INDEX OF SHEETS

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Date AUG 27 1985

Earth Construction, Inc.
Contractor

Rodney W. Jordan
Signature

President
Title

Transportation Secretary's Signature

CONTRACT PLANS

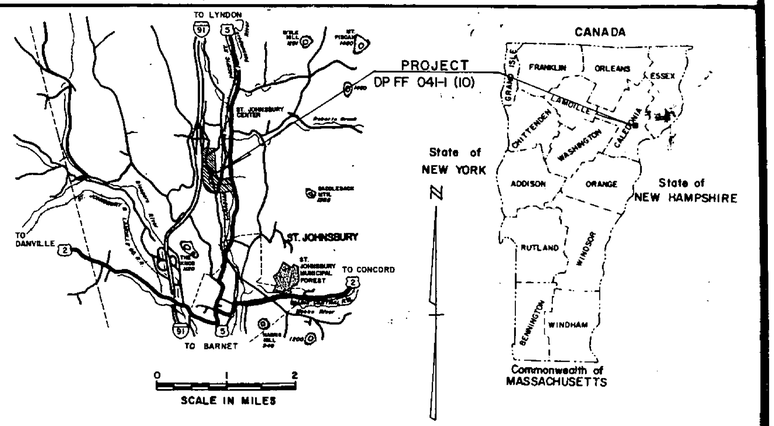
THESE PLANS DO NOT REFLECT CHANGES MADE ON THE PROJECT.

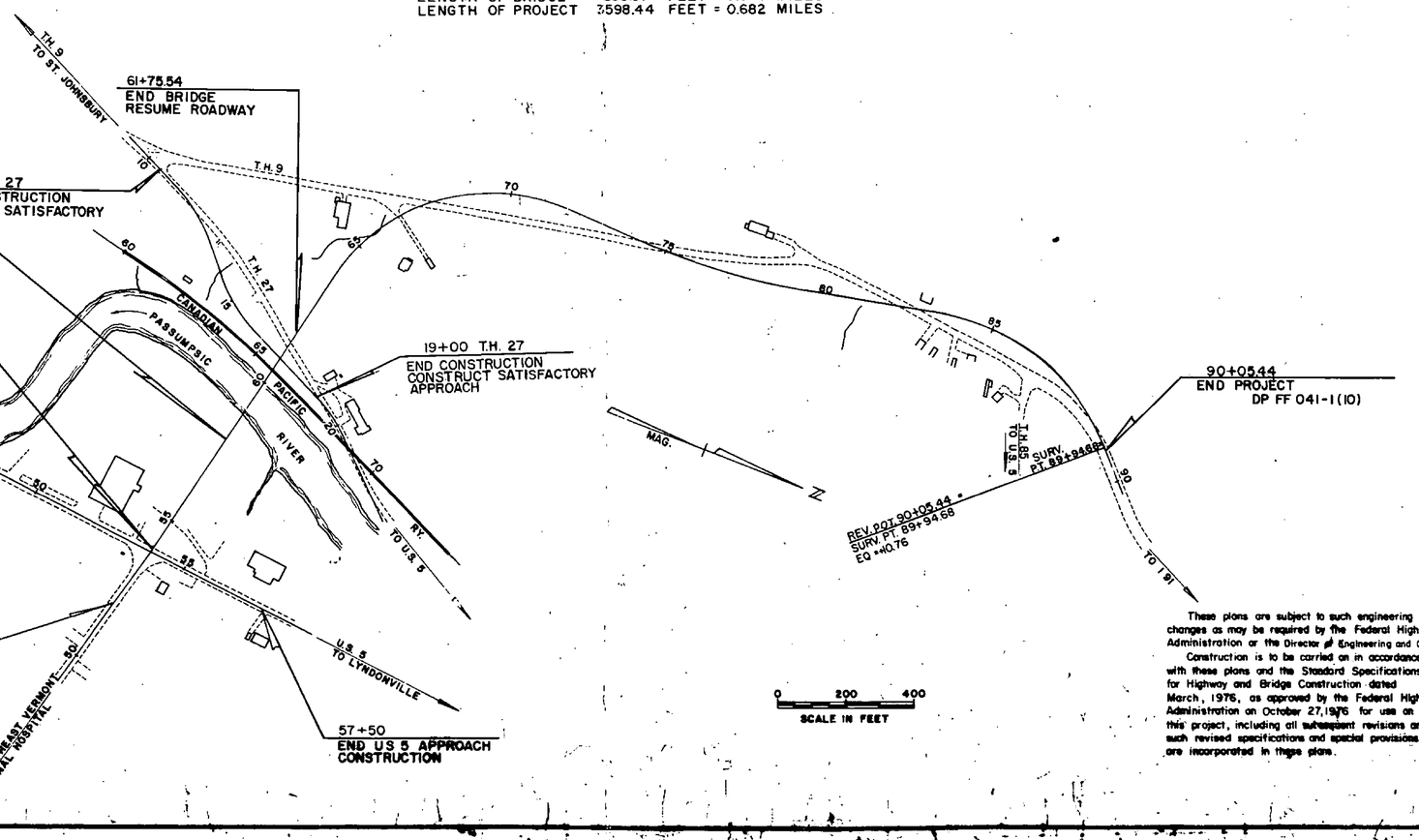
STATE OF VERMONT
AGENCY OF TRANSPORTATION

PROPOSED IMPROVEMENT
TOWN OF ST. JOHNSBURY
COUNTY OF CALEDONIA
INTERSTATE CONNECTOR

BEGINNING AT THE INTERSECTION OF U.S. ROUTE 5 AND THE NORTHEAST VERMONT REGIONAL HOSPITAL ROAD AND EXTENDING WESTERLY AND THEN NORTHERLY 0.682 MILES TO THE I 91 ST. JOHNSBURY NORTH INTERCHANGE.

LENGTH OF ROADWAY	3207.57	FEET = 0.608	MILES
LENGTH OF BRIDGE	390.87	FEET = 0.074	MILES
LENGTH OF PROJECT	3598.44	FEET = 0.682	MILES





1986 AADT = 1830
2006 AADT = 2470
2006 DHV = 345
D = 55%
T = 4%
V = 40 MPH

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 N. G. V. D. 1929
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 Constr.

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 Frank E. Wanich DATE 3-28-85
DIRECTOR OF ENGINEERING AND CONSTRUCTION

AGENCY OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED _____ DATE _____
DIVISION ADMINISTRATOR

FEGC-
PROJECT DP FF Nº 041-1(10)

SHEET 1 OF 229 SHEETS

D-10 3.R.S. 12/17/70

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216	BLANK			
217	G-1	GUARDRAIL	12-21-84	R
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227	SCB-D1-75	GENERAL BRIDGE DETAILS	9-14-81	R
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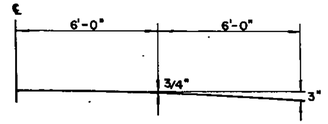
229	SCB-D7-71	GENERAL BRIDGE DETAILS	12-15-76	R

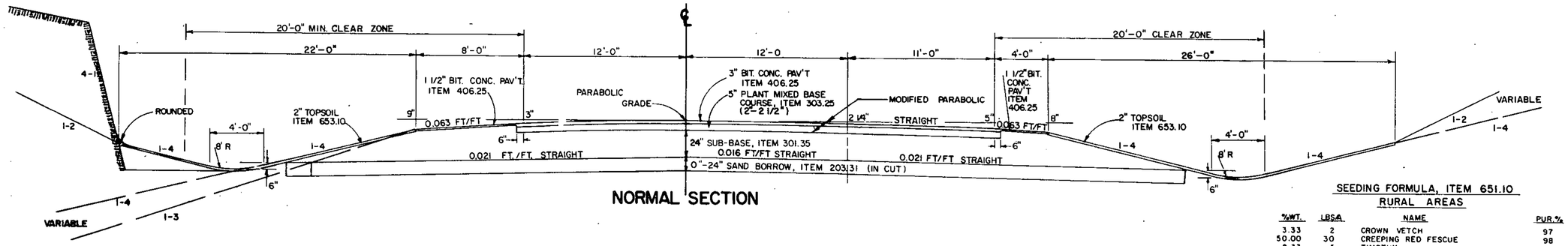
TYPICAL SECTIONS I-91 CONNECTOR

3"	BITUMINOUS CONCRETE PAVEMENT, ITEM 406.25 (± 1/4" FOR TOTAL THICKNESS) (TO BE PLACED IN TWO COURSES)	
5"	PLANT MIXED BASE COURSE, ITEM 303.25 (± 1/2") (2 - 2 1/2" COURSES)	
24"	SUB-BASE OF DENSE GRADED CRUSHED STONE, ITEM 301.35 (±1")	
SHOULDERS: 1 1/2"	BITUMINOUS CONCRETE PAVEMENT, ITEM 406.25	
0"-12"	GRANULAR BORROW, ITEM 203.32 (IN FILL) (± 1")	TO BE PLACED AS NOTED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
0"-24"	SAND BORROW, ITEM 203.31 (IN CUT) (±1")	

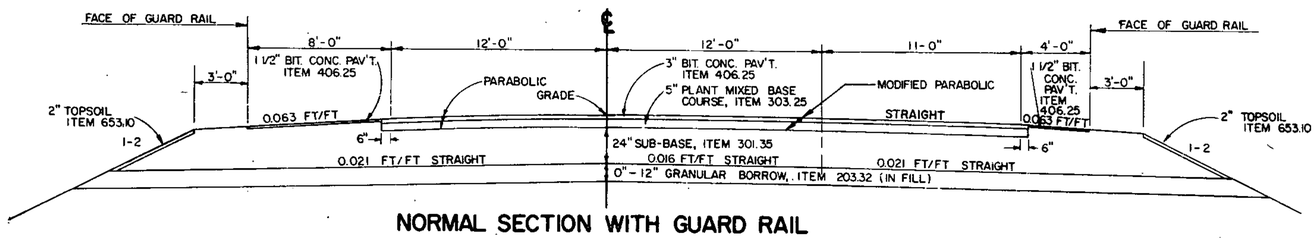
PERMISSIBLE TOLERANCES IN PARENTHESES APPLY TO THICKNESS ONLY.



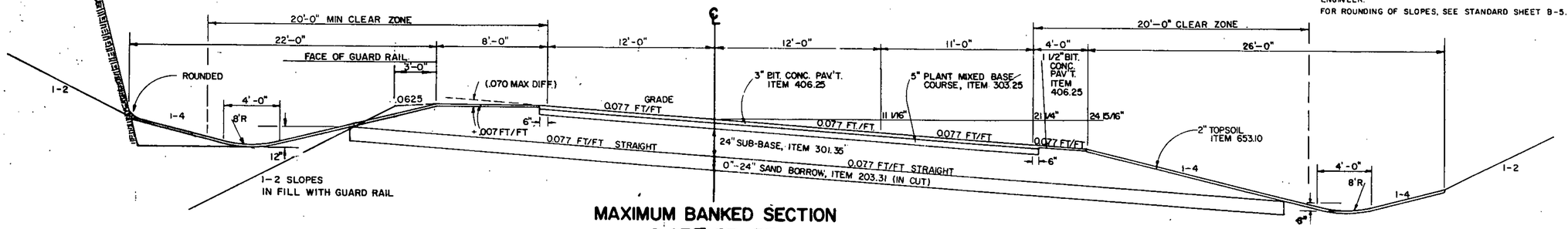
PARABOLIC DETAILS



NORMAL SECTION



NORMAL SECTION WITH GUARD RAIL



MAXIMUM BANKED SECTION
0.077 FT./FT.

SEEDING FORMULA, ITEM 651.10
RURAL AREAS

%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
8.34	5	ALFALFA (VAR. SARANAC)	99	85
8.33	5	BIRDSFOOT TREFOIL	98	85
100.00	60			

THE SEED MIXTURE SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40 % BY WEIGHT AND SHALL BE FREE FROM ALL NOXIOUS WEED SEED.

HAY MULCH, ITEM 651.25, TO BE PLACED ON ALL EARTH SLOPES AT THE RATE OF TWO TONS PER ACRE.

FERTILIZER, ITEM 651.15, SHALL BE MIXED AS FOLLOWS:
NITROGEN 10%
PHOSPHORUS 20%
POTASH 10%
FERTILIZER SHALL BE DELIVERED IN BAGS OF NOT TO EXCEED 100 LBS EACH AND TO BE APPLIED AT THE RATE OF 500 LBS PER ACRE.

AGRICULTURAL LIMESTONE, ITEM 651.20, TO BE APPLIED TO ALL EARTH SLOPES AT THE RATE OF TWO TONS PER ACRE OR AS DIRECTED BY THE ENGINEER.

WOOD MARKER POSTS, ITEM 619.15, TO BE PLACED AS DIRECTED BY THE ENGINEER.

FOR ROUNDING OF SLOPES, SEE STANDARD SHEET B-5.

ST. JOHNSBURY
DP FF 041-1(10)

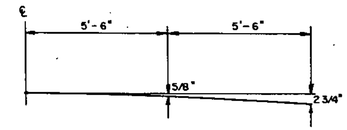
TYPICAL SECTIONS T.H. 27 & U.S. 5

TOWN HIGHWAY 27

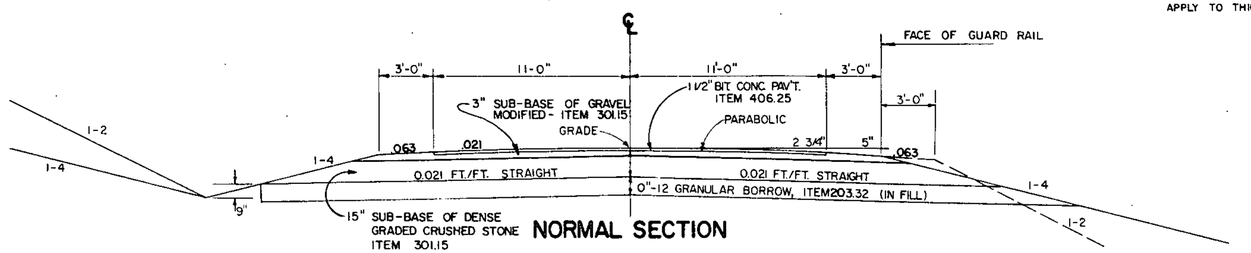
1 1/2"	BITUMINOUS CONCRETE PAVEMENT, ITEM 406.25 (± 1/4") (TO BE PLACED IN TWO COURSES)
3"	SUB-BASE OF GRAVEL - MODIFIED, ITEM 301.15 (± 1")
15"	SUB-BASE OF DENSE GRADED CRUSHED STONE, ITEM 301.35 (± 1")
0"-12"	GRANULAR BORROW, ITEM 203.32 (IN FILL) (± 1")
0"-24"	SAND BORROW, ITEM 203.31 (IN CUT) (± 1")

TO BE PLACED AS NOTED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

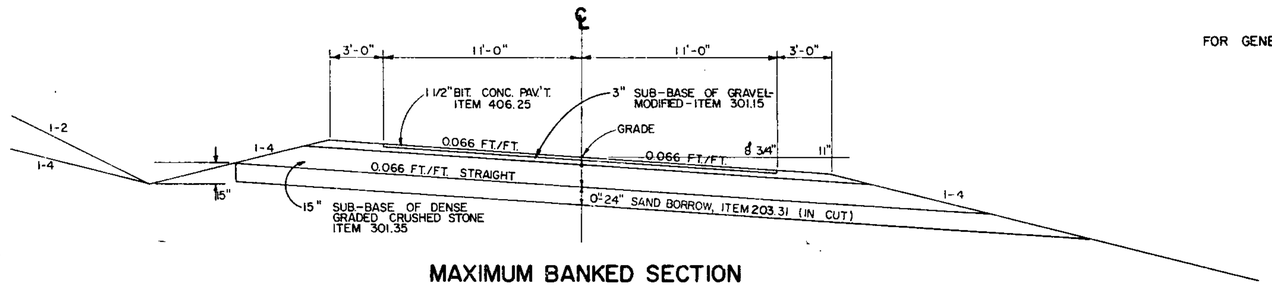
PERMISSIBLE TOLERANCES IN PARENTHESES APPLY TO THICKNESS ONLY.



PARABOLIC DETAILS



NORMAL SECTION



MAXIMUM BANKED SECTION
0.066 FT./FT.

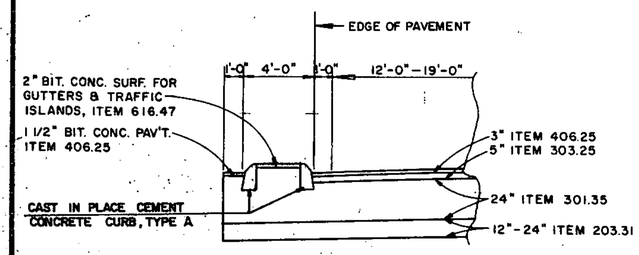
FOR GENERAL NOTES SEE SHEET 3

U.S. RTE. 5

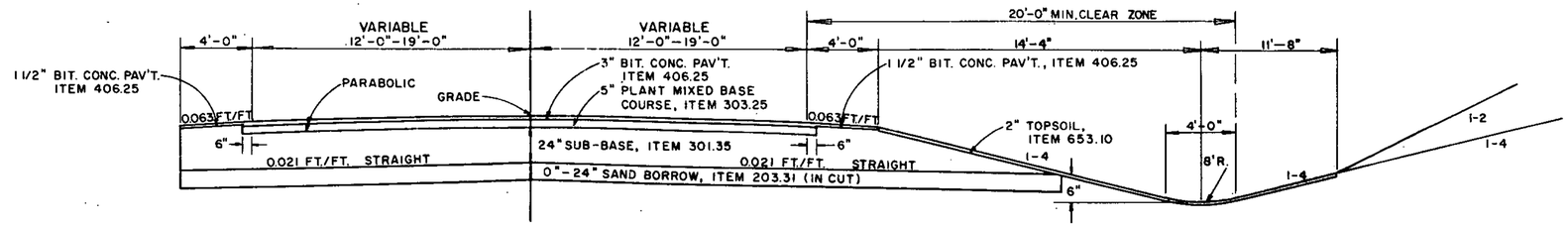
3"	BITUMINOUS CONCRETE PAVEMENT, ITEM 406.25 (± 1/4" FOR TOTAL THICKNESS) (TO BE PLACED IN TWO COURSES)
5"	PLANT MIXED BASE COURSE, ITEM 303.25 (± 1/2") (2 - 2 1/2" COURSES)
24"	SUB-BASE OF DENSE GRADED CRUSHED STONE, ITEM 301.35 (± 1")
SHOULDERS: 1 1/2"	BITUMINOUS CONCRETE PAVEMENT, ITEM 406.25
0"-24"	SAND BORROW, ITEM 203.31 (IN CUT) (± 1")
0"-12"	GRANULAR BORROW, ITEM 203.32 (IN FILL) (± 1")

TO BE PLACED AS NOTED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

PERMISSIBLE TOLERANCES IN PARENTHESES APPLY TO THICKNESS ONLY.



ISLAND DETAIL



NORMAL SECTION

ST. JOHNSBURY
DP FF 041-1(10)

QUANTITY SHEET

STATE OF VERMONT AGENCY OF TRANSPORTATION

PROJECT NO. _____

SUMMARY SHEET NO. _____ OF _____ 19 ____

APPROXIMATE SUMMARY OF QUANTITIES

TEMP. EROSION CONTROL	EROSION CONTROL	NON-FEDERAL PARTICIPATION	BRIDGE	ROADWAY	QUANTITIES GRAND TOTAL	UNIT	ITEMS	ITEM NO.	ROUNDING
				1	1	LS	CLEARING AND GRUBBING (INDIV TREES & STUMPS)	201.10	
				260	260	CY	EXCAVATION & REMOVAL OF ROAD SURFACES & PVMTS	202.15	
				48500	48500	CY	COMMON EXCAVATION	203.15	388
				10150	10150	CY	SOLID ROCK EXCAVATION	203.16	44
			950	4580	5530	CY	UNCLASSIFIED CHANNEL EXCAVATION	203.27	1
				100	100	CY	EARTH BORROW	203.30	EST
				7000	7000	CY	SAND BORROW	203.31	19
				19880	19880	CY	GRANULAR BORROW	203.32	14
				34100	34100	SY	FINE GRADING SUBGRADE	203.40	50
25		25		6025	6075	CY	TRENCH EXCAVATION OF EARTH	204.20	26
		4		631	635	CY	TRENCH EXCAVATION OF ROCK	204.21	6
			220	820	1040	CY	STRUCTURE EXCAVATION	204.25	8
				150	150	CY	GRANULAR BACKFILL FOR STRUCTURES	204.30	73
				100	100	LF	DRILLING AND BLASTING OF SOLID ROCK	205.10	EST
				2000	2000	SY	DRILLING AND BLASTING OF SOLID ROCK SUBGRADE	206.10	6
				450	450	SY	SCARIFYING EXISTING PAVEMENT	212.20	33
25				875	900	CY	SUBBASE OF GRAVEL	301.15	19
				19,700	19,700	CY	SUBBASE OF DENSE GRADED CRUSHED STONE	301.35	106
				5040	5040	TON	PLANT MIXED BASE COURSE	303.25	46
			988		988	GAL	TAR EMULSION	404.45	
				3775	3775	TON	BITUMINOUS CONCRETE PAVEMENT	406.25	27
			575		575	CY	CONCRETE CLASS A	501.20	
		2.6	969	73.4	1045	CY	CONCRETE CLASS B	501.25	3.9
			1		1	LS	FURNISHING EQUIP. FOR DRIVING PILING	504.10	
			2170		2170	LF	STEEL PILING (HP 12X53)	505.15	
			595		595	LF	STEEL PILING (HP 14X73)	505.17	
			1020210		1020210	LB	STRUCTUAL STEEL (PLATE GIRDER)	506.91	
			7		7	EA	BEARING DEVICE ASSEMBLY @ 57+87	506.99	
			7		7	EA	BEARING DEVICE ASSEMBLY @ 58+67	506.99	
			7		7	EA	BEARING DEVICE ASSEMBLY @ 60+12	506.99	
			7		7	EA	BEARING DEVICE ASSEMBLY @ 61+72	506.99	
		231	120,730	2269	123230	LB	REINFORCING STEEL	507.15	24
			179380		179380	LB	EPOXY COATED REINFORCING STEEL	507.17	
			1		1	LS	SHEAR CONNECTORS	508.15	
			107		107	GAL	WATER REPELLENT	514.10	
			52		52	LF	ELASTOMERIC EXPANSION DAM	516.34	
			513		513	SY	SHEET MEMBRANE WATERPROOFING	519.20	
			1		1	LS	COFFERDAM @ 60+12	530.10	

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		COMMON EXCAVATION ITEM 203.15
33265	CY	MAINLINE
10397	CY	US 5
2232	CY	TH 27
148	CY	DRIVES AND APPROACHES
2070	CY	SAND UNDERCUTS
388	CY	ROUNDING
48,500	CY	TOTAL
		SOLID ROCK EXCAVATION ITEM 203.16
9446	CY	MAINLINE
660	CY	US 5 CONCRETE PAVEMENT REMOVAL
44	CY	ROUNDING
10150	CY	TOTAL
		SAND BORROW ITEM 203.31
1463	CY	MAINLINE DESIGNED
2794	CY	MAINLINE EST.
817	CY	TH #7 EST.
1907	CY	US #5 EST
19	CY	ROUNDING
7000	CY	TOTAL
		GRANULAR BORROW ITEM 203.32 NOTE: NO FACTOR APPLIED
11995	CY	BRIDGE APPROACHES
4174	CY	EST. TO TOP FILLS
1467	CY	DRAINAGE
2230	CY	BRIDGE QUANTITY SHEET
14	CY	ROUNDING
19,880	CY	TOTAL
		FINE GRADING SUBGRADE ITEM 203.40
24257	SY	MAINLINE
5679	SY	US #5
4114	SY	TH #27
50	SY	ROUNDING
34100	SY	TOTAL
		TRENCH EXCAVATION OF EARTH ITEM 204.20
4908	CY	DRAINAGE
976	CY	DESIGNED UNDERDRAIN
115	CY	EST. UNDERDRAIN
26	CY	ROUNDING
6025	CY	TOTAL
		TRENCH EXCAVATION OF ROCK ITEM 204.21
34	CY	DRAINAGE
556	CY	DESIGNED UNDERDRAIN
35	CY	EST. UNDERDRAIN
6	CY	ROUNDING
631	CY	TOTAL
		SUBBASE OF DENSE GRADED CRUSHED STONE ITEM 301.35
14526	CY	MAINLINE
3768	CY	US #5
1300	CY	TH-27
106		ROUNDING
19,700	CY	TOTAL

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		PLANT MIXED BASE COURSE ITEM 303.25
3772	TON	MAINLINE
1222	TON	US #5
46	TON	ROUNDING
5040	TON	TOTAL
		BITUMINOUS CONCRETE PAVEMENT ITEM 406.25
2470	TON	MAINLINE
754	TON	US #5
203	TON	TH #27
44	TON	DRIVES AND APPROACHES
277	TON	BRIDGE
27	TON	ROUNDING
3775	TON	TOTAL
		SUBBASE OF GRAVEL ITEM 301.15
444	CY	TH #27
384	CY	DRIVES AND APPROACHES
28	CY	GUTTERS
19	CY	ROUNDING
875	CY	TOTAL

TYPE OF CONSTRUCTION

STATIONS FROM	STATIONS TO	PAVEMENT WIDTHS			EQUATIONS +	EQUATIONS −
TOTALS						

LENGTH OF PROJECT

STATIONS	FEET	MILES	REMARKS
TOTALS			

ST. JOHNSBURY DP FF 041-1 (10)

No. Sheet 5 of 229 Sheets Filed

QUANTITY SHEET

STATE OF VERMONT AGENCY OF TRANSPORTATION

_____ PROJECT NO. _____

SUMMARY SHEET NO. ____ OF _____ 19 ____

APPROXIMATE SUMMARY OF QUANTITIES

TEMP. EROSION CONTROL	EROSION CONTROL	NON-FEDERAL PARTICIPATION	BRIDGE	ROADWAY	QUANTITIES GRAND TOTAL	UNIT	ITEMS	ITEM NO.	ROUNDING
			64		64	LF	15" ACCGMP (.064)	601.1542	
				348	348	LF	18" ACCGMP (.064)	601.1562	
				202	202	LF	24" ACCGMP (.064)	601.1572	
		32			32	LF	24" ACCGMP (.109)	601.1574	
				112	112	LF	48" ACCGMP (.109)	601.1614	
				92	92	LF	54" ACCGMP (.109)	601.1624	
				136	136	LF	54" ACCGMP 3"X1" CORR (.109)	601.2234	
				56	56	LF	54" ACCGMP 5"X1" CORR (.138)	601.2237	
				12	12	LF	15" RCP CL III	601.2613	
				186	186	LF	18" RCP CL III	601.2623	
				168	168	LF	24" RCP CL III	601.2643	
				198	198	LF	28"X20" ACCGMP ARCH (.064)	601.4822	
			4		4	EA	15 ACCGMP ELBOW (.064)	601.5542	
				50	50	LF	RELAYING PIPE CULVERT	601.7250	EST.
				110	110	LF	6" RIGID PLASTIC PIPE	601.8001	
							BEGIN OPTION ITEMS		
				128	128	LF	18" CGMP (.064)	601.1802	
				128	128	LF	18" CAACP (.060)	601.2052	
				128	128	LF	18" RCP CL III	601.2623	
				112	112	LF	12" CGMP (.064)	601.1782	
				112	112	LF	12" CAACP (.060)	601.2032	
				2	2	EA	12" CGMP ELBOW (.064)	601.5782	
				2	2	EA	12" CAACP ELBOW (.060)	601.6032	
							END OPTION ITEMS		
				2	2	EA	CONC. CATCH BASIN W/CAST IRON GRATE	604.10	
				2	2	EA	P.R.C.C.D.I	604.30	
		1		5	6	EA	CAST IRON GRATE W/FRAME TYPE A	604.45	
				7	7	EA	CAST IRON GRATE W/FRAME TYPE B	604.46	
				2700	2700	LF	6" UNDERDRAIN	605.10	
				250	250	LF	6" UNDERDRAIN CARRIER PIPE	605.15	
				10	10	EA	UNDERDRAIN FLUSHING BASINS	605.95	
				150	150	HP	ROADWAY PATROL MAINTENANCE	607.10	EST
5				25	30	HR	BULLDOZER RENTAL TYPE I	608.10	EST
				15	15	HR	BULLDOZER RENTAL TYPE II	608.11	EST
5				25	30	HR	ALL PURPOSE EXCAVATOR RENTAL TYPE I	608.25	EST
				15	15	HR	ALL PURPOSE EXCAVATOR RENTAL TYPE II	608.26	EST
20				40	60	HR	TRUCK RENTAL	608.37	EST
5				15	20	HR	LOADER RENTAL TYPE I	608.40	EST
				10	10	HR	LOADER RENTAL TYPE II	608.41	EST
				500	500	M/GAL	DUST CONTROL W/WATER	609.10	EST
				5	5	TON	DUST AND ICE CONTROL W/CALCIUM CHLORIDE	609.15	EST

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

TYPE OF CONSTRUCTION

STATIONS FROM	STATIONS TO	PAVEMENT WIDTHS			EQUATIONS +	EQUATIONS −	
TOTALS							

LENGTH OF PROJECT

STATIONS		FEET	MILES	REMARKS
TOTALS				

ST. JOHNSBURY DP FF 041-1 (10)

No. Sheet 6 of 229 Filed Sheets

ERLMING 40-105 40282

QUANTITY SHEET

STATE OF VERMONT AGENCY OF TRANSPORTATION

_____ PROJECT NO. _____

SUMMARY SHEET NO. ____ OF _____ 19 ____

APPROXIMATE SUMMARY OF QUANTITIES

TEMP. EROSION CONTROL	EROSION CONTROL	NON-FEDERAL PARTICIPATION	BRIDGE	ROADWAY	QUANTITIES GRAND TOTAL	UNIT	ITEMS	ITEM NO.	ROUNDING
25			140	960	1125	CY	STONE FILL, TYPE I	613.10	17
			70	550	620	CY	STONE FILL, TYPE II	613.11	19
				75	75	CY	STONE FILL, TYPE III	613.12	8
			1050		1050	CY	STONE FILL, TYPE IV	613.13	
			1		1	GAL	JOINT SEALER, HOT POURED	614.10	
			4		4	GAL	JOINT SEALER, POLYURETHANE	614.25	
			852		852	LF	CONCRETE BRIDGE BARRIER CURB	616.19	
				1100	1100	LF	CAST-IN-PLACE CEMENT CONCRETE CURB TYPE B	616.26	12
				150	150	LF	TREATED TIMBER CURB	616.35	8
				50	50	TON	BIT. CONC. SURFACE FOR GUTTERS & TRAF. ISLANDS	616.47	2
			857		857	LF	BRIDGE RAILING - GALV BOX BEAM	617.30	
				70	70	EA	BOUNDARY MARKERS	619.10	
				30	30	EA	WOOD MARKER POSTS	619.15	3
				5	5	EA	REMOVING AND RESETTING PROPERTY MARKERS	619.20	EST
				440	440	LF	6' CHAIN LINK FENCE	620.11	
				196	196	LF	GUARD RAIL PLANK W/WOOD POSTS	621.10	
				675	675	LF	GR STD. STL BEAM W/WOOD POSTS TYPE II	621.28	12.5
				6	6	EA	BREAKAWAY CABLE TERMINAL FOR GR STL BEAM W/ WOOD POSTS TYPE II	621.77	
				4	4	EA	GUARD RAIL APPROACH SECTION TYPE I	621.90	
				170	170	LF	3/4" SEAMLESS COPPER WATER TUBE	629.23	
				1	1	EA	EXTENSION SERVICE BOX AND CURB STOP	629.25	
				200	200	HR	UNIFORMED TRAFFIC OFFICERS	630.10	EST
				400	400	HR	FLAGPERSONS	630.15	
				1	1	LS	FIELD OFFICE - ENGINEERS	631.10	
			880	880	1760	HR	EMPLOYEE TRAINEESHIP (2 TRAINEES)	634.10	
				1	1	LS	MOBILIZATION	635.10	
				1	1	EA	TRANSPORTATION	636.10	

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		BITUMINOUS CONCRETE SURFACES FOR GUTTERS AND TRAFFIC ISLANDS ITEM 616.47
20	TON	ISLANDS
28	TON	GUTTERS
2	TON	ROUNDING
50	TON	TOTAL

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

TYPE OF CONSTRUCTION

STATIONS FROM	STATIONS TO	PAVEMENT WIDTHS			EQUATIONS +	EQUATIONS −	
TOTALS							

LENGTH OF PROJECT

STATIONS	FEET	MILES	REMARKS
TOTALS			

ST. JOHNSBURY DP FF 041-1 (10)

No. Sheet 7 of 229 Filed Sheets

D-1

FORM C-100 (2/88)

QUANTITY SHEET

STATE OF VERMONT AGENCY OF TRANSPORTATION

PROJECT NO. _____

SUMMARY SHEET NO. ____ OF _____ 19 ____

ROUNDING

APPROXIMATE SUMMARY OF QUANTITIES

TEMP. EROSION CONTROL	EROSION CONTROL	NON-FEDERAL PARTICIPATION	BRIDGE	ROADWAY	QUANTITIES GRAND TOTAL	UNIT	ITEMS	ITEM NO.
				560	560	LF	PAINTED CURBS	646.21
				10135	10135	LF	TEMPORARY 4" REFLECTORIZED WHITE LINES	646.35
				6495	6495	LF	TEMPORARY 4" REFLECTORIZED YELLOW LINES	646.36
				450	450	LF	DURABLE 4" REFLECTORIZED WHITE LINES	646.60
				2555	2555	LF	DURABLE 4" REFLECTORIZED YELLOW LINES	646.61
				120	120	LF	DURABLE 24" STOP BAR	646.64
				7	7	EA	DURABLE ARROW MARKINGS	646.65
				44	44	EA	DURABLE LETTER IN WORD MARKINGS	646.66
	660				660	LB	SEED	651.10
60					60	LB	SEED - WINTER RYE	651.12
500	5,500				6000	LB	FERTILIZER	651.15
	22				22	TON	AGRICULTURAL LIMESTONE	651.20
6	22				28	TON	HAY MULCH	651.25
	1100				1100	CY	TOPSOIL	653.10
100	800				900	SY	EROSION MATTING	654.20
200					200	LF	SILT FENCE	654.30
				360	360	SF	TRAFFIC SIGNS, TYPE A	675.20
				1660	1660	LB	TRAFFIC SIGN POSTS, TYPE A	675.35
				70	70	LB	TRAFFIC SIGN POSTS, TYPE C	675.37
				12	12	EA	REMOVING SIGNS	675.53
				1	1	EA	FLASHING BEACON	678.16

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

TYPE OF CONSTRUCTION

STATIONS		PAVEMENT WIDTHS			EQUATIONS	
FROM	TO				+	-
TOTALS						

LENGTH OF PROJECT

STATIONS	FEET	MILES	REMARKS
TOTALS			

ST. JOHNSBURY DP FF 041-1 (10)

No. Sheet 8 of 229 Filed Sheets

D-1

ITEM DETAIL AND DRAINAGE SHEET

# DENOTES STAGE II CONSTRUCTION

DRAINAGE STRUCTURES

STA	STA	POSITION	ASKEW	TYPE IN/OUT	DITCH IN	DITCH OUT	RCP D IN	RCP L FT	RCP CL	ACCGMP D IN	ACCGMP L FT	ACCGMP TH IN	ACCGMPA D/S IN	ACCGMPA R IN	ACCGMPA L FT	OPTION D IN	OPTION L FT	RC P CL	CG MP TH	CAA CP TH	CGMPA OR CAACPA D/S IN	CGMPA OR CAACPA R IN	CGMPA OR CAACPA L FT	NO PIPE ELBOW EA	ELBOWS D IN	ELBOWS TOP DEG	ELBOWS BOT DEG	24" CPL BD EA	MES TYPE	CB	DI	DEPTH DI	CONC CL B CY	REIN STEEL LBS	DI GRATE TYPE	CRM CY	TR EXCAV EARTH CY	TR EXCAV ROCK CY	CH EXCAV EARTH CY	CH EXCAV ROCK CY	STRUC EXCAV CY	GRAN. BKF. STRUC CY	STONE FILL CY	STONE FILL TYPE	PROCDI EA	GRAN. BORR. CY	BIT CONC SURF FOR GUTTERS TON	STEEL MRKR POSTS LT	STEEL MRKR POSTS RT	WOOD MRKR POSTS LT	WOOD MRKR POSTS RT	REMARKS
MAIN LINE																																																					
52+50	53+00	LT																																																					
52+97	53+20	LT-US 5 RT		RCDI/CB			24	52	III																											//					8					8						BIT CONC GUTTER
51+95	53+27	RT																																		64																		
52+02	53+18	RT		RCDI/CB			24	116	III																											149					20					20						BIT CONC GUTTER
53+20	US5 53+20	RT-RT		CB/CB									28	20	86																6.5	4.2	348	2-B		136																				
53+21	53+62	RT																												1						134																		
53+51	53+62	LT-RT																																		23																		
54+14	55+19	RT-LT																																		31	2																	REMOVE 24" ACCMP
54+19	55+05	LT																																		85	3																	REMOVE 24" ACCMP
54+50	54+75	RT-LT		RCDI/DITCH			18	134	III																													4300																SPECIAL DITCH
55+27	58+94	LT																													3.5	1.9	158	1-A		123															1	1		
57+00		RT		PRCCDI												12	18		.064	.060				1	12	10										447	3																	REMOVE 24" PIPE AND DI
57+00		LT		PRCCDI												12	18		.064	.060				1	12	10										6						1	1	1								STONE PAD @ OUTLET
61+25	63+50	RT																																		6						1	1	1								STONE PAD @ OUTLET
63+50	66+04	RT																																		129						153	1									SPECIAL DITCH
65+80	67+25	LT		INSTALL NEW 3/4"X170' SEAMLESS COPPER WATER TUBE W/6"X110 RIGID PLASTIC PIPE SLEEVE AND 1 CURB STOP																																		75	10					75	1									STONE LINED DITCH
64+50	65+96	LT																																		71	10															
65+96	67+00	LT		SH-CH						48	112	.109																								516						312	II									STONE LINED DITCH
66+22	67+10	LT																													8.0	21				230						22	II									ENERGY DISSIPATOR @ OUTLET
66+50		RT														18	72	III	.064	.060																68																	REMOVE EXISTING 30" & 12" PIPES
66+87	69+50	RT																																																			DRIVE PIPE
67+00	69+50	LT																																		78						78	1									SPECIAL DITCH
69+50	70+00	LT																																		493						195	1									SPECIAL DITCH
71+00		RT														12	76		.064	.060																							20	1									STONE FILL FOR SLOPE
73+50		CL		RCDI						18	124	.064																																										
74+00	76+00	RT																													4.0	2.1	193	1-B		51																		
77+00		CL		RCDI						18	96	.064																									119						119	1L									SPECIAL DITCH
80+88		CL	8%PLT	SH						54	136	.109	(3X1)																		4.0	2.1	193	1-B		46															1	1		STONE FILL @ OUTLET
82+50	86+65	LT																													10.0	25			453						67	III		800							REMOVE EXISTING PIPE
																																		1,211						289	I									SPECIAL DITCH
84+00	84+46	LT-RT		RCDI						18	124	.064																																										
84+45	86+50	RT																													4.0	2.1	193	1-B		52															1	1		
																																			61						61	I									STONE LINED DITCH
SHEET TOTAL					18 24		134 168	III III		18 48 54	344 112 136	.064 .109 .109	28 (3X1)	20	86	12 18	112 128	III	.064 .064	.060 .060				2	12	10				1					34.3	1455	1-A 7-B			4415	28	4300		453	28	897 453 67	I II III	2	800	28		9	4 8		

170' 3/4" SEAMLESS COPPER WATER TUBE
110' 6" RIGID PLASTIC PIPE

GUARD RAIL

STA	STA	LT	RT	MEDIAN	ANCHORS
CAST IN PLACE CEMENT CONCRETE CURB TYPE "M"					
US 5 51+80	US 5 53+30	300			
US 5 54+75	US 5 56+25	300			
ML 53+27	US 5 54+51		160		
US 5 54+93	US 5 55+83		328		
		600	488		
TOTAL		1088			
BREAKAWAY CABLE TERMINALS					
56+01.5	56+26.5		1		
56+28	56+53	1			
62+79.5	63+04.5		1		
63+70.5	63+95.5	1			
76+00	76+25		1		
79+75	80+00		1		
		2	4		
TOTAL		6			
GUARDRAIL APPROACH SECTION, TYPE I					
57+14	57+64		1		
57+28	57+78	1			
61+92	62+42		1		
62+08	62+58	1			
		2	2		
TOTAL		4			

UNDERDRAIN

STA	STA	TYP	POS	D	L	TRENCH E	TRENCH R	GRA/ BKF	FB	MNOR PST

TOTALS

PROJECT
ST. JOHNSBURY

STAGE I PROJ NO. DP-FF 011-1(10)
SHEET OF
STAGE II PROJ NO.
SHEET 10 OF 223

ITEM DETAIL AND DRAINAGE SHEET

DRAINAGE STRUCTURES

* DENOTES STAGE II CONSTRUCTION

STA	STA	POSITION	ASKEW	TYPE IN/OUT	DITCH IN	DITCH OUT	RCP D IN	RCP L FT	RCP CL	ACCGMP D IN	ACCGMP L FT	ACCGMP TH	ACCGMPA D/S IN	ACCGMPA R IN	ACCGMPA L FT	OPTION D IN	OPTION L FT	RC P CL	CG MP TH	CAA CP TH	CGMPA OR CAACPA D/S IN	R IN	L FT
85+77	86+21	RT																					
86+23	87+25	RT																					
86+40	87+50	LT																					
87+00		RT								18	70	.064											
US 5 48+76		¢	73°RT	RCDI			18	52	III														
53+20	53+03	RT-LT		CB									28	20	112								
54+02		¢																					
55+95	56+43	LT																					
56+48		¢	84°30'RT				15	12	III														
TH #27																							
11+41.02		¢	58° RT	RCDI						24	64	.064											
13+90		LT																					
14+28		¢	66°RT	SH/CH						54	92	.109											
18+10	18+40	LT		L TYPE HW						24	46	.064											
18+62		LT																					
18+40	19+16	LT-RT		RCDI/DI						24	92	.064											
RR 67+45		CL		RCDI						24	32	.109	(NON.- GOVERNMENT PARTICIPATION)										
RR 62+85		CL		SH/CH						54	56	.138											
SHEET TOTAL							15 18	12 52	III III	18 24 54	70 202 56	.064 .064 .138 (5'X1")	28	20	112								
(NON - GOVERNMENT PARTICIPATION)										24	32	.109											
TOTAL FROM SHEET 10							18 24	134 168	III III	18 48 54	344 112 136	.064 .109 .109 (3X1)	28	20	86	12 18	112 128	 III	.064 .064	.060 .060			
										170' 3/4'' SEAMLESS COPPER WATER TUBE 110 6'' RIGID PLASTIC PIPE													
PROJECT TOTAL							15 18 24	12 186 168	III III III	18 24 48 54 54 54	414 202 112 92 136 56	.064 .064 .109 .109 .109 (3"X1") .138 (5"X1")	28	20	198	12 18	112 128	 III	.064 .064	.060 .060			
										170' X3/4" SEAMLESS COPPER WATER TUBE WITH 110' X6" RIGID PLASTIC PIPE SLEEVE													
(NON- GOVERNMENT PARTICIPATION) TOTALS										24	32	.109											

STA	NO PIPE ELBOW EA	ELBOWS D IN	ELBOWS TOP DEG	ELBOWS BOT DEG	24" CPL BD	MES EA	CB	DI	DEPTH DI	CONC CL B CY	REIN STEEL LBS	DI GRATE TYPE		CRM CY	TR EXCAV EARTH CY	TR EXCAV ROCK CY	CH EXCAV EARTH CY	CH EXCAV ROCK CY	STRUC EXCAV CY	GRAN BKF STRUC CY	STONE FILL CY	STONE FILL TYPE	PROCOND EA	GRAN BORR CY	BIT CONC SURF FOR GUTTERS TON	STEEL MRKR POSTS LT	STEEL MRKR POSTS RT	WOOD MRKR POSTS LT	WOOD MRKR POSTS RT	REMARKS
85+77															17	2														REMOVE 18'' RCP
86+23															72	2														REMOVE 18'' RCP
86+40															43						43	I								STONE LINED DITCH
87+00																														DRIVE PIPE
US 5 48+76									3.0	1.7	150	1-A			31						3	I								REMOVE 15'' RCP STONE @ OUTLET
53+20							1								138													1		
54+02															29	2														REMOVE 24'' ACCGMP
55+95																														15'' CMP RETAIN
56+48									3.5	1.9	158	1-A			7													1	1	RETAIN AND EXTEND
TH #27																														
11+41.02									4.5	2.3	200	1-A			42													1	1	REMOVE 24'' ACCGMP
13+90																	162													REMOVE STORE BOX LEAVE OPEN
14+28										12.0	38						75		175	33	62	II		667						STONE FILL @ OUTLET
18+10										3.2	13				52															
18+62																														REMOVE WITH ITEM 203.15
18+40									4.0	2.1	193	1-A			63													1		
RR 67+45									5.0	2.6	231	1-A			25	4														
RR 62+85										12	38						42		184	16	16	II								5"X1" CORRIGATIONS
SHEET TOTAL							1			35.2	790	4-A			494	6	279		359	49	46 78	I II		667				4	2 6	
(NON - GOVERNMENT PARTICIPATION)										2.6	231	1-A			25	4														
TOTAL FROM SHEET 10	2	12	10				1			34.3	1455	1-A 7-B			4415	28	4300		453	28	897 453 67	I II III	2	800	28				8	
PROJECT TOTAL	2	12	10				2			69.5	2245	5-A 7-B			4908	34	4579		812	77	943 531 67	I II III	2	1467	28				10	
(NON- GOVERNMENT PARTICIPATION) TOTALS										2.6	231	1-A			25	4														

GUARD RAIL

STA	STA	LT	RT	MEDIAN	ANCHORS
ST. STL. BEAM W/WOOD POSTS TYPE II					
56+26.5	57+14		87.5		1
56+53	57+28	75			1
62+42	62+79.5		37.5		1
62+58	63+70.5	112.5			1
76+25	79+75		350		2
		187.5	475		
TOTAL		662.5			6
GUARDRAIL PLANK W/WOOD POST					
ML					
80+75		24			
81+43		24			
TH 27					
13+50		24			
14+20		24			
ML 78+50	ML 79+50	100			
TOTAL		196			
TREATED TIMBER CURB					
ML					
57+00	57+64		64		
57+00	57+78	78			
TOTAL		142			
TOTALS					

UNDERDRAIN

STA	STA	TYP	POS	D	L	TRENCH E	TRENCH R	GRAV BKF	FB		MKR PST
62+75	63+00	C	RT	6	40		10				1
63+00	68+50	U	RT	6	550	222	94		1		1
63+00	64+00	U	LT	6	100	6			1		1
62+84	63+00	C	LT	6	40	54					1
73+51	76+94.98	U	LT	6	340		222		1		1
77+01	80+80	U	LT	6	376		230				1
81+50	82+00	C	RT	6	72	3			1		1
82+00	84+45	U	RT	6	246	146			1		1
84+47	89+50	U	RT	6	526	320			1		1
85+83.45	86+00	C	RT-LT	6	62	24					1
86+00	89+50	U	LT	6	350	201			1		1
DESIGNED	TOTAL	U C		6 6	2488 214	976	556				
EST.		U C		6 6	212 36	100 15	30 5		2 1		1 1
PROJECT	TOTAL	U C		6 6	2700 250	1091	591		10		13
TOTALS											

PROJECT: ST. JOHNSBURY

STAGE I PROJ NO. DP-FF 041-1(10)
SHEET OF
STAGE II PROJ NO.
SHEET 11 OF 229

EARTHWORK SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

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

V.C.	% GRADE	STATION	ELEVATION ON TANGENT	ELEVATION ON V CURVES	CORR V.C.	DIST.	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.	ROCK EXCAVATION AREA	ROCK EXCAVATION CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.	BASE AREA	BASE CU. YDS.
		50											C	845
		+50											F	0
		51											F.FAC	1.15
		+50												
		52											EX C	845
		+50												
		53												
		+35												
		+50												
		+60												
		+87.82	588.36											
		54												
		+07	587.95	BEGIN PROJECT DP-FF 011-1(10)										
		+25	587.58	587.58	0	25	230	BUTT						
		+50	587.82	587.87	+0.05		315	45						
		+75	588.06	588.25	+0.19	50		593						
		55	588.30	588.72	+0.42		325							
		+27	588.56	589.35	+0.79			895						
		+50	588.78	589.96	+1.18		210				0			
								222				43		
		56	589.26	591.57	+2.31		30				46			
		+25	589.50	592.52	+3.02			28				301		
		+50	591.25	593.56	+2.31		0				279		C	715
												656	F	2776
		57	594.75	595.93	+1.18						430		F.FAC	1.15
						50						954		
		+50	596.25	596.67	+0.42	37					600	822	EXF	2417
		+87	STOP ROADWAY - BEGIN BRIDGE								600			
		58	601.75	601.80	+0.05						BUTT			
		+25	603.50	603.50	0									
		+50	605.25											
		59	608.75											
		+50	612.25											
		60	615.75											
		+25	617.50											
		+43.5	618.80											
		+48.5	619.15											
		+50	619.25											
		+75	621.00										C	2740
													F	13541
		61	622.75										ROCK	148
		+50	626.25										F.FAC	1.15
		+72	STOP BRIDGE - RESUME ROADWAY								BUTT		EXF	12762
						28					4000	4118		
		62	629.75								4000			
						50						6296		
		+50	633.25				0				2800			
								358				2657		
		63	636.75				387				70			
		+50	640.25				278	616			0	65		
								470				19		
		64	643.75				230				20			
		+50	647.25				204	402	0		114	121		
							894		148			235		
		65	650.75				761		160		140			
		+08	651.31				1376		171			204		
		+50	654.25				725		25		80			
							1162		23			91		
		66	657.75				530		0		18			
							1168					17		
		+50	661.25				731				0		C	5311
		+60	661.95				908					0	F	3104
		67	664.75				250				0		ROCK	194
							345					46		
		+50	668.25				123				50		EXC	1837
							192					185		
		68	671.75				84				150			
							119					352		
		+50	675.25				44				230			
							41					528		
		69	678.75				0				340			
							0					778		
		+50	682.25				0				500			
						50						903		
		70	685.75								475			
		CARRIED FORWARD						9641		342		19124		
		COLUMN FOOTINGS												

V.C.	% GRADE	STATION	ELEVATION ON TANGENT	ELEVATION ON V CURVES	CORR V.C.	DIST.	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.	ROCK EXCAVATION AREA	ROCK EXCAVATION CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.	BASE AREA	BASE CU. YDS.
		70+00	685.75								475			
						50						806		
		+50	689.25								396		C	5078
		71	692.75									737	R	1667
											490		F	6841
		+50	696.25									741	F.FAC	1.15
											400			
		72	699.75									810	EXF	2079
		+25	701.50	701.50	0						475			
		+50	703.25	703.24	-0.01							1009		
											615			
		73	706.75	706.63	-0.12		0					1028		
								53			495			
		+50	710.25	709.90	-0.35		57		0			884		
								659		181	460			
		74	713.75	713.07	-0.68		655		195			676		
								1773		616	270			
		+50	717.25	716.13	-1.12		1260		470			250		
								2593		870	0			
		75	720.75	719.08	-1.67		1540		470					
						50		2838		546				
		+50	724.25	721.91	-2.34		1525		120					
						49.99		2560		111				
		75+99.99	727.75	724.64	-3.11		1240		0		0			
		76+00	727.75	724.64	-3.11			1875		116		13		
		76+25	729.50	725.96	-3.54	50								
		76+49.99	730.36	727.25	-3.11		785		125		141			
		76+50	730.36	727.25	-3.11			1301		395		144	C	19939
						49.99							P	6772
		76+98.98	732.09	729.75	-2.34		620		205		142		F	1157
		77+00	732.09	729.75	-2.34			1098		467		218	F.FAC	1.15
						49.99								
		77+49.97	733.82	732.15	-1.67		566		300		126		EXC	21961
		77+50	733.82	732.15	-1.67			1251		571		272		
						50					168			
		77+99.97	735.55	734.43	-1.12		785		320					
		78+00	735.55	734.43	-1.12			1481		754		262		
						49.98								
		78+49.95	737.28	736.60	-0.68		815		495		115			
		78+50	737.28	736.60	-0.68			1934		1163		162		
						50.02					60			
		78+99.97	739.01	738.66	-0.35		1273		760					
		79+00	739.01	738.66	-0.35			2718		1400		56		
						50.07								
		79+50	740.74	740.62	-0.12		1658		750		0			
		79+50.04	740.74	740.62	-0.12			2883		1336				
						50.09								
		80+00	742.47	742.46	-0.01									
		80+00.13	742.48	742.47	-0.01		1450		690					
		80+25	743.34	743.34	0			2167		654				
						50.09								
		80+50	744.20											
		80+50.22	744.21				886		15		0			
						38.07		625		11				
		80+88							0					
		80+88.29	745.53				0					955		
						12.02								
		81+00	745.93										C	3659
		81+00.31	745.94								1030		R	665
						50.09						1322	F	6270
		81+50	747.66										F.FAC	1.15
		81+50.40	747.68								395			
						50.09						486	EXF	3222
		82+00	749.39											
		82+00.49	749.41				0				129			
						50.09		46				222		
		82+50	751.12											
		82+50.58	751.14				50				110			
						50.09		142				250		
		83+00	752.85											
		83+00.67	752.87				103				160			
		83+20												
		83+20.71	753.57											
						50.09		177				538		
		83+50	754.58	754.58	0									
		83+50.76	754.61	754.61	0		88				420			
						50.02		174				854		
		84+00	756.31	756.36	+0.05									
		84+00.78	756.34	756.39	+0.05		100				502			
						50.77		171				895		
		84+50	758.04	758.21	+0.20									
		84+51.55	758.09	758.30	+0.21		82				450			
		84+68												
		84+70.39	758.75	759.04	+0.29	52.22		157				748		
		85+00	759.77	760.22	+0.45									
		85+03.77	759.90	760.38	+0.48		80				324			
		CARRIED FORWARD												
		COLUMN FOOTINGS						28676		9104		14368		

