STATE OF VERMONT
AGENCY OF TRANSPORTATION

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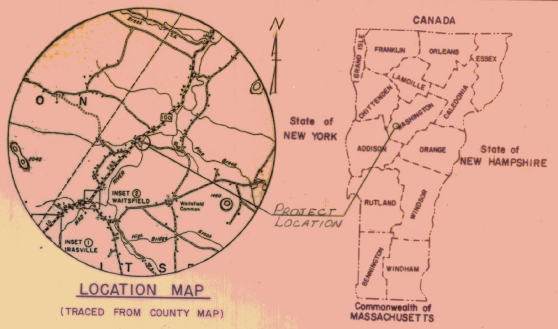
GENERAL NOTES

1. All Roadway And Channel Cut And Fill Areas Shall Be Seeded And Mulched To Prevent Erosion.
2. During Construction The Contractor Shall Exercise Every Reasonable Precaution To Prevent Pollution Including The Discharge Of Pain Concrete Or Debris Into The Mad River As Directed By Vermont Standard Specification Section 104.11
3. The Existing Superstructure Shall Be Removed From The Project When No Longer Needed And Will Become The Property Of The Contractor.
4. Town Highway 15 Shall Remain Open To Traffic. The Existing Structure And Approaches Shall Be Maintained As Long As Deemed Necessary. Payment Shall Be Made Under Item 636.10 Maintenance Of Traffic For Bridge Projects.
5. Ten Cubic Yards ± Of Stone Fill Type II, Item 613.11 Has Been Included In The Project Quantities To Be Used To Develop Fisheries Habitat. Refer To The Stream Alteration Permit.
6. In Stream Construction Shall Be Permitted From June 1 To October 1.
7. For Additional Notes Refer To Std Sht. SCB-D1-75, Notes 1-16.
8. Existing Signs Shall Be Removed And Either Reset Or Returned To The Town, As Directed By The Engineer. Any New Signs Required Will Be The Responsibility Of The Town.

CONVENTIONAL SIGNS

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

DATUM
VERTICAL NGVD 1929
HORIZONTAL N/A



LOCATION MAP
(TRACED FROM COUNTY MAP)

PROPOSED IMPROVEMENT
BRIDGE PROJECT

TOWN OF WAITSFIELD
COUNTY OF WASHINGTON

ROUTE NO: T.H. 15 (CL.3) BRIDGE NO: 25

PROJECT LOCATION: This project begins approximately 980 feet southeasterly of the intersection of Vt. 100 & T.H. 15 and extends 900' northwesterly.

PROJECT DESCRIPTION: This project replaces the existing structure with a new rolled beam w/R.C. deck structure on a new northerly location w/approx. 850' of upgraded approach roadway and necessary channel work.

LENGTH OF STRUCTURE:	128.0	FEET
LENGTH OF PARTICIPATION ROADWAY:	772.0	FEET
LENGTH OF NON-PARTICIPATION ROADWAY:	.	FEET
LENGTH OF PROJECT:	900.0	FEET

TRAFFIC DATA
1982 AADT = 500
1982 DHV = 70
1992 AADT = 580
1992 DHV = 80
D = 56 %
T = 6 %
DESIGN SPEED = 30 MPH

RECORD PLANS & MATERIAL SUPPLIERS

CONTRACTOR-WINTERSET, INC. P.O. BOX 968 LYNDONVILLE, VT. CONTRACT DATED - 9-14-82 CONSTRUCTION BEGAN - 9-15-82 CONSTRUCTION SUSPENDED - 11-19-82 CONSTRUCTION RESUMED - 3-14-83 CONSTRUCTION COMPLETED - 5-25-83 ACCEPTED - 6-1-83 RESIDENT ENGINEER - RODERICK FULLER RECORD PLANS - GEORGE J. ABAIR GRANULAR BORROW & BACKFILL - BAR IN RIVER SPAULDING FARM, TUCKERPIT WAITSFIELD, VT. SUBBASE OF GRAVEL - STOCKPILE TOWN OF WAITSFIELD (RIVER GRAVEL) CONCRETE CLASS "A" & "S" - A.G. ANDERSON CO., INC. BERLIN, VT. STEEL PILING - BETHELEHEM STEEL CORP SAUSON PA. REINF. STEEL - K-ROSS BUILDING SUPPLY CENTER INC. LEBANON, NH STRUCTURAL STEEL, BEARING DEVICE ASSEMBLY & SHEAR CONNECTORS - VT. STRUCTURAL STEEL CORP. BURLINGTON, VT. WATER REPELLENT - SONNEBORN BUILDING PRODUCTS MASPETH, NY SHEET MEMBRANE WATERPROOFING - ROYSTON LAB., INC. PITTSBURG, PA. 18" ACCMP - ARMCO, INC. FENTON ST. PALMER, MA. JOINT SEALER HOT POURED - W.R. MEADOWS OF PA., INC. YORK, PA. BRIDGE RAILING & GUARD RAIL - LAFAYETTE & SHELDON INC. KELLOGG RD. ESSEX JCT., VT. SEED & FERTILIZER - OLD FOX CHEMICAL INC. LYNDONVILLE, VT.

NOTE: ANY FURTHER INFORMATION CONCERNING FINAL QUANTITIES, COSTS OR OTHER DATA AS RELATIVE TO THIS PROJECT MAY BE FOUND AT EITHER THE RESIDENT'S OFFICE ON THE ESTIMATES FILE.

These plans are subject to such engineering changes as may be required by the Federal Highway Administration or the Director of Engineering and Construction.

Construction is to be carried on in accordance with these plans and the Standard Specifications for Highway and Bridge Construction dated March, 1976, as approved by the Federal Highway Administration on October 27, 1976 for use on this project, including all subsequent revisions and such revised specifications and special provisions as are incorporated in these plans.

SUBMITTED BY ORDER OF THE STATE TRANSPORTATION BOARD
APPROVED S. J. Gage DATE 8-2-82
DIRECTOR OF ENGINEERING AND CONSTRUCTION

PROJECT	PROJECT NO.
WAITSFIELD	BRZ-1446(8)

SHEET 1 OF 51 SHEETS

BRUNING 44-131-65980-1
D-10
SJB 7/21/81

QUANTITY, EARTHWORKS, DRAINAGE AND ITEM DETAIL SHEET

STATE OF VERMONT
AGENCY OF TRANSPORTATION

APPROXIMATE SUMMARY OF QUANTITIES

EROSION CONTROL	BRIDGE	ROADWAY	GRAND TOTAL	UNIT	PAY ITEM	PAY ITEM NUMBER	MISC
	1		1	EA.	REMOVAL OF EXISTING SUPERSTRUCTURE	202.20	
		1420	1420	CY.	COMMON EXCAVATION	203.15	
		20	20	CY.	SOLID ROCK EXCAVATION	203.16	
	1160		1160	C.Y.	UNCLASSIFIED CHANNEL EXCAVATION	203.27	
		1770	1770	CY.	EARTH BORROW	203.30	
		50	50	C.Y.	SAND BORROW	203.31	
	1190		1190	CY.	GRANULAR BORROW	203.32	
	1	3840	3840	S.Y.	FINE GRADING - SUBGRADE	203.40	
		60	60	CY.	TRENCH EXCAVATION OF EARTH	204.20	
	70		70	C.Y.	STRUCTURE EXCAVATION	204.25	
	30		30	C.Y.	GRANULAR BACKFILL FOR STRUCTURES	204.30	
		2170	2170	C.Y.	SUBBASE OF GRAVEL	301.15	
		60	60	C.Y.	CRUSHED STONE SHOULDER	408.15	
	60	373	433	TON	BITUMINOUS CONCRETE PAVEMENT	406.25	
	134		134	CY.	CONCRETE CL. A	501.20	
	155	2	157	C.Y.	CONCRETE CL. B	501.25	
	1		1	L.S.	FURNISHING EQUIP. FOR DRIVING PILING	504.10	
	1260		1260	L.F.	STEEL PILING (HP 14x73)	505.17	
	141,690		141,690	LB.	STRUCTURAL STEEL (ROLLED BEAM)	506.90	
	10		10	EA.	BEARING DEVICE ASSEMBLY	506.99	
	46,530		46,530	LB.	REINFORCING STEEL	507.15	
	1		1	LS.	SHEAR CONNECTORS (7/8"x 7" 1155)	508.15	
	19		19	GAL	WATER REPELLENT	514.10	
	410		410	S.Y.	SHEET MEMBRANE WATERPROOFING	519.20	
		154	154	L.F.	18" ASPH. COATED CORR. GAL. METAL PIPE (0.075)	601.1559	
		5	5	HR.	ALL PURPOSE EXCAVATOR RENTAL TYPE I	608.25	
		1	1	TON	DUST AND TIE CONTROL w/CAL. CHLORIDE	608.15	
	640		640	CY.	STONE FILL TYPE II	613.11	
		3	3	GAL.	JOINT SEALER, HOT POURED	614.10	
	276		276	L.F.	METAL RAIL FENCE, 10 GA. GALV.	616.55	
	288		288	L.F.	BRIDGE RAILING - HEAVY DUTY STEEL BEAM w/ BOX BEAM HAND RAIL	617.36	
		281	281	L.F.	GUARD RAIL - M.D.O.T. w/WOOD POSTS TYPE II	621.30	
		4	4	EA.	ANCHORS FOR HEAVY DUTY STL. BEAM GUARD RAIL w/WOOD OR STL. POST & BRACKET	621.70	
		33	33	EA.	WOOD GUIDE POSTS	621.75	
		30	30	HR.	UNIFORMED TRAFFIC OFFICERS	630.10	
		1	1	L.S.	FIELD OFFICE - ENGINEERS	631.10	
						634.10	
		1	1	L.S.	MOBILIZATION	635.10	
	1		1	L.S.	MAINT. OF TRAFFIC FOR BRIDGE PROJECTS	637.10	
		60	60	LB.	SEED	651.10	
		500	500	LB.	FERTILIZER	651.15	
		2	2	TON	AGRICULTURAL LIMESTONE	651.20	
		2	2	TON	HAY MULCH	651.25	

DETAILED SUMMARY OF QUANTITIES

QUANTITY	UNIT	PAY ITEM

GRADES AND EARTHWORK (TH 4 & 15)

V.C.	% GRADE	STATION	GRADES ELEVATION ON TANGENT	GRADES ELEVATION ON V.CURVE	V.C. CORR.	DIST. (FT.)	TOTAL EXCAV. EARTH & ROCK AREA (SF)	TOTAL EXCAV. EARTH & ROCK VOL. (CY.)	SUBBASE OF GRAVEL AREA (SF)	SUBBASE OF GRAVEL VOL. (CY.)	EMBANKMENT AREA (SF)	EMBANKMENT VOL. (CY.)
		50+00	671.74			BEGIN PROJECT	0		0		0	
						50		102		50		37
		+50	669.83	670.08	+0.25		110		54		40	
						50		191		100		70
		51+00	667.91	668.30	+0.99		96		54		35	
						50		163		100		60
PVC		+50	666.00	668.22	+2.22		80		54		30	
						50		142		100		65
		52+00	667.05	668.08	+0.99		73		54		40	
						50		75		100		86
		+50	668.11	668.36	+0.25		8		54		53	
						50		11		100		123
PVT		53+00	669.16	669.16	0.00		4		54		80	
						50		18		100		208
		+50	670.21				15		54		145	
						50		47		100		334
		54+00	671.26				35		54		216	
						50		88		107		510
		+50	672.32				60		61		335	
PVC		+75	672.84			46						686
		+96	—				—	36	—	121	400	
						4						49
		55+00	673.37				0		70		255	
						11						52
		+11	—							120	0	
						39						
		+50	674.42	674.07	-0.33				60			
		BEGIN BRIDGE				11				25		
		+61	674.65	674.19	-0.96				60			
PVT		56+25	676.00	674.60	-1.40	88						
		+89	674.96	674.50	-0.46		0		60			
		END BRIDGE				11		20		25		
		57+00	674.78	674.43	-0.35		95		61			
						39						
		+39	—					111		126	0	
						11						52
		+50	673.96	673.92	-0.04		25		75		255	
PVT		+75	673.55			50		28		131		394
		58+00	673.15				5		66		170	
						20		2				
		+20	—				0			115		228
						30						
		+50	672.93				0		58		76	
						50		10		108		70
PVC		59+00	671.52				10		58		0	
						50		42		106		
PVT		+50	670.70	671.93	+0.75		35		54			
						END PROJECT						
PVT		60+00	672.89	FOLLOWING			4		6		6	
		COLUMN TOTALS (TH 4 & 15 ONLY)					1110		1740		2970	

EARTHWORK SUMMARY

EARTH AND ROCK EXCAVATION	0 CY.
SOLID ROCK EXCAVATION	0 CY.
EARTH EXCAVATION (INCLUDES APPROACH)	1420 CY.
PLANIMETERED FILL (INCLUDES DRIVES)	3980 CY.
LESS FACTORED SOLID ROCK	0 CY.
LESS DISPLACEMENT OF LARGE STRUCTURES	0 CY.
NET PLANIMETERED FILL	3980 CY.
FACTOR (0.15% NET PLANIMETERED FILL)	507 CY.
PLANIMETERED FILL INCLUDING FACTOR	3887 CY.
MATERIALS AVAILABLE FOR FILLS:	
EARTH EXCAVATION	1420 CY.
CHANNEL EXCAVATION (60% x 1110 CY)	666 CY.
UNDERDRAIN EXCAVATION (— % x — CY)	CY.
STRUCTURE EXCAVATION (60% x 70 CY)	42 CY.
TOTAL MATERIAL AVAILABLE FOR FILLS	2118 CY.
TOTAL FILL INCLUDING FACTOR	3887 CY.
TOTAL MATERIAL FOR FILLS	2118 CY.
BORROW	1769 CY.
EXCESS EXCAVATION	CY.
LESS FACTORED DEDUCTIBLE GRANULAR BORROW	1 CY.
NET EARTH BORROW	1770 CY.
NET EXCESS EXCAVATION	CY.

UNDERDRAIN AND CARRIER PIPE

STATION TO STATION	TYPE U	TYPE C	POS	D (IN.)	L (FT.)	TRENCH EXCAV. EARTH (CY.)	TRENCH EXCAV. ROCK (CY.)	CONN. BKT. (CY.)	F & B (EA.)	MISC. POSTS (EA.)
COLUMN TOTALS										

GUARD RAIL, THREE CABLE W/LT ____ POSTS

STATION TO STATION	POS	MEASURED LENGTH (FT & IN.)	POST SPACING (FT & IN.)	FACTOR	PAY LENGTH (LF.)	ANCHORS RT. (EA.)	ANCHORS LT. (EA.)
COLUMN TOTALS							

GUARD RAIL, BOX BEAM W/ST POSTS

STATION TO STATION	POS	POST SPACING (FT & IN.)	PAY LENGTH (LF.)	REMARKS
COLUMN TOTALS				

DRAINAGE STRUCTURES

STATION	POS	SKEW	TYPE IN/OUT	DITCH IN	DITCH OUT	RCP D(IN)	RCP L(FT.)	RCP CL.	ACCGMP D(IN)	ACCGMP L(FT.)	ACCGMP THKN	OPTION PIPES D (IN.)	OPTION PIPES L (FT.)	OPTION PIPES RCP CL.	OPTION PIPES CORR. EQUIV. TH.	OPTION PIPES CORR. EQUIV. T.H.	MES. (EA)	DI DEPTH (FT.)	CONC. CL. B (CY.)	FRAME & GRATE (LB.)	DI GRATE TYPE	DI GRATE (EA.)	CRM	TRENCH EXC. EARTH (CY.)	TRENCH EXC. ROCK (CY.)	ST. FILL TYPE (CY.)	INSL. POST LT.	INSL. POST RT.	REMARKS
54+76	LT.																												
55+74	LT.			2'	—				18	98.0	0.179								18	13				50	—				
58+20	LT.																												
58+75	LT.			—	2'				18	56.0	0.179													10	—				
COLUMN TOTALS																													

GUARD RAIL, HEAVY STEEL BEAM WITH WOOD POSTS TYPE II

STATION TO STATION	POS	MEASURED LENGTH (FT & IN.)	POST SPACING (FT & IN.)	FACTOR	PAY LENGTH (LF.)	ANCHORS RT. (EA.)	ANCHORS LT. (EA.)	REMARKS
			HEAVY DUTY STEEL BEAM					
54+83	55+28	Rt. 50-0	6-3	1.0	50.0	1		2 PANELS @ 25' RADIUS
55+28	55+40	Rt. 12-6	4-2	1.2	15.0			
55+40	55+59	Rt. 12-6	3-1½	1.4	17.5			
55+19	55+26	Lt. 12-6	6-3	1.0	12.5	1		1 PANEL @ 25' RADIUS
55+26	55+35	Lt. 12-6	4-2	1.2	15.0			1 " "
55+35	55+53	Lt. 18-9	3-1½	1.4	26.25			1 " "
56+97	57+16	Rt. 18-9	3-1½	1.4	26.25			
57+16	57+28	Rt. 12-6	4-2	1.2	15.0			
57+28	57+53	Rt. 25-0	6-3	1.0	25.0	1		1 PANEL @ 16' RADIUS
56+97	57+10	Lt. 12-6	3-1½	1.4	17.5			
57+10	57+22	Lt. 12-6	4-2	1.2	15.0			
57+22	57+54	Lt. 37-6	6-3	1.0	37.5	1		1 PANEL @ 16' RADIUS
COLUMN TOTALS					272.3	4		

TYPE OF CONSTRUCTION: ____

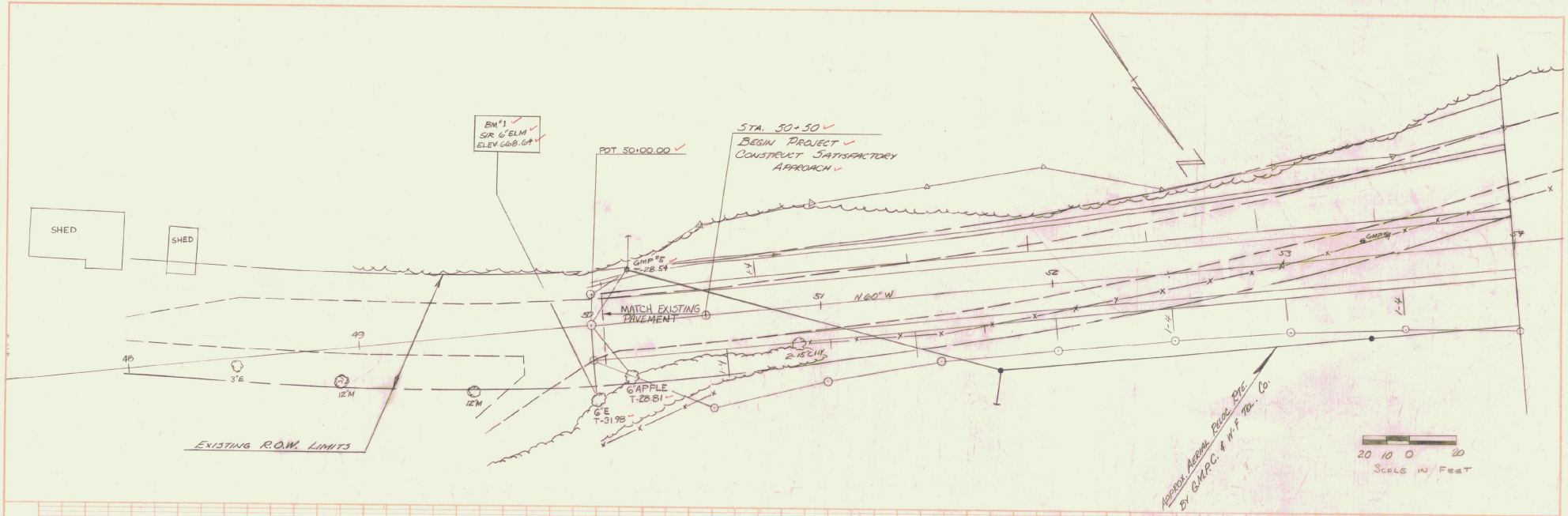
STATIONS FROM	STATIONS TO	PAVEMENT WIDTHS	EQUATIONS +	EQUATIONS −	REMARKS

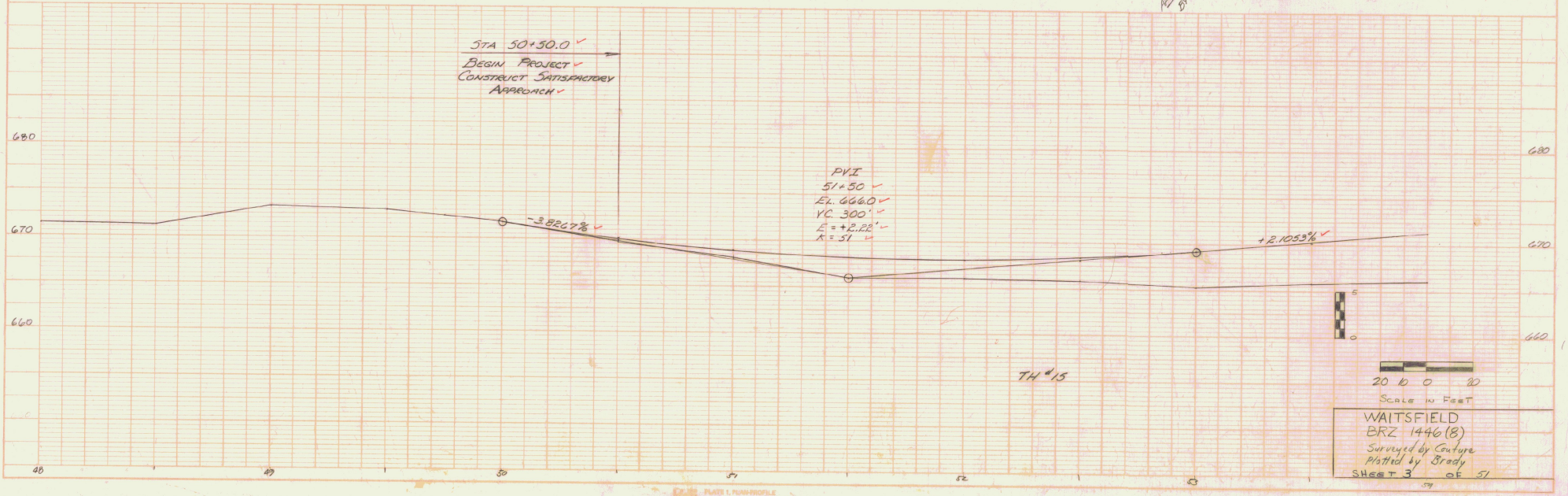
LENGTH OF PROJECT

STATION	STATION	FEET	MILES	REMARKS
50+50	55+61	511.0	0.097	ROADWAY
55+61	56+89	128.0	0.024	STRUCTURE
56+89	59+50	261.0	0.049	ROADWAY
COLUMN TOTALS		900.0	0.170	DOES NOT INCLUDE APPROACHES

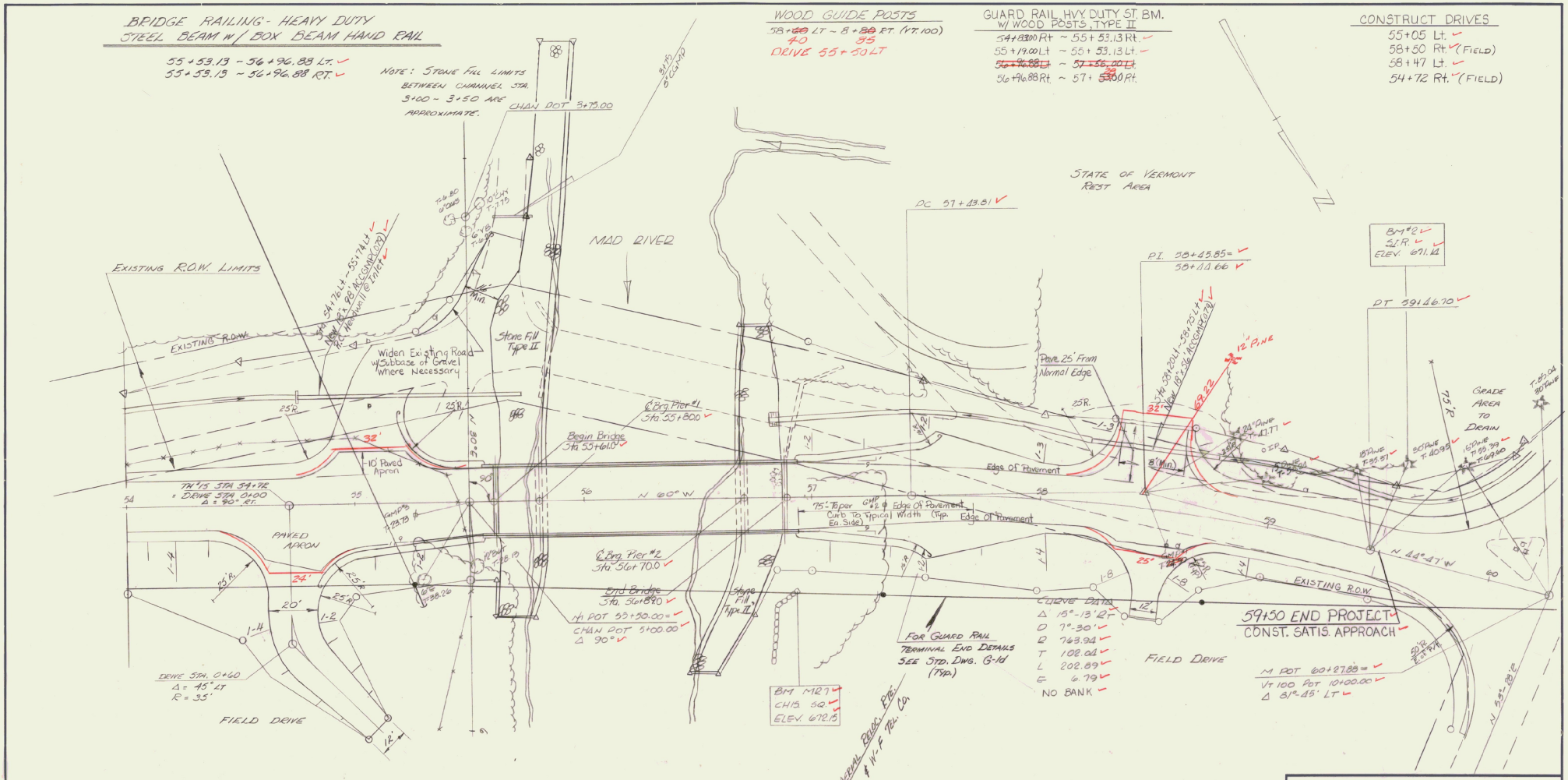
PROJECT NAME WAITSFIELD
PROJECT NO. BRZ 1446(8)
SHEET 2 OF 51 SHEETS

D - 8
17 Oct 79





WAITSFIELD
BRZ 1446(8)
Surveyed by Couture
Plotted by Brady
SHEET 3 OF 51



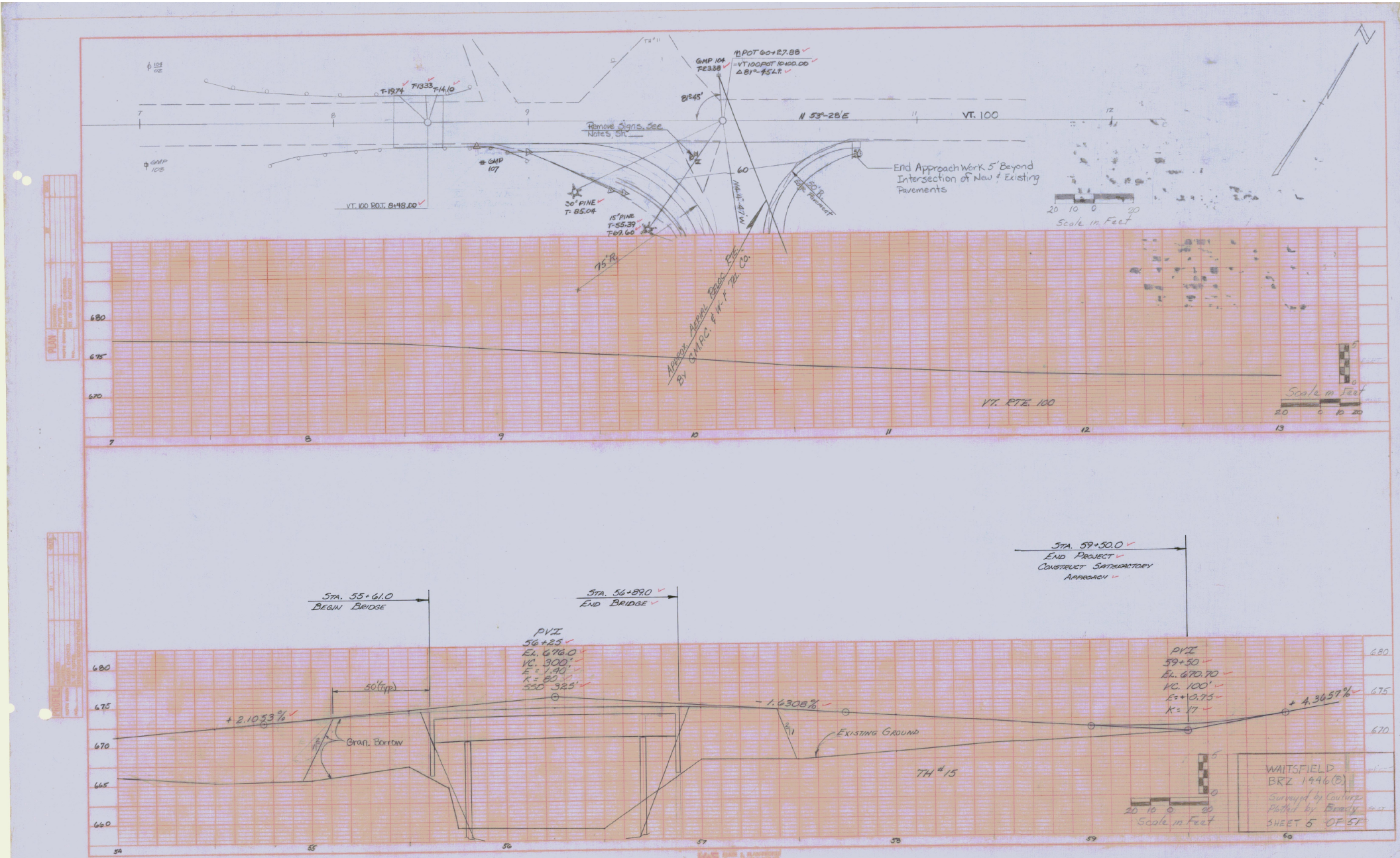
STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF WAITSFIELD	Bridge No. 25
HIGHWAY NO. T.H. 15	Log Sta.
	Surv. Sta. 56+25

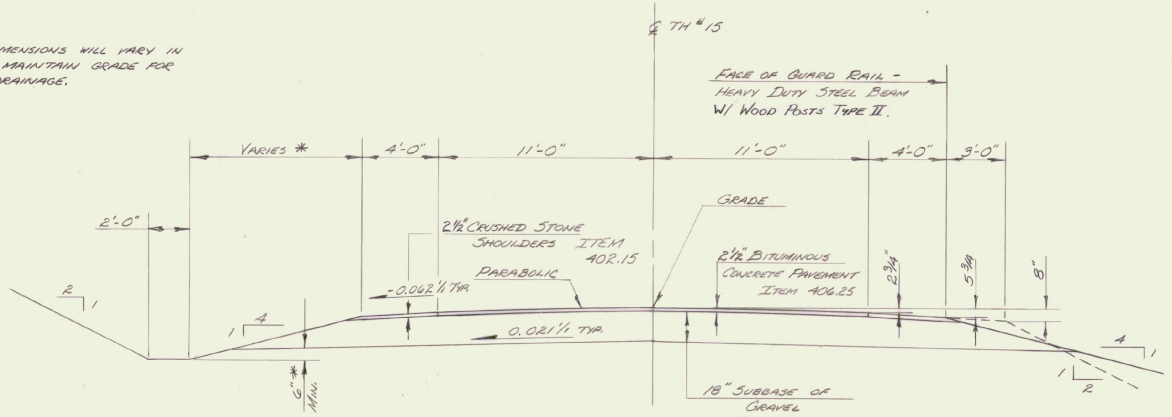
PLAN

T.H. 15 OVER THE MAD RIVER

Designed by G. Spilak	Drawn by R. Whitcomb
Checked by R. RANALDO date	Bridge Design Supervisor R.S. Haupt date
PROJECT WAITSFIELD	PROJECT NO. BRZ 1446(8)
Bridge Sheet No.	Sheet 4 of 57


T-19.74
F133
F14.10
GMP 104
FE338
POT 60+27.88
VT.100 POT 10400.00
Δ 81°-45 Lt.
81°45'
N 53°-28'E
VT. 100
Remove Signs, See Notes, Sh.
GMP 108
GMP 107
VT. 100 POT. 8+98.00
30' PINE
T- 85.04
15' PINE
T-55.39
T-69.60
60
114.4'=47°W
50' R
Edge Pavement
End Approach Work 5' Beyond Intersection of New & Existing Pavements
Scale in Feet
APPROX. AERIAL PROG. EXP. By GMPC. & VT. TEL. CO.
VT. RTE. 100
STA. 55+61.0
BEGIN BRIDGE
STA. 56+89.0
END BRIDGE
STA. 59+50.0
END PROJECT
CONSTRUCT SATISFACTORY APPROACH
PVI
56+25
EL. 676.0
VC. 300'
E = 7.90'
K = 80
550' 325'
PVI
59+50
EL. 670.70
VC. 100'
E = +0.75'
K = 17
+ 2.1053%
- 1.6308%
+ 4.3657%
50' (typ)
Gran. Borrow
EXISTING GROUND
7TH of 15
WAITSFIELD
BRZ 1446(8)
Surveyed by Couture
Plotted by Beauty
SHEET 5 OF 51

* THESE DIMENSIONS WILL VARY IN ORDER TO MAINTAIN GRADE FOR PROPER DRAINAGE.



