-398-3 SHEET NO. P2

PRINT RECORD		
NO.	FOR	DATE
3	APP	8.9
7	APP. + SHOP + FIELD	8-23
1	H.C.	10-11



WEST RAILING LOOKING EAST



EAST RAILING LOOKING WEST

BILL OF MATERIAL

SOUTH BOUND ROADWAY	NORTH BOUND ROADWAY NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
			EAST RAILING				
1		A180 1/16	BRIDGE RAIL BRR110	18	0 1/16	BETH 4x512	
	1	A180		18	0		
1		A85 13/16		8	5 9/16		
	1	A85 3/4		8	5 3/4		
1		A200 1/16		20	0 1/16		
	1	A200		20	0		
2	2	A2011 3/4		20	11 3/4		
4	4	A1810 1/2		18	10 1/2		
13	13	A1811 3/4		18	11 3/4		
1	1	A92 3/4		9	2 3/4		
1	1	A209		20	9		
2	2	A1610 1/2		16	10 1/2		
1	1	A112 3/4		11	2 3/4		
18	18	BRR300	BRIDGE RAIL POSTS				
6	6	BRR104	END CAPS				
18	18	BRR107	SPLICE				
6	6	BRR107A	EXP. SPLICE				
54	54	BRR106	WEDGE BOLTS				
72	72	BRR105 1x12	BOLT 1"	1	0		
144	144		1" HEX NUTS				
72	72		2" O.D. WASHER	0	11/64		
18	18	BRR101	19 BOLT TEMPLATE				

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

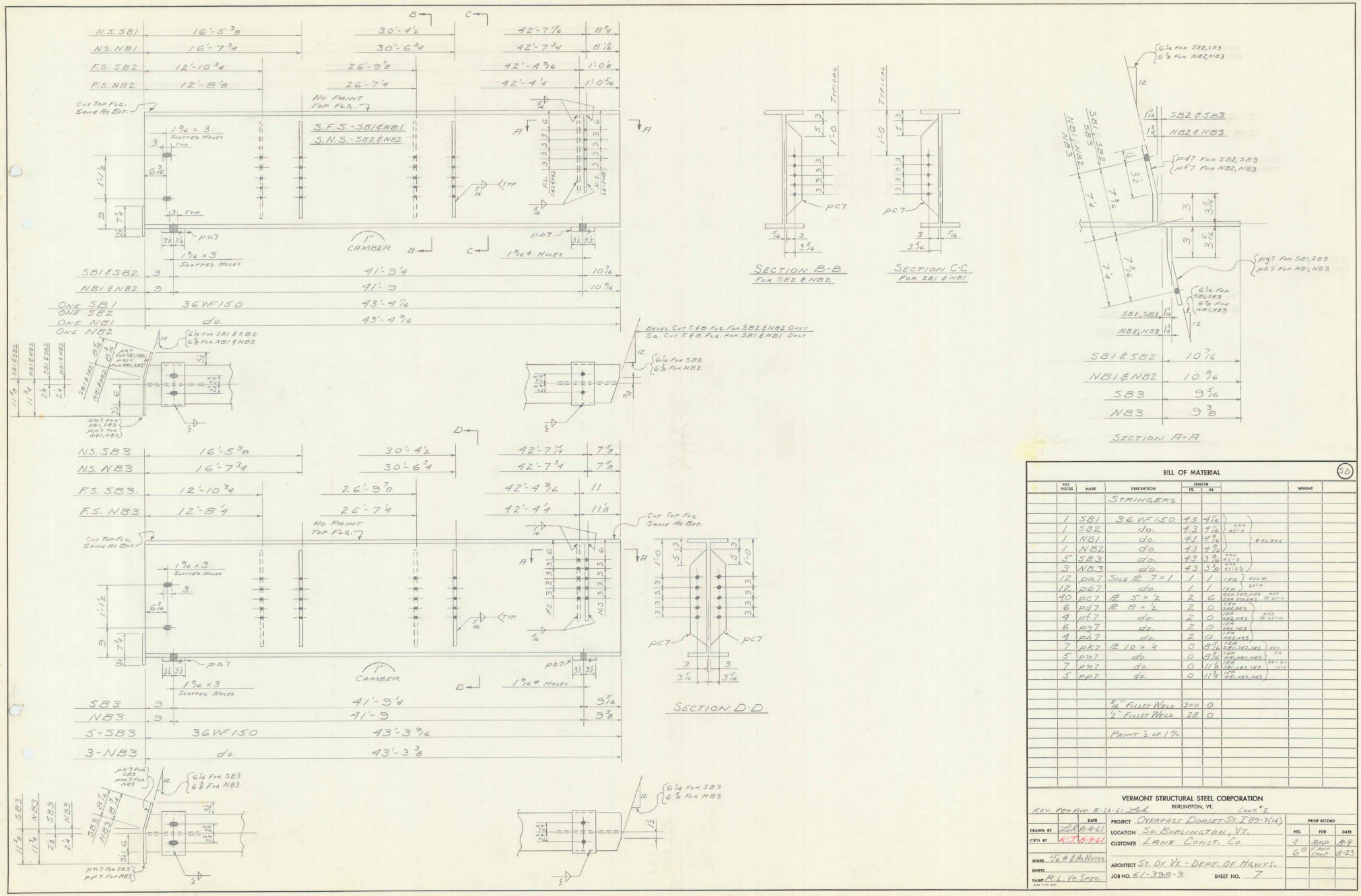
STA 2021+36.17 I89-8(14) CONT #2

		DATE
DRAWN BY	ELL	8-2-61
CK'D BY	K.T.	8-3-61

HOLES
RIVETS
PAINT
2500 11-58 DCP

PROJECT OVERPASS DORSET STREET
LOCATION SO. BURLINGTON VERMONT
CUSTOMER LANE CONST. CO.
ARCHITECT STATE OF VERMONT DEPT OF HWYS
JOB NO. 61-398-6 SHEET NO. 2 6/6

PRINT RECORD NO.	FOR	DATE
3	APP	8-3
1	ORD	8-8
3	COUT	8-11
3	FAIRD	9-7
3	[illegible]	9-13



BILL OF MATERIAL

(5D)

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		STRINGERS				
1	SB1	36 WF 150	43	4 11/16	ORD 43'-4	
1	SB2	do.	43	4 11/16		
1	NB1	do.	43	4 9/16	846946	
1	NB2	do.	43	4 9/16		
5	SB3	do.	43	3 9/16	ORD 43'-3	
3	NB3	do.	43	3 3/8	ORD 43'-2 3/4	
12	pa7	Sole PL 7 × 1	1	1	1 EA } RES @ 20'-0	
12	pb7	do.	1	1	1 EA	
40	pc7	PL 5 × 1/2	2	6	4 EA SB3, NB3 2 EA OTHERS } RES @ 20'-0	
6	pd7	PL 8 × 1/2	2	0	1 EA SB2, SB3	
4	pf7	do.	2	0	1 EA NB2, NB3 } RES @ 20'-0	
6	pg7	do.	2	0	1 EA SB1, SB3	
4	ph7	do.	2	0	1 EA NB1, NB3	
7	pk7	PL 10 × 1/4	0	8 5/16	1 EA SB1, SB2, SB3 } RES	
5	pm7	do.	0	8 3/16	1 EA NB1, NB2, NB3 } FR	
7	pn7	do.	0	11 5/8	1 EA SB1, SB2, SB3 } 40 × 20 10'-0	
5	pp7	do.	0	11 3/4	1 EA NB1, NB2, NB3	
		5/16" Fillet Weld	300	0		
		1/2" Fillet Weld	28	0		
		Paint 1/2 of 1%				