V.C.	% GRADE	STATION	ELEVATION ON TANGENT	ELEVATION ON V CURVES	CORR V.C.	DIST.	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.			EMBANKMENT AREA	EMBANKMENT CU. YDS.	BASE AREA	BASE CU. YDS.
		85+00	759.77	760.22	+0.45									
		85+03.77	759.90	760.38	+0.48		80					324		
		85+50	761.50	762.31	+0.81	51.84		154						
		85+55.61	761.78	762.54	+0.76		80					235	C	4394
		85+74											F	948
		85+80.88	763.07	763.65	+0.58								F.FAC	1.15
						51.49		196				315	EXC	3304
		85+83.45	763.20	763.76	+0.56									
		86+00	764.04	764.49	+0.45									
		86+07.10	764.40	764.81	+0.41			126				95		
						51.18		477				90		
		86+50	766.58	766.78	+0.20									
		86+58.28	767.00	767.17	+0.17			377				0		
						50.91		831						
		87+00	769.11	769.16	+0.05									
		87+09.18	769.58	769.61	+0.03			508						
						50.65		805						
		87+50	771.65	771.65	+0.00									
		87+59.83	772.15					350						
						50.44		588						
		88+00	774.19											
		88+10.27	774.71					280				0		
						50.28		447				2		
		88+50	776.73											
		88+60.55	777.26					200				2		
						50.14		357				3		
		89+00	779.27											
		89+10.69	779.81					181				1		
						50.06		300				1		
		89+50	781.81											
		89+60.75	782.35					140				0		
						41.68		236						
		90+00	784.34											
		EQ= 90+05.44 =	781.62					115						
		+10.77 89+94.67												
		CARRIED FORWARD												
		COLUMN FOOTINGS						4394				948		

PROJECT ___ST. JOHNSBURY___

PROJECT DP-FF NO. 011-1(10)
SHEET 12 OF 229 SHEETS

EARTHWORK

TOWN HIGHWAY #27

Grades: OLD ROAD PROFILE; -8.3529 %; 400' VC; -0.6105 %; 100' VC; +1.2105 %; 70' VC; -2.0000%

Station	Elevation on Tangent	Elevation on V. Curves	Corr. V.C.	Dist.	Total Excavation Earth and Rock Area	Total Excavation Cu. Yds.	Area	Cu. Yds.	Embankment Area	Embankment Cu. Yds.	Base Area	Base Cu. Yds.
9	637.30											
							10+50 BEGIN CONSTRUCTION					
+50	637.50											
10	636.10											
					BUTT				BUTT			
+50	633.70				43				22			
				50		85				27		
11	629.90				49				7			
+41	626.70					81				203		
+50	626.00				38				212		C	596
						134				578	F	5478
12	621.82				107				412		F.FAC	1.15
						127				627		
+50	617.65				30				265		EXF	5704
						28				514		
13	613.47				0				290			
+25	611.38									610		
+50	609.29								369			
+75	607.21	607.21	0									
+96	605.45	605.49	+0.04							1119		
14	605.12	605.18	+0.06						840			
+12	604.12	604.25	+0.13									
										1216		
+50	600.94	601.48	+0.54		0				473			
						141				584		
15	596.76	598.27	+1.51		152				158			
						178				203		
+50	592.59	595.55	+2.96		40				61			
+75	590.50	594.37	+3.87			98				71		
16	590.35	593.31	+2.96		66				16			
						89				31		
+50	590.04	591.55	+1.51		30				18		C	1636
						144				17	F	388
17	589.74	590.28	+0.54		126				0		F.FAC	1.15
						269						
+50	589.43	589.49	+0.06		164				0		EXC	1190
+75	589.28	589.28	0		285				9			
+80	589.25	589.25	0									
18	589.13	589.17	+0.04		144				10			
+30	588.95	589.18	+0.23			229				19		
+50	589.19	589.27	+0.08		103				10			
+62	589.34	589.37	+0.03									
+65	589.37	589.39	+0.02			195				28		
+80	589.56	589.56	0									
+90	589.68	589.68	0									
19	589.80	589.78	-0.02		108				20			
+16	589.99	589.83	-0.16			205				19		
+25	590.10	589.82	-0.28									
+50	589.60	589.58	-0.02		113				0			
+60	589.40	589.40	0			155						
20	588.60				54							
				50		74						
+50	587.60				26							
+73					BUTT							
+88												
							20+50 END APPROACH CONSTRUCTION					
21												
+50												
22												
+50												
CARRIED FORWARD												
COLUMN FOOTINGS						2232				5866		

EARTHWORK

US ROUTE 5

Grades: -1.0833 %; 400' VC; +0.3143 %

Station	Elevation on Tangent	Elevation on V. Curves	Corr. V.C.	Dist.	Total Excavation Earth and Rock Area	Total Excavation Cu. Yds.	Area	Cu. Yds.	Embankment Area	Embankment Cu. Yds.	Base Area	Base Cu. Yds.
45												
+50												
46												
+50												
47												
+50												
48											C	2573
											F	0
					BUTT						F.FAC	1.15
+50					59							
+76				50		379					EXC	2573
49	593.50				350							
						861						
+50	592.96				580							
						1333						
50	592.42				860							
						1611						
+50	591.88				880							
						1537						
51	591.33				780							
						1190						
+50	590.79				505							
						625						
52	590.25				170							
						259					C	6718
+50	589.71				110						F	0
						244					F.FAC	1.15
53	589.17	589.17	0		154							
						291					EXC	6718
+20	588.95	588.96	+0.01									
+50	588.63	588.67	+0.04		160							
+75	588.35	588.45	+0.10									
+87.82	588.22	588.36	+0.14			286						
54	588.08	588.25	+0.17		149							
+02	588.06	588.24	+0.18			314						
+25	587.81	588.08	+0.27									
+50	587.54	587.93	+0.39		190							
+70	587.33	587.83	+0.50			361						
55	587.00	587.70	+0.70		200							
						299						
+50	587.16	587.55	+0.39		123							
						236						
56	587.31	587.48	+0.17		132							
+48	587.47	587.52	+0.05			215					~~C~~	~~1106~~
+50	587.47	587.51	+0.04		100						F	0
						184					F.FAC	1.15
57	587.63	587.63	0		99							
				50		172					EXC	1106
+50	587.79				87							
+68	587.84											
					BUTT							
+87												
58	587.94											
+50	588.10											
CARRIED FORWARD												
COLUMN FOOTINGS						10397						

EARTHWORK SUMMARY

STATE OF VERMONT
AGENCY OF
TRANSPORTATION

SUMMARY OF BALANCES

Station	to Station	Total Excav. Earth & Rock Cubic Yards	Rock Excav. Cubic Yards	Embankment Cubic Yards	Excesses Cut	Excesses Fill	Accumulative Excesses Cut	Accumulative Excesses Fill	Base Cubic Yards
				ML					
50+00	55+00	845		0	845		845		
55+00	60+00	745		2776		2447		1602	
60+00	65+00	2740	148	13544		12762		14364	
65+00	70+00	5311	194	3104	1837			12527	
70+00	75+00	5078	1667	6941		2079		14606	
75+00	80+00	19939	6772	1157	21961		7355		
80+00	85+00	3659	665	6270		3222	4133		
85+00	89+94.67	4394		948	3304		7437		
SUB-TOTAL ML		42711	9446	34740	27947	20510			
UNDERCUTS									
ML 62+50	ML 64+50	704			704		8141		
ML 85+50	ML 89+50	1366			1366		9507		
TH #27									
10+00	15+00	596		5478		5704	3803		
15+00	20+50	1636		388	1190		4993		
			US #5						
45+00	50+00	2573		0	2573		7566		
50+00	55+00	6718		0	6718		14284		
55+00	58+00	1106		0	1106		15390		
DRIVES AND APPROACHES		148		607		550	14840		
TOTALS		57558	9446	41213	41604	26764			
US-5 CONC. REMOVAL (7") UNDER 6" BIT. CONC. STA 48+50 - 57+65			660*						
		*DO NOT FACTOR							

SUMMARY BY COLUMNS

Sheet No.	Col. No.	Excavation Total Cu. Yds.	Excavation Rock Cu. Yds.	Embankment Cubic Yards		Base Cubic Yards
		MAINLINE				
12	1	9641	342	19424		
12	2	28676	9104	14368		
12	3	4394		948		
UNDERCUTS		2070				
		TH #27				
13	1	2232		5866		
		US #5				
13	2	10397				
		DRIVES AND APPROACHES				
		148		607		
TOTALS		57558	9446	41213		
US 5 CONC. REMOVAL			660			

REMARKS

EARTH AND ROCK EXCAVATION		57,558
SOLID ROCK EXCAVATION		9,446
EARTH EXCAVATION		48,112
PLANIMETERED FILL		41,213
LESS FACTORED SOLID ROCK	1.3	12,280
LESS DISPLACEMENT OF ANY LARGE STRUCTURES		0
NET PLANIMETERED FILL		28,933
FACTOR	1.15	4,340
PLANIMETERED FILL INCLUDING FACTOR		33,273
MATERIALS AVAILABLE FOR FILLS		
EARTH EXCAVATION		48,112
CHANNEL EXCAVATION	60% (4579)	2,747
UNDERDRAIN EXCAVATION	75 % (2657)	1,993
STRUCTURE EXCAVATION	40% (812)	325
RTE. 5 OLD CONC. PAVEMENT		660
TOTAL MATERIAL AVAILABLE FOR FILL		53,837
TOTAL FILL INCLUDING FACTOR		33,273
TOTAL MATERIAL FOR FILL		53,837
EXCESS EXCAVATION		20,564
GRANULAR BORROW		16,174
NOTE: NO FACTOR APPLIED TO GRANULAR		
TOTAL EXCESS MATERIAL		36,738

PROJECT ST. JOHNSBURY TH 27 & US 5

PROJECT DP-FF NO 041-1(10)

SHEET 13 OF 229 SHEETS

BRUNING 40592

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

THIS SHEET TO BE USED

FOR ROW INFORMATION ONLY

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
1	STATE OF VERMONT	13,14						WD	12-13-79	ST. JOHNSBURY	166	519-20	FORMERLY R. B. HOAR, INC.
2	STATE OF VERMONT	13						WD	12-13-79	ST. JOHNSBURY	166	514-15	FORMERLY R.W. HOAR
3	STATE OF VERMONT	14						WD	12-6-79	ST. JOHNSBURY	166	453-54	FORMERLY R.E & A.L. CARPENTER
4A	JANIS, LOUISE A. JANIS, ANN L. JANIS, WILLIAM A.	13	U.S. 5 48+40 RT. U.S. 5 48+60 RT. U.S. 5 48+70 RT. U.S. 5 53+15 RT.	T.H.95 52+78 LT. T.H.95 52+30 LT. U.S. 5 53+00 RT.	0.24 Ac.		CONST. EASE. (T) (0.14 Ac±) SLOPE (P) (0.49 Ac±)	WD		ST. JOHNSBURY			PUMP STATION
4B			U.S. 5 48+40 ℄	U.S. 5 53+85 ℄			ALL R.T.& I. (0.31 Ac±)						HWY. EASE. U.S. RT. 5
4C			T.H.95 52+80 ℄ T.H.95 52+42 LT.	U.S. 5 53+85 RT. T.H.95 52+88 LT.			ALL R.T. & I. (0.05 Ac±) SLOPE (P) (250 SF±)						HWY. EASE. T.H. 95 (2000 S.F.±)
5	R. B. HOAR INC., LESSOR GAGNON MOTORS INC., LESSEE	13,14	U.S. 5 48+40 ℄ U.S. 5 48+43 LT. U.S. 5 48+56 LT. U.S. 5 48+50 LT. U.S. 5 49+22 LT. U.S. 5 51+42 LT. U.S. 5 51+65 LT. U.S. 5 51+65 LT. U.S. 5 53+60 LT. U.S. 5 53+85 LT. US. 5 52+03 LT.	U.S. 5 52+70 LT. U.S. 5 49+05 LT. U.S. 5 48+95 LT. U.S. 5 48+70 LT. U.S. 5 52+72 LT. U.S. 5 52+74 LT. U.S. 5 52+88 LT. U.S. 5 52+85 LT.			ALL R.T.& I. (0.23 Ac±) CONST. EASE. (T) (0.01 Ac±) DITCH (P) DRAINAGE (P) DRIVE (T) DRIVE (T) SLOPE (T) (214 SF±) CONST. EASE. (T) (0.02 Ac±) ALL R.T.& I. ALL R.T.& I.	WD		ST. JOHNSBURY			HWY. EASE. U.S. RT. 5 (630 S.F.±) 35' PAVED M.P. 3.68 PERMIT DATE: 40' PAVED M.P. 3.71 PERMIT DATE: (1050 SF±) SEWER LINE WATER LINE SIGN "DO NOT DISTURB"

TABLE OF REVISIONS

REVISION NO.	SHEET NO.	DESCRIPTION OF REVISION	DATE	MADE BY	APPROVED BY
1	13	Parcel #5 GAGNON MOTORS, Added Do Not Disturb 20 A Sign At Sta. Rte 5 52+03 Lt Per Revised Design I.D. # 5940	7-26-83	B.A.M.	
2	8,13	Parcel #6 DIONNE, Widened Drive At Sta. US 5 54+76 Rt & US 5 56+82 Rt. Per Revised Design I.D.# 5941	7-26-83	B.A.M.	
3	14	Parcel #9 COHEN, Extended Drain From House To Stones At Sta. 66+00 Rt. Per Revised Design I.D.# 5942	7-26-83	B.A.M.	
4	16	Parcel #12 BRILLANGEON, Added 2" Maple Tree At Sta. Rev. 82+90 Rt Per Revised Design I.D.# 5943	7-26-83	B.A.M.	
5	13,14, 15	Parcels 4B, 6, 9a-a changed running distances on take lines Per CO. 6146	2-29-84	lgm	dwB
6	13,14	Parcel 16 Town of ST.J.: deleted Take on 16A, reduced Take of 16B + changed relinquishment #2, added Maint. Agree. Area #4, and also added Relinquishment #4 per CO. 6147	2-29-84	lgm	dwB
7	15,16	Parcel #16, Town of ST. Johnsbury: deleted Relinquishment #3 Per. C.O. 6179	4-6-84	lgm	RNB
8	14,15	Parcel #9 Cohen, added H_2O line w/form[illegible] design CO. #6128 update: this C.O. #6189	4-25-84	lgm	dwB
9	9	Parcel #9 Cohen, changed remainder on detail sheet so there would be only one remainder on each side, did not change total Per CO. 6190	4-25-84	lgm	dwB
10	16	Parcel #11 Moulton; changed drive entrance of drive from 16' To 22' To match TH. per design. CO. #6191	4-25-84	lgm	dwB
11	14	Parcel #9 Cohen: add save To layout for Concrete foundation at Approx Sta. 65+50 LT. per CO. 6180	4-25-84	lgm	dwB

MADE BY: N.W.H. DATE 6-2-83

CHECKED BY: F.J.M. DATE 6-2-83

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 — CONS'T. EASEMENT
SR — SR — SLOPE RIGHTS
P/L — P/L — PROPERTY LINE
TOP OF CUT
TOE OF SLOPE

APPROVED _____ DATE _____
CHIEF OF PLANS & TITLES

ROW PLANS
R.O.W. SHEET 7 OF 16
PROJECT ST. JOHNSBURY
NO. DP-FF-041-1(10)
SHEET 20 OF 229

BRUNING 44-131-40992

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
6A	DIONNE, RAYMOND E. & RUTH E.	13	T.H. 95 52+83 RT.	U.S.5 54+40 RT.	0.03 A±			WD		ST. JOHNSBURY			(1230 S.F.±)
6B			U.S.5 53+85 ℄ T.H. 95 51+85 RT. T.H. 95 51+95 RT. T.H. 95 51+95 RT. U.S.5 54+30 RT. U.S.5 54+70 RT± U.S.5 54+72 RT.	U.S.5 57+50 ℄ U.S.5 57+45 RT. T.H. 95 52+85 RT. T.H. 95 53+37 RT. U.S.5 55+95 RT.			ALL R.T.& I. (0.21 A±) CONST. EASE. (T) (0.10 A±) CULVERT (P) SLOPE (P) (0.04 A±) SLOPE (T) (0.02 A±) DRIVE (T)						HWY. EASE. U.S. RT. 5 (1742 S.F±) (1000 S.F.±) WATERLINE 40' GRAVEL M.P. 3.78 PERMIT DATE:
6C			T.H. 95 52+80 ℄ U.S.5 56+13 RT.	U.S.5 54+10 RT. U.S.5 56+52 RT.			ALL R.T.& I. (0.05 A±) CULVERT (P) DRIVE (T)						HWY. EASE. T.H. 95 (2025 S.F±) 30' GRAVEL M.P. 3.81 PERMIT DATE:
7	DELETED												FORMERLY BALLARD, GEORGE A. & JANE M
8	HOLMES TERMINAL CORP.	13	U.S.5 55+45 ℄ U.S.5 55+47 LT. U.S.5 56+20 LT±	U.S.5 57+50 ℄ U.S.5 57+60 LT. U.S.5 56+52 LT±			ALL R.T.& I. (0.12 A±) CONST. EASE. (T) (0.05 A±)	WD		ST. JOHNSBURY			HWY. EASE. U.S. 5 (2130 S.F±) SEWER LINE

TABLE OF REVISIONS

REVISION NO.	SHEET NO.	DESCRIPTION OF REVISION	DATE	MADE BY	APPROVED BY
12	11, 16	Parcel # 14, Changed Title From DONNA To HALL, LOUISE M. Per C.O.# 6215	6-6-84	B.A.M.	LWB
13	8, 13	Parcel # 6 DIONNE, Revised Loc. of Drives To U.S. 5 54+72 RT. 90° & U.S. 5 56+15. Revised SR(T) & Changed Area To 0.102 Ac Per Revised Des. & C.O.# 6302	9-27-84	B.A.M.	LWB
14	16	Parcel # 12 BALLARGEON, Added 10'x16' Pad. Per Revised Des. & C.O.# 6303	9-27-84	B.A.M.	LWB
15	13	Parcel # 5 HOAR, Added Replacement Water & Sewer Lines Per Revised Design & C.O.# 6256 Mylar Copies to Design 12-7-84	11-8-84	B.A.M.	LWB

THIS SHEET TO BE USED
FOR R.O.W. INFORMATION ONLY

MADE BY: N.W.H. DATE 6-3-83

CHECKED BY: F.J.M. DATE 6-3-83

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 (P/L)
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 _____ DATE _____
CHIEF OF PLANS & TITLES

R.O.W. PLANS
R.O.W. SHEET 8 OF 16
PROJECT ST. JOHNSBURY
NO. DP-FF-041-1(10)
SHEET 21 OF 229

BRUNING 44-131-40922

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

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PARCEL NO.	GRANTOR	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKING	REM.	RIGHTS	TITLE TAKEN	DATE	TOWN OR CITY RECORDED	BK.	PG.	REMARKS
9A	COHEN, ELIZABETH L.	14,15,16	62+91 RT.	68+05 RT.	L24 A±			WD		ST. JOHNSBURY			
			63+57 RT.	65+00 RT.			CONST. EASE. (T) (0.02A±)						(975 S.F±)
			63+80 RT.	67+50 RT.			SLOPE (P) (0.18A±)						
			64+95 LT.	65+50 LT.			EASE. TO REMOVE (T) (0.02A±)						SHED (674 S.F±) (SAVE CONCRETE WALL)
			65+40LT.±	67+40LT.±			ALL R.T.& I.						WATERLINE
			66+60 RT.				DRIVE (T)						20' GRAVEL M.P. 0.24
													PERMIT DATE:
			67+00 RT.	68+25 RT.			CONST. EASE. (T) (0.02A±)						(850 S.F±)
			66+00 RT.										DRAIN
			63+44 LT.	REV. 76+42 LT.		118.89A±							
			62+91 RT.	REV. 82+63 RT.		36.44A±							
9B			66+63 LT.	REV. 75+75 LT.	1.50 A±								
			67+50 LT.	69+00 LT.			CONST. EASE. (T) (0.03A±)						(1250 S.F±)
			72+00 LT.	REV. 76+50 LT.			CONST. EASE. (T) (0.09A±)						(3875 S.F±)
			73+35 LT.	REV. 78+48 LT.			SLOPE (P) (0.40A±)						
9C			73+45 RT.	REV. 82+83 RT.	1.52 A±								
			72+25 RT.	REV. 82+63 RT.			CONST. EASE. (T) (0.28A±)						
			72+50 RT.	REV. 74+50 RT.			SLOPE (T) (0.16A±)						
			73+50 RT.				CULVERT & DRAINAGE (P)						
			73+90 RT.	74+00 RT.			DITCH & DRAINAGE (P)						
			74+00 RT.	REV. 74+46 RT.			CULVERT (P)						
		REV.	74+50 RT.	REV. 76+45 RT.			SLOPE (P) (0.08 A±)						(3394 S.F±)
		REV.	77+00 RT.				DITCH & DRAINAGE (P)						
		REV.	79+85 RT.	REV. 80+25 RT.			SLOPE (P) (122 S.F±)						
		REV.	80+60 RT.	REV. 80+86 RT.			DITCH (P) (0.01A±)						(640 S.F±)
		REV.	80+60 RT.	REV. 81+90 RT.			SLOPE (T) (0.05A±)						(2240 S.F±)
		REV.	80+72 RT.				DRAINAGE (P)						
		REV.	80+76 RT.	REV. 80+86 RT.			CULVERT (P)						
			71+00 RT.				DRIVE (T)						15' GRAVEL MP 00.32
													PERMIT DATE
9D			66+00 LT.	REV. 82+90 RT.			ALL R.T. & I. (1.56A±)						HWY. EASE. T.H. 9
9E			T.H.27 10+00 RT.	T.H.27 13+85 LT.			ALL R.T. & I. (0.31A±)						HWY. EASE. T.H. 27
			T.H.27 10+08 RT.	T.H.27 11+41 RT.			CONST. EASE. (T) (0.03A±)						(1500 S.F±)
			T.H.27 10+27 RT.	T.H.27 11+41 RT.			SLOPE (T) (0.03A±)						(1374 S.F±)
			T.H.27 10+62 LT.	T.H.27 12+35 LT.			CONST. EASE. (T) (002 A±)						(1100 S.F±)
			T.H.27 11+00 LT.	T.H.27 11+40 LT.			SLOPE (T) (185 S.F±)						
			T.H.27 13+55 LT.	T.H.27 13+80 LT.			CONST EASE. (T) (200S.F±)						
				TOTAL	4.26 A±	155.33A±							

TABLE OF REVISIONS

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

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MADE BY: N.W.H. DATE 6-6-83

CHECKED BY: F.J.W. DATE 6-6-83

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PRESENT R.O.W.
TAKING WITHOUT ACCESS
TAKING WITHOUT ACCESS ALONG PROPERTY LINES
TAKING WITH ACCESS
(P) PERMANENT EASEMENT
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LEGEND
CONST. EASE. — CONST. EASEMENT
SR SR — SLOPE RIGHTS
P/L P/L — PROPERTY LINE
TOP OF CUT
TOE OF SLOPE

APPROVED _____ DATE _____
CHIEF OF PLANS & TITLES

R.O.W. PLANS
R.O.W. SHEET 9 OF 16
PROJECT ST. JOHNSBURY
NO. DP-FF-041-1(10)
SHEET 22 OF 229

DRUMMOND 44-131 40822

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
10A	TONEY, EDDIE J. & DORIS I.	14	61+05 RT.	63+44 LT.	0.86 A±				WD		ST. JOHNSBURY			
			T.H. 27 18+48 LT.	T.H. 27 18+95 LT.			CONST. EASE. (T)	(0.01 A±)						(550 S.F.±)
			T.H. 27 18+50 LT.	T.H. 27 18+70 LT.			SLOPE (T)	(30 S.F.±)						
			61+05 RT.	62+84 RT.		4.32 A±								
			62+25 LT.	63+44 LT.		0.32 A±								
10B			TH 27 13+77 LT	TH 27 14+00 LT.			CONST. EASE.(T)	(240 S.F.±)						
			T.H. 27 13+77 LT	T.H. 27 20+00 ℄			ALL R. T. & I.	(0.34 A±)						HWY. EASE. T. H. 27
				TOTAL	0.86 A±	4.64 A±								
11A	MOULTON, MELVILLE R. & WILMA V.	15,16	REV. 80+77 LT.	REV. 83+75 LT.	0.52 A±				WD	6-21-84	ST. JOHNSBURY	179	365-67	
			REV. 76+42 LT.	REV. 77+00 LT.			SLOPE (P)	(0.02 A±)						(1020 S.F.±)
			REV. 76+52 LT.	REV. 77+40 LT.			CONST. EASE. (T)	(0.01 A±)						(670 S.F.±)
			REV. 80+50LT.				DRIVE (T)							22' PAVED M. P. 00.50
			REV. 83+00LT.±											PERMIT DATE:
			REV. 76+42LT.	REV. 80+70 LT.		1.48 A±								BARN
11B			REV. 76+42 LT.	REV. 83+22 LT.			ALL R.T.& I.	(0.39 A±)						HWY. EASE. T.H. 9
12A	BALLARGEON, ARTHUR M. & ROSE A.	16	REV. 82+73 RT.	REV. 83+16 RT.	0.01 A±				WD	11-6-84	ST. JOHNSBURY	181	78-79	(280 S.F.±)
			REV. 82+63 RT.	REV. 83+80 RT.			SLOPE (T)	(0.03 A±)						(1350 S.F.±)
			REV. 83+24 RT.				DRIVE (T)							22' PAVED M.P. 00.55
			REV. 82+90 RT.											PERMIT DATE:
														3" MAPLE
12B			REV. 82+83 RT.	REV. 83+97 ℄			ALL R.T.& I.	(0.06 A±)						HWY. EASE. T.H. 9 (2550 S.F.±)

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MADE BY: M.W.H. DATE 6-6-83

CHECKED BY: F.J.W. DATE 6-6-83

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LEGEND

- PRESENT R.O.W.
- TAKING WITHOUT ACCESS
- TAKING WITHOUT ACCESS ALONG PROPERTY LINES
- TAKING WITH ACCESS
- (P) PERMANENT EASEMENT
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- TOE OF SLOPE

APPROVED _____ DATE _____
CHIEF OF PLANS & TITLES

R.O.W. PLANS
R.O.W. SHEET 10 OF 16
PROJECT ST. JOHNSBURY
NO. DP-FF-041-1(10)
SHEET 23 OF 229

ROW

STATE OF VERMONT
AGENCY OF TRANSPORTATION
RIGHT-OF-WAY PLANS
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13	LUND, HENRY A.	16	REV. 83+90 RT. REV. 83+98 RT.	REV. 85+15 RT.			ALL R.T.& I. (0.06 A±)	WD	7-24-84	ST. JOHNSBURY	179	503-04	HWY. EASE. T.H. 9 (2625 S.F.±) 16' PAVED DRIVE M.P. PERMIT DATE:
14	HALL, LOUISA M.	16	REV. 85+15 ℄	REV. 85+34 ℄			ALL R.T.& I. (0.01A±)	WD	10-29-84	ST. JOHNSBURY	181	44-45	HWY. EASE. T.H. 9 (475 S.F.±)
15	NEWPORT-RICHFORD R.R. CO.-LESSOR CANADIAN PACIFIC RWY. CO.-LESSEE	14	60+20 LT. 60+20 LT. 60+55 LT. 59+77 RT. T.H. 27 16+00 RT. T.H. 27 19+00 RT.	60+50 RT. 61+15 LT. 61+05 LT. T.H. 27 20+65 RT. T.H. 27 20+00 RT. T.H. 27 19+20 RT.			INSTALL & MAINTAIN (P) (0.27A±) CONST. EASE. (T) (0.31A±) CULVERT (T) CONST. EASE. (T) (0.14 A±) SLOPE (T) (0.06A±) CULVERT (P)	R.R. AGREE.					BRIDGE, BRIDGE PIER, & STONE FILL (2614 S.F.±)
16A	TOWN OF ST. JOHNSBURY	13,14,15 & 16	U.S. 5 53+85 RT.				CONST. APPROACH (T)	QCD		ST. JOHNSBURY			T.H. 95
16B			60+92 RT.	62+25 LT.			ALL R.T.& I. (0.23 A±)						HWY. EASE. T.H. 27
16C			T.H. 9 66+00 LT. 66+50 LT. REV. 87+00 RT.	T.H. 9 85+34 RT.			ALL R.T.& I. (1.93A±) CONST. APPROACH (T) CONST. APPROACH (T)						HWY. EASE. T.H. 9 T.H. 9 T.H. 85
17	ST. JOHNSBURY WATER & SEWER												UTILITY

TABLE OF REVISIONS

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CHECKED BY: F.J.H. DATE 6-6-83

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△ — △ — △ — TOP OF CUT
○ — ○ — ○ — TOE OF SLOPE

APPROVED _____ DATE _____
CHIEF OF PLANS & TITLES

R.O.W. PLANS
R.O.W. SHEET 11 OF 16
PROJECT ST. JOHNSBURY
NO. DP-FF-041-1(10)
SHEET 24 OF 229

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
18	ST. JOHNSBURY COMMUNITY TV												UTILITY
19	NEW ENGLAND TELEPHONE & TELEPHONE CO.												UTILITY
20	CENTRAL VERMONT PUBLIC SERVICE												UTILITY
	RELINQUISHMENT NO. 1	13	US 5 53 + 85 RT.	TH 95 52 + 80 ℄									TH 95
	RELINQUISHMENT NO 2	14	TH 27 10+00 ℄	TH 27 16+50 ℄									TH 27
													DELETED RELINQUISHMENT NO. 3
	RELINQUISHMENT NO. 4	14	TH 27 18+25 ℄	TH 27 20+00 ℄									TH 27
	MAINTENANCE AGREEMENT AREA NO. I	13	US 5 53 + 85 RT	US 5 53 + 85 RT									TH 95
	MAINTENANCE AGREEMENT AREA NO. II	14	66 + 35 LT.	66 + 50 LT.									TH 9
	MAINTENANCE AGREEMENT AREA NO. III	16	REV. 87 + 00 RT.	REV. 87 + 10 RT.									TH 85
	MAINTENANCE AGREEMENT AREA NO. IV	14	TH 27 16 + 50 ℄	TH 27 18 + 25 ℄									TH 27

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APPROVED _____ DATE _____
CHIEF OF PLANS & TITLES

ROW. PLANS

R.O.W. SHEET 12 OF 16

PROJECT ST. JOHNSBURY

NO. DP-FF-041-1(10)

SHEET 25 OF 229

ROW

BRUNING 44-131-40992

EROSION MATTING
ITEM 654 20
ML 54+50 - 56+00 Rt

GUARDRAIL STD. STEEL BEAM W/ WOOD POSTS, TYPE II
ITEM 621 23
50+00 - 53+00 Rt
53+23 - 53+50 Lt

REMOVE GUARDRAIL STEEL BEAM W/ WOOD POSTS, TYPE II
ITEM 621 77
56+00 - 54+00 Rt
53+00 - 53+50 Lt

57+00 LT PRCCDI
NEW 12"X 18' CGMP (.064") OR CAACP (.060")
W/ 1-10° ELBOW AND STONE FILL PAD, TYPE I AT OUTLET

56+50 RT PRCCDI
NEW 12"X 16' CGMP (.064") OR CAACP (.060")
W/ 1-15° ELBOW AND STONE FILL PAD, TYPE I AT OUTLET

Treated Timber Curb
56+50 - 57+64 Rt
57+00 - 57+78 Lt

Bituminous Surface for Gutters and Traffic Islands (Islands)
ML Rt 53+27 - 54+61 Rt U.S. 5 Rt.
US5 5[illegible] - 5[illegible] Lt
US5 5[illegible] - 5[illegible] Lt

MATCH LINE

SHEET 14 OF 16

R.B. HOAR INC. LESSOR
GAGNON MOTOR INC. LESSEE

STATE OF VERMONT

STATE OF VERMONT

HOLMES TERMINAL CORP.

PASSUMPSIC RIVER

U.S. 5 To Lyndonville

U.S. 5 To St Johnsbury

Begin US5 Approach

JANIS, ET AL

DIONNE, RAYMOND E. & RUTH B.

BALLARD, GEORGE A. & JANE M.

1 Story House

BM # 5A
CH = CONC. HW
Elev 586.101

BEGIN MAINT. AGREE. AREA NO. I
STA. 53+85 19' RT LENGTH 6'

BEGIN RELINQUISHMENT NO. I
END MAINT. AGREE. AREA NO. I
STA. 53+85 25' RT

END RELINQUISHMENT NO. I
STA. T.H. 95 52+80 ℄ LENGTH 82'

BEGIN R.O.W. PROJECT
DP FF 041-I(10) T.H. 95 51+50 ℄

BEGIN APPROACH CONSTRUCTION

57+50
END U.S. 5 APPROACH CONSTRUCTION

THIS SHEET TO BE USED
FOR R.O.W. INFORMATION ONLY

Construct Drive
US 5 49+22 Lt
US 5 51+42 Lt
US 5 54+72 Rt (7°)
US 5 56+13 Rt (30°)

CAST IN PLACE CEMENT CONCRETE
CURB, TYPE A ITEM 616.26
ML [illegible] 53+27 - 54+51 RT US 5 (Island)
US5 52+7[illegible] - 56+25 LT (ISLAND)
US5 54+93 - 55+83 Lt (Island)
US5 51+80 - 53+30 Lt (Island)

50 0 50 100
SCALE IN FEET

R.O.W. PLANS
R.O.W. SHEET 13 OF 16
ST JOHNSBURY

SURVEYED BY: Fall & Fenton DATE 9/61
DRAWN BY Trombly DATE 9/71
TRACED BY Boyd DATE 4/72

ST JOHNSBURY
DP FF 041-I(10)
SHEET 26 OF 229

EROSION MATTING
ITEM 654.20
TR 27 15+00 - 16+50 Lt

GUARD RAIL, STD. ST BEAM w/WOOD POSTS, TYPE II
ITEM 631.28
62+42 - 62+795 RT
62+58 - 63+70.5 LT
RT
LT

Guard Rail Plank w/Wood Posts
13+50± Lt

OAKES — NOT AFFECTED

BREAKAWAY CABLE TERMINAL
STEEL BEAM w/WOOD POST, TYPE II
ITEM 631.77
62+795 - 63+045 RT
63+70.5 - 63+95.5 LT

END MAINT. AGREE. AREA NO II
66+35 80' LT.

BEGIN MAINT. AGREE. AREA NO II
66+55 12' LT. LENGTH 72'

T.H. 27 POT 10+00.00'
T.H. 52 Tan. POT 38+30.80
Δ 38° 26' 07" Lt

10+50
Begin Construction
Construct Satisfactory
Appr.

COHEN, ELIZABETH L.

TOWN HWY 9 (Paved)

TOWN OF ST. JOHNSBURY

To St. Johnsbury TH9

TH27 10+00 25' LT.

TH27 10+00 25' RT.

TH27 11+40

TH27 11+41 25' RT.

TH27 13+77 82' LT.

TH27 13+85 60' LT.

TH27 14+00 25' RT.

TH27 14+59 75' RT.

TH27 14+63 83' RT.

TH27 15+44 37' RT.

TH27 15+47 47' RT.

TH27 16+50 ℄

BM - M4
SIR 15" ELM
US Elev. 634.953

BM - M3
CH = N/E CORNER
US Elev 660.563

BEGIN RELINQUISHMENT No. 2
TH2 10+00 ℄ LENGTH 650'
R.R. Trav. POT 59+83.66

END RELINQUISHMENT No. 2
BEGIN MAINT. AGREE. AREA NO. IV
TH 27 16+50 ℄

SUMPSIC

STATE OF VERMONT

R.B. HOAR INC.

MATCH LINE

SHEET 13 OF 16

67+00 90' LT.

66+63 88' LT.

POST 66+21.30' T.H. 32 Tan. POT 65+47.96 Δ 46°32' Rt.

66+00 80' LT.

64+50 90' LT.

65+05 60' LT.

63+67 188' LT.

63+44 100' LT.

62+91 100' RT.

62+84 125' RT.

62+25 130' LT.

61+79 80' LT.

61+48 80' LT.

60+87 80' LT.

60+50 90' RT.

60+20 80' LT.

59+78 90' RT.

59+11 111' LT.

58+55 90' RT.

56+14 160' RT.

MATCH LINE

POST 67+38.18

COHEN, ELIZABETH L.

APPROACH (T)

DRIVE RT. (T)

EASE. TO REMOVE (T)

CONST. EASE (T)

SR(T)

SR(P)

TONEY

TONEY, EDDIE J. & DORIS I.

TONEY, EDDIE J. & DORIS I.

T.H. 27 POT 20+80.47'
R.R. Trav. POT. 69+09.88
Δ 18°43' Lt

Sand Borrow
63+00 - 64+00

Drilling & Blasting of Solid Rock Subgrade
62+75 - 63+50
64+50 - 67+25

Note: The discontinued portion of TH 27 is to be topsoiled, seed, fertilized & mulched

magnetic 1978

Construct Drive
60+52 Rt (20 wide)
18+65 Lt TH 27

Construct Approach
66+50 Lt (Paved) T.H. 32

MAIN LINE CURVE #1
Δ 79° 59' Rt.
D 10°
R 572.96
T 480.63
L 799.83
E 174.89
BANK .077 FT/FT.

T.H. 27 CURVE #1
Δ 22° 43' Rt.
D 12°
R 477.465'
T 95.91'
L 189.31'
E 9.54'
BANK .066 FT./FT.

T.H. 27 CURVE #2
Δ 23° 38' Lt.
D 12°
R 477.465'
T 99.89'
L 196.94'
E 10.54'
BANK .066 FT/FT.

T.H. 27 CURVE #3
Δ 17° 59' Rt.
D 12°
R 477.465'
T 75.55'
L 149.86'
E 5.94'
BANK .066 FT/FT.

THIS SHEET TO BE USED FOR R.O.W. INFORMATION ONLY

50 0 50 100
SCALE IN FEET

R.O.W. SHEET 14 OF 16

ST. JOHNSBURY
DP FF 041-1(10)
SHEET 27 OF 229

EROSION MATTING
ITEM 654.10
70+00 – 73+50 LT.

Stone Fill Type I
69+50 – 70+00 Lt.

Drilling & Blasting of Solid Rock Subgrade
67+00 – 67+25
73+75 – 80+00

Scarifying Existing Pavements
72+00 – 74+00

67+00 – 69+50 Lt. Special Type I Stone Fill Ditch w/ Stone Fill

70+00 70' LT. — Construct Drive 71+00 Rt.

BM – M2
SIP # 5
US Elev. 711.432

Surv M/L CURVE NO. 2
Δ 11°27' LT
D 3°
R 1909.86'
T 191.47'
L 381.67'
E 69.67'
BANK .038 FT/FT.

Rev Curve No. 1
Δ 14°53'20" Lt
D 3°
R 1909.86
T 249.55
L 496.29
E 16.23

M CURVE NO. 1
79° 59' RT
D 10°
R 572.96'
T 480.63'
L 799.83'
E 174.89'
BANK .077 FT/FT

Excavation & Removal of Exist Surfaces and Pavement
68+55 – 72+00

Guard Rail Std Steel Beam w/ Wood Posts (6-3") TYP
76+25 – 79+75 Rt

Breakaway Cable Terminal for G.R. Std St Beam w/ Wood Post
76+00 – 76+25 Rt
79+75 – 80+00 Rt

SCALE IN FEET
50 0 50 100

THIS SHEET TO BE USED
FOR ROW INFORMATION ONLY

ROW PLANS
R.O.W. SHEET 15 OF 16
ST. JOHNSBURY

ST. JOHNSBURY
DP FF 041-1(10)
SHEET 28 OF 229

PLAN — SURVEYED, PLOTTED, NOTE BOOK, No., SUBSIDIARY DETAILS CHECKED, DATE, BY

PROFILE — SURVEYED, PLOTTED, NOTE BOOK, No., SUBSIDIARY DETAILS CHECKED, DATE, BY

K+S PLATE 1, PLAN-PROFILE

BM - M 1
SIR 30" ELM
US Elev. 745.284

MOULTON, MELVILLE R.

POT 83+33.75' ≈

REV. 80+93
167' LT.

REV. 80+77
83 LT.

DRIVE RT. (11)
(430)

MATCH LINE

11A

11B

11C

11D

9C

(69)

REV. 82+90
13' RT.

REV. 82+83
38' RT.

REV. 82+73
50' RT.

REV. 82+63
50' RT.

DRIVE RT. (11)

SR(T)

CONST. EASE(T)

CUL. DIT. & DR. RT. (11)

COHEN, ELIZABETH L.

APPROX. RELOCATE R.O.W. FENCE

83+18 - 87+00 Lt Reinove & Reset Chain Link Fence

COST OF REMOVAL AND RESETTING R.O.W. FENCE SUBSIDIARY TO OTHER ITEMS

84+00'-Lt - 84+47' Rt
New 6"x12" Und Corner Pipe

STATE OF VERMONT

REV. 83+75
72' LT.

REV. 83+22
3' LT.

REV. 83+12.24
20' RT.

REV. 83+97
46' RT.

REV. 85+15
62' RT.

REV. 85+34
62' RT.

REV. 85+34
87' RT.

REV. 85+15
87' RT.

REV. 83+18
50' RT.

REV. 83+90
72' RT.

12A

12B

13

14

LUND, HENRY P.

BAILLARGEON, ARTHUR M. & ROSE A.

HALL, LOUISA M.

BM M
SIR
Elev. 766.523

Surv. P.I. # 3 87+99.62 = 86+90.57

Surv. M/L CURVE NO. 3
Δ 55° 55' RT.
D 10°
R 572.96'
T 304.11'
L 559.17'
E 75.71'
Rev Δ 59°21'20" RT.
D 9°
R 636.62
T 362.79
L 659.51
E 96.12'
Book .075'/ft.

Drilling & Blasting of Solid Rock Subgrade
80+00 - 80+75 ±
86+75 - 87+25

Guard Rail, Plank w/Wood Post:
80+75 Lt
81+43 Lt

Excavation & Removal of Road Surfaces and Pavements
80+60 - 82+50

MAG. 11/78

Construct Drives
80+50 Lt (Pave)
83+24 Rt (Pave)
83+98 Rt (Pave)

BEGIN MAINT. AGREE. AREA NO. III
REV. STA. 87+00 22' RT.
Sand Borrow (±2 ℄)
85+75 - 89+50 ±

END R.O.W. PROJECT
DP FF 041-1(10) REV. STA. 87+50 ℄

Construct Approach
87+00 Rt

END MAINT. AGREE. AREA NO. III
REV. STA. 87+10 112' RT (LENGTH 90 ℄)

90+05.44
END PROJECT
MATCH EXISTING PAVEMENT

N 43° 27' E

749 to 191

50 0 50 100
SCALE IN FEET

THIS SHEET TO BE USED
FOR ROW INFORMATION ONLY

Construct Satisfactory Approach

CUT TO FILL TRANSITION
80+03 - 80+78

ROW PLANS
R.O.W. SHEET 15 OF 15
ST. JOHNSBURY
JULY 01, 2011 Right of Way Plans
Dr. W. BY BOYD, TRANS SEC

ST JOHNSBURY
DP FF 041-1(10)
SHEET 29 OF 229

PLAN
SURVEYED
PLOTTED
NOTE BOOK
No.
BY
DATE
ALIGNMENT CHECKED
R.O.W. STAKED

PROFILE
SURVEYED
PLOTTED
QUANT. CHECKED
NOTE BOOK
No.
STRUCTURE ALIGNMENT CHECKED
DATE

EROSION MATTING
ITEM 654.20
ML. 54+50 - 56+00 Rt.

GUARDRAIL, STD STEEL BEAM W/ WOOD POSTS, TYPE II
ITEM 621.23
56+36.5 - 57+14 Rt
56+53 - 57+28 Lt

BREAKAWAY CABLE TER FOR GR RAIL, ST BEAM W/ WOOD POSTS, TYPE II
ITEM 621.77
56+01.5 ~ 56+26.5 Rt
56+28 ~ 56+53 Lt

50+26 LT
36" RCP (Vert.)
21'-8" plastic conduits
#1 #2 #3
2" plastic conduit

57+00 LT PRCCD:
NEW 12" X 18" CGMP (.064") OR CAACP (.060")
W/ 1-10° ELBOW AND STONE FILL PAD, TYPE I AT OUTLET

57+00 RT PRCCD:
NEW 12"X 18" CGMP (.064") OR CAACP (.060")
W/ 1-10° ELBOW AND STONE FILL PAD, TYPE I AT OUTLET

Treated Timber Curb
57+00 - 57+64 Rt.
57+00 - 57+78 Lt.

57+84.67
STOP ROADWAY
BEGIN BRIDGE

55+27 ~ 58.00 Lt.
24" ACCGMP & DI - Remove

54+19 ~ 58+00 Lt
Construct Special Ditch

US5 53+65 ~ Rt 55+25 Lt
Construct New 1½" Water Line w/ Water Shut Off @ US5 52+75 Lt

Rt 54+00 ~ US5 52+60 Lt
Construct New Sewer Line

POT 55+57.22

54+07
Begin Project
DP FF041-1(10)

53+20 Rt US5 ~ 48+96 Rt ML
New Const. 24" RCP
12" ACCGMPA (Typ.)
To River
53+03 Lt US5 ~ 52+03 Lt ML
To Pond Discharge

50+26 36" RCP (Vert.) Electrical Services Conc. Cover (See insert above)

V. W. GARAGE

HOLME'S TRUCKING
1 Sty Conc. Block Bldg.

U.S 5 POT 58+00.00

54+50 Rt ~ 54+75 Lt
New 18" x 84" RCCP

U.S 5 55+95 ~ 56+43 Lt
24" CMP
Return

54+18 Rt ~ 55+19 Lt
24" ACCGMP
Remove

53+20 Rt
2" ACCGMP
Remove

U.S 5 54+08
Retain

Curbed Island

U.S. 5 To Lyndonville

U.S 5 To St Johnsbury

48+50
Begin U.S.5 Construction

48+76 15" RCP Skew 73° Rt Remove
New 18'-1" x 5'-2" RCP CI III w/ Stone Fill, Type I @ Outlet

APPROXIMATE AERIAL RELOCATION BY CVPSC, NET, SIMMONS CABLE TV, AND ST. JOHNSBURY FIRE DEPT.

49+26
P.O.T.