TYPICAL ROADWAY SECTION

SCALE : 1" = 3'-0"

BUILT AS DESIGNED

SEED, ITEM 651.10
TO BE APPLIED AS DIRECTED BY THE ENGINEER

%WT	LBS/A	NAME	PUR%	GERM%
3.33	2	CROWN VETCH	97	75
50.00	30	CREEPING RED FESCUE	98	85
8.33	5	TIMOTHY	99	85
5.00	3	HIGHLAND BENT GRASS	92	85
16.67	10	PERENNIAL RYE GRASS (VAR PENNFINE)	95	85
9.35	5	ALFALFA (VAR. SARANAC)	99	85
6.35	3	BIRDSFOOT TREFOIL (EMPIRE)	98	85
100	60 LBS./ACRE			

THE SEED MIXTURE SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.45% BY WEIGHT AND SHALL BE FREE FROM ALL NOXIOUS WEED SEED

FERTILIZER, ITEM 651.15
FORMULA 10-20-10 TO BE USED WITH SEED, ITEM 651.10 APPLIED AT THE RATE OF 500 LBS/ACRE

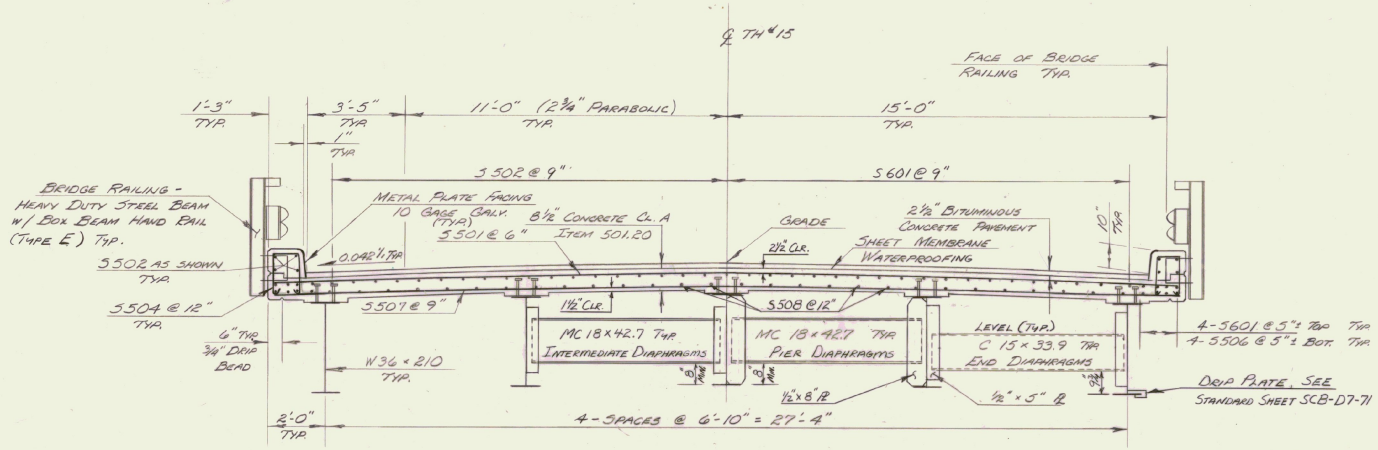
AGRICULTURAL LIMESTONE, ITEM 651.20
TO BE APPLIED AT RATE OF 2 TONS/ACRE OR AS DIRECTED BY THE ENGINEER

HAY MULCH, ITEM 651.25
TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE

2½" BITUMINOUS CONCRETE PAVEMENT ITEM 406.25 (1¼")
18" SUBBASE OF GRAVEL ITEM 301.15 (1'-½")

2½" CRUSHED STONE SHOULDER ITEM 402.15 (1¼")

0-12" GRANULAR BORROW (IN FILL) ITEM 203.32 (1')
0-24" SAND BORROW (IN CUT) ITEM 203.31 (1')
(TO BE USED IF DEEMED NECESSARY BY THE ENGINEER)



REIN. STEEL SECTION @ MIDSPAN

REIN. STEEL SECTION @ ℄ PIER

TYPICAL BRIDGE SECTION

SCALE : 1" = 2'-0"

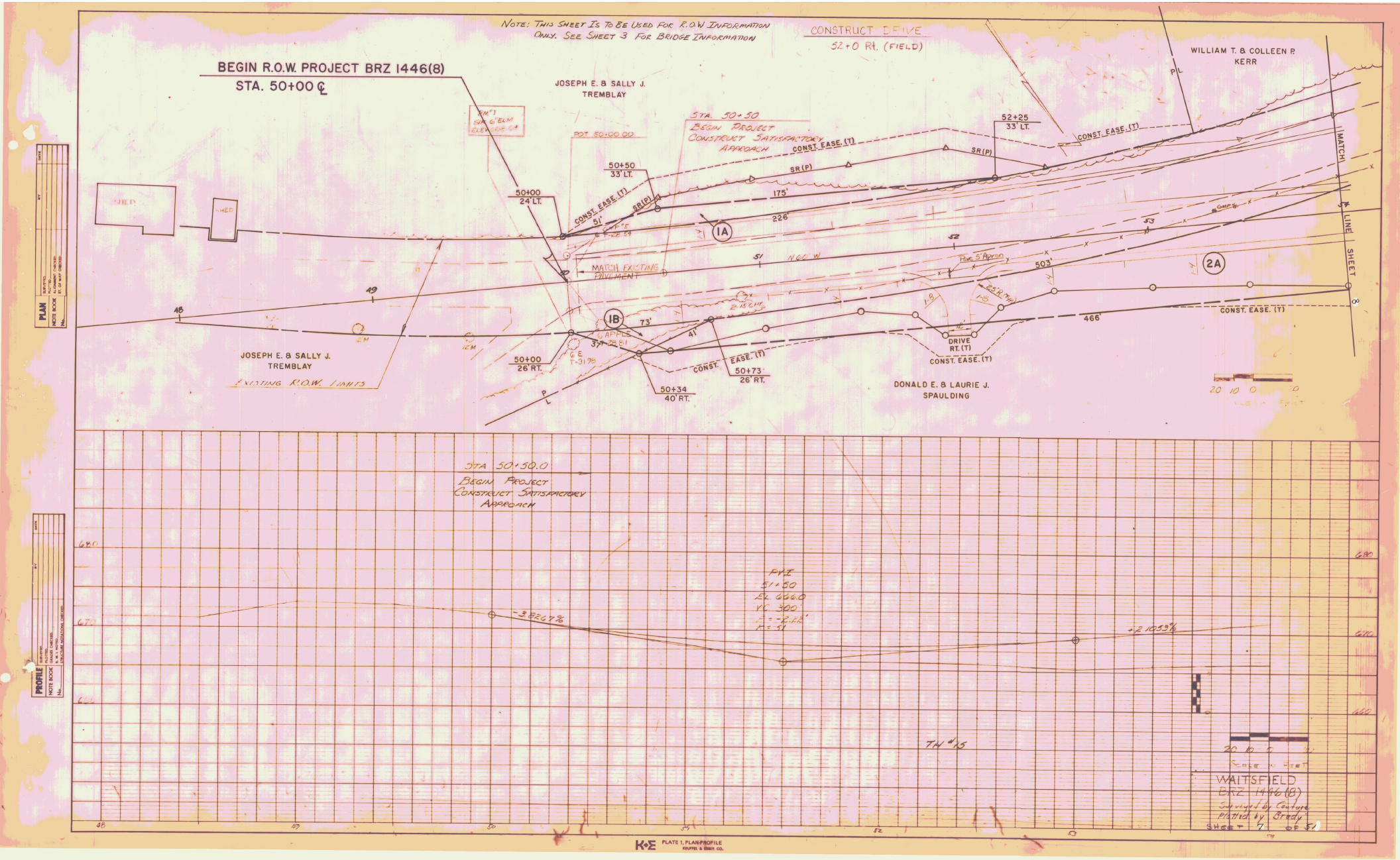
NOTE: SEE SHEET 14 FOR ADDITIONAL DIAPHRAGM DETAILS.

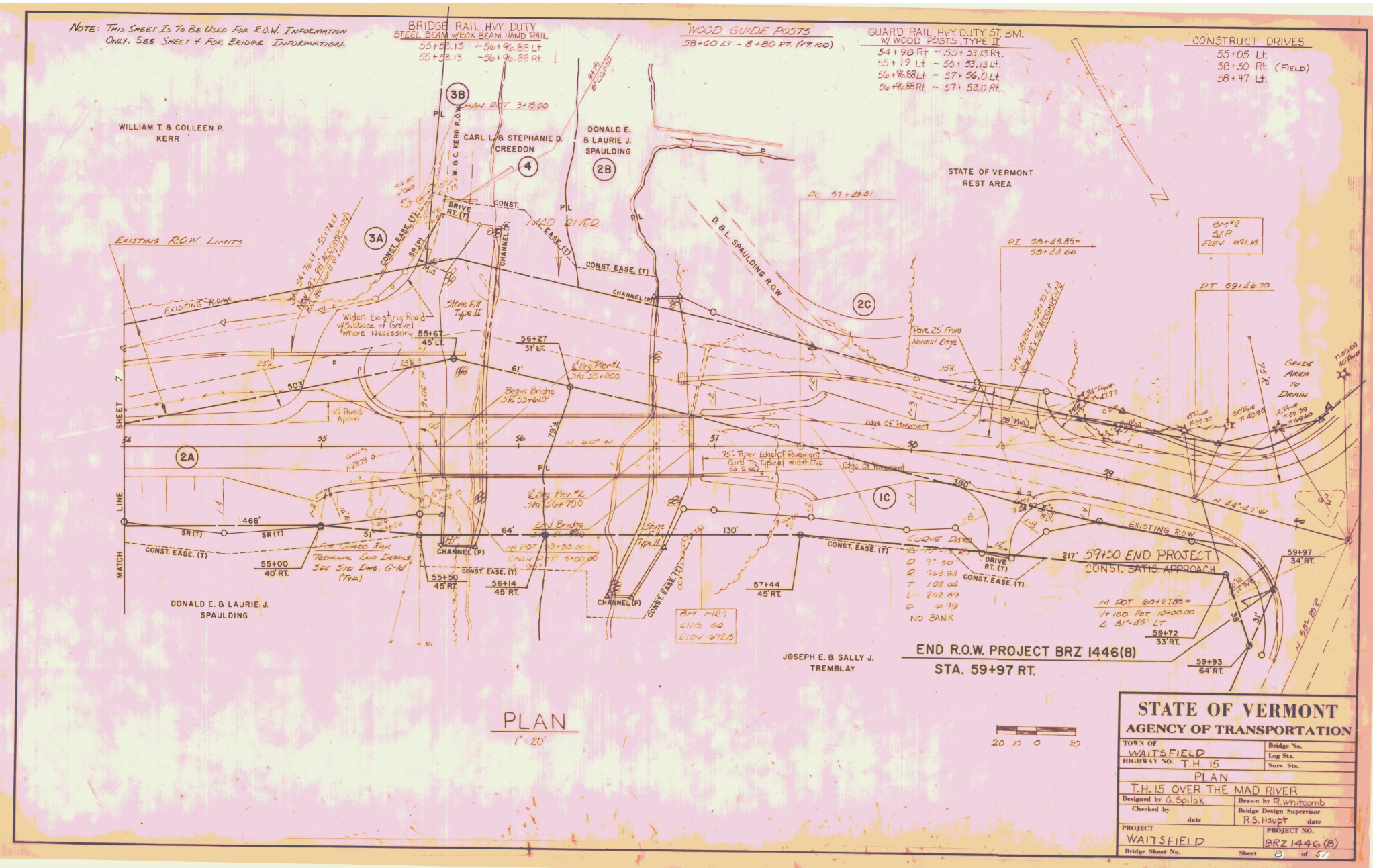
STATE OF VERMONT
AGENCY OF TRANSPORTATION

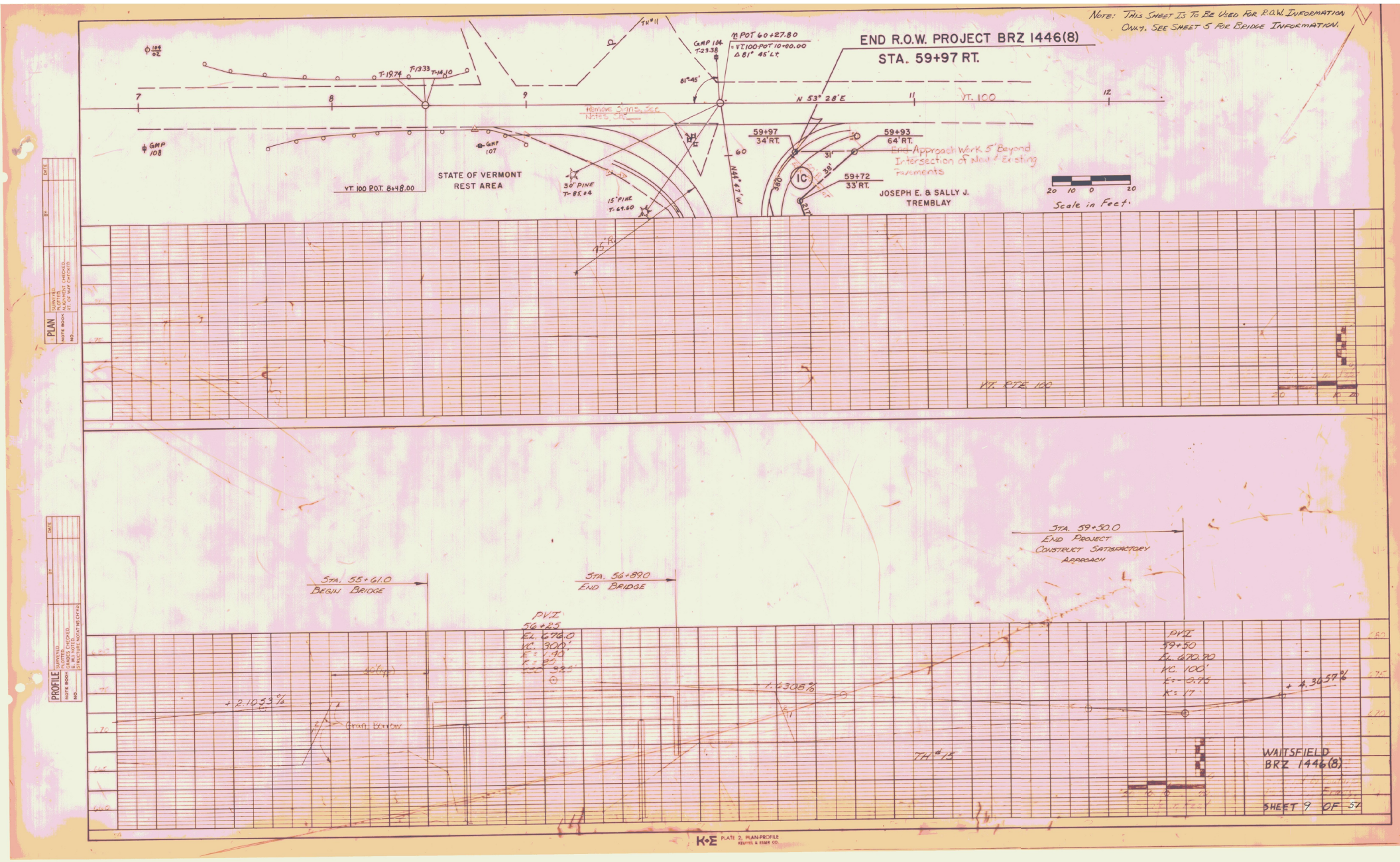
TOWN OF WAITSFIELD	Bridge No. 23
HIGHWAY NO. TH #15	Log Sta. Surv. Sta. 56+25
TOWN HIGHWAY #15 OVER MAD RIVER	
TYPICAL SECTIONS	
Designed by G.V. SPILAR	Drawn by M. GARCIA
Checked by R. RINALDO date 2/82	Bridge Design Supervisor R.S. HAUPT date 3/82
PROJECT WAITSFIELD	PROJECT NO. BRZ 1446(8)
Bridge Sheet No.	Sheet 6 of 51

BRUNING 44-131-40151

BR-6


NOTE: THIS SHEET IS TO BE USED FOR R.O.W INFORMATION ONLY. SEE SHEET 3 FOR BRIDGE INFORMATION
CONSTRUCT DRIVE
52+0 Rt. (FIELD)
BEGIN R.O.W. PROJECT BRZ 1446(8)
STA. 50+00 ℄
JOSEPH E. & SALLY J. TREMBLAY
WILLIAM T. & COLLEEN P. KERR
SHED
SHED
EM
IEM
50+00 24' LT.
50+50 33' LT.
52+25 33' LT.
POT 50+00.00
STA. 50+50 BEGIN PROJECT CONSTRUCT SATISFACTORY APPROACH
CONST. EASE. (T)
SR(P)
175'
226'
5'
51
52
53
N 66° W
MATCH EXISTING PAVEMENT
1A
2A
1B
73'
41'
37° 22' 51"
2.15 CHF
503'
466'
50+00 26' RT.
50+34 40' RT.
50+73 26' RT.
DRIVE RT. (T)
CONST. EASE. (T)
Pave 5' Apron
225' (TYP.)
MATCH LINE SHEET
JOSEPH E. & SALLY J. TREMBLAY
EXISTING R.O.W. LIMITS
DONALD E. & LAURIE J. SPAULDING
PL
20 10 0 20
STA 50+50.0
BEGIN PROJECT CONSTRUCT SATISFACTORY APPROACH
PVI
51+50
El. 666.0
V.C. 300'
E = 2.25'
n = 51
-3.8267%
+2.1059%
TH #15
20 10 0 20
SCALE IN FEET
WAITSFIELD
BRZ 1446(8)
Surveyed by Couture
Plotted by Brady
Sheet 2 of 51
PLAN
PROFILE
K&E PLATE 1, PLAN-PROFILE KEUFFEL & ESSER CO.


NOTE: THIS SHEET IS TO BE USED FOR R.O.W. INFORMATION ONLY. SEE SHEET 4 FOR BRIDGE INFORMATION.
BRIDGE RAIL HVY DUTY STEEL BEAM w/BOX BEAM HAND RAIL
55+33.13 ~ 56+96.88 Lt.
55+33.13 ~ 56+96.88 Rt.
WOOD GUIDE POSTS
58+60 LT ~ 8+80 RT. (VT. 100)
GUARD RAIL HVY DUTY ST. BM. w/ WOOD POSTS, TYPE II
54+98 Rt ~ 55+53.13 Rt.
55+19 Lt ~ 55+53.13 Lt.
56+96.88 Lt ~ 57+56.0 Lt.
56+96.88 Rt ~ 57+53.0 Rt.
CONSTRUCT DRIVES
55+05 Lt.
58+50 Rt. (FIELD)
58+47 Lt.
WILLIAM T. & COLLEEN P. KERR
CARL L. & STEPHANIE D. CREEDON
DONALD E. & LAURIE J. SPAULDING
STATE OF VERMONT REST AREA
W. & C. KERR R.O.W.
D & L. SPAULDING R.O.W.
MAD RIVER
EXISTING R.O.W. LIMITS
EXISTING R.O.W.
Widen Existing Road w/Subbase of Gravel Where Necessary
Stone Fill Type II
Begin Bridge Sta 55+61.07
℄ Brg Pier #1 Sta 55+80.0
℄ Brg Pier #2 Sta 56+70.0
End Bridge Sta 56+86.0
Pave 25' From Normal Edge
Edge Of Pavement
75' Taper Edge Of Pavement - Curb To Typical Width (Typ. Ea. Side)
10' Paved Apron
Grade Area To Drain
CONST. EASE. (T)
CHANNEL (P)
DRIVE RT. (T)
SR (T)
SR (P)
SHEET LINE MATCH
Fit Guard Rail Terminal End Details See Sto Dwg. G-1d (Typ.)
CURVE DATA
Δ 7°-30'
D 7°-30'
R 763.94
T 102.01
L 202.89
E 6.79
NO BANK
PI 58+45.85 = 59+47.66
PT 59+26.70
BM #2 21' R. ELEV. 691.11
59+30 END PROJECT
CONST. SATIS. APPROACH
END R.O.W. PROJECT BRZ 1446(8)
STA. 59+97 RT.
BM #27 CHIS SQ. ELEV. 672.15
DONALD E. & LAURIE J. SPAULDING
JOSEPH E. & SALLY J. TREMBLAY
PLAN
1" = 20'
20 10 0 20
STATE OF VERMONT
AGENCY OF TRANSPORTATION
TOWN OF WAITSFIELD
HIGHWAY NO. T.H. 15
Bridge No.
Log Sta.
Surv. Sta.
PLAN
T.H. 15 OVER THE MAD RIVER
Designed by G. Spilak
Drawn by R. Whitcomb
Checked by
Bridge Design Supervisor R.S. Haupt
PROJECT WAITSFIELD
PROJECT NO. BRZ 1446(8)
Bridge Sheet No.
Sheet 8 of 57


Note: This Sheet Is To Be Used For R.O.W. Information Only. See Sheet 5 For Bridge Information.
END R.O.W. PROJECT BRZ 1446(8)
STA. 59+97 RT.
N POT 60+27.80
= VT 100 POT 10+00.00
Δ 81° 45' Lt.
GMP 104
T-23.38
81°-45'
N 53° 28' E
VT. 100
7
8
9
11
12
TH #11
T-19.74
T-13.33
T-14.10
GMP 108
GMP 107
Remove Signs, See Notes, SR
59+97
34' RT.
59+93
64' RT.
59+72
33' RT.
End Approach Work 5' Beyond Intersection of New & Existing Pavements
VT. 100 P.O.T. 8+48.00
STATE OF VERMONT
REST AREA
30" PINE
T- 85.04
15" PINE
T- 69.60
JOSEPH E. & SALLY J.
TREMBLAY
Scale in Feet
20 10 0 20
VT. RTE 100
STA. 55+61.0
BEGIN BRIDGE
STA. 56+89.0
END BRIDGE
STA. 59+50.0
END PROJECT
CONSTRUCT SATISFACTORY
APPROACH
PVI
56+25
EL. 676.0
VC. 300'
E = 1.70
K = 176
+2.10 53"/0
Grain Elevator
-1.30 8"/0
TH #15
PVI
59+50
EL. 670.90
VC. 100'
E = 5.75
K = 17
+4.30 57"/0
PLAN
SURVEYED
PLOTTED
NOTE BOOK
NO.
DATE
BY
CHECKED
RIGHT OF WAY CHECKED
PROFILE
SURVEYED
GRADES CHECKED
NOTE BOOK
NO.
STRUCTURE NO. (IF NO)
K+E PLATE 2, PLAN-PROFILE
KEUFFEL & ESSER CO.
WAITSFIELD
BRZ 1446(8)
SHEET 9 OF 57

STATE OF VERMONT
AGENCY OF TRANSPORTATION
RIGHT-OF-WAY PLANS
DETAIL SHEET

TABLE OF PROJECT PROPERTY ACQUISITION

PARCEL NO.	GRANTOR	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKING	REM.	RIGHTS	TITLE TAKEN	DATE	TOWN OR CITY RECORDED	BK.	PG.	REMARKS
1A	TREMBLAY, JOSEPH E. & SALLY J.	5	50+00 LT.	52+25 LT.	0.03 A±			WDOE		WAITSFIELD			1450 S.F.±
			50+00 LT.	53+28 LT.			CONST. EASE. (T) 0.07 A±						3050 S.F.±
			50+33 LT.	52+70 LT.			SLOPE (P) 0.05 A±						2355 S.F.±
1B		5	50+00 RT.	50+73 RT.	0.02 A±								1025 S.F.±
1C		6,7	56+14 RT.	59+97 RT.	0.34 A±								
			56+14 RT.	56+90 RT.			CONST. EASE. (T) 0.04 A±						1600 S.F.±
			56+40 RT.	56+80 RT.			CHANNEL (P) 0.01 A±						580 S.F.±
			57+40 RT.	58+80 RT.			CONST. EASE. (T) 0.01 A±						560 S.F.±
			58+50 RT.				DRIVE (T)						
2A	SPAULDING, DONALD E. & LAURIE J.	5,6	50+34 RT.	56+27 LT.	0.6 A±			WDOE		WAITSFIELD			
			50+25 RT.	52+40 RT.			CONST. EASE. (T) 0.03 A±						1250 S.F.±
			52+00 RT.				DRIVE (T)						
			53+00 RT.	56+14 RT.			CONST. EASE. (T) 0.06 A±						2630 S.F.±
			54+15 RT.	55+00 RT.			SLOPE (T) 170 S.F.±						
			55+60 RT.	55+80 RT.			CHANNEL (P) 110 S.F.±						
2B		6	56+25 LT.	56+71 LT.			CONST. EASE. (T) 0.01 A±						540 S.F.±
			56+85 LT.	56+71 LT.			CHANNEL (P) 155 S.F.±						
2C		6	57+25 LT.	58+00 LT.									RIGHT OF WAY
3A	KERR, WILLIAM T. & COLLEEN P.	6	55+30 LT.	55+56 LT.			CONST. EASE. (T) 360 S.F.±	WDOE		WAITSFIELD			
			55+43 LT.	55+55 LT.			SLOPE (P) 75 S.F.±						
3B		6	55+70 LT.										RIGHT OF WAY

TABLE OF REVISIONS

REVISION NO.	SHEET NO.	DESCRIPTION OF REVISION	DATE	MADE BY	APPROVED BY

MADE BY: NBB DATE 2-10-82

CHECKED BY: _____ DATE _____

DR. RT. — DRAINAGE RIGHT
DIT. RT. — DITCHING RIGHT
CH. RT. — CHANNEL RIGHT
DRIVE RT. — DRIVE RIGHT
CUL. RT. — CULVERT RIGHT
(D) — DEMOLITION OR REMOVAL
[W] — WATER SOURCES

PRESENT R.O.W.
TAKING WITHOUT ACCESS
TAKING WITHOUT ACCESS ALONG PROPERTY LINES
TAKING WITH ACCESS
(P) PERMANENT EASEMENT
(T) TEMPORARY EASEMENT

LEGEND
CONST. EASE. — CONST. EASEMENT
SR — SR — SLOPE RIGHTS
P/L — P/L — PROPERTY LINE
TOP OF CUT
TOE OF SLOPE

APPROVED Thomas D. Mayo DATE 2-16-82
CHIEF OF PLANS & TITLES

PROJECT WAITSFIELD
NO. BRZ 1446(8)
SHEET 10 OF 51

ROW

STATE OF VERMONT
AGENCY OF TRANSPORTATION
RIGHT-OF-WAY PLANS
DETAIL SHEET

TABLE OF PROJECT PROPERTY ACQUISITION

PARCEL NO.	GRANTOR	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKING	REM.	RIGHTS	TITLE TAKEN	DATE	TOWN OR CITY RECORDED	BK.	PG.	REMARKS
4	CREEDON, CARL L. & STEPHANIE D.	6	55+53 LT. 55+70 LT. 55+80 LT.	56+30 LT. 55+95 LT.			CONST. EASE. (T) 0.03 A± DRIVE (T) CHANNEL (P) 80 S.F.±	WDOE		WAITSFIELD			1360 S.F.±
5	GREEN MOUNTAIN POWER CORP.												UTILITY
6	WAITSFIELD-FAYSTON TELEPHONE CO., INC.												UTILITY

TABLE OF REVISIONS

REVISION NO.	SHEET NO.	DESCRIPTION OF REVISION	DATE	MADE BY	APPROVED BY

MADE BY: NBB DATE 2-10-82

CHECKED BY: _____ DATE _____

DR. RT. — DRAINAGE RIGHT
DIT. RT. — DITCHING RIGHT
CH. RT. — CHANNEL RIGHT
DRIVE RT. — DRIVE RIGHT
CUL. RT. — CULVERT RIGHT
(D) — DEMOLITION OR REMOVAL
[W] — WATER SOURCES