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

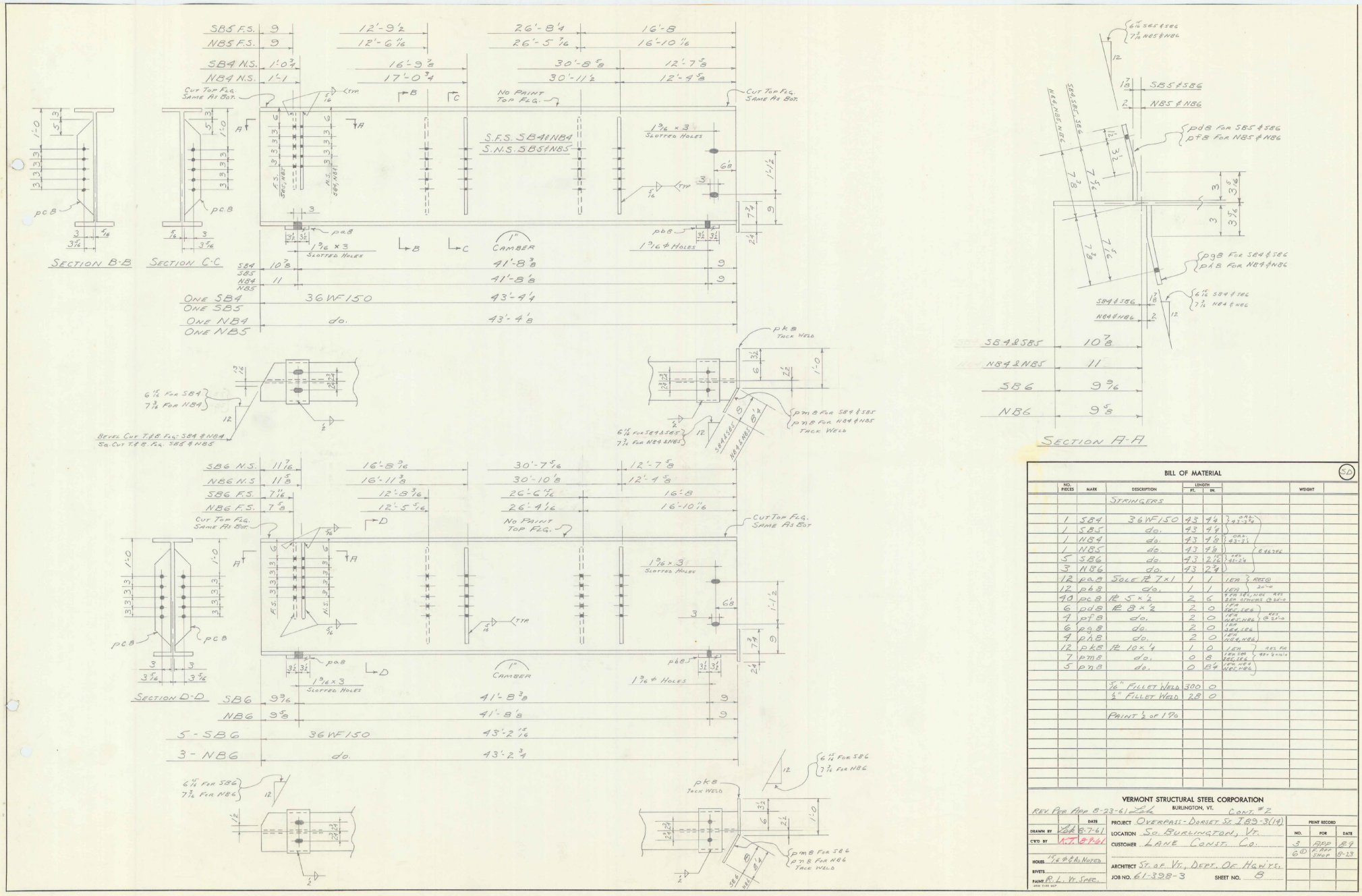
REV. PER APP 8-23-61 Lch CONT. #2

		DATE
DRAWN BY	Lch	8-4-61
CK'D BY	K.T.	8-9-61

HOLES 15/16 ϕ & As Noted
RIVETS
PAINT R.L. Vt. Spec.

PROJECT Overpass Dorset St. I 89-3(14)
LOCATION So. Burlington, Vt.
CUSTOMER Lane Const. Co.
ARCHITECT St. Of Vt. - Dept. Of Hgwys.
JOB NO. 61-398-3 SHEET NO. 7

PRINT RECORD		
NO.	FOR	DATE
3	APP	8-9
6 (1)	F. APP SHOP	8-23



BILL OF MATERIAL

(SD)

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		STRINGERS				
1	SB4	36WF150	43	4 1/4	ORD. 43-3 3/4	
1	SB5	do.	43	4 1/4		
1	NB4	do.	43	4 1/8	ORD. 43-3 1/8	
1	NB5	do.	43	4 1/8		846746
5	SB6	do.	43	2 15/16	ORD. 43-2 1/4	
3	NB6	do.	43	2 3/4		
12	pa8	SOLE PL 7x1	1	1	1 EA } REQ 20'-0	
12	pb8	do.	1	1	1 EA	
40	pc8	PL 5 x 1/2	2	6	4 EA SB6, NB6 REQ 2 EA OTHERS @ 20'-0	
6	pd8	PL 8 x 1/2	2	0	1 EA SB5, SB6 } REQ @ 20'-0	
4	pf8	do.	2	0	1 EA NB5, NB6	
6	pg8	do.	2	0	1 EA SB4, SB6	
4	ph8	do.	2	0	1 EA NB4, NB6	
12	pk8	PL 10 x 1/4	1	0	1 EA } REQ FOR 48 x 1/4 x 10'-0	
7	pm8	do.	0	8	1 EA SB4, SB5, SB6	
5	pn8	do.	0	8 1/4	1 EA NB4, NB5, NB6	
		5/16" FILLET WELD	300	0		
		1/2" FILLET WELD	28	0		
		PAINT 1/2 OF 1%				

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

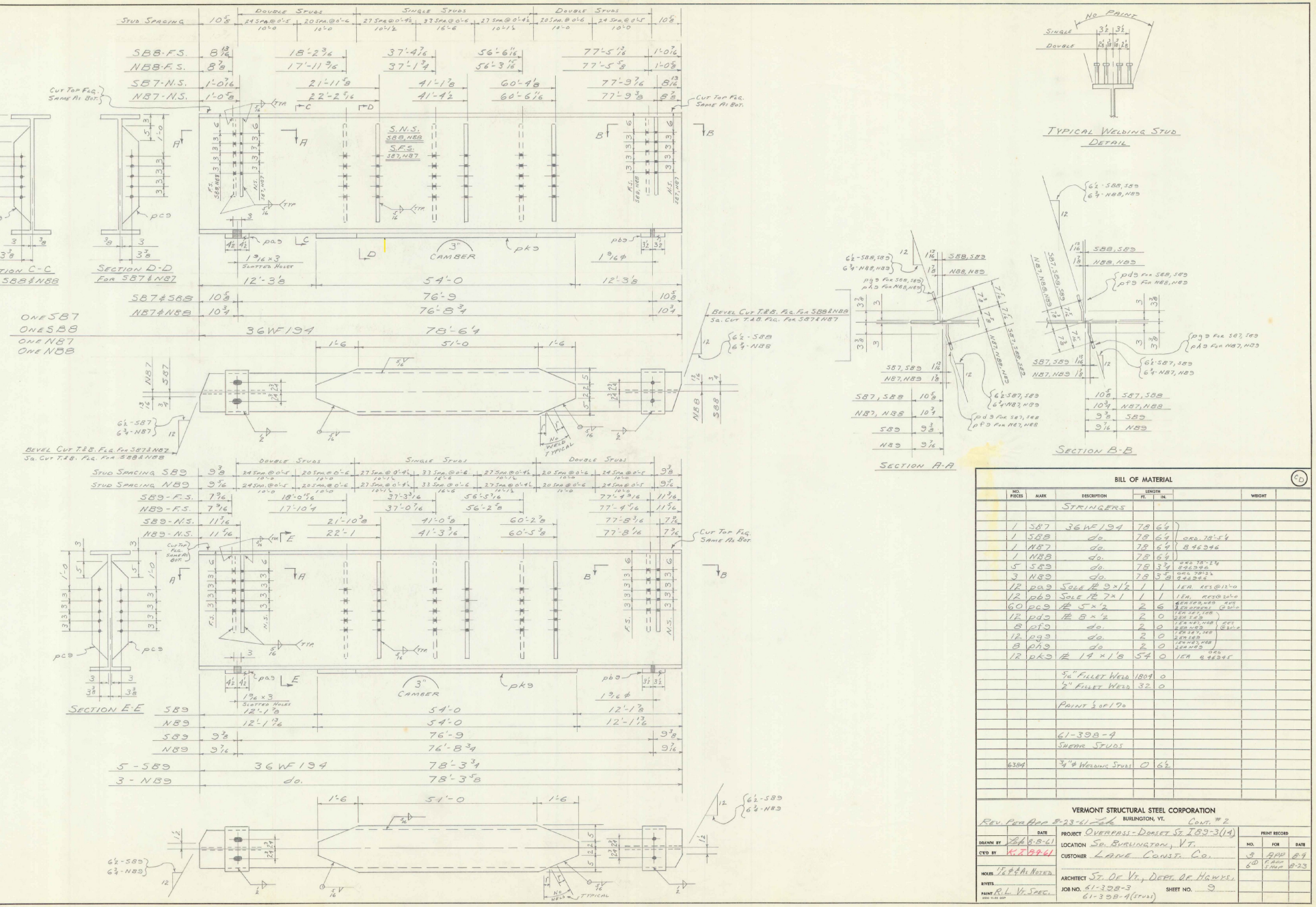
REV. PER APP 8-23-61 Lak CONT. #2

		DATE
DRAWN BY	Lak	8-7-61
CK'D BY	K.T.	8-9-61

HOLES 15/16 ϕ & AS NOTED
RIVETS
PAINT R.L. VT. SPEC.