BM # 5A
CH = CONC. HW
Elev 588.101

53+34 ~ 53+42 Lt Rt 24" ACCGMP
Remove

53+87.82
US 5 POT 53+87.82

P.O.T. 53+40.35

62+97 Lt ML ~ 53+20 Rt US5
New 24" x 52' RCP CI III

58+50 ~ 59+00 Lt
Construct Bituminous Concrete Gutter

8" Pipe - Sewer
Do not Disturb

51+75

BEGIN APPROACH CONSTRUCTION

53+27 Rt
Const. Bit. Conc. Gutter

53+05 ~ 53+13 Lt
New 3'-1" x 1'-6" CMP

50+53 Lt Rt ACCGMP
Retain

48+13 Rt 18" ACCGMP
Retain

53+27 Rt ~ 54+51 Rt US 5 (ISLAND)
US5 54+75 - 56+25 Lt (ISLAND)
US 5 54+93 - 55+83 Rt (ISLAND)
US5 51+80 - 53+30 Lt (ISLAND)

CAST IN PLACE CEMENT CONCRETE CURB, TYPE A ITEM 618.26

55+48
Remain & Extend w/ New 18" x 84" RCP Lt

53+20 Rt ML ~ 53+20 Rt US5
New 18" x 84" x 96' ACCGMP (CA)

RAY'S WELDING SHOP

53+27 ~ 53+48 Rt
24" ACCGMP
Remove

57+50
END U.S. 5 Construction

1 Sty House

Construct Drive
U.S. 5 49+22 Lt
U.S 5 51+42 Lt
U.S.5 54+72 Rt
U.S 5 56+13 Rt

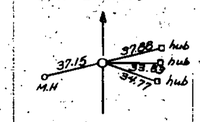
See Sht. 45 for Strain Pole and Flashing Beacon Location.

magnetic 1978

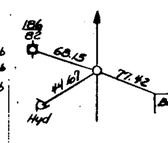
ST JOHNSBURY

SURVEYED BY Fall & Kimball DATE 9/78
DRAWN BY Tremblay DATE 2/79
TRACED BY Boyd DATE 3/79
DPFF NO 041-1(10)
SHEET 33 OF 229

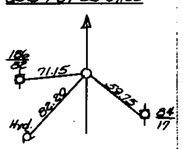
NI POT. 44+73.45
(Not Shown)



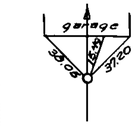
NI POT 53+40.35



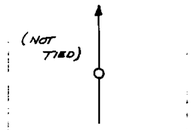
NI PI 53+87.82=
US 5 POT 53+87.82



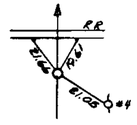
NI POT 55+57.22



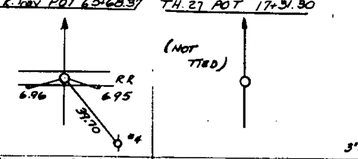
NI POT 58+50.0
(Not Tied)



NI POT 60+22.27

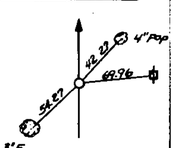


NI POT 60+47.30=
R.R. Trav. POT 65+68.97

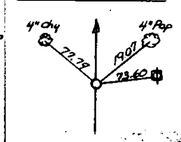


NI POT 60+87.63=
T.H. 27 POT 17+31.80
(Not Tied)

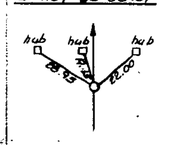
NI POT. 61+18.24



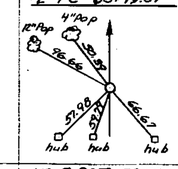
NI POT 61+42.66



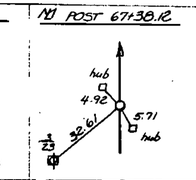
NI POT 63+00.31



NI PC 63+79.37



NI POST 67+38.12



NI PI #1 68+60.0=
66+90.37

NI PT 71+79.80

NI POST 75+61.22

NI PI #2 76+40.39=
76+59.12

NI PT. 78+30.59

NI POT 80+33.75

NI POT 83+00.00

NI PI #3 87+39.62=
86+90.37

NI PT 89+94.68=
POST 88+93.37

US 5 POT 49+85.00

US 5 POT 53+00.00

RR Trav. POT 59+83.66

RR Trav. PI 62+66.00

RR Trav. PI 65+30.00

RR Trav POT 63+94.17

RR Trav POT 73+39.08

T.H. 27 POT 10+00.0=
T.H. 9 Trav. POT 50+30.80

TH 27 PI #1 18+14.50=
18+11.99

T.H. 27 PT 13+07.90

T.H. 27 PC 14+27.31

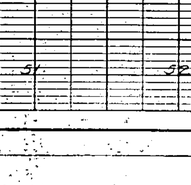
T.H. 27 PI #2 15+27.26=
15+24.96

T.H. 27 PT. 16+24.25

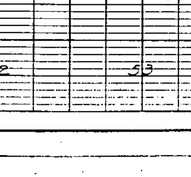
T.H. 27 PI #3 19+68.92=
19+67.68

T.H. 27 POT 20+43.23

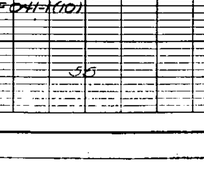
T.H. 27 POT 80+80.47=
RR Trav. POT 69+09.30



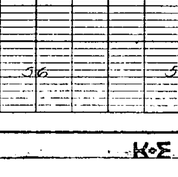
T.H. 27 POT 22+50.00



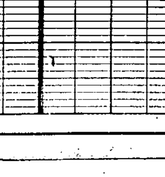
NI POST 66+71.30=
T.H. 9 Trav. 65+17.96
(Not Tied)



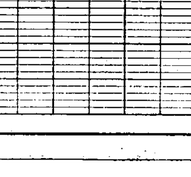
NI POT 74+41.17=
T.H. 9 Trav. 73+45.3
(Not Tied)



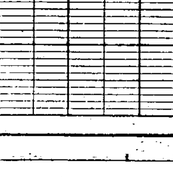
NI POT 56+57.22

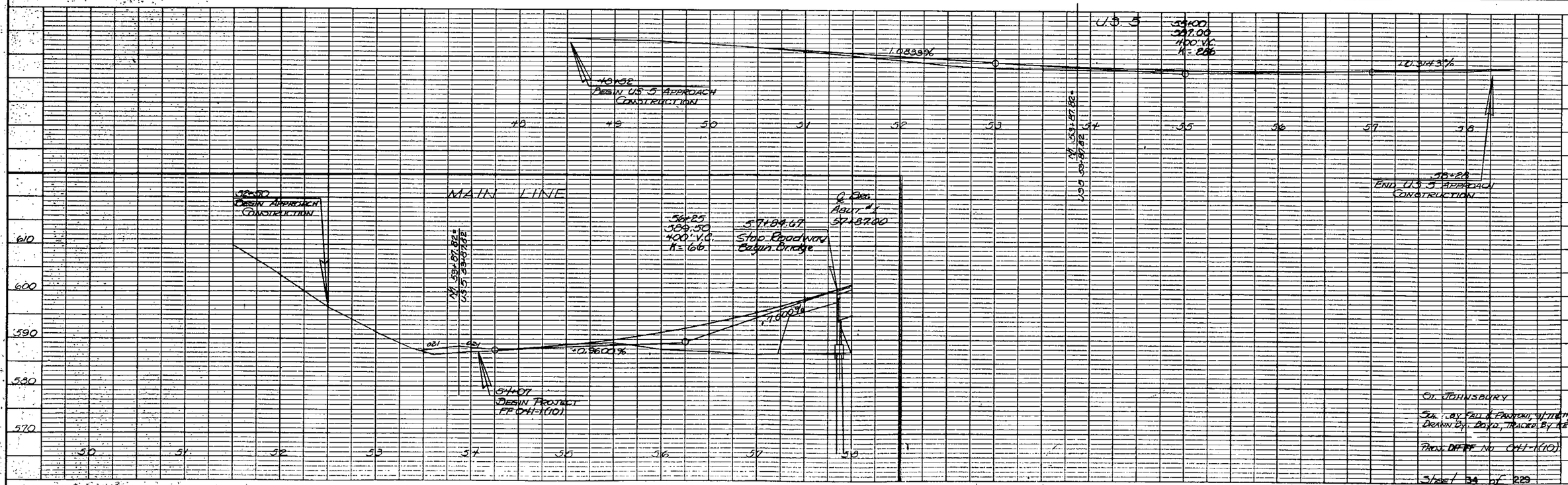


Chan. POT 10+08.40
T.H. 27 14+35.31



Chan 12+50





PROFILE
SURVEYED
PLOTTED
NOTE BOOK
SHEETS CHECKED
R. R.'s NOTED
STRUCTURES SHOWN
No.
BY
DATE

PLAN
SURVEYED
PLOTTED
NOTE BOOK
SHEETS CHECKED
ST. OF WAY CHECKED
No.
BY
DATE

Co. JOHNSBURY
SUR. BY FAU & FANTON, 9/18 & 11/18
DRAWN BY BOYD, TRACED BY KERR
PROJ. DEPT NO CHI-1(10)

Sheet 34 of 229

K&E PLATE 1. PLAN-PROFILE

EROSION MATTING
ITEM 654.20
T.R. 27 15+00-18+50 Lt
GUARDRAIL, STD. ST BEAM
W/WOOD POSTS, TYPE II
ITEM 621.28
62+42 - 62+79.5 Rt
62+58 - 63+70.5 Lt
Guard Rail Plank w/Wood Posts
TH 27 13+50± Lt
BREAKAWAY CABLE TERMINAL
STEEL BEAM W/WOOD POSTS, TYPE II
ITEM 621.77
62+79.5 - 63+04.5 Rt
63+70.5 - 63+95.5 Lt
APPROXIMATE AERIAL RELOCATION BY CVPSC & SIMMONS C.T.V.
12" CMP
24" CMP Retain
Retain
T.H. 27 POT 10+00.00 =
T.H. 9 Trav. POT 58+30.80
Δ 38° 26' 07" Lt.
10+50
Begin Construction
Construct Satisfactory Appr.
Town Hwy. 9 (Paved)
underground Tel cable
To St Johnsbury
TH 9
Buried Tel Cable
BM - M4
SIR 15" ELM
US Elev. 634.953
T.H. 27 P.I. #1 12+14.50 =
12+11.99
13+50± Lt
Construct Barricade
Retain 18" CMP
APPROX. AERIAL RELOC. BY CVPSC, NET AND CTV.
POST 66+71.30 =
T.H. 32 Trav. POT 65+47.96
Δ 66° 32' Rt.
Note: 65+35 Lt Conc Wall
Save concrete wall attached to barn foundation on west side of shed structure.
POST 67+38.12
Install New 3/4" x 170' seamless Copper Water Tube W/6" x 110' Rigid Plastic Pipe Sleeve. Connect to existing water line. Connection to be subsidiary to sleeve.
66+87 - 67+00 Rt Special Ditch
65+96 - 67+00 Lt New 48" x 112' ACCGMP (.109) w/ Stone Fill Type II @ Outlet
66+60 Rt New 18" x 72' Pipe CGMP (.064) CAACP (.060) or RCP Cl III
63+50 - 66+04 Rt Construct Ditch w/ Stone Fill, Type I
BARN
conc wall on this side
shed
opening on this side
BM - M3
CH = N/E CORNER
US Elev 660.563
artesian wells
stones drain
2 STY HO.
Septic tank
GAR
63+00 - 67+00 Rt New 6" x 550 Underdrain w/ F.B. @ STA 68+00
61+25 - 63+50 Rt Construct Special Ditch w/ Stone Fill, Type I
TH 27 18+10 - 18+40 Lt New 24" x 36' ACCGMP w/ L Type Headwall
New 24" x 36" 12" RCP Remove
TH 27 18+40 - 19+20 Lt-Rt New 24" x 92' ACCGMP (.064")
PC. 63+79.37
62+75 Rt - 63+00 Rt.
New 6" x 40' Und Carrier Pipe
61+75.54
END BRIDGE
RESUME RDWY.
61+25 - 62+75± Rt Constr. Berm.
61+50 - 63+96 Lt Special Ditch w/ St. Fill, Type II
63+00 - 64+00 Lt New 6" x 100 Und. w/ F.B. @ 64+00 Lt
62+84 - 63+00 Lt New 6" x 40' UND CARRIER PIPE
POT 63+00.31
T.H. 27 P.C. 14+27.31
Sand Borrow
63+00 - 64+00
Drilling & Blasting of Solid Rock Subgrade
62+75 - 67+00
Note: The discontinued portion of T.H. 27 is to be topsoiled, seed, fertilized & mulched
magnetic
1978
Construct Drive
66+60 Rt
18+65 Lt T.H 27
Construct Approach
66+50 Lt (Paved) T.H. 9
MAIN LINE CURVE #1
Δ 79° 59' Rt.
D 10°
R 572.96
T 480.63
L 799.83
E 174.89
BANK .077 FT/FT.
T.H. 27 CURVE #1
Δ 22° 43' Rt.
D 12°
R 477.465'
T 95.91'
L 189.31'
E 9.54
BANK .066 FT./FT.
T.H. 27 CURVE #2
Δ 23° 38' Lt.
D 12°
R 477.465'
T 99.89'
L 196.94'
E 10.34'
BANK .066 FT/FT.
T.H. 27 CURVE #3
Δ 17° 59' Rt.
D 12°
R 477.465'
T 75.55'
L 149.86'
E 5.94'
BANK .066 FT/FT.
19+00
End Construction
Constr Satisfactory Appr.
Town Hwy. 27 (Gravel)
T.H. 27 11+41 - New 24" x 64' ACCGMP (.064) Constr. Inlet Ditch as needed
T.H. 27 P.C. 11+18.59
T.H. 27 P.T. 13+07.90
TH 27 POC 14+35.31 =
CHAN. LINE POT 10+88.4
R.R. Trav. P.I. 62+66.0
Δ 6° 34' 45" Rt.
R.R. Trav. POT 59+83.66
R.R. Trav. 60+83 18" C.I.P. Retain
P A S S U M P S I C R I V E R
T.H. 27 P.I. #2 15+27.2 =
15+24.36
APPROXIMATE TEMPORARY UNDERGROUND RELOCATION BY SIMMONS CTV.
RR Trav. 65+30.6
Δ 4° 49' Rt.
58+00 - 59+05± SPECIAL DITCH
36° 50'
230
POT 61+42.66
POT 61+18.24
POT 60+87.63 =
T.H. 27 POT 17+31.30
Δ 75° 58' Rt.
T.H. 27 P.I. #3 19+68.92 =
19+67.68
19+40 Lt Flag Pole
Do not disturb
R.R. Trav. POT 65+94.17
20+50 T.H. 27
End Appr. Constr.
T.H. 27 POT 20+80.47 =
R.R. Trav. POT 69+05.38
Δ 18° 45' Lt.
2½ STY BARN & GAR.
2 STY HOUSE
Mail Bx.
woods
R.R. ROW
Canadian Pacific R.R.
R.R. Trav. 72+35 2.5' x 2.2' Conc Box
R.R Trav POT 73+39.08
℄ Brg Pier 2
Sta. 60+12
POT 60+47.30 =
RR Trav POT 65+68.57
Δ 76° 44' Lt.
POT 60+22.27
POT 58+50.00
T.H. 27 P.C. 18+93.97
T.H. 27 P.T. 20+48.23
BM M5
CH. = N/W CORNER
CONC. HDWL
US Elev. 585.731
T.H. 27 POT 18+50.00
℄ Brg Pier #1
Sta. 58+67
ST. JOHNSBURY
SURVEYED BY Fall & Fontoni
DRAWN BY Trombly
TRACED BY Boyd
PROJ DAI RF NO. 044-1(10)
SHEET 38 OF 229

PROFILE
SURVEYED
PLOTTED
NOTE BOOK
CHECKED
No.
BY
DATE
STRUCTURE INSTALLATION CHECKED

10+30
Begin Construction
Match existing roadway

TOWN HIGHWAY 27

-8.3329 %

13+75
590.50
400' VC
K = 48

Cut to Fill Transition
14+75 - 15+35

17+00
End Construction
Constr. Satisfactory
Appr.

PVI
18+30
588.95
700' VC

17+30.
ML 40+67.63

-0.6105%

PVI
19+85
590.10
70' VC

3916.85

20+50.
PT 19+03.35

RAILROAD

63+66.37
ML Const 30

MAIN LINE

existing road profile

61+75.54
End Bridge
Resume Roadway

℄ Beg
Abut #2
61+12.00

℄ Beg
Pier #2
60+12.00

℄ Beg
Pier #1
58+67.00

+7.060 %

60+47.30
ML 63+68.37

60+87.65
T.H. 27 14+18.30

1:2

6445

6215

638.0 Lt

638.8

634.8

634.1 Rt

629.7

628.9

632.6

underdrain

Cut to Fill Transitions
65+53 - 66+28

St. Johnsbury
Surv. By: Foll & Fontaine 9/11/78
Proj. DPFF No. 0411(10)
Sheet 36 of 229

K&S PLATE 1, PLAN-PROFILE

1" = 1' 63+20.00 = 66+93.57

EROSION MATTING
ITEM 654.10
70+00 – 73+50 LT.

Stone Fill Type I
69+50 – 70+00 Lt.

Drilling & Blasting of Solid Rock Subgrade
67+00 – 67+25
73+75 – 80+00

Construct Drive
71+00 Rt.

Scarifying Existing Pavements
72+00 – 74+00

Surv. M/L CURVE NO. 2
Δ 11° 27' LT
D 3°
R 1909.86'
T 191.47'
L 381.67'
E 9.57
BANK .038 FT./FT.

Rev. Curve No.
Δ 14°53'20" Lt
D 3°
R 1909.86
T 249.55
L 496.29
E 16.23
Bank .038'/ft.

BM – M2
SIP # 5
US Elev. 711.432

Existing Town Line

67+00 – 69+50 Lt.
Special Ditch w/ Type I Stone Fill

N 76° W

Town Hwy 9

N 30° 59' E

underground tel. cable

67+00 – 68+50 Rt.
NEW 6'-3" I-150' UNDERDRAIN w/ FB @ 68+50

67+00 – 68+50 Rt.
SPECIAL DITCH WITH STONE FILL TYPE I

71+50 Rt.
NEW 18"x 124' C.M.P. (CSP) or C.M.P.(CAP)

P.I. 71+19.20

M CURVE NO. 1
Δ 79° 59' RT
D 10°
R 572.96'
T 480.63'
L 799.83'
E 174.89'
BANK .077 FT/FT

APPROXIMATE AREAL RELOCATION BY CVPSC, NET. 2 SIMMONS C.T.V.

73+50 ℄
NEW 18"x 124' ACCESS (CSP)

74+00 – 76+00 Rt.
SPECIAL DITCH WITH STONE FILL, TYPE II w/ ENERGY DISSIPATOR @ OUTLET

Rev. P.C. 74+46.84

Surv. POT 74+89.2

POT 74+41.17=
T.H. 52 Trav. POT. 73+45.3
Δ 13°48' Lt.

POST 75+61.22

73+51 – 76+95
NEW 6'-3" STD. UNDERDRAIN w/ FB @ 76+95

77+00 ℄
NEW 8'x 96' ACCESS (CSP) WITH STONE FILL TYPE I AT OUTLET

1 Sty House
Gar.

Surv. POT 79+30.59

0+74 1 Unit 6
72+80 – 80+80 Lt.
NEW 6'-3" I-370' UNDERDRAIN w/ FB @ 80+80

MAG. 11/78

Rev. PT 79+43.13

Surv. PI #2 76+40.39=
76+39.12

Rev. PI 76+96.39
76+93.58

Excavation & Removal of Road Surfaces and Pavements
68+55 – 72+00

Guard Rail, Std. Stee/ Beam w/ Wood Posts (6'-3") TYPE II
76+25 – 79+75 Rt.

Breakaway Cable Terminal for G.R. Std. St. Beam w/ Wood Post
76+00 – 76+25 Rt
79+75 – 80+00 Rt

Guard Rail, Plank w/ Wood Posts
℄ 78+50 – 79+50 Lt.

PLAN
SURVEYED
NOTE BOOK
ALIGNMENT CHECKED
RT. OF WAY CHECKED
No.
DATE
BY

PROFILE
SURVEYED
PLOTTED
NOTE BOOK
GRADE CHECKED
No.
STRUCTURE EXCAVATION CHECKED
DATE
BY

76+25
729.50'
800' VC.
SSD 548

+7.0000%

+3.0045%

existing road profile

ST. JOHNSBURY

SURV. BY PAUL BOTTON, 9/78 11/78
DRAWN BY LOYD, TRACED BY KERR

PROJ. DPFF No. 04 A 1(10)
100.18

SHEET 87 OF 829

K+E PLATE 1, PLAN-PROFILE

BM~M1
SIR 30" ELM
US Elev. 745.286

83+75 – 87+23 LT
NEW 6' CHAIN LINK FENCE

83+18± – 87+35± LT. REMOVE CHAIN LINK FENCE, COST SUBSIDIARY TO OTHER ITEMS

Surv. PI = 3 87+39.62±
86+90.57

Rev PI. 87+07.40
86+91.38

Approx. Reloc. ROW Fence

POT 80+33.75

80+75 Lt Construct Barricade G.R. PLANK W/ Wood Posts @ 80+80

83+50 – 84+45 Lt 24" ACCSMP REMOVE - LEAVE TRENCH OPEN

84+45 Lt – 85+50 Lt CONSTRUCT SPECIAL DITCH WITH STONE FILL, TYPE I

84+45 Lt – 85+50 Lt G.R. PLANK W/ Wood Posts @ 80+80

Barn

Gar.

Rev PI. 85+83
New 6'x 62' Utility Fr. Gate @ 90°

Rt. 86+00 Lt
3 Strand Fence

Rev PI. 87+35.51
Rev. 85°-83°
New 6'x 62' Utility Fr. Gate @ 90°

Rev. POT 84+46 Lt, TYPE I

BM M
SIR
Elev. 764.523

Surv M/L CURVE NO. 3
Δ 55° 55' RT.
D 10°
R 572.96'
T 304.11'
L 559.17'
E 75.71'

Rev Δ 59°21'20" Rt.
D 9°
R 636.62
T 362.79
L 659.51
E 96.12
Bank .075'/Ft.

86+23 – 87+25 Rt. 18 RCP – REMOVE

87+00 Rt. 24" ACCSMP (06#)
New 6'x 14'

84+47± – 89+50 Lt.
New 6'x 526' Underdrain

Rev POT 90+05.44
89+10.76

Surv. 89+94.63
90+96.37
90+101.31

90+05.44
END PROJECT
MATCH EXISTING PAVEMENT

N 48° 27' E

To I-91

80+03 Lt – 80+33.75 Lt
New 24" RCP, III with STONE FILL, TYPE III AT OUTLET

APPROX. ALIGN. SELECTIONAL "B" By C.V.P.S.C., V.S.H. & GWINN-NS C.T.V.

84+00 Lt – 84+46 Rt.
New 18"x 74' RCP (06#)

84+53 – 85+50 Rt.
SPECIAL DITCH WITH STONE FILL, TYPE I

85+50 Rt – 87+40 Lt.
New 6"x 712' Underdrain Corner Rt.

87+40 Lt – 88+45 Rt.
New 6"x 240' Underdrain

Drilling & Blasting of Solid Rock Subgrade
80+00 – 80+75±

Guard Rail, Plank w/Wood Posts
80+75 Lt
81+43 Lt

Sand Borrow (24")
85+75 – 89+00

Excavation & Removal of Road Surfaces and Pavements
80+60± – 82+50

MAG. 11/78

Construct Drives
80+50 Lt (Pave)
83+24 Rt (Pave)
83+98 Rt (Pave)

Construct Approach
87+00 Rt

PI 85+50
ELEV. 781.50
V.C. 400'
K 247

CUT TO FILL TRANSITION
80+03 – 80+75

Reconstruct Satisfactory Approach.

Existing road profile

Underdrain

ST. JOHNSBURY

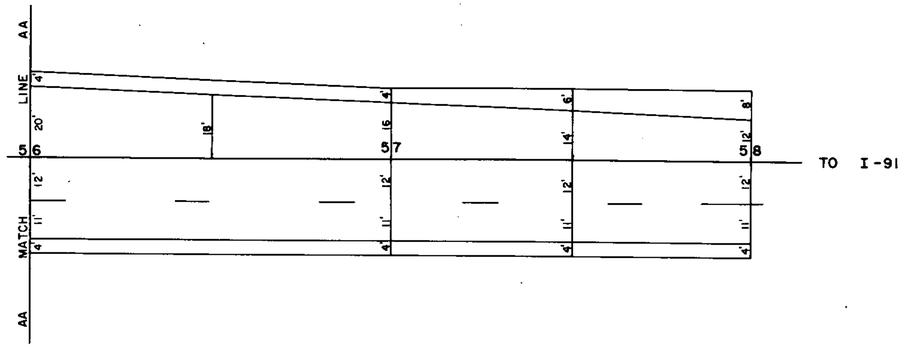
SURV. BY: Field location sketches
DRAWN BY: CTD, TRACED BY: KER

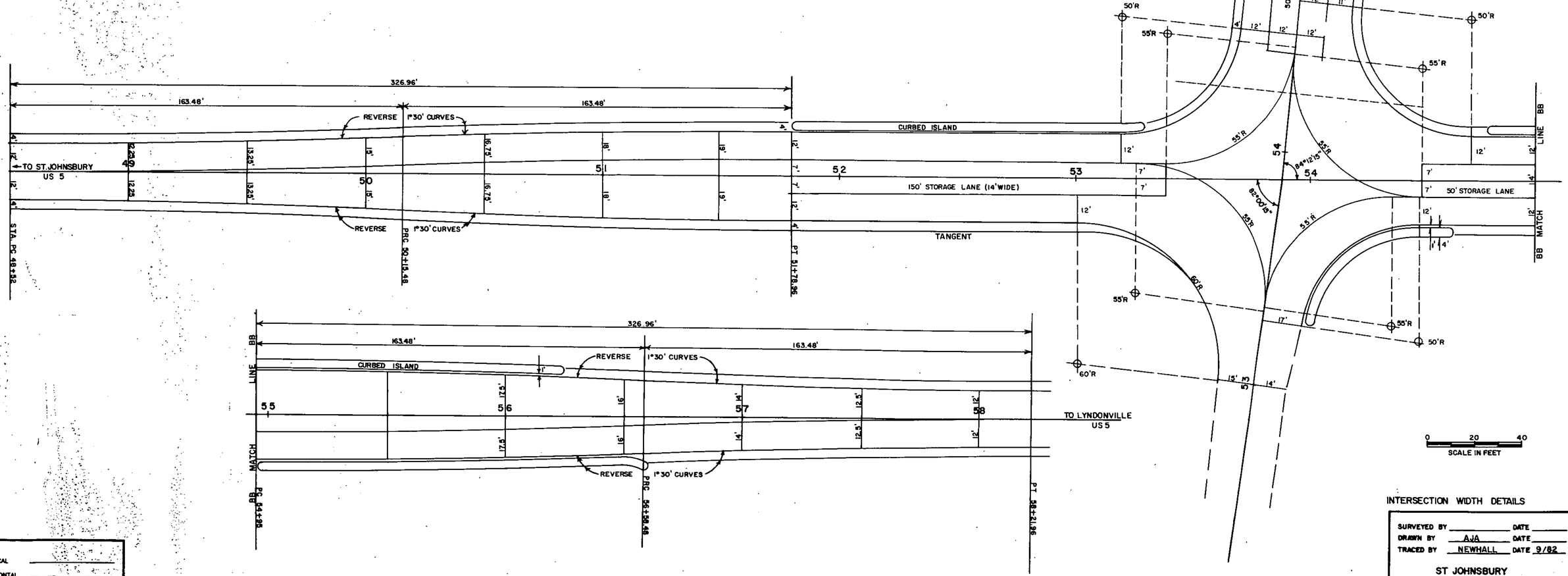
PROJ. DE FF No. 0111-1(10)

Sheet 38 of 229

PLAN
SURVEYED
NOTE BOOK
No.
ALIGNMENT CHECKED
PT. OF WAY CHECKED

PROFILE
SURVEYED
NOTE BOOK
No.
ELEVATION ROTATION CHECKED





DATUM
VERTICAL
HORIZONTAL

INTERSECTION WIDTH DETAILS

SURVEYED BY _____ DATE _____
DRAWN BY AJA DATE _____
TRACED BY NEWHALL DATE 9/82

ST JOHNSBURY
PROJ. DPFF NO. 041-1(10)
SHEET 39 OF 229

TEMPORARY 4" REFLECTORIZED WHITE LINE

U.S. 5 48+50 ~ 48+70, 12'RT.
48+70, 12'RT. ~ 51+80, 19'RT.
51+80 ~ 53+00, 19'RT.
53+00, 19'RT. ~ 53+61, 85'RT. (@ HOSP. APPR.)
53+90, 89'RT. ~ 54+44, 19'RT. (@ HOSP. APPR.)
54+44 ~ 55+24, 19'RT.
55+24, 19'RT. ~ 58+00, 12'RT.

48+50 ~ 48+70, 12'LT.
48+70, 12'LT. ~ 51+80, 19'LT.
51+80 ~ 53+19, 19'LT.
53+19, 19'LT. ~ 53+70, 64'LT. (@ CONN. APPR.)
54+17, 74'LT. ~ 54+68, 19'LT. (@ CONN. APPR.)
54+68 ~ 55+24, 19'LT.
55+24, 19'LT. ~ 58+00, 12'LT. 5

CONNECTOR 54+50 ~ 55+00, 24 LT.
55+00, 24'LT. ~ 58+00, 12'LT.
54+64 ~ 58+00, 22'RT.

DURABLE 4" REFLECTORIZED WHITE LINE

U.S.5
51+80 ~ 53+66, 7'RT.
54+30 ~ 55+09, 7'LT.
CONNECTOR
54+14 ~ 55+07, 12'LT.
54+42 ~ 58+00, 12'RT. DASHED

PAINTED CURB

51+79 ~ 53+30 LT.
53+98 ~ 54+60 RT.
54+74 ~ 56+25 LT.
54+95 ~ 56+60 RT.

DURABLE LETTER IN WORD MARKING

U.S.5
51+84 ℄ O,N,L,Y 52+64 ℄ O,N,L,Y
53+44 ℄ O,N,L,Y
54+52 ℄ O,N,L,Y
55+05 ℄ O,N,L,Y
HOSP. APPR.
53+46, 2'~9'RT. S,T,O,P
CONNECTOR
54+35 LT. O,N,L,Y 54+23, 1'~8'LT. S,T,O,P
55+03 LT. O,N,L,Y

SEE STANDARD E-50 FOR WORD MARKING DETAILS

DURABLE 4" REFLECTORIZED YELLOW LINE

U.S.5
48+50 ~ 48+90, ℄ (DBL.)
48+90, ℄ ~ 51+80, 7'LT (DBL.)
51+80 ~ 53+66, 7'LT. (DBL.)
54+30 ~ 55+24, 7'RT. (DBL.)
55+24, 7'RT. ~ 58+00 ℄ (DBL.)

CONNECTOR
54+14 ~ 58+00 ℄ (DBL.)

HOSP. APPR.
52+50 ~ 53+54 ℄ (DBL.)

DURABLE 24" STOP BARS

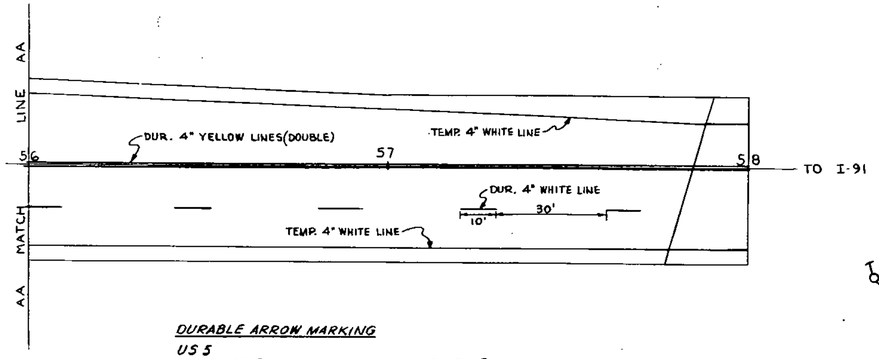
U.S.5
—
—

CONNECTOR
54+14, ℄ ~ 39' LT.

HOSP. APPR.
53+54 ℄ ~ 24'RT.

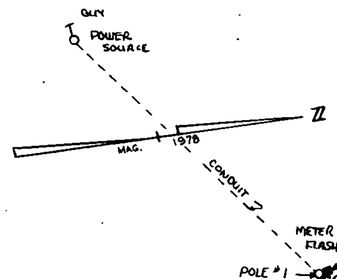
APPLICATION NOTES

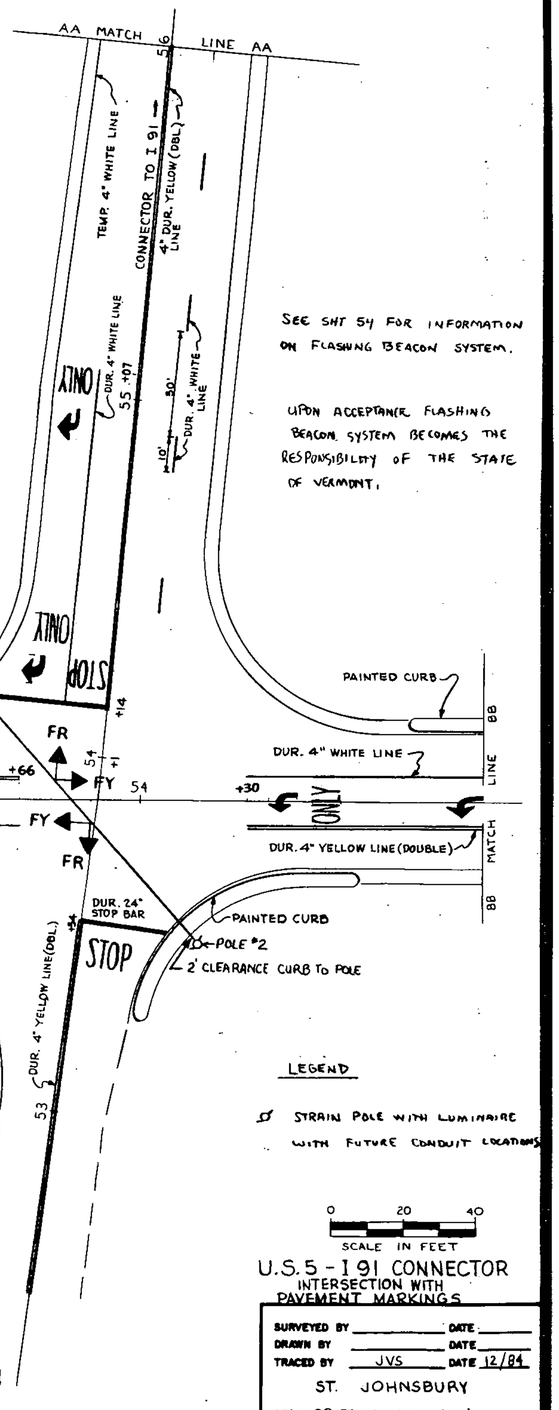
1. PAINTED CURB INCLUDES NOSE
2. WORD MARKING INDICATED AT CENTER OF WORD
3. ARROWS INDICATED AT BEGIN. OR END OF ARROW
4. STOP BARS INDICATED AT CENTER OF BAR



DURABLE ARROW MARKING

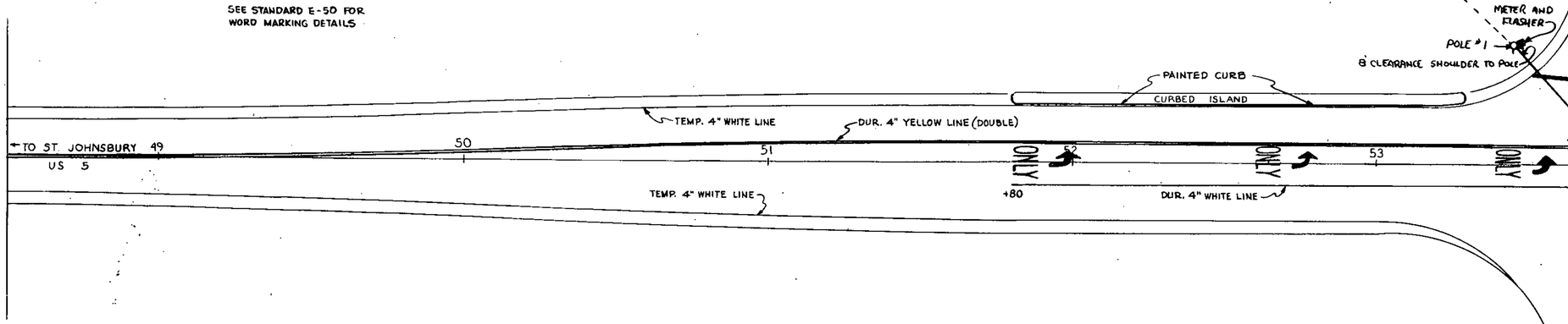
U.S.5
51+92 ℄ (LEFT POINT.) 52+72 ℄ (LEFT POINT)
53+52 ℄ (LEFT POINT.)
54+36 ℄ (LEFT POINT.)
54+89 ℄ (LEFT POINT.)
CONNECTOR
54+19 LT. (RIGHT POINT.)
54+86 LT. (RIGHT POINT.)
SEE STANDARD E-50 FOR ARROW DETAILS

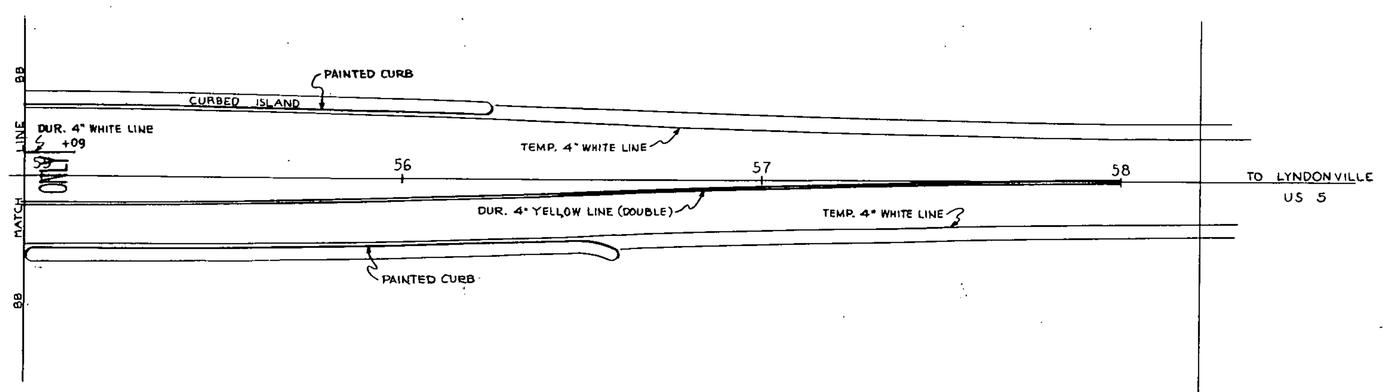




SEE SHT 54 FOR INFORMATION ON FLASHING BEACON SYSTEM.

UPON ACCEPTANCE FLASHING BEACON SYSTEM BECOMES THE RESPONSIBILITY OF THE STATE OF VERMONT.





DATUM
VERTICAL _____
HORIZONTAL _____

LEGEND

℄ STRAIN POLE WITH LUMINAIRE WITH FUTURE CONDUIT LOCATIONS

0 20 40
SCALE IN FEET

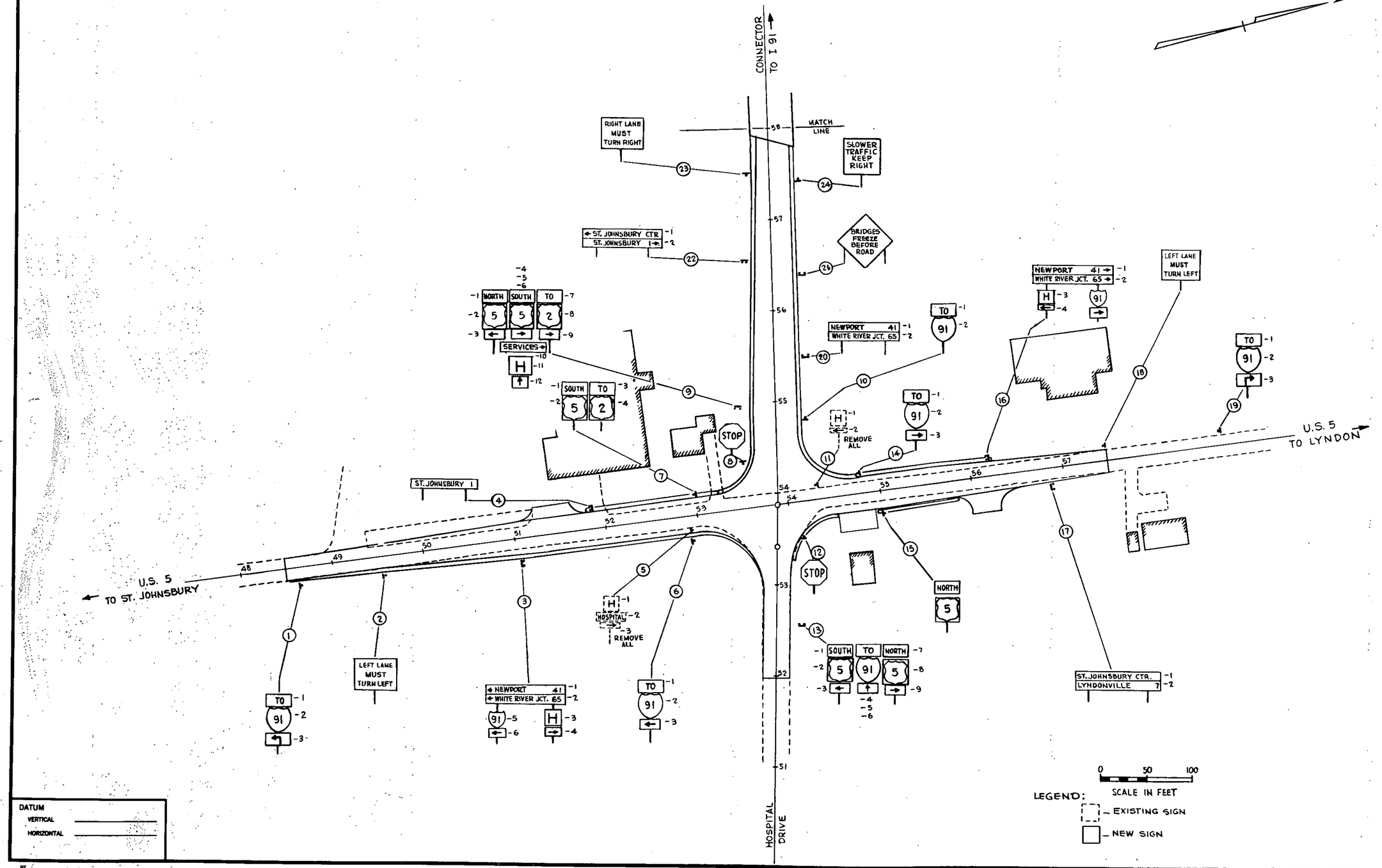
U.S. 5 - I 91 CONNECTOR INTERSECTION WITH PAVEMENT MARKINGS

SURVEYED BY _____ DATE _____
DRAWN BY _____ DATE _____
TRACED BY JVS DATE 12/84

ST. JOHNSBURY

PROJ. DP FF NO. 041-1(10)

SHEET 45 OF 229



EXISTING AND NEW SIGNS

SURVEYED BY _____ DATE _____
DRAWN BY S.M. DATE 1/85
TRACED BY _____ DATE _____

ST. JOHNSBURY
PROJ. DPFF NO. 041-1(10)
SHEET 46 OF 229

TEMPORARY 4" REFLECTORIZED WHITE LINE

58+00 ~ 67+00, 23' RT.
58+00 ~ 65+94, 12' LT.
65+94, 12' LT. ~ 66+18, 82' LT. (T.H. #9 APPR.)
66+46, 80' LT. ~ 67+00, 12' LT. (T.H. #9 APPR.)
58+00 ~ 67+00 12' RT. (WIDENED)

TEMPORARY 4" REFLECTORIZED YELLOW LINE

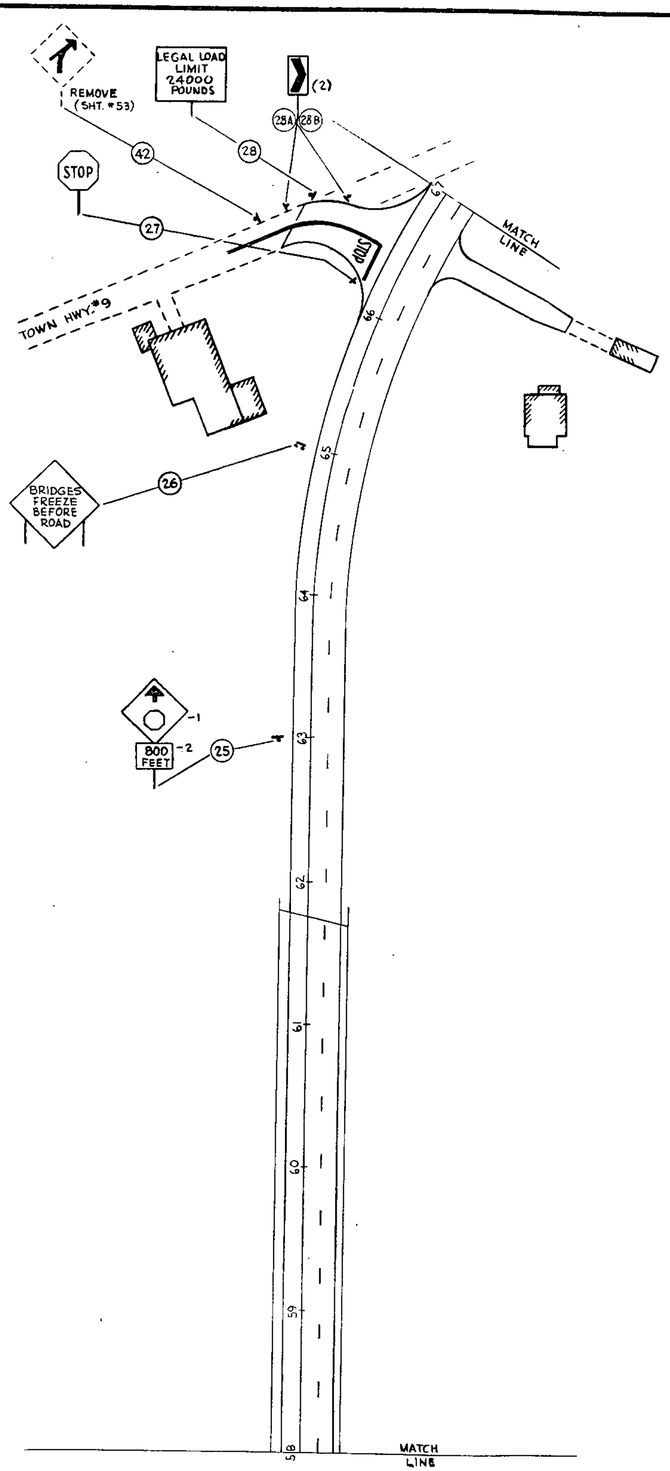
58+00 ~ 66+26 ℄ (DBL.)
66+66 ~ 67+00 ℄ (DBL.)
66+00, 115' LT. ~ 66+46, 20' LT. (DBL. T.H. #9 APPR.)

DURABLE 24" STOP BAR

66+20 ~ 66+46, 20' LT. (T.H. #9 APPR.)

DURABLE LETTER IN WORD MARKING

T.H. # 9 APPR. S,T,O,P



LEGEND

- EXISTING SIGN
- NEW SIGN

EXISTING SIGNS, NEW SIGNS AND PAVEMENT MARKINGS

0 50 100
SCALE IN FEET

DATUM
VERTICAL _____
HORIZONTAL _____

SURVEYED BY _____ DATE _____
DRAWN BY _____ DATE _____
TRACED BY JVS DATE 12/84

ST. JOHNSBURY

PROJ. DP FF NO. 041 - 1(10)
SHEET 47 OF 229

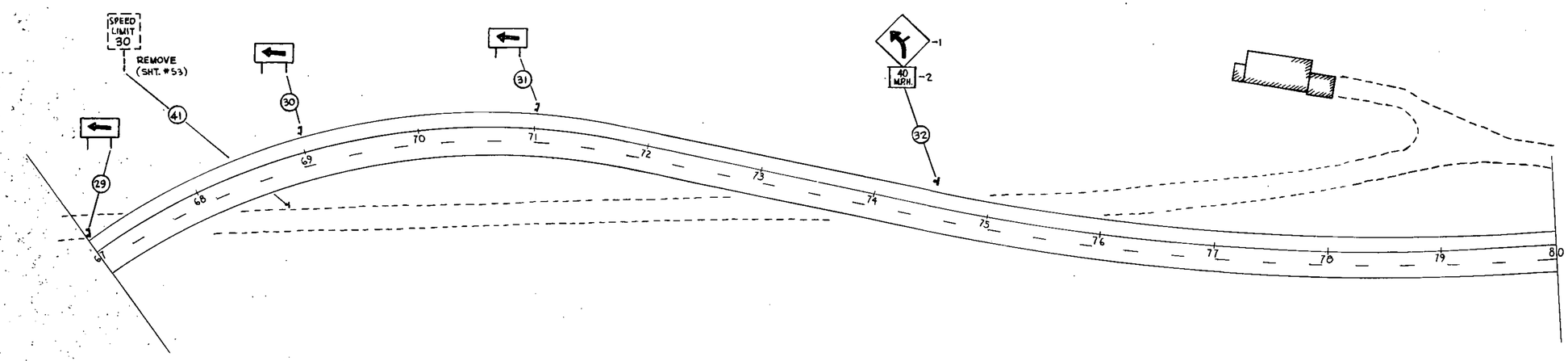
D7

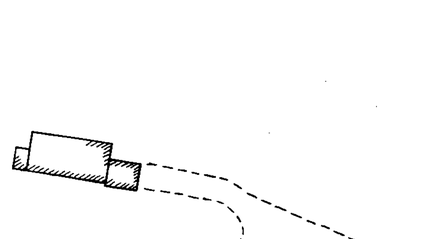
TEMPORARY 4" REFLECTORIZED WHITE LINE

67+00 ~ 80+00, 23' RT.
67+00 ~ 80+00, 12' LT.
67+00 ~ 80+00, 12' RT (DASHED)

TEMPORARY 4" REFLECTORIZED YELLOW LINE

67+00 ~ 80+00 ℄ (DBL.)





LEGEND

- EXISTING SIGN
- NEW SIGN

EXISTING SIGNS, NEW SIGNS AND PAVEMENT MARKINGS

0 50 100

SCALE IN FEET

DATUM
VERTICAL _____
HORIZONTAL _____

SURVEYED BY _____ DATE _____
DRAWN BY _____ DATE _____
TRACED BY JVS DATE 12/84

ST. JOHNSBURY
PROJ. DP FF NO. 041-1(10)
SHEET 48 OF 229

TEMPORARY 4" REFLECTORIZED WHITE LINE

80+00 ~ 86+54, 23' RT.
86+54, 24' RT. ~ 86+86, 60' RT. (TH #85 APPR)
87+14, 60' RT. ~ 87+54, 24' RT. (TH #85 APPR.)
87+54 ~ 90+05, 23' RT.
80+00 ~ 90+05, 12' LT.
80+00 ~ 90+05, 12' RT. (DASHED)

DURABLE 24" STOP BAR

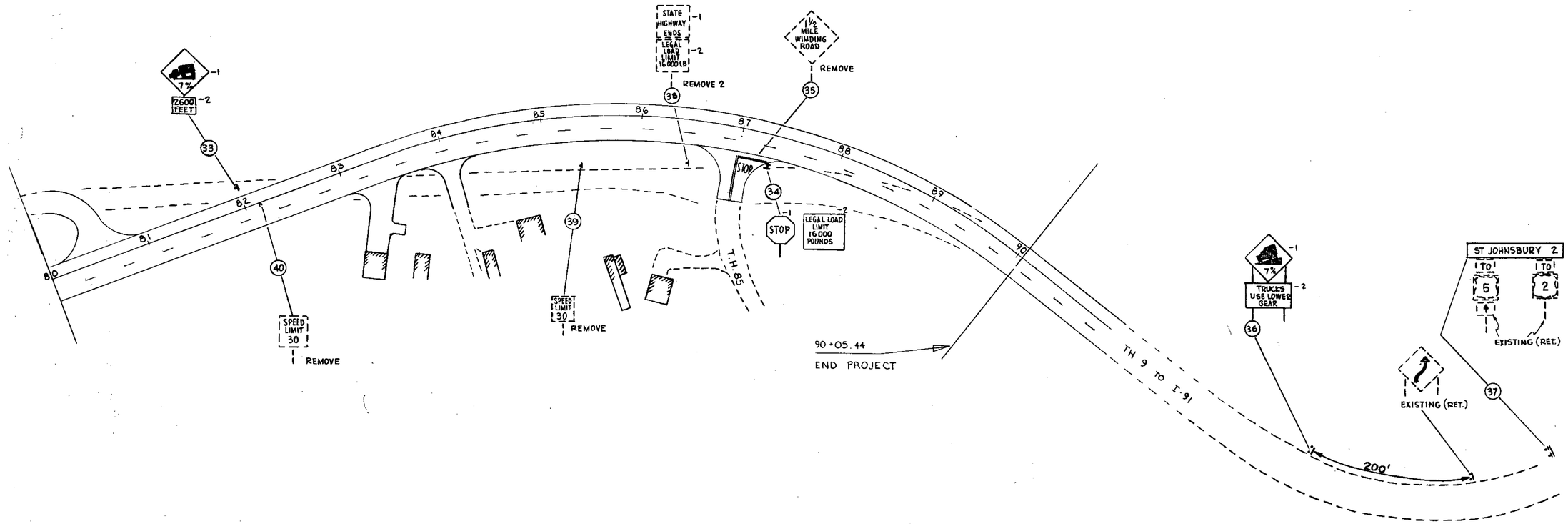
87+00 ~ 87+28, 27' RT. (T.H. #85)

DURABLE LETTER IN WORD MARKING

T.H. #85 APPR. S,T,O,P

TEMPORARY 4" REFLECTORIZED YELLOW LINE

80+00 ~ 86+80 ℄ (DBL.)
87+20 ~ 90+05 ℄ (DBL.)
87+00, 27' RT. ~ 72' RT., T.H. #85 (DBL.)



- EXISTING SIGNS
- NEW SIGNS

EXISTING SIGNS, NEW SIGNS AND PAVEMENT MARKINGS

0 50 100
SCALE IN FEET

DATUM
VERTICAL _____
HORIZONTAL _____

SURVEYED BY _____ DATE _____
DRAWN BY _____ DATE _____
TRACED BY JVS DATE 12/84

ST. JOHNSBURY

PROJ. DP FF NO. 041-1(10)

SHEET 49 OF 229

TRAFFIC SIGN SUMMARY SHEET-TYPE A SIGNS.

MILEMARKER, STATION OR SIGN NUMBER	LEGEND	TYPE	SIGN DIMENSIONS	EXISTING SIGNS TO BE SALVAGED: REMOVE (S.E.)	EXISTING SIGNS TO BE SALVAGED: RETAIN (X)	NEW AND SALVAGED SIGNS (S.F.): NEW "A"	NEW AND SALVAGED SIGNS (S.F.): SALVAGED "A"	NEW AND SALVAGED SIGNS (S.F.): NEW "B"	NEW AND SALVAGED SIGNS (S.F.): SALV. "B"	EXISTING POSTS: RETAIN	EXISTING POSTS: DRIVE	EXISTING POSTS: SALV.	NEW POSTS: NUMBER OF POSTS	NEW POSTS: TYPE "A" (FLANGED CHANNEL) 2.0 LB./FT.	NEW POSTS: TYPE "A" (FLANGED CHANNEL) 2.5 LB/FT.	NEW POSTS: TYPE "A" (FLANGED CHANNEL) 3.0 LB/FT.	NEW POSTS: TYPE "C" (ALUMINUM) 3" Ø	NEW POSTS: TYPE "C" (ALUMINUM) 3" □	NEW POSTS: TYPE "C" (ALUMINUM) 4" Ø MOD.	NEW POSTS: TYPE "C" (ALUMINUM) 4" Ø	NEW POSTS: TYPE "B" BR'KAWAY STEEL	REMARKS	FOR SIGN DETAIL SEE SHEET OR STANDARD SHEET NUMBER
1-1	TO	A	2' x 1'			2																	E-11
1-2	91	A	2' x 2'			4							1		X								E-11
1-3	↰	A	21" x 15"			2.2																	E-11
2	LEFT LANE MUST TURN LEFT	A	30" x 30"			6.3							1	X									E-15
3-1	← NEWPORT 41	A	72" x 10"			5							2			X							E-23
3-2	← WHITE RIVER JCT. 65	A	72" x 10"			5																	E-23
3-3	H	A	2' x 2'			4																	E-14
3-4	→	A	24" x 6"			1																	E-14
4	ST. JOHNSBURY 1	A	72" x 10"			5							2	X									E-23
5-1 (EXISTING)	H	A		X						REMOVE													
5-2	HOSPITAL	A		X																			
5-3	→	A		X																			
6-1	TO	A	2' x 1'			2																	
6-2	91	A	2' x 2'			4							1			X							E-11
6-3	←	A	21" x 15"			2.2																	E-11
7-1	SOUTH	A	2' x 1'			2																	E-11
7-2	5	A	2' x 2'			4							1	X									E-12
7-3	TO	A	2' x 1'			2																	E-12
7-4	2	A	2' x 2'			4							1	X									E-12
8	STOP	A	3' x 3'			9																	E-12
9-1	NORTH	A	2' x 1'			2							1			X							E-15C
9-2	5	A	2' x 2'			4																	
9-3	←	A	21" x 15"			2.2							2				X						E-12
9-4	SOUTH	A	2' x 1'			2																	E-12
9-5	5	A	2' x 2'			4																	E-12
9-6	→	A	21" x 15"			2.2																	E-12
9-7	TO	A	2' x 1'			2																	E-12
9-8	2	A	2' x 2'			4																	E-12
9-9	→	A	21" x 15"			2.2																	E-12
9-10	SERVICES →	A	36" x 7½"			1.9																	E-12
9-11	H	A	2' x 2'			4																	SHEET #53
9-12	↑	A	21" x 15"			2.2																	E-14B
10-1	TO	A	2' x 1'			2																	E-11
10-2	91	A	2' x 2'			4							1	X									E-11
11-1 (EXISTING)	H	A		X						REMOVE													E-11
11-2	←	A		X																			
* CONT. FROM ABOVE 3-5	91	A	2' x 2'			4																	
3-6	←	A	21" x 15"			2.2																	E-11
																							E-11
TOTALS				5		108.6																	

POST LENGTHS ARE APPROXIMATE. FINAL LENGTHS TO BE DETERMINED IN THE FIELD IF FINAL LENGTHS VARY BY MORE THAN 2 FEET, RECOMPUTE THE POST SIZE BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS.