PRESENT R.O.W.
TAKING WITHOUT ACCESS
TAKING WITHOUT ACCESS ALONG PROPERTY LINES
TAKING WITH ACCESS
(P) PERMANENT EASEMENT
(T) TEMPORARY EASEMENT

LEGEND
CONST. EASE — CONST. EASEMENT
SR — SR — SLOPE RIGHTS
P/L — P/L — PROPERTY LINE
TOP OF CUT
TOE OF SLOPE

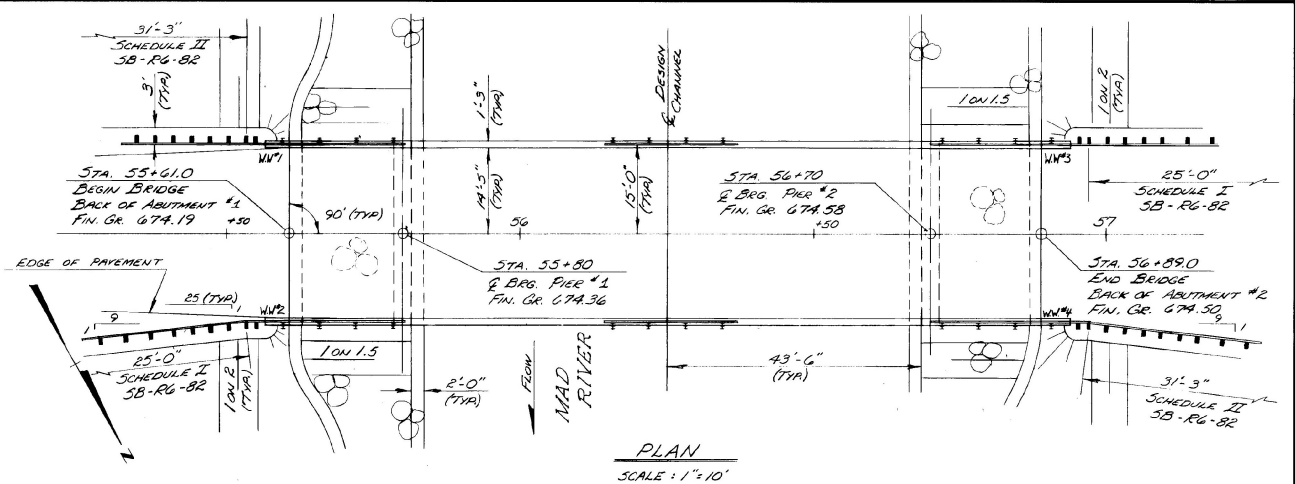
APPROVED Thomas V. Moyer DATE 2-16-82
CHIEF OF PLANS & TITLES

PROJECT WAITSFIELD
NO. BRZ 1446(8)
SHEET 11 OF 57

ROW

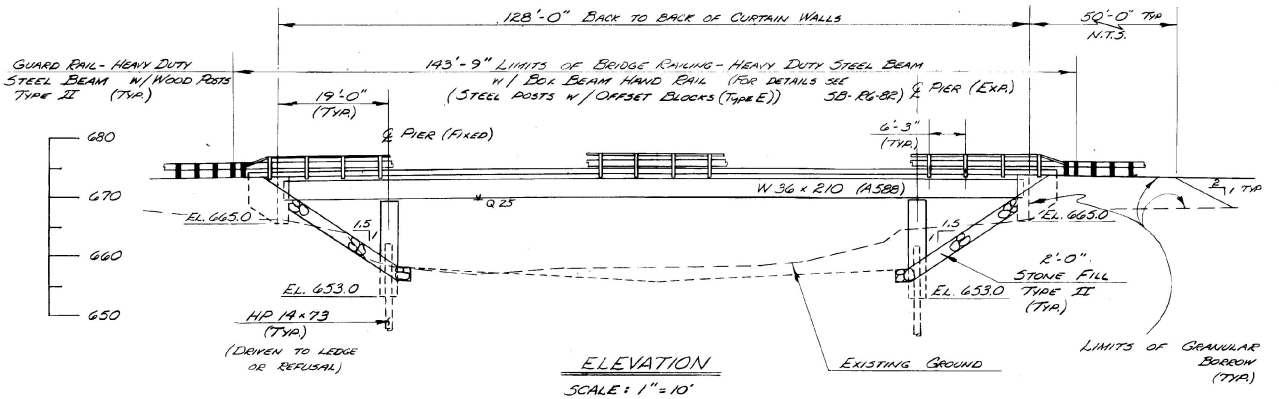
NEW HIGHWAY SECTION — BRIDGE APPROACHES

BRIDGE TYPICAL SECTION



PLAN

SCALE: 1" = 10'



ELEVATION

SCALE: 1" = 10'

EXISTING STRUCTURE

1. STRUCTURE TYPE: STEEL TRUSS — OVERALL LENGTH: 114± — INVENTORY RATING: H-10
2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS: 109'±
3. CLEAR SPAN LENGTH(S) NORMAL TO STREAM: 109'±
4. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM): 1281 SQ.FT. ± — VERTICAL CLEARANCE ABOVE STREAMBED: 18.0'
5. WATER SURFACE ELEVATION @ Q 2.33: 669.0 — WATER SURFACE ELEVATION @ Q 25: 669.3
6. WATER SURFACE ELEVATION AT FLOOD OF RECORD: UNKNOWN — YEAR: 1927 — ESTIMATED DISCHARGE: 3,30 +cfs
7. DOES ALL WATER PASS THROUGH EXISTING STRUCTURE? NO — IF NOT, AT WHAT FREQUENCY AND ELEVATION DOES RELIEF OCCUR? Q10 669.0
   ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF: UNLIMITED
8. TYPE OF SUBSTRUCTURE FOUNDATION MATERIAL: UNKNOWN
9. DISPOSITION OF STRUCTURE: TO BE REMOVED AND BECOME PROPERTY OF THE CONTRACTOR

NEW STRUCTURE

STRUCTURE GEOMETRY:

1. STRUCTURE TYPE: 3-SPAN CONTINUOUS CANTILEVER (13'-90'-13') — OVERALL LENGTH: 128'
2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS: 90' (MAIN SPAN) — 13' (END SPANS)
3. VERTICAL CLEARANCE ABOVE STREAMBED OR ROAD UNDER: 12'±
4. CLEAR SPAN LENGTH(S) NORMAL TO STREAM: 89'
5. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM): 1280 SQ. FT.
6. ARE PROVISIONS TO BE MADE FOR PUBLIC UTILITIES? NO

HYDRAULIC DATA:

1. Q 2.33: 2500 cfs — WATER ELEVATION: 669.7 — VELOCITY: 4.4 fps
   Q 10: 6000 cfs — WATER ELEVATION: 669.5 — VELOCITY: 6.1 fps
   Q 25: 8000 cfs — WATER ELEVATION: 669.0 — VELOCITY: 7.0 fps
   Q 50: 9600 cfs — WATER ELEVATION: 669.8 — VELOCITY: 7.4 fps
   Q 100: 11000 cfs — WATER ELEVATION: 671.0 — VELOCITY: 8.6 fps
2. DRAINAGE AREA: 25.1 SQ. MI. — CHARACTER OF TERRAIN: ROLLING TO MOUNTAINS
3. ARE THERE OBJECTIONS TO A PIER IN THE STREAM? NO
4. DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY? NO — IS ORDINARY RISE RAPID? NO
5. NATURE OF NATURAL STREAMBED: GRAVEL AND SMALL BOULDERS
6. ESTIMATED SCOUR DEPTH: 1'-8" — COMMENT ON: DEBRIS: MODERATE — ICE: HEAVY
7. WILL ALL WATER PASS THROUGH NEW STRUCTURE? NO — IF NOT, WHAT FREQUENCY AND ELEVATION WILL RELIEF OCCUR? Q25 670.0±
   ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF: UNLIMITED
8. VERTICAL CLEARANCE ABOVE Q 25: 10'
9. ALLOWABLE WATER SURFACE ELEVATION: 670.0 — LIMITED BY: BOTTOM OF BEAMS
10. IS DESIGN STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? NO — IF YES, DESCRIBE:
11. AVERAGE DAILY LOW FLOW: — DEPTH: — AVERAGE DAILY HIGH FLOW: — DEPTH:
12. STREAMBANK OR CHANNEL PROTECTION REQUIRED: STONE FILL — TYPE: II
13. DISTANCE TO EXISTING UPSTREAM STRUCTURE: 1.9 MI.± SPAN: 86' — WATERWAY AREA OF FULL OPENING: 1250 SQ.FT.± @ Q
14. DISTANCE TO EXISTING DOWNSTREAM STRUCTURE: 2.4 MI.± SPAN: 76' — WATERWAY AREA OF FULL OPENING: 1370 SQ.FT.± @ Q

ALLOWABLE STRESSES:

1. DESIGN LIVE LOAD AASHTO: H 15-20
2. ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL: N/A — ON LEDGE: N/A
3. ALLOWABLE LOAD FOR PILING: 50 TONS — TYPE: HP 14 x 73 — ESTIMATED LENGTH: PIER #1 (80') PIER #2 (80')
4. ALLOWABLE STRESS FOR STRUCTURAL STEEL ASTM A: 588 — TENSION: 22,000 PSI
5. ALLOWABLE STRESS FOR REINFORCING STEEL GRADE 60 TENSION: 24,000 PSI — COMPRESSION: 20,000 PSI
6. ALLOWABLE STRESS FOR CONCRETE CLASS A f_c: 3500 PSI — f_c: 1400 PSI
   CLASS B f_c: 3500 PSI — f_c: 1400 PSI

TRAFFIC MAINTENANCE:

1. IS TRAFFIC TO BE MAINTAINED? YES — IF YES, ON EXISTING STRUCTURE: YES — OR ON TEMPORARY BRIDGE:
2. TEMPORARY BRIDGE REQUIREMENTS: ONE OR TWO WAY: — TRAFFIC CONTROL SIGNALS REQUIRED:
   MINIMUM CLEAR SPAN: — MINIMUM CLEAR HEIGHT: — MINIMUM WATERWAY AREA:
   ARE SIDEWALKS REQUIRED? — IF SO, ON WHAT SIDE?

ADDITIONAL DESIGN CONSIDERATIONS

LOAD RATING (TONS)

STRESS LEVELS	TRUCK H	HS	3S2	6 AXLE	3A. STR.	4A. STR.	5A. SEMI
INVENTORY 0.55 F_y	36	41					
POSTED 0.67 F_y	53		72		56	57	66
OPERATING 0.75 F_y			86	102			

RECOMMENDED FOR APPROVAL: W. M. Smith — STRUCTURES ENGINEER — DATE 11/4/81

RECOMMENDED FOR APPROVAL: Arthur J. Ross — CHIEF OF DESIGN — DATE 11/5/81

APPROVED BY: S. J. Clear — DIRECTOR OF ENGINEERING & CONSTRUCTION — DATE NOV 5 1981

REVISIONS

NO.	DESCRIPTION	BY & DATE

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF: WAITSFIELD — Bridge No. 25 — Log Sta.

HIGHWAY NO. T.H. # 15 — Surv. Sta. 56+25

TOWN HIGHWAY #15 OVER MAD RIVER

PRELIMINARY INFORMATION

Designed by B.V. SPILAK — Drawn by M. GARCIA

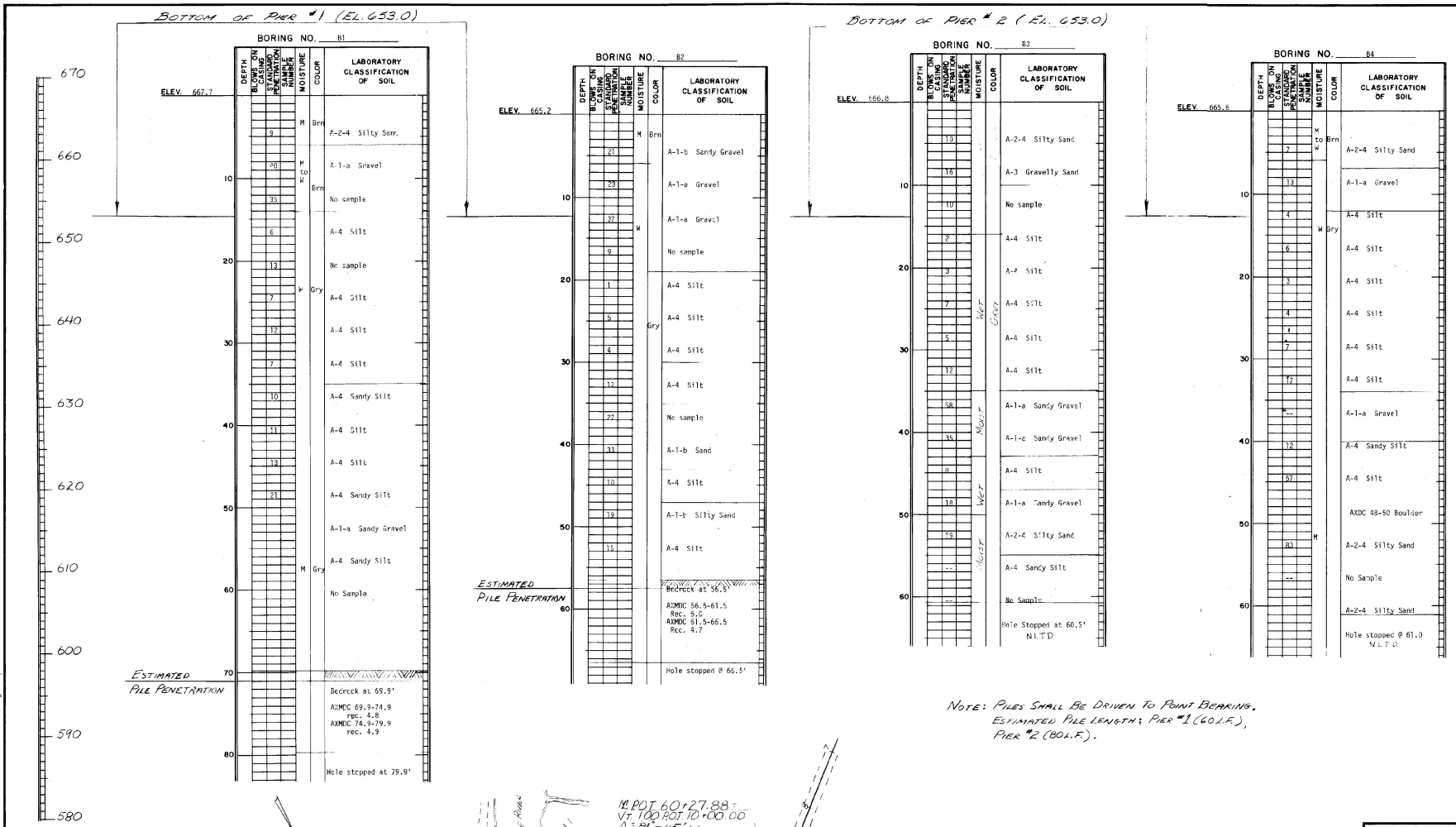
Checked by A. ELWOOD date 9-81 — Bridge Design Supervisor R.S. HAUPT date 10/81

PROJECT: WAITSFIELD — PROJECT NO. BRZ 1446(8)

Bridge Sheet No. — Sheet 12 of 57

DRAWING 44-131-40151

BR-2



BORING PLAN
SCALE: 1" = 80'-0"

NOTE: PILES SHALL BE DRIVEN TO POINT BEARING. ESTIMATED PILE LENGTH; PIER #1 (60 L.F.), PIER #2 (80 L.F.).

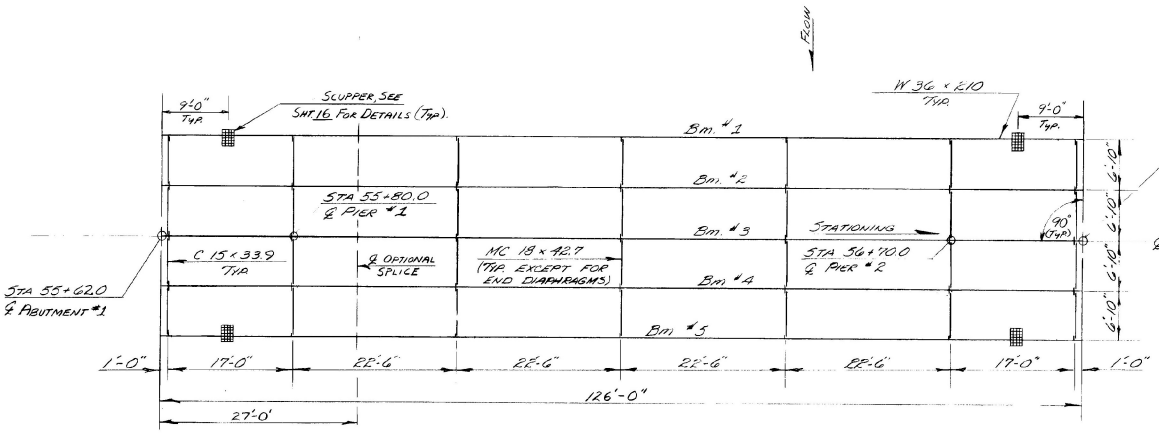
BORING NO.	STATION	OFFSET	GROUND ELEV.
B-1	55+65	25' Lt.	667.7
B-2	55+65	25' Rt.	665.2
B-3	56+85	25' Lt.	666.8
B-4	56+70	25' Rt.	665.6

BORING NOMENCLATURE

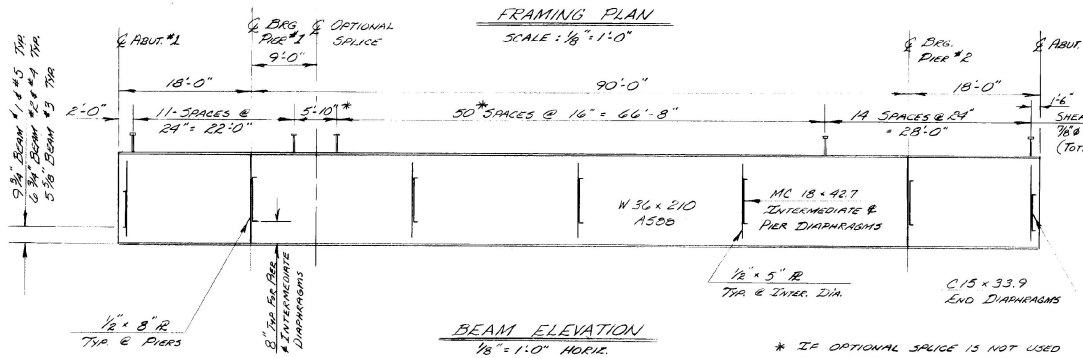
● STANDARD PENETRATION BORINGS
SAMPLER OUTSIDE DIAMETER 2"
SAMPLER INSIDE DIAMETER 1 3/8"
WEIGHT OF HAMMER 140 LBS
HAMMER FALL 30"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF WAITSFIELD	Bridge No. 25
HIGHWAY NO. T.H. 15	Log Sta. Surv. Sta. 56+25
T.H. 15 OVER MAD RIVER	
BORING SHEET	
Designed by G.V.SPILAR	Drawn by S. BASCOM
Checked by R. RANALDO date 3/82	Bridge Design Supervisor R.S. HAUPT date
PROJECT WAITSFIELD	PROJECT NO. BRZ-1446(8)
Bridge Sheet No.	Sheet 13 of 51

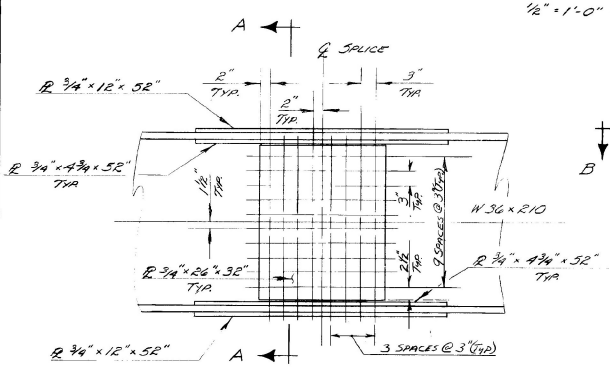


FRAMING PLAN
SCALE : 1/8" = 1'-0"

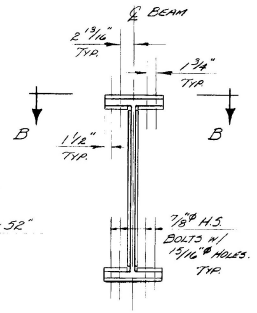


BEAM ELEVATION
1/8" = 1'-0" HORIZ.
1/2" = 1'-0" VERT.

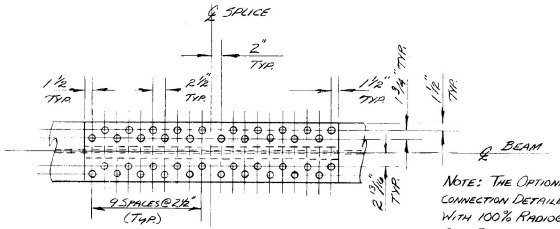
* IF OPTIONAL SPLICE IS NOT USED THE CONTRACTOR SHALL ADD TWO ADDITIONAL ROWS OF STUDS IN THE 5'-10" SPLICE AREA AT NO ADDITIONAL COST.



SPLICE ELEVATION
SCALE : 1" = 1'-0"

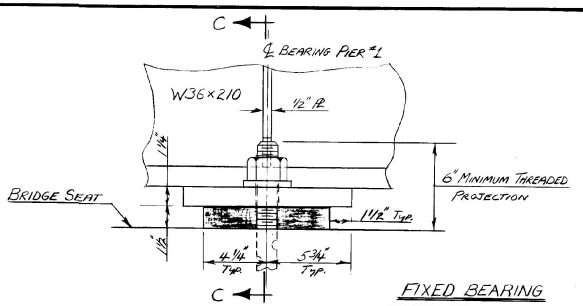


SECTION A-A
SCALE : 1" = 1'-0"



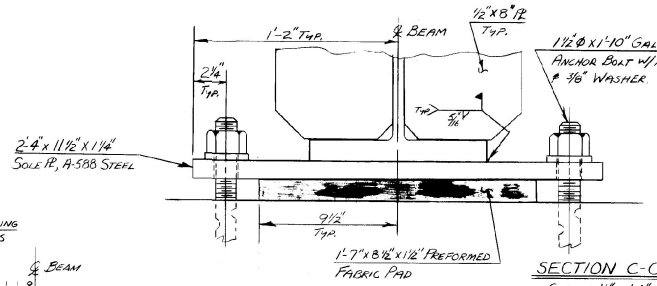
SECTION B-B
SCALE : 1" = 1'-0"

NOTE: THE OPTIONAL SPLICE MAY BE EITHER THE BOLTED CONNECTION DETAILED OR A SHOP WELDED BUTT SPLICE WITH 100% RADIOGRAPHIC INSPECTION (DETAILS AND PROCEDURES TO BE APPROVED BY THE STATE). ALL MATERIAL AND LABOR COSTS INCURRED FOR EITHER SPLICE WILL BE AT NO COST TO THE STATE.

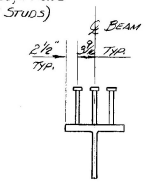


FIXED BEARING DEVICE-ELEVATION
SCALE: 1/4" = 1'-0"

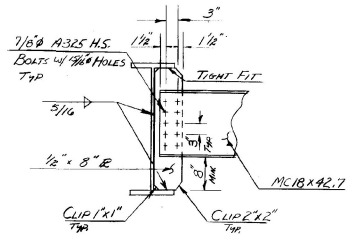
SEE SHEET 15 FOR BEARING DEVICE NOTES.



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



SHEAR CONNECTOR DETAILS
SCALE : 1" = 1'-0"

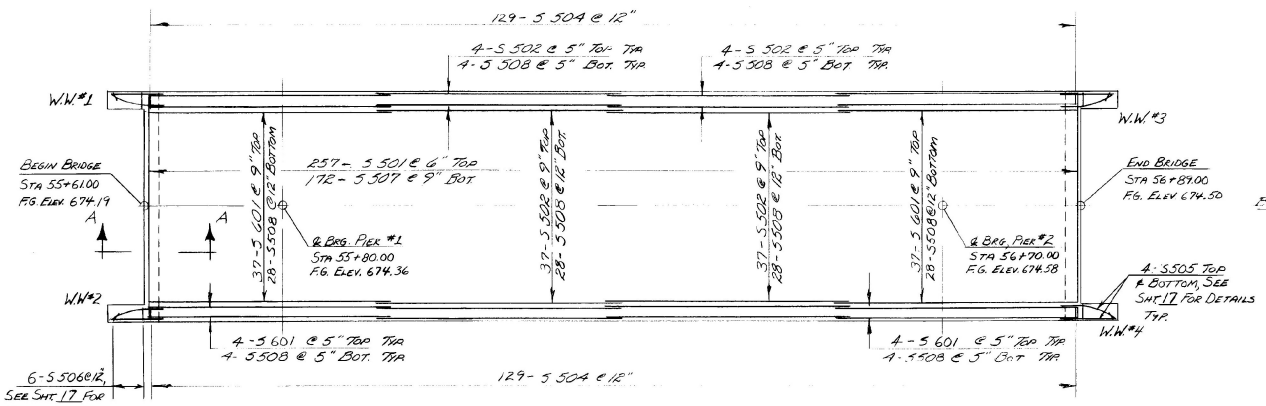


PIER DIAPHRAGM DETAILS
SCALE : 3/4" = 1'-0"

NOTE: SEE STANDARD SHEET SCB-D7-71 FOR INTERMEDIATE & END DIAPHRAGM DETAILS.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

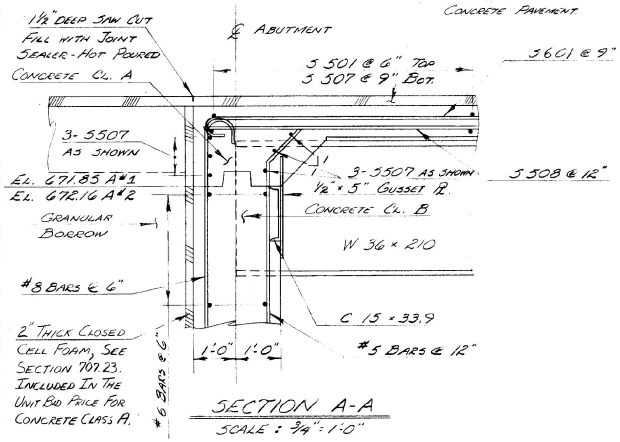
TOWN OF WAITSFIELD	Bridge No. 25
	Log Sta.
HIGHWAY NO. TOWN HIGHWAY #15	Surv. Sta. 56+25
TOWN HIGHWAY #15 over MAD RIVER	
SUPERSTRUCTURE DETAILS	
Designed by G. SPILAK	Drawn by M. GARCIA
Checked by R. RANALDO date 2/82	Bridge Design Supervisor R.S. HAUPT date 3/82
PROJECT WAITSFIELD	PROJECT NO. BRZ 1446(8)
Bridge Sheet No.	Sheet 14 of 51



REINFORCING STEEL PLAN

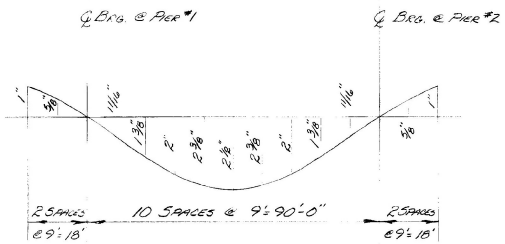
SCALE : 1/8" = 1'-0"

NOTE: THE DECK CONCRETE SHALL BE PLACED CONTINUOUSLY FROM THE LOW END TO THE HIGH END AND RETARDED SUFFICIENTLY TO REMAIN FLUID UNTILL THE POUR IS COMPLETE. THE QUANTITY OF RETARDER SHALL BE ESTABLISHED BY THE CONCRETE ENGINEER PRIOR TO PLACEMENT. ANY DEVIATION FROM THIS PROCEDURE MUST BE APPROVED BY THE STRUCTURES ENGINEER IN WRITING BEFORE THE DECK POUR BEGINS.



SECTION A-A

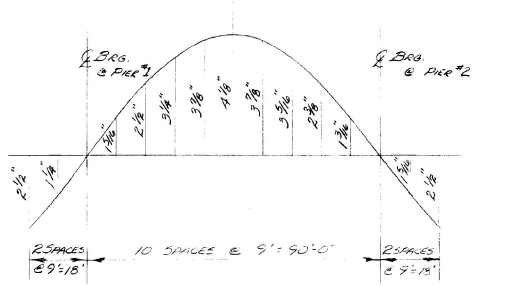
SCALE : 3/4" = 1'-0"



DEAD LOAD DEFLECTION

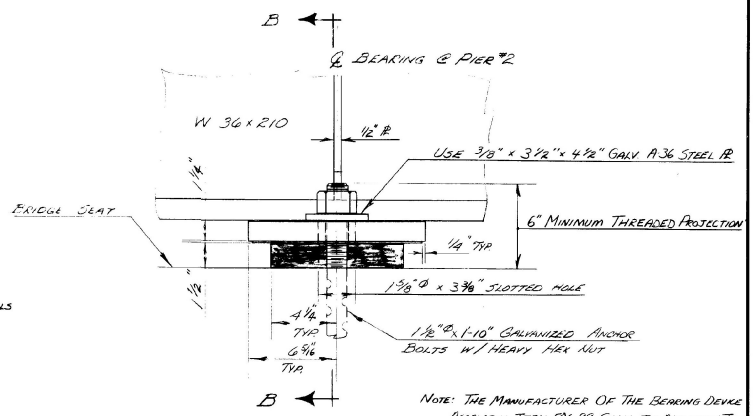
INCL. DECK SLAB, GIRDER, DIAPHRAGMS, CURB, RAILING, AND PAVEMENT.

N.T.S



CAMBER DIAGRAM

N.T.S.

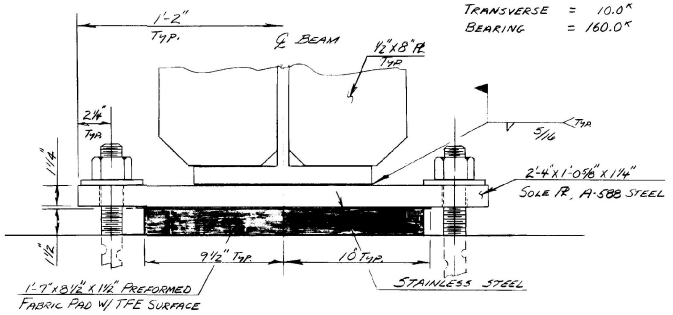


ELEVATION

N.T.S

NOTE: THE MANUFACTURER OF THE BEARING DEVICE ASSEMBLY ITEM 506.99, SHALL IN ADDITION TO THE TYPE D CERTIFICATION REQUIRED IN SECTION 731.10 CERTIFY THAT THE UNITS SUPPLIED ARE DESIGNED TO MEET THE LOADING REQUIREMENTS INDICATED BELOW.