PROJECT OVERPASS - DORSET ST. I 89-3(14)
LOCATION SO. BURLINGTON, VT.
CUSTOMER LANE CONST. CO.
ARCHITECT ST. OF VT., DEPT. OF HGWYS.
JOB NO. 61-398-3 SHEET NO. 8

PRINT RECORD NO.	FOR	DATE
3	APP	8-9
6 (1)	F. APP SHOP	8-23



BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.	WEIGHT
		STRINGERS			
1	SB7	36WF194	78	6 1/4	
1	SB8	do.	78	6 1/4	ORD. 78'-5 1/4
1	NB7	do.	78	6 1/4	B 46946
1	NB8	do.	78	6 1/4	
5	SB9	do.	78	3 3/4	ORD 78'-2 3/4 B46946
3	NB9	do.	78	3 5/8	ORD 78'-2 1/2 B46946
12	pa9	Sole PL 9×1 1/2	1	1	1 EA. RES @ 12'-0
12	pb9	Sole PL 7×1	1	1	1 EA. RES @ 20'-0
60	pc9	PL 5×1/2	2	6	6 EA SB9, NB9 RES 3 EA OTHERS @ 20'-0
12	pd9	PL 8×1/2	2	0	1 EA SB7, SB8 2 EA SB9
8	pf9	do.	2	0	1 EA NB7, NB8 2 EA NB9 RES @ 20'-0
12	pg9	do.	2	0	1 EA SB7, SB8 2 EA SB9
8	ph9	do	2	0	1 EA NB7, NB8 2 EA NB9
12	pk9	PL 14×1/8	54	0	1 EA ORD B 46945
		5/16" Fillet Weld	1804	0	
		1/2" Fillet Weld	32	0	
		Paint 1/2 of 1%			
		61-398-4			
		Shear Studs			
6384		3/4"φ Welding Studs	0	6 1/2	

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

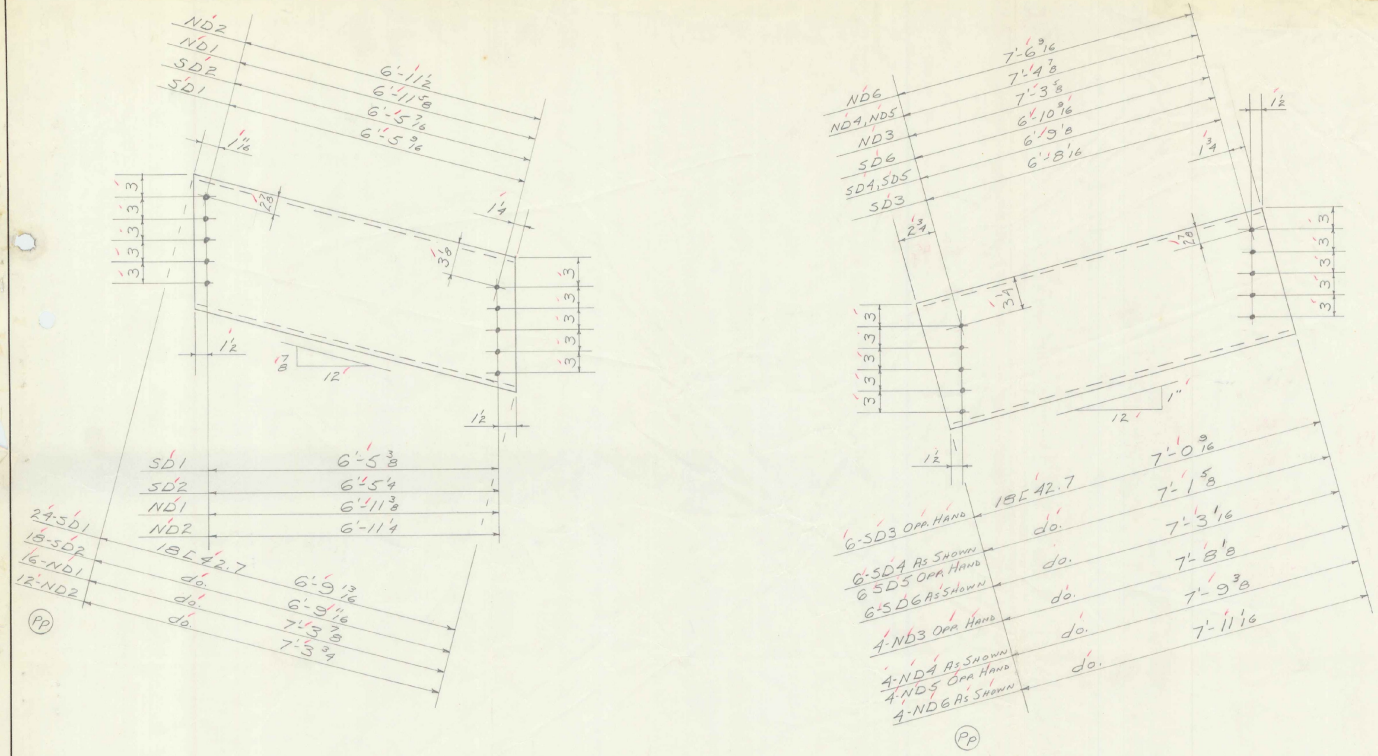
Rev. Per App 8-23-61 Lok — Cont. # 2

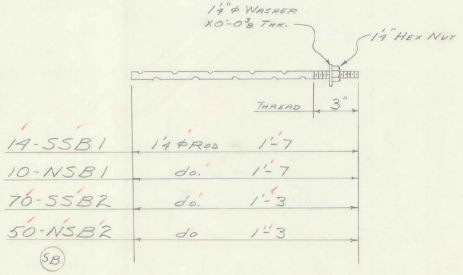
		DATE
DRAWN BY	Lok	8-8-61
CK'D BY	K.J.	8-9-61

HOLES 15/16 φ & As Noted
RIVETS
PAINT R.L. Vt. Spec.

PROJECT Overpass - Dorset St. I 89-3(14)
LOCATION So. Burlington, Vt.
CUSTOMER Lane Const. Co.
ARCHITECT St. Of Vt., Dept. Of Hgwys.
JOB NO. 61-398-3, 61-398-4 (Studs)
SHEET NO. 9

PRINT RECORD		
NO.	FOR	DATE
3	APP	8-9
6	F. App. S. Hop	8-23





BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		DIAPHRAGMS			(PH)	
24	SD1	18E 42.7	6'	9 13/16"	±	
18	SD2	do.	6'	9 1/16"	±	
16	ND1	do.	7'	3 7/8"	±	
12	ND2	do.	7'	3 3/4"	±	
6	SD3	do.	7'	0 9/16"		
6	SD4	do.	7'	1 5/8"		REF @ SC/SD
6	SD5	do.	7'	1 5/8"		
6	SD6	do.	7'	3 1/16"		
4	ND3	do.	7'	8 1/8"		
4	ND4	do.	7'	9 3/8"		
4	ND5	do.	7'	9 3/8"		
4	ND6	do.	7'	11 1/16"		
		SWEDGE BOLTS			(SB)	
14	SSB1	1 1/4" ϕ ROD	1'	7"		
10	NSB1	do.	1'	7"		REF @ 40'-0
70	SSB2	do.	1'	3"		
50	NSB2	do.	1'	3"		
144		1 1/4" ϕ WASHERS X	0	0 3/8"		
144		1 1/4" HEX NUTS				

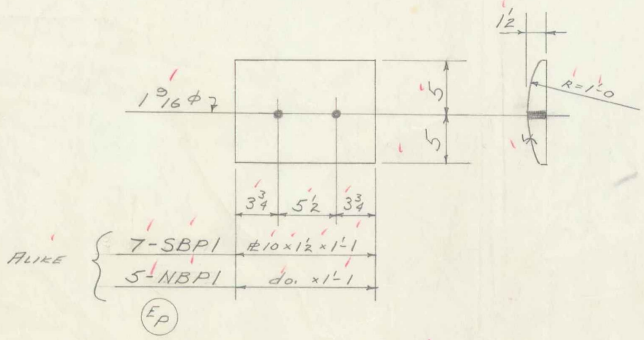
VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