PREPARED BY _____ DATE _____
CHECKED BY _____ DATE _____

ST. JOHNSBURY
PROJ. DP FF NO. 041-1(10)
SHEET 50 OF 229

TRAFFIC SIGN SUMMARY SHEET-TYPE A SIGNS

MILEMARKER, STATION OR SIGN NUMBER	LEGEND	TYPE	SIGN DIMENSIONS	EXISTING SIGNS TO BE SALVAGED REMOVE (S.F.)	EXISTING SIGNS TO BE SALVAGED RETAIN (X)	NEW AND SALVAGED SIGNS (S.F.) NEW "A"	SALVAGED "A"	NEW "B"	SALV. "B"	EXISTING POSTS RETAIN	DRILL	SALV.	NEW POSTS NUMBER OF POSTS	TYPE "A" (FLANGED CHANNEL) 2.0 LB./FT.	2.5 LB./FT.	3.0 LB./FT.	TYPE "C" (ALUMINUM) 3" Ø	3" □	4" Ø MOD.	4" Ø	TYPE "B" BR'KAWAY STEEL	REMARKS	FOR SIGN DETAIL SEE SHEET OR STANDARD SHEET NUMBER
12	STOP	A	3' x 3'			9							1		X								E-15C
13-1	SOUTH	A	2' x 1'			2							2			X							E-12
13-2	5	A	2' x 2'			4																	E-12
13-3	←	A	21" x 15"			2.2																	E-12
13-4	TO	A	2' x 1'			2																	E-11
13-5	91	A	2' x 2'			4																	E-11
13-6	↑	A	21" x 15"			2.2																	E-11
13-7	NORTH	A	2' x 1'			2																	E-12
13-8	5	A	2' x 2'			4																	E-12
13-9	→	A	21" x 15"			2.2																	E-12
14-1	TO	A	2' x 1'			2							2			X							E-11
14-2	91	A	2' x 2'			4																	E-11
14-3	→	A	21" x 15"			2.2																	E-11
15-1	NORTH	A	2' x 1'			2							1	X									E-12
15-2	5	A	2' x 2'			4																	E-12
16-1	NEWPORT 41 →	A	72" x 10"			5							2	X									E-23
16-2	WHITE RIVER JCT. 65 →	A	72" x 10"			5																	E-23
16-3	H	A	2' x 2'			4							1										E-14B
16-4	←	A	24" x 6"			1																	E-14B
17-1	ST. JOHNSBURY CTR.	A	72" x 10"			5							2	X									E-23
17-2	LYNDONVILLE 7	A	72" x 10"			5																	E-23
18	LEFT LANE MUST TURN LEFT	A	30" x 30"			6.3							1	X									E-15
19-1	TO	A	2' x 1'			2							1			X							E-11
19-2	91	A	2' x 2'			4																	E-11
19-3	↱	A	21" x 15"			2.2																	E-11
20-1	NEWPORT 41	A	72" x 10"			5							2	X									E-23
20-2	WHITE RIVER JCT. 65	A	72" x 10"			5																	E-23
21	BRIDGES & PAVED SHOULDER AHEAD	A	4' x 4'			16							2			X							E-19
22-1	← ST. JOHNSBURY CTR.	A	72" x 10"			5							2	X									E-23
22-2	ST. JOHNSBURY →	A	72" x 10"			5																	E-23
23	RIGHT LANE MUST TURN RIGHT	A	30" x 30"			6.3							1		X								E-15
24	SLOWER TRAFFIC KEEP RIGHT	A	24" x 30"			5							1		X								E-15A
TOTALS						134.6																	

POST LENGTHS ARE APPROXIMATE. FINAL LENGTHS TO BE DETERMINED IN THE FIELD IF FINAL LENGTHS VARY BY MORE THAN 2 FEET, RECOMPUTE THE POST SIZE BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS.

PREPARED BY _____ DATE _____
CHECKED BY _____ DATE _____

ST. JOHNSBURY
PROJ. DP FF NO. 041-1 (10)

TRAFFIC SIGN SUMMARY SHEET-TYPE A SIGNS

MILEMARKER, STATION OR SIGN NUMBER	LEGEND	TYPE	SIGN DIMENSIONS	EXISTING SIGNS TO BE SALVAGED: REMOVE (S.F.)	↓	RETAIN (X)	NEW AND SALVAGED SIGNS (S.F.): NEW "A"	SALVAGED "A"	NEW "B"	SALV. "B"	EXISTING POSTS: RETAIN	DRIVE	SALV.	NEW POSTS: NUMBER OF POSTS	TYPE "A" (FLANGED CHANNEL): 2.0 LB./FT.	2.5 LB./FT.	3.0 LB./FT.	TYPE "C" (ALUMINUM): 3" Ø	3" □	4" Ø MOD.	4" Ø	TYPE "B" BR'KAWAY STEEL	REMARKS	FOR SIGN DETAIL SEE SHEET OR STANDARD SHEET NUMBER
25-1		A	3' x 3'				9							1		X								E-19
25-2	8000 FEET	A	18" x 18"				2.3																	E-19B
26	BRIDGES FREEZE BEFORE ROAD	A	4' x 4'				16							2			X							E-19
27	STOP	A	30" x 30"				6.3							1		X								E-15C
28	LEGAL LOAD LIMIT 24000 POUNDS	A	2' x 2'				4							1	X									E-15A
(28A & 28B - SEE SHEET # 53)																								
29	←	A	4' x 2'				8							2	X									SHEET # 53 & STD E-19A (FOR COLOR & MATERIAL)
30	←	A	4' x 2'				8							2	X									
31	←	A	4' x 2'				8							2	X									
32-1		A	30" x 30"				6.3							1			X							SHEET # 53 & STD E-19A
32-2	40 MPH	A	18" x 18"				2.3																	
33-1	2600 FEET		3' x 3'				9							1			X						NUMERAL - 6" D	E-19B
33-2			24" x 18"				3																	E-19B
34-1	STOP	A	30" x 30"				6.3							1	X									E-21
34-2	LEGAL LOAD LIMIT 16000 POUNDS	A	2' x 2'				4																	E-15C
35	1½ MILE WINDING ROAD	A		X							REMOVE													E-15
36-1	7%	A	3' x 3'				9							2	X								NUMERAL - 6" D	E-19B
36-2	TRUCKS USE LOWER GEAR	A	24" x 18"				3																MOUNT 200' EASTERLY OF REVERSE CURVE WARNING SIGN ON T.H. # 9 BEYOND END OF PROJECT	SHEET # 53 & STD E-19A (FOR COLOR & MATERIAL)
37	ST. JOHNSBURY 2	A	72" x 10"				5							—									MOUNT ON EXISTING "TO US 5 ↑, TO US 2" ASSEMBLY EASTERLY OF I 91 N.B. OFF-RAMP TERMINAL ON T.H. # 9	
38-1	STATE HIGHWAY ENDS	A		X							REMOVE													
38-2	LEGAL LOAD SIGN	A		X																				
39	SPEED LIMIT 30	A		X							REMOVE													
40	SPEED LIMIT 30	A		X							REMOVE													
SEE NEXT SHEET FOR 41 & 42																								
THE FOLLOWING SIGNS ARE LOCATED OFF PROJECT AS NOTED AND ARE TO BE REMOVED OR REPLACED WITH NEW AS INDICATED. THIS WORK IS NOT A PART OF PROJECT DP FF 041-1(10) AND WILL BE PERFORMED BY STATE FORCES																								
U.S. 5 NB (SOUTH OF PROJ.)	(A) HOSPITAL ENTRANCE 1200 FEET	A	NOT INCL. IN TOT. →			[X]																		
U.S. 5 SB (NORTH OF PROJ.)	(B) HOSPITAL ENTRANCE 1200 FEET	A	" " " "			[X]																		
U.S. 5 N.B. (NORTH OF PROJ.)	(C), (D), (E) TO (91) 3 ASSEMBLIES NORTH OF PROJ. ON U.S. 5	A	" " " "			[X (3)]																		
		A									REMOVE (3)													
I-91 @ BEGIN. OF N.B. & S.B. DECELS. (2 SIGNS)	(F) (G) TRUCKS OVER 24000 LBS. PROHIBITED THIS EXIT LEGALLY ENFORCED	B	" " " "			[X (2)]																		
I-91 @ N.B. & S.B. OFF-RAMP GORES (2 SIGNS)	(H) (I) TRUCKS OVER 24000 LBS. PROHIBITED THIS EXIT	B	" " " "			[X (2)]																		
NON-PROJECT SIGNING BY STATE FORCES CONTINUED ON NEXT SHEET.																								
TOTALS				5			109.5																	

POST LENGTHS ARE APPROXIMATE. FINAL LENGTHS TO BE DETERMINED IN THE FIELD IF FINAL LENGTHS VARY BY MORE THAN 2 FEET, RECOMPUTE THE POST SIZE BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS.

PREPARED BY _____ DATE _____
CHECKED BY _____ DATE _____
ST. JOHNSBURY
PROJ. DP FF NO. 041-1(10)
SHEET 52 OF 229

COMPOSITE SHEET - TRAFFIC SIGN SUMMARY - TRAFFIC ITEM SUMMARY - NOTES AND DETAILS

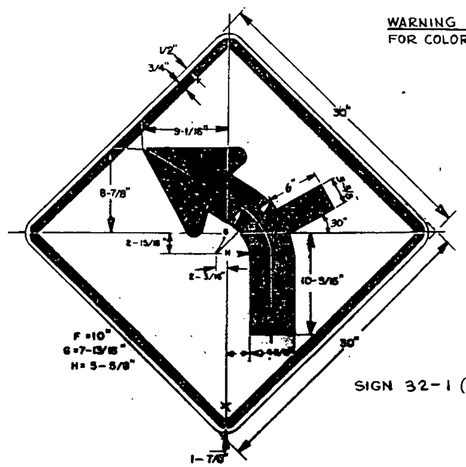
TRAFFIC SIGN SUMMARY

MILEMARKER, STATION OR SIGN NUMBER	LEGEND	TYPE	SIGN DIMENSIONS	EXISTING SIGNS TO BE SALVAGED: REMOVE (S.F.)	EXISTING SIGNS TO BE SALVAGED: ↓	EXISTING SIGNS TO BE SALVAGED: RETAIN (X)	NEW AND SALVAGED SIGNS (S.F.): NEW "A"	NEW AND SALVAGED SIGNS (S.F.): SALVAGED "A"	NEW AND SALVAGED SIGNS (S.F.): NEW "B"	NEW AND SALVAGED SIGNS (S.F.): SALV. "B"	EXISTING POSTS: RETAIN	EXISTING POSTS: DRILL	EXISTING POSTS: SALV.	NEW POSTS: NUMBER OF POSTS	NEW POSTS: TYPE "A" (FLANGED CHANNEL) 2.0 LB./FT.	NEW POSTS: TYPE "A" (FLANGED CHANNEL) 2.5 LB/FT.	NEW POSTS: TYPE "A" (FLANGED CHANNEL) 3.0 LB/FT.	NEW POSTS: TYPE "C" (ALUMINUM) 3" ⁄	NEW POSTS: TYPE "C" (ALUMINUM) 3" □	NEW POSTS: TYPE "C" (ALUMINUM) 4" Ø MOD.	NEW POSTS: TYPE "C" (ALUMINUM) 4" Ø	NEW POSTS: TYPE "B" BR'KAWAY STEEL	REMARKS	FOR SIGN DETAIL SEE SHEET OR STANDARD SHEET NUMBER
I-91 N.B. @ MM 131.55 (EXISTING SIGN) NOT A PART OF PROJ. DP FF 041-1(10)	(L) NEXT EXIT — MILES					X																		
	NUMERAL MISSING - ADD A "5"																							
	STANDARD NUMERAL 8" SERIES "E" MODIFIED																							
28 A } GO IN SEQUENCE 28 B } W/ #28 ON SHEET #52	(2)	A	18" x 24"				3							1	X									E-19
		A	18" x 24"				3							1	X									E-19
							6																	
41	SPEED LIMIT 30	A		X							REMOVE													
42		A		X							REMOVE													
				2																				
TOTALS	COLUMN						108.6	TOT. SHEET 50																
							134.6	TOT. SHEET 51																
				5			109.5	TOT. SHEET 52																
				2			6	TOT. THIS SHEET																
	PROJECT			12			358.7																	

TRAFFIC ITEM SUMMARY

ITEM NUMBER	ITEM	UNIT	SUB TOTAL	ROUNDING	TOTAL
646.21	PAINTED CURBS	L.F.	558	2	560
646.35	TEMPORARY 4" REFLECTORIZED WHITE LINE	L.F.	10152	3	10155
646.36	TEMPORARY 4" REFLECTORIZED YELLOW LINE	L.F.	6495	-	6495
646.60	DURABLE 4" REFLECTORIZED WHITE LINE	L.F.	448	2	450
646.61	DURABLE 4" REFLECTORIZED YELLOW LINE	L.F.	2552	3	2555
646.64	DURABLE 24" STOP BAR	L.F.	117	3	120
646.65	DURABLE ARROW MARKINGS	EA.	7	-	7
646.66	DURABLE LETTER IN WORD MARKINGS	EA.	44		44
675.20	TRAFFIC SIGNS TYPE "A"	S.F.	358.7	1.3	360
675.35	TRAFFIC SIGN POSTS, TYPE "A"	LB.	1658	2	1660
675.37	TRAFFIC SIGN POSTS, TYPE "C"	LB.	68.4	1.6	70
675.53	REMOVING SIGNS	EA.	12	-	12
678.16	FLASHING BEACON (PRICE OF FLASHING BEACON TO INCLUDE POLES, BASES, CONDUCTOR, CONDUIT, SPAN WIRE, BEACON, ALL NECESSARY FITTINGS OR HARDWARE AND ALL WORK REQUIRED TO PROVIDE A FULLY FUNCTIONING INSTALLATION MEETING APPLICABLE CRITERIA OF SECTION 678 OF THE STANDARD SPECIFICATIONS.)	EA.	1		1

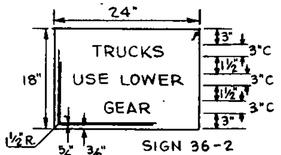
NOTES AND DETAILS



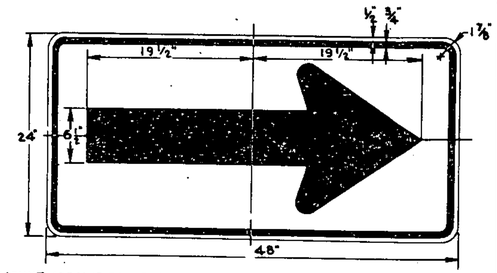
SIGN 32-1 (SEE SHEETS 48 & 52)

WARNING SIGNS - SEE STD. E-19A FOR COLORS AND MATERIALS

WHITE TEXT AND ARROW ON A BLUE BACKGROUND (ALL REFLECTORIZED)
(SEE SHEETS 46 & 50)



SIGN 36-2 (SEE SHEETS 49 & 52)



MOUNT ARROWS POINTING LEFT

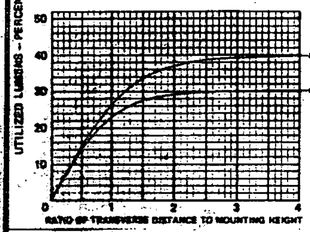
SIGNS 29, 30 & 31 (SEE SHEETS 48 & 52)

SIGN SUMMARY
TRAFFIC ITEM SUMMARY
NOTES AND DETAILS

SURVEYED BY _____ DATE _____
DRAWN BY _____ DATE _____
TRACED BY _____ DATE _____

ST. JOHNSBURY
PROJ. DP FF NO. 041-1 (10)
SHEET 53 OF 229

POLE NUMBER	POLE LENGTH, GAGE, & DIAMETER	B.C.	S	BASE DEPTH	BASE DIAMETER	ANCHOR BOLT SIZE
162	34', 3GA., 13"x8.24"	18"	18½"	9'-0"	30"	1 ¾"
	WITH 8' MAST ARM					
	AND LUMINAIRE.	2" BASE PLATE THICKNESS				



UTILIZATION CURVE

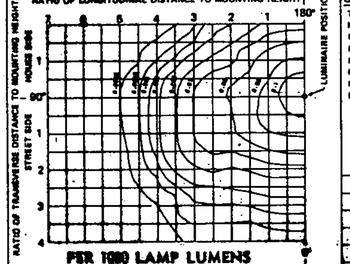
DESIGN CRITERIA
250w H.P.S LAMP
35' MOUNTING HEIGHT
1.1 f_c AVE. MAINTAINED
2.6 : 1 UNIFORMITY RATIO
8' MAST ARMS

GENERAL ELECTRIC
PHOTOMETRIC DATA
LIGHTING SYSTEMS BUSINESS DEPARTMENT
HENDERSONVILLE, N. C. U.S.A. 28739

PER 1000 LAMP LUMENS

FOR DESIGN PURPOSES ONLY
OTHER LUMINAIRES ACCEPTABLE
AS LONG AS THEY MEET OR
EXCEED THE CRITERIA SHOWN.

ISOFOOTCANDLE CURVES



NOTE: 1 FOOTCANDLE = 10.76 LUX

MOUNTING HEIGHT CORRECTION FACTORS FOR OTHER THAN [illegible] MOUNTING HEIGHT
USE TABLE BELOW OR FACTOR = "ACTUAL MH"
NOMINAL MH

MOUNTING HEIGHT - FEET	20	25	30	35	40	45	50
FACTOR	2.25	1.44	1.00	0.73	0.56	0.44	0.36

LUMINAIRE
RADOR CUTOFF
REFLECTOR 35-222829-01
CLEAR GLASS 35-222845-01
SOCKET POSITION A

LAMP
200.250.310 + 400 WATT HPS
GE NO LU200.LU250.LU310 + LU400
RWSI NO 586.550. MR . + 551

ANSI/IES TYPE 1972
MEDIUM/ CUT-OFF /TYPE III
CIE TYPE
CUT-OFF

GENERAL INFORMATION

TEST DISTANCE	7 METERS
MAX CANDELA	358
MAX CDRS	72.5
MAX VERTICAL PLANE	67.5°/292.5°
MAX CANDELA AT 80°	0
MAX CANDELA AT 90°	0
NADIR POSTCANDLES	0.16411
NADIR CANDELA	148

MULTIPLY ALL LUMEN, CANDELA, AND FOOTCANDLE VALUES BY THIS RATIO
RATIO = ACTUAL LAMP LUMENS / 1000
PHOTOMETRIC TEST IN ACCORDANCE WITH IES GUIDE

LIGHT FLUX VALUES

	LUMENS	PERCENT OF LAMP
DOWNWARD STREET SIDE	403	40.3
UPWARD STREET SIDE	0	0
DOWNWARD HOUSE SIDE	310	31.0
UPWARD HOUSE SIDE	0	0
TOTAL	713	71.3

TESTED [illegible] DATE 12-14-87
APPROVED [illegible] DATE 12-14-87
[illegible] DATE 12/15/87

DRAWING NO 35-176563 SHEET NO 1

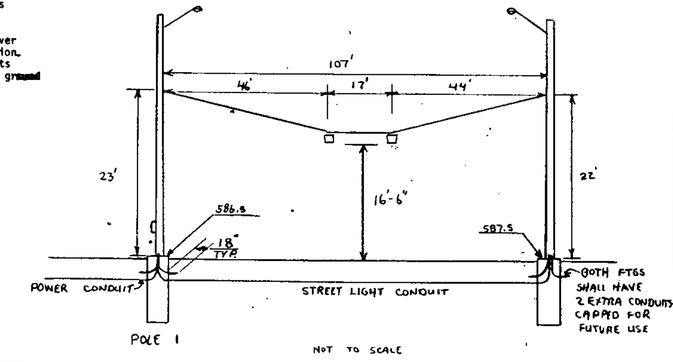
FLASHING BEACON

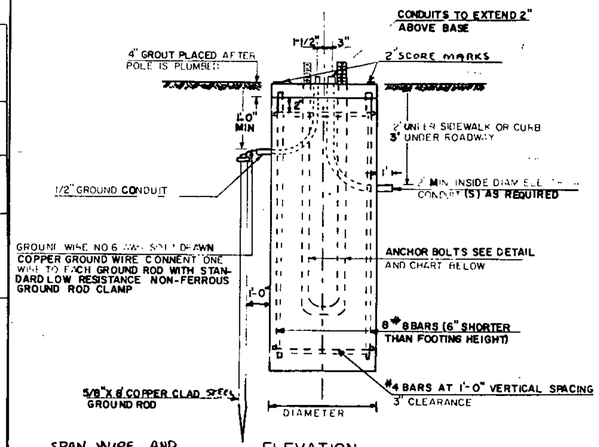
New equipment shall include but not be limited to, poles with mast arm and luminaire, span wire, beacons, conduit, double meter base, flasher unit with radio interference filter in a glass meter housing, conduit pole riser, all wiring and other incidentals to complete the system. The contractor is responsible for making all arrangements to work on and around the utility company's pole and obtain any necessary permits.

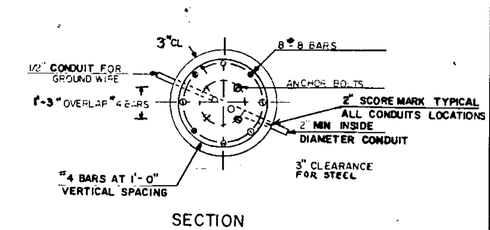
The system shall conform to requirements found in section 678- Traffic Control Signals and section 679- Street Lighting. All electrical work shall meet the requirements of the National Electrical Code and the local State electrical inspector.

The 12" flashing beacon signal heads shall be 3M Brand optically programmed signal face assemblies. They shall be unmasked and the lenses cleaned before they are installed.

The top of footing elevation is assumed to be elevation shown however the top of the footing shall project no more than 4" above ground elevation. The footing shall be adjusted to suit the ground elevations as adjustments in the span wire tension can be made to provide for a 16½ foot signal to ground clearance.

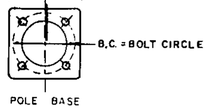




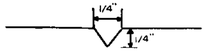


SECTION

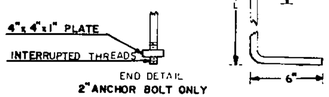
SPAN WIRE AND STREET LIGHT ORIENTATION



POLE BASE



2" SCORE MARK DETAIL



ANCHOR BOLT DETAIL

ANCHOR BOLT DETAIL			
SIZE	L	T	G
1-1/4"x 48"	42	8	10
1-1/2"x 60"	54	9	11
1-3/4"x 90"	84	9	11
2"x 96"	90	9	11

GENERAL NOTES

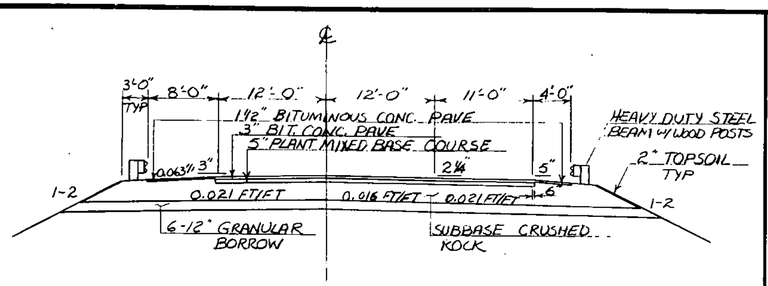
1) ALL MATERIAL AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANS. STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION.
2) TRAFFIC CONTROL SIGNAL STRAIN POLES SHALL CONFORM TO THE REQUIREMENTS OF SUBSECTION 752.02, STRAIN POLES, AND SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH SECTION 678 - TRAFFIC CONTROL SIGNALS.
3) STEEL POLE CAP SHALL BE PROVIDED WITH A 2-INCH BUSHED (BLIND) ELECTRICAL ENTRANCE WHEN APPLICABLE. THE STRAIN POLE SHALL BE PROVIDED WITH A 2-INCH (BLIND) HALF COUPLING NEAR THE TOP FOR SIGNAL CABLE.
4) FOUR HIGH-STRENGTH STEEL ANCHOR BOLTS WITH TWO HEXAGON NUTS PER BOLT SHALL BE FURNISHED WITH EACH POLE BOLTS SHALL HAVE A MINIMUM YIELD STRENGTH OF 55,000 P.S.I. AND AN ULTIMATE OF 80,000 P.S.I. BOLTS AND BASES SHALL BE OF ADEQUATE SIZE TO RESIST THE FULL BENDING MOMENT OF THE POLE AT YIELD STRENGTH STRESS.
5) ANCHOR BOLT ASSEMBLIES SHALL BE GALVANIZED.
6) ADDITIONAL DESIGN CRITERIA:
   CONCRETE - f_c = 1,400 P.S.I. f_c = 3,500 P.S.I.
   WIND LOAD - 25 LBS PER SQUARE FOOT (MINIMUM) ON THE EXPOSED POLE SURFACE.
7) IN ACCORDANCE WITH SUBSECTION 106.03 SHOP DRAWINGS (5 COPIES OF EACH) SHALL BE SUBMITTED TO THE STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, FOR APPROVAL PRIOR TO FABRICATION.
8) CONCRETE FOR FOOTINGS SHALL CONFORM TO REQUIREMENTS OF CONCRETE CLASS "B", SECTION 601, STRUCTURAL CONCRETE.
9) ANY BACKFILL MATERIAL PLACED ADJACENT TO THE FOOTINGS SHALL BE GRAVEL MEETING THE REQUIREMENTS FOR GRANULAR BACKFILL FOR STRUCTURES, SUBSECTION 704.11.
10) WHEN THE DESIGNATED DEPTH OF FOOTING CANNOT BE OBTAINED DUE TO UNFORESEEN FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND OBTAIN A REVISED FOOTING DETAIL FROM THE ENGINEER.
11) ALL ANCHOR BOLTS SHALL CONFORM WITH THE REQUIREMENTS OF SUBSECTION 714.16. NUTS FOR ASTM A-576 ANCHOR BOLTS SHALL CONFORM WITH ASTM A-325 OR ASTM A-563
12) PEDESTAL POSTS AND BASES (SUBSECTION 752.01) MAY BE EITHER STEEL WITH A CAST IRON BASE OR ALL ALUMINUM.
13) EACH METAL POLE SUPPORTING EITHER VEHICLE OR PEDESTRIAN TRAFFIC SIGNAL EQUIPMENT SHALL BE GROUNDED.
14) SHOP DRAWINGS SPECIFIED IN NOTE NO. 7 SHALL INCLUDE THE FOLLOWING INFORMATION:
   A) DETAILED DRAWING OF EACH COMPONENT OF THE STRAIN POLE.
   B) MATERIAL SPECIFICATIONS FOR EACH COMPONENT OF THE STRAIN POLE BY COMPLETE SPECIFICATIONS OR BY REFERENCE TO APPLICABLE ASTM STANDARD.
   C) NOTATION OF PROJECT NAME, PROJECT NUMBER, ROUTE NUMBER AND STRAIN POLE STATIONING. (TO BE INCLUDED ON EACH SHEET INCLUDING STANDARD SHEETS AND SPECIFICATION SHEETS).
   D) DETAILS FOR LOCATION OF LUMINAIRE ARM(S) ON STRAIN POLES.
   E) ALL ELEVATIONS AND DIMENSIONS NECESSARY TO PROVIDE A COMPLETE SET OF RECORD PLANS.
   F) DEAD LOAD DEFLECTION INFORMATION.
   G) WELDING DETAILS AND PROCEDURES ARE REQUIRED FOR ALL WELDS. PROCEDURES SHALL BE SUBMITTED FOR APPROVAL WITH REFERENCE TO EACH WELD IDENTIFIED ON THE SHOP DRAWINGS.
15) ALL DESIGN DETAILS, WORKMANSHIP, PROCEDURES AND INSPECTION OF WELDING SHALL CONFORM TO THE REQUIREMENTS OF AWS D.1.1-80 AS MODIFIED BY THE LATEST EDITION OF THE AASHTO STANDARD SPECIFICATIONS FOR WELDING OF STRUCTUAL STEEL HIGHWAY BRIDGES. THE SHIELDED METAL ARC WELDING (SMAW) OR SUBMERGED ARC WELDING (SAW) PROCESSES SHALL BE USED FOR ALL WELDING UNLESS OTHER PROCESSES ARE APPROVED, ON A PROJECT BY PROJECT BASIS, FROM ACCEPTABLE RESULTS OF PROCEDURE QUALIFICATION TESTS.
16) WHERE WELDMENTS ARE TO BE GALVANIZED AFTER WELDING, A TYPE OF FILLER METAL WHICH WILL DEPOSIT WELD METAL WITH A SILICON CONTENT LESS THAN 0.4 PERCENT SHALL BE USED.
17) ALL WELDS SHALL BE AT LEAST AS STRONG AS THE MATERIAL BEING WELDED.

STRAIN POLE FOOTING

STRAIN POLE FOOTING DETAIL SHEET

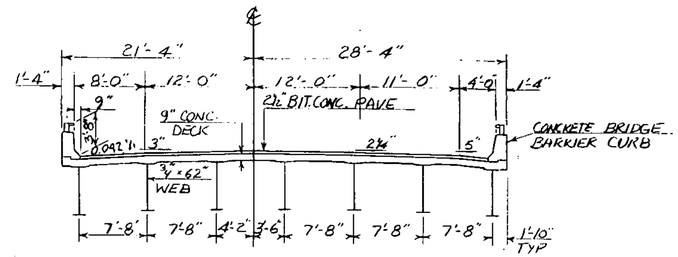
[TRAFFIC SIGNAL PROJECTS AND RELATED ITEMS]

DONE BY OAR DATE 1/85
DRAWN BY DATE
CHECKED BY DATE
PROJ. ST JOHNSBURY NO. DPFF04-1(1)
SHEET 54 OF 229



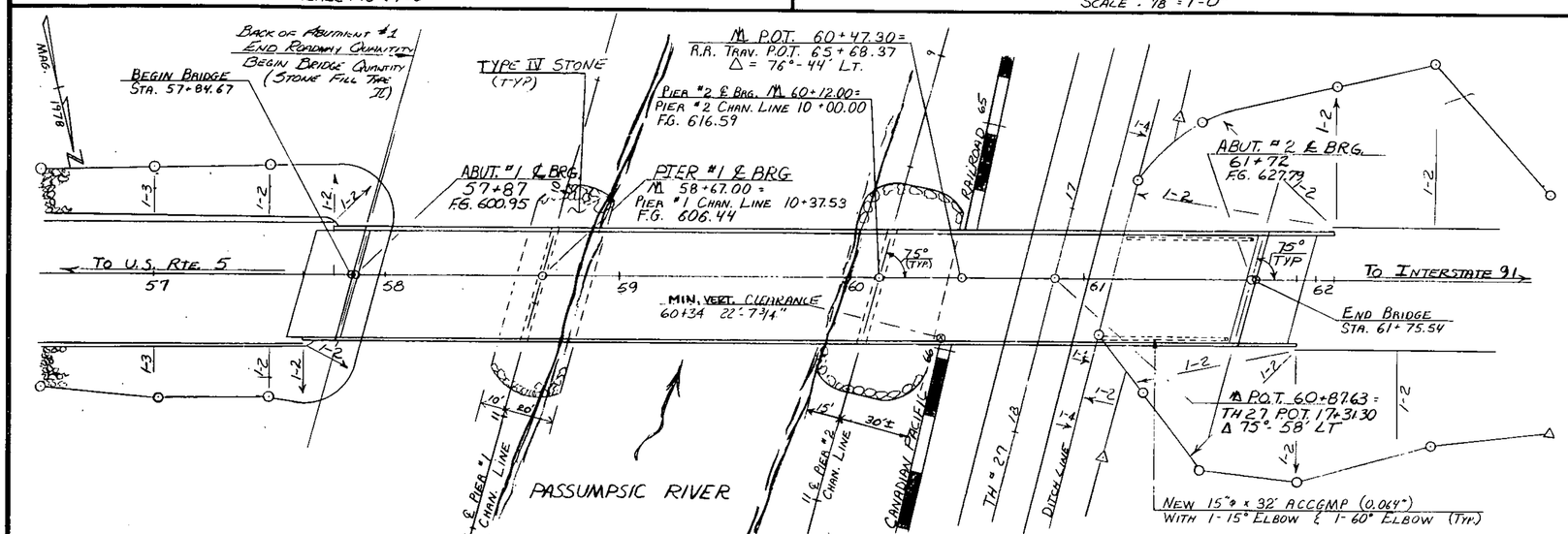
NEW HIGHWAY SECTION — BRIDGE APPROACHES

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



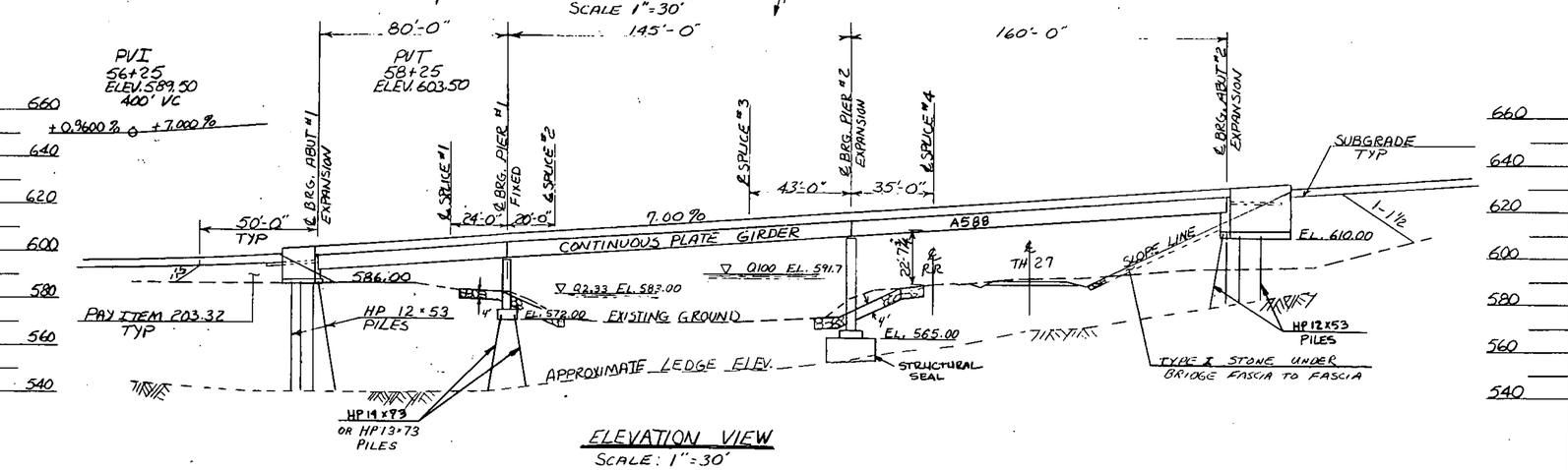
BRIDGE TYPICAL SECTION

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



PLAN VIEW

SCALE 1"=30'



ELEVATION VIEW

SCALE: 1"=30'

INDEX

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BR 103	BORING LOG	BR 119	ABUT. #1 DETAILS
BR 104	BORING LOG & NOTES	BR 120	WINGWALL #1 & #2 DETAILS
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BR 106	COFFERDAM DETAILS & NOTES	BR 122	PIER #2 DETAILS
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General Notes and List of Bridge Standards are on Sheet BR 104.

NEW STRUCTURE

STRUCTURE GEOMETRY:

1. STRUCTURE TYPE 3 SPAN CONTINUOUS COMPOSIT PLATE GIRDER OVERALL LENGTH 390'-10½
2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS 80' 145' 160'
3. VERTICAL CLEARANCE ABOVE STREAMBED OR ROAD UNDER RAILROAD UNDER 22'-7¾"
4. CLEAR SPAN LENGTH(S) NORMAL TO STREAM 335 AT ELEV 598 FROM FACE ABUT #1 TO SLOPE TH 27
5. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM) 3400 S.F. TO Q100
6. ARE PROVISIONS TO BE MADE FOR PUBLIC UTILITIES? NO

HYDRAULIC DATA:

1. Q 2.33 6010 CFS WATER ELEVATION 583.0 VELOCITY 4.7 FPS
   Q 10 11000 CFS WATER ELEVATION 585.7 VELOCITY 5.7 FPS
   Q 25 17000 CFS WATER ELEVATION 588.1 VELOCITY 6.8 FPS
   Q 50 22000 CFS WATER ELEVATION 590.1 VELOCITY 7.4 FPS
   Q 100 27500 CFS WATER ELEVATION 591.7 VELOCITY 8.1 FPS
2. DRAINAGE AREA 242 SQ MI. CHARACTER OF TERRAIN ROLLING TO MOUNTAINOUS
3. ARE THERE OBJECTIONS TO A PIER IN THE STREAM? YES
4. DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY? NO IS ORDINARY RISE RAPID? YES
5. NATURE OF NATURAL STREAMBED SAND AND SILTY SAND
6. ESTIMATED SCOUR DEPTH 4 TO 8 FT COMMENT ON: DRIFT MODERATE ICE MODERATE TO HEAVY
7. WILL ALL WATER PASS THROUGH NEW STRUCTURE? NO IF NOT, WHAT FREQUENCY AND ELEVATION WILL RELIEF OCCUR? Q 100
   ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF NOT DETERMINED
8. VERTICAL CLEARANCE ABOVE Q 100 1.7 FT
9. ALLOWABLE WATER SURFACE ELEVATION ELEV. LIMITED BY Q 100
10. IS DESIGN STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? NO IF YES, DESCRIBE
11. AVERAGE DAILY LOW FLOW 2.5 CFS DEPTH 3.0 FT AVERAGE DAILY HIGH FLOW 600 CFS DEPTH 8.5 FT
12. STREAMBANK OR CHANNEL PROTECTION REQUIRED TYPE IV STONE
13. DISTANCE TO EXISTING UPSTREAM STRUCTURE 3300 FT. SPAN 98 FT WATERWAY AREA OF FULL OPENING 1550 FT² Q *
14. DISTANCE TO EXISTING DOWNSTREAM STRUCTURE 6000 FT. SPAN 138 FT WATERWAY AREA OF FULL OPENING 2750 FT² Q *
15. STREAM BOTTOM ELEVATION AT STRUCTURE, APPROXIMATELY 571.0

* OPENING TO BOTTOM OF PIERS

ALLOWABLE STRESSES:

1. DESIGN LIVE LOAD AASHTO HS 25-44
2. ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL 4 KSF ON LEDGE 10 KSF
3. ALLOWABLE LOAD FOR PILING 69 TONS & 96 TONS TYPE HP12x53 & HP14x73 ESTIMATED LENGTH+ SEE BELOW
4. ALLOWABLE STRESS FOR STRUCTURAL STEEL ASTM A 588 TENSION 27 KSI
5. ALLOWABLE STRESS FOR REINFORCING STEEL GRADE 60 TENSION 24 KSI COMPRESSION 20 KSI
6. ALLOWABLE STRESS FOR CONCRETE CLASS A f_c 3.5 KSI f_c 1.4 KSI
   CLASS B f_c 3.5 KSI f_c 1.4 KSI

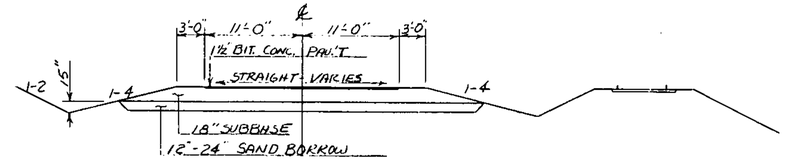
TRAFFIC MAINTENANCE:

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

* TRAFFIC ON TH 27, THE CANADIAN PACIFIC RAILROAD AND US #5 SHALL BE MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT. ALL EXPENSES INCURRED BY MEETING THIS REQUIREMENT SHALL BE INCLUDED UNDER ITEM 637.10 MAINTENANCE OF TRAFFIC FOR BRIDGE PROJ.

+ESTIMATED PILE LENGTHS ABUT #1 50', PIER #1 35' AND ABUT #2 40'.

ADDITIONAL DESIGN CONSIDERATIONS



TH #27 TYPICAL UNDER BRIDGE

SCALE 1/8" = 1'-0"

CANADIAN PACIFIC RAILROAD

LOAD RATING (TONS)

STRESS LEVELS	TRUCK H	HS	3S2	6 AXLE	3A. STR.	4A. STR.	5A. SEMI
INVENTORY 0.55 Fy =	56	59					
POSTED 0.67 Fy =	87	95	103		92	90	99
OPERATING 0.75 Fy =			126	136			

RECOMMENDED FOR APPROVAL W.M. Smith STRUCTURES ENGINEER 5/28/81 DATE

RECOMMENDED FOR APPROVAL Arthur J. Gross CHIEF OF DESIGN 5/29/81 DATE

APPROVED BY S.J. Cope, PE DIRECTOR OF ENGINEERING & CONSTRUCTION MAY 28 1981 DATE

REVISIONS

NO.	DESCRIPTION	BY & DATE

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ST. JOHNSBURY	Bridge No. 1
HIGHWAY NO. I91 NORTHERN CONNECTOR	Log Sta. Surv. Sta. 60+0
I91 NORTHERN CONNECTOR OVER PASSUMPSIC RIVER	
PRELIMINARY INFORMATION	
Designed by G.V. SPILAK	Drawn by W. STODDARD
Checked by A. ELWOOD date 3-81	Bridge Design Supervisor R.S. HAUPT date 3-81
PROJECT ST. JOHNSBURY	PROJECT NO. DP-FF 041-1(10
Bridge Sheet No. BR 100	Sheet 58 of 229

BRUNING 44-131 40151

BR-2

EARTHWORK

V.C.	% GRD	STATION	GRADES ELEVATION ON TAN.	GRADES ELEVATION ON V.C.	CORR. V.C.	DIST.	Unclassified Chan. Excav. AREA	Unclassified Chan. Excav. CU. YDS.	Stone Fill Type IV AREA	Stone Fill Type IV CU. YDS.	Structure Excavation AREA	Structure Excavation CU. YDS.	Granular Borrow AREA	Granular Borrow CU. YDS.
		Pier #1												
		9+95					100*		100*					
						5		21.8		19.4				
		10+00					135		110					
		10+13				13	—	141.2	—	106.5	75*		30*	
						12						33.3		13.3
		10+25					170		120		75		30	
						25		164.4		115.7		69.4		27.8
		10+50					185		130		75		30	
						20						55.6		22.2
		10+70						159.7		122.7	75		30	
						5								
		10+75					160		135					
						15		77.8		70.8				
		10+90					120		120					
					Pier #1 Totals			564.9		435.1		158.3		63.3
					Rounded Totals			570		440		160		70
		Pier #2												
		9+57					190*		190*					
						17		119.6						
		9+74					190		—	128.3			150*	
		9+74					80							5.6
						1		3.0					150	
		9+75					80		195					
						1				6.9				1.5
		9+76					—	71.8	180				110	
						24				160.0				97.8
		10+00					75		180				110	
						25		71.8		164.7				92.6
		10+25					90		175				90	
						8								26.7
		10+33					—	97.2	—	141.2			90	
						17								
		10+50					130		130					
						2		9.6		9.6				
		10+52					130		130					
					Pier #2 Totals			373.0		610.4				224.2
					Rounded Totals			380		610				230

BRIDGE QUANTITY SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
BRIDGE DIVISION

	NO.	ITEM	UNIT	QUANTITY BREAKDOWN SUPER-STRUCTURE	ABUT. #1	PIER #1	PIER #2	ABUT. #2	APPROACH SLABS	CHANNEL			TOTAL	FINAL
	203.20	UNCLASSIFIED CHANNEL EXCAVATION	CY							950			950	
*	203.32	GRANULAR BORROW (BACK TO BACK OF ABUTMENTS)	CY		70	70	230	1860					2230	
	204.25	STRUCTURE EXCAVATION	CY		60	160							220	
	404.45	TAR EMULSION	GAL	988									988	
*	406.25	BITUMINOUS CONCRETE PAVEMENT	TON	277									277	
	501.20	CONCRETE CLASS A	CY	575									575	
	501.25	CONCRETE CLASS B	CY		139	196	328	238	68				969	
	509.10	FURNISHING EQUIPMENT FOR DRIVING PILES	LS		REQ'D	REQ'D		REQ'D					1	
	505.14	STEEL PILING (HP 12 x 53)	LF		1050			1120					2170	
	505.17	STEEL PILING (HP 14x73 OR HP13X73)	LF			593							593	
	506.91	STRUCTURAL STEEL (PLATE GIRDER)	LB	1,029,210									1,029,210	
	506.99	BEARING DEVICE ASSEMBLY @ STA 57+87	EACH		7								7	
	506.99	BEARING DEVICE ASSEMBLY @ STA 58+67	EACH			7							7	
	506.99	BEARING DEVICE ASSEMBLY @ STA 60+12	EACH				7						7	
	506.99	BEARING DEVICE ASSEMBLY @ STA 61+72	EACH					7					7	
	507.15	REINFORCING STEEL	LB		11,930	23,290	52,750	19,720	13,100				120,730	
	507.17	EPOXY COATED REINFORCING STEEL	LB	177,400	690			1,290					179,380	
	508.15	SHEAR CONNECTORS (5418 - 7/8" ø x 7" STUDS)	LS	1									1	
	514.10	WATER REPELLENT	GAL	50	6	14	25	12					107	
	518.34	ELASTOMERIC EXPANSION DAM (4" MOVEMENT)	LF	52									52	
	519.20	SHEET MEMBRANE WATERPROOFING	SY	513									513	
	520.10	COFFERDAM @ STA 60+12	LS				1						1	
	601.1542	15" ACCGMP (0.064)	LF					64					64	
	601.5542	15" ACCGMP ELBOW 15° (0.064)	EA					2					2	
	601.5542	15" ACCGMP ELBOW 60° (0.064)	EA					2					2	
	613.10	STONE FILL, TYPE I	CY					140					140	
	613.11	STONE FILL, TYPE II	CY		70								70	
	613.13	STONE FILL, TYPE IV	CY							1050			1050	
	614.10	JOINT SEALER, HOT POURED	GAL		1								1	
	614.25	JOINT SEALER, POLYURETHANE	GAL	4									4	
	616.19	CONCRETE BRIDGE BARRIER CURB - CLASS A CONCRETE	LF	852									852	
	617.30	BRIDGE RAILING - GALV. BEAM (ONE RAIL)	LF	857									857	
*	621.90	GUARD RAIL APPROACH SECTION, TYPE I	EA		2			2					4	

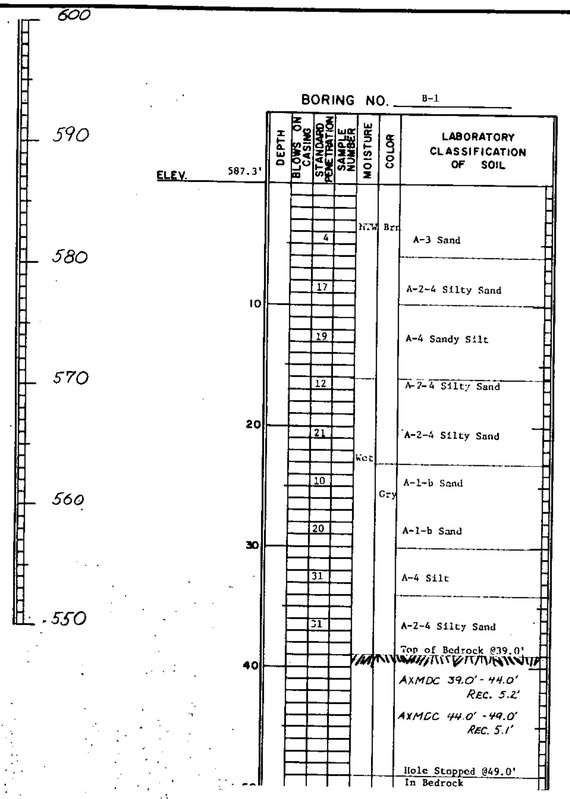
* INDICATES A ROADWAY QUANTITY

BRIDGE (S) AT STATION (S) 60+00
LOCATION (S) I91 NORTHERN CONNECTOR OVER PASSUMPSIC RIVER

Prepared by: T. GRACE | Checked by: D. WILLEY 12-84
SUPERVISOR: R.S. HAUPT

ST. JOHNSBURY
BR 101

PROJECT NO. DP-FF041-1(10)
SHEET NO. 59 OF 289



BORING NO. B-1

ELEV. 587.3'

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
		4		M-W	Brn	A-3 Sand
		17				A-2-4 Silty Sand
		19				A-4 Sandy Silt
		12				A-2-4 Silty Sand
		21		Wet		A-2-4 Silty Sand
		10			Gry	A-1-b Sand
		20				A-1-b Sand
		31				A-4 Silt
		31				A-2-4 Silty Sand
						Top of Bedrock @39.0'
						AXMDC 39.0'-44.0' REC. 5.2'
						AXMDC 44.0'-49.0' REC. 5.1'
						Hole Stopped @49.0' In Bedrock

BORING NO. B-2

ELEV. 587.1'

BOT. ABUT #1

EST. PILE PENETRATION = 50'

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
		5		M-W	Brn	A-3 Sand
		4				A-3 Sand
		3				A-2-4 Silty Sand
		4				A-2-4 Silty Sand
		13		Wet		A-1-b Gravel
		16				A-3 Sand
		18				A-2-4 Silty Sand
		4			Gry	A-2-4 Sand
		12				A-3 Sand
		14				A-3 Sand
		21				A-3 Sand
						Top of Bedrock @46.6'
						AXMDC 46.6'-51.6' REC. 5.1'
						AXMDC 51.6'-56.6' REC. 5.0'
						Hole Stopped @56.6' In Bedrock

BORING NO. B-3

ELEV. 586.9'

BOT. PILE #1

EST. PILE PENETRATION = 30'

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
		10		M		A-2-4 Silty Sand
		2				A-2-4 Silty Sand
		5		M-W	Brn	A-2-4 Silty Sand
		2		W		A-2-4 Silty Sand
		30		W		A-2-4 Silty Sand
		20				No Sample
		37				A-4 Sandy Silt
		30				A-4 Silt
		37		Wet		A-3 Sand
		31				A-2-4 Silty Sand
		34				A-2-4 Silty Sand
		37				A-2-4 Silty Sand
						Top of Bedrock @46.4'
						AXMDC 46.4'-51.4' REC. 4.1'
						AXMDC 51.4'-56.4' REC. 5.1'
						Hole Stopped @56.4' In Bedrock

BORING NO. B-4

ELEV. 586.2'

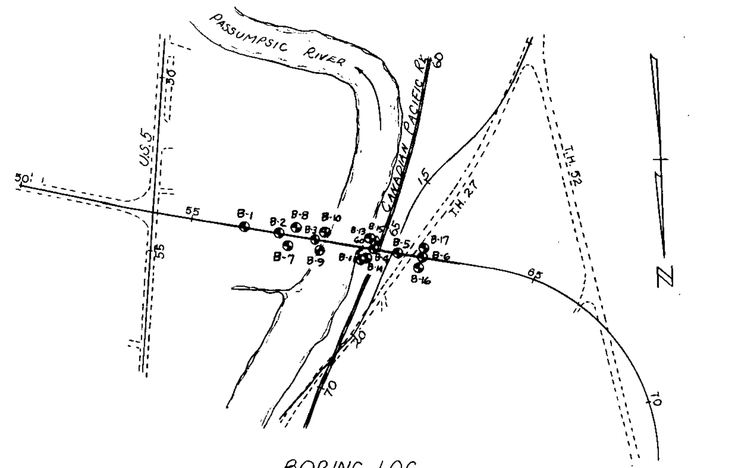
BOT. PILE #2

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
		2				No Sample
		9				A-4 Sandy Silt
		10				A-4 Silt
		28				A-2-4 Silty Sand
						Top of Bedrock @20.0'
						AXMDC 20.0'-25.0' REC. 5.1'
						AXMDC 25.0-30.0' REC. 4.7'
						Hole Stopped @30.0' In Bedrock

BORING NO. B-5

ELEV. 590.9'

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
		12		M	Brn	A-1-b Sandy Gravel
		11		Wet		A-4 Silt
		5				A-4 Silt
		2				A-2-4 Silty Sand
		36				A-4 Sandy Silt
						Top of Bedrock @32.0'
						AXMDC 22.0'-27.0' REC. 5.2'
						AXMDC 27.0'-32.0' REC. 5.0'
						Hole Stopped @32.0' In Bedrock



BORING LOG

SCALE: 1"=200'

ELEV. 610.00 BOT. ABUT. #2

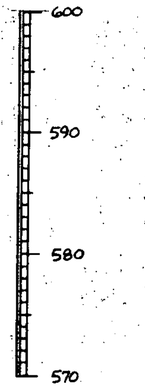
PENETRATION = 40'

BORING NO. B-6

ELEV. 593.9'

EST. PILE

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
		8		M	Brn	A-4 Silt
		10		Wet		A-1-b Sand
						Top of Bedrock @11.0'
						AXMDC 11.0'-16.0' REC. 4.0'
						AXMDC 16.0'-21.0' REC. 4.5'
						Hole Stopped @21.0' In Bedrock



GENERAL NOTES

THE SUBSURFACE EXPLORATIONS SHOWN HEREON WERE MADE BETWEEN NOV. 79 AND APRIL 82 BY THE VERMONT AGENCY OF TRANSPORTATION.