LONGITUDINAL	=	10.0 K
TRANSVERSE	=	10.0 K
BEARING	=	160.0 K



SECTION B-B

N.T.S

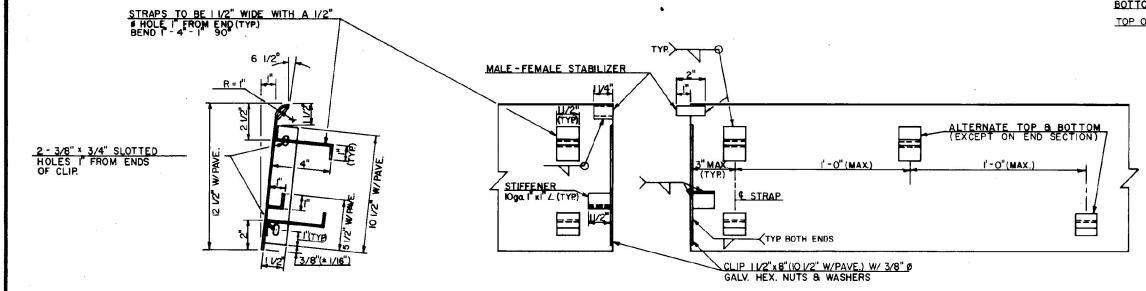
EXPANSION BEARING DEVICE

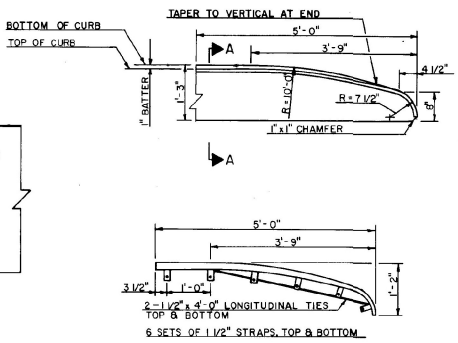
BEARING DEVICE NOTES

1. THE TFE EXPANSION BEARINGS SHALL CONFORM TO SUBSECTION 731.10
2. FIXED BEARINGS SHALL CONFORM TO SUBSECTION 731.10 (OMIT TFE AND STAINLESS STEEL)
3. BEARINGS SHALL BE PAID FOR UNDER ITEM 506.99 BEARING DEVICE ASSEMBLY.
4. CONCRETE SURFACES UNDER BEARINGS SHALL BE LEVEL.
5. ALL STRUCTURAL STEEL SHALL BE A588 UNLESS OTHERWISE NOTED.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF WAITSFIELD	Bridge No. 25
	Log Sta.
HIGHWAY NO. TOWN HIGHWAY #15	Surv. Sta. 56+25
TOWN HIGHWAY #15 over MAD RIVER	
SUPERSTRUCTURE DETAILS	
Designed by G. SPILAR	Drawn by M. GARCIA
Checked by R. RANALDO date 2/82	Bridge Design Supervisor R.S. HAUPT date 3/82
PROJECT WAITSFIELD	PROJECT NO. BRZ 1446(8)
Bridge Sheet No.	Sheet 15 of 57





NOTES

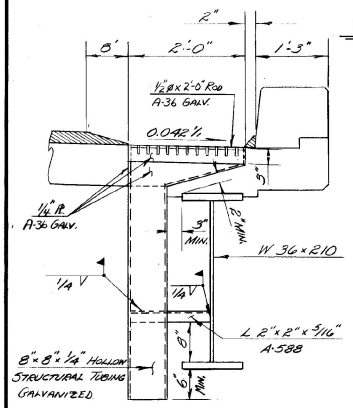
1 - THE METAL PLATE FACING FOR THE CURB SHALL BE FABRICATED USING A.S.T.M. A-569, GALVANIZED, WITH A MAXIMUM LENGTH OF 10'-0". SECTIONS SHALL BE BOLTED TOGETHER WITH 3/8" Ø x 3/4" LONG A.S.T.M. A-307 BOLTS, GALVANIZED (A.A.S.H.T.O. M-232). ALL ELEMENTS SHALL BE 10 GAUGE THICKNESS.

2 - END SECTIONS SHALL HAVE 6 SETS OF STRAPS AND TWO LONGITUDINAL TIES.

3 - IF STRAPS ARE WELDED TO EPOXY COATED BARS IN THE FIELD ALL DAMAGED AREAS OF BARS SHALL BE CLEANED AND RE-EPOXY COATED.

4 - PRIOR TO FABRICATION, SHOP DRAWINGS INDICATING A PLAN LAYOUT SHALL BE SUBMITTED TO THE STRUCTURES DIVISION FOR APPROVAL IN ACCORDANCE WITH SECTION 105.03.

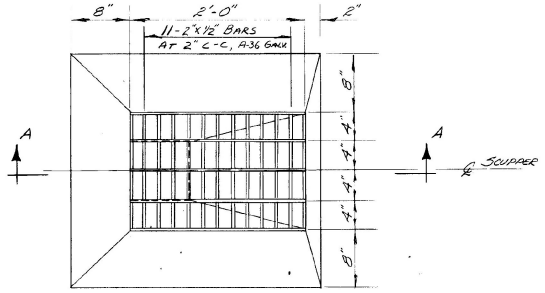
5 - FOR CURB JOINT DETAILS SEE STD. SHT. SCB-04-76. CURB JOINTS SHOULD CORRESPOND WITH JOINTS IN METAL PLATE FACING WHERE POSSIBLE.



METAL PLATE FACING FOR CURB

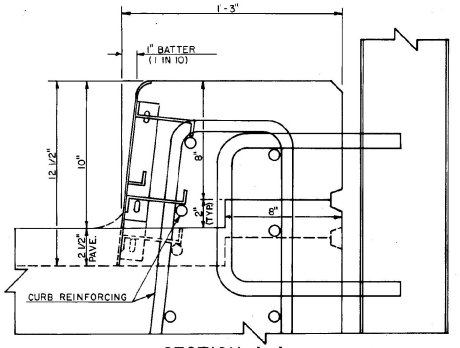
SCALE: 3" = 1'-0"

NOTE: FOR ADDITIONAL DETAILS AND NOTES SEE SCB-DG-79



SCUPPER - PLAN

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

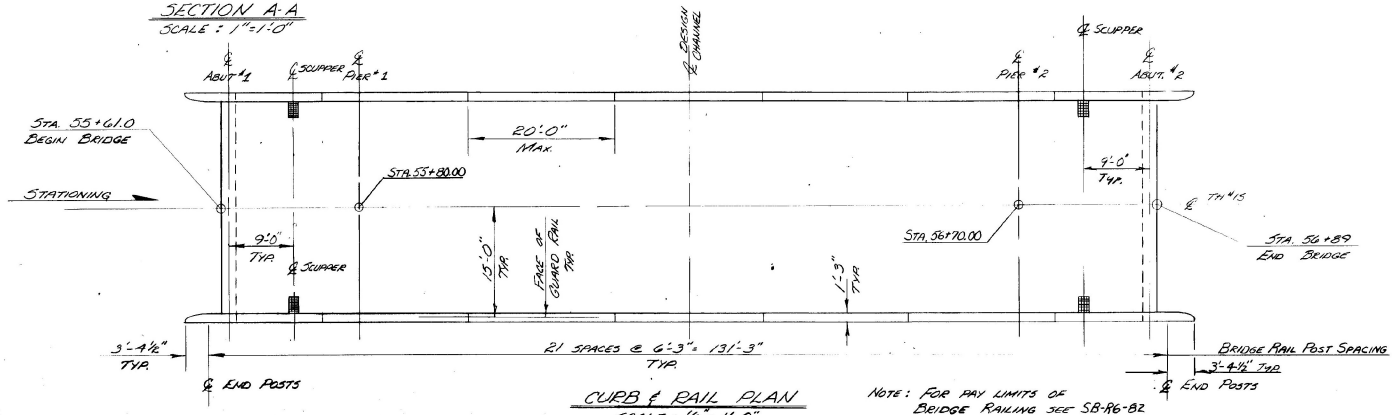


SECTION A-A
CURB DETAIL FOR FASCIA MOUNTED POST

SCALE: 3" = 1'-0"

SECTION A-A

SCALE: 1" = 1'-0"



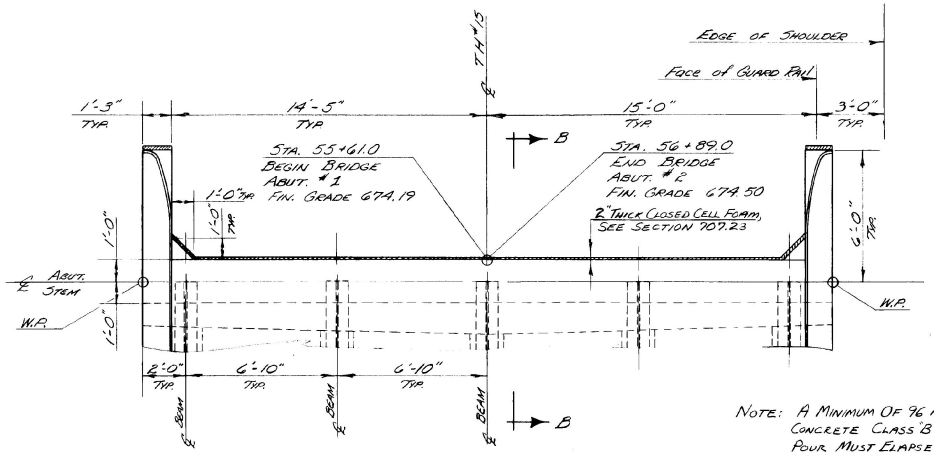
CURB & RAIL PLAN

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

NOTE: FOR PAY LIMITS OF BRIDGE RAILING SEE SB-R6-82

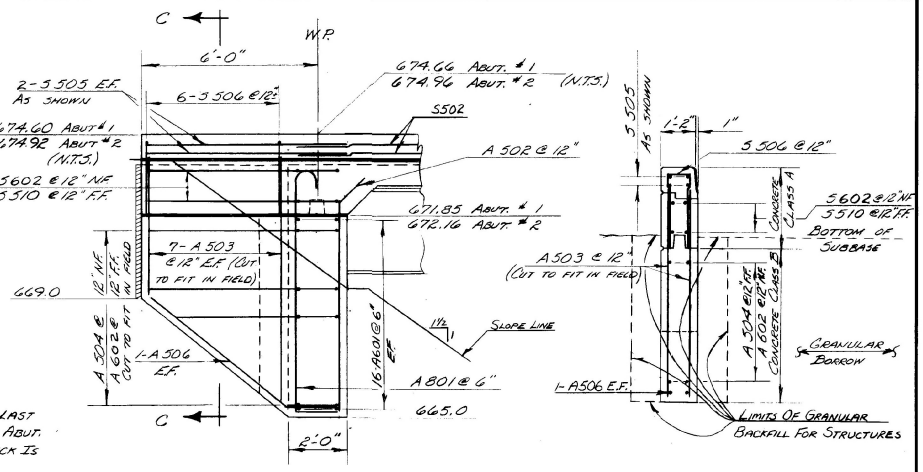
STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF WAITSFIELD	Bridge No. 25
	Leg Sta.
HIGHWAY NO. TOWN HIGHWAY #15	Surv. Sta. 56+25
METAL PLATE FACING & SCUPPER DETAILS	
TOWN HIGHWAY #15 OVER MAD RIVER	
Designed by G. SPALAK	Drawn by M. GARCIA
Checked by R. HAWALDO date 2/82	Bridge Design Supervisor R. S. HAUPT date 3/82
PROJECT WAITSFIELD	PROJECT NO. BRZ 1446(8)
Bridge Sheet No.	Sheet 16 of 51

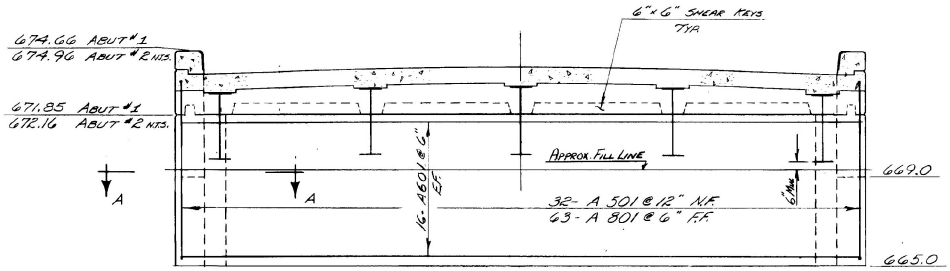


PLAN
SCALE : 3/8" = 1'-0"

NOTE: A MINIMUM OF 96 HOURS FROM LAST CONCRETE CLASS 'B' PORTION OF ABUT. POUR MUST ELAPSE BEFORE DECK IS POURED

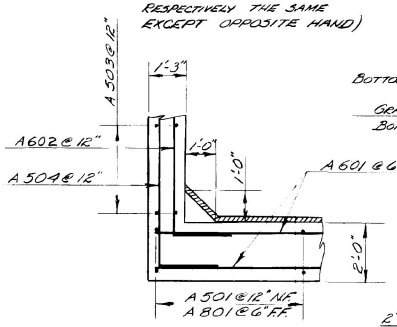


SECTION C-C
SCALE : 1/2" = 1'-0"



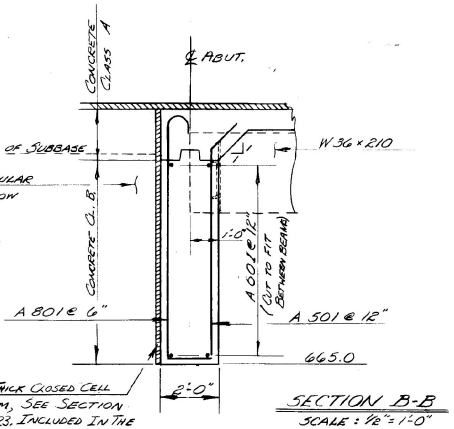
ELEVATION
SCALE : 3/8" = 1'-0"

WINGWALLS #2 & #3
SCALE : 1/2" = 1'-0"
(WINGWALLS #1 & #4 ARE RESPECTIVELY THE SAME EXCEPT OPPOSITE HAND)



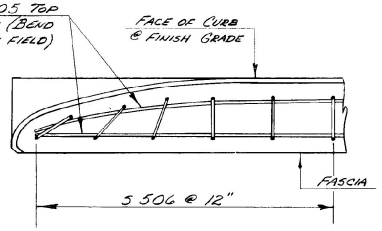
SECTIONS A-A
SCALE : 1/2" = 1'-0"

N.F. = NEAR FACE
F.F. = FAR FACE
E.F. = EACH FACE



2" THICK CLOSED CELL FOAM, SEE SECTION 707.23. INCLUDED IN THE UNIT BID PRICE FOR CONCRETE CLASS A.

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

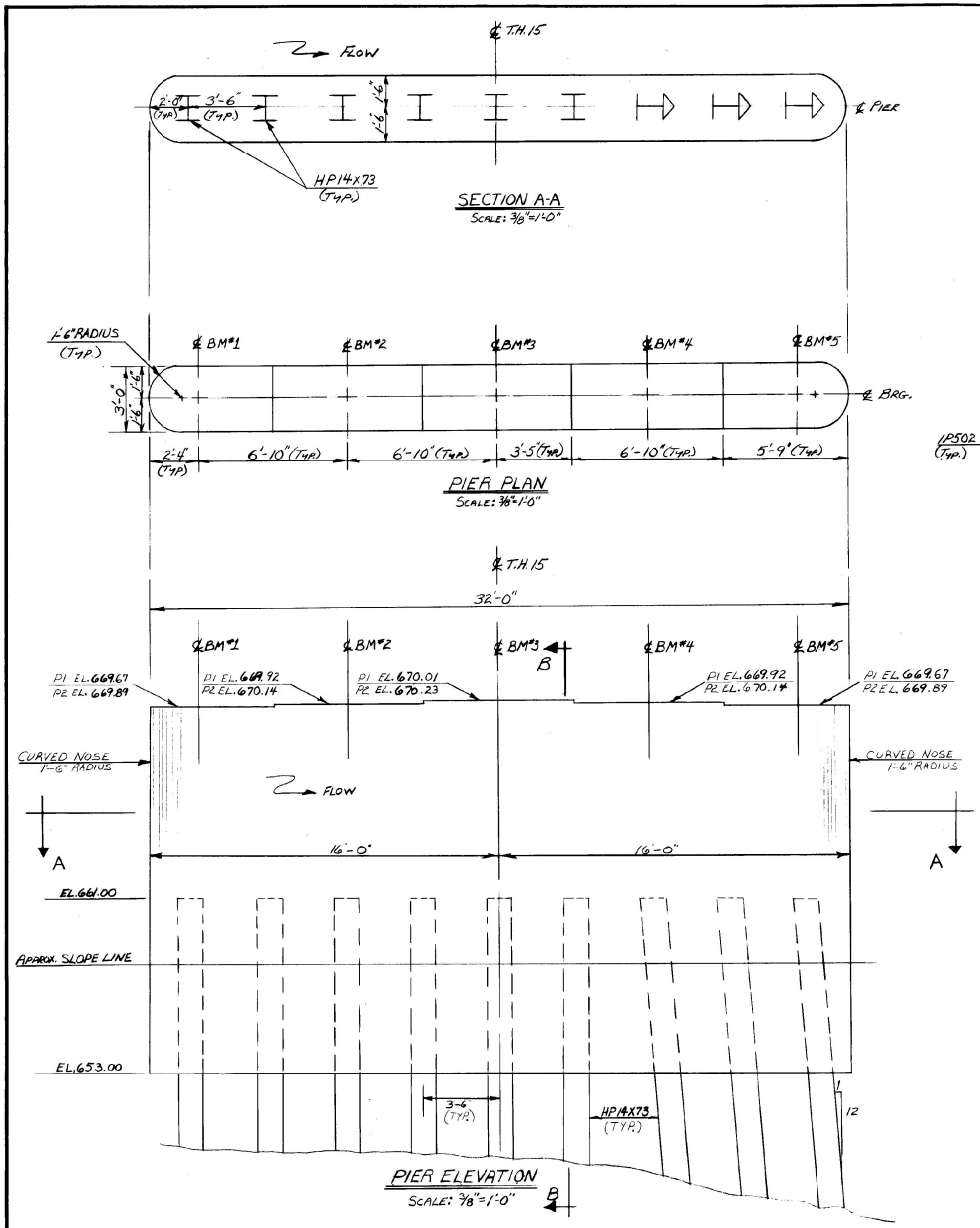


NOTE: FOR DETAILS OF CURB END FLAIR SEE SB-RG-82

REINFORCING STEEL @ CURB END
SCALE: 1" = 1'-0"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF WAITSFIELD	Bridge No. 25
HIGHWAY NO. TOWN HIGHWAY #15	Log Sta.
	Surv. Sta. 56+25
TOWN HIGHWAY #15 OVER MAD RIVER	
ABUTMENT DETAILS	
Designed by C. SALAK	Drawn by M. GARCIA
Checked by R. RAMALOO date 2/82	Bridge Design Supervisor R.S. HAUPT date 3/82
PROJECT WAITSFIELD	PROJECT NO. BRZ 1446(8)
Bridge Sheet No.	Sheet 17 of 51



NOTE:
E.F. = EACH FACE
3" CLEARANCE ALL FACES

NOTES

1. ALL CONCRETE SHALL BE CONCRETE CLASS B.
2. TOP OF PIERS SHALL BE SLOPED 1/2"/FT EACH WAY FROM ℄ BEARING EXCEPT IN BEARING AREAS WHERE THEY WILL BE LEVEL.
3. PILE ALIGNMENT SHALL NOT VARY BY MORE THAN 1/2" FROM DESIGN LINE.
4. AT ELEVATION 661.00 ALL PILES SHALL BE SPACED 3'-6" C-C, SEE PIER ELEVATION VIEW.
5. ALL PILES SHALL BE DRIVEN TO LEDGE OR REFUSAL WITH A MINIMUM BEARING CAPACITY OF 96 TONS. ESTIMATED PILE LENGTH: 60 L.F. (PIER #1), 80 L.F. (PIER #2).

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF WAITSFIELD	Bridge No. 25
HIGHWAY NO. TOWN HIGHWAY #15	Log Sta. Surv. Sta. 56+25
TOWN HIGHWAY #5 OVER MAD RIVER	
PIER #1 & PIER #2 DETAILS	
Designed by G. SPILAR	Drawn by P.N.E
Checked by R. RANALDO date 2/82	Bridge Design Supervisor R.S. HAUPT date 3/82
PROJECT WAITSFIELD	PROJECT NO. BRZ 1446(8)
Bridge Sheet No.	Sheet 18 of 51

ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
1						SUPERSTRUCTURE											
2																	
3						(GRADE 40 BARS)											
4																	
5	258	5	4-2	S504	S3	0-6	1-3	0-8	1-3			0-6	0-3¾				
6																	
7						(GRADE 60 BARS)											
8																	
9	257	5	30-10	S501	STR												
10	90	↑	34-0	S502	STR												
11				S503	NOT USED												
12	16		7-0	S505	STR.												
13	184		30-10	S507	STR												
14	144	↓	34-6	S508	STR												
15		5		S509	NOT USED												
16																	
17	*25	5	5-8	S506	17		2-6	0-8	2-6								
18	8	5	7-1	S510	17		5-1	2-0	/								
19																	
20	90	6	33-8	S601	1	0-8	33-0										
21	*9	6	8-5	S602	17		6-5	2-0	/								
22																	
23																	
24																	
25																	
26						ABUTMENT NO. 1											
27																	
28						(GRADE 60 BARS)											
29																	
30				1A502	NOT USED												
31	28	5	8-6	1A503	STR.						CUT TO FIT IN FIELD						
32																	
33	32	5	8-3	1A501	6			1-3	7-0				0-10				
34	16	5	8-6	1A504	17		6-6	2-0	/		CUT TO FIT IN FIELD						
35				1A505	NOT USED												
36	4	5	7-11	1A506	16			1-9	6-2				4-9		4-0		
37																	
38	32	6	31-0	1A601	STR												
39																	
40	*64	8	10-8	1A801	12	0-11	8-3	1-6						0-8			
41																	
42																	
43																	
44																	
45						ABUTMENT NO.2											
46				(SIMILAR TO ABUT. NO. 1 WITH PREFIX 2A, EXCEPT #8 BARS)													
47																	
48	63	8	10-8	2A801	12	0-11	8-3	1-6						0-8			
49																	
50																	
51																	
52																	
53						PIER NO. 1											
54																	
55						(GRADE 40 BARS)											
56																	
57	30	5	7-10	1P503	S10		2-8	2-6	2-8								
58	68	5	14-0	1P504	T1	0-6	4-0	2-6	4-0	2-6		0-6					
59																	
60						(GRADE 60 BARS)											
61																	
62	38	5	30-0	1P501	STR												
63																	
64	34	5	8-11	1P502	10	2-6	3-11	2-6								1-3	2-6
65																	
66	*69	7	16-2	1P701	STR												
67																	
68																	
69																	
70																	
71						PIER NO.2											
72				(SIMILAR TO PIER NO. 1 WITH PREFIX 2P EXCEPT #7 BARS)													
73																	
74	68	7	16-2	2P701	STR												
75																	
76																	
77																	
78																	
79																	
80																	

ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
81																	
82																	
83																	
84																	
85																	
86																	
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ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
161																	
162																	
163																	
164																	
165																	
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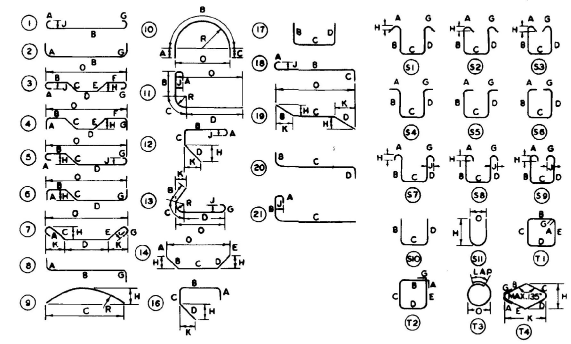
177																	
178																	
179																	
180																	

ASTM STANDARD REINFORCING BARS

BAR SIZE DESIGNATION	WEIGHT POUNDS PER FOOT	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER INCHES	CROSS SECTIONAL AREA SQ. INCHES	PERIMETER INCHES
#3	.376	.375	.11	1.178
#4	.668	.500	.20	1.571
#5	1.043	.625	.31	1.963
#6	1.502	.750	.44	2.356
#7	2.044	.875	.60	2.749
#8	2.670	1.000	.79	3.142
#9	3.400	1.128	1.00	3.544
#10	4.303	1.270	1.27	3.990
#11	5.313	1.410	1.56	4.430
#14	7.65	1.693	2.25	5.32
#18	13.60	2.257	4.00	7.09

TYPICAL BAR BENDS



NOTES

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT," AASHTO M 31 (ASTM A615-51) GRADE 60,
2. FOR TYPICAL BENDING DETAILS, RECOMMENDED PIN DIAMETER "D" OF BENDS AND HOOKS AND OTHER STANDARD PRACTICE SEE CURRENT CONCRETE REINFORCING STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE."
3. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180° AND 135° HOOKS.
5. "J" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
6. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
7. WHERE SLOPE DIFFERS FROM 45° DIMENSIONS "H" AND "K" MUST BE SHOWN.

✳ DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.

REV. NO.	MADE BY	DATE	DESCRIPTION

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF WAITSFIELD — BRIDGE NO. 25 — LOG STA.
HIGHWAY NO. T.H.#15 — SURV. STA. 56+25
TOWN HIGHWAY #15 OVER MAD RIVER
REINFORCING STEEL SCHEDULE
DESIGNED BY G. SPILAK — DRAWN BY R. RANALDO
CHECKED BY P. NYE DATE 11 MAR 82 — BRIDGE DESIGN SUPERVISOR R.S. HAUPT DATE 3/82
PROJECT WAITSFIELD — PROJECT NO. BRZ 1446(8)
BRIDGE SHEET NO. — SHEET 19 OF 51

BRUNING 44-13, 40151
BR-5

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 DIFF.	EMBANKMENT DESIGN	EMBANKMENT FINAL	EMBANKMENT DIFFERENCE	UNAUTHORIZED WASTE DESIGN	UNAUTHORIZED WASTE FINAL	UNAUTHORIZED WASTE DIFF.	BASE DESIGN	BASE FINAL	BASE DIFF.	G Borrow DESIGN	G Borrow FINAL	G Borrow DIFF.	DESIGN	FINAL	DIFF.	NOTES
	50+00			0						0														
	+50	50		100						38														
	51+00			95						85														
	+50			70						30														
	52+00			65						35														
	+50			12			C-950			55														
	53+00			5			F 1077 811			85														
	+50			25			GB 148			135														
	54+00			60						215														
	+50			80						340														
	55+00			0						236														
	+50	50																						
	+61.0	Bridge																						
	56+0																							
	+50																							
	+89	Bridge		60			C 343																	
	57+00			80			F 954			0														
	+50	50		85			QB 849			300														
	58+00			5						170														
	+50			0						445														
	59+00			15						0														
	+50			35																				
	60+00	50		95						0														
	+21	21		95			C 77			12														
	Abutment Average Mt. 11.00						E 35																	
			Column Total																					
	500	Block	Total																					
	50+00	55+00		950																				
	55+00	60+00		343																				
	60+00	60+21		74																				
				1,367																				

COLUMN SUMMARY

SHEET	COLUMN	EXCAVATION	ROCK	FILL	UNAUTHO-RIZED WASTE	BASE	GB
1	1	1367		2450			1041
	4			3016			1029
DRIVES	See Col #2 Pg. 142			182			
TOTALS		1367		3198 2750			1029 1041

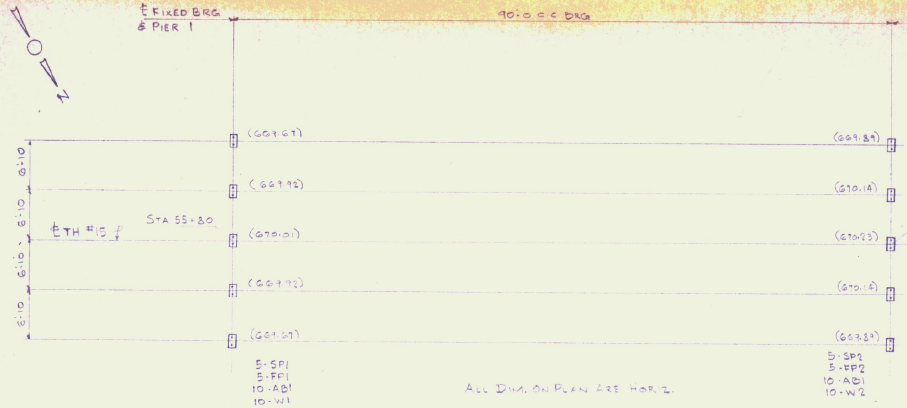
REMARKS

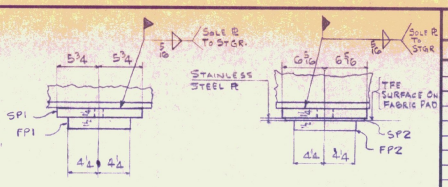
Earth Excv. 1367
Plann. Fill 3198
Net Plann. Fill 3198
Factor 0.15% Fill 480
Plann. Fill Incld. Factor 3678
Mat. Available for Fill
Earth Excav. 1367
Plann Excav (20% x 1162.4) 232
Structure Excav (20% x 676) 13
Total Available for Fill 1612
Total Fill Incld. Factor 3678
Total Mat. for Fills 1,612
Borrow 2066

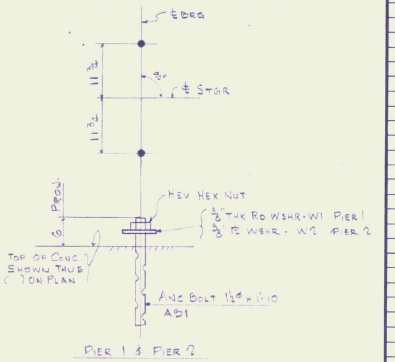
199

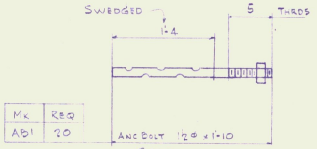
WAITSFIELD BRZ 1446(8)
PROJ. NO.
SHEET / OF /

D-7

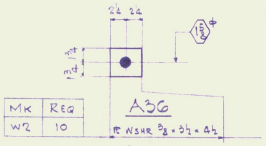








MK	REQ
AB1	20



MK	REQ
W2	10

MK	REQ
W1	10

RD WSHR 3½ O.D. x ⅜ THK x 1⅝ I.D.
GALV.