CONT. #2

		DATE
DRAWN BY	Zek	8-8-61
CK'D BY	K.T.	8-9-61
HOLES	1" 5/16 ϕ	
RIVETS		
PAINT	R.L. VT SPEC	

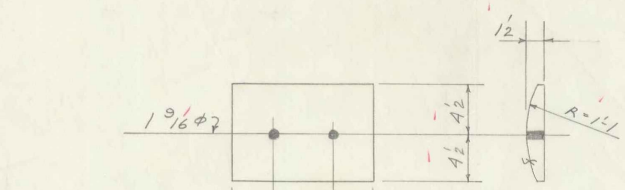
PROJECT OVERPASS DORSET ST. FBD-3(14)
LOCATION So. BURLINGTON, VT.
CUSTOMER LANE CONST. CO.
ARCHITECT ST. OF VT., DEPT. OF H'WY'S
JOB NO. 61-398-3 SHEET NO. 10

PRINT RECORD		
NO.	FOR	DATE
3	APP	8-9
3(1)	SHOP	8-23



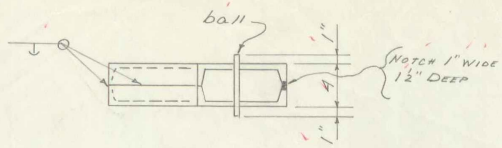
ALIKE	7-SBP1	℄10×1½×1'-1
	5-NBP1	do. ×1'-1

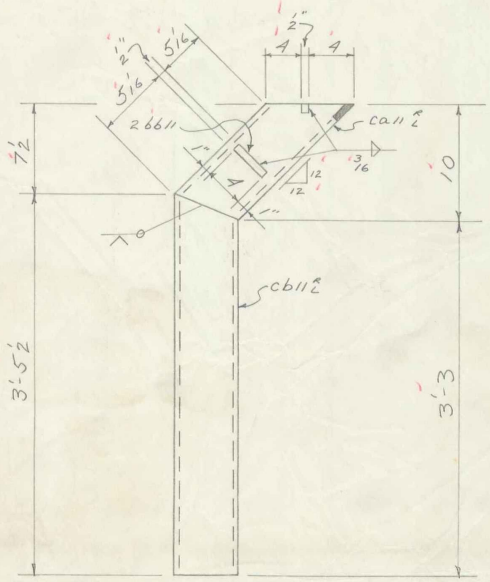
(Ep)



SBP2, NBP2	3¾	5½ 3¾
SBP3, NBP3	1¼	5½ 1¼
ALIKE 7-SBP2	℄9×1½×1'-1	
ALIKE 5-NBP2	℄9×1½×1'-1	
ALIKE 28-SBP3	℄9×1½×0'-8	
ALIKE 20-NBP3	℄9×1½×0'-8	

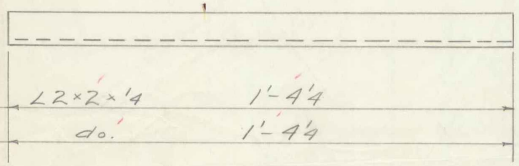
(Bp)





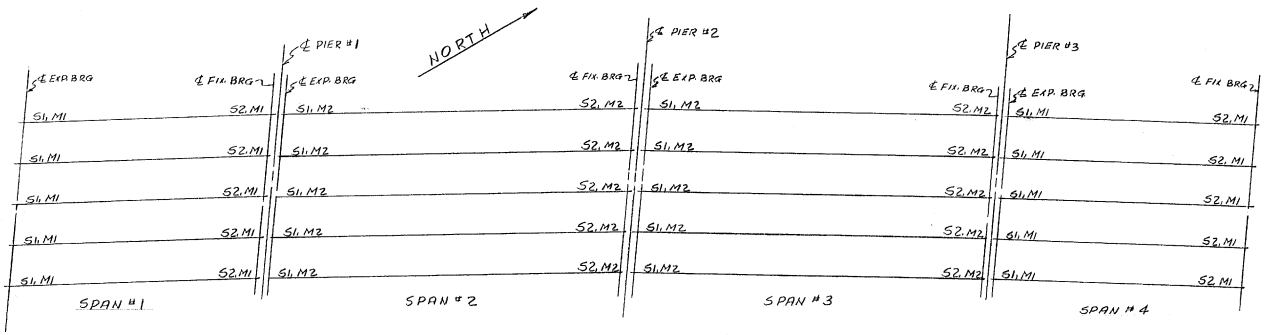
ALIKE { 6 SCUPPERS SS1 / 6 SCUPPERS NS1 }

(S)

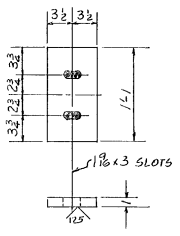


ALIKE	6-SSA1	L2×2×¼	1'-4¼
	6-NSA1	do.	1'-4¼

(A)

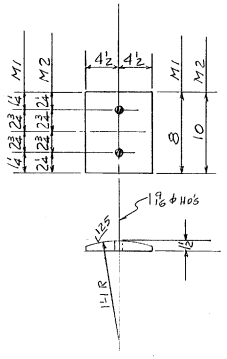


LOCATION PLAN



S1 - 20 REQ'D

S2 - 20 REQ'D



M1 - 20 REQ'D
M2 - 20 REQ'D

MARK	NO.	MATERIAL	REMARKS	WEIGHT
		20 SOLE PL's	S1	
	20	PL 7 x 1 x 1'-1	ASTM A373	
		20 SOLE PL's	S2	
	20	PL 7 x 1 x 1'-1	ASTM A373	
		20 MASONRY PL's	M1	
	20	PL 9 x 1½ x 0'-8	ASTM A7	
		20 MASONRY PL's	M2	
	20	PL 9 x 1½ x 0'-10	ASTM A7	

NOTE: S PL's - NO PAINT
M PL's - PAINT BOTTOM & EDGES ONLY
PAINT PER STD. SPECS. STATE OF VERMONT
PAR 404.03B

PROJ. NO. I-89-3(14)

BOLTS
OPEN HOLES
PAINT
REVISIONS

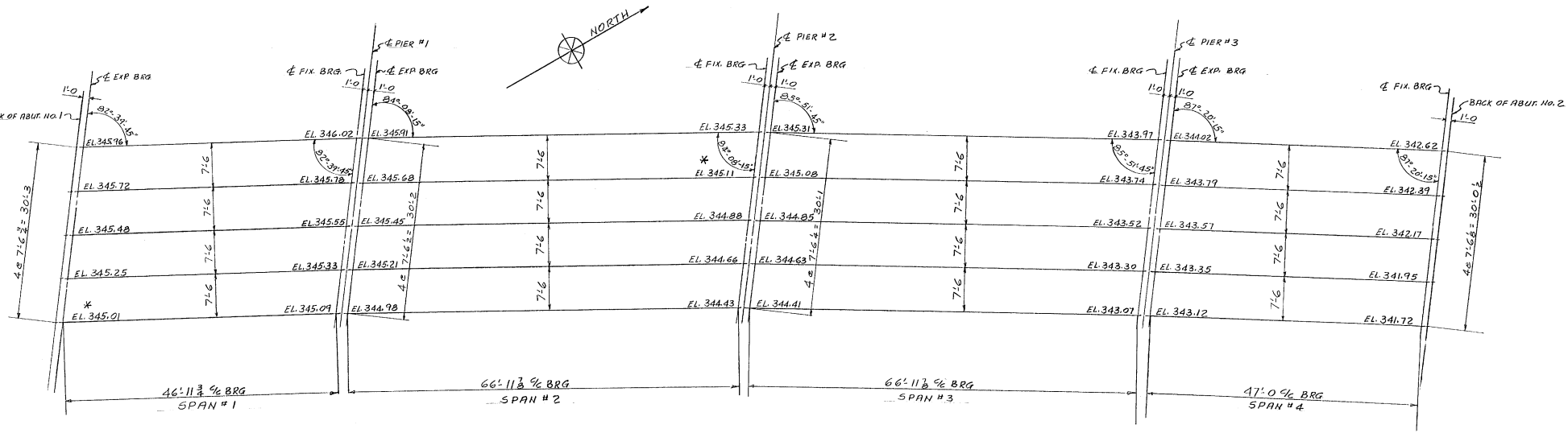
CITY IRON WORKS Inc.,
P. O. BOX 147 WETHERSFIELD, CONN.