1. SOIL AND ROCK (WHERE ENCOUNTERED) CLASSIFICATION, PROPERTIES AND DESCRIPTIONS ARE BASED ON ENGINEERING INTERPRETATION OF AVAILABLE SUBSURFACE INFORMATION BY THE VERMONT AGENCY OF TRANSPORTATION AND MAY NOT NECESSARILY REFLECT ACTUAL VARIATIONS IN SUBSURFACE CONDITIONS THAT MAY BE ENCOUNTERED BETWEEN INDIVIDUAL BORING OR SAMPLE LOCATIONS.

2. OBSERVED WATER LEVELS AND/OR WATER CONDITIONS INDICATED ARE AS RECORDED AT THE TIME OF EXPLORATION AND MAY VARY ACCORDING TO THE PREVAILING RAINFALL, METHODS OF EXPLORATION AND OTHER FACTORS.

3. SOUND ENGINEERING JUDGEMENT WAS EXERCISED IN PREPARING THE SUBSURFACE INFORMATION PRESENTED HEREON. ANALYSIS AND INTERPRETATION OF SUBSURFACE DATA WAS PERFORMED AND INTENDED FOR AGENCY DESIGN AND ESTIMATE PURPOSES ONLY. PRESENTATION OF THE INFORMATION ON THE PLANS OR ELSEWHERE IS FOR THE PURPOSE OF PROVIDING INTENDED USERS WITH ACCESS TO THE SAME DATA AVAILABLE TO THE AGENCY. THE SUBSURFACE INFORMATION IS PRESENTED IN GOOD FAITH AND IS NOT INTENDED AS A SUBSTITUTE FOR PERSONAL INVESTIGATION, INDEPENDENT INTERPRETATIONS, INDEPENDENT ANALYSIS OR JUDGEMENT OF THE CONTRACTOR.

4. PICTORIAL STRUCTURE DETAILS SHOWN HEREON ARE FOR ILLUSTRATIVE PURPOSES ONLY AND MAY NOT BE INDICATIVE OF THE FINAL DESIGN CONDITIONS SHOWN IN THE CONTRACT PLANS.

BORING NO.	SURVEY STATION	OFFSET
B-1	56+50	6' LT.
B-2	57+50	4' LT.
B-3	58+50	℄
B-4	60+35	℄
B-5	61+00	℄
B-6	61+85	℄
B-7	57+79	30' RT.
B-8	57+93	25' LT.
B-9	58+68	30' RT.
B-10	58+83	25' LT.
B-11	59+99	32' RT.
B-13	60+15	30' LT.
B-14	60+18	30' RT.
B-15	60+31	25' LT.
B-16	61+64	30' RT.
B-17	61+77	25' LT.

BORING NOMENCLATURE

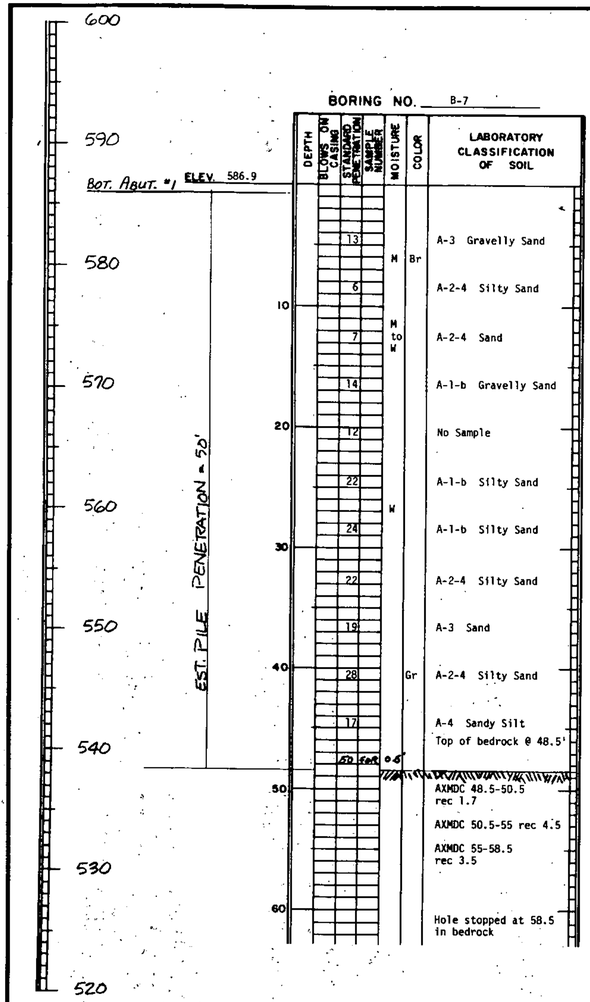
STANDARD PENETRATION BORINGS
SAMPLER OUTSIDE DIAMETER 2"
SAMPLER INSIDE DIAMETER 1 3/8"
WEIGHT OF HAMMER 140 LBS
HAMMER FALL 30"

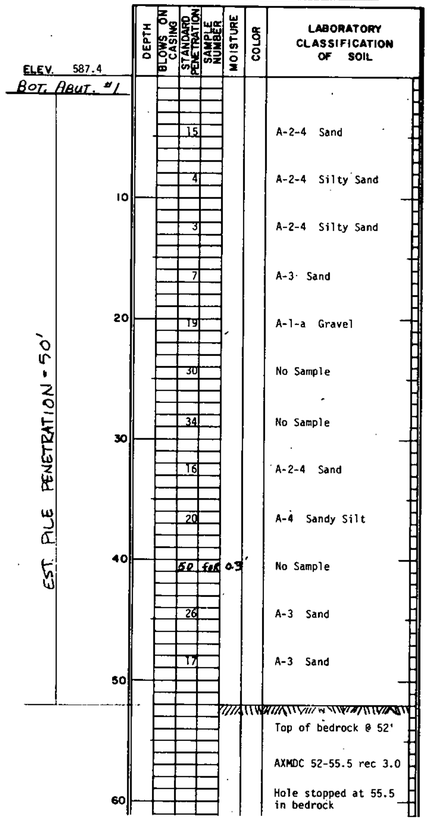
STATE OF VERMONT
AGENCY OF TRANSPORTATION

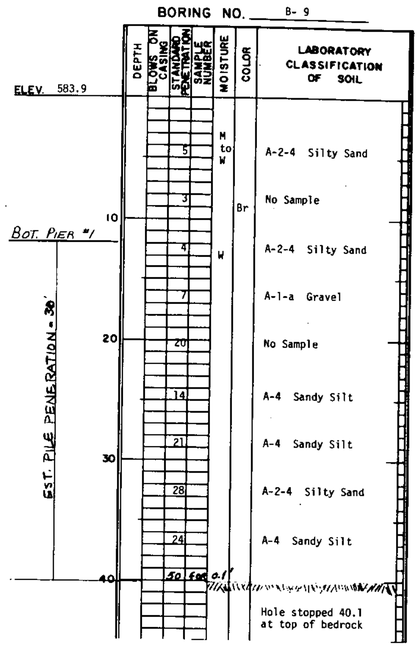
TOWN OF ST. JOHNSBURY	Bridge No. 1
HIGHWAY NO. I-91 NORTH CONNECTOR	Log Sta. Surv. Sta. 60+0
BORING LOG	
I-91 NORTH CONNECTOR OVER PASSUMPSIC RIVER	
Designed by G.V. SPILAR	Drawn by S. BASCOM
Checked by A. ELWOOD date 3-81	Bridge Design Supervisor R.S. HAUPT date 3-81
PROJECT ST. JOHNSBURY	PROJECT NO. DP-FF041-1(10)
Bridge Sheet No. BR 103	Sheet 61 of 229

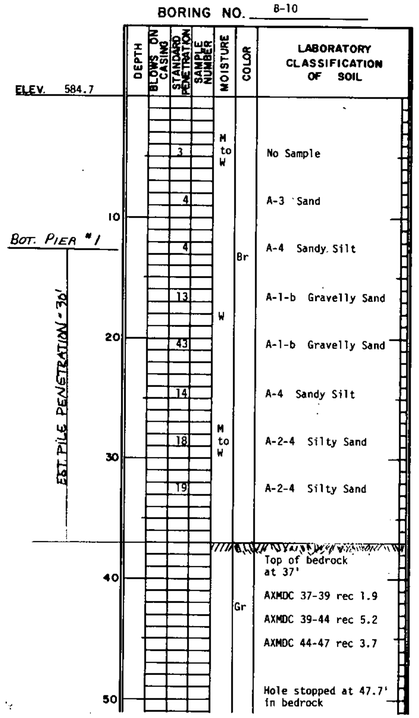
BRUNING 44-131-40151

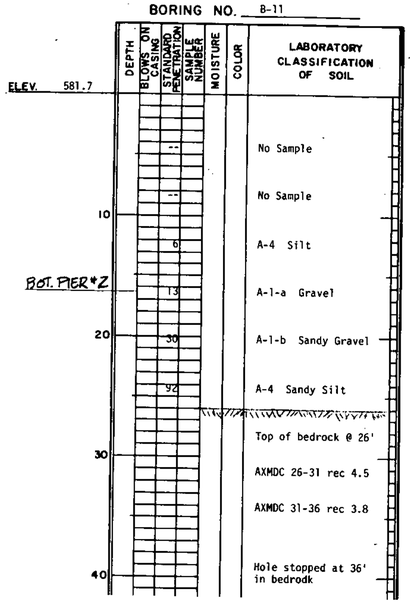
BR-6











BEARING DEVICE NOTES

1. THE WELD BETWEEN THE SOLE PLATE AND BOTTOM FLANGE SHALL BE SMAW 8018(C3). AREAS OF GALVANIZING ON THE SOLE PLATE DESTROYED IN THE WELDING PROCESS SHALL BE PAINTED WITH A ZINC RICH PAINT.
2. ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM WITH THE REQUIREMENTS OF SECTION 714.16. BOLTS SHALL BE 1-1/2" Ø WITH HEAVY HEX NUTS AND 3/8" WASHERS (GALVANIZED ASTM A-153). ANCHOR BOLTS PAID FOR UNDER ITEM 506.99, "BEARING DEVICE ASSEMBLY".
3. BEARING DEVICE DESIGN, MANUFACTURE, AND MATERIAL SPECIFICATIONS SHALL CONFORM TO THE GENERAL SPECIAL PROVISIONS AND SPECIAL PROVISIONS OF SECTION 731.
4. BEARING DEVICES SHALL BE PAID FOR AT THE UNIT BID PRICE FOR ITEM 506.99, "BEARING DEVICE ASSEMBLY".
5. CONCRETE SURFACES UNDER BEARINGS SHALL BE LEVEL.
6. ALTERNATE CONFIGURATIONS MAY BE SUBMITTED FOR APPROVAL PROVIDED THE DESIGN LOADS ARE SATISFIED AND THE ANCHOR BOLT SYSTEM AND PLACEMENT IS MAINTAINED.
7. THE DESIGN LOADS FOR THE BEARINGS ARE AS FOLLOWS:

	BEARING	TRANSVERSE	LONGITUDINAL
ABUT. # 1	120 K	3 K	N/A
PIER # 1	310 K	7.5 K	25 K
PIER # 2	470 K	10 K	N/A
ABUT. # 2	180 K	5.5 K	N/A

8. BEARING BASE PLATES SHALL BE PLACED ON A 1/8" FABRIC PAD AS SPECIFIED IN SECTION 731.01 OR 731.02.
9. IF A BEARING DEVICE SCHEME OTHER THAN THE ONES SHOWN IS USED, THE BEAM SEAT ELEVATIONS MAY HAVE TO BE ADJUSTED ACCORDINGLY.

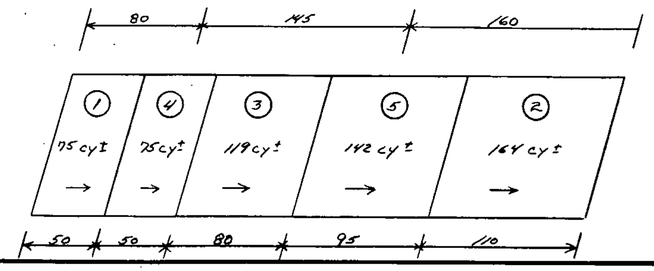
GENERAL NOTES

1. THE CONTRACTOR IS HEREBY NOTIFIED THAT CONSTRUCTION OF PIER # 2 IS VERY CLOSE TO THE CANADIAN-PACIFIC RAILROAD AND RELATED UTILITIES. SEE THE SPECIAL PROVISIONS REGARDING INSURANCE, AS MODIFIED IN SUBSECTION 103.10.
2. ALL PILES SHALL HAVE REINFORCED TIPS IN ACCORDANCE WITH THE SPECIAL PROVISIONS OF SECTION 505.
3. ALL THE GENERAL NOTES, EXCEPT # 2, FROM STANDARD SCB-D1-75 APPLY TO THIS PROJECT.
4. THE DECK SHALL BE PLACED IN TWO POURS:

   1st POUR - PLACE IN SEQUENCE SECTIONS 1, 2, AND 3 IN DIRECTION INDICATED.

   2nd POUR - PLACE IN SEQUENCE SECTIONS 4 AND 5 IN DIRECTION INDICATED.

   THERE SHALL BE A MINIMUM OF 96 HOURS BETWEEN POURS. AT LEAST ONE WEEK PRIOR TO PLACING ANY BRIDGE DECK CONCRETE, THE CONTRACTOR SHALL REVIEW HIS PROPOSED PROCEDURE WITH THE ENGINEER. THIS PROCEDURE SHALL INCLUDE PLANS FOR ADEQUATE LABOR, EQUIPMENT AND MATERIAL SUPPLY TO COMPLETE THE PLACEMENT OF POUR 1 AND POUR 2 WITHIN AN 8 HOUR PERIOD. IF, DURING THE PLACEMENT, UNFORSEEN CIRCUMSTANCES MAKE PLACEMENT WITHIN THE 8 HOURS IMPOSSIBLE, THE CONTRACTOR SHALL BE PREPARED TO PLACE A BULKHEAD AS DIRECTED BY THE ENGINEER TO LIMIT THE PLACEMENT TO 8 HOURS. IT MAY BE NECESSARY FOR THE CONTRACTOR TO FURNISH TWO CREWS AND TWO FINISHING MACHINES IN ORDER TO MEET THE ABOVE PLACEMENT REQUIREMENTS.



REFERENCE	STANDARDS
E-3	12/15/78 R
E-7	2/2/83
E-7a	4/8/82 R
G-1	12/26/84 R
G-1d	12/16/80 R
SB-R4A-82	12/26/84 R
SCB-D1-75	9/14/81 R
SCB-D6-73	1/3/79 R
SCB-D7-71	12/15/76 R

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ST. JOHNSBURY	Bridge No. 1
HIGHWAY NO. I-91 NORTH CONNECTOR	Log Sta.
	Surv. Sta. 60+0
BORING LOG & NOTES	
I-91 NORTH CONNECTOR OVER PASSUMPSIC RIVER	
Designed by G.V. SPILAK	Drawn by G. KLINEFELTER
Checked by M. GARCIA date 6-84	Bridge Design Supervisor RS HAUPT date 10-84
PROJECT ST. JOHNSBURY	PROJECT NO. DP-FF-041-1(10)
Bridge Sheet No. BR 104	Sheet 62 of 229

BRUNING 44-131 40151

BR-6

600
590
580
570
560
550
540

BORING NO. B-13

ELEV. 582.2

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
						No Sample
10		4				A-1-b Sandy Gravel
		12			Br	A-2-4 Silty Sand
BOT. PIER #2		17		W		A-2-4 Gravelly Sand SOFT Rock Top of bedrock @ 20.5
20						AXMDC 20.5-25.5 rec 3.5
						AXMDC 25.5-30.5 rec 0.2
30						Hole stopped at 30.5 in bedrock

BORING NO. B-14

ELEV. 585.6

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
	7					A-1-b Sand
	4					A-2-4 Silty Sand
10				W	Br	
	2					A-4 Sandy Silt
	8					A-2-4 Gravelly Sand
BOT. PIER #2 20	9					A-2-4 Silty Sand
						Top of bedrock @ 29'
30					Gr	AXMDC 29-34 rec 4.2
						AXMDC 34-39 rec 3.8
						Hole stopped at 39' in bedrock

BORING NO. B-15

ELEV. 585.7

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
	3			W		No Sample
10						
	3					A-4 Sandy Silt
	1					A-4 Sandy Silt
				M to W	Br	
BOT. PIER #2 20	6					A-4 Sandy Silt Bedrock at 18'
						AXDC 18-21.5 rec 3.0
						AXDC 21.5-26.5 rec 4.2
					Gr	AXDC 26.5-28.5 rec 1.8
30						Hole stopped at 28.5

BORING NO. B-16

ELEV. 593.9

EST. PILE PENETRATION = 20'

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
	11					A-4 Silt
	11			W		A-1-b Gravelly Sand
10					Br	
	13			M to W		A-4 Silt
	16					A-4 Silt
20						Bedrock at 19'
					Gr	AXDC 19-24 rec 3.6
						AXDC 24-29 rec. 4.5
						Hole stopped at 29'

BORING NO. B-17

ELEV. 585.8

EST. PILE PENETRATION = 40'

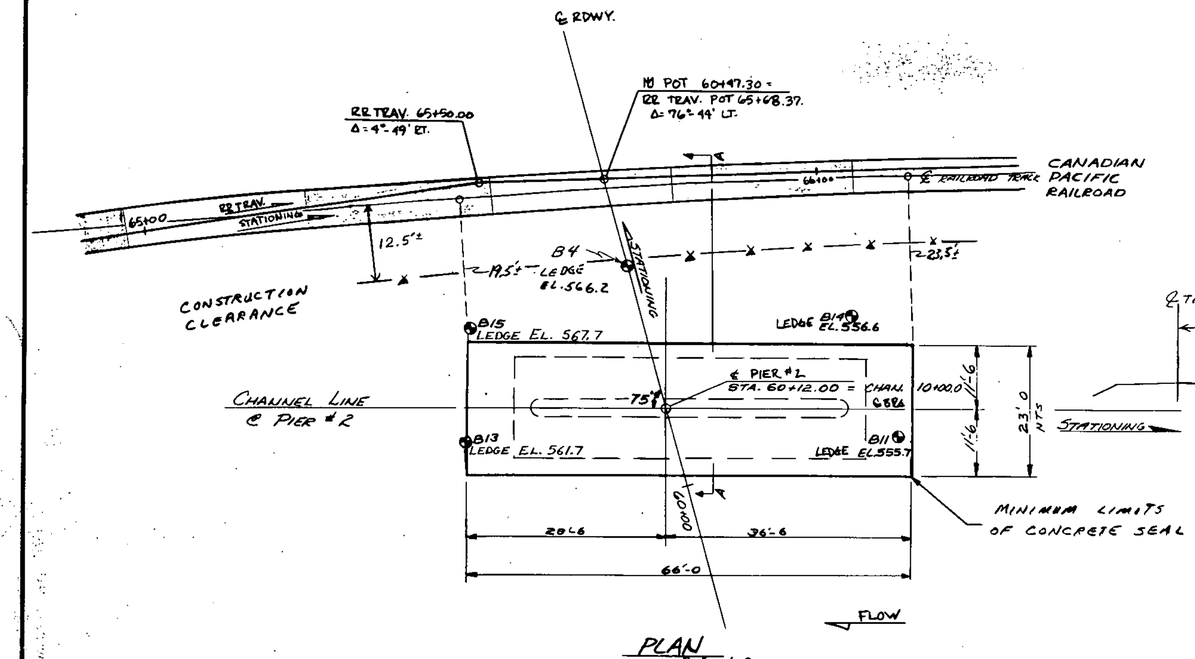
DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
	14				Br	A-4 Silt
	14			M	Drk Brn	A-1-b Silty Sand
10	78				Gry	Soft Rock
						Top of decomp. rock at 14'
20						Hole stopped at 18' in Decomp. rock
						AXMDC 14-16 rec 2.0
						AXMDC 16-18 No rec.
30						Broke core barrel 18'

STATE OF VERMONT
AGENCY OF TRANSPORTATION

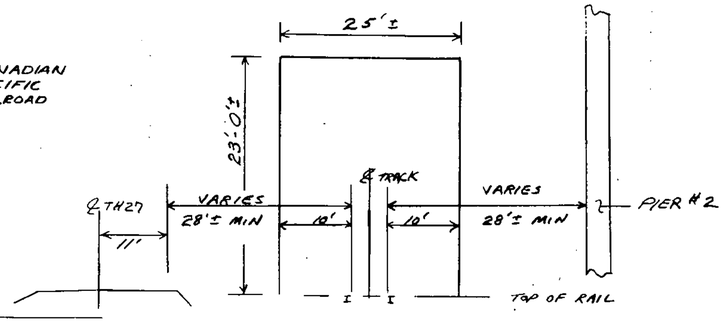
TOWN OF ST. JOHNSBURY	Bridge No. 1
	Log Sta.
HIGHWAY NO. I-91 NORTH CONNECTOR	Surv. Sta. 60+0
BORING LOG	
I-91 NORTH CONNECTOR OVER PASSUMPSIC RIVER	
Designed by G.V. SPILAK	Drawn by G. KLINEFELTER
Checked by M. GARCIA date 6-84	Bridge Design Supervisor R. S. HAUPT date 10-84
PROJECT ST. JOHNSBURY	PROJECT NO. DP-FF-041-1(10)
Bridge Sheet No. BR105	Sheet 63 of 229

BRLRING 44-131.40151

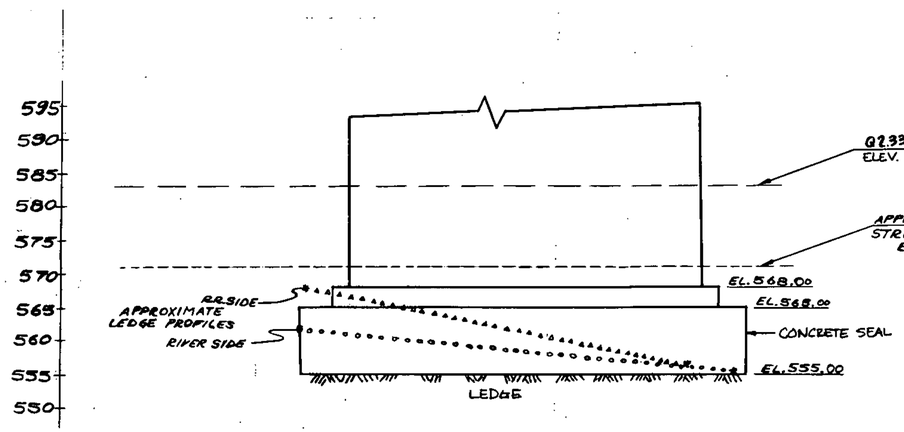
BR-6



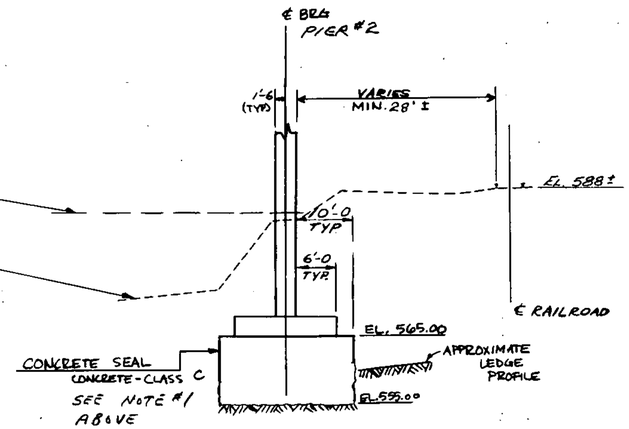
PLAN
SCALE: 3/32"=1'-0



RAILROAD CONSTRUCTION CLEARANCE DIAGRAM NEAR PIER #2



ELEVATION AND LEDGE PROFILES
SCALE: 3/32"=1'-0



SECTION A-A
SCALE: 3/32"=1'-0

COFFERDAM NOTES

1. PAY ITEM 530.10, "COFFERDAM", SHALL INCLUDE THE FOLLOWING:
   - A. ALL AGREEMENTS, EASEMENTS AND CONDITIONS NECESSARY FOR ACCESS AND CONSTRUCTION OF PIER # 2.
   - B. THE COFFERDAM SHALL BE DESIGNED BY A QUALIFIED PROFESSIONAL ENGINEER, REGISTERED IN THE STATE OF VERMONT, IN EITHER CIVIL OR STRUCTURAL ENGINEERING. THE CONTRACTOR IS RESPONSIBLE FOR THE FOLLOWING:
     1. SUBMIT COPIES OF SKETCHES, SEQUENCE OF OPERATIONS, DESIGN CALCULATIONS AND SUCH OTHER INFORMATION OF THE COFFERDAM AS MAY BE PERTINENT TO THE CANADIAN PACIFIC RAILROAD.
     2. OBTAIN APPROVAL FROM THE CANADIAN PACIFIC RAILROAD.
     3. SUBMIT FOUR COPIES OF THE SKETCHES, SEQUENCE OF OPERATIONS, DESIGN CALCULATIONS, AND DOCUMENTATION OF THE APPROVAL BY THE CANADIAN PACIFIC RAILROAD TO THE RESIDENT ENGINEER FOR HIS use.

     CORRESPONDENCE AND CONTACT WITH THE RAILROAD SHOULD BE DIRECTED TO:

     CANADIAN PACIFIC RAILROAD
     2 RAILROAD SQUARE
     NEWPORT, VERMONT 05855

     ATTENTION: CANADIAN PACIFIC LTD.
     STEVE ROBINSON, DIVISION ENGINEER
     1134 ST. CATHERINE ST. WEST
     5th FLOOR
     MONTREAL, QUEBEC
     CANADA H3B 1H4

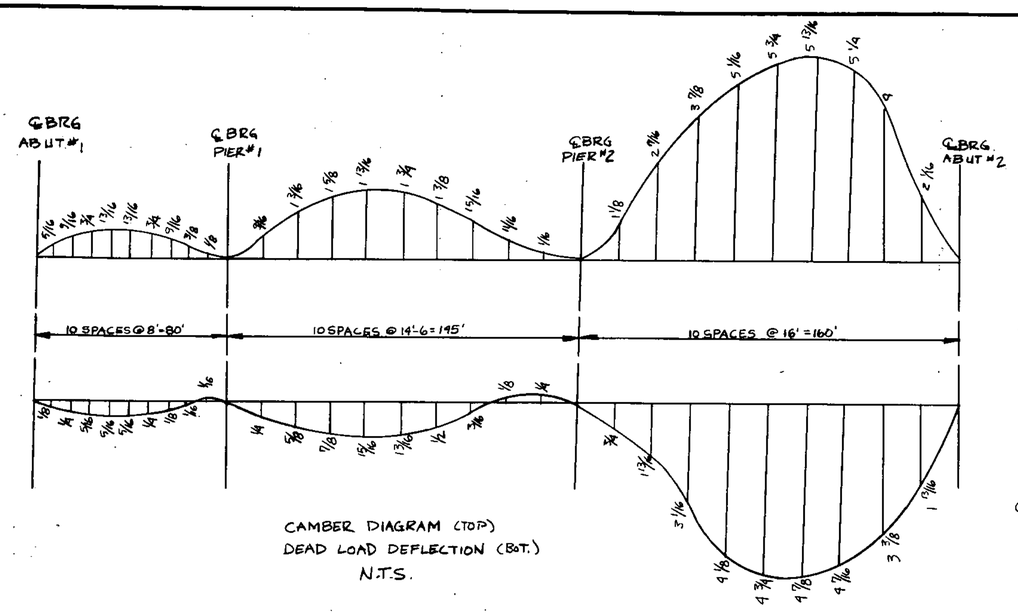
     TELEPHONE: 1-514-395-7472
   - C. ALL EQUIPMENT, LABOR AND MATERIAL TO DO THE WORK.
   - D. THE REMOVAL OF THE LEDGE FOR THE CONSTRUCTION OF THE PIER.
   - E. THE EXCAVATION OF ALL MATERIAL INSIDE THE COFFERDAM.
   - F. PLACING THE CONCRETE SEAL. CONCRETE FOR A SEAL PLACED UNDERWATER SHALL MEET THE REQUIREMENTS OF "CONCRETE, CLASS C", PLUS HAVE ONE ADDITIONAL BAG OF CEMENT PER CUBIC YARD.
   - G. REMOVAL OF EQUIPMENT AND CONSTRUCTION MATERIALS, AND LEAVING THE AREA IN A PRESENTABLE MANNER.
2. ALL CONCRETE ABOVE ELEVATION 565.0 SHALL BE PLACED IN THE DRY.
3. NO INFRINGEMENT ON THE RAILROAD CONSTRUCTION CLEARANCES WILL BE ALLOWED.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ST. JOHNSBURY	Bridge No. 1 7
HIGHWAY NO. I91 NORTH CONNECTOR	Log Sta.
	Surv. Sta. 60+12
I91 NORTHERN CONNECTOR OVER PASSUMPSIC RIVER	
COFFERDAM DETAILS AND NOTES	
Designed by G.V. SPILAR	Drawn by T. GRACE
Checked by D.C. WILLEY date 8-84	Bridge Design Supervisor R.S. HAUPT date 6-84
PROJECT ST. JOHNSBURY	PROJECT NO. DP-FF041-1(10)
Bridge Sheet No. BR106	Sheet 64 of 229

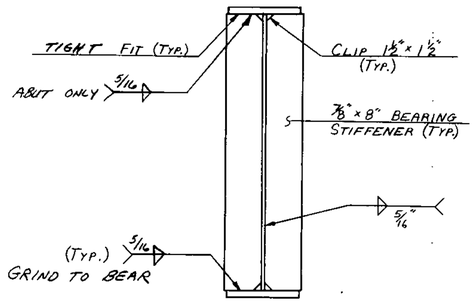
DRAWING 44-131 SHEET

BR4-'83

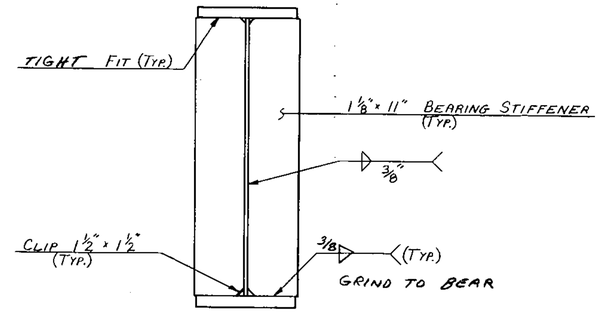


CAMBER DIAGRAM (TOP)
DEAD LOAD DEFLECTION (BOT.)
N.T.S.

NOTE: BEARING STIFFENERS ARE TO BE PLACED SKEWED, ALONG ℄ OF BEARING. SEE DETAIL B ON SHEET BR108.



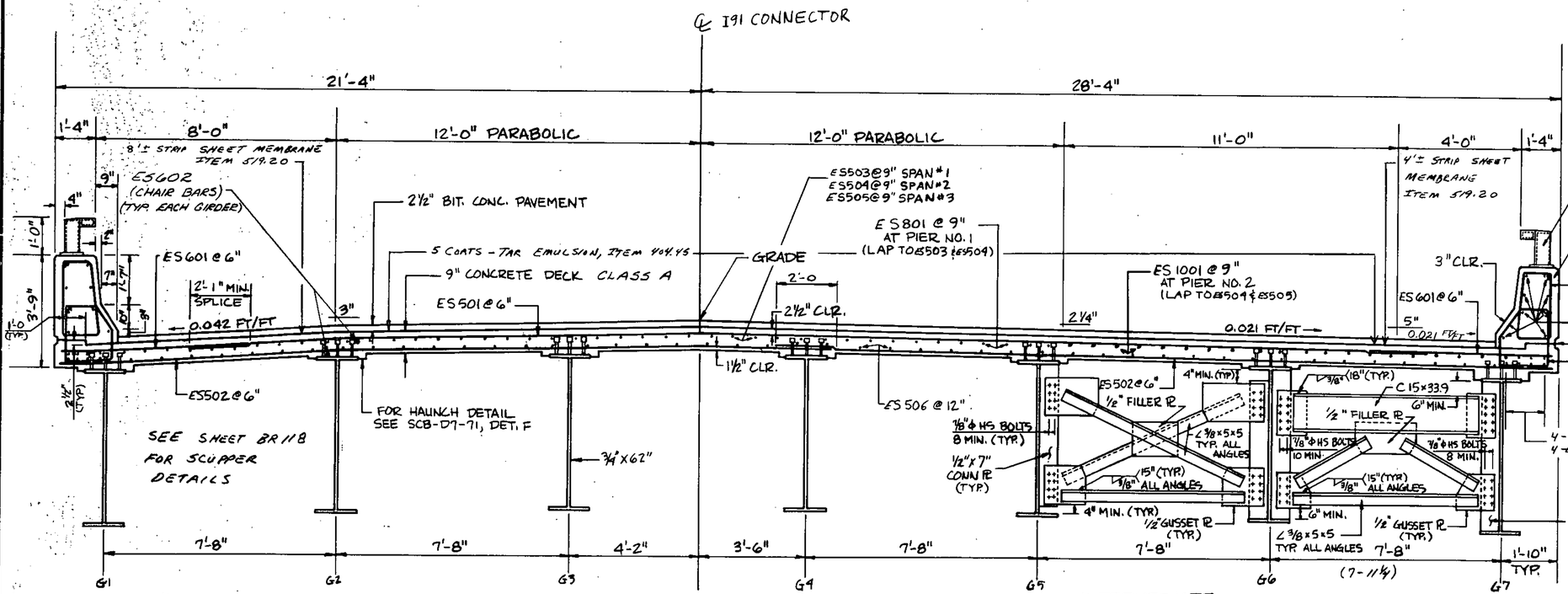
ABUT. "1, ABUT. "2 & PIER "1



PIER " 2

BEARING STIFFENER DETAILS
SCALE 3/4" = 1'-0

TWO NO. 6 BARS HAVE BEEN PROVIDED OVER EACH BEAM TO BE USED AS CHAIR BARS FOR SUPPORTING TRANSVERSE REINFORCEMENT. CHAIR BARS ARE NOT SLAB REINFORCEMENT AND THEREFORE MAY BE WELDED TO THE SHEAR STUDS OR EXTENSION OF THE STUDS. WELDING OF DECK REINFORCEMENT IS NOT PERMITTED.



TYPICAL BRIDGE SECTION
SCALE: 1/2" = 1'-0"

INTERMEDIATE CROSSFRAME DETAIL

PIER & ABUTMENT CROSSFRAME DETAIL (ALONG ℄ BRG.)

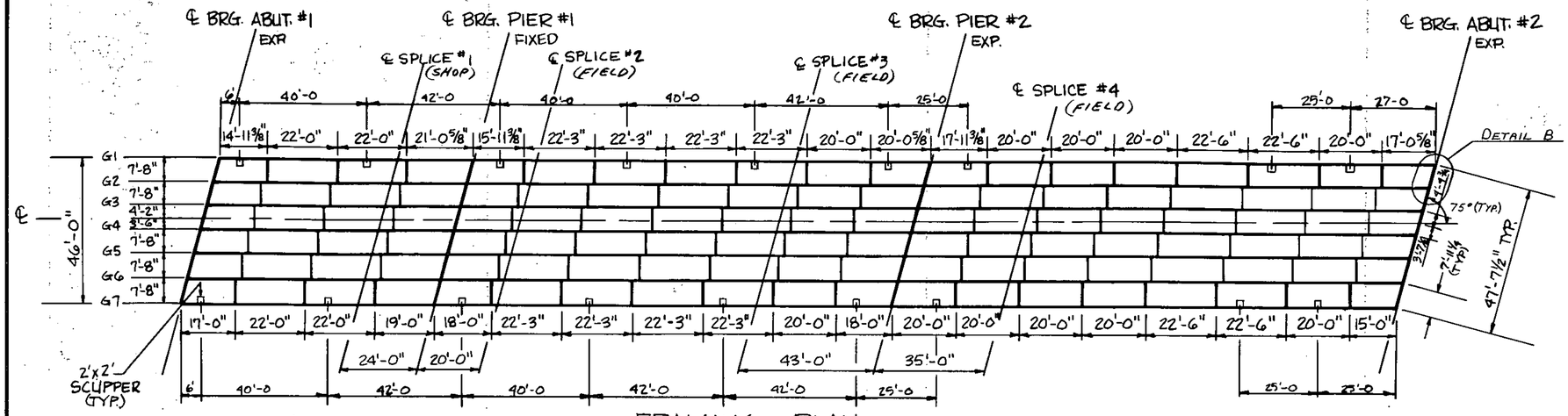
NOTES

1. WATER REPELLENT SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES OF THE CONCRETE BRIDGE BARRIER CURB AND DECK FROM THE FASCIAS TO THE FASCIA GIRDERS.
2. OMIT 1"Ø PLASTIC DRAIN TUBES SHOWN ON STANDARD SCB-D6-73, DETAIL F.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

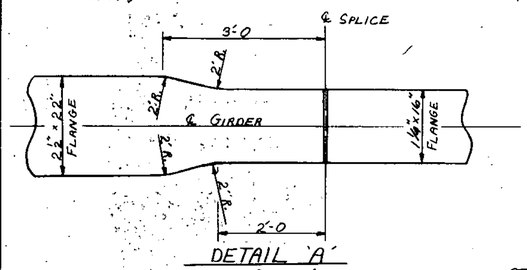
TOWN OF ST. JOHNSBURY	Bridge No. 1 / Log Sta.
HIGHWAY NO. I-91 NORTH CONNECTOR	Surv. Sta. 60+0
I-91 NORTH CONNECTOR OVER PASSUMPSIC RIVER	
TYPICAL BRIDGE SECTION	
Designed by G.V. SPILAK	Drawn by G. KLINEFELTER
Checked by M. GARCIA date 6-84	Bridge Design Supervisor RS. HAUPT date 7-89
PROJECT ST. JOHNSBURY	PROJECT NO. DP-FF-041-1(10)
Bridge Sheet No. BR 107	Sheet 65 of 229

BRUNING 44-131-40151
BR-6



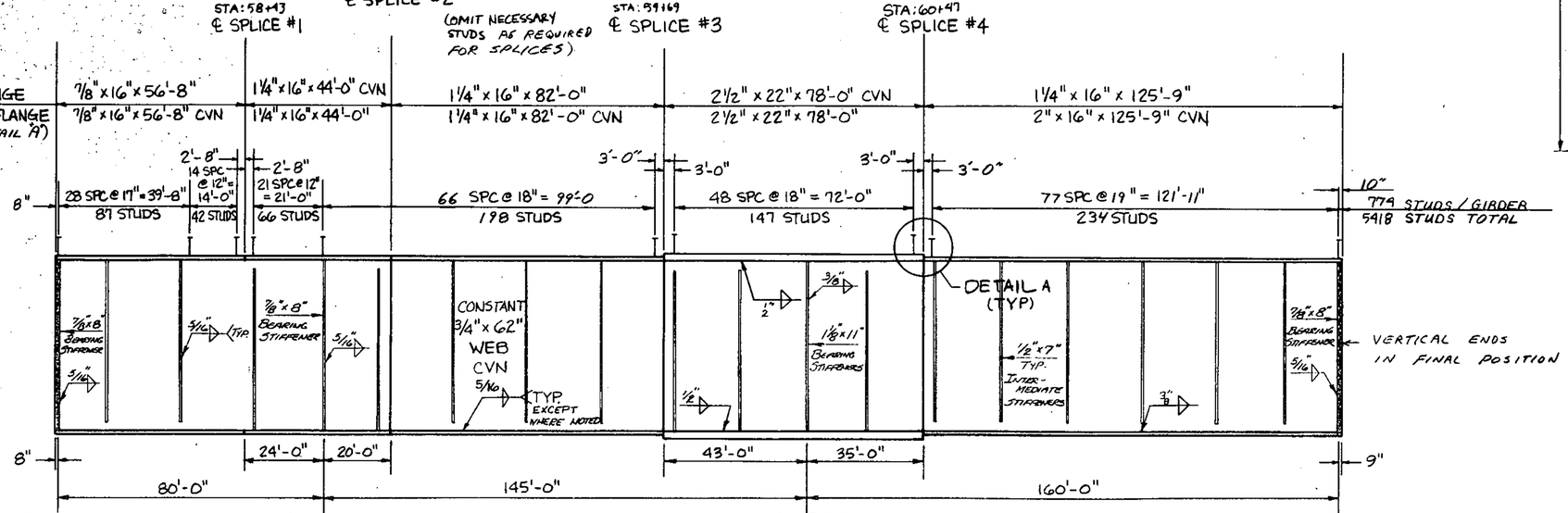
FRAMING PLAN

1" = 20'-0"



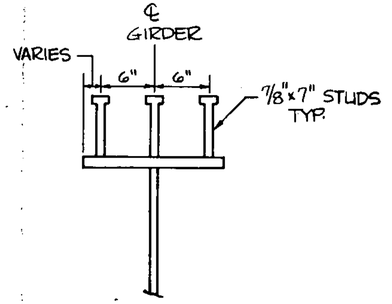
DETAIL 'A'

SCALE ¾" = 1'-0



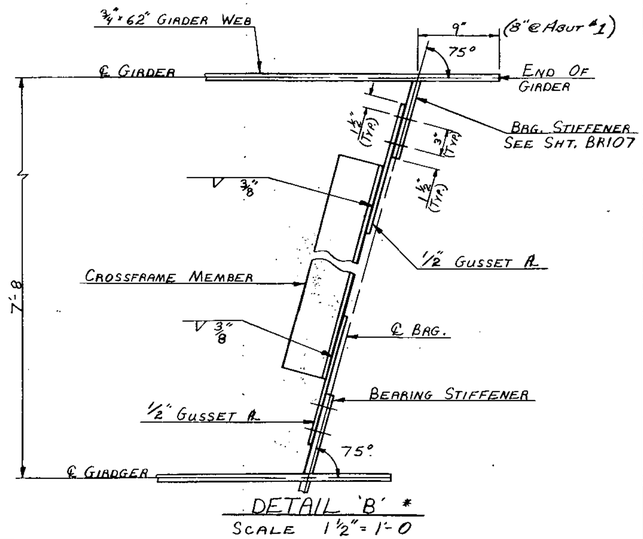
GIRDER ELEVATION

1" = 20'-0" HORIZ.
1" = 2'-0" VERT.



SHEAR STUD DETAIL

1½" = 1'-0"



DETAIL 'B' *

SCALE 1½" = 1'-0

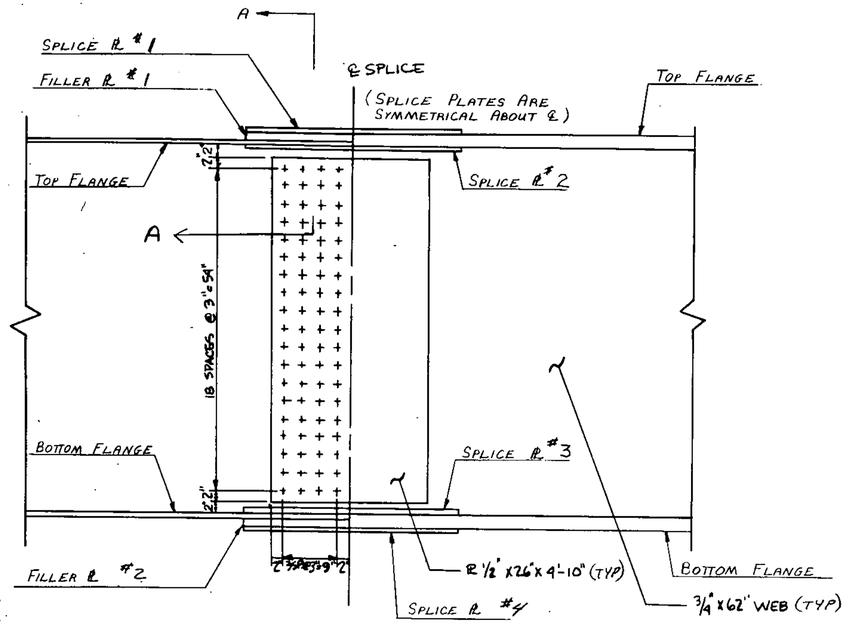
* DETAIL B IS AT ABUTMENT #2. THE BEARING STIFFENERS AND CROSSFRAMES AT ABUTMENT #1, PIER #1 AND PIER #2 ARE SIMILAR. SEE SHEET BR107.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ST. JOHNSBURY	Bridge No. 1
	Log Sta.
HIGHWAY NO. I-91 NORTH CONNECTOR	Surv. Sta. 60+0
FRAMING PLAN, GIRDER ELEV.	
I-91 NORTH CONNECTOR OVER PASSUMPSIC RIVER	
Designed by G.V. SPILAK	Drawn by G. KLINEFELTER
Checked by M. GARCIA date 6-84	Bridge Design Supervisor R.S. HAUPT date 10-84
PROJECT ST. JOHNSBURY	PROJECT NO. DP-FF041-1(10)
Bridge Sheet No. BR 108	Sheet 66 of 229

DRAWING 44-131 60151

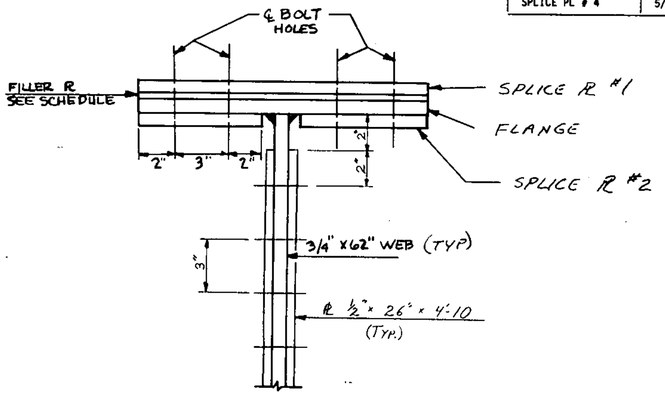
BR-6



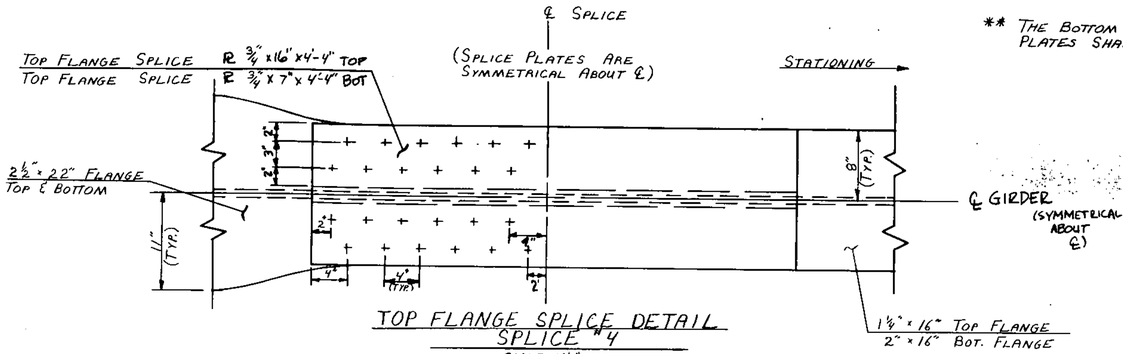
GIRDER SPLICE DETAIL
SCALE: 1"=1'-0

SPLICE PLATE SCHEDULE

	SPLICE # 2	SPLICE # 3	SPLICE # 4
SPLICE PL # 1	5/8"X16"X3'-0"	3/4"X16"X4'-0"	3/4"X16"X4"-4"
FILLER PL # 1	N/A	1¼"X16"X2'-0"	1¼"X16"X2'-2"
SPLICE PL # 2	5/8"X7"X3'-0"	3/4"X7"X4'-0"	3/4"X7"X4'-4"
SPLICE PL # 3	5/8"X7"X3'-0"	3/4"X7"X4'0"	1"X7"X4'-4"
FILLER PL # 2	N/A	1¼"X16"X2'-0"	1/2"X16"X2'-2"
SPLICE PL # 4	5/8"X16"X3'-0"	3/4"X16"X4'-0"	1"X16"X4'-4"

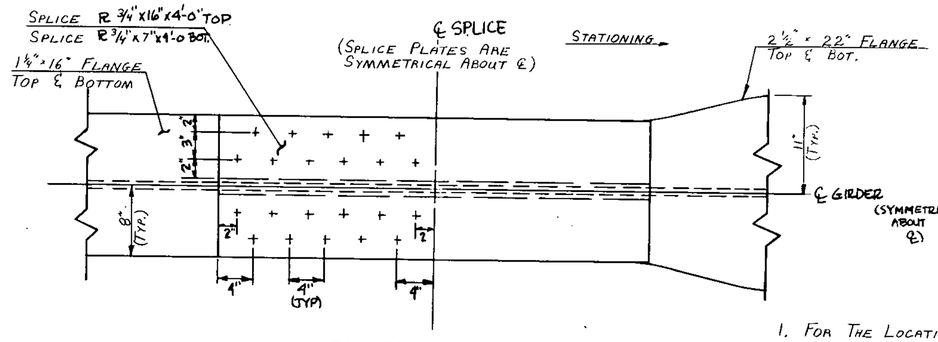


SECTION A-A
SCALE: 3"=1'-0



** THE BOTTOM FLANGE SPLICE PLATES SHALL BE 1" THICK.

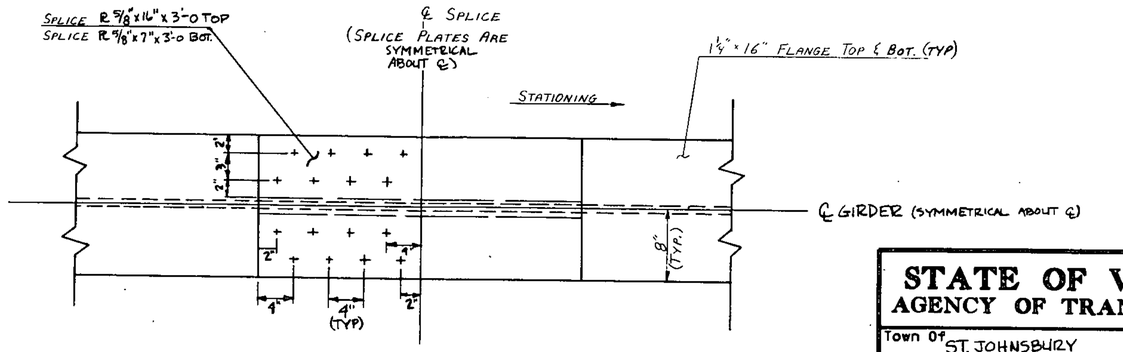
TOP FLANGE SPLICE DETAIL
SPLICE #4
SCALE: 1½"=1'-0
(BOTTOM FLANGE SIMILAR) **



TOP FLANGE SPLICE DETAIL
SPLICE # 3
SCALE: 1½"=1'-0
(BOTTOM FLANGE SIMILAR)

NOTES

1. FOR THE LOCATION OF GIRDER SPLICES SEE SHEET BR108.
2. ALL BOLTS SHALL BE ⅞" ø H.S. BOLTS IN 1⅛" ø HOLES. A325
3. ALL SPLICE PLATES AND FILLER PLATES SHALL BE A588 STEEL.