NOTE:
BRG DEVICE ASSEMBLY, SHALL IN ADDITION TO THE TYPE D CERTIFICATION REQ'D IN SECT. 731.10 CERTIFY THAT UNITS SUPPLIED ARE DESIGNED TO MEET THE LOADING REQUIREMENTS INDICATED BELOW.
LONGITUDINAL ±10%
TRANSVERSE ±10%
BEARING ±100%

RECEIVED OCT 22 1982
OK'D BY
RESUBMIT
APPROVED
BY
DATE 10/14/82

MAT'L A588 (UN)

PAINT NOTES:

1. Surface Protection -- Blast Clean per Vermont State Spec. 506.47(b)2.

SHOP NOTES:

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

19

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT	LENGTH IN		WEIGHT
		SOLE PL				
5	SP1	1¼ x 11¼	2	4		
5	SP2	1¼ x 12⅝	2	4		
5	a	⅛ x 12⅛	1	8	STAINLESS STEEL	
		FABRIC PADS			ORD. FLUOROCARBON Co # 67549 SEE SHTS # 8-25 & 26 FOR DETAIL	
5	FP1	½ x 8¼	1	7		
5	FP2	½ x 8½	1	7	W/ TFE SURFACE	
		ANC BOLTS				
20	AB1	1½ Ø	1	10	GALV.	
		RD WSHRS				
10	W1	3½ O.D. x ⅜ THK x 1⅝ I.D.			GALV	
		PL WSHRS				
10	W2	⅝ x 3½	0	4½	GALV	

JOB NO. 82-3856-50 SHEET NO. E 1/9

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT	LENGTH IN	WEIGHT

SUBMITTAL #2

FILE SET

REVISION RECORD

DATE	REV. #	BY	REVISION

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT
PROJ. No. BRZ-1446(8)

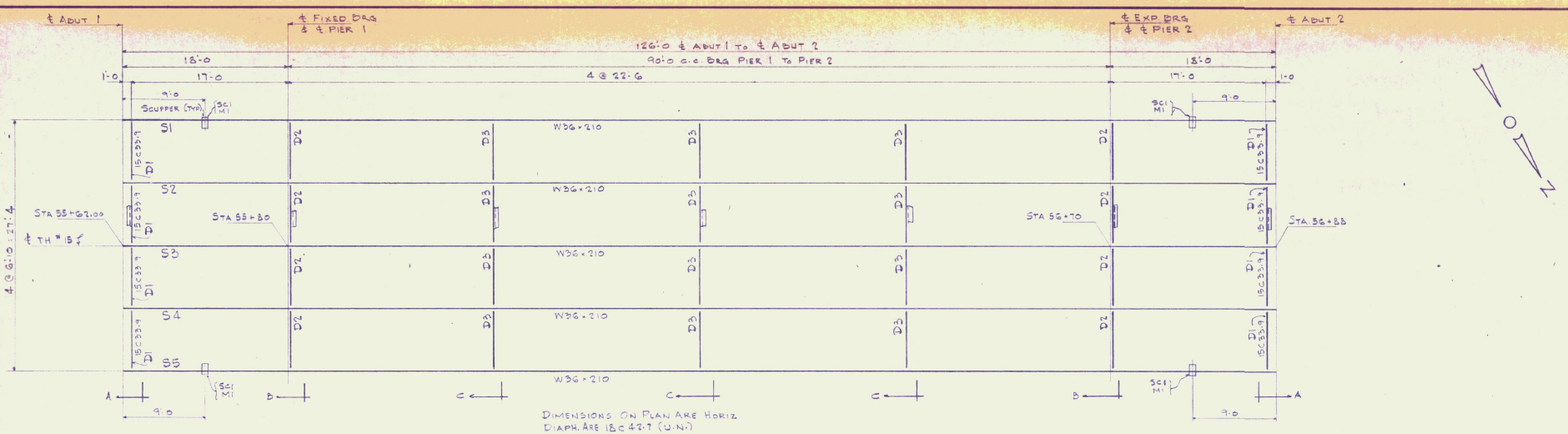
		DATE
DRAWN BY	T	
CK'D BY	S	10-8-82
HOLES	AS NOTED	
BOLTS	AS NOTED	
PAINT		

PROJECT WAITSFIELD
LOCATION T.H. 15 OVER MAID RIVER WAITSFIELD, VT
CUSTOMER WINTERSET INC.
ARCHITECT STATE OF VT AGENCY OF TRANSPORTATION
JOB NO. 82-3856 SHEET NO. E 1/9

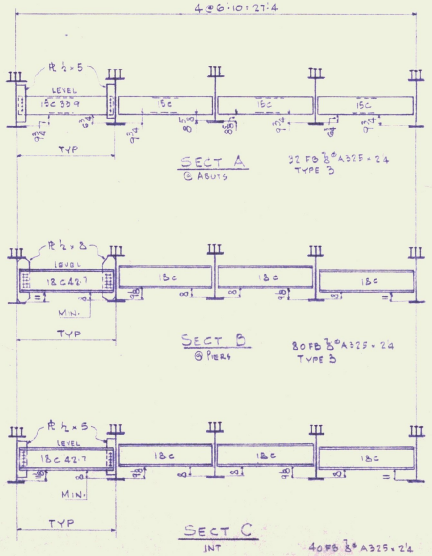
PRINT RECORD

NO.	FOR	DATE
5	APP'L	10/13/82
30	SHOP	10-20
5	FAB'L	10/20

BRUNING 40-135-39726



DIMENSIONS ON PLAN ARE HORIZ
DIAPH. ARE 18C 42.7 (U.N.)



MATL A588 (UN) ON DETLS

RECEIVED OCT 22 1982
O'K'D BY AW2 O'K'D BY
RESUBMIT APPROVED
BY DATE 10/15/82
W. J. Sy

LIST OF DWGS	
SHT#	DESCRIPTION
E1	ANC BOLT PLAN & DETLS
E2	ERECTION PLAN
1	STGR DETLS
2	STGR & DIAPH DETLS
3	SCUPPER DETLS

FIELD BOLTS	
QTY	DESCRIPTION
320	⅞" A325×2½ (TYPE 3)
320	⅞" HRW (TYPE 3)
(LISTED ON SHT. 3)	

19c

REVISION RECORD			
DATE	REV.#	BY	REVISION
10/20/82	1	AT	SHEAR STUDS

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT
PROJ. No. BR2-1446(8)

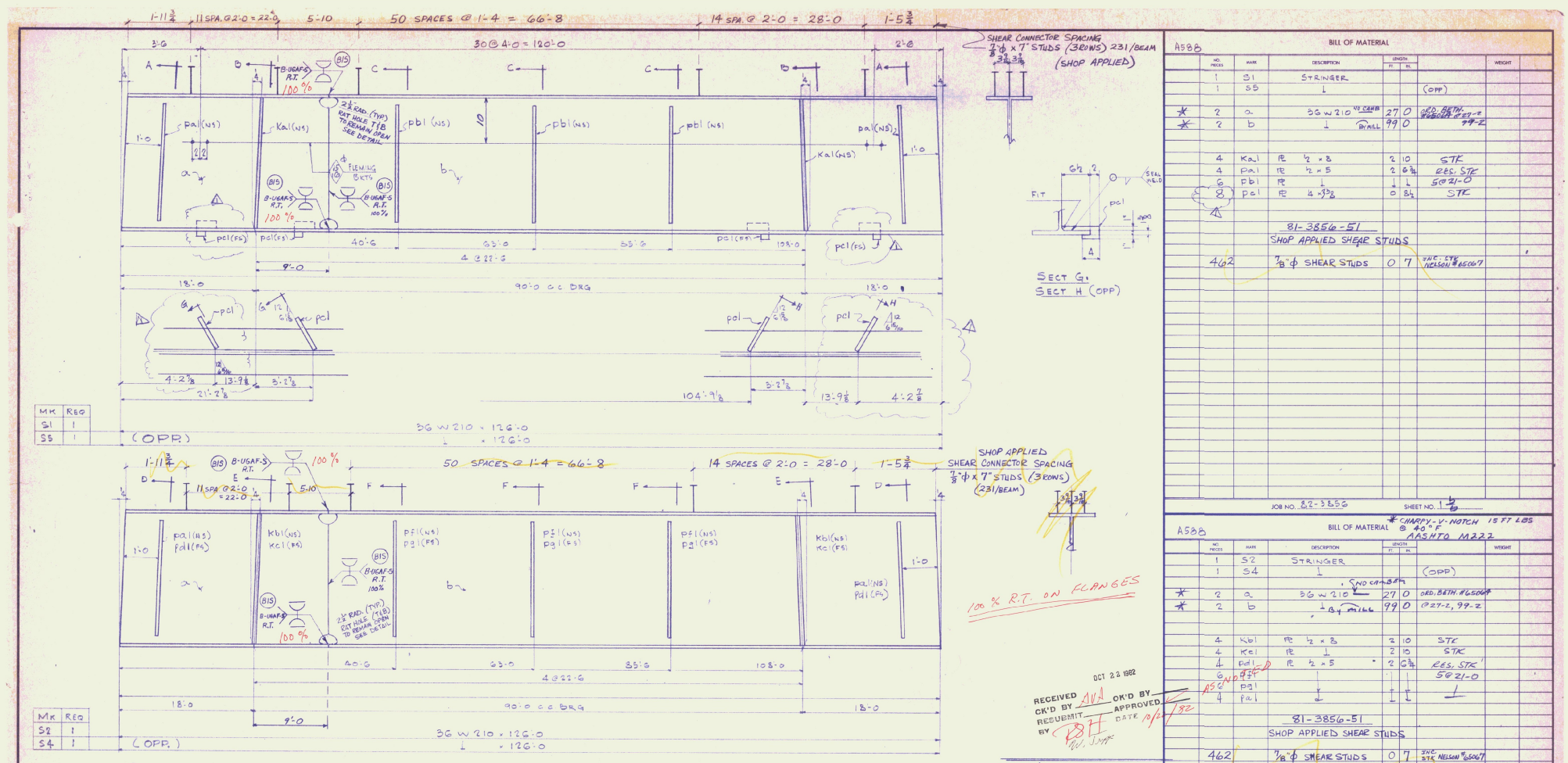
		DATE
DRAWN BY	T	
CKD BY	S	10-8-82

NOTES
BOLTS
PAINT SEE NOTE SHT E1

PROJECT WAITSFIELD
LOCATION TH "18" OVER MAD RIVER WAITSFIELD, VT
CUSTOMER WINTERSET, INC
ARCHITECT STATE OF VT AGENCY OF TRANSPORTATION
JOB NO. 82-3856 SHEET NO. E2

PRINT RECORD		
NO.	FOR	DATE
5	APPL	10/19/82
3	SHOP	10-20
5	F.APPL	10/20

DRAWING 40-135 30726



A588 — BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT	LENGTH IN		WEIGHT
1	S1	STRINGER				
1	S5	⊥			(OPP)	
★ 2	a	36 W 210 NO CAMB	27	0	ORD. BETH. #650A ADD'L REQ'T 99-2	
★ 2	b	⊥ BY MILL	99	0		
4	Ka1	PL ½ x 8	2	10	STK	
4	pa1	PL ½ x 5	2	6¾	RES. STK	
6	pb1	PL ⊥	1	1	5021-0	
8	pc1	PL 4 x 9⅜	0	8½	STK	
		81-3856-51 SHOP APPLIED SHEAR STUDS				
462		⅞"ϕ SHEAR STUDS	0	7	INC. STK NELSON #650G7	

JOB NO. 82-3856 SHEET NO. 1

A588 — BILL OF MATERIAL * CHARPY-V-NOTCH 15 FT LBS @ 40°F AASHTO M222

NO. PIECES	MARK	DESCRIPTION	LENGTH FT	LENGTH IN		WEIGHT
1	S2	STRINGER				
1	S4	⊥			(OPP)	
★ 2	a	36 W 210 NO CAMBER	27	0	ORD. BETH #650A**	
★ 2	b	⊥ BY MILL	99	0	(27-2, 99-2	
4	Kb1	PL ½ x 8	2	10	STK	
4	Kc1	PL ⊥	2	10	STK	
4	pd1	PL ½ x 5	2	6¾	RES. STK	
6	NO pf1				5021-0	
A56	pg1	⊥	⊥	⊥	⊥	
4	pa1					
		81-3856-51 SHOP APPLIED SHEAR STUDS				
462		⅞"ϕ SHEAR STUDS	0	7	INC. STK NELSON #650G7	

RECEIVED OCT 22 1982 CK'D BY AVA OK'D BY RESUBMIT APPROVED BY BH W. Jump DATE 10/26/82

MAT'L A588

REVISION RECORD

DATE	REV. #	BY	REVISION
10/20/82	3	AT	RAT HOLE DETAIL & REVISION
10/20/82	2	AT	ADD. SHOP APPL'D SHEAR STUDS
10/19/82	1	AT	PER APP'L (ADD. DETAIL A5)

VERMONT STRUCTURAL STEEL CORPORATION BURLINGTON, VERMONT Proj. No. BRZ-1446(8)

DRAWN BY T CK'D BY S DATE 10-8-82

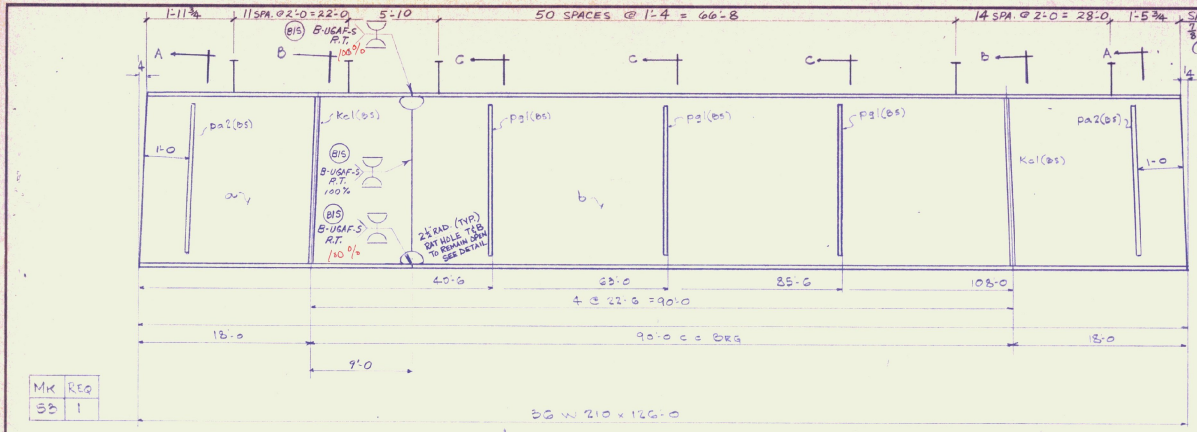
PROJECT WAITSFIELD
LOCATION TH #5 OVER MAD RIVER WAITSFIELD, VT
CUSTOMER WINTERSET, INC
ARCHITECT STATE OF VT AGENCY OF TRANSPORTATION
JOB NO. 82-3856 SHEET NO. 1
-S1 SHOP APPL'D SHEAR STUDS

HOLES SEE NOTES SHT E1
BOLTS SEE NOTES SHT E1
PAINT SEE NOTES SHT E1

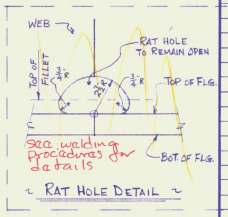
PRINT RECORD

NO.	FOR	DATE
S	APP'L	11/8/82
2	S.SHOP	10-20
S	F.APPL	10/20

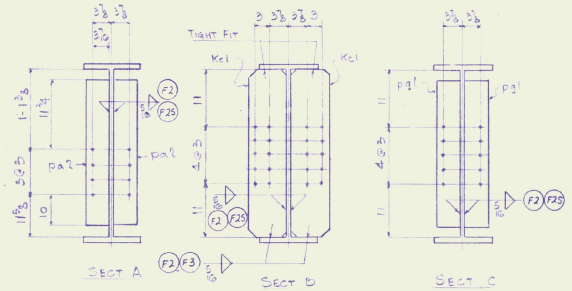
DRAWING 49-135-32726



MK	REQ
S3	1



℄ RAT HOLE DETAIL ℄



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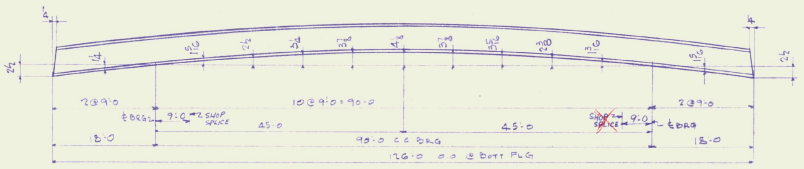
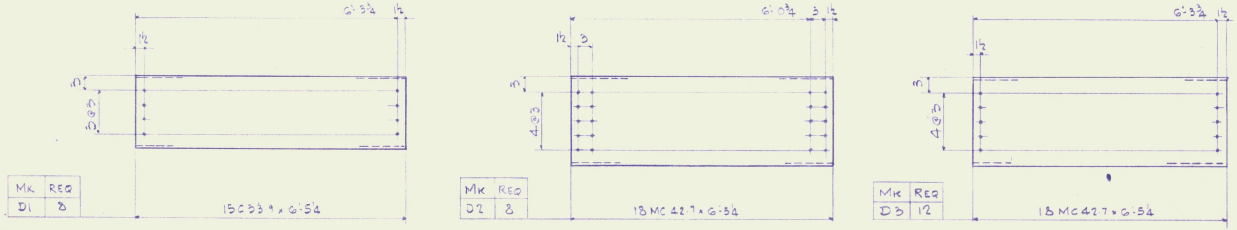


CAMB DIAG
STRINGERS S1 TO S3 (INCL)

100% R.T. ON FLANGES



MK	REQ
D1	8

MK	REQ
D2	8

MK	REQ
D3	12

OCT 22 1982
RECEIVED
CK'D BY AVJ OK'D BY
RESUBMIT APPROVED
BY DATE 10/22/82
AVJ

MAT'L A588

19e

A588 BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
1	S3	STRINGER				
1	a	36 W 210 NS SHAPE @ MILL	27	0	ORD. BETH #650CA	
1	b	1 @ MILL	99	0	CZ7-2, 99-2	
Kc1	4	Pl ½ x 8	2	10	ℓ - STK	
Da2	4	Pl ½ x 5	2	6⅜	RES. STK.	
Pg1	6	Pl 1	1	1	5@21-0.	
		81-3856-51				
		SHOP APPLIED SHEAR STUDS				
231		⅞" ϕ SHEAR STUD	0	7	INC. NELSON STK #D3067	

JOB NO. 82-385G SHEET NO. 2B

A588 BILL OF MATERIAL CHARPY-V-NOTCH 15 FT LBS @ 40°F AASHTO M222

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		DIAPH				
8	D1	15 C 33.9	6	5¾	ORD. BETH #650CA	
8	D2	13 MC 42.7	6	5¾		
12	D3	13 MC 42.7	6	5¾		

AJ NOTED

REVISION RECORD

DATE	REV. #	BY	REVISION
10/20/82	3	AT	RAT HOLE DETAIL & REV.
10/20/82	2	AT	ADD. SHOP APPL'D SHEAR STUDS
10/19/82	1	AT	PER ADD'L

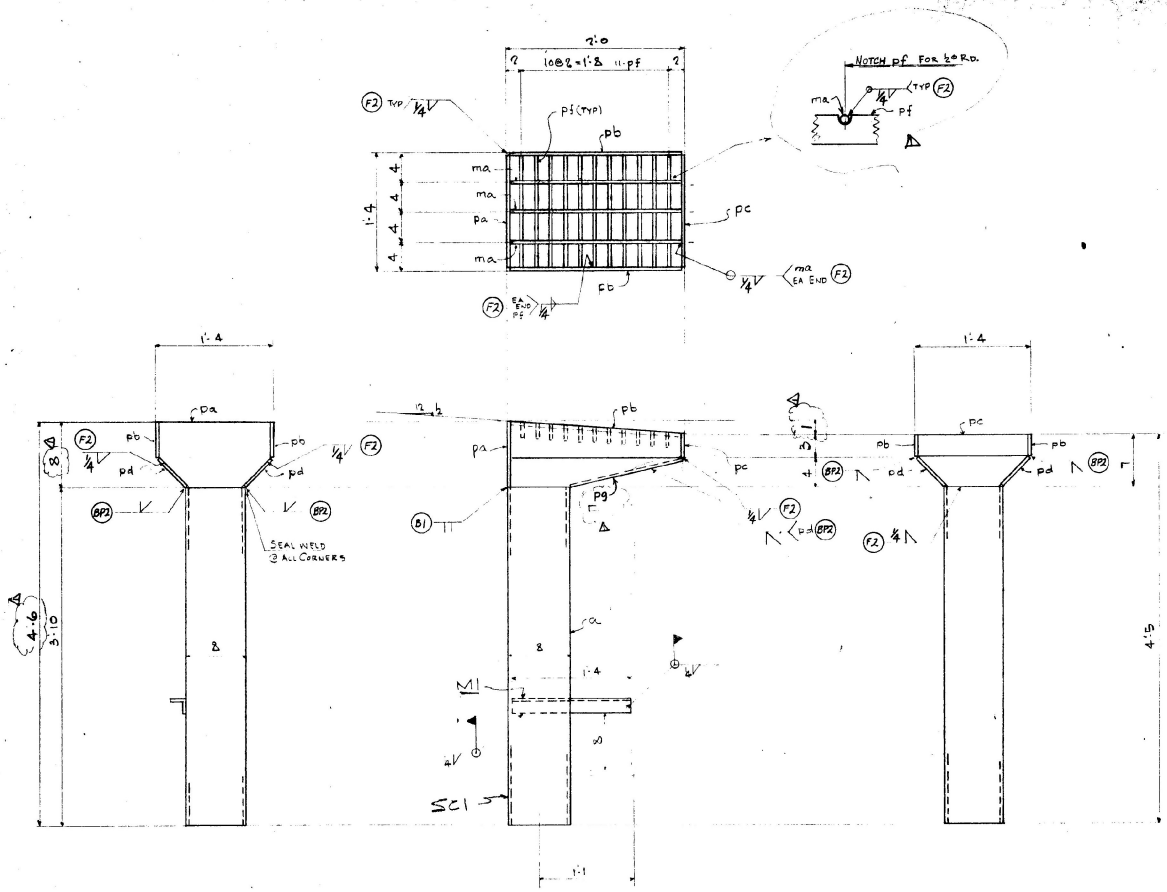
VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT
Proj. No. BRZ-1995(8)

		DATE
DRAWN BY	T	
CK'D BY	S	10-8-82
HOLES	15 ø	
BOLTS		
PAINT	SEE NOTE SHT #1	

PROJECT WAITSFIELD
LOCATION TH #15 OVER MAD RIVER WAITSFIELD, VT
CUSTOMER WINTERSET INC.
ARCHITECT STATE OF VT AGENCY OF TRANSPORTATION
JOB NO. 82-385G -S1 SHOP APPL'D SHEAR STUDS
SHEET NO. 2B

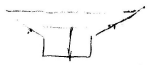
PRINT RECORD

NO.	FOR	DATE
5	APP'L	10/26
3D	& ADD'D	10-20
5	F.APPL	10/20



4 - SCUPPERS - SC1 } GALV.

4 - L M1 (NO PAINT)



RECEIVED OCT 22 1982
CK'D BY [illegible] OK'D BY
RESUBMIT APPROVED
BY [illegible] DATE 10/18/82

19f

A36 (U.N.)

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT	LENGTH IN		WEIGHT
4	SC1	SCUPPERS			ORD-MARADY GOVERNOR #85008 10/17-9	
4	a	TUBE 5 x 5 x 4 x .25 B.T.	5	10	STRUCT. CR.	
4	pa	PL ¼ x 8	1	3½		
8	pb	PL ¼ x 4	1	11½	STR	
4	pc	PL ¼ x 5	1	3½	GALV	
8	pd	PL ¼ x 5½	1	11½	A36	
44	pf	PL ½ x 2	1	3½		
4	pg	PL ¼ x 15½"	1	4½		
12	ma	R.D. ½ø x	1	11½		
4	M1	L 2 x 2 x 5/16	1	4	A588 3/8" STK	
		FIELD BOLTS				
360		⅞"ø A325 BOLT TYPE III	0	2¼		
360		⅞"ø HARD. WASH. TYPE III				

JOB NO. 82-3856 SHEET NO. 3 of 5

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT	LENGTH IN	WEIGHT

REVISION RECORD

DATE	REV. #	BY	REVISION
10/19/82	1	AT	PER APP'L

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT

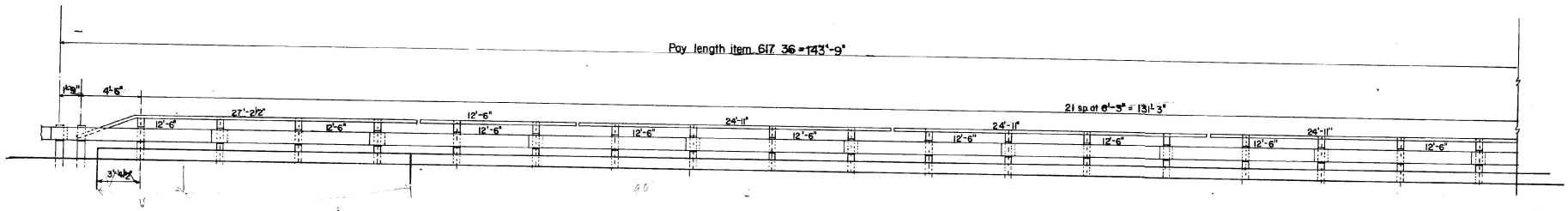
PRJ. NO. 82-3856

		DATE
DRAWN BY	T	
CHK'D BY	S	10-8-82
NOMS	AS NOTED	
BOLTS	✓	
PAINT	GALV. (U.N.)	

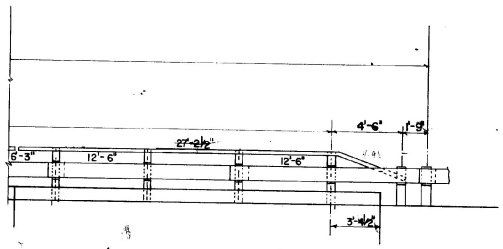
PROJECT WAITSFIELD
LOCATION TH #19 OVER MAD RIVER, WAITSFIELD VT.
CUSTOMER WINTERSET INC.
ARCHITECT STATE OF VT AGENCY OF TRANSPORTATION
JOB NO. 82-3856 SHEET NO. 3/5

PRINT RECORD

NO.	FOR	DATE
5	APP'L	10-20
3	[illegible]	10-20
5	FAPP'L	10/20



TYPICAL ELEVATION



	BRIDGE POSTS	CLIP ANGLES	6"x3" RAILS 12'-6"	6"x3" RAILS 24'-11"	6"x3" RAILS 27'-2½"	SPLICE BARS 3/4"x10"x8" w/4 bolt w/Slot	SPLICE BARS 3/8"x6"x4 bolt w/Slot
NORTH	22	22	1	3	2	2	10	40	22
SOUTH	22	22	1	3	2	2	10	40	22
TOTAL	44	44	2	6	4	4	20	80	44

ALL ADDITIONAL MATERIAL SUPPLIED BY OTHERS

FILE SET

RECEIVED APR 8 1983
CK'D BY AVA OK'D BY
RESUBMIT APPROVED
BY BH DATE 4/11/83
Allan St Coach

Total pay length item 617.36 = 287'-6"

DRAWN BY:	DATE:	CHECKED BY:	SHEET NO.
M J Z	3/31/83	YHF	1 OF 2

BRIDGE RAILING LAYOUT

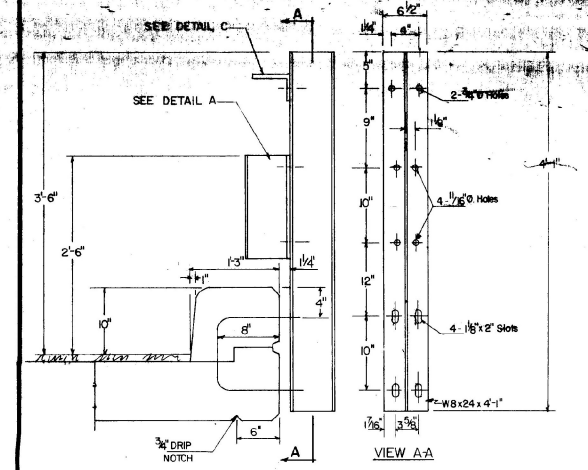
Town of Waitsfield

PROJ NO. BRZ 1446(8)

LAFAYETTE - SHELDON

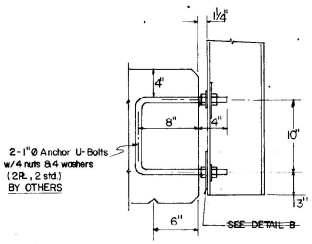
O.W. HUBBELL & SONS, INC.
NEW HARTFORD, NEW YORK

DS-3688

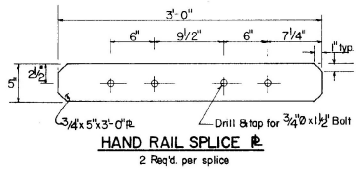


VIEW A-A

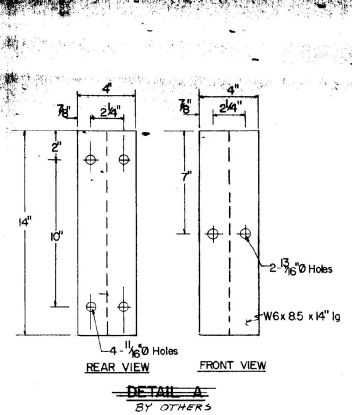
FASCIA MOUNTED STEEL POST
TYPE-E



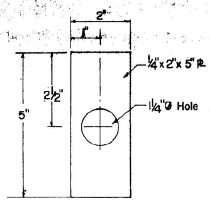
ANCHORAGE DETAIL



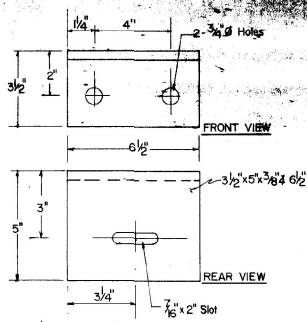
HAND RAIL SPLICE Pl.
2 Req'd. per splice



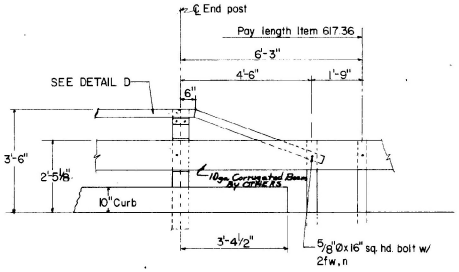
DETAIL A
BY OTHERS



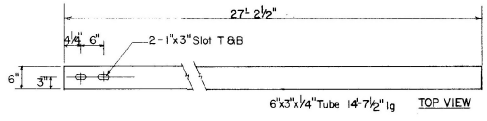
DETAIL B
N.I.C.