UNDERPASS STA. 1896+70.86
BROWNELL ROAD
WILLISTON, SO. BURLINGTON, VERMONT

MADE BY A.S. CHECKED BY F.K. DATE 7-8-61
APPROVED SCALE

S.O. 1389B SHEET NO. P1,

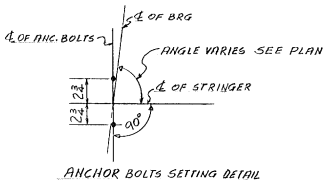
FORM 24-2 JOSEPH HERBERT & CO. NO. 1955



ANCHOR BOLT SETTING PLAN

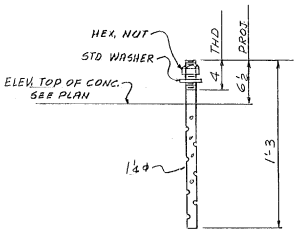
ALL DIMENSIONS ARE HORIZONTAL

* ENG'R & CONTR. PLEASE NOTICE ELEVATION IN SPAN # 1 & ELEVATION IN SPAN # 2

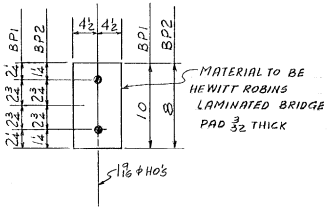


ANCHOR BOLTS SETTING DETAIL

MARK	NO	MATERIAL	REMARKS	WGT
AB1	80	1 1/4 ϕ x 1'-3 SWEDGE BOLT		
	80	1 1/4 ϕ HEX. NUTS		
	80	1 1/4 ϕ STD. WASHERS		
BP1	20	BRG. PAD 9 x 3/32 x 0'-10		
BP2	20	BRG. PAD 9 x 3/32 x 0'-8		



AB1 - 80 REQ'D



BP1 - 20 REQ'D (FOR SPAN # 2 & SPAN # 3)
BP2 - 20 REQ'D (FOR SPAN # 1 & SPAN # 4)

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

BOLTS
OPEN HOLES
PAINT

REVISIONS

7-24-61	ENGR'S COMMENTS

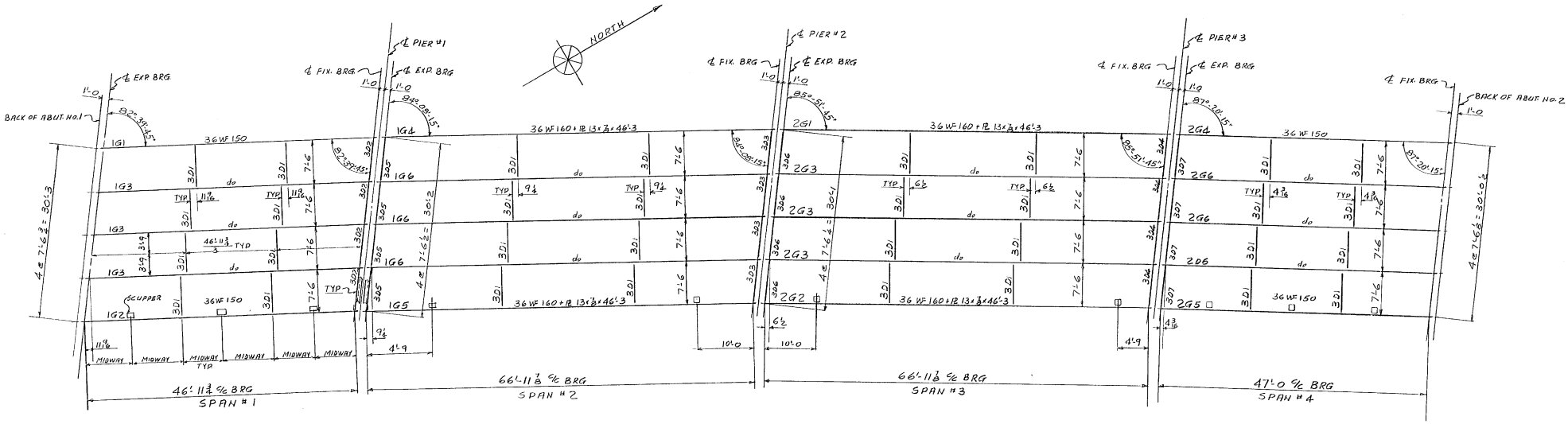
CITY IRON WORKS, Inc.
P. O. BOX 147 WETHERSFIELD, CONN.

UNDERPASS STA. 1896+70.86
BROWNELL ROAD
WILLISTON & SO. BURLINGTON, VERMONT

MADE BY A.S. CHECKED BY F.K. DATE 7-7-61
APPROVED SCALE

S.O. 1389B SHEET NO. E1

FORM 244 JOSEPH MERRITT & CO. NO. 1285



STEEL FRAMING PLAN

1. ALL DIMENSIONS ARE HORIZONTAL
2. ALL DIAPHRAGMS ARE 18C42.7
3. CONN. BOLTS ARE 7/8 ϕ HIGH STRENGTH
4. FOR GIRDERS TO HAVE PL'S FIELD WELDED CONTR. TO SEE DETAIL SHEETS 1 OF 3 & 2 OF 3
5. FOR METHOD OF TIGHTENING HIGH STRENGTH BOLTS SEE C.I.W. SHEET #B1
6. FOR TORQUE & TENSION REQ'D FOR HIGH STRENGTH BOLTS SEE C.I.W. SHEET #B2

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

BOLTS	
OPEN HOLES	
PAINT	
REVISIONS	
7-24-61	ENGR'S COMMENTS

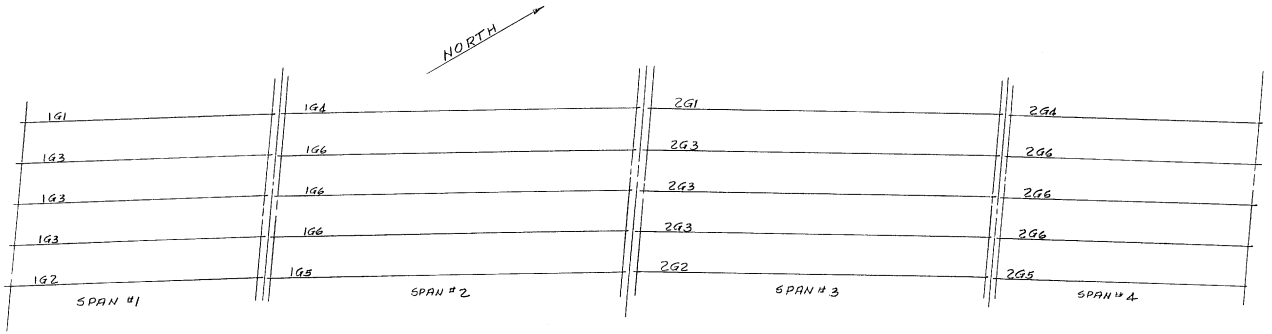
CITY IRON WORKS, Inc.
P. O. BOX 147 WETHERSFIELD, CONN.