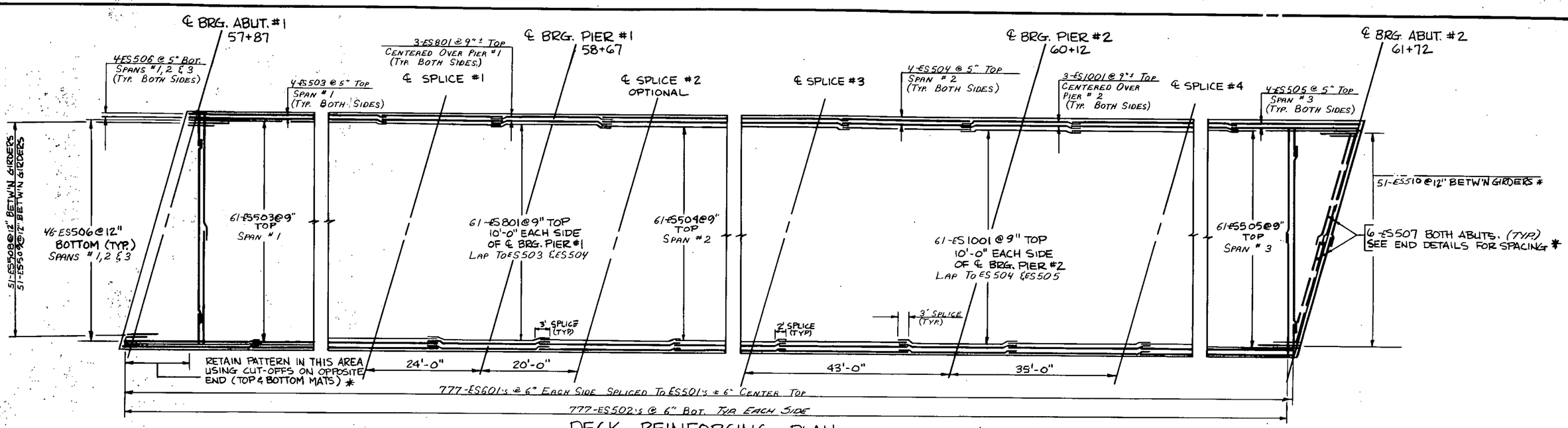


TOP FLANGE SPLICE DETAIL
SPLICE #2
SCALE: 1½"=1'-0
(BOTTOM FLANGE SIMILAR)

STATE OF VERMONT
AGENCY OF TRANSPORTATION

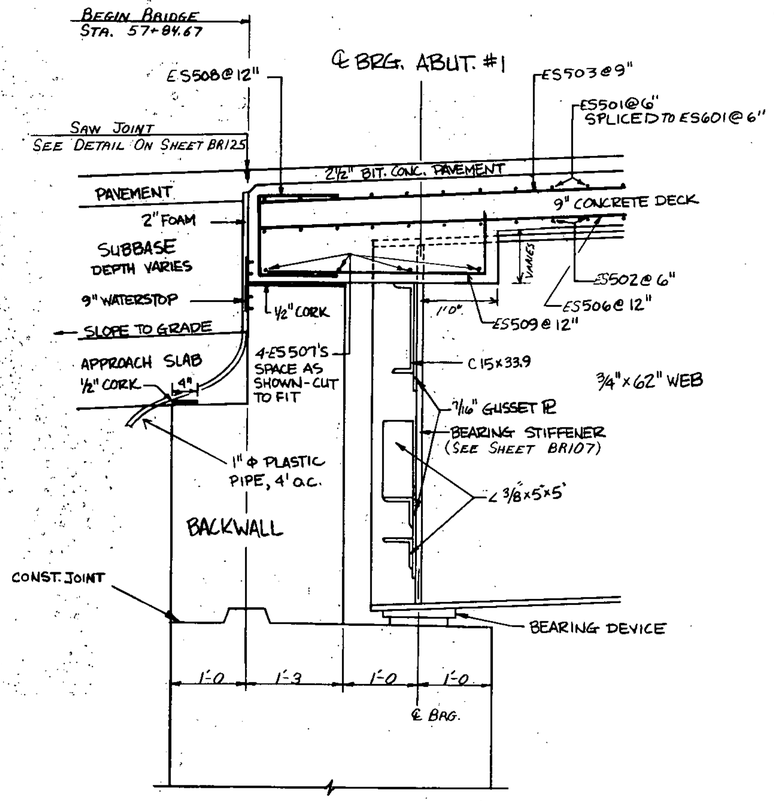
Town Of ST. JOHNSBURY	Bridge No. 1
	Log Sta.
Highway No. I91 NORTHERN CONN.	Surv. Sta. 60+00
GIRDER SPLICE DETAILS.	
I91 NORTH CONVEYOR OVER THE PASSUMPSIC RIVER	
Designed By G.V. SPLAK	Drawn By T. GRACE
Checked By D.C. WILLEY Date 9-84	Bridge Design Supervisor R.S. HAUPT Date 8-84
PROJECT ST. JOHNSBURY	PROJECT NO. DP-FF041-1(10)
L.G.C. Info.	
Bridge Sheet No. BR109	Sheet 67 of 229

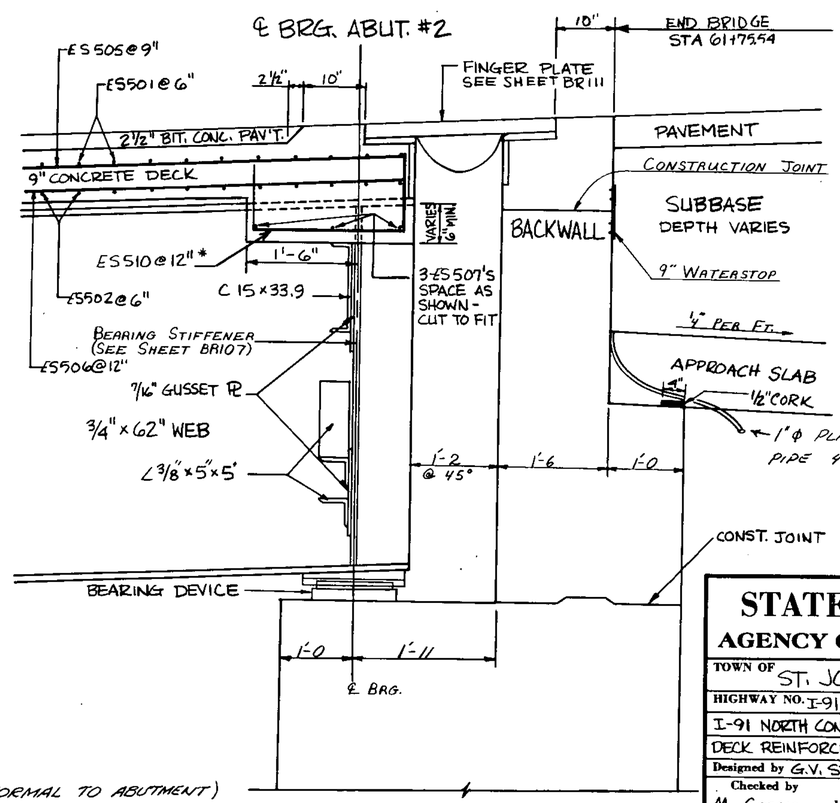
BRUNING 62185



DECK REINFORCING PLAN

1" = 10'-0"





GIRDER END DETAILS (NORMAL TO ABUTMENT)

1" = 1'-0"

NOTE

SEE BR120 FOR WATERSTOP DETAILS

* CUT TO FIT IN FIELD WHERE NECESSARY TO MAINTAIN CLEARANCE

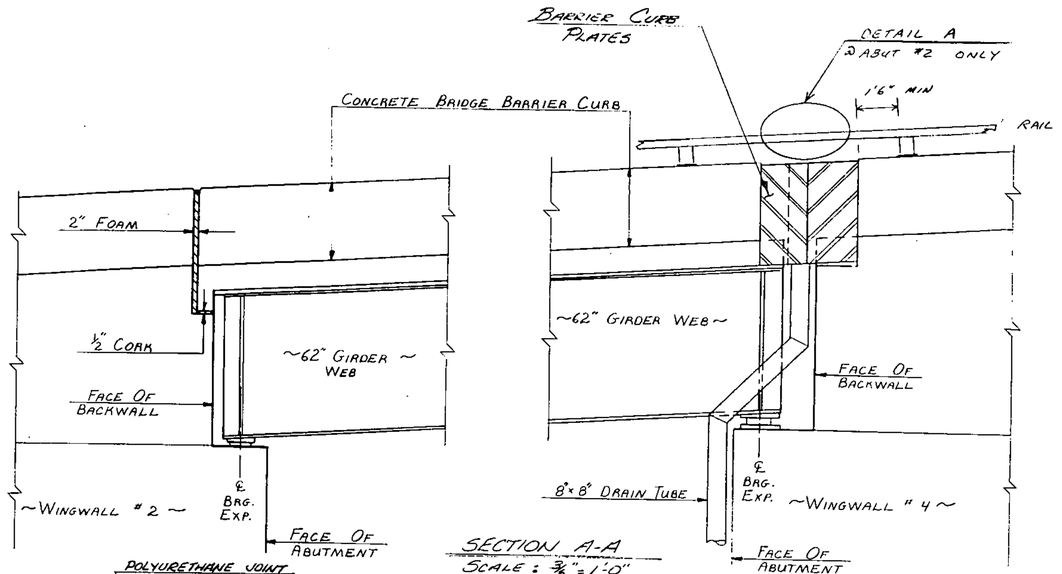
SEE SECTION 707.23 FOR SPECIFICATION FOR PREFORMED JOINT FILLER, CLOSED CELL FOAM. PAYMENT FOR FOAM IS SUBSIDIARY TO CONCRETE, CLASS B

STATE OF VERMONT
AGENCY OF TRANSPORTATION

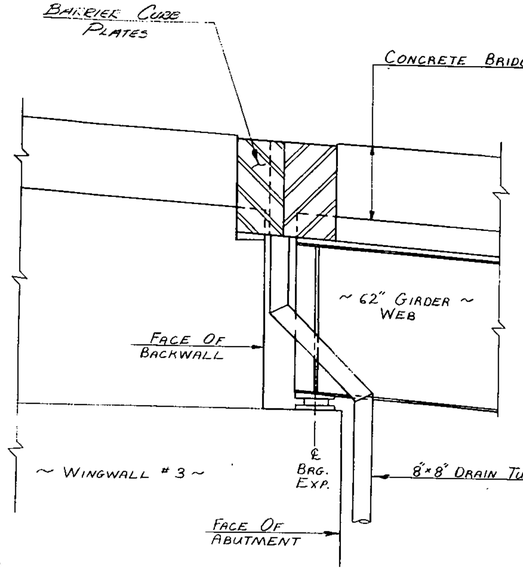
TOWN OF ST. JOHNSBURY	Bridge No. 1
	Log Sta.
HIGHWAY NO. I-91 NORTH CONNECTOR	Surv. Sta. 60+0
I-91 NORTH CONNECTOR OVER PASSUMPSIC RIVER	
DECK REINFORCING PLAN & GIRDER END DETAILS	
Designed by G.V. SPILAK	Drawn by G. KLINEFELTER
Checked by M. GARCIA date 6-84	Bridge Design Supervisor R.S. HAUPT date 10-84
PROJECT ST. JOHNSBURY	PROJECT NO. DP-FF041-1(10)
Bridge Sheet No. BR110	Sheet 68 of 229

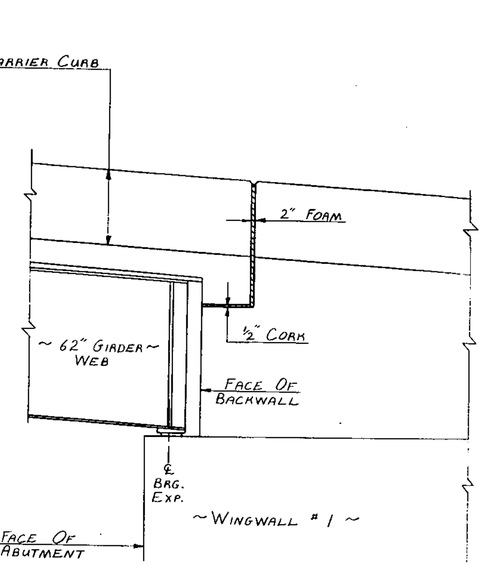
BRUNING 44-131-40151

BR-6

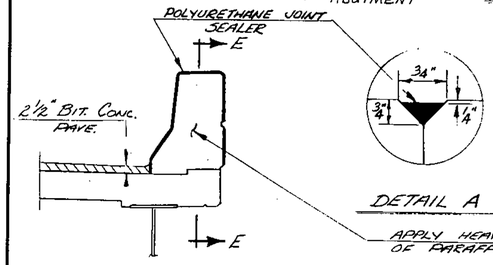


SECTION A-A
SCALE : ⅜"=1'-0"

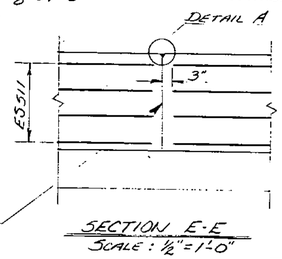




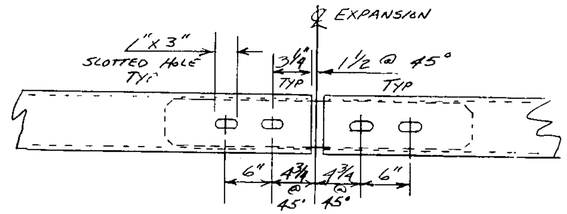
SECTION B-B
SCALE ⅜"= 1'-0



DETAIL A
APPLY HEAVY COAT OF PARAFFIN WAX.

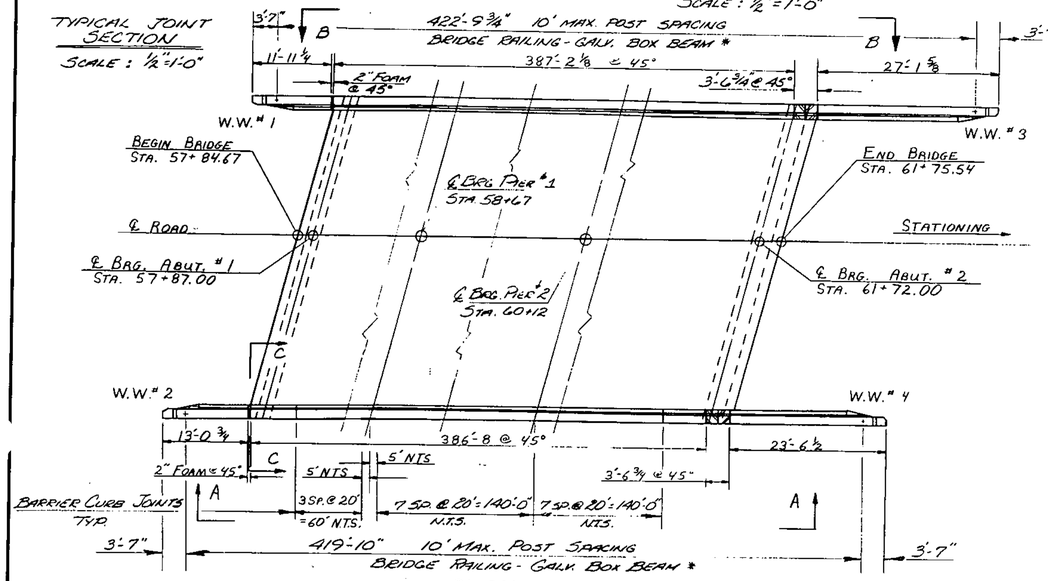


SECTION E-E
SCALE : ½"=1'-0"



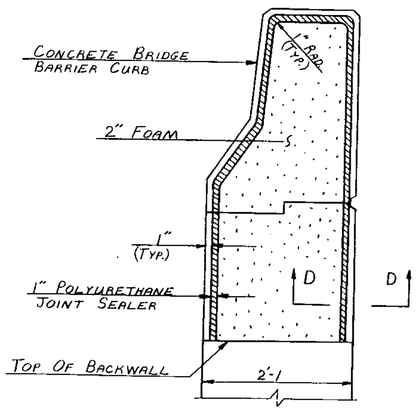
DETAIL A

SEE STANDARD SB-R4-82



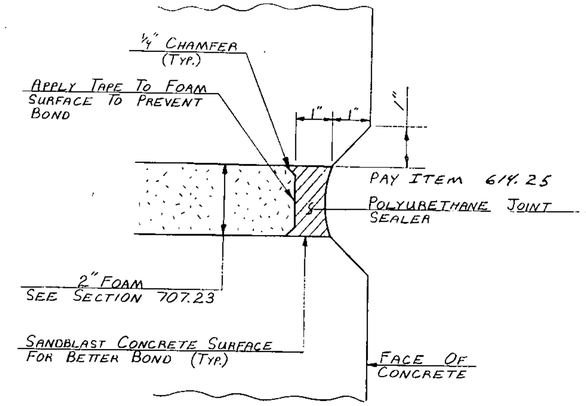
PLAN
SCALE 3/32"=1'-0

* SEE SHEET BR127 FOR BRIDGE RAILING PAY LIMITS.



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

PAYMENT FOR THE CLOSED CELL FOAM SHALL BE SUBSIDIARY TO ITEM 501.25, CONCRETE CLASS B.



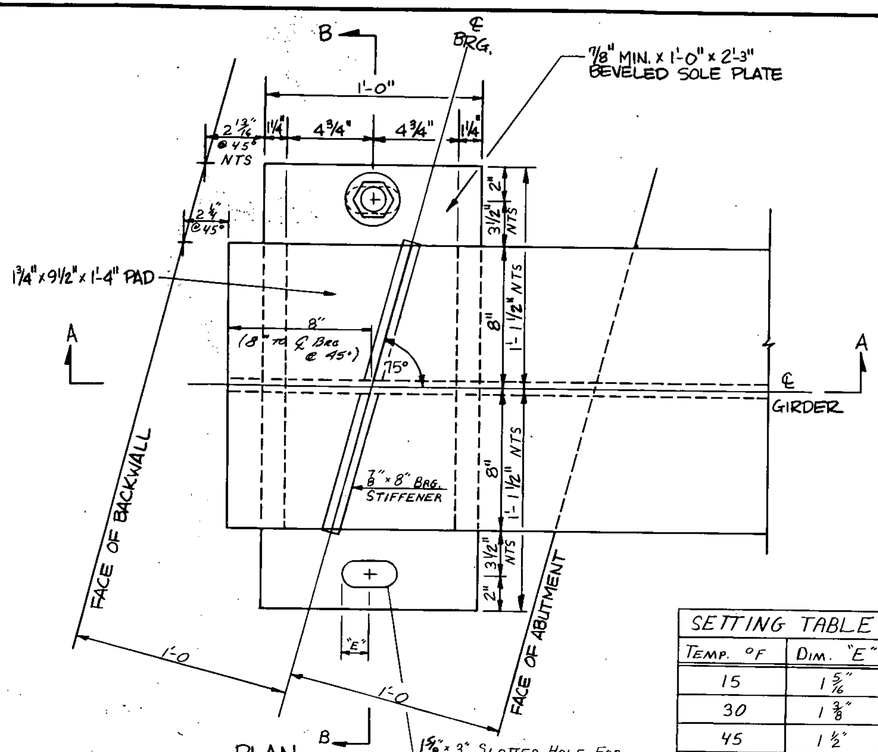
SECTION D-D
SCALE ½"= 1"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

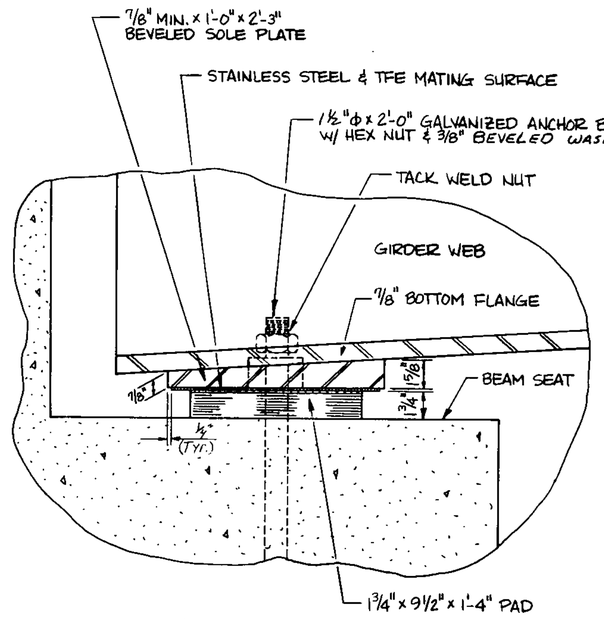
Town Of ST. JOHNSBURY	Bridge No. 1
Highway No. I91 NORTH CONN.	Log Sta. Surv. Sta. 60+00
BRIDGE END DETAILS	
I91 NORTHERN CONNECTOR OVER PASSUMPSIC RIVER	
Designed By G. V. SPILAK	Drawn By D.C. WILLEY
Checked By GVS/MMG Date 12/84	Bridge Design Supervisor R.S. HAUPT Date 12-84
PROJECT ST. JOHNSBURY	PROJECT NO. DP-FF041-1(10)
L.G.C. Info.	
Bridge Sheet No. BR111	Sheet 69 of 229

BRUNING 62165

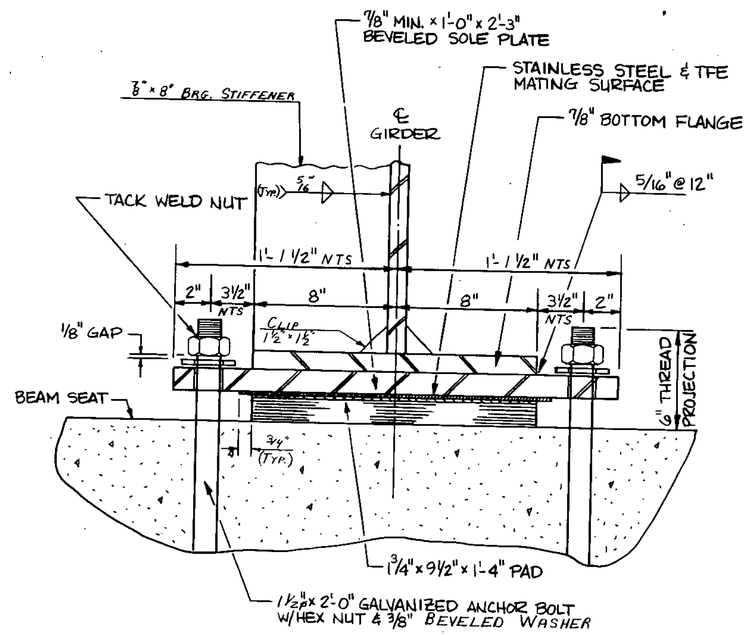
NOTE : FOR BEARING DEVICE NOTES SEE SHEET BRIOY.



SETTING TABLE	
TEMP. °F	DIM. "E"
15	1 5/16"
30	1 3/8"
45	1 ½"
60	1 5/8"
75	1 11/16"
90	1 13/16"

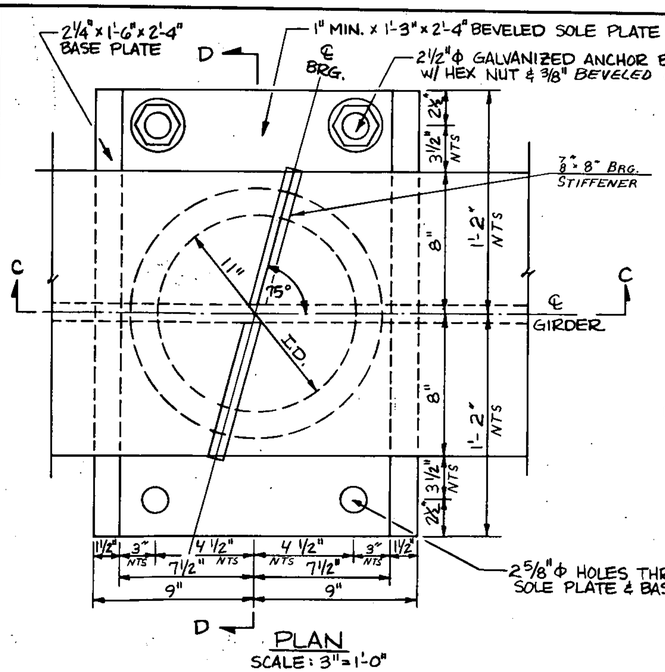


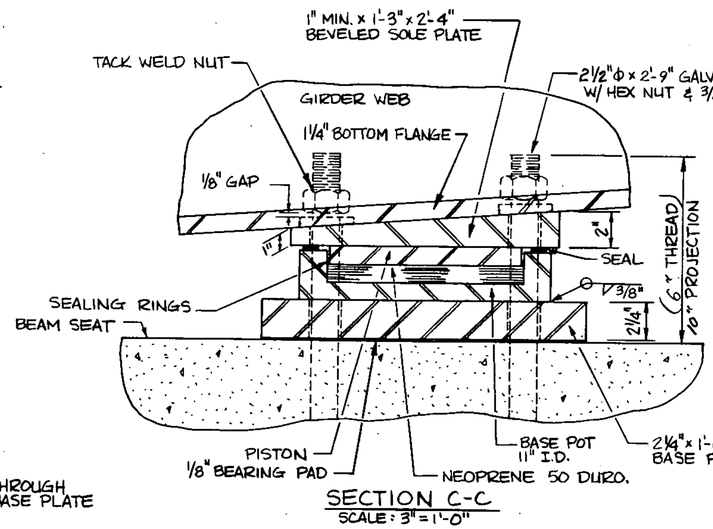
SECTION A-A
SCALE: 3" = 1'-0"



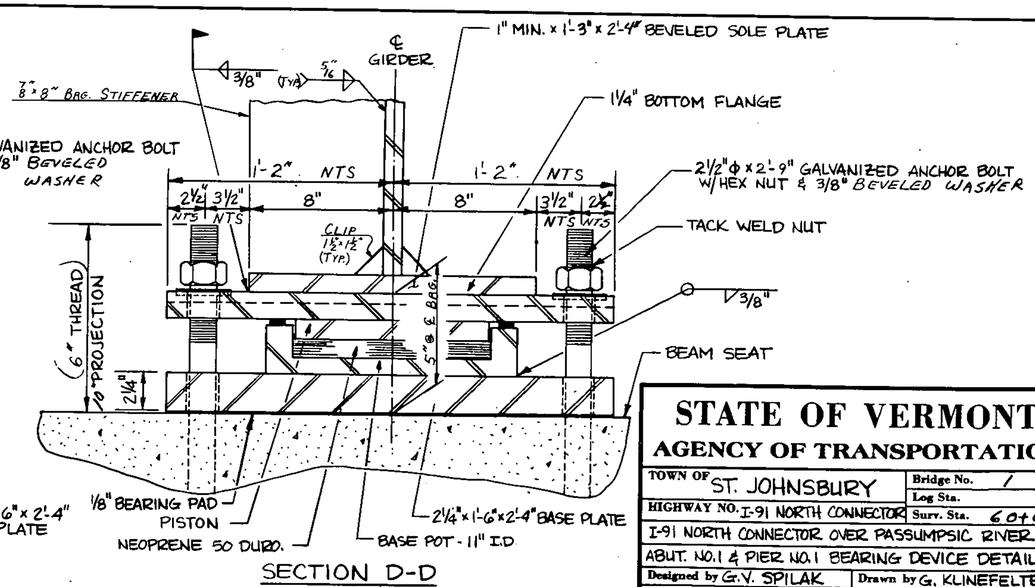
SECTION B-B
SCALE: 3" = 1'-0"

ABUTMENT NO.1 - EXPANSION





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

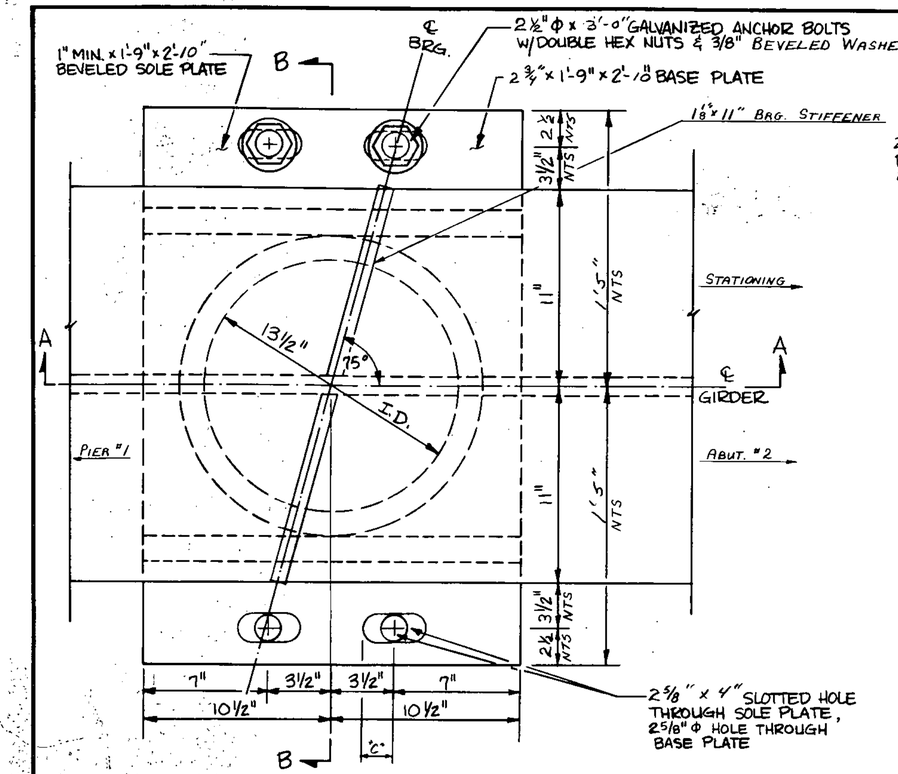


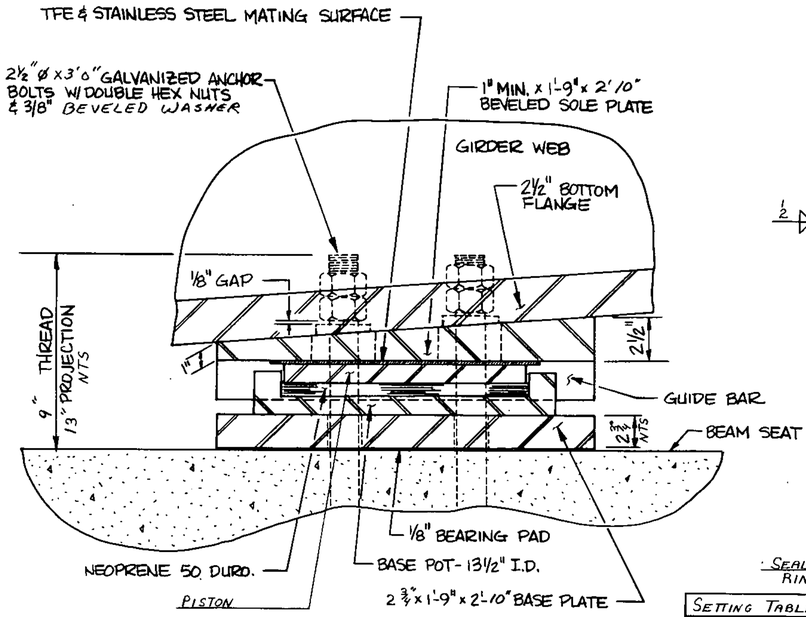
SECTION D-D
SCALE: 3" = 1'-0"

PIER NO.1 - FIXED

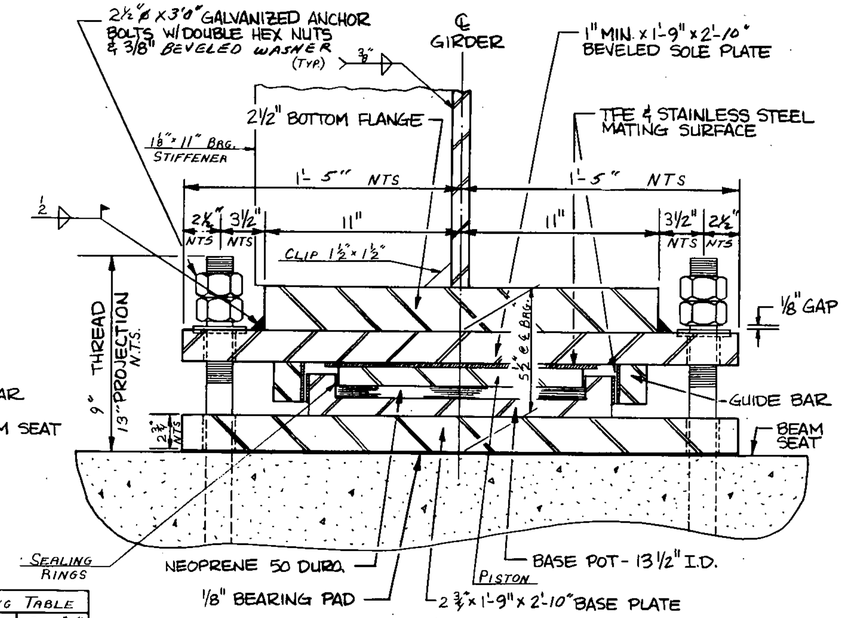
STATE OF VERMONT AGENCY OF TRANSPORTATION	
TOWN OF ST. JOHNSBURY	Bridge No. 1 Log Sta.
HIGHWAY NO. I-91 NORTH CONNECTOR	Surv. Sta. 60+0
I-91 NORTH CONNECTOR OVER PASSUMPSIC RIVER	
ABUT. NO.1 & PIER NO.1 BEARING DEVICE DETAILS	
Designed by G.V. SPILAK	Drawn by G. KLINEFELTER
Checked by M. GARCIA date 9-84	Bridge Design Supervisor R.S. HAUPT date 11-84
PROJECT ST. JOHNSBURY	PROJECT NO. DP-FF041-1(10)
Bridge Sheet No. BR 112	Sheet 70 of 229

BRUNING 44-131 59384
BR-6-'83





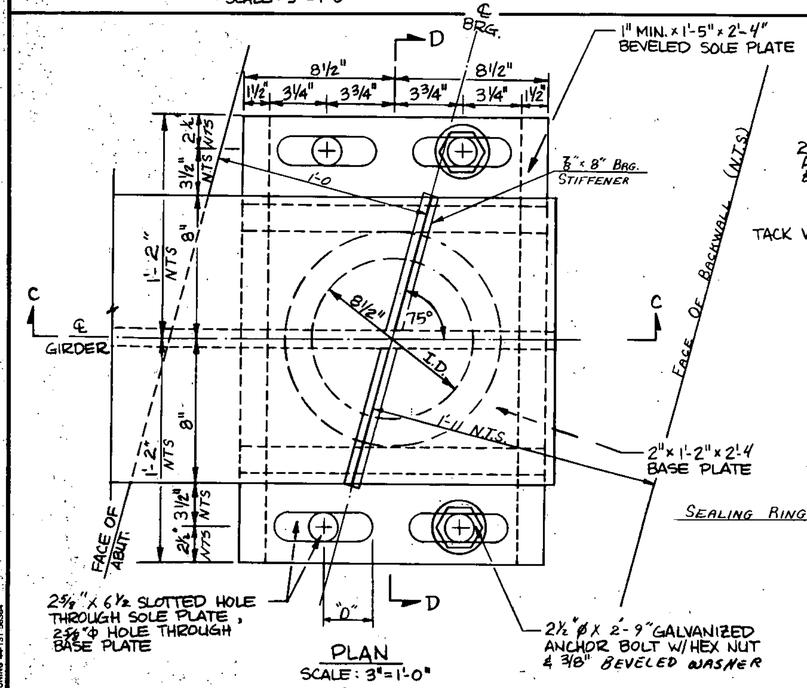
SECTION A-A
SCALE: 3" = 1'-0"

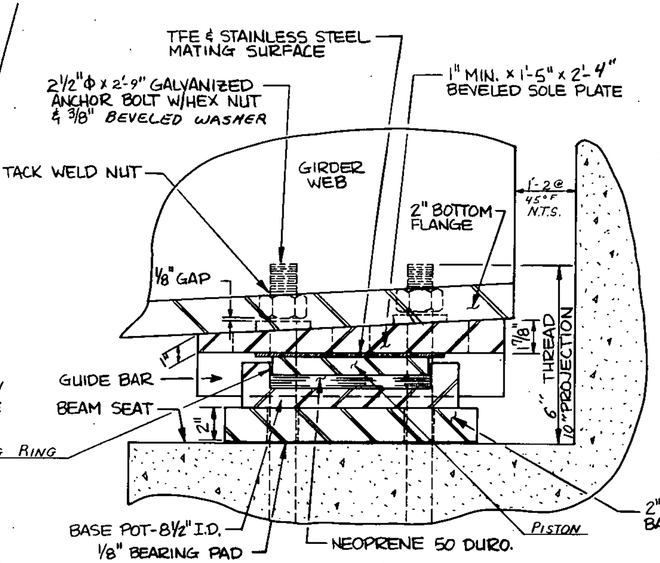


SECTION B-B
SCALE: 3" = 1'-0"

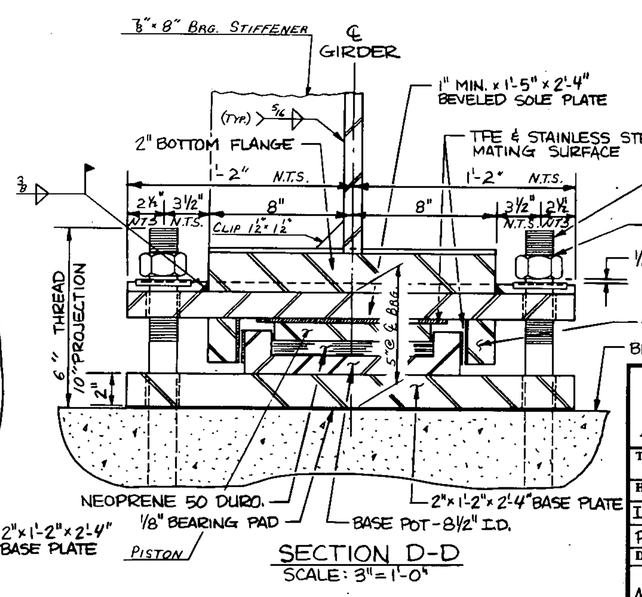
SETTING TABLE	
°F	DIM "C"
15	2 1/16"
30	1 15/16"
45	1 13/16"
60	1 5/8"
75	1 7/16"
90	1 1/4"

PIER NO. 2 - EXPANSION





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



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

SETTING TABLE	
°F	DIM "D"
15	2 1/16"
30	2 3/16"
45	2 7/16"
60	3 1/16"
75	3 7/16"
90	3 13/16"

ABUTMENT NO. 2 - EXPANSION

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ST. JOHNSBURY	Bridge No. 1
HIGHWAY NO. I-91 NORTH CONNECTOR	Leg Sta.
	Surv. Sta. 60+0
I-91 NORTH CONNECTOR OVER PASSUMPSIC RIVER	
PIER NO. 2 & ABUT. NO. 2 BEARING DEVICE DETAILS	
Designed by G.V. SPILAK	Drawn by G. KLINEFELTER
Checked by M. GARCIA date 9-84	Bridge Design Supervisor R.S. HAUPT date
PROJECT ST. JOHNSBURY	PROJECT NO. DP-FF041-1(10)
Bridge Sheet No. BR 113	Sheet 71 of 229

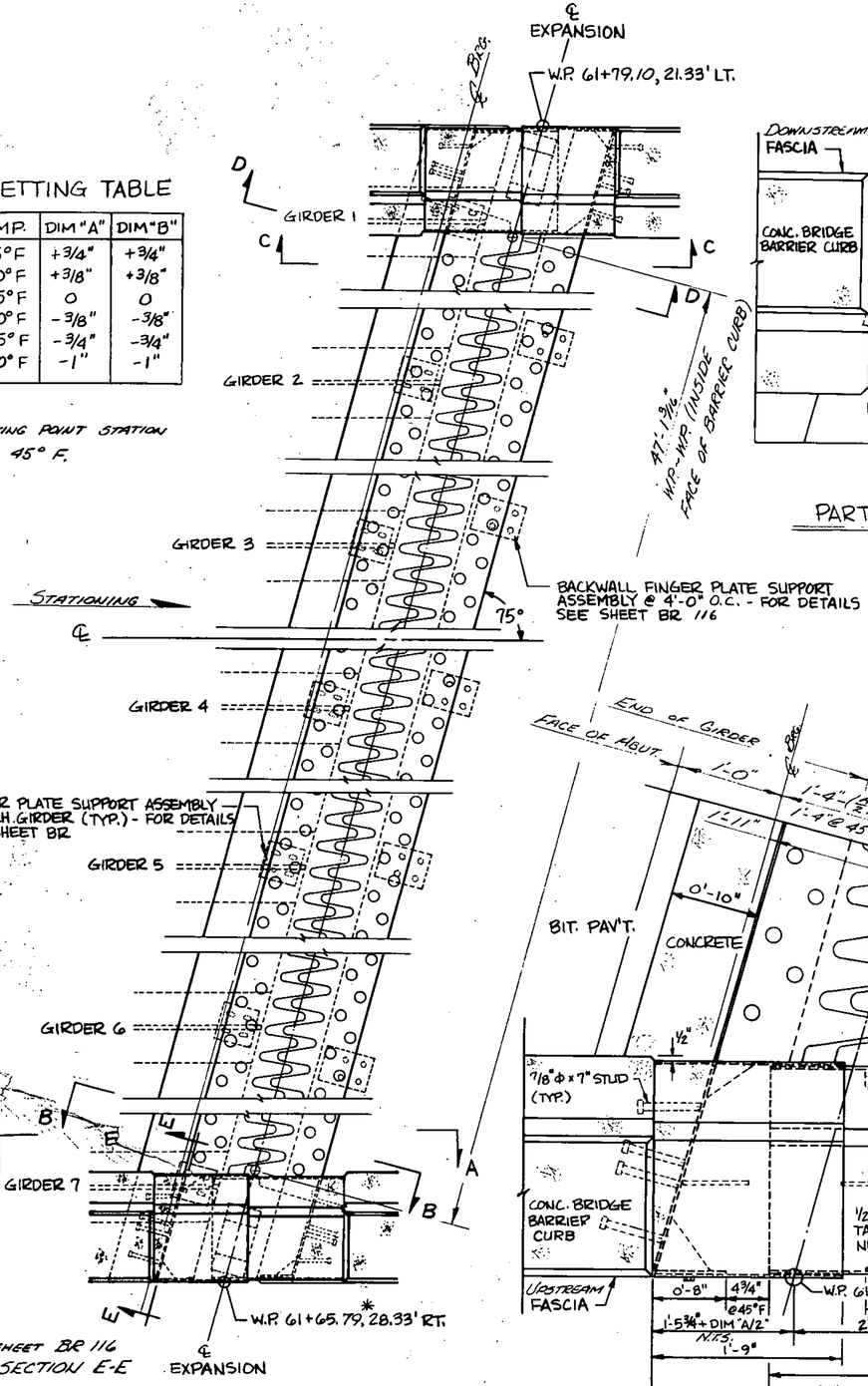
BRUNING 44-131 58384

BR-8-'85

SETTING TABLE

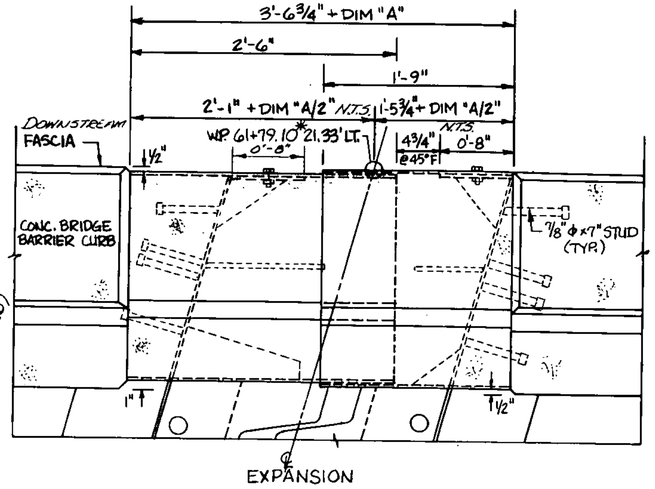
TEMP.	DIM "A"	DIM "B"
15° F	+3/4"	+3/4"
30° F	+3/8"	+3/8"
45° F	0	0
60° F	-3/8"	-3/8"
75° F	-3/4"	-3/4"
90° F	-1"	-1"

* WORKING POINT STATION AT 45° F.



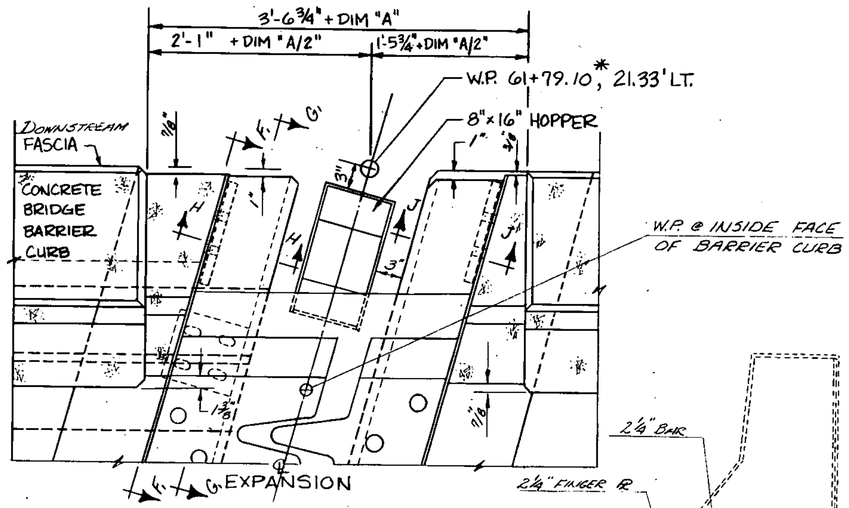
PLAN - NORMAL TO GRADE

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



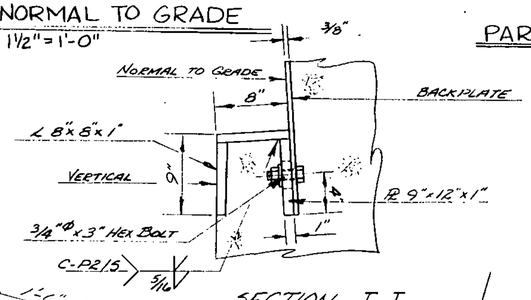
PARTIAL PLAN - NORMAL TO GRADE

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



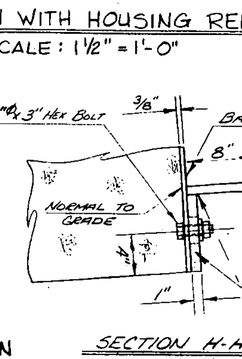
PARTIAL PLAN WITH HOUSING REMOVED

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



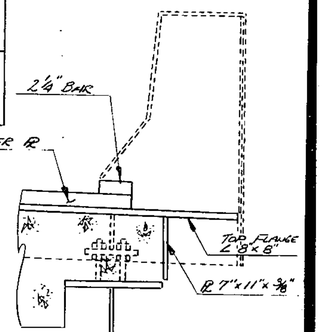
SECTION J-J

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



SECTION H-H

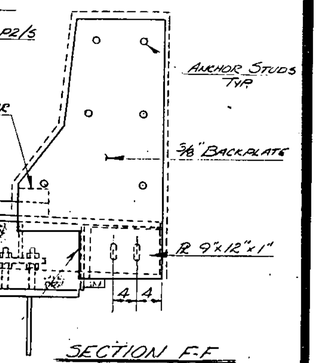
SCALE: 1 1/2" = 1'-0"



SECTION G-G

SCALE: 1"=1'-0"

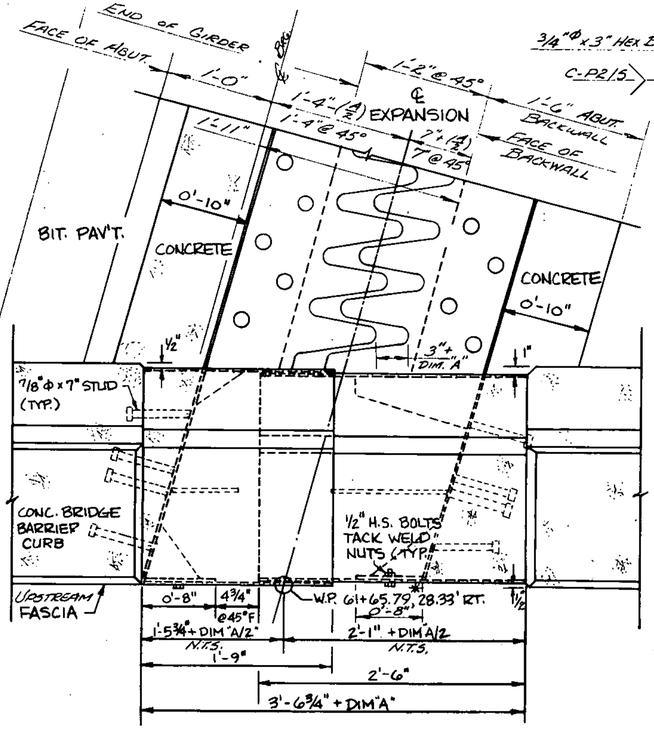
(SECTION G,-G, OPPOSITE HAND)



SECTION F-F

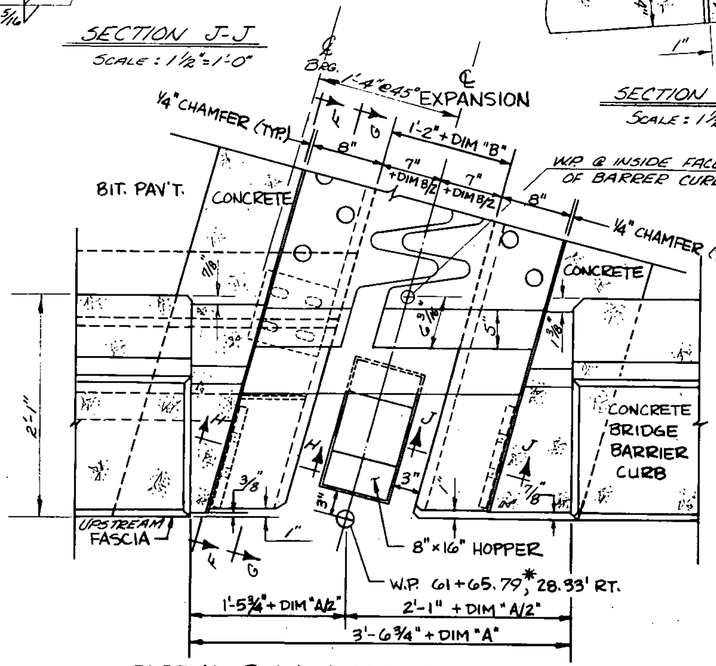
SCALE: 1"=1'-0"

(SECTION F,-F, OPPOSITE HAND)



PARTIAL PLAN - NORMAL TO GRADE

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



PARTIAL PLAN WITH HOUSING REMOVED

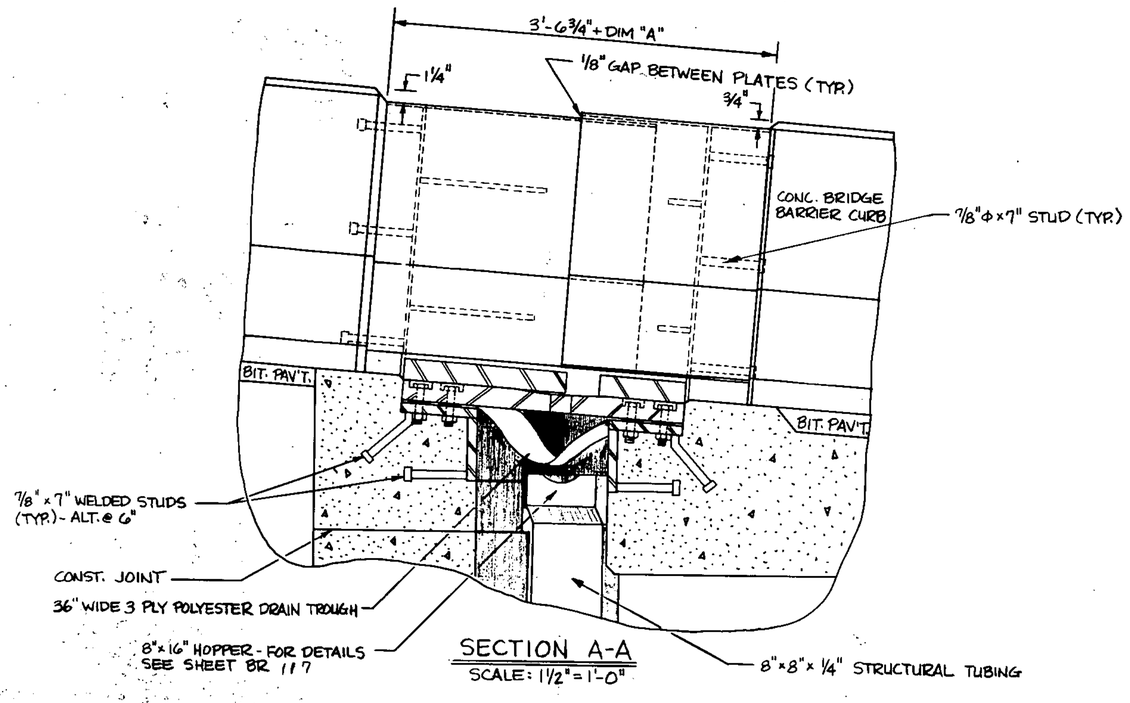
SCALE: 1 1/2" = 1'-0"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