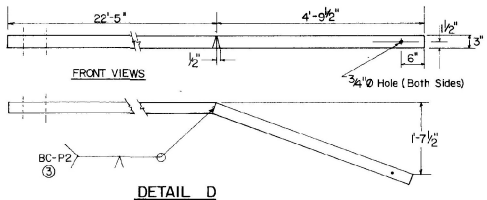


DETAIL C



ELEVATION - END OF RAILING





DETAIL D

NOTES:

1) See std. dwg. G-1 & G-1d for additional details of steel beam guard rail, and std. SB-R4a-82 for additional details of box beam rail.
2) Anchor bolts, nuts and washers shall be galvanized in accordance with ASTM A-153.
3) Materials shall conform to the following specifications:
   Heavy Duty Steel Rail - AASHTO M180, Class B-Type 2
   Posts, offsets, 2's, & Pl.- ASTM A-36.
   ~~6"x3"x¼" Tube - ASTM A-500 gr B.~~
   Bolts, washers & nuts - ASTM A-307.
4) All material shall galv. in accordance with ASTM A-123.
5) All posts shall be set normal to grade.
6) Approach rail height shall be transitioned to normal roadway ht. in 25 feet.
7) Approach railing shall be heavy duty steel beam for 50 feet from the end of the bridge.
8) Splices shall lap in the direction of traffic.
9) Weld no. 3 shall conform to O.W. HUBBELL Approved welding Procedure.

RECEIVED JAN 8 1988
CK'D BY AWL OK'D BY
RESUBMIT APPROVED
BY BSH DATE 11/4/83
Allan St Correct

19A

DRAWN BY:	DATE:	CHECKED BY:	SHEET NO.
MJZ	3/29/83	TJH	2 OF 2

BRIDGE RAILING DETAILS

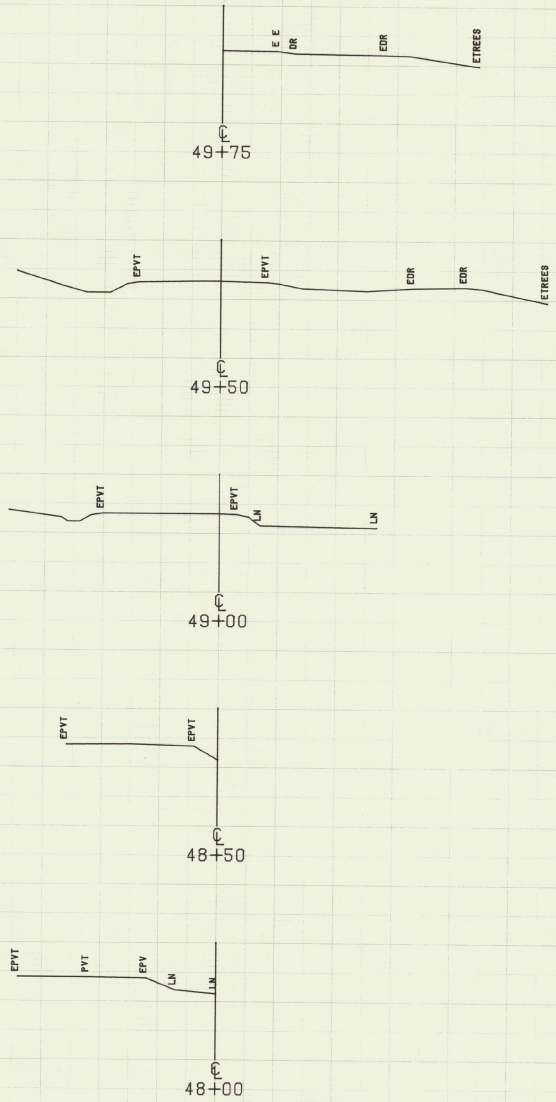
Town of Waitsfield

PROJ NO. BRZ 1446(8)

CUSTOMER
LAFAYETTE - SHELDON

O.W. HUBBELL & SONS, INC.
NEW HARTFORD, NEW YORK

DS-3688



660

660

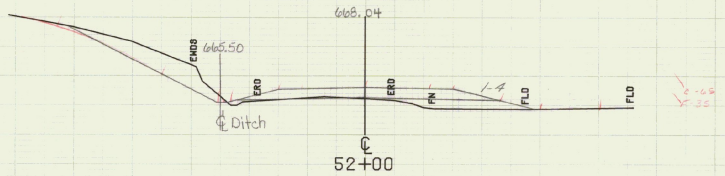
660

660

670

SCALE 10 FEET

FROM STA. 48+00		TO STA. 49+75	
PROJECT NAME	WAITSFIELD	MAIN	
NO.	BRZ1446(8)	PLOTTED	02/25/81
SURVEYED BY	COUTURE		OCT 1980
SHEET 20 OF 51 SHEETS			



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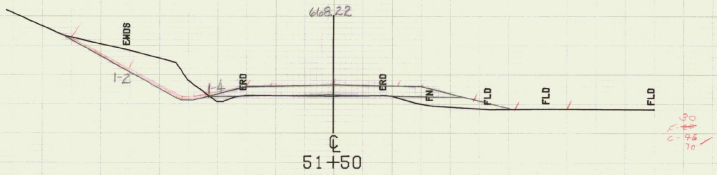

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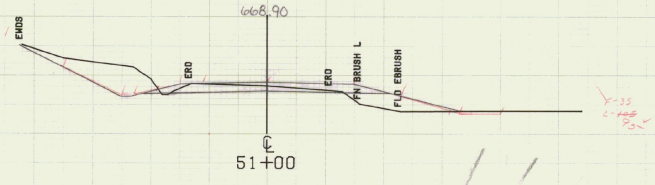

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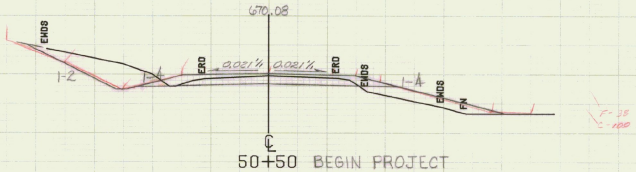


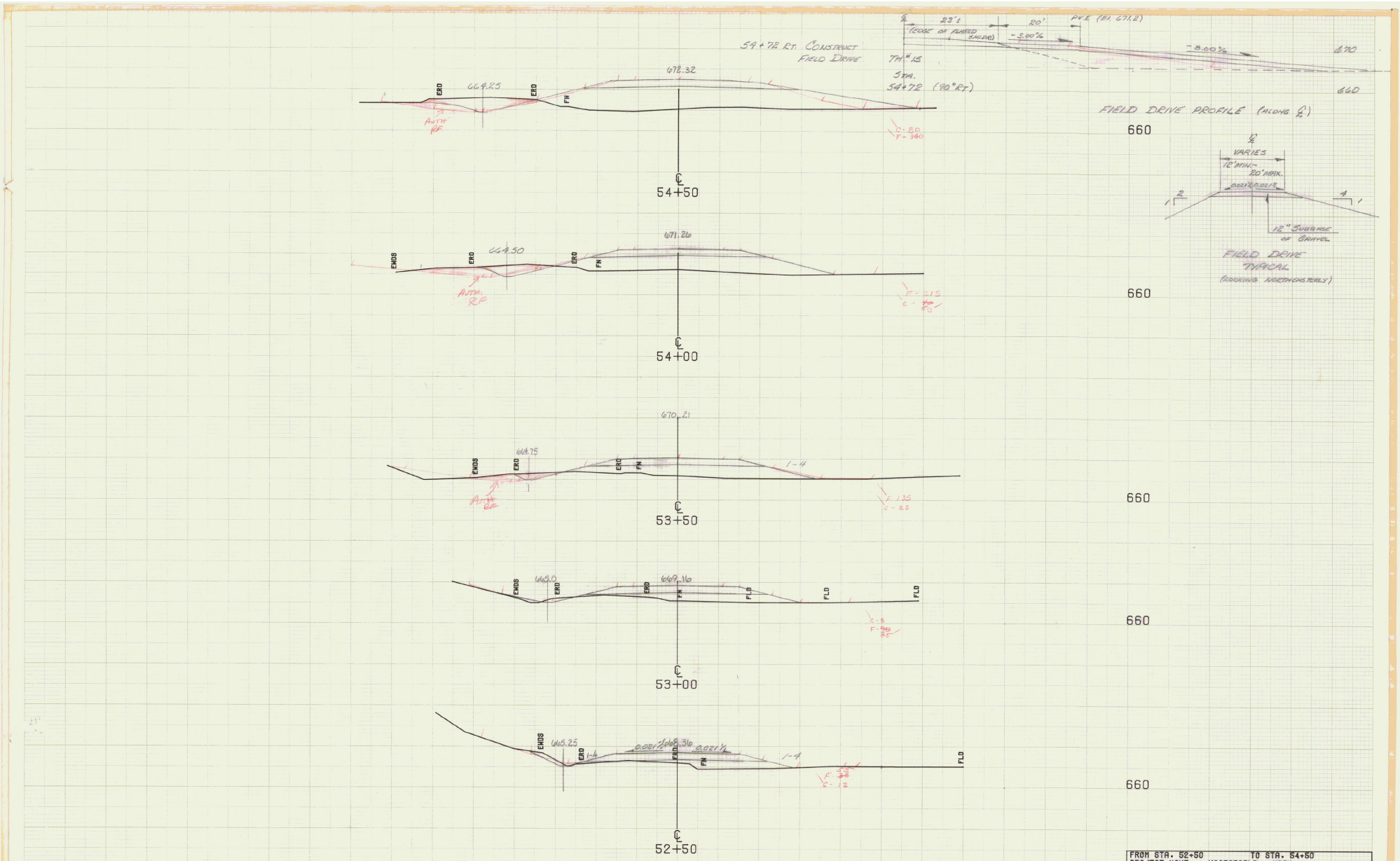
660

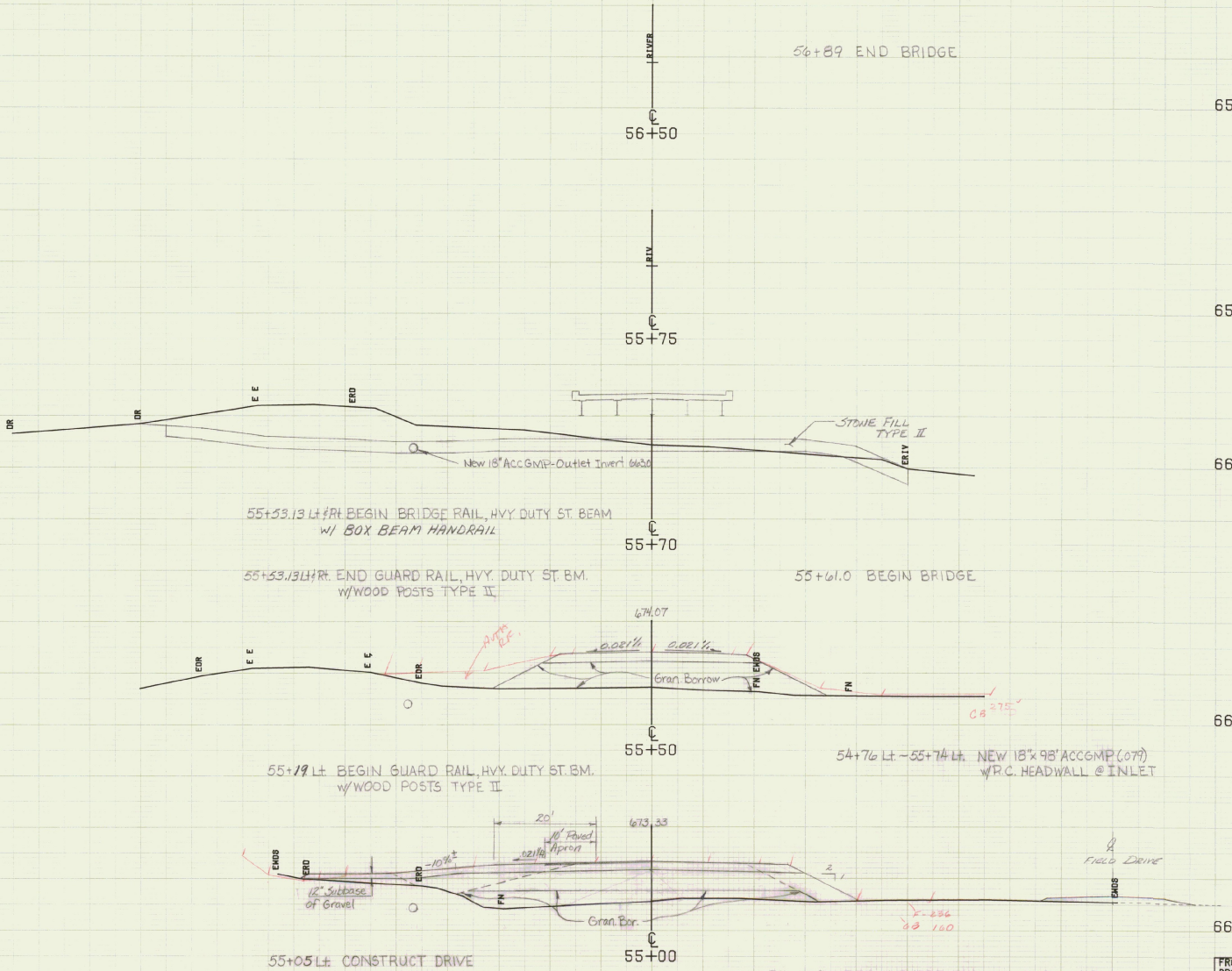
BEGIN PROJECT
CONSTRUCT SATISFACTORY APPROACH

670

SCALE 10 FEET

FROM STA. 50+00		TO STA. 52+00	
PROJECT NAME	WAITSFIELD	MAIN	
NO.	BRZ1446(8)		PLOTTED 02/25/81
SURVEYED BY	COUTURE		OCT 1980
SHEET 21 OF 57	SHEETS		

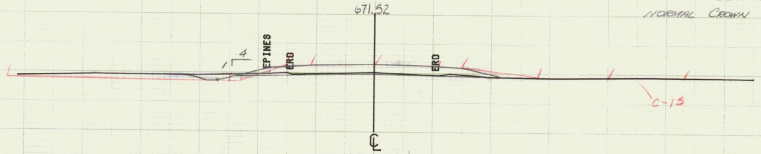

54+72 Rt. Construct Field Drive
TH #15
Sta. 54+72 (90° Rt)
23'±
(Edge of Paved Surface)
20'
PVI (El. 671.2)
-3.00%
-3.00%
670
660
672.32
664.25
ERO
ERO
FN
Auth RF
C=80
F=340
54+50
671.26
664.50
ENDS
ERO
ERO
FN
Auth. RF
F=215
C=75
54+00
670.21
664.75
ENDS
ERO
ERO
FN
1-4
Auth RF
F=135
C=25
53+50
669.16
665.0
ENDS
ERO
ERO
FN
FLD
FLD
FLD
C=5
F=90
53+00
668.36
665.25
ENDS
ERO
ERO
FN
1-4
1-4
FLD
C=12
52+50
660
660
660
660
660
FIELD DRIVE PROFILE (along ℄)
℄
VARIES
12' MIN.-
20' MAX.
0.02"/ft
0.02"/ft
2
1
4
1
12" Subbase of Gravel
FIELD DRIVE
TYPICAL
(looking northeasterly)
SCALE 10 FEET
FROM STA. 52+50 TO STA. 54+50
PROJECT NAME WAITSFIELD MAIN
NO. BRZ1446(8) PLOTTED 02/25/81
SURVEYED BY COUTURE OCT 1980
SHEET 22 OF 51 SHEETS
PLAN CKED 5-14-81 AGB



FROM STA. 55+00		TO STA. 56+50	
PROJECT NAME	WAITSFIELD	MAIN	
NO.	BRZ1446(8)	PLOTTED	02/25/81
SURVEYED BY	COUTURE		OCT 1980
SHEET 23 OF 57 SHEETS			

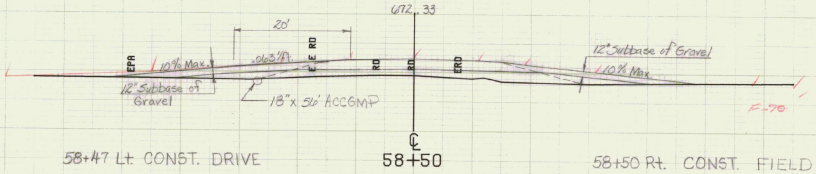
PLAN CKED 5-7-81 MGH

PT. 59+46.70
D = 7°-30' Rt.
Normal Crown



660

STA. 58+60 Lt. Begin Wood Guide Posts



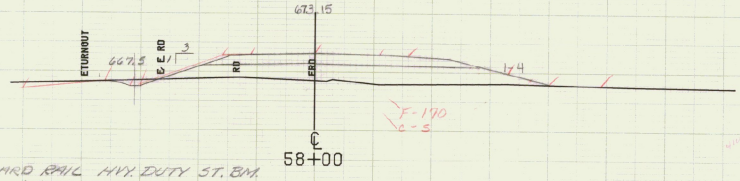
660

58+47 Lt. Const. Drive

58+50 Rt. Const. Field Drive

STA. 58+06 Lt. End Shoulder Flare for G.R.

58+03 Rt. End Shoulder Flare for G.R.



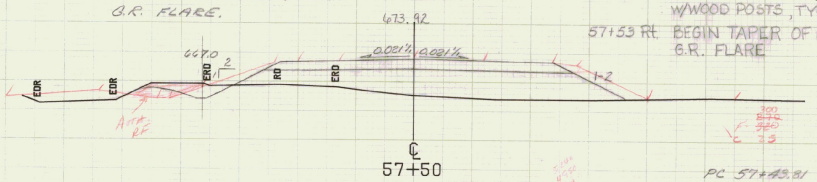
660

STA. 57+56 Lt. End Guard Rail, Hvy. Duty St. BM. w/Wood Posts Type II

Begin Taper of Shoulder from G.R. Flare.

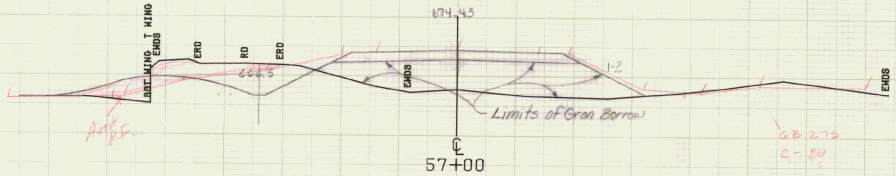
57+53 Rt. End Guard Rail, Hvy. Duty St. BM. w/Wood Posts, Type II

57+53 Rt. Begin Taper of Shoulder from G.R. Flare



660

PC 57+43.81
D = 7° 30' Rt.
Normal Crown



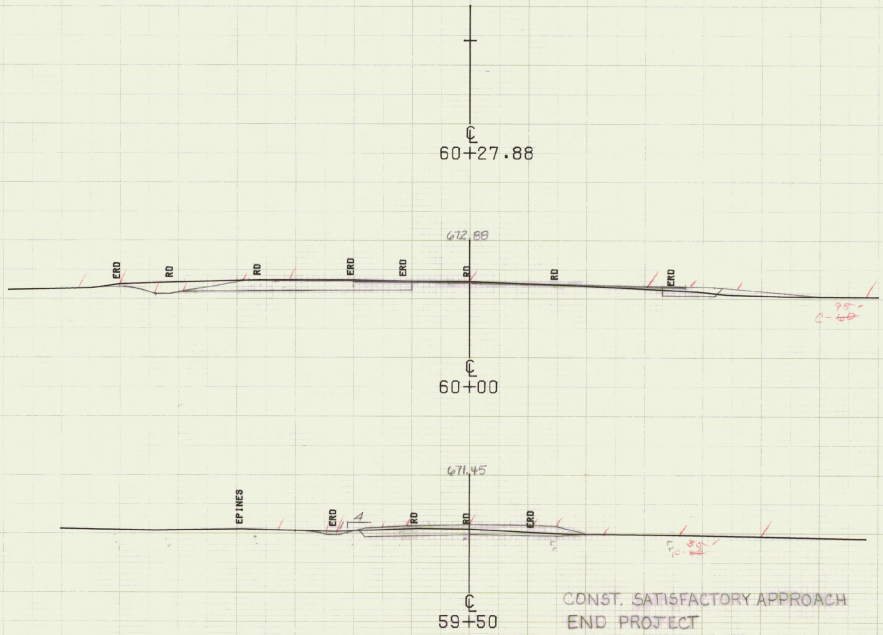
660

56+96.88 Lt. & Rt. End Bridge Rail + Begin Guard Rail, Hvy. Duty St. BM. w/Wood Posts, Type II

SCALE 10 FEET

FROM STA. 57+00	TO STA. 59+00
PROJECT NAME	WAITSFIELD MAIN
NO.	BRZ1446(8) PLOTTED 02/25/81
SURVEYED BY	COUTURE OCT 1980
SHEET 24 OF 51 SHEETS	

PLAN CHECKED C-Y-BS M&H

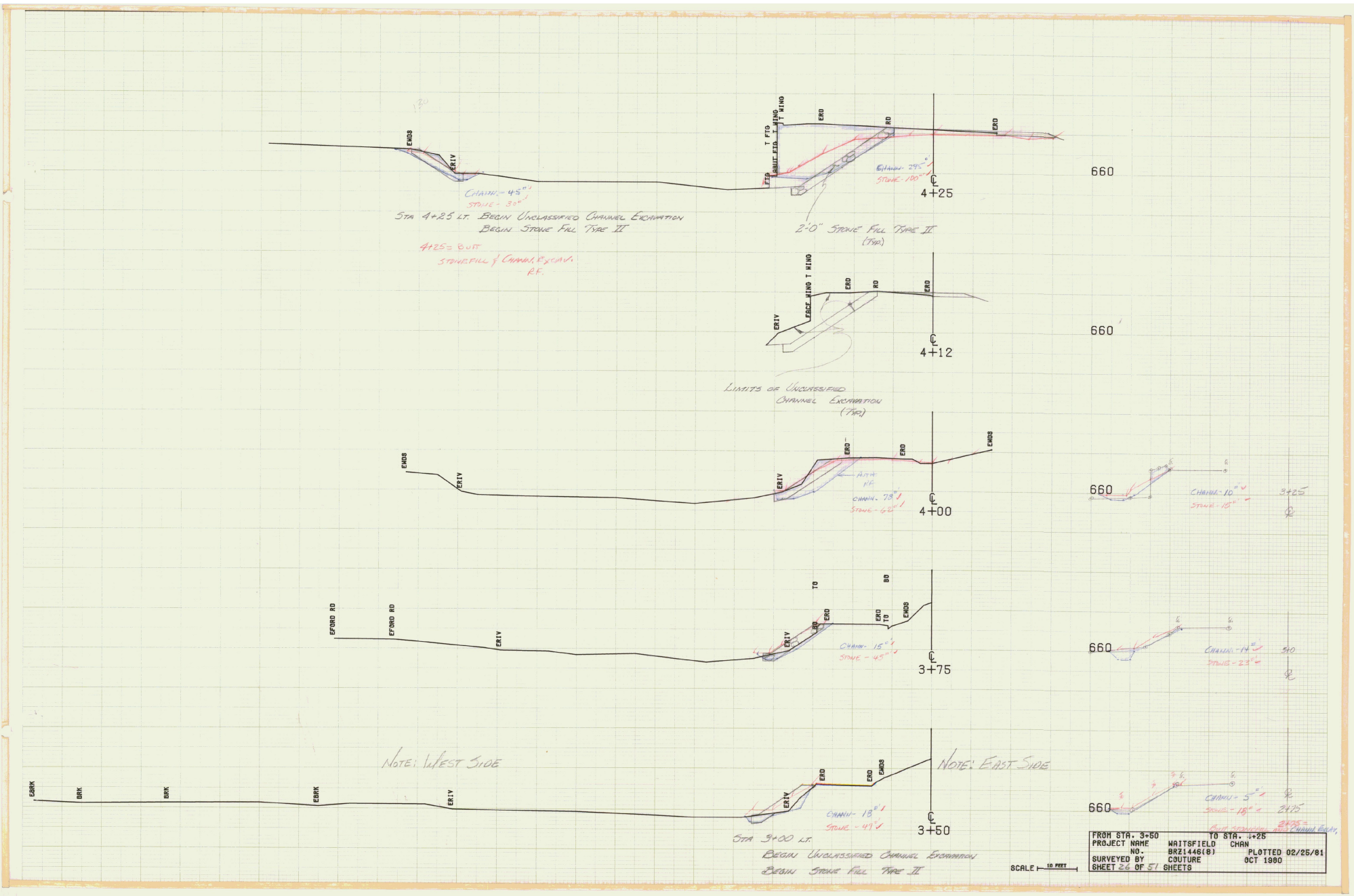


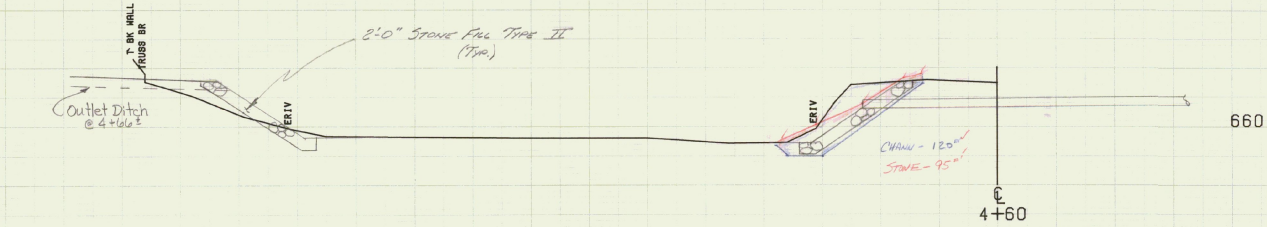
FROM STA. 59+50	TO STA. 60+27.88
PROJECT NAME	WAITSFIELD MAIN
NO.	BRZ1446(8)
SURVEYED BY	COUTURE
SHEET 25 OF 51 SHEETS	

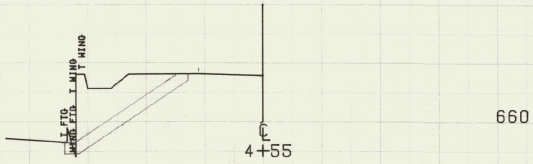
PLOTTED 02/26/81
OCT 1980

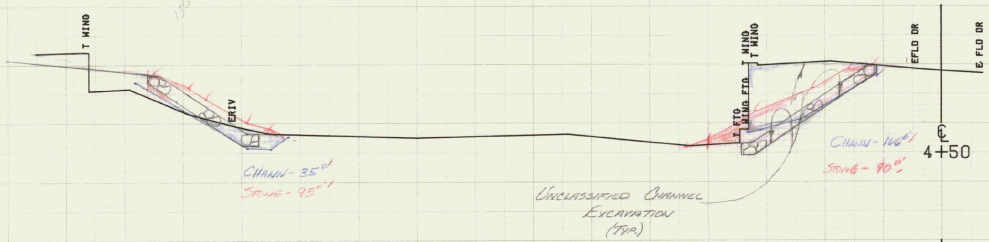
SCALE 10 FEET

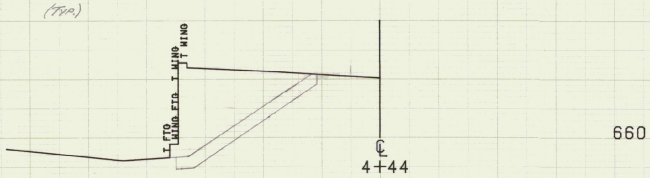
PLAN CKED 6-7-81 MGH

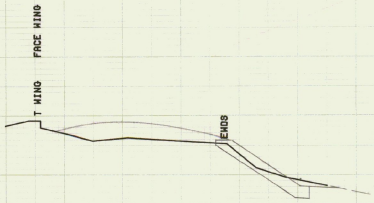

ENDS
ERIV
CHANN.- 45%
STONE - 35%
STA 4+25 LT. BEGIN UNCLASSIFIED CHANNEL EXCAVATION
BEGIN STONE FILL TYPE II
4+25= BUTT
STONE FILL & CHANN. EXCAV.
R.F.
T FTG
T WING
ABUT FTG
ERO
RD
CHANN.- 29%
STONE - 100%
4+25
2'-0" STONE FILL TYPE II
(TYP.)
660
EDGE WING
ERIV
4+12
LIMITS OF UNCLASSIFIED
CHANNEL EXCAVATION
(TYP.)
CHANN.- 78%
STONE - 62%
4+00
CHANN.- 10%
STONE - 15%
3+25
EFORD RD
TO
BD
CHANN.- 15%
STONE - 45%
3+75
CHANN.- 14%
STONE - 23%
3+0
BRK
NOTE: WEST SIDE
NOTE: EAST SIDE
CHANN.- 18%
STONE - 47%
3+50
CHANN.- 5%
STONE - 18%
2+75
STA 3+00 LT.
BEGIN UNCLASSIFIED CHANNEL EXCAVATION
BEGIN STONE FILL TYPE II
SCALE 10 FEET
FROM STA. 3+50 TO STA. 4+25
PROJECT NAME WAITSFIELD CHAN
NO. BRZ1446(8) PLOTTED 02/25/81
SURVEYED BY COUTURE OCT 1980
SHEET 26 OF 51 SHEETS