UNDERPASS STA. 1896+70.86
BROWNELL ROAD
WILLISTON, SO. BURLINGTON, VERMONT

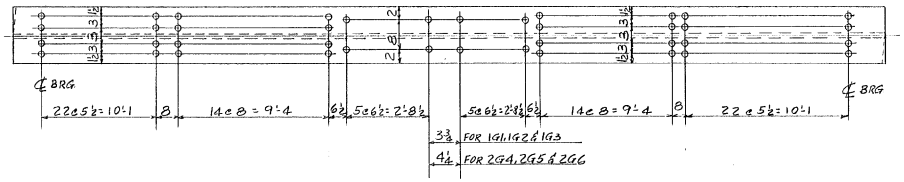
MADE BY A.S. CHECKED BY F.K. DATE 7-8-61
APPROVED SCALE

S.O. 1389 B SHEET NO. E2

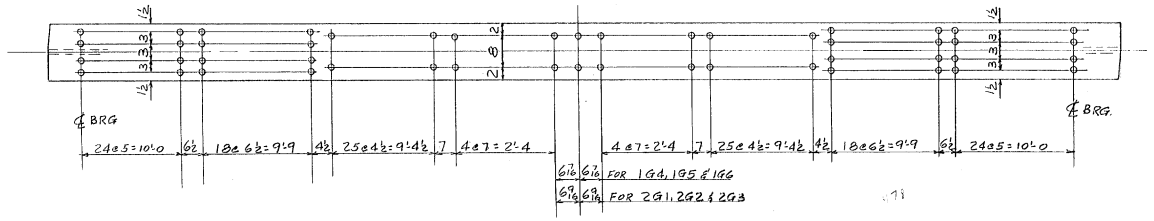
FORM 2-61 JOSEPH MERRITT & CO. NO. 1881



LOCATION PLAN



STUD SPACING PLAN FOR 1G1, 1G2, 1G3, 2G4, 2G5 & 2G6



STUD SPACING PLAN FOR 1G4, 1G5, 1G6, 2G1, 2G2 & 2G3

TOTAL NO OF ¾ Ø x 6½ STUDS REQ'D = 8060
STUDS TO BE PUT ON IN THE SHOP

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

BOLTS
OPEN HOLES
PAINT

REVISIONS	
7-24-61	ENGR'S COMMENTS

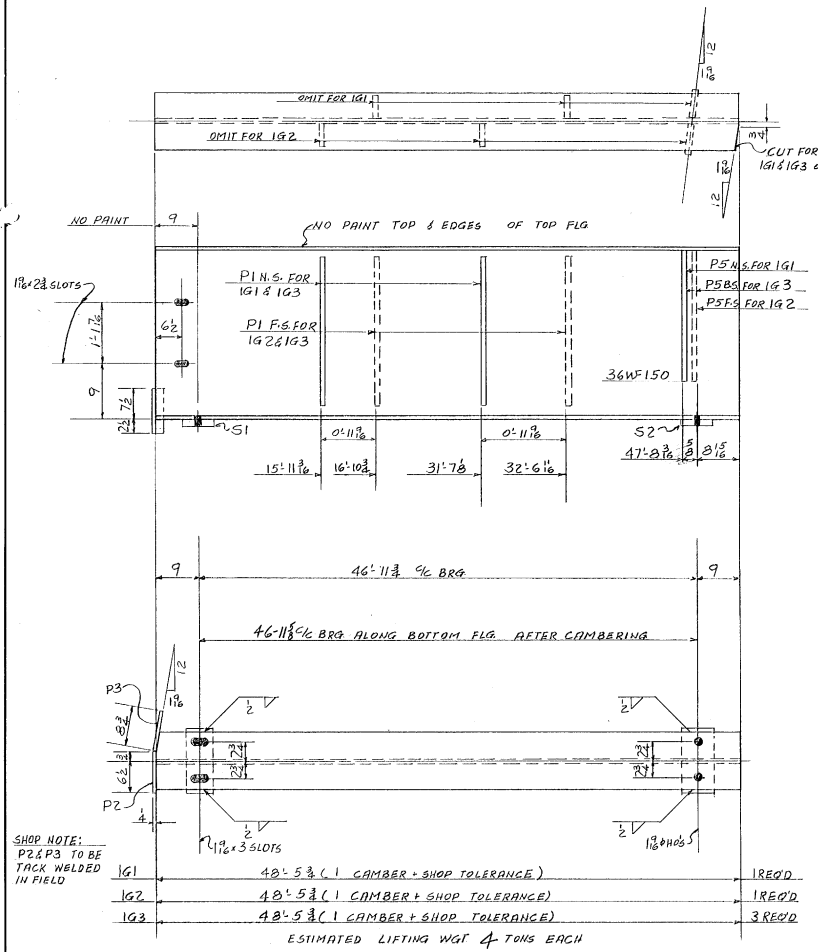
CITY IRON WORKS, Inc.
P. O. BOX 147 WETHERSFIELD, CONN.

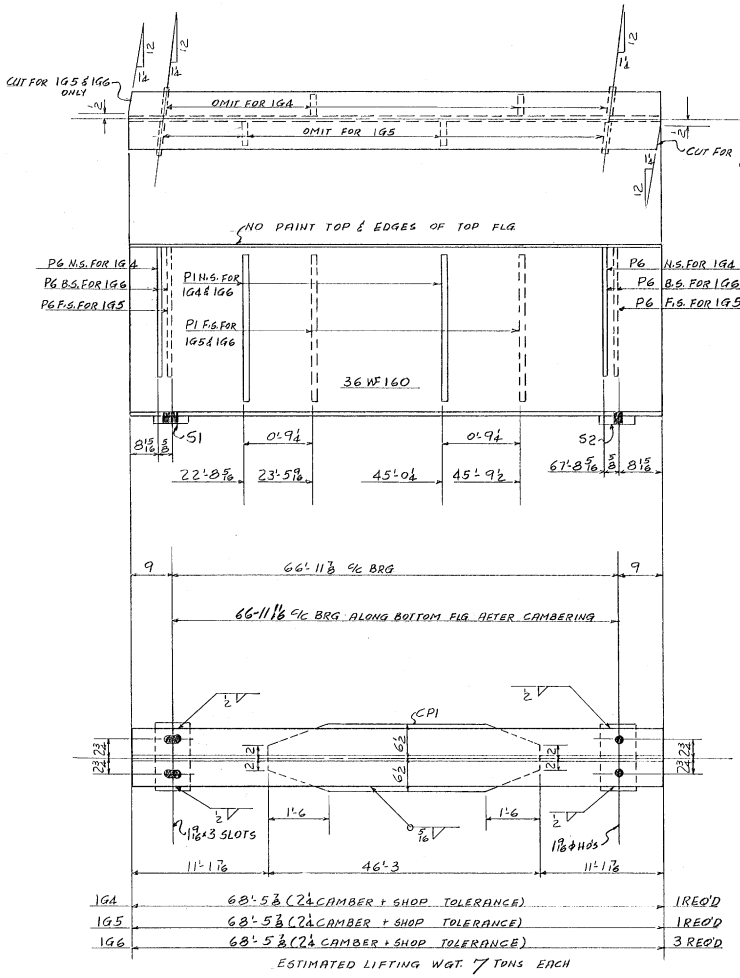
UNDERPASS STA 1896+70.86
BROWNELL ROAD
WILLISTON, SO. BURLINGTON, VERMONT

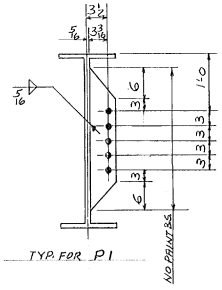
MADE BY A.S. CHECKED BY F.K. DATE 7-10-61
APPROVED SCALE

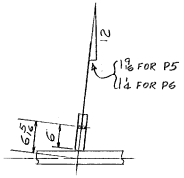
S.O. 1389B SHEET NO. E3

FORM 241 JOSEPH MERRITT & CO. NO. 1895

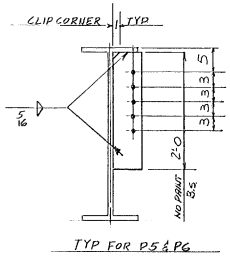








DETAIL OF P5 & P6



TYP FOR P5 & P6

MARK	NO.	MATERIAL	REMARKS	WEIGHT
		1 GIRDER	1G1	
	1	36WF150 x 48'-5⅜		
P1	2	PL 5 x ½ x 2'-6		
P2	1	PL 10 x ¼ x 0'-7½	SHIP	
P3	1	PL 10 x ¼ x 0'-8⅜	LOOSE	
P5	1	PL 8 x ½ x 2'-0		
		1 GIRDER	1G2	
	1	36WF150 x 48'-5⅜		
P1	2	PL		
P2	1	PL		
P3	1	PL		
P5	1	PL		
		3 GIRDERS	1G3	
	3	36WF150 x 48'-5⅜		
P1	12	PL		
P2	3	PL		
P3	3	PL		
P5	6	PL		
		1 GIRDER	1G4	
	1	36WF160 x 68'-5⅜		
CP1	1	PL 13 x ⅞ x 46'-3		
P1	2	PL		
P6	2	PL 8 x ½ x 2'-0		
		1 GIRDER	1G5	
	1	36WF160 x 68'-5⅜		
CP1	1	PL		
P1	2	PL		
P6	2	PL		
		3 GIRDERS	1G6	
	3	36WF160 x 68'-5⅜		
CP1	3	PL		
P1	12	PL		
P6	12	PL		
ALL		MAT'L ASTM A373		