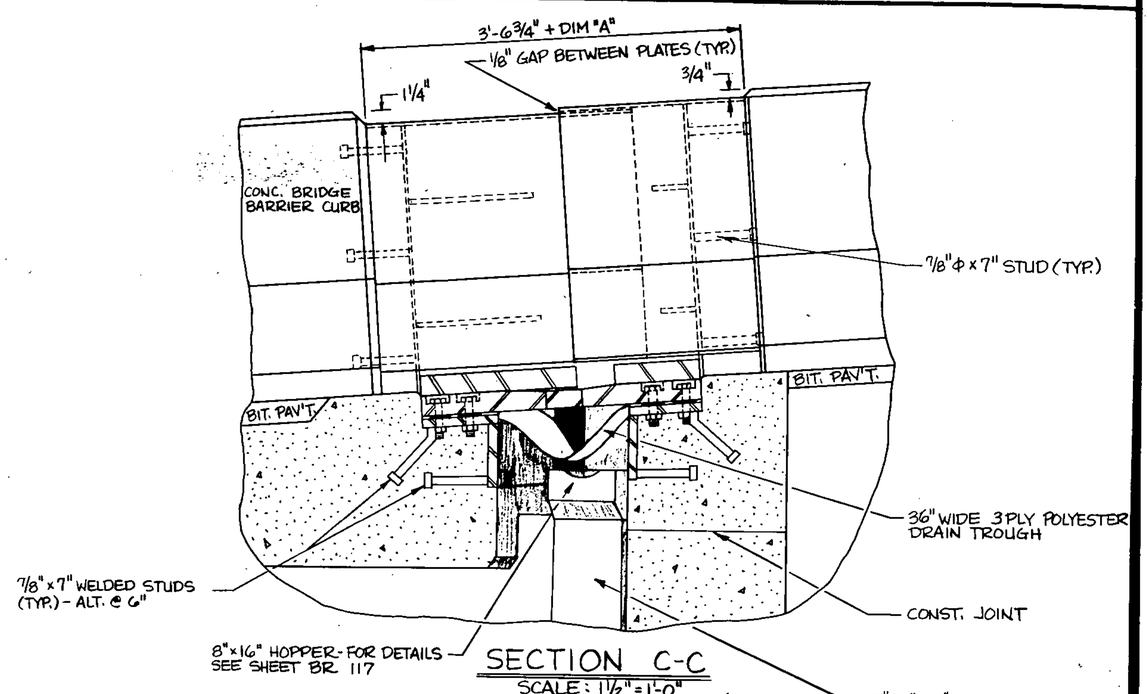
TOWN OF ST. JOHNSBURY	Bridge No. 1
HIGHWAY NO. I-91 NORTH CONNECTOR	Log Sta. Surv. Sta. 60+0
I-91 NORTH CONNECTOR OVER PASSUMPSIC RIVER	
EXPANSION JOINT DETAILS - ABUT #2	
Designed by G.V. SPILAK	Drawn by G. KLINEFELTER
Checked by M. GARCIA date 10-84	Bridge Design Supervisor R.S. HAUPT date 10-84
PROJECT ST. JOHNSBURY	PROJECT NO. DP-FF041-1 (10)
Bridge Sheet No. BR 118	Sheet 72 of 229

BRUNING 44-131 58354

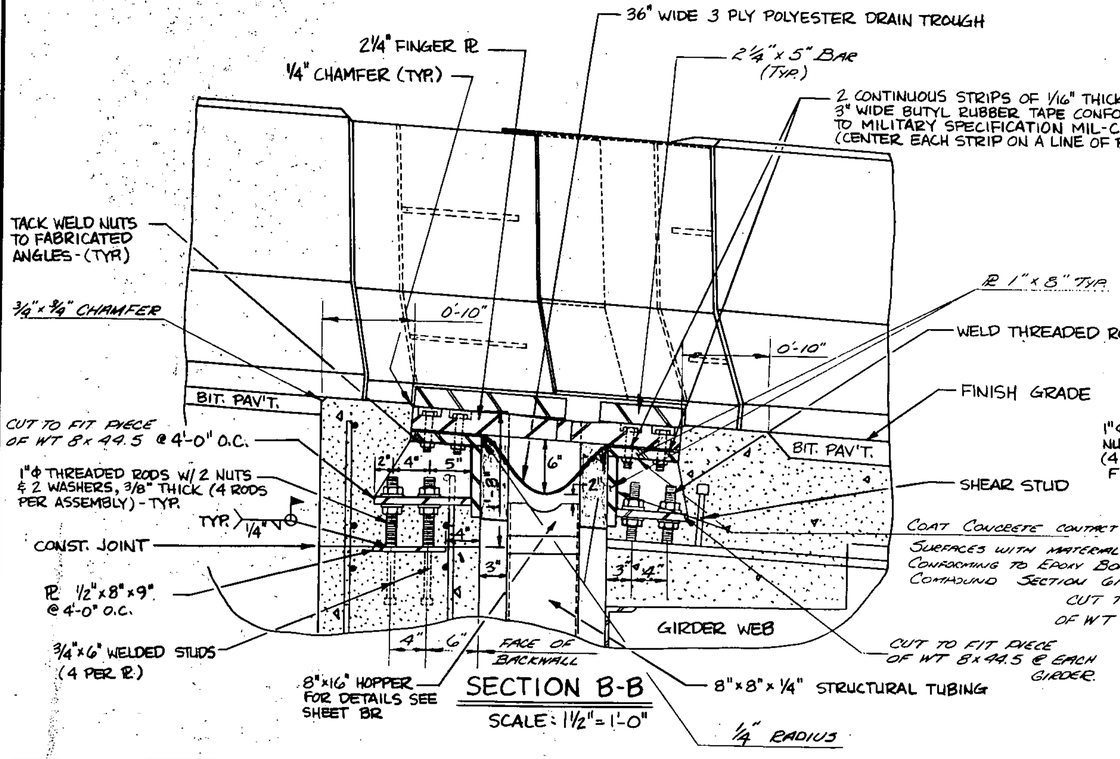
BR-6-83



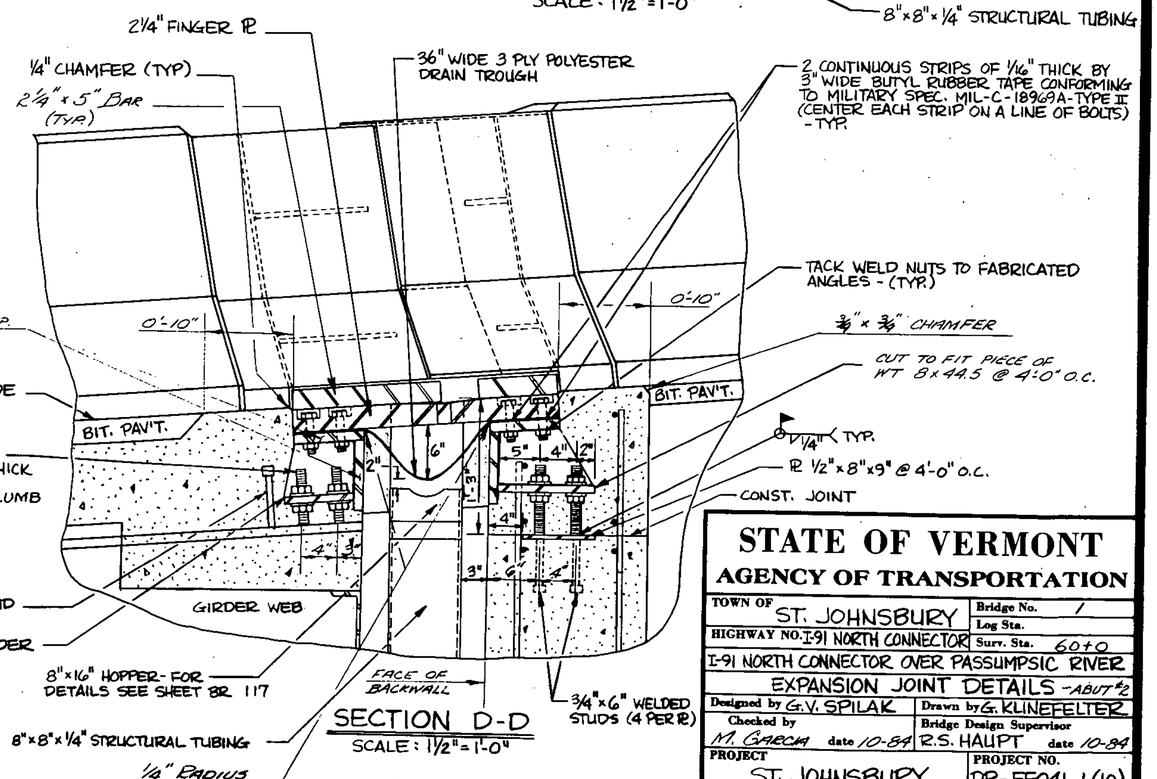
SECTION A-A
SCALE: 1½" = 1'-0"



SECTION C-C
SCALE: 1½" = 1'-0"



SECTION B-B
SCALE: 1½" = 1'-0"



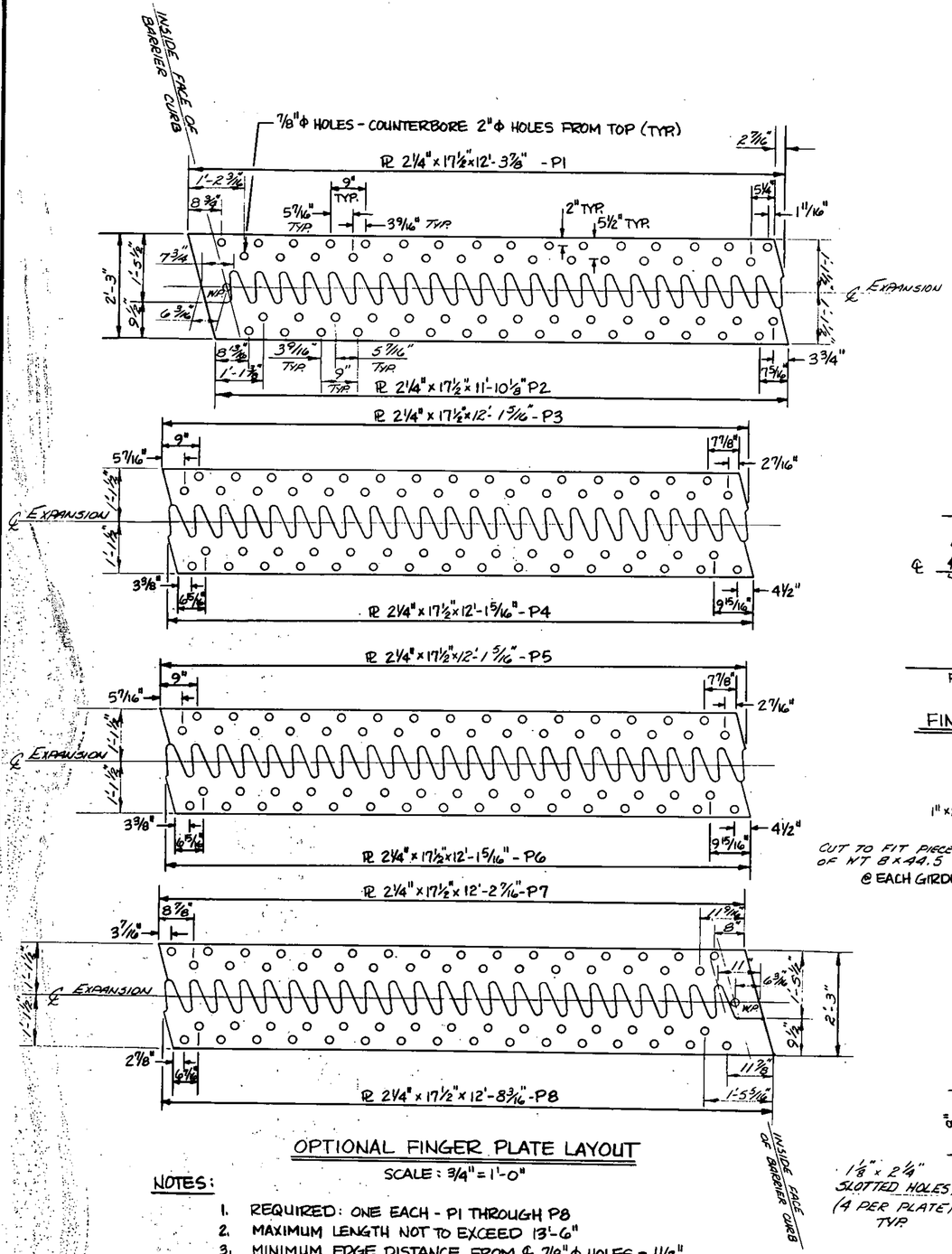
SECTION D-D
SCALE: 1½" = 1'-0"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ST. JOHNSBURY	Bridge No. 1
HIGHWAY NO. I-91 NORTH CONNECTOR	Log Sta. Surv. Sta. 60+0
I-91 NORTH CONNECTOR OVER PASSUMPSIC RIVER	
EXPANSION JOINT DETAILS - ABUT #2	
Designed by G.V. SPILAK	Drawn by G. KLINEFELTER
Checked by M. GARCIA date 10-84	Bridge Design Supervisor R.S. HAUPT date 10-84
PROJECT ST. JOHNSBURY	PROJECT NO. DP-FF041-1(10)
Bridge Sheet No. BR115	Sheet 73 of 229

BRUNING 44-131 56384

BR-6-'83

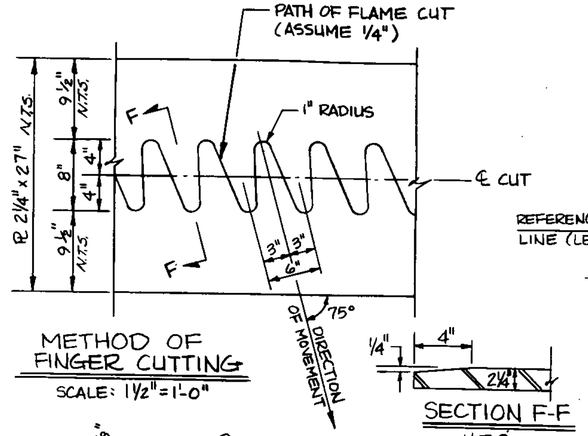


OPTIONAL FINGER PLATE LAYOUT

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

NOTES:

1. REQUIRED: ONE EACH - P1 THROUGH P8
2. MAXIMUM LENGTH NOT TO EXCEED 13'-6"
3. MINIMUM EDGE DISTANCE FROM ℄ 7/8"Φ HOLES = 1½"
4. DISTANCE(X) FROM BEGINNING (OR END) OF PLATE TO FIRST (OR LAST) FINGER BETWEEN 6" MINIMUM AND 9" MAXIMUM.
5. CUT PLATES FROM 26" MATERIAL. ALL CUTS TO BE SMOOTH - REMOVE ALL BURRS.
6. FINGER PLATES TO BE FORMED TO ROADWAY CROSS SLOPE PRIOR TO DRILLING SUPPORT ANGLES.

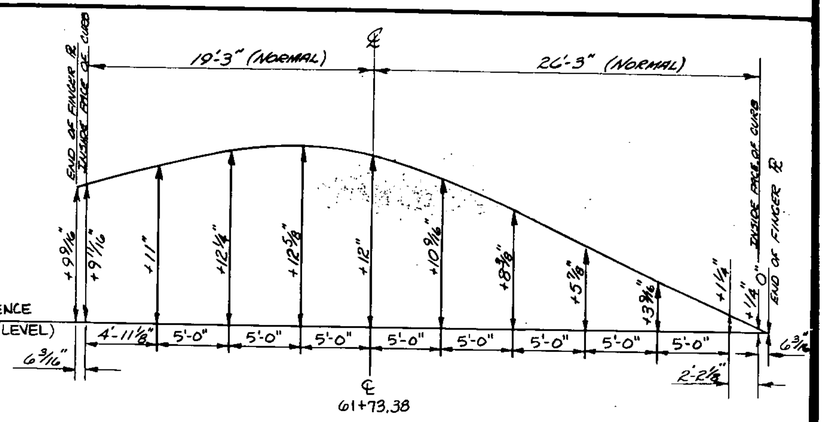


METHOD OF FINGER CUTTING

SCALE: 1½" = 1'-0"

SECTION F-F

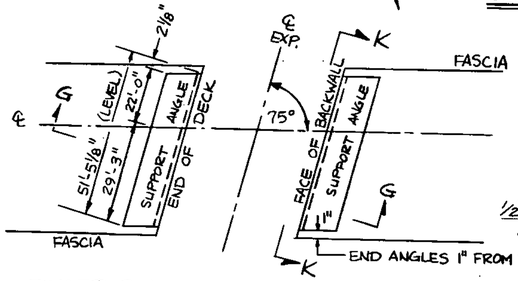
N.T.S.



FINGER PLATE PROFILE

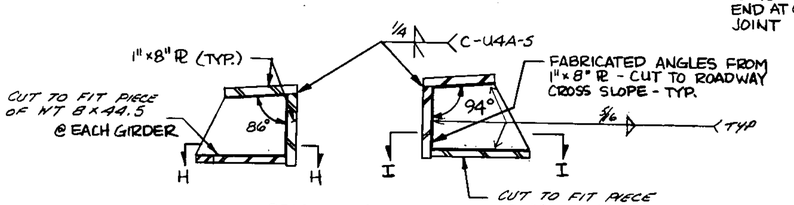
SCALE: 1" = 5' HORIZ. VERT. N.T.S.

NOTE: DISTANCES SHOWN ARE ALONG SKEW UNLESS OTHERWISE NOTED.



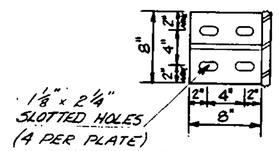
FINGER PLATE SUPPORT ANGLE PLAN

N.T.S.



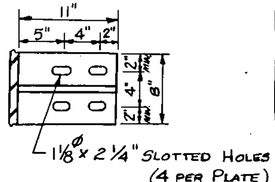
SECTION G-G

SCALE: 1½" = 1'-0"



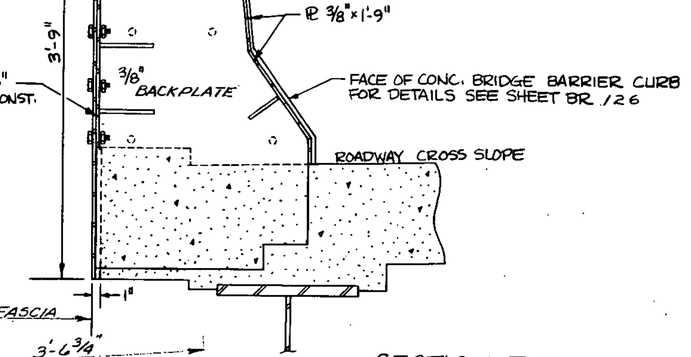
PLAN H-H

SCALE: 1½" = 1'-0"



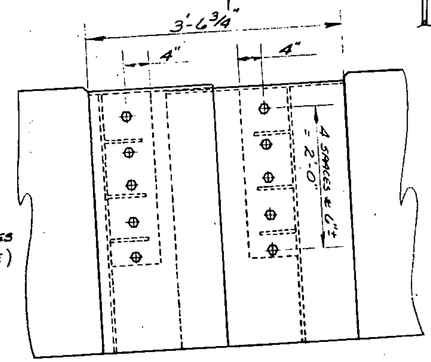
PLAN I-I

SCALE: 1½" = 1'-0"



SECTION E-E

SCALE: 1½" = 1'-0"



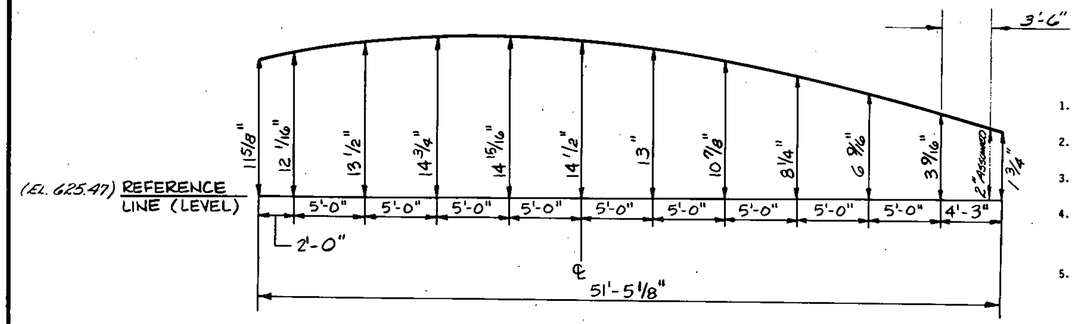
CURB PLATE ELEVATION @ UPSTREAM FASCIA

SCALE: 1" = 1'-0"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ST. JOHNSBURY	Bridge No. 1
HIGHWAY NO. I-91 NORTH CONNECTOR	Log Sta. Surv. Sta. 60+0
I-91 NORTH CONNECTOR OVER PASSUMPSIC RIVER	
EXPANSION JOINT DETAILS - ABUT 2	
Designed by G.V. SPILAK	Drawn by Gr. KLINEFELTER
Checked by M. GARCIA date 10-89	Bridge Design Supervisor R.S. HAUPT date
PROJECT ST. JOHNSBURY	PROJECT NO. DP-FF041-1(10)
Bridge Sheet No. BR 116	Sheet 74 of 229

DRAWING 44-131 38384

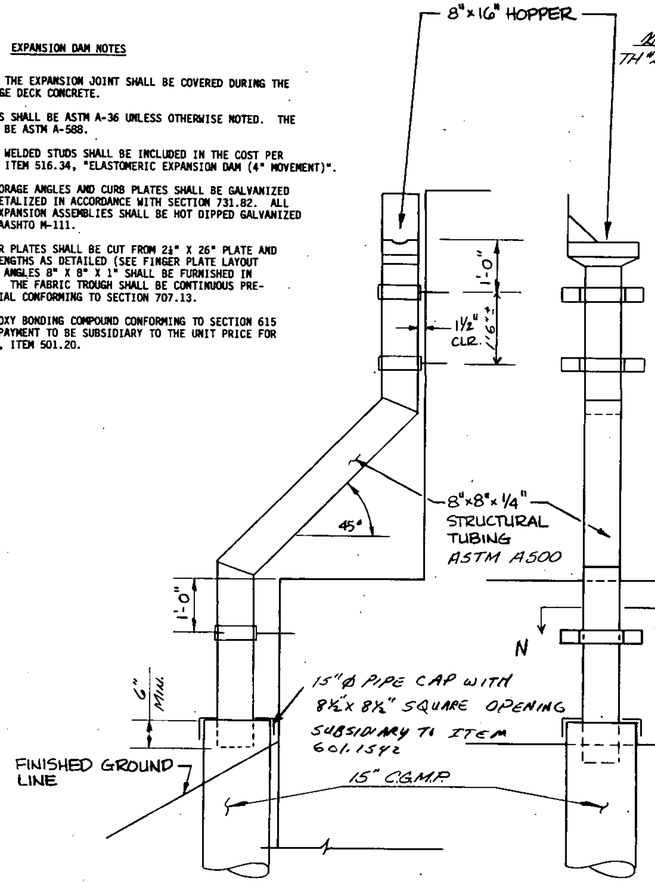


PROFILE AT FRONT FACE OF BACKWALL CONSTRUCTION JOINT

SCALE: 1"=5' HORIZ.
VERT. N.T.S.

EXPANSION DAM NOTES

1. THE FINAL FINISH OF THE EXPANSION JOINT SHALL BE COVERED DURING THE PLACING OF THE BRIDGE DECK CONCRETE.
2. ALL STEEL COMPONENTS SHALL BE ASTM A-36 UNLESS OTHERWISE NOTED. THE FINGER PLATES SHALL BE ASTM A-588.
3. ALL CURB PLATES AND WELDED STUDS SHALL BE INCLUDED IN THE COST PER LINEAR FOOT BID FOR ITEM 516.34, "ELASTOMERIC EXPANSION DAM (4" MOVEMENT)".
4. FINGER PLATES, ANCHORAGE ANGLES AND CURB PLATES SHALL BE GALVANIZED (AASHTO M-111) OR METALIZED IN ACCORDANCE WITH SECTION 731.82. ALL HARDWARE AND CURB EXPANSION ASSEMBLIES SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH AASHTO M-111.
5. THE 2½" THICK FINGER PLATES SHALL BE CUT FROM 2½" X 26" PLATE AND FURNISHED IN FOUR LENGTHS AS DETAILED (SEE FINGER PLATE LAYOUT SHEET BR 116). THE ANGLES 8" X 8" X 1" SHALL BE FURNISHED IN CONTINUOUS LENGTHS. THE FABRIC TROUGH SHALL BE CONTINUOUS PRE-FORMED FABRIC MATERIAL CONFORMING TO SECTION 707.13.
6. WHERE INDICATED, EPOXY BONDING COMPOUND CONFORMING TO SECTION 615 SHALL BE APPLIED. PAYMENT TO BE SUBSIDIARY TO THE UNIT PRICE FOR "CONCRETE, CLASS A", ITEM 501.20.

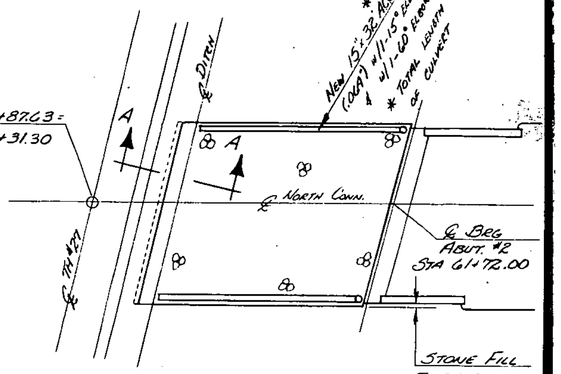


SIDE VIEW

SCALE: ¾"=1'-0"

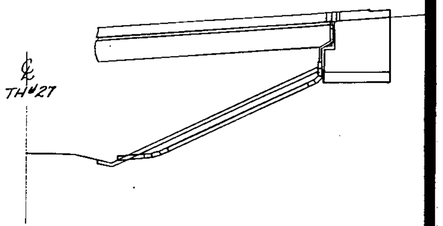
FRONT VIEW

SCALE: ¾"=1'-0"



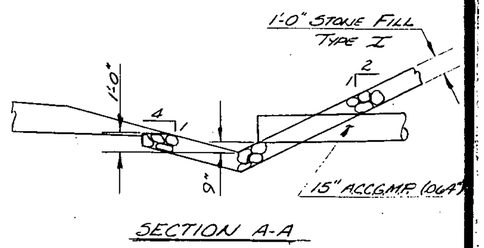
PLAN

1"=20'

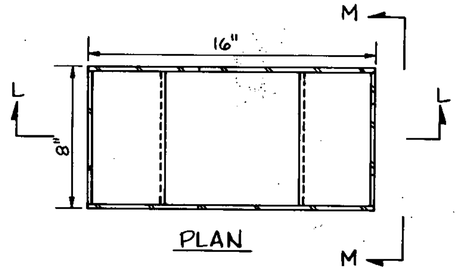


ELEVATION

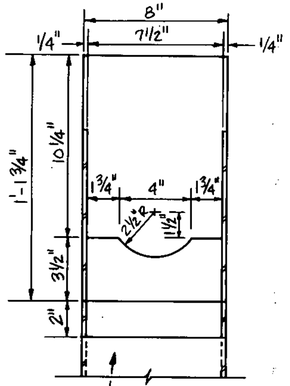
1"=20'



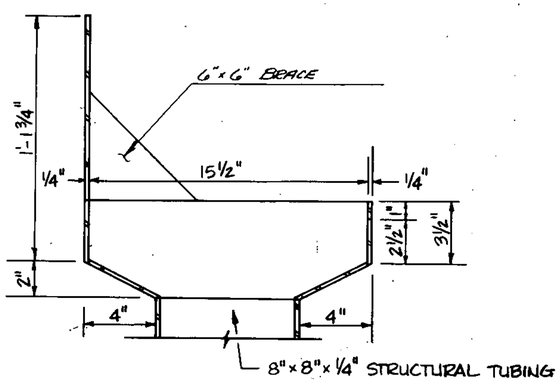
SECTION A-A



PLAN



ELEVATION M-M

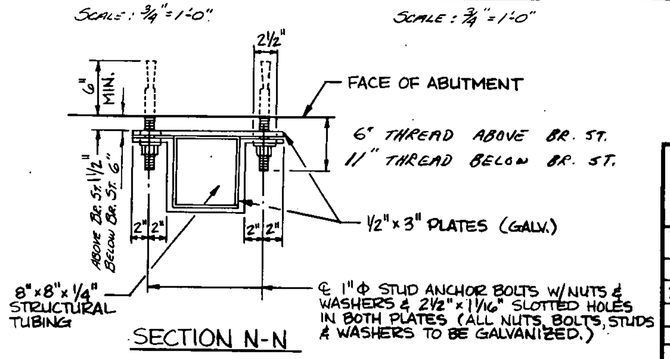


SECTION L-L

SEE BR118 FOR ADDITIONAL HOPPER / SCUPPER NOTES

HOPPER DETAILS

SCALE: 3"=1'-0"
(2 REQUIRED)



SECTION N-N

TYPICAL DOWNSPOUT DETAILS

SCALE: 1½"=1'-0"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ST. JOHNSBURY	Bridge No. 1
HIGHWAY NO. I-91 NORTH CONNECTOR	Log Sta. Surv. Sta. 60+0
I-91 NORTH CONNECTOR OVER PASSUMPSIC RIVER	
EXPANSION JOINT DETAILS - ABUT 2	
Designed by G.V. SPILAK	Drawn by G. KLINEFELTER
Checked by G V S date 12/84	Bridge Design Supervisor R.S. HAUPT date
PROJECT ST. JOHNSBURY	PROJECT NO. DP-FF041-1(10)
Bridge Sheet No. BR 117	Sheet 75 of 229

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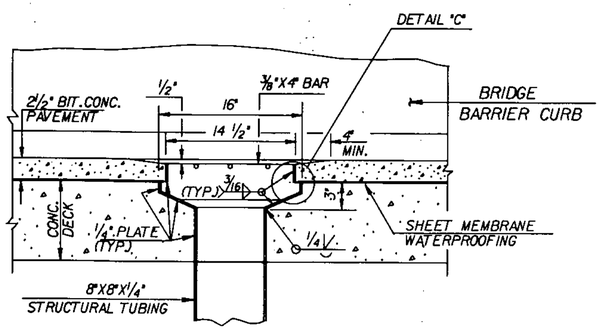
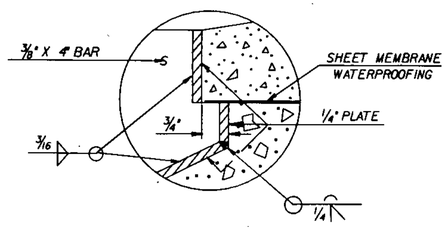
BR-6-'83

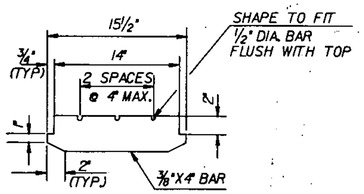


SECTION B-B

SCALE: 1½" = 1'-0

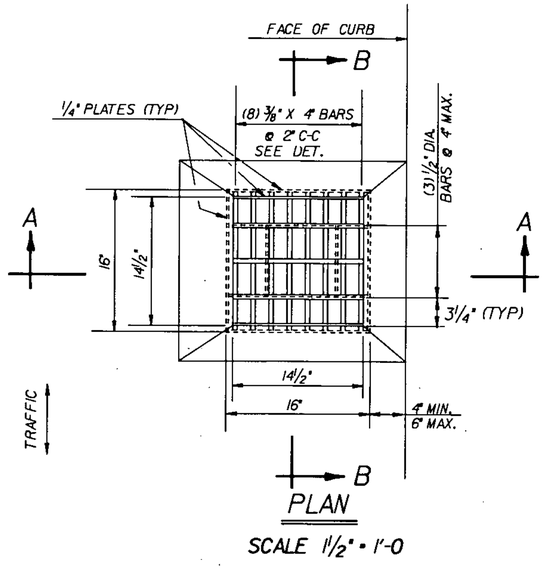


DETAIL "C"



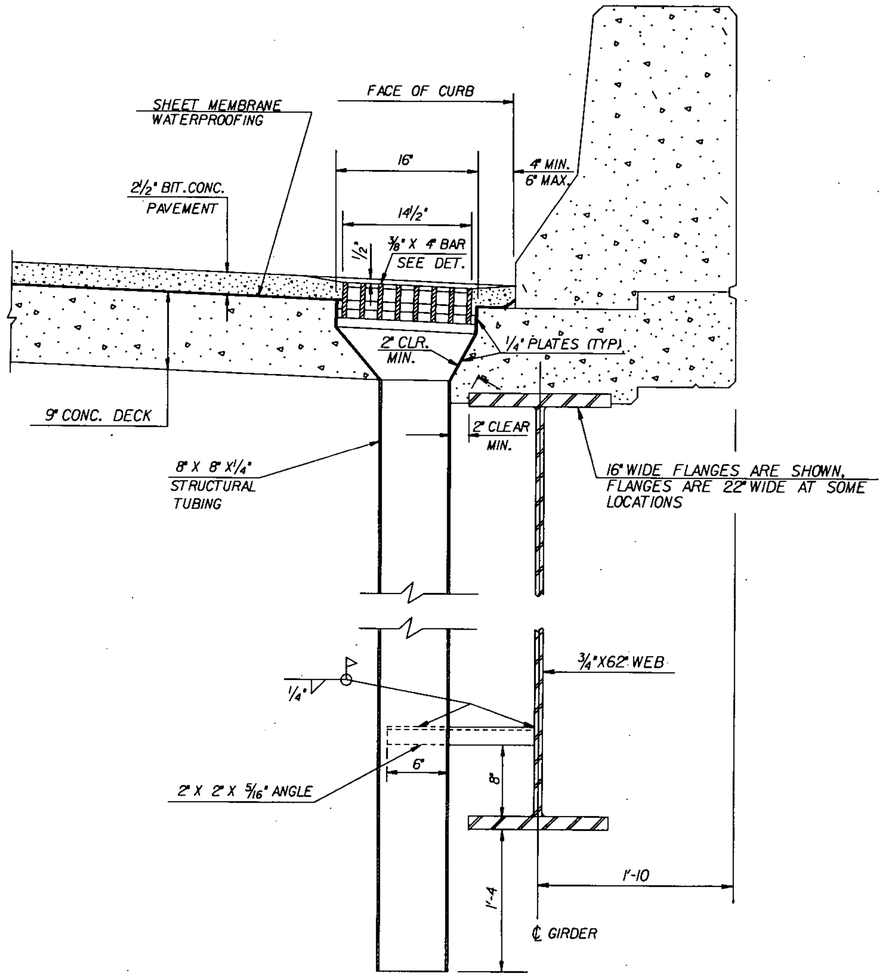
BAR DETAIL FOR GRATE

SCALE: 1½" = 1'-0



PLAN

SCALE 1½" = 1'-0



SECTION A - A

SCALE 1½" = 1'-0

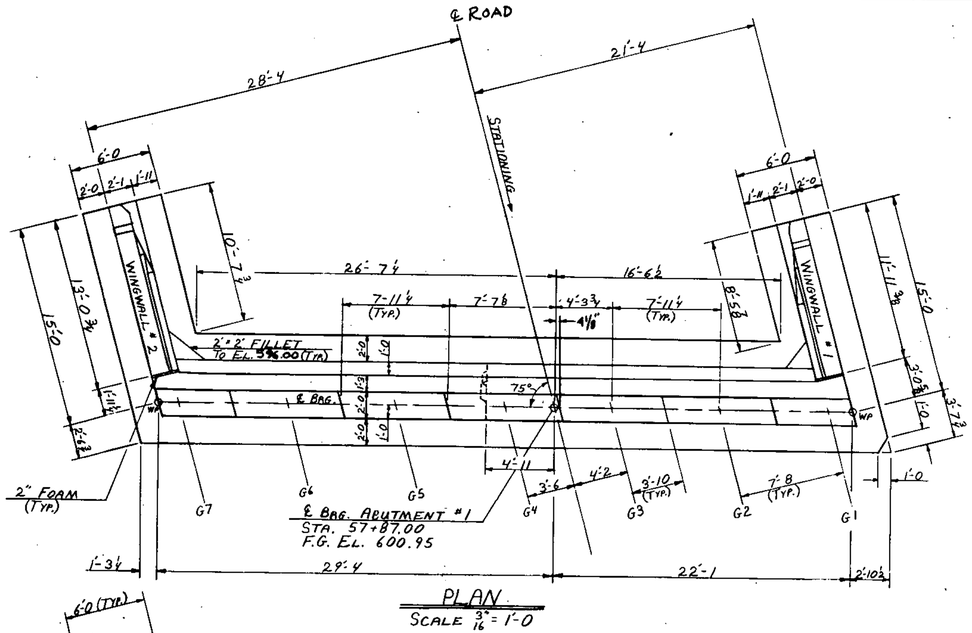
NOTES

1. HOLLOW STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM A-500 OR A-501.
2. ALL PLATES, BARS AND ANGLES SHALL CONFORM TO ASTM A-36.
3. THE TOP SURFACE OF SCUPPER SHALL BE SLOPED TO MATCH ROADWAY SLOPE AND GRADE.
4. THE BAR AND GRATE SECTION MAY BE PREFABRICATED PROVIDING THE GEOMETRY AND SECTION PROPERTIES ARE EQUIVALENT TO THE DETAILS SHOWN.
5. ALL STEEL IN THE HOPPERS, DOWNSPOUTS, TUBING, AND SCUPPERS SHALL BE PAID FOR UNDER ITEM 506.91, STRUCTURAL STEEL.
6. COAT ALL CONCRETE CONTACT SURFACES OF SCUPPERS WITH EPOXY BONDING COMPOUND (SECTION 719), INCLUDED IN THE UNIT PRICE BID FOR THE ITEM, CONCRETE, CLASS A.
7. GALVANIZED AREAS DISTURBED BY FIELD WELDING SHALL BE REPAIRED AS FOLLOWS :
   A. CLEAN AREA TO BE REPAIRED TO A SOUND CLEAN SURFACE (CAREFULL GRINDING WILL BE PERMITTED).
   B. APPLY BY BRUSH TWO COATS OF A ZINC DUST PIGMENTED ORGANIC COATING (95% BY WEIGHT PURE ZINC) WITH A MINIMUM OF 24 HOUR DRYING TIME.

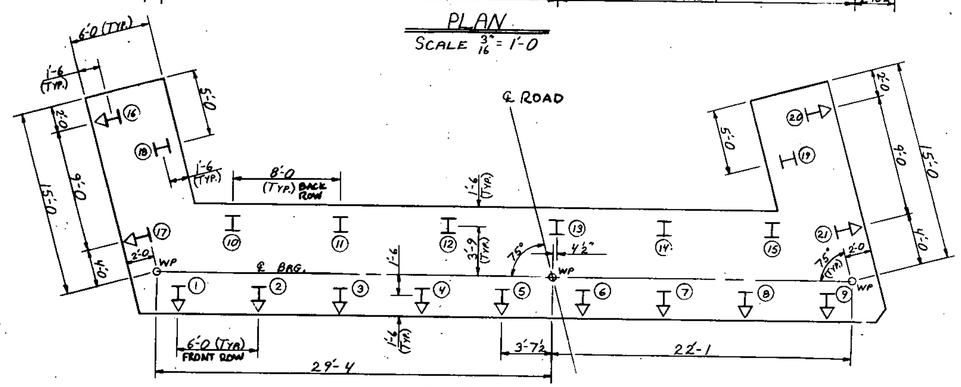
STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of ST. JOHNSBURY	Bridge No. 1
Highway No. 191 NORTHERN CONN.	Log Sta. / Surv. Sta. 60+00
191 NORTHERN CONNECTOR OVER THE PASSUMPSIC RIVER	
SCUPPER DETAILS	
Designed By G. SPILAK	Drawn By D. C. WILLEY
Checked By M. GARCIA Date 9-84	Bridge Design Supervisor R. S. HAUPT Date 7-84
PROJECT ST. JOHNSBURY	PROJECT NO. DPFF-041-1(10)
L.G.C. Info. USA\Z30257\6007\SCU.DGN	
Bridge Sheet No. BR18	Sheet 76 of 229

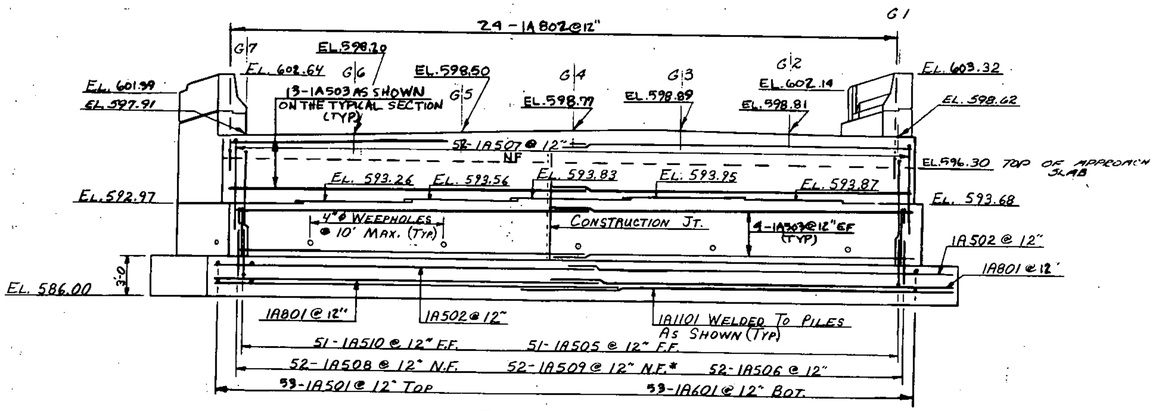
BR-6



PLAN
SCALE 3/16" = 1'-0



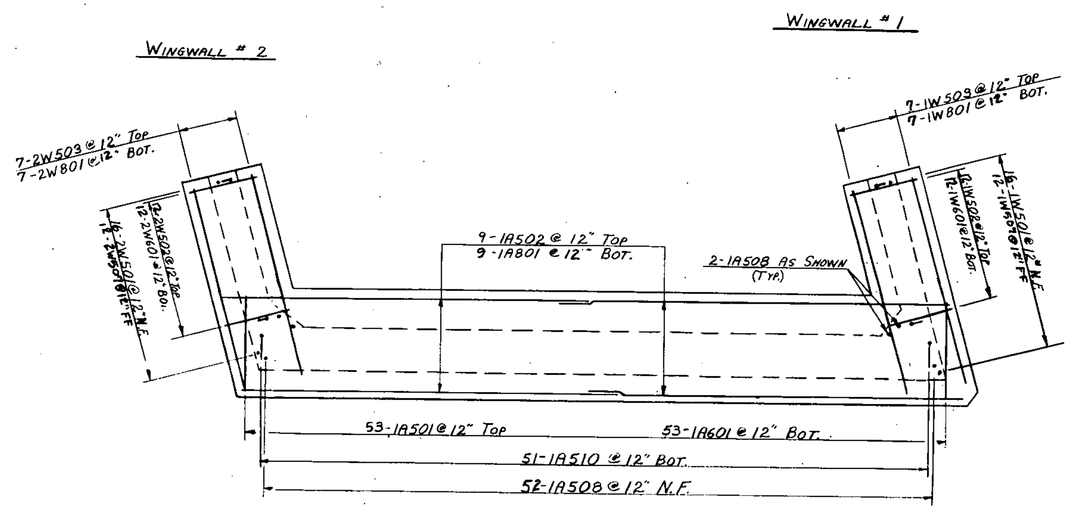
PILE LAYOUT
SCALE 1/16" = 1'-0



ELEVATION
SCALE 3/16" = 1'-0

WINGWALL # 2

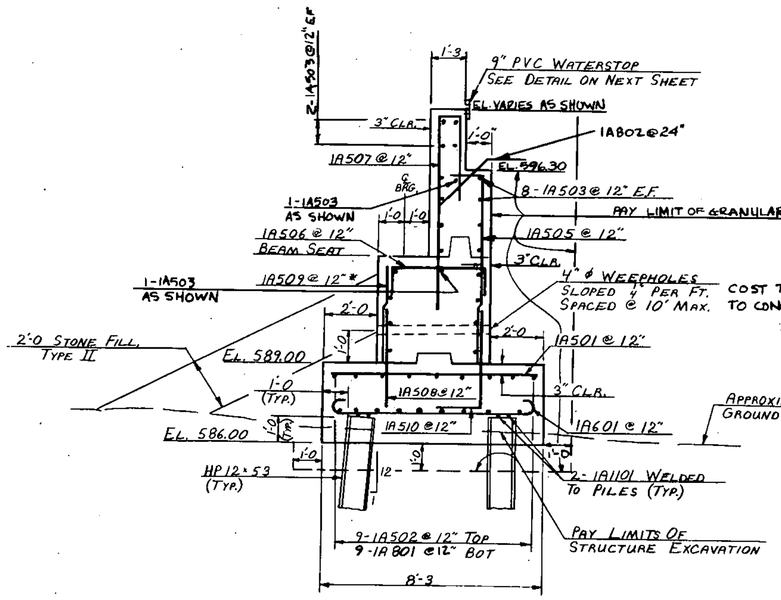
WINGWALL # 1



FOOTING REINFORCING PLAN
SCALE 3/16" = 1'-0

NOTES

1. I- INDICATES LOCATION OF A VERTICAL PILE.
2. ↥- INDICATES LOCATION AND DIRECTION OF 1 ON 12 BATTERED PILE.
3. APPROXIMATE LENGTH OF THE PILES IS 50'.
4. PILE DESIGN LOAD IS 69 TONS.
5. ALL PILES SHALL BE DRIVEN TO LEDGE OR REFUSAL.
6. WATER REPELLENT SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES OF THE CURBS, WINGWALLS, ABUTMENTS AND BACKWALLS.
7. * - INDICATES CUT TO FIT IN THE FIELD.



ABUTMENT TYPICAL SECTION
SCALE 3/8" = 1'-0

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ST. JOHNSBURY	Bridge No. 1
HIGHWAY NO. I91 NORTHERN CONN.	Log Sta.
	Surv. Sta. 60+0

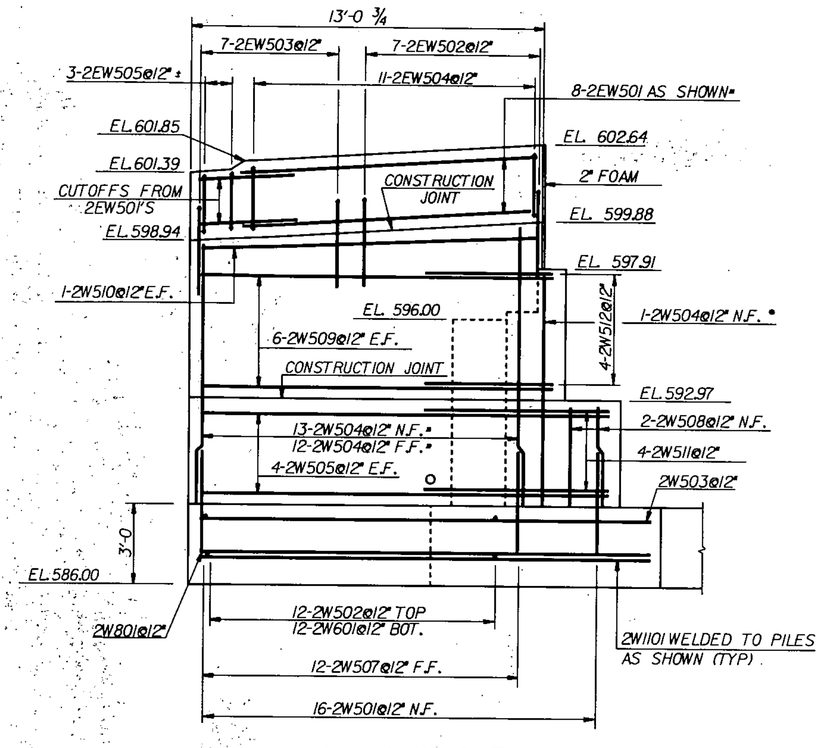
I91 NORTHERN CONNECTOR OVER PASSUMPSIC RIVER

ABUTMENT NO. 1 DETAILS

Designed by G.V. SEILAR	Drawn by D.C. WILLEY
Checked by M. GARCIA date 7-84	Bridge Design Supervisor R.S. HAUPT date 12-83
PROJECT ST. JOHNSBURY	PROJECT NO. DP-FF 041-1(10)
Bridge Sheet No. BR119	Sheet 77 of 229

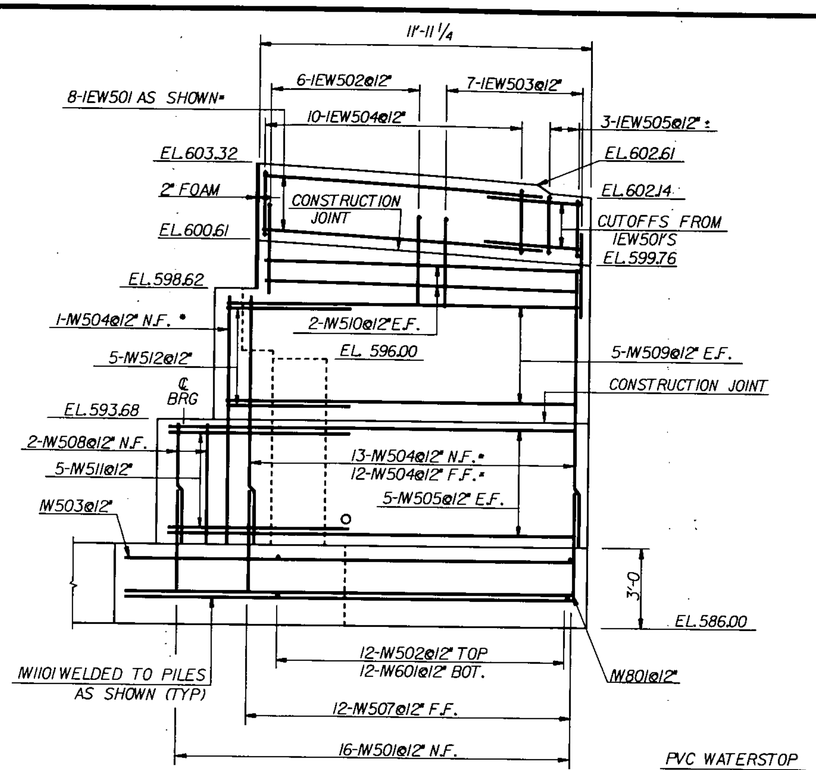
DRUPING 44-131 58384

BR-6-85



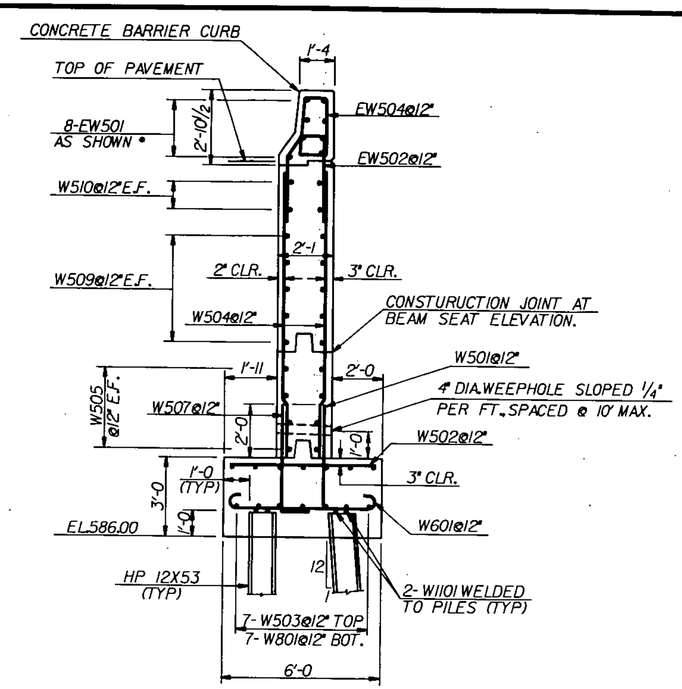
WINGWALL NO.2 ELEVATION

SCALE 3/8" = 1'-0



WINGWALL NO.1 ELEVATION

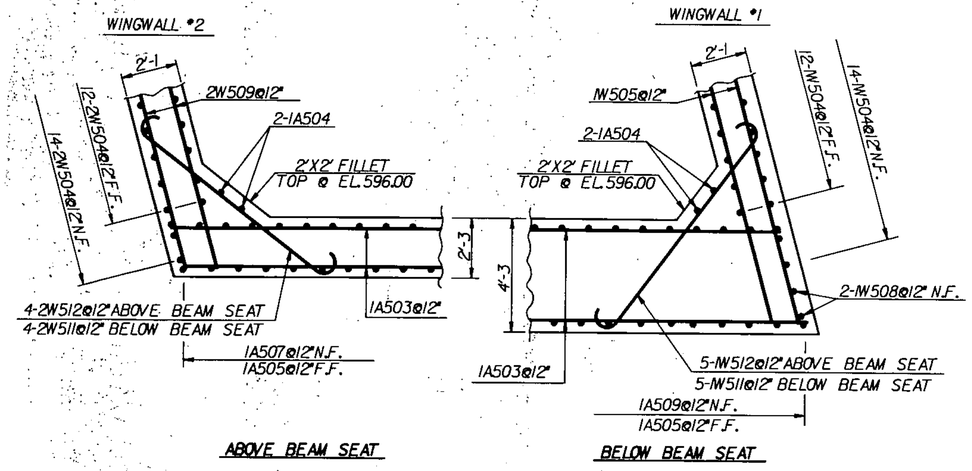
SCALE 3/8" = 1'-0



WINGWALL TYPICAL SECTION

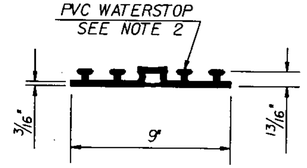
SCALE 3/8"=1'-0

• - INDICATES CUT TO FIT IN FIELD.