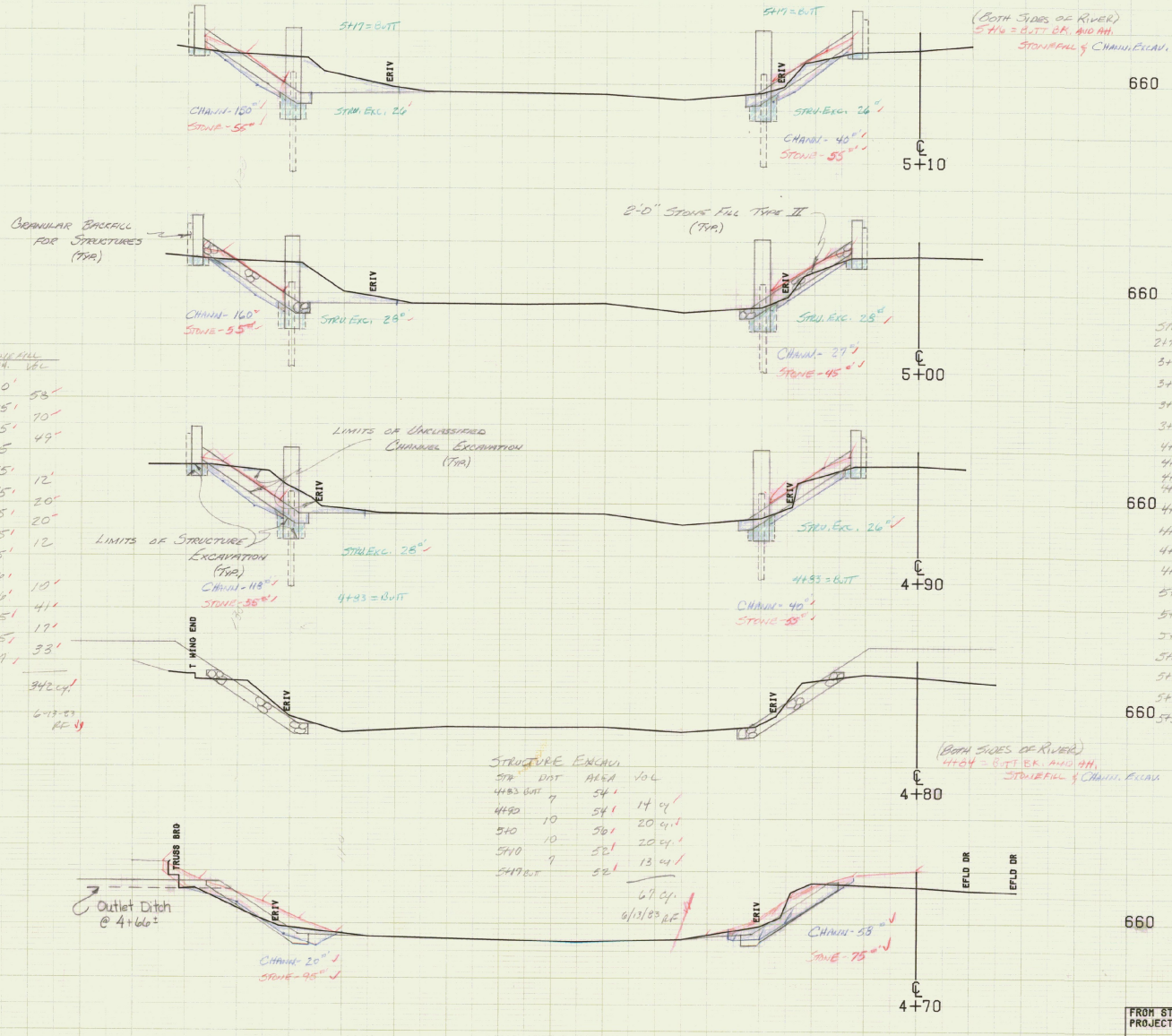






SCALE 10 FEET

FROM STA. 4+43		TO STA. 4+60	
PROJECT NAME	WAITSFIELD	CHAN	
NO.	BRZ1446(8)	PLOTTED	02/25/81
SURVEYED BY	COUTURE		OCT 1980
SHEET 27 OF 51 SHEETS			



WEST SIDE

STA	DIST	CHANN. EXCAV. AREA	CHANN. EXCAV. VOL.	STONE FILL AREA	STONE FILL VOL.
4+25 - BUTT	25	45'	37 cy.	30'	58'
4+50	20	35'	20 cy.	95'	70'
4+70	14	20'	10 cy.	95'	49'
4+84 BUTT BK.		20'		95	
4+84 BUT AH.		118'		55'	
4+90	6	118'	26 cy.	55'	12'
5+0	10	160'	51 cy.	55'	20'
5+10	10	150'	57 cy.	55'	20'
5+16 BUT BK.	6	150'	33 cy.	55'	12
5+16 BUT AH.		170'		66'	
5+20	4	170'	25 cy.	66'	10'
5+40	20	130'	111 cy.	45'	41'
5+50	10	110'	44 cy.	45'	17'
5+75	25	37'	68 cy.	24'	33'
			482 cy.		342 cy.
			6-19-83 RF		6-13-83 RF

STRUCTURE EXCAVATION

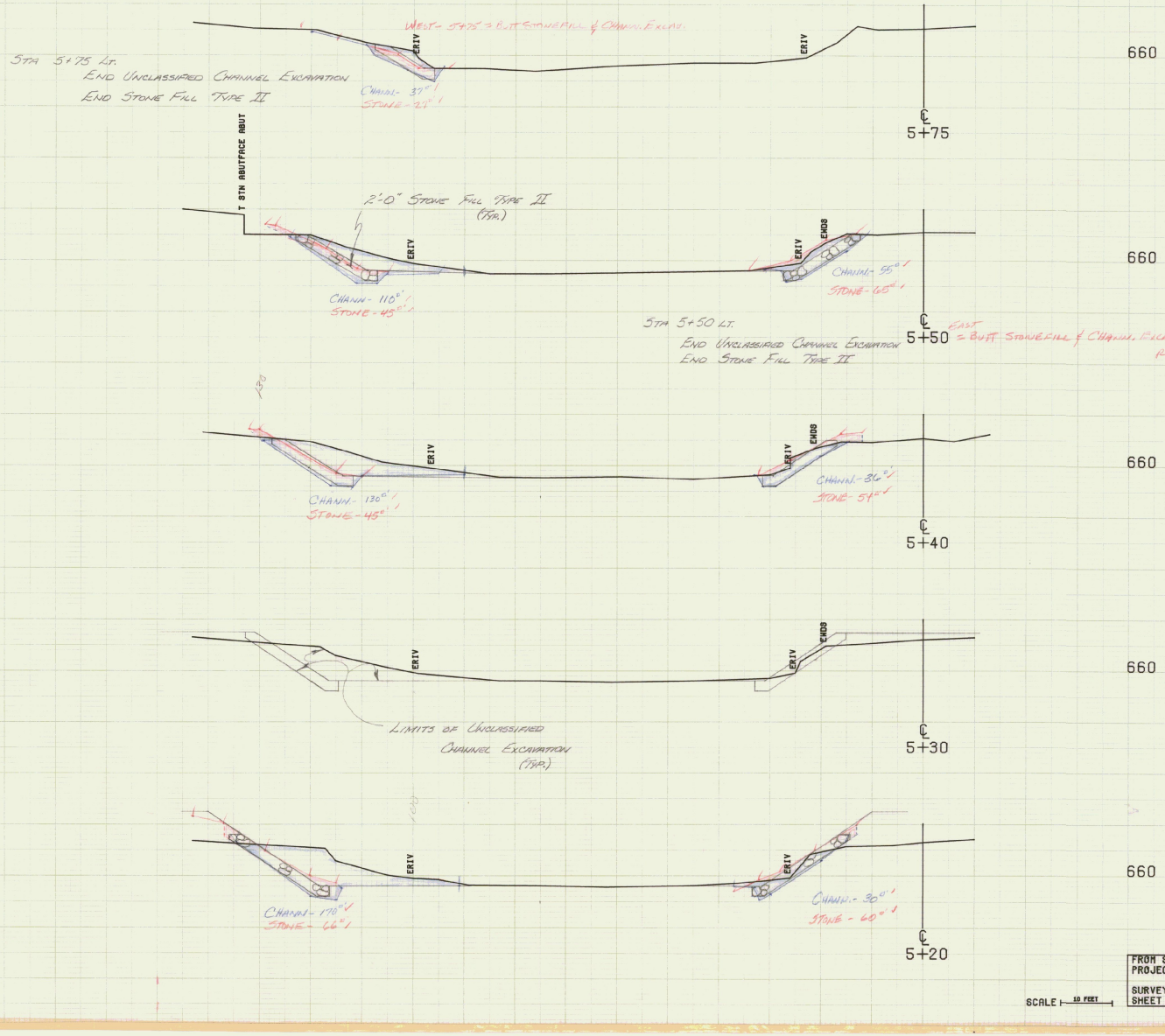
STA	DIST	AREA	VOL.
4+83 BUT	7	54'	14 cy.
4+90	10	54'	20 cy.
5+0	10	56'	20 cy.
5+10	7	52'	13 cy.
5+17 BUT		52'	
			67 cy.
			6/13/83 RF

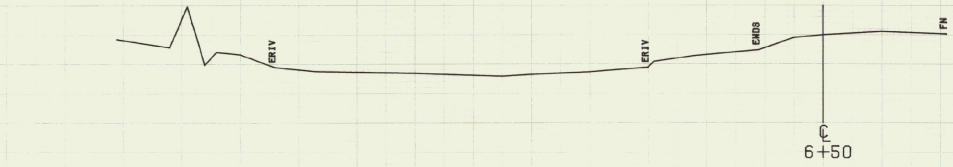
EAST SIDE

STA	DIST	CHANN. EXCAV. AREA	CHANN. EXCAV. VOL.	STONE FILL AREA	STONE FILL VOL.
2+75 BUT		5'		18'	
3+0	25	14'	9 cy.	23'	19 cy.
3+25	25	10'	11 cy.	15'	18' cy.
3+50	25	18'	13 cy.	47'	29' cy.
3+75	25	15'	15 cy.	45'	43' cy.
4+0	25	78'	43 cy.	62'	50 cy.
4+25	25	295'	173 cy.	100'	75' cy.
4+50	10	166'	213 cy.	90'	89' cy.
4+60	10	120'	53 cy.	95'	34' cy.
4+70	10	58'	33 cy.	75'	31' cy.
4+84 BUT BK.	14	58.	30 cy.	75'	39' cy.
4+84 BUT AH.		40'		55'	
4+80	6	40'	9 cy.	55'	12' cy.
5+0	10	27'	12 cy.	55'	19' cy.
5+10	10	49'	12 cy.	45'	19' cy.
5+16 BUT BK.	6	40'	9 cy.	55'	12' cy.
5+16 BUT AH.		30'		55'	
5+20	4	30'	4 cy.	60'	9' cy.
5+40	20	36'	24 cy.	60'	42' cy.
5+50 BUT	10	35'	17 cy.	54'	22' cy.
			680 cy.	45'	
			6-13-83 RF		561 cy.
					6/13/83 RF

FROM STA. 4+70	TO STA. 5+10
PROJECT NAME	WAITSFIELD CHAN
NO.	BRZ1446(8)
SURVEYED BY	COUTURE
SHEET 28 OF 51 SHEETS	
	PLOTTED 02/25/81
	OCT 1980

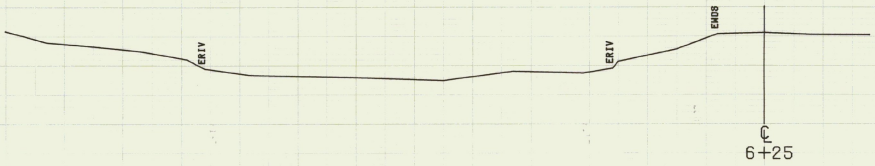
SCALE 10 FEET


WEST - STA 5+75 3 B.I.T STONEFILL & CHANN. EXCAV.
STA 5+75 LT.
END UNCLASSIFIED CHANNEL EXCAVATION
END STONE FILL TYPE II
CHANN - 37°/
STONE - 21°/
ERIV
ERIV
660
5+75
T STH ABUTFACE ABUT
2'-0" STONE FILL TYPE II
(TYP.)
ERIV
ERIV
ENDS
CHANN - 110°/
STONE - 45°/
CHANN - 55°/
STONE - 65°/
660
STA 5+50 LT.
END UNCLASSIFIED CHANNEL EXCAVATION
END STONE FILL TYPE II
5+50
EAST = BUTT STONEFILL & CHANN. EXCAV. LT.
ERIV
ERIV
ENDS
CHANN - 130°/
STONE - 45°/
CHANN - 36°/
STONE - 54°/
660
5+40
ERIV
ERIV
ENDS
660
LIMITS OF UNCLASSIFIED
CHANNEL EXCAVATION
(TYP.)
5+30
ERIV
ERIV
CHANN - 170°/
STONE - 66°/
CHANN - 30°/
STONE - 60°/
660
5+20
SCALE 10 FEET
FROM STA. 5+20 TO STA. 5+75
PROJECT NAME WAITSFIELD CHAN
NO. BRZ1446(8) PLOTTED 02/25/81
SURVEYED BY COUTURE OCT 1980
SHEET 24 OF 51 SHEETS



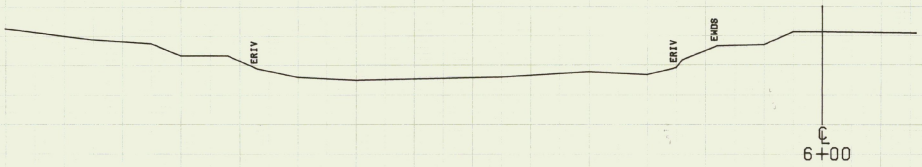
660

6+50



660

6+25

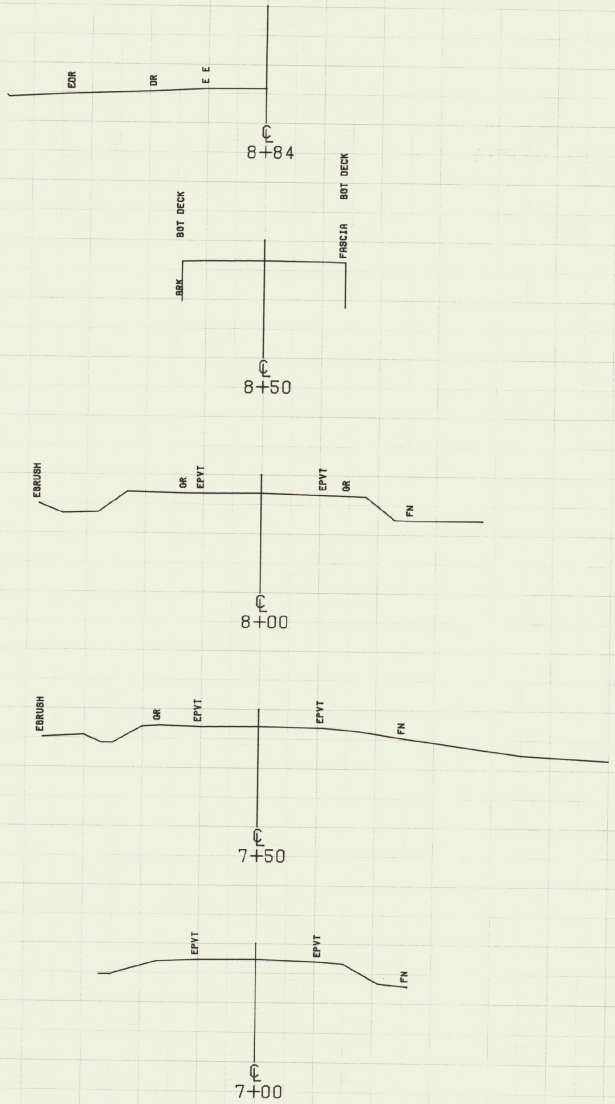


660

6+00

SCALE 10 FEET

FROM STA. 6+00		TO STA. 6+50	
PROJECT NAME	WAITSFIELD	CHAN	
NO.	BRZ1446(8)	PLOTTED	02/25/81
SURVEYED BY	COUTURE	OCT 1980	
SHEET 30 OF 51 SHEETS			



670

670

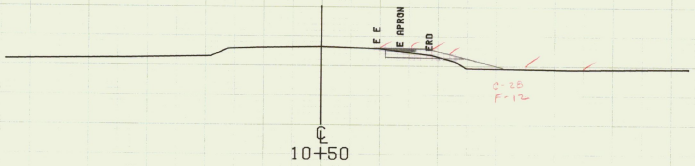
670

670

670

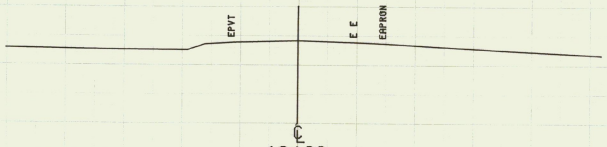
SCALE 10 FEET

FROM STA. 7+00		TO STA. 8+84
PROJECT NAME	WAITSFIELD	VT100
NO.	BRZ1446(8)	PLOTTED 02/25/81
SURVEYED BY	COUTURE	OCT 1980
SHEET 31 OF 51 SHEETS		



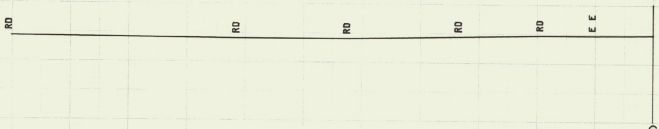
670

10+50



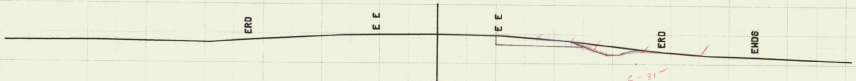
670

10+00



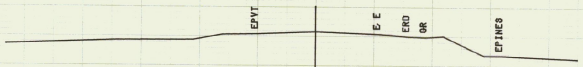
670

9+60



670

9+50



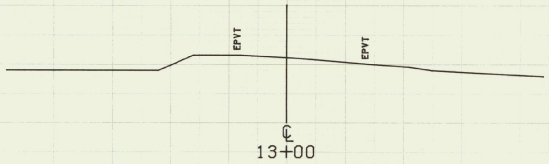
670

9+00

8+80 Rt. End Wood Guide Posts

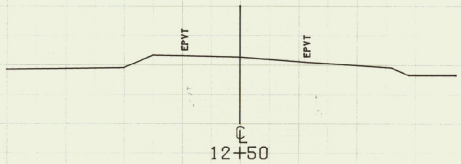
SCALE 10 FEET

FROM STA. 9+00		TO STA. 10+50	
PROJECT NAME	WAITSFIELD	VT100	
NO.	BRZ1448(8)	PLOTTED	02/25/81
SURVEYED BY	COUTURE		OCT 1980
SHEET 32 OF 51 SHEETS			



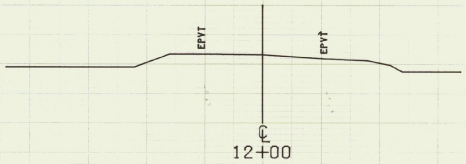
13+00

670



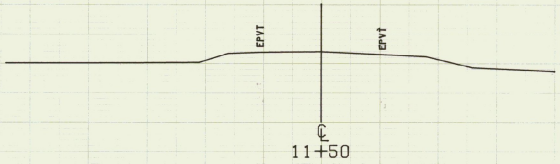
12+50

660



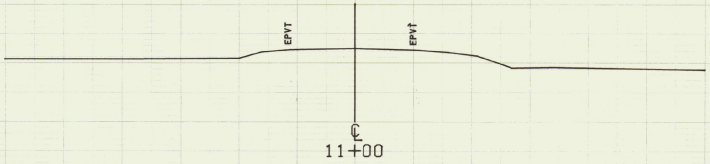
12+00

670



11+50

670

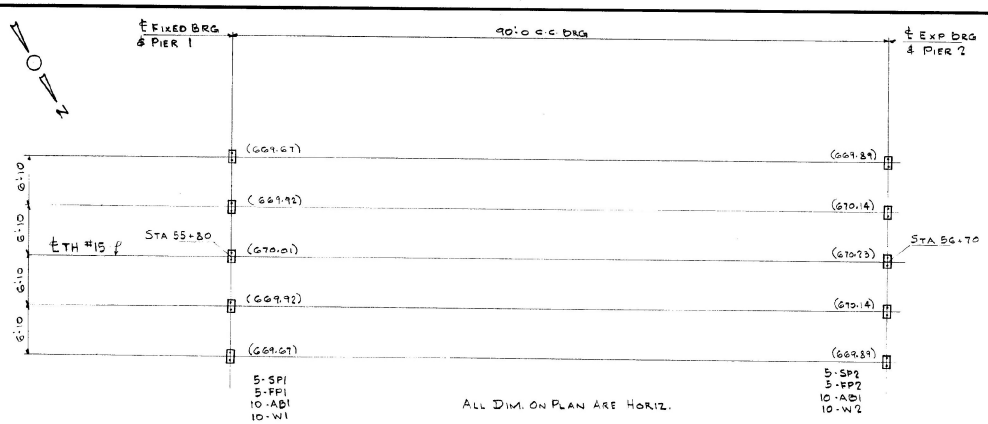


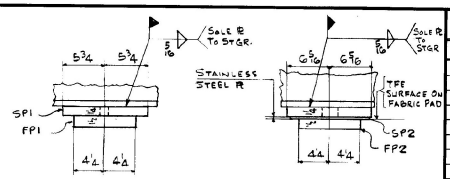
11+00

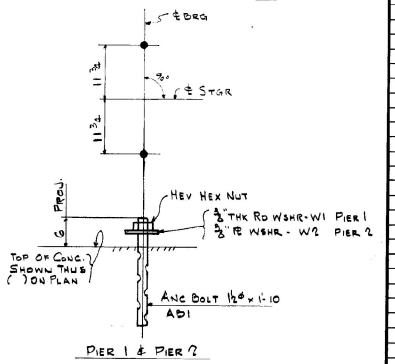
670

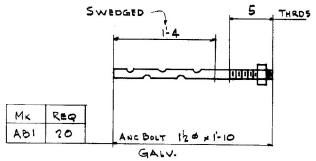
SCALE 10 FEET

FROM STA. 11+00		TO STA. 13+00	
PROJECT NAME	WAITSFIELD	VT100	
NO.	BRZ1446(8)	PLOTTED	02/25/81
SURVEYED BY	COUTURE	OCT 1980	
SHEET 33 OF 51 SHEETS			

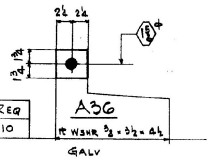




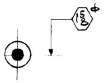




MK	REQ
AB1	20



MK	REQ
W2	10



MK	REQ
W1	10

RD WSHR 3½ O.D. x ⅜ THK x 1⅝ I.D.
GALV.

NOTE:
BRG DEVICE ASSEMBLY, SHALL IN ADDITION TO THE TYPE D CERTIFICATION REQ'D IN SECT. 751.10 CERTIFY THAT UNITS SUPPLIED ARE DESIGNED TO MEET THE LOADING REQUIREMENTS INDICATED BELOW.
LONGITUDINAL ± 10K
TRANSVERSE ± 10K
BEARING 180K

MAT'L A588 (UN)

PAINT NOTES:

1. Surface Protection -- Blast Clean per Vermont State Spec. 506.47(b)2.

SHOP NOTES:

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

34

BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		SOLE ℙ				
5	SP1	1¼ x 11½	2	4		
5	SP2	1¼ x 12⅝	2	4		
5	a	⅛ x 12⅛	1	8	STAINLESS STEEL	
		FABRIC PADS			CRD. FLUOROCARBON) Co # 61549 SEE FLUOROCARBON DWG. NO. E-2578-B FOR DETAIL	
5	FP1	1½ x 3½	1	7	W/TFE SURFACE	
5	FP2	1½ x 8½	1	9		
		ANC BOLTS				
20	AB1	1½ ϕ	1	10	GALV.	
		RD. WSHRS				
10	W1	3½ O.D. x ⅜ THK x 1⅝ I.D.			GALV	
		ℙ WSHRS				
10	W2	⅜ x 3½	0	4½	GALV	

JOB NO. 82-3856-50 SHEET NO. 3 of 5

BILL OF MATERIAL

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

REVISION RECORD

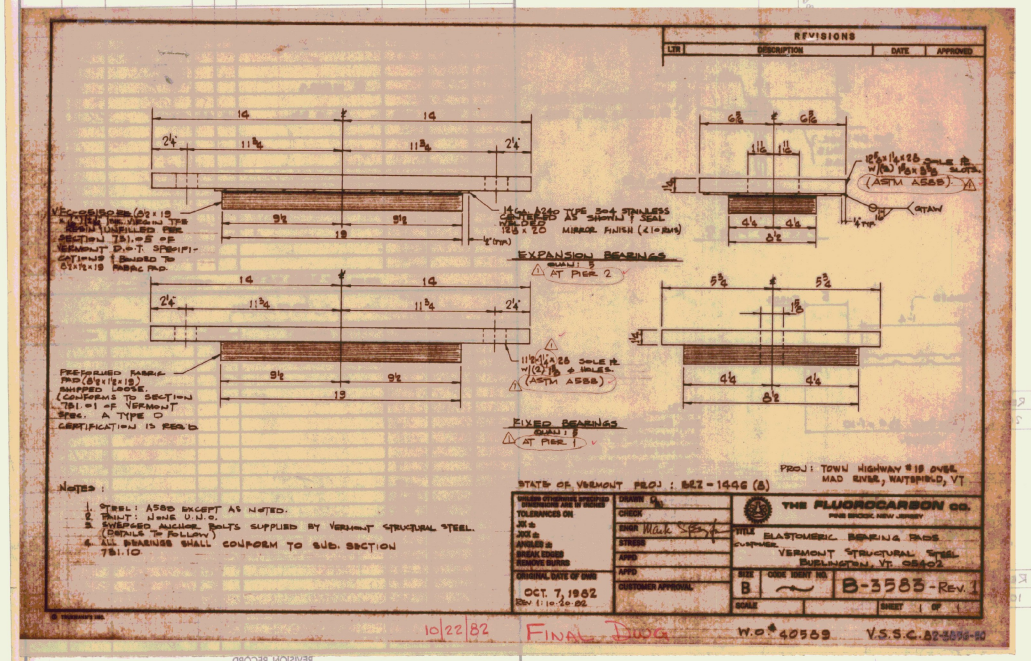
DATE	REV. #	BY	REVISION

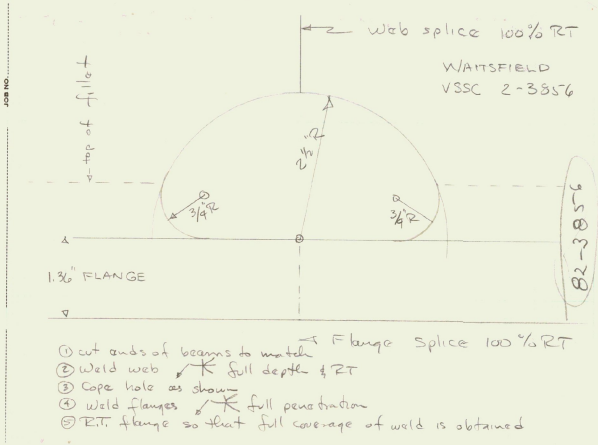
VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT
PROJ. No. BRZ-1846(6)

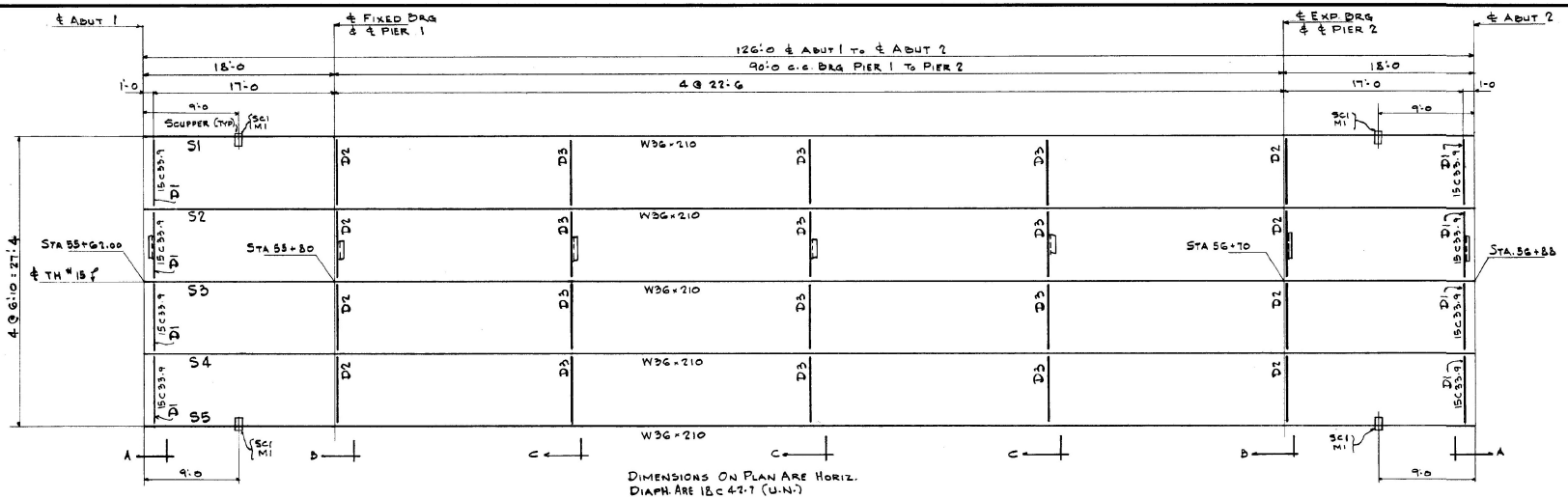
		DATE
DRAWN BY	T	
CKD BY	S	10-8-82
HOLES	AS NOTED	
BOLTS	AS NOTED	
PAINT		

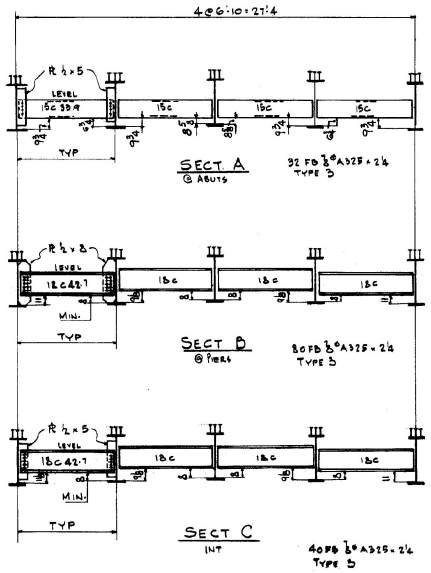
PROJECT WAITSFIELD
LOCATION T.H. 15 OVER MAD RIVER WAITSFIELD, Vt.
CUSTOMER WINTERSET INC.
ARCHITECT STATE OF VT AGENCY OF TRANSPORTATION
JOB NO. 82-3856 SHEET NO. 5 of 5

PRINT RECORD NO.	FOR	DATE
5	APPL	10/13/82
3	[illegible]	10-28
5	FABR.	10/29
3	FIELD	10/28
2	STATE	11/1


REVISIONS
LTR
DESCRIPTION
DATE
APPROVED
EXPANSION BEARINGS
AT PIER 2
FIXED BEARINGS
AT PIER 1
PROJ: TOWN HIGHWAY #18 OVER, MAD RIVER, WATERFIELD, VT
STATE OF VERMONT PROJ: BRZ-1446 (8)
THE FLUOROCARBON CO.
ELASTOMERIC BEARING PADS
VERMONT STRUCTURAL STEEL
BURLINGTON, VT. 05402
B-3585-Rev. 1
OCT. 7, 1982
10/22/82 FINAL
W.O.# 40569
V.S.S.C. 82-3856-80


Web splice 100% RT
WAITSFIELD
VSSC 2-3856
1.36" FLANGE
82-3856
Flange Splice 100% RT
1 cut ends of beams to match
2 Weld web full depth & RT
3 Cope hole as shown
4 Weld flanges full penetration
5 R.T. flange so that full coverage of weld is obtained





MAT'L A588 (UN) ON DET'LS

Jon 496-5861
Home 868-2182

LIST OF DWGS	
SHT #	DESCRIPTION
E1	ANC BOLT PLAN & DETLS
E2	ERECTION PLAN
1	STGR DET'LS
2	STGR & DIAPH DETLS
3	SCUPPER DET'LS

FIELD BOLTS	
QTY	DESCRIPTION
360	7/8" A325 × 2 1/4 (TYPE 3)
360	7/8" HRW (TYPE 3)
	(LISTED ON SHT. 3)