NOTE: ALL DIM. ARE ALONG CTR OF GRAVITY U.N.
PAINT PER STD SPECS. STATE OF VERMONT
PAR 401.03B

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

BOLTS
OPEN HOLES 1⅝ ø U.N.
PAINT SEE NOTE

REVISIONS	
7-24-61	ENGR'S COMMENTS

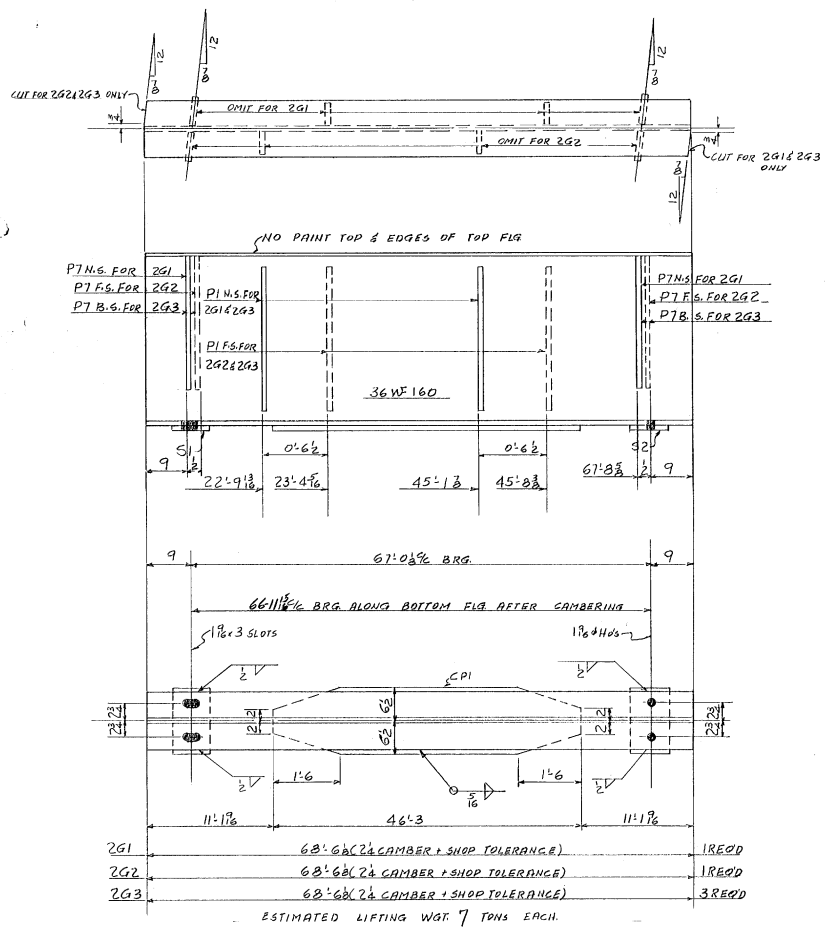
CITY IRON WORKS Inc.,
P. O. BOX 147 WETHERSFIELD, CONN.

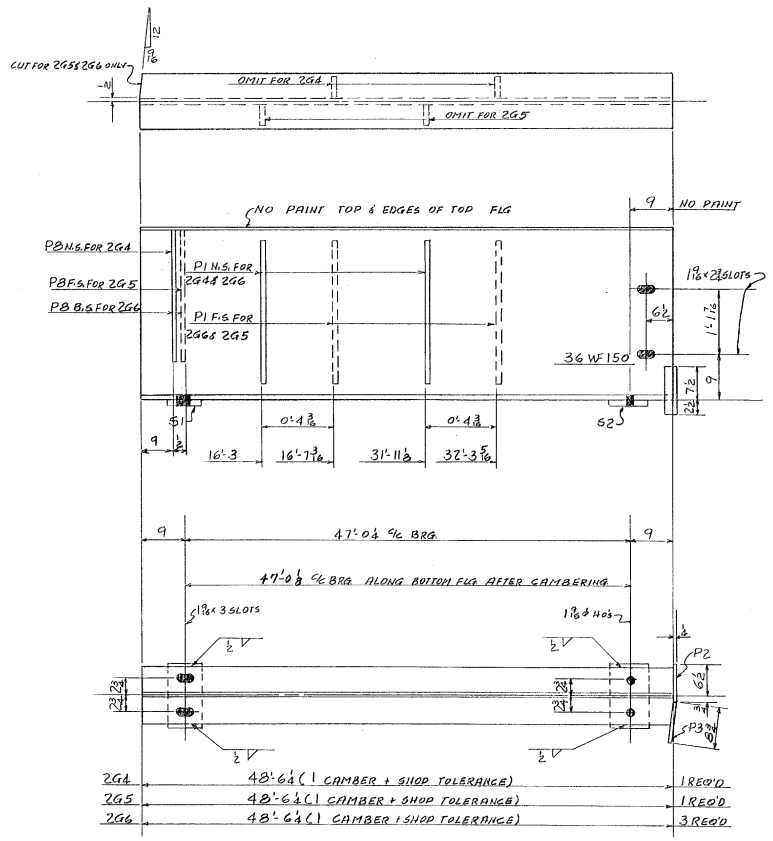
UNDERPASS STA 1896+70.86
BROWNELL ROAD
WILLISTON & SO. BURLINGTON, VERMONT

MADE BY A.S. CHECKED BY F.K. DATE 7-10-61
APPROVED SCALE

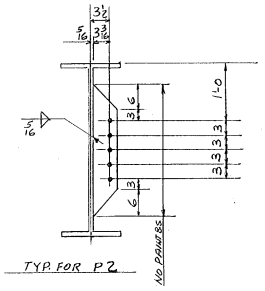
S.O. 1389B SHEET NO. 1 OF 3

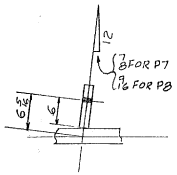
FORM 66-2 JOSEPH MERRITT & CO. NO. 1925

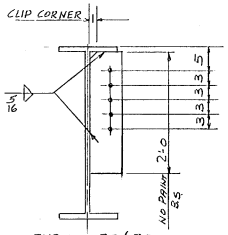




SHOP NOTE: P2 & P3 TO BE TACK WELDED IN FIELD







MARK	NO.	MATERIAL	REMARKS	WEIGHT
		1 GIRDER	2G1	
	1	36WF160 x 68'-6½		
CP1	1	PL 13 x ⅞ x 46'-3		
P1	2	PL 5 x ½ x 2'-6		
P7	2	PL 8 x ½ x 2'-0		
		1 GIRDER	2G2	
	1	36WF160 x 68'-6½		
CP1	1	PL		
P1	2	PL		
P7	2	PL		
		3 GIRDERS	2G3	
	3	36WF160 x 68'-6½		
CP1	3	PL		
P1	12	PL		
P7	12	PL		
		1 GIRDER	2G4	
	1	36WF150 x 48'-6¼		
P1	2	PL		
P2	1	PL 10 x ¼ x 0'-7½	SHIP	
P3	1	PL 10 x ½ x 0'-8⅜	LOOSE	
P8	1	PL 8 x ½ x 2'-0		
		1 GIRDER	2G5	
	1	36WF150 x 48'-6¼		
P1	2	PL		
P2	1	PL		
P3	1	PL		
P8	1	PL		
		3 GIRDERS	2G6	
	3	36WF150 x 48'-6¼		
P1	12	PL		
P2	3	PL		
P3	3	PL		
P8	6	PL		
ALL MAT'L ASTM A 373				

NOTE: ALL DIM. ARE ALONG CTR. OF GRAVITY U.N.
PAINT PER STD SPEC. STATE OF VERMONT PAR. 404.03B

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

BOLTS
OPEN HOLES 1 3/16 ø U.N.
PAINT SEE NOTE

REVISIONS

7-24-61	ENGR'S COMMENTS

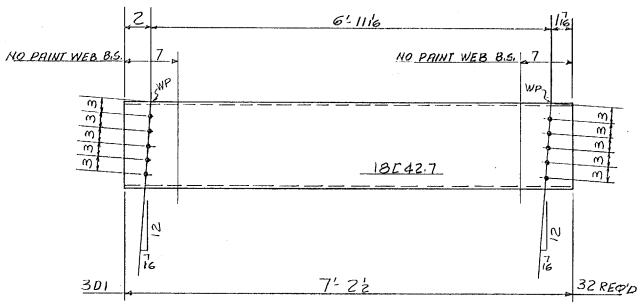
CITY IRON WORKS Inc.,
P. O. BOX 147 WETHERSFIELD, CONN.