REVISION RECORD			
DATE	REV. #	BY	REVISION
10/20/82	1	AT	SHEAR STUDS

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT
PROJ. No. BRZ-1886(8)

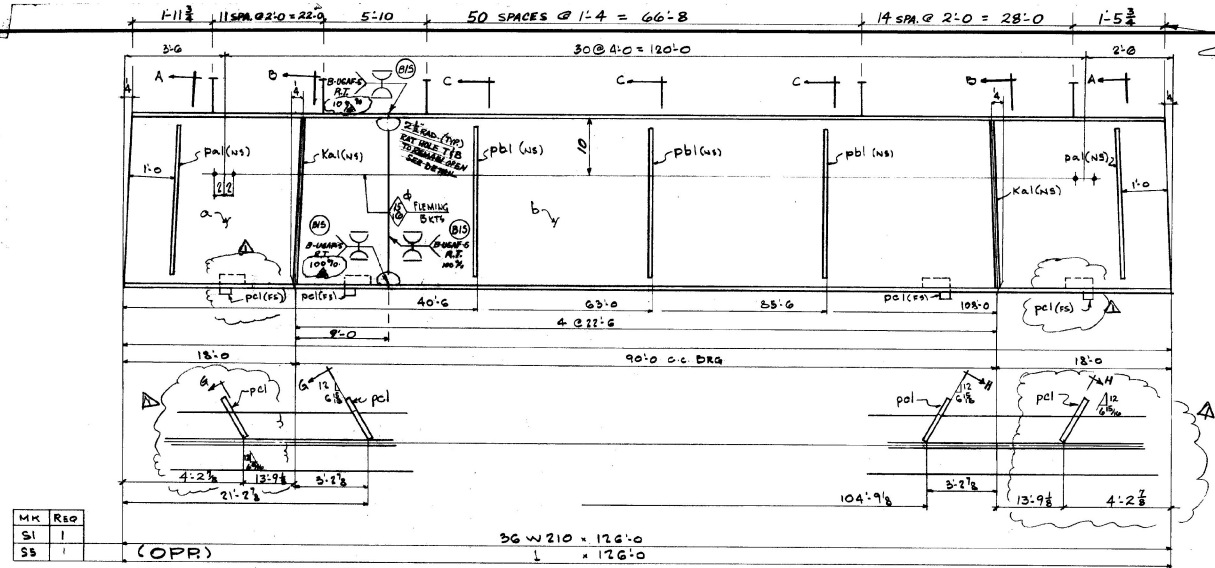
		DATE
DRAWN BY	T	
CYD BY	S	10-8-82

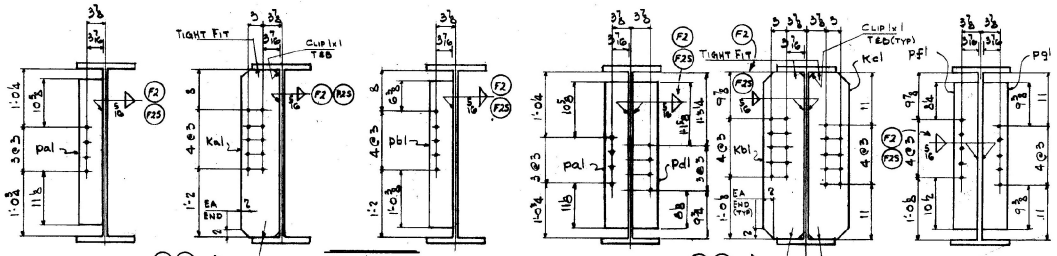
PROJECT WAITSFIELD
LOCATION TH # 15 OVER MAD RIVER WAITSFIELD, VT.
CUSTOMER WINTERSET INC
ARCHITECT STATE OF VT AGENCY OF TRANSPORTATION
JOB NO. 82-3856 SHEET NO. E2

PRINT RECORD		
NO.	FOR	DATE
5	ERECT	10/26/82
4	SHOP	10/25/82
3	ERECT	10/20/82
2	SHOP	10/19/82
1	STATUS	10/12/82

HOLES
BOLTS
PAINT SEE NOTE SHT. 1

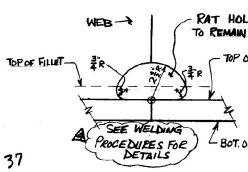
36"





MAT'L A588

NOTE: FOR CAMBER DIAG. SEE SHT 2



~ RAT HOLE DETAIL ~

37

A588 — BILL OF MATERIAL

	NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
	1	S1	STRINGER				
	1	S5	⊥			(OPP)	
★	2	a	36 W 210 W/ CAMB	27	0	ORD. DEPTH, FLG. & WEB THICK. PER ASTM A6	11340
★	2	b	⊥ @ BRG	99	0	@ 22'-2, 99'-2	41580
	4	Ka1	PL ½ x 8	2	10	STK	154
	4	Pa1	PL ½ x 5	2	6¾	REC. STK	
	6	Pb1	PL ⊥	1	1	50'-0	218
	8	Pc1	PL 4 x 3⅜	0	8¼	STK	16
							53308
			81-3856-51				
			SHOP APPLIED SHEAR STUDS				
	462		⅞"ϕ SHEAR STUDS	0	7	INCL. STK NELSON # 86067	

JOB NO. 82-3856 SHEET NO. 1 OF 3

A588 — BILL OF MATERIAL ★ CHARPY-V-NOTCH 15 FT LBS @ 40°F AASHTO M222

	NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
	1	S2	STRINGER				
	1	S4	⊥			(OPP)	
★	2	a	36 W 210 W/ CAMBER	27	0	ORD. DEPTH, FLG. & WEB THICK. PER ASTM A6	11340
★	2	b	⊥ @ BRG	99	0	@ 22'-2, 99'-2	41580
	4	Kb1	PL ½ x 8	2	10	STK	
	4	Kc1	PL ⊥	2	10	STK	
	4	Pd1	PL ½ x 5	2	6¾	REC. STK	308
	6	Pf1				50'-0	
	6	Pg1					
	4	Pa1					4136
			81-3856-51				53664
			SHOP APPLIED SHEAR STUDS				
	462		⅞"ϕ SHEAR STUDS	0	7	INCL. STK NELSON # 86067	

REVISION RECORD

DATE	REV. #	BY	REVISION
10-27	4	[illegible]	ADD'L PLN MAT'L
10/20/82	3	AT	RAT HOLE DETAIL & REVISION
10/20/82	2	AT	ADD. SHOP APPL'D SHEAR STUDS
10/19/82	1	AT	PER APP'L (ADD DRIP ANG.)

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT
Proj. No. BRZ-1446(8)

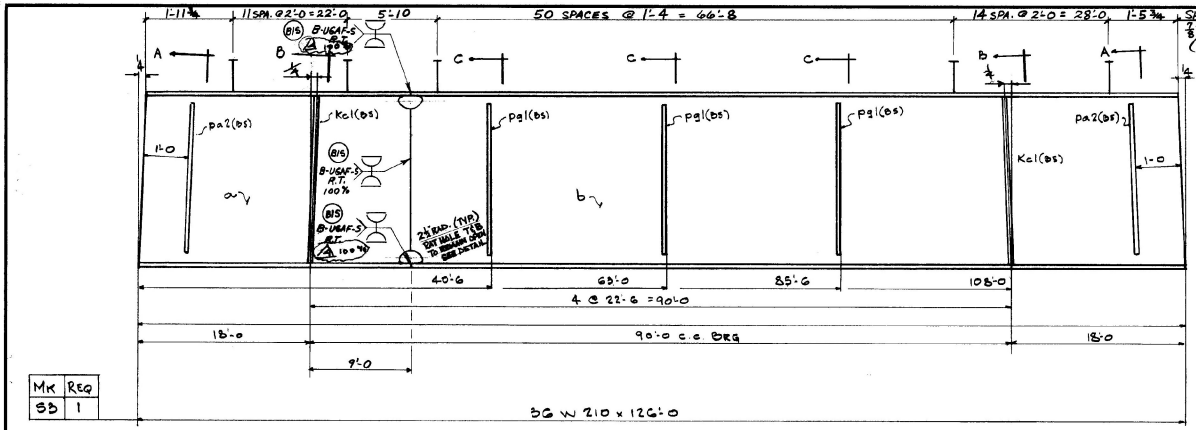
DRAWN BY T
CYD BY S 10-8-82
HOLES ⅞ ø
BOLTS
PAINT SEE NOTES SHT #1

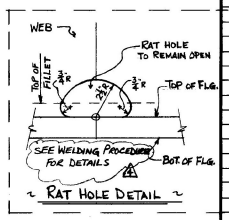
PROJECT WAITSFIELD
LOCATION TH #15 OVER MAD RIVER, WAITSFIELD, VT
CUSTOMER WINTERSET, INC
ARCHITECT STATE OF VT AGENCY OF TRANSPORTATION
JOB NO. 82-3856 SHEET NO. 1 OF 3
-S1 SHOP APPL'D SHEAR STUDS

PRINT RECORD

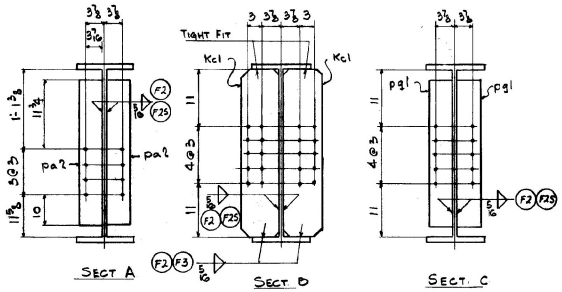
NO.	FOR	DATE
5	APPR.	
4	APPR.	
3	FAB.	
2	SHOP	
1	FIELD	

STATE #11

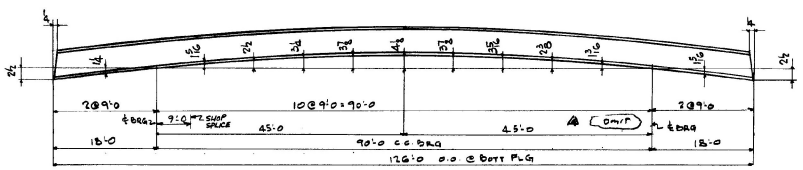




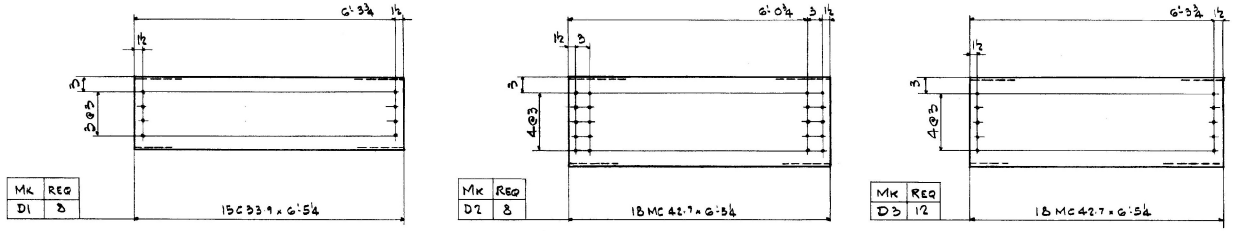
RAT HOLE DETAIL



STUDS NOT SHOWN IN SECTS.



CAMB DIAG
STRINGERS S1 TO S5 (INCL)



MAT'L A588

38

A588 BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
1	S3	STRINGER				
1	a	36 W 210 70 TONS	27	0	DED. BETH. #46014	5670
1	b	⊥ BY MILL	99	0	@ 27-2, 99-2	20790
Kc1	4	PL ½ x 8	2	10	L - STR	154
pa2	4	PL ½ x 5	2	6½	RES. STR.	
pg1	6	PL 1	1	1	5021-0.	218
						26832
		81-3856-51				
		SHOP APPLIED SHEAR STUDS				
231		⅞"ϕ SHEAR STUD	0	7	INC. STR. NELSON #H4CN7	

JOB NO. 82-3856 SHEET NO. 2

A588 BILL OF MATERIAL CHARPY-V-NOTCH 15 FT LBS @ 40°F AASHTO M222

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT
		DIAPH				
8	D1	15C33.9	6	5¼	DED. BETH #46014	1746
8	D2	18MC42.7	6	5¼		2199
12	D3	18MC42.7	6	5¼	⊥	3299
						7244

REVISION RECORD

DATE	REV. #	BY	REVISION
10-29	4	W	REV. PER ADD
10/20/82	3	AT	RAT HOLE DETAIL & REV.
10/20/82	2	AT	ADD. SHOP APPL'D SHEAR STUDS
10/19/82	1	AT	PER ADD'L

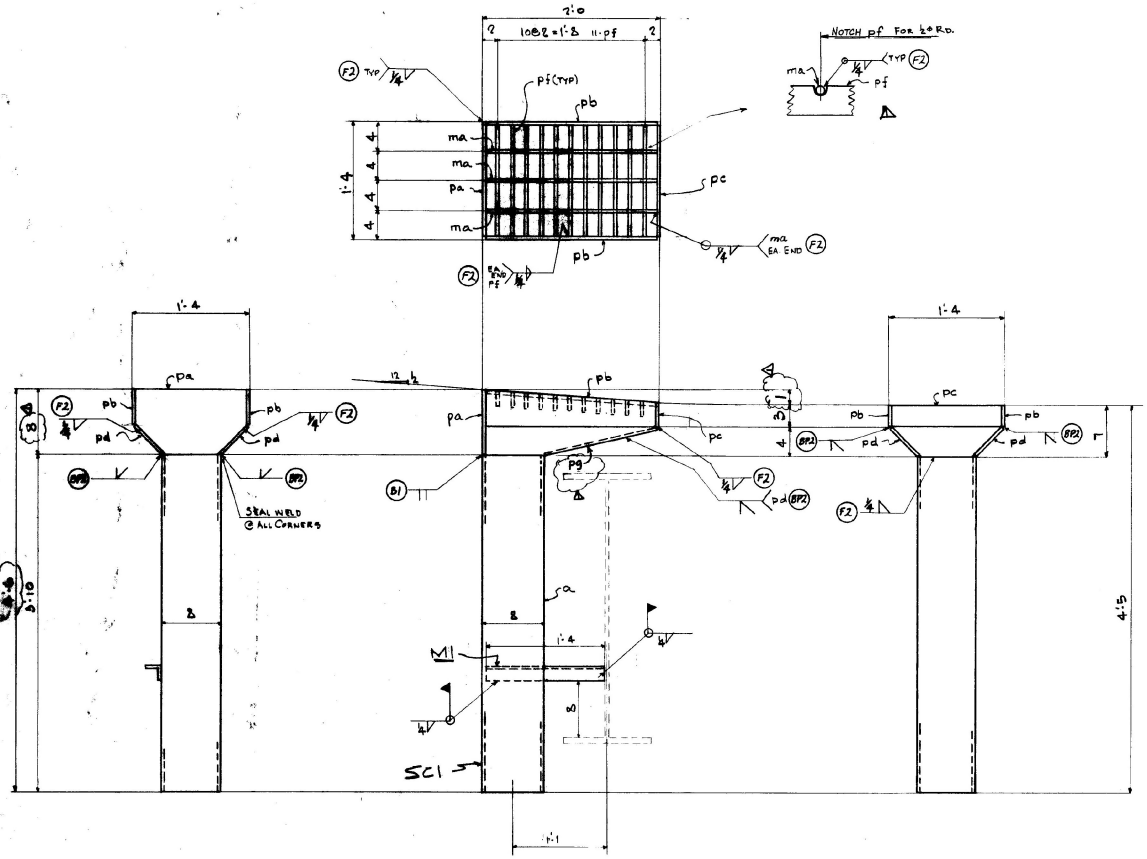
VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT
Proj. No. BRZ-1966(10)

DRAWN BY T DATE
CHK'D BY S 10-8-82
HOLES
ROUTE
PAINT SEE NOTE SHT #1

PROJECT WAITSFIELD
LOCATION TH #15 OVER MAD RIVER WAITSFIELD, VT
CUSTOMER WINTERSET INC
ARCHITECT STATE OF VT AGENCY OF TRANSPORTATION
JOB NO. 82-3856 SHEET NO. 2
-51 SHOP APPL'D SHEAR STUDS

PRINT RECORD

NO.	FOR	DATE
5	APP'D	10/29/82
4	ERECTION	10/29/82
3	FABRICATION	10/20/82
2	APP'D	10/19/82
1	STATE	10/19/82



4 - SCUPPERS - SC1 } GALV.

4 - L M1 (NO PAINT)

A36 (U.N.) BILL OF MATERIAL

NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT	
4	SC1	SCUPPERS					
4	a	TUBE 5 x 5 x 4 x .75 x 85°	5	10	STRUCT. GR.	ORD. MATERIAL ADJUSTMENT FACTOR 1.17-9	396
4	pa	PL ¼ x 8 Δ	1	8½		STK	38
8	pb	PL ¼ x 4 Δ	1	11½		GALV.	53
4	pc	PL ¼ x 5	1	5½	A36		13
8	pd	PL ¼ x 5½	1	11½			73
44	pf	BAR ½ x 7	1	5½			193
4	pg	PL ¼ x 15½" Δ	1	4½			72
12	ma	RD. ½" ø	1	11½			16
							851
4	M1	L 2 x 2 x ¼ x 96	1	4	A588 ¾"- STK		21
							872

FIELD BOLTS

360	⅞"ø A325 BOLT TYPE III
360	⅞"ø HARD. WASH. TYPE III

JOB NO. 82-3856 SHEET NO. 3

BILL OF MATERIAL

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

REVISION RECORD

DATE	REV. #	BY	REVISION
10/19/82	Δ	AT	PER APP'L

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT

PROJ. NO. 82-1688

		DATE
DRAWN BY	T	
CK'D BY	S	10-8-82
HOLES	AS NOTED	
BOLTS		
PAINT	GALV. (U.N.)	

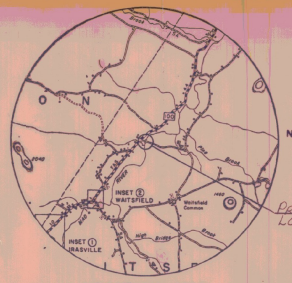
PROJECT WAITSFIELD
LOCATION TH #15 OVER MAD RIVER WAITSFIELD VT
CUSTOMER WINTERSET INC
ARCHITECT STATE OF VT. AGENCY OF TRANSPORTATION
JOB NO. 82-3856 SHEET NO. 3

PRINT RECORD

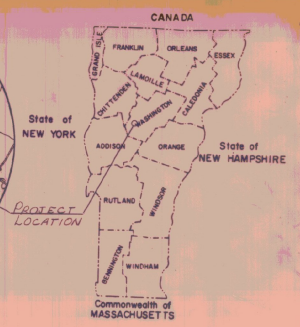
NO.	FOR	DATE
6	APP'L	10/26
5	PRINT	10/20
3	FIELD	10/28
2	STATIC	11/1

INDEX OF SHEETS

STATE OF VERMONT
AGENCY OF TRANSPORTATION



LOCATION MAP
(TRACED FROM COUNTY MAP)



PROPOSED IMPROVEMENT
BRIDGE PROJECT

TOWN OF WAITSFIELD
COUNTY OF WASHINGTON

ROUTE NO: T.H. 15 (CL.3) BRIDGE NO: 25

PROJECT LOCATION: This project begins approximately 980 feet southeasterly of the intersection of Vt. 100 & TH 15 and extends 900' northwesterly.

PROJECT DESCRIPTION: This project replaces the existing structure with a new rolled beam w/R.C. deck structure on a new northerly location w/approx. 850' of upgraded approach roadway and necessary channel work.

LENGTH OF STRUCTURE:	128.0	FEET
LENGTH OF PARTICIPATION ROADWAY:	772.0	FEET
LENGTH OF NON-PARTICIPATION ROADWAY:		FEET
LENGTH OF PROJECT:	900.0	FEET

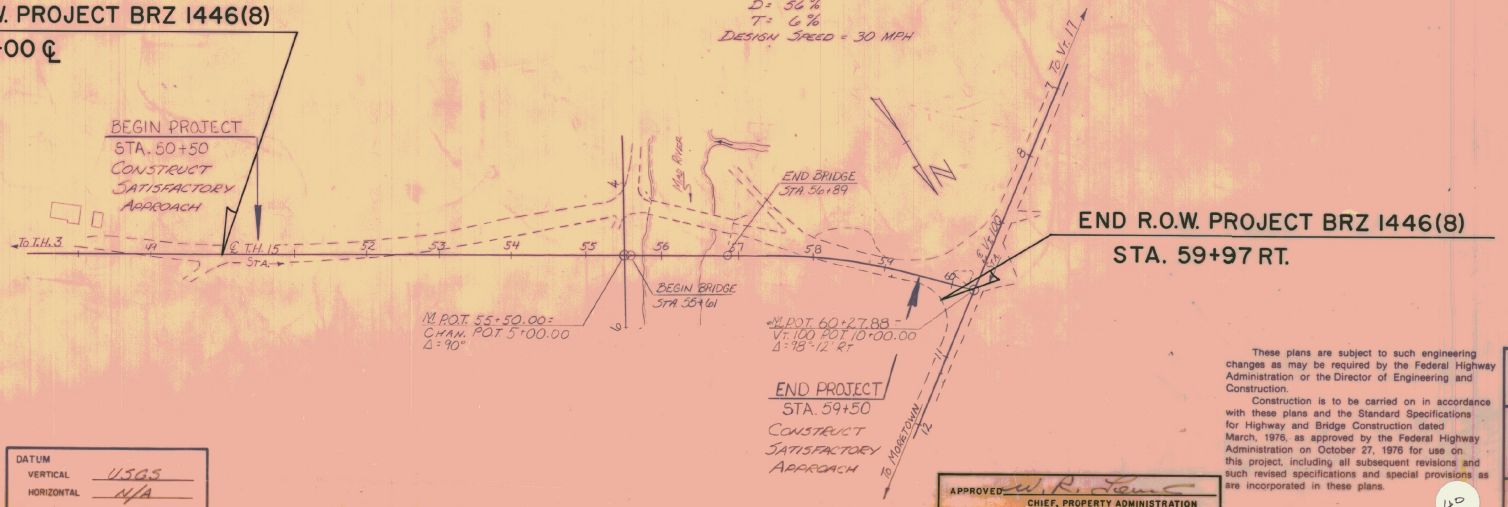
LENGTH OF R.O.W. PROJECT = 997 FEET = 0.189 MILES

GENERAL NOTES

R.O.W. PLANS

TRAFFIC DATA
1982 AADT = 300
1982 DHV = 70
1992 AADT = 580
1992 DHV = 80
D = 56%
T = 6%
DESIGN SPEED = 30 MPH

BEGIN R.O.W. PROJECT BRZ 1446(8)
STA. 50+00 ℄



END R.O.W. PROJECT BRZ 1446(8)
STA. 59+97 RT.

CONVENTIONAL SIGNS
- COUNTY LINE
- TOWN LINE
- LIMITS OF ACCESS
- POINT OF ACCESS
- FENCE LINE
- STONE WALL
- TRAVELED WAY
- GUARD RAIL
- RAILROAD
- SURVEY LINE
- CULVERT
- POWER POLE
- TELEPHONE POLE
- TREES
- CONTROL OF ACCESS
- PROPERTY LINE
- R.O.W. TAKING LINE
- SLOPE, RIGHTS (SR)
- TOP OF CUT
- TOE OF SLOPE

DATUM
VERTICAL USGS
HORIZONTAL N/A

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

APPROVED W. R. Lowe
CHIEF, PROPERTY ADMINISTRATION
DATE 2-16-82

SUBMITTED BY ORDER OF THE STATE TRANSPORTATION BOARD
APPROVED [signature] DATE FEB 16 1982
DIRECTOR OF ENGINEERING AND CONSTRUCTION

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

PROJECT	PROJECT NO.
WAITSFIELD	BRZ-1446(8)

SHEET 1 OF 7 SHEETS

BRUNING 44-131 80502-1

STATE OF VERMONT
AGENCY OF TRANSPORTATION
RIGHT-OF-WAY PLANS
DETAIL SHEET

TABLE OF PROJECT PROPERTY ACQUISITION

PARCEL NO.	GRANTOR	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKING	REM.	RIGHTS	TITLE TAKEN	DATE	TOWN OR CITY RECORDED	BK.	PG.	REMARKS
1A	TREMBLAY, JOSEPH E. & SALLY J.	5	50+00 LT. 50+00 LT. 50+33 LT.	52+25 LT. 53+28 LT. 52+70 LT.	0.03 A±		 CONST. EASE. (T) 0.07 A± SLOPE (P) 0.05 A±	WDOE	6-25-82	WAITSFIELD	37	505-07	1450 S.F.± 3050 S.F.± 2355 S.F.±
1B		5	50+00 RT.	50+73 RT.	0.01 A±								511 S.F.±
1C		6,7	56+14 RT. 56+14 RT. 56+40 RT. 57+40 RT. 58+50 RT.	58+97 RT. 58+90 RT. 58+80 RT. 58+80 RT.	0.34 A±		 CONST. EASE. (T) 0.04 A± CHANNEL (P) 0.01 A± CONST. EASE. (T) 0.01 A± DRIVE (T)						 1600 S.F.± 580 S.F.± 580 S.F.±
2A	SPAULDING, DONALD E. & LAURIE J.	5,6	50+34 RT. 50+25 RT. 53+00 RT. 54+72 RT. 55+00 RT.	56+27 LT. 51+35 RT. 56+14 RT. 55+00 RT.	0.8 A±		 CONST. EASE. (T) 0.01 A± CONST. EASE. (T) 0.06 A± DRIVE (T) CHANNEL (P) 110 S.F.±	WDOE	7-29-82	WAITSFIELD	38	8-9	 535 S.F.± 2630 S.F.±
2B		6	56+25 LT. 56+65 LT.	56+71 LT. 56+71 LT.			CONST. EASE. (T) 0.01 A± CHANNEL (P) 155 S.F.±						540 S.F.±
2C		6	57+25 LT.	58+00 LT.									RIGHT OF WAY
3A	KERR, WILLIAM T. & COLLEEN P.	6	55+38 LT. 55+43 LT.	55+58 LT. 55+55 LT.			CONST. EASE. (T) 360 S.F.± SLOPE (T) 755 S.F.±	WDOE	7-8-82	WAITSFIELD	37	557-8	
3B		6	55+70 LT.										RIGHT OF WAY

TABLE OF REVISIONS

REVISION NO.	SHEET NO.	DESCRIPTION OF REVISION	DATE	MADE BY	APPROVED BY
1	4	Parcel # 4 CREEDON, Corrected Area Of CHANNEL Rt. (P) To 300 S.F.± Per C.O. # 5287	3-17-82	BAM.	JDP
2	3,6	Parcel # 3A KERR, Changed SLOPE RT. (P) TO SLOPE RT. (T) Per C.O.# 5298	3-17-82	BAM.	JDP
3	3	Parcel 1B TREMBLAY, Corrected Total Area To 0.01 A± - 511 S.F.± Per C.O.# 5289	3-17-82	BAM.	JDP
4	3,5,6	Parcel # 2A Spaulding, Removed drive at 52+00 Rt., Added drive at 54+72 Rt., and deleted slope Rt. (T) at 54+15-55+00 Rt. Per C.O. # 5294	4-9-82	NWJ	T.P.M.
5	3	PARCEL #2A SPAULDING Reduced construction easement from 50+25 Rt. - 52+40 Rt. 0.03 A± (1250 S.F.) To 50+25 Rt. - 51+35 Rt. 0.01 A± (535 S.F.±) Per C.O. # 5351	5-11-82	Kdp	JDP
6	4,6	Parcel #4 CREEDON CHANGED AREA OF CONST. EASE From 0.03 A± To 0.01 A± AND RCSD CHANNEL Rt. FROM 300 S.F.± To 0.04 A± 1760 S.F.± Per C.O. 5433	6-4-82	JDP	T.P.M.

MADE BY: BBB DATE 2-10-82

CHECKED BY: _____ DATE _____

DR. RT. — DRAINAGE RIGHT
DIT. RT. — DITCHING RIGHT
CH. RT. — CHANNEL RIGHT
DRIVE RT. — DRIVE RIGHT
CUL. RT. — CULVERT RIGHT
(D) — DEMOLITION OR REMOVAL
[W] — WATER SOURCES

PRESENT R.O.W.
TAKING WITHOUT ACCESS
TAKING WITHOUT ACCESS ALONG PROPERTY LINES
TAKING WITH ACCESS
(P) PERMANENT EASEMENT
(T) TEMPORARY EASEMENT

LEGEND
CONST. EASE — CONST. EASEMENT
SR — SR — SLOPE RIGHTS
P/L — P/L — PROPERTY LINE
TOP OF CUT
TOE OF SLOPE

APPROVED Thomas K. Magee CHIEF OF PLANS & DATE 2-16-82

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PROJECT WAITSFIELD
NO. BRZ 1446(8)
SHEET 3 OF 7

ROW

STATE OF VERMONT
AGENCY OF TRANSPORTATION
RIGHT-OF-WAY PLANS
DETAIL SHEET

TABLE OF PROJECT PROPERTY ACQUISITION

PARCEL NO.	GRANTOR	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKING	REM.	RIGHTS	TITLE TAKEN	DATE	TOWN OR CITY RECORDED	BK.	PG.	REMARKS
4	CREEDON, CARL L. & STEPHANIE D.	6	55+53 LT. 55+70 LT. 55+80 LT.	56+30 LT. 55+95 LT.			CONST. EASE. (T) (0.10 A±) DRIVE (T) CHANNEL (P) (0.04 A±)	WDOE	7-20-82	WAITSFIELD	37	575	 (1760 S.F.±)
5	GREEN MOUNTAIN POWER CORP.												UTILITY
6	WAITSFIELD-FAYSTON TELEPHONE CO., INC.												UTILITY

TABLE OF REVISIONS

REVISION NO.	SHEET NO.	DESCRIPTION OF REVISION	DATE	MADE BY	APPROVED BY

MADE BY: BBB DATE 2-10-82

CHECKED BY: _____ DATE _____

DR. RT. — DRAINAGE RIGHT
DIT. RT. — DITCHING RIGHT
CH. RT. — CHANNEL RIGHT
DRIVE RT. — DRIVE RIGHT
CUL. RT. — CULVERT RIGHT
(D) — DEMOLITION OR REMOVAL
[W] — WATER SOURCES

PRESENT R.O.W.
TAKING WITHOUT ACCESS
TAKING WITHOUT ACCESS ALONG PROPERTY LINES
TAKING WITH ACCESS
(P) PERMANENT EASEMENT
(T) TEMPORARY EASEMENT

LEGEND
CONST. EASE
CONST. EASEMENT
SR SR SLOPE RIGHTS
P/L P/L PROPERTY LINE
TOP OF CUT
TOE OF SLOPE

APPROVED Thomas P. Mayer DATE 2-16-82
CHIEF OF PLANS & TITLES

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PROJECT WAITSFIELD
NO. BRZ 1446(8)
SHEET 4 OF 7

ROW