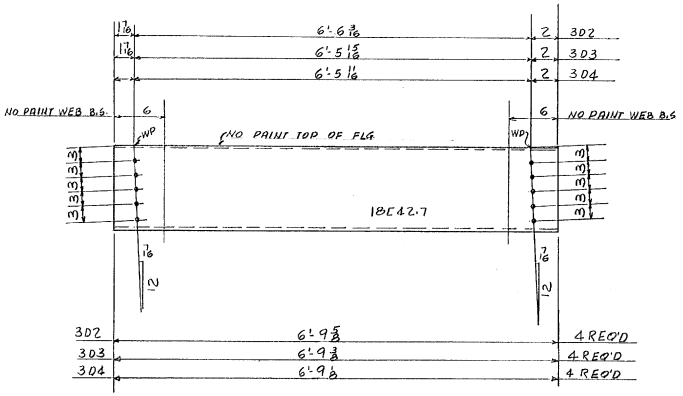
UNDERPASS STA. 1896+70.86
BROWNELL ROAD
WILLISTON & SO. BURLINGTON, VERMONT

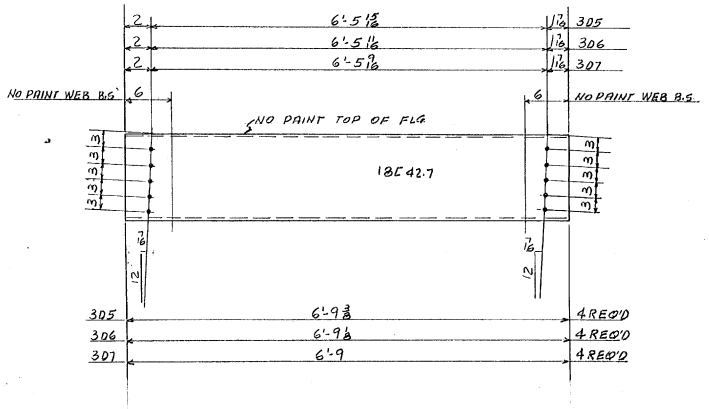
MADE BY A.S. CHECKED BY RK. DATE 7-10-61
APPROVED SCALE

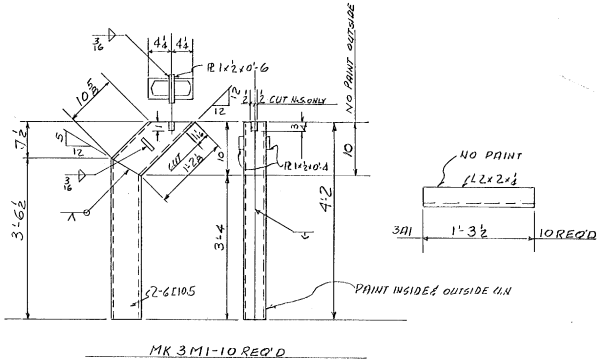
S.O. 1389B SHEET NO. 2 OF 3

FORM 26-2 JOSEPH HORRITT & CO. NO. 1895









MARK	NO.	MATERIAL	REMARKS	WEIGHT
		32 DIAPH.	3D1	
	32	18 C 42.7 x 7'-2 1/2		
		4 DIAPH	3D2	
	4	18 C 42.7 x 6'-9 5/8		
		4 DIAPH	3D3	
	4	18 C 42.7 x 6'-9 3/8		
		4 DIAPH	3D4	
	4	18 C 42.7 x 6'-9 1/8		
		4 DIAPH	3D5	
	4	18 C 42.7 x 6'-9 3/8		
		4 DIAPH	3D6	
	4	18 C 42.7 x 6'-9 1/8		
		4 DIAPH	3D7	
	4	18 C 42.7 x 6'-9		
		10 SCUPPERS	3M1	
	20	6 C 10.5 x 3'-6 1/2		
	20	6 C 10.5 x 1'-4 5/8		
	10	PL 1 x 1/2 x 0'-6		
	20	PL 1 x 1/2 x 0'-4		
		10 ANGLES	3A1	
	10	L 2 x 2 x 1/4 x 1'-3 1/2		
		ALL MAT'L ASTM A373 U.N.		
		FIELD CONN. BOLTS		
	560	7/8 ϕ x 2 1/2 H.S. BOLTS	ASTM A325	
	1120	7/8 ϕ ROUND FLAT HARDENED WASHERS	ASTM A325	

NOTE: PAINT PER STD SPEC. STATE OF VERMONT PAR 404.03 B

PROJ. # I-89-3(14) CONT. #1

BOLTS
OPEN HOLES
PAINT

REVISIONS	
7-26-61	ENGR'S COMMENTS
8-3-61	ENGR'S COMMENTS

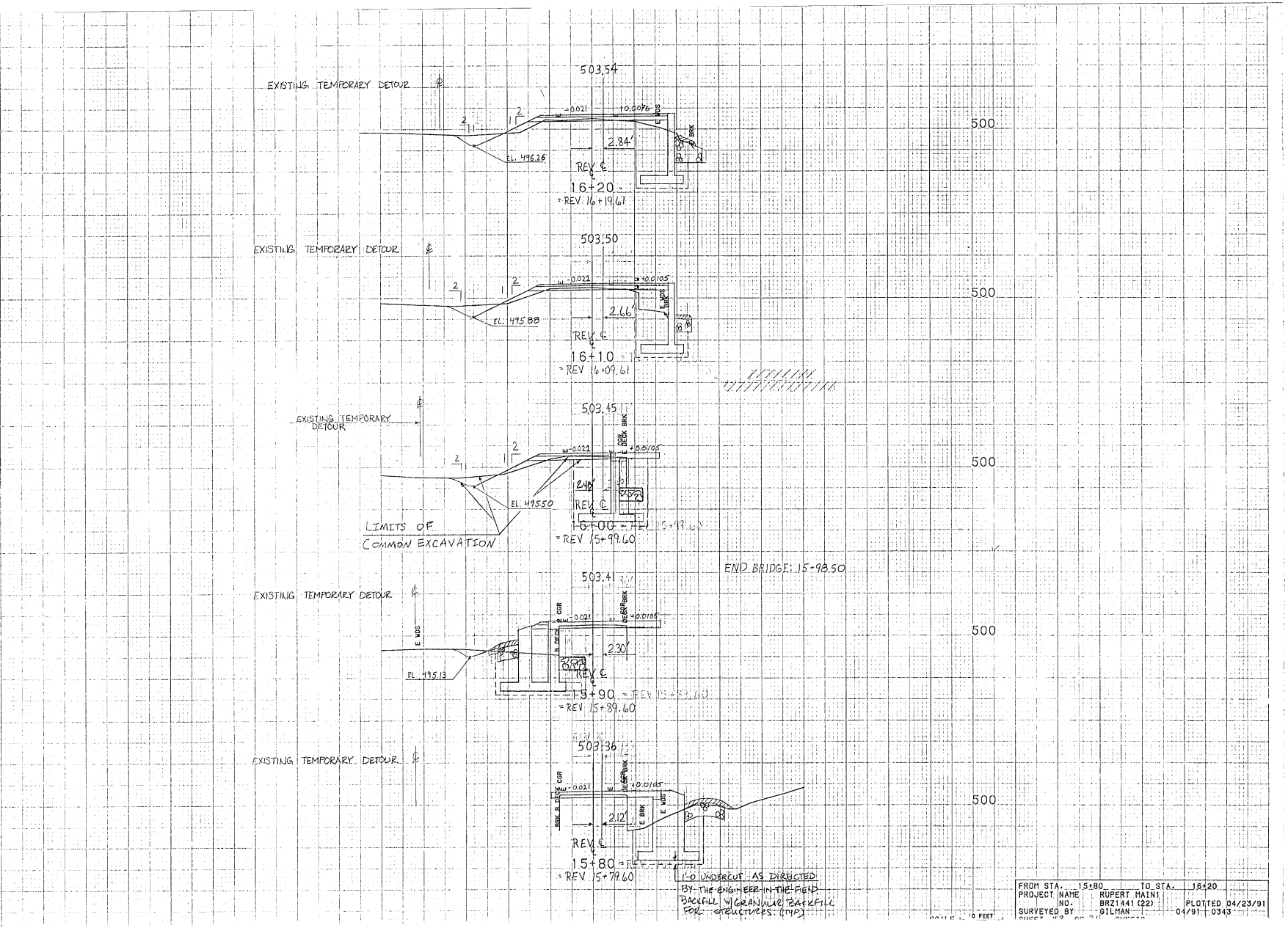
CITY IRON WORKS Inc.,
P. O. BOX 147 WETHERSFIELD, CONN.

UNDERPASS STA. 1896+70.86
BROWNELL ROAD
WILLISTON & SO. BURLINGTON VERMONT

MADE BY A.G. CHECKED BY F.R. DATE 7-10-61
APPROVED SCALE

S.O. 1389 B SHEET NO. 3 OF 3

FORM 24 B JOSEPH MERRITT & CO. NO. 1015



FROM STA. 15+80	TO STA. 16+20		
PROJECT NAME	RUPERT MAIN1		PLOTTED 04/23/91
NO.	BRZ1441 (22)		
SURVEYED BY	GILMAN	04/91	0343

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

INITIALS HANGER 282

* 1961 C/2 1963

Williston – So. Burlington

I-89-3 (14) C/2 1961 1963