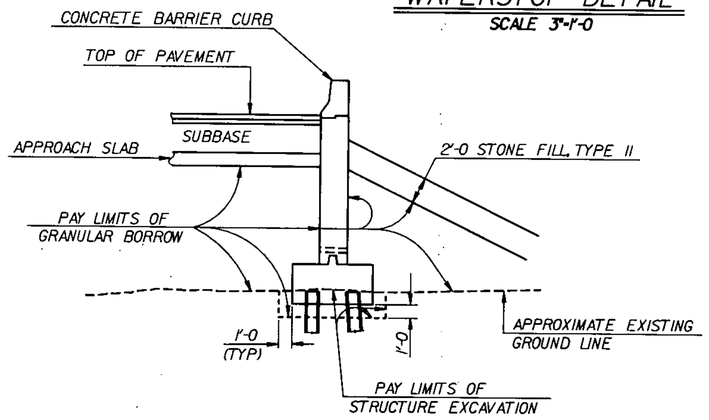
CORNER DETAILS

SCALE 3/8"=1'-0



ABUTMENT # 1 WATERSTOP DETAIL

SCALE 3"=1'-0

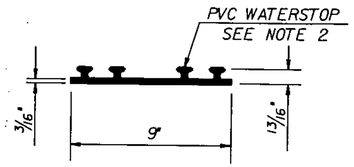


EARTHWORKS LIMITS

SCALE 3/16"=1'-0

NOTES

1. FOR CONCRETE BARRIER CURB DETAILS SEE SHEET BR126.
2. THE COST FOR FURNISHING AND INSTALLING PVC WATERSTOP, AS SHOWN ON THESE PLANS, SHALL BE SUBSIDIARY TO THE UNIT PRICE BID FOR CONCRETE, CLASS B.



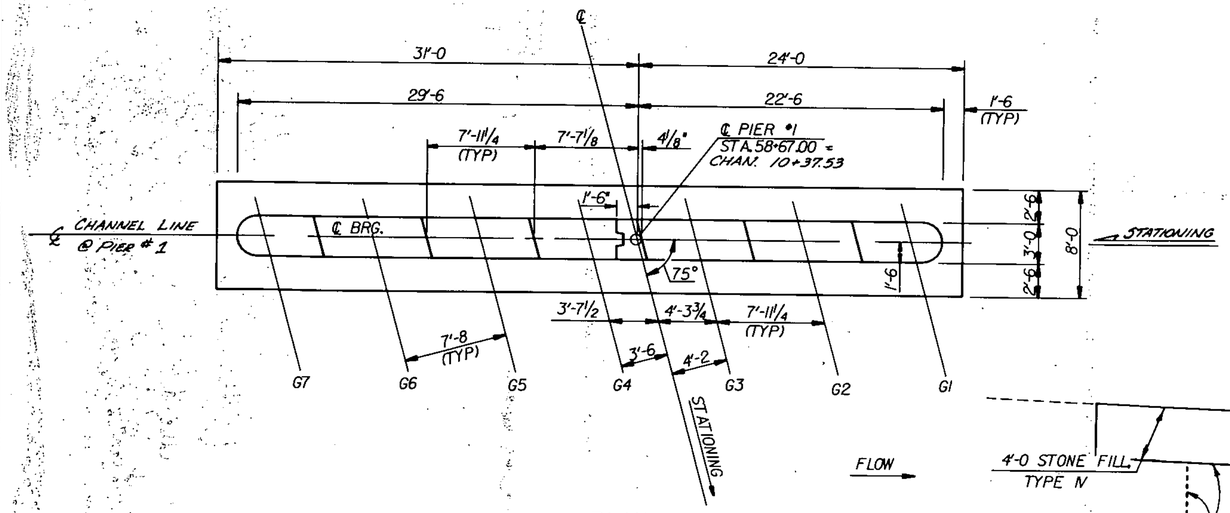
ABUTMENT # 2 WATERSTOP DETAIL

SCALE 3"=1'-0

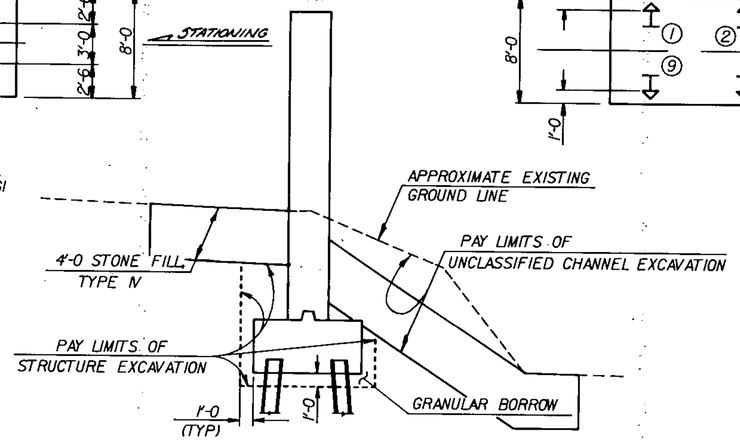
STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of ST. JOHNSBURY	Bridge No. 1
Highway No. 191 NORTHERN CONN.	Log Sta. Surv. Sta. 60-00
WINGWALLS •1 AND •2 DETAILS	
191 NORTHERN CONNECTOR OVER THE PASSUMPIC RIVER	
Designed By G. SPILAK	Drawn By D. C. WILLEY
Checked By M. GARCIA Date 7-84	Bridge Design Supervisor R. S. HAUPT Date 7-84
PROJECT ST. JOHNSBURY	PROJECT NO. DP-FF041-1(10)
U.C.C. Info. OSA# 30251716D07NW1.DGN	
Bridge Sheet No. BR120	Sheet 78 of 229

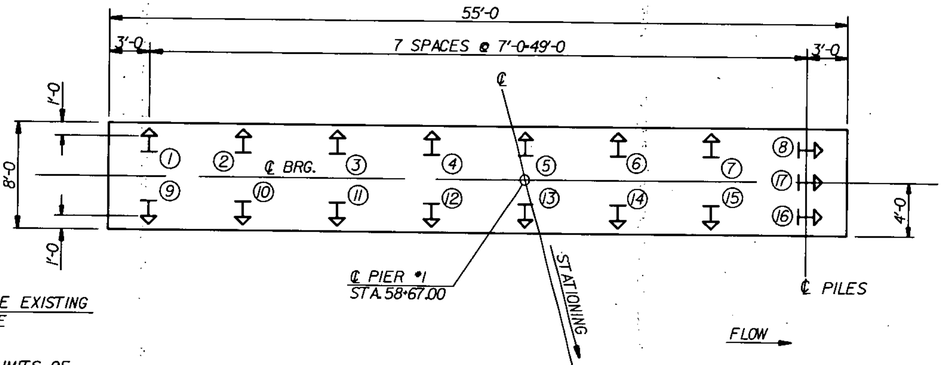
BRUNING 62165



PLAN
SCALE 3/16" = 1'-0



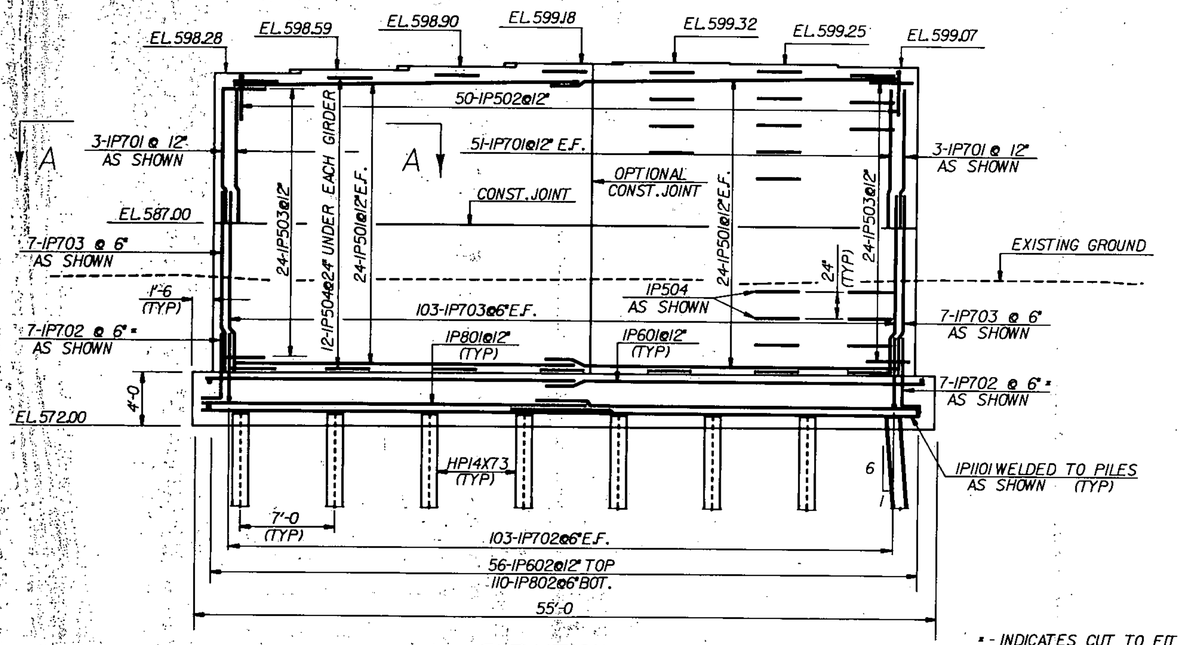
EARTHWORKS LIMITS
SCALE 3/16" = 1'-0



FOOTING PLAN
SCALE 3/16" = 1'-0

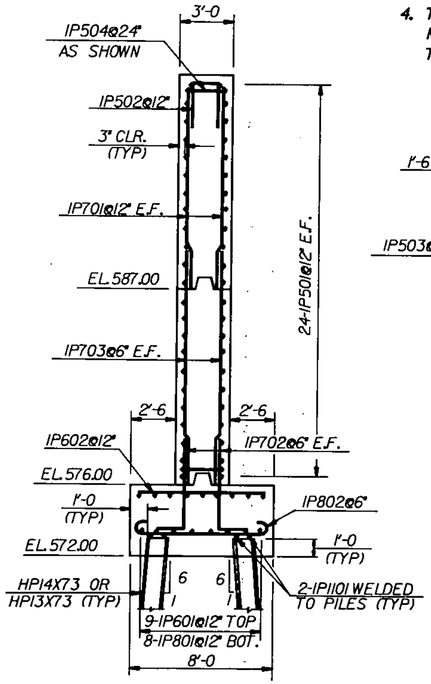
NOTES

1. ↑ - INDICATES LOCATION AND DIRECTION OF 1 ON 6 BATTERED PILE.
2. APPROXIMATE LENGTH OF THE PILES IS 35'.
3. ALL PILES SHALL BE DRIVEN TO LEDGE OR REFUSAL. PILE DESIGN LOAD IS 96 TONS.
4. THE UNIT PRICE BID FOR STRUCTURE EXCAVATION SHALL INCLUDE ANY NECESSARY SHORING, SHEET PILING, OR A COFFERDAM AS REQUIRED FOR THIS PIER.

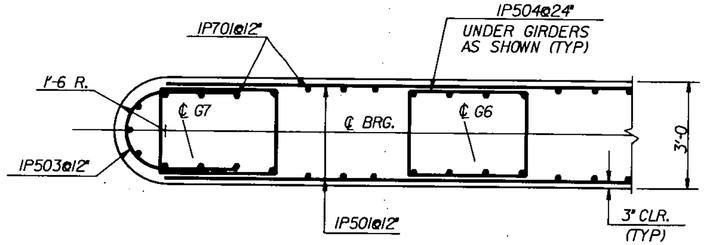


ELEVATION
SCALE 3/16" = 1'-0

* - INDICATES CUT TO FIT IN FIELD.



TYPICAL SECTION
SCALE 1/4" = 1'-0

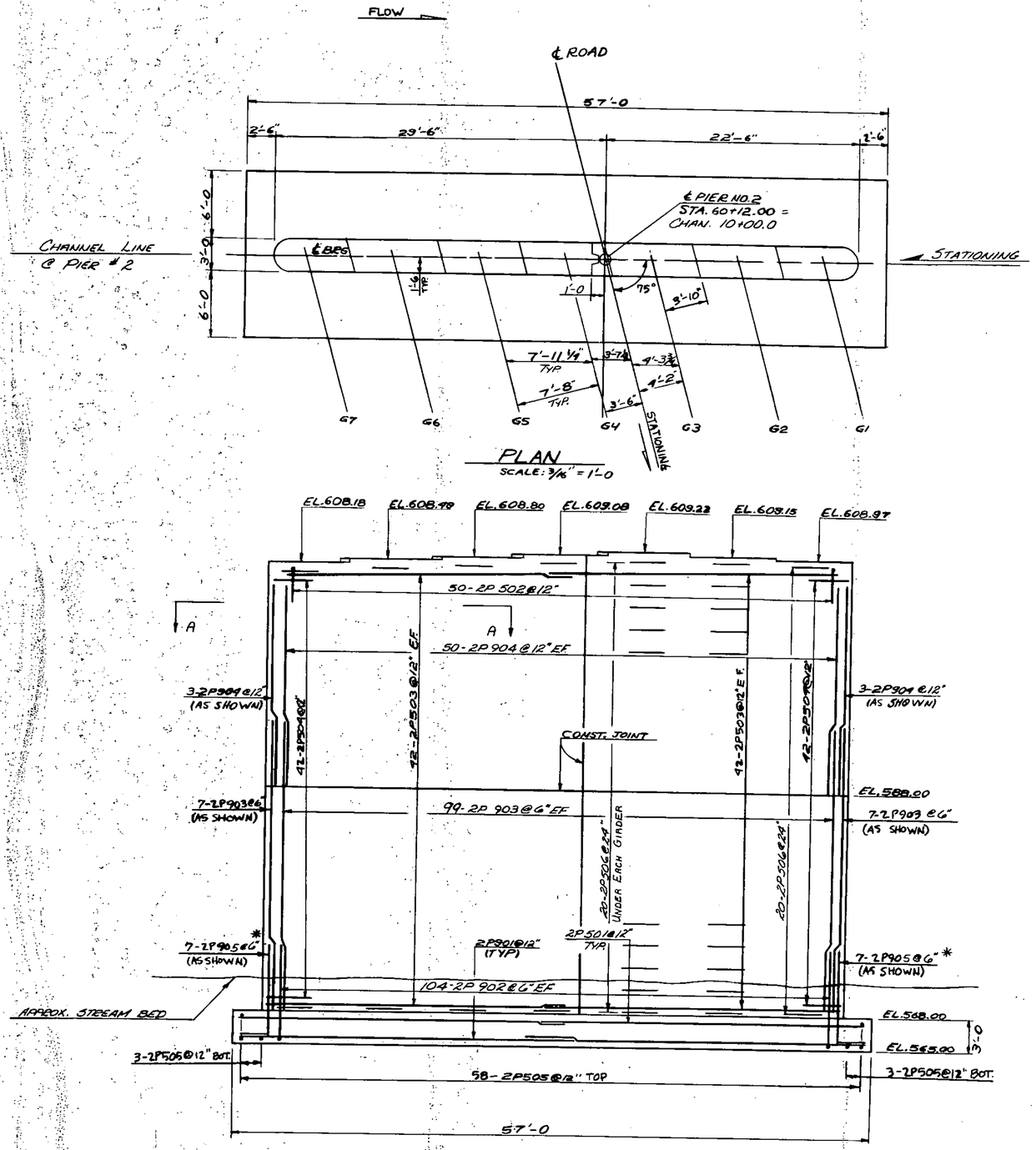


SECTION A - A
SCALE 1/2" = 1'-0

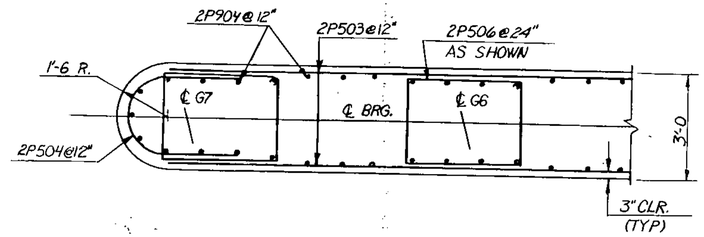
STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of ST. JOHNSBURY	Bridge No. 1
Highway No. 191 NORTHERN CONN	Log Sta. / Surv. Sta. 58+67
PIER NO. 1 DETAILS	
191 NORTHERN CONNECTOR OVER THE PASSUMPSIC RIVER	
Designed By G. SPILAK	Drawn By D. C. WILLEY
Checked By M. GARCIA Date 8-84	Bridge Design Supervisor R. S. HAUPT Date 8-84
PROJECT ST. JOHNSBURY	PROJECT NO. DP-FF041-1(10)
L.G.C. Info.	QSA# 30.2537 6D07 IP1.DGN
Bridge Sheet No. BR121	Sheet 79 of 229

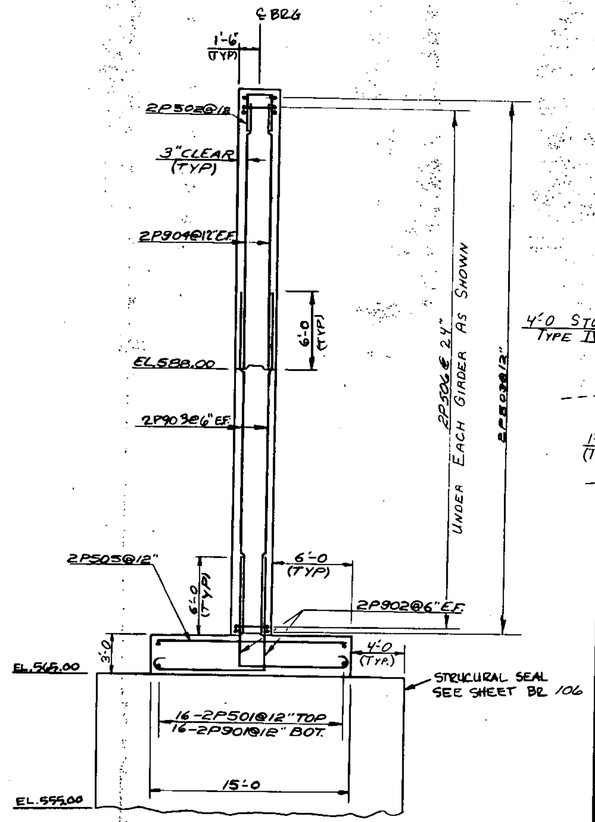
BR-6



ELEVATION
SCALE: 3/16" = 1'-0

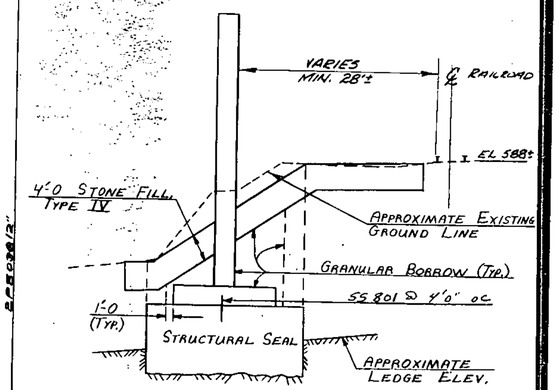


SECTION A - A
SCALE 1/2" = 1'-0



TYPICAL SECTION
SCALE: 3/16" = 1'-0

NOTE
WATER REPELLENT SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES OF THE PIERS.



EARTHWORK LIMITS
SCALE 3/32" = 1'-0

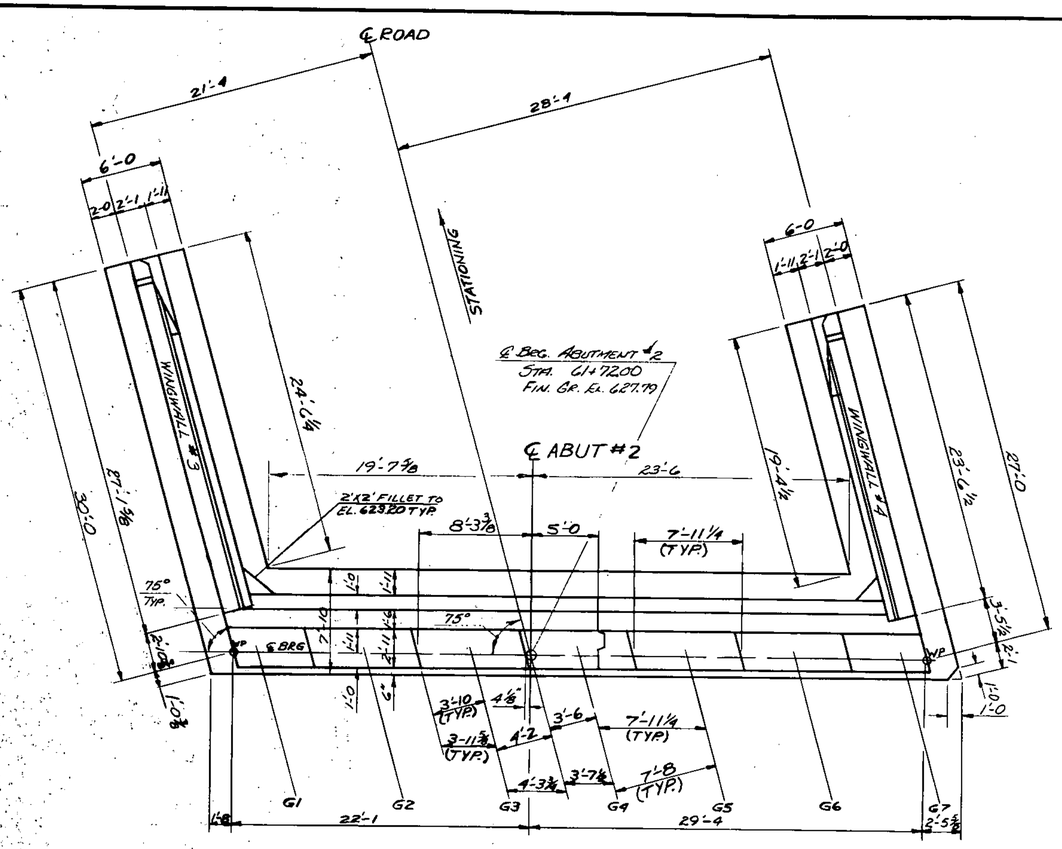
SEE COFFERDAM DETAILS, SHEET BR106

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ST. JOHNSBURY	Bridge No. 1
	Log Sta.
HIGHWAY NO. I91 NORTH CONNECT.	Surv. Sta. 60+12
I91 NORTHERN CONNECTOR OVER PASSUMPSIC RIVER	
PIER NO.2 DETAILS	
Designed by G.V. SPILAK	Drawn by T.J. GRACE
Checked by DAVID WILLEY date 8/10/84	Bridge Design Supervisor R.S. HAUPT date 6-84
PROJECT ST. JOHNSBURY	PROJECT NO. DP-FF091-1(10)
Bridge Sheet No. BR122	Sheet 80 of 229

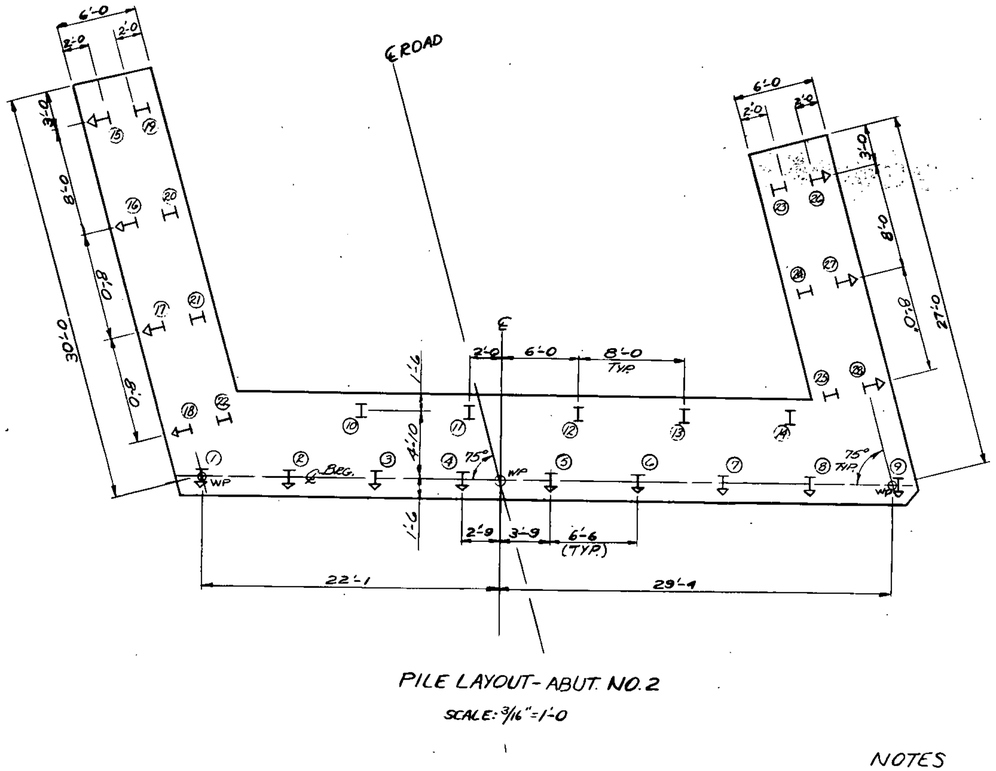
BRUNING 44-131-28384

8R4-'83



PLAN-ABUT. NO. 2
SCALE: 3/16"=1'-0

ALSO, SEE THE FOOTING REINFORCEMENT PLAN, SHEET BR 124



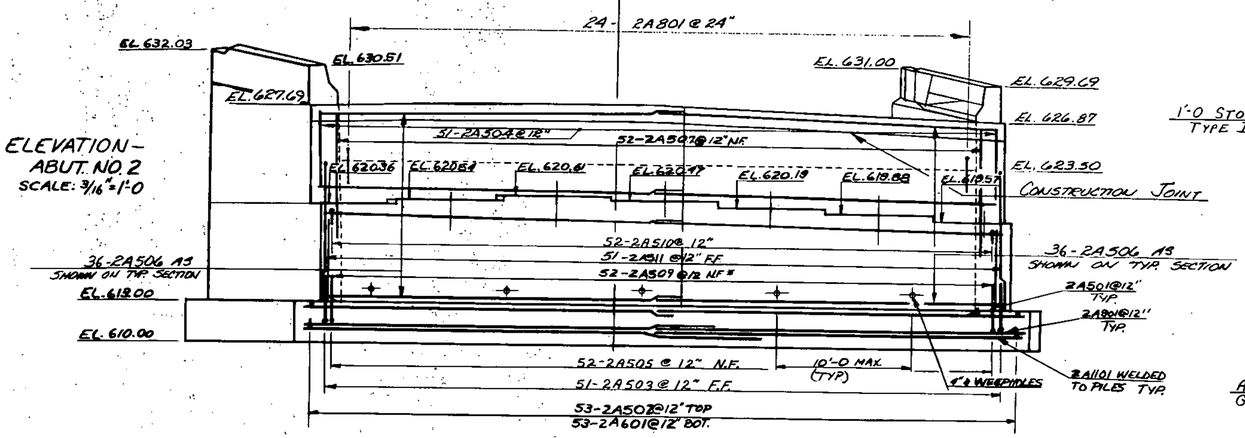
PILE LAYOUT- ABUT. NO. 2
SCALE: 3/16"=1'-0

NOTES

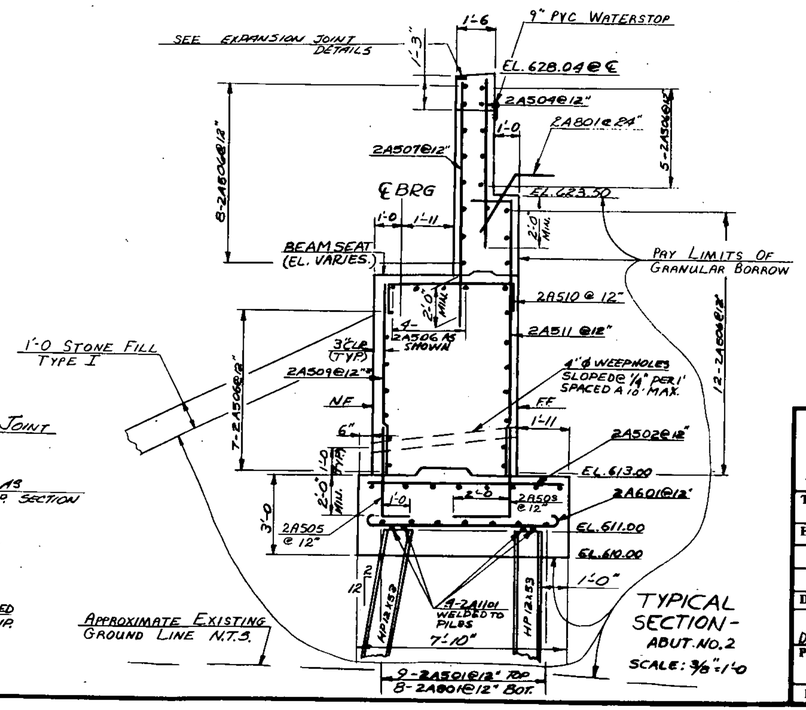
1. I INDICATES LOCATION OF A VERTICAL PILE
2. I INDICATES LOCATION + DIRECTION OF A 2 ON 12 BATTERED PILE.
3. APPROXIMATE LENGTH OF PILES IS 40'.
4. ALL PILES SHALL BE DRIVEN TO LEDGE OR REFUSAL. PILE DESIGN LOAD IS 69 TONS.
* CUT IN FIELD WHERE NECESSARY TO MAINTAIN CLEARANCE.

NOTE:
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE

5. THE TOP SECTION OF THE BACKWALL SHALL BE POURED AFTER THE DECK HAS BEEN FORMED OR POURED. THE TOP OF BACKWALL ELEVATION SHALL BE ADJUSTED AS NECESSARY TO MATCH THE TOP OF DECK ELEVATION.



ELEVATION- ABUT. NO. 2
SCALE: 3/16"=1'-0



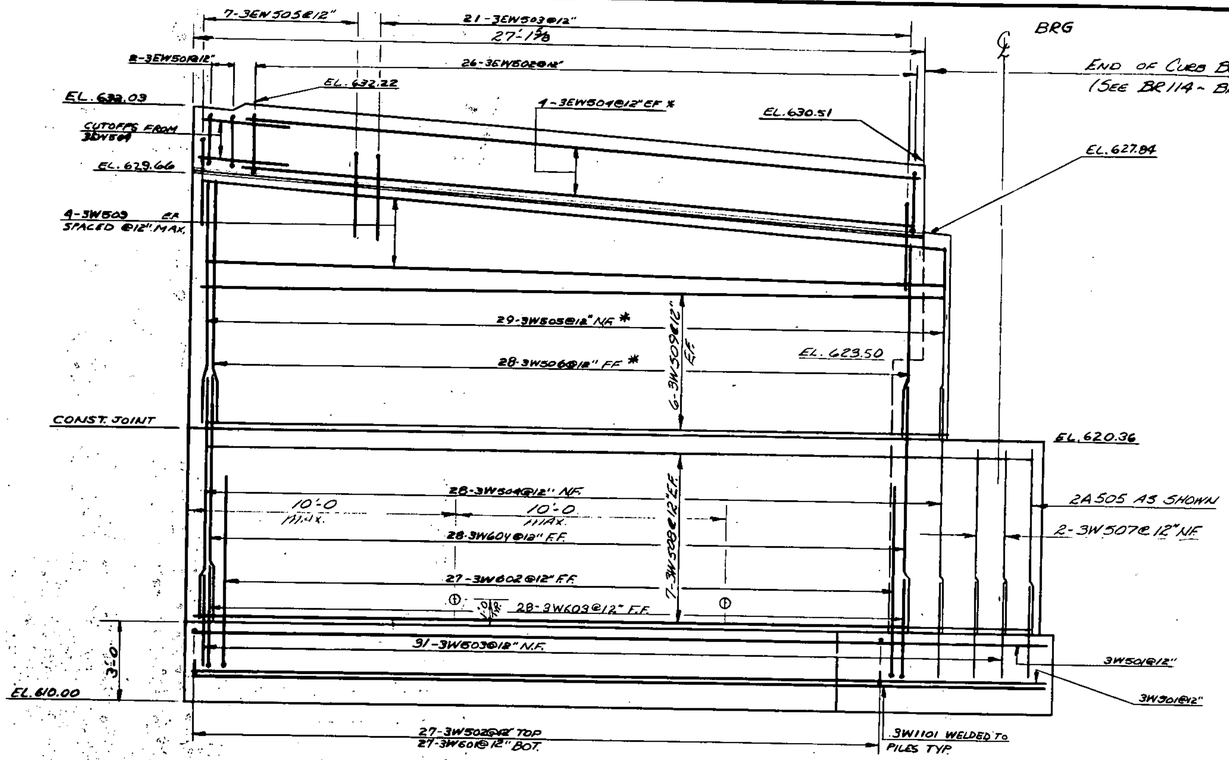
TYPICAL SECTION- ABUT. NO. 2
SCALE: 3/8"=1'-0

STATE OF VERMONT
AGENCY OF TRANSPORTATION

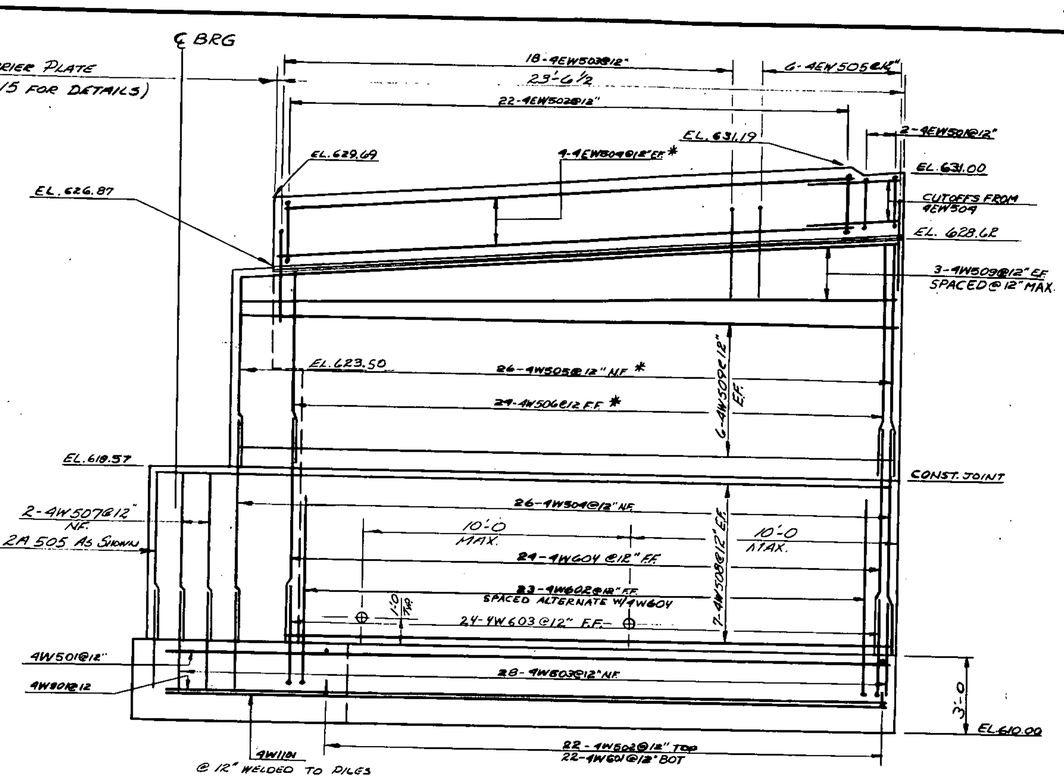
TOWN OF ST. JOHNSBURY	Bridge No. 1
HIGHWAY NO. I91 NORTH CONNECTOR	Log Sta.
	Surv. Sta. 60+0
ABUTMENT NO. 2 DETAILS	
I91 NORTHERN CONNECTOR OVER PASSUMPSIC RIVER	
Designed by G.V. SPILAK	Drawn by T.J. GRACE
Checked by D.C. WILLEY date 8-84	Bridge Design Supervisor R.S. HAUPT date
PROJECT ST. JOHNSBURY	PROJECT NO. DP-FF041-1(12)
Bridge Sheet No. BR 123	Sheet 81 of 229

BR-6-'83

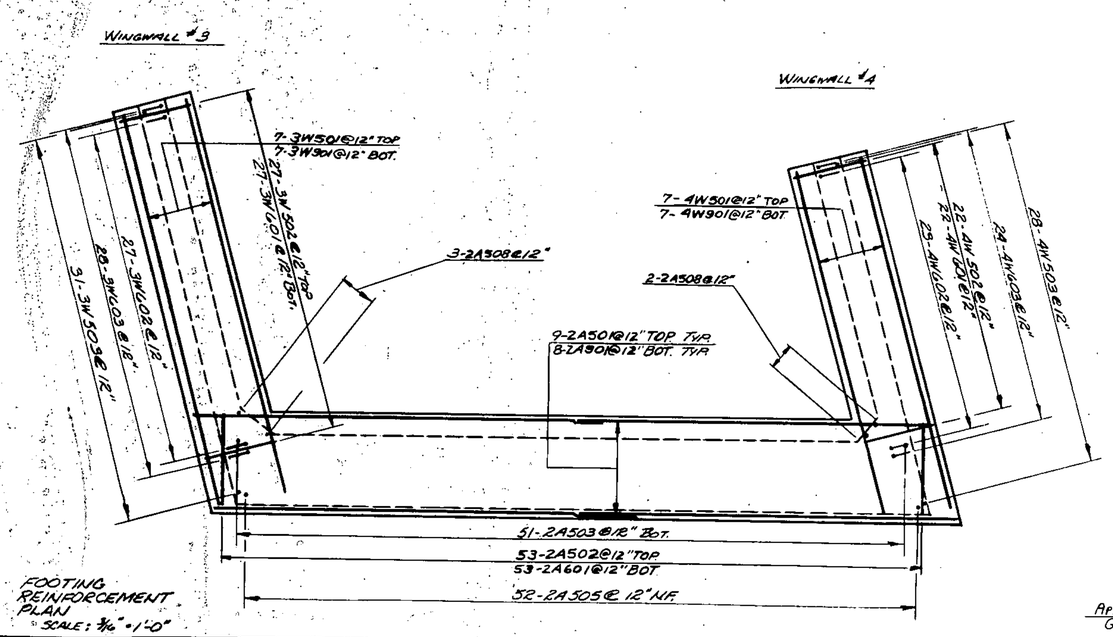
BRUNING 44-131 35084



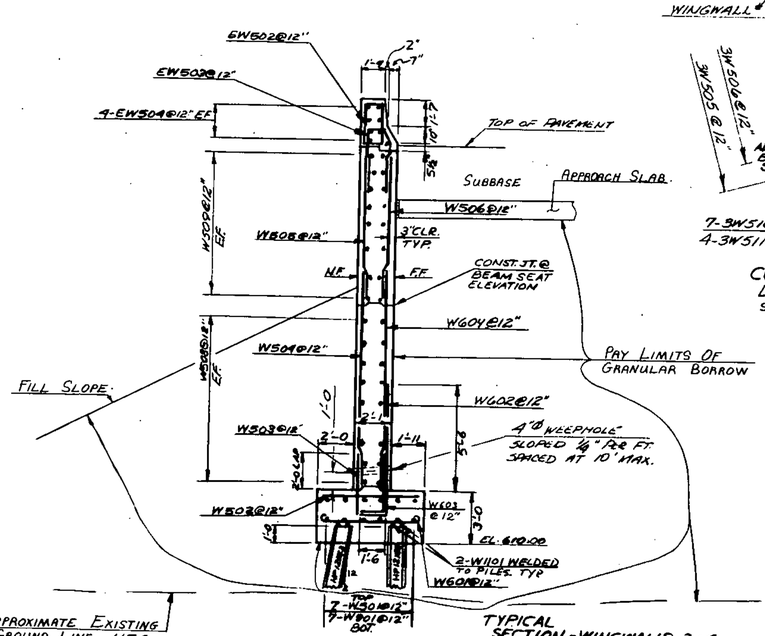
ELEVATION - WINGWALL 3
SCALE: 3/8"=1'-0



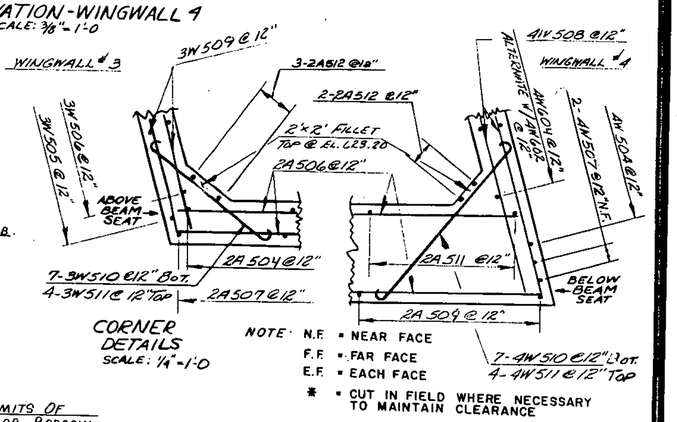
ELEVATION - WINGWALL 4
SCALE: 3/8"=1'-0



FOOTING REINFORCEMENT PLAN
SCALE: 3/16"=1'-0"



TYPICAL SECTION - WINGWALLS 3+4
SCALE: ¼"=1'-0



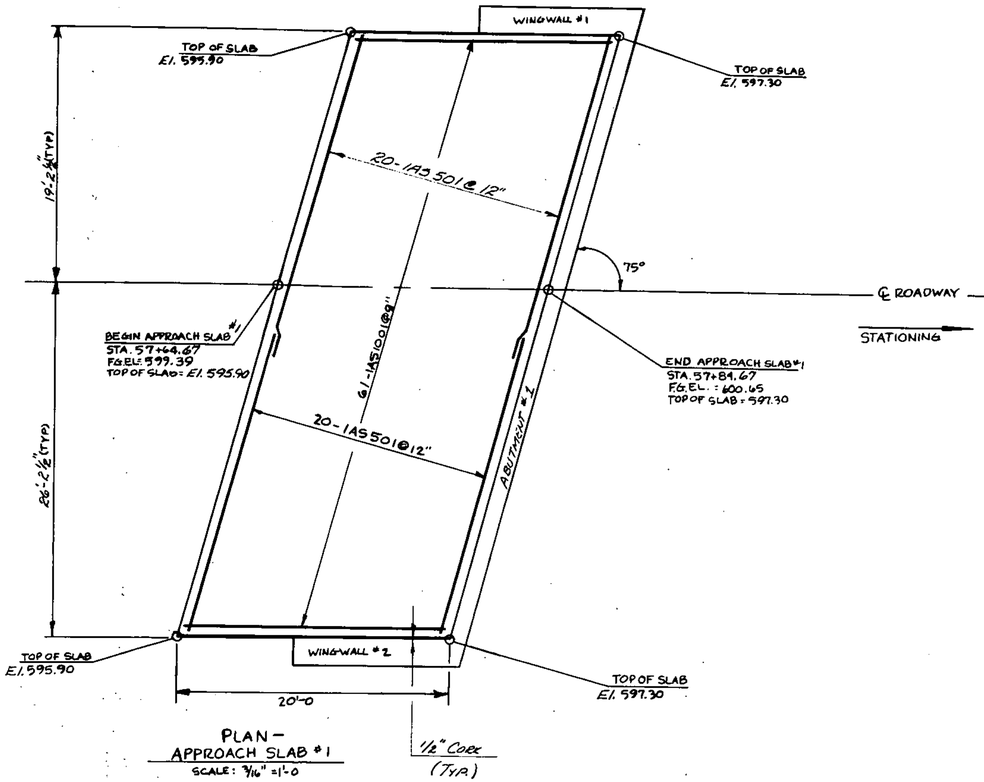
CORNER DETAILS
SCALE: ¼"=1'-0

NOTE: N.F. = NEAR FACE
F.F. = FAR FACE
E.F. = EACH FACE
* = CUT IN FIELD WHERE NECESSARY TO MAINTAIN CLEARANCE

STATE OF VERMONT
AGENCY OF TRANSPORTATION

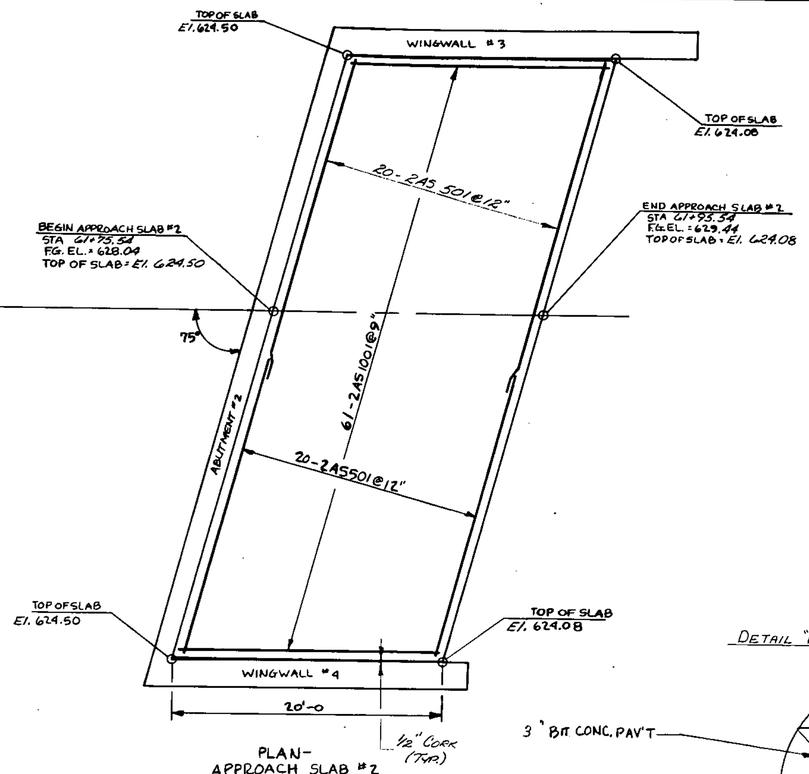
TOWN OF ST. JOHNSBURY	Bridge No. 1
HIGHWAY NO. 191 NORTH CONNECTOR	Log Sta. Surv. Sta. 60+0
WINGWALL NO.'s 3 + 4 DETAILS	
191 NORTHERN CONNECTOR OVER PASSUMPSIC RIVER	
Designed by G.V. SPILAK	Drawn by T.J. GRACE
Checked by D.C. WILLEY date 8-84	Bridge Design Supervisor R.S. HAUPT date 6-84
PROJECT ST. JOHNSBURY	PROJECT NO. DP-FF041-1(10)
Bridge Sheet No. BR124	Sheet 82 of 229

BRUNING 44-131 58384
88-6-'83



PLAN–
APPROACH SLAB #1
SCALE: 3/16" = 1'-0

½" CORK (TYP.)

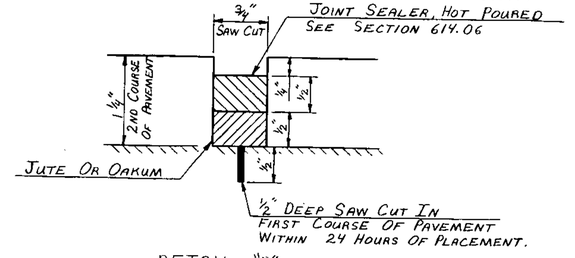


PLAN–
APPROACH SLAB #2
SCALE: 3/16" = 1'-0

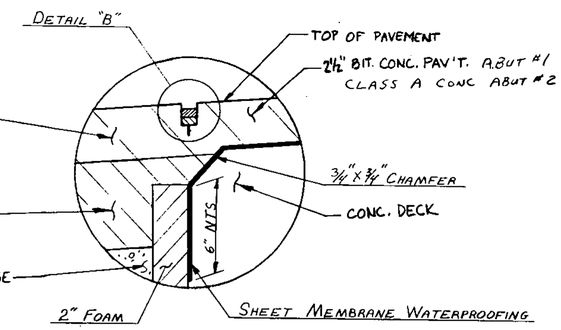
½" CORK (TYP.)

NOTES

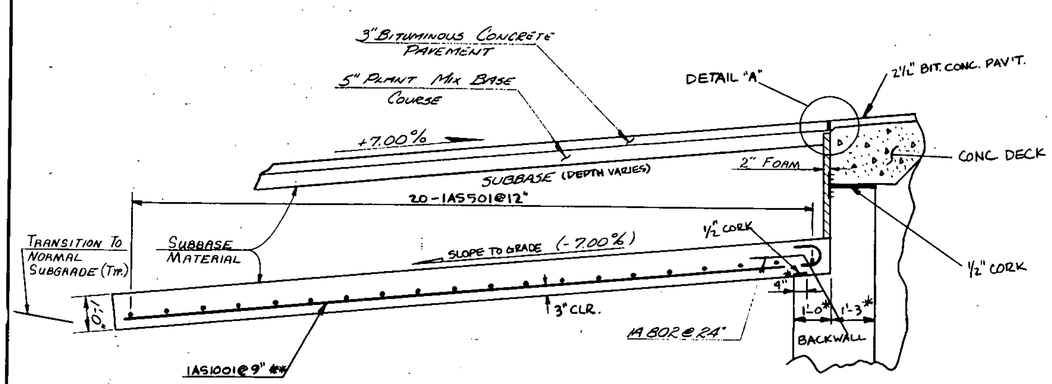
1. THE COST FOR INSTALLING ALL PREFORMED JOINT FILLER CORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONCRETE CLASS B.
2. PAYMENT FOR ALL MATERIALS AND LABOR FOR PLACEMENT OF HOT POURED JOINT SEALER, AS DETAILED ON THIS SHEET, SHALL BE INCLUDED IN ITEM 614.10.
3. THE 1¼" x ¾" SAW CUT IN SECOND COURSE OF BITUMINOUS CONCRETE PAVEMENT TO BE MADE WITHIN 24 HOURS OF PLACEMENT, AND FILLED AS SHOWN.
4. THE JOINT IS TO BE ACCURATELY LOCATED BY STRING LINING OR OTHER MEANS PRIOR TO PAVING, SO THAT THE SAW CUT WILL BE MADE DIRECTLY OVER THE JOINT.



DETAIL "B"
SCALE 1" = 1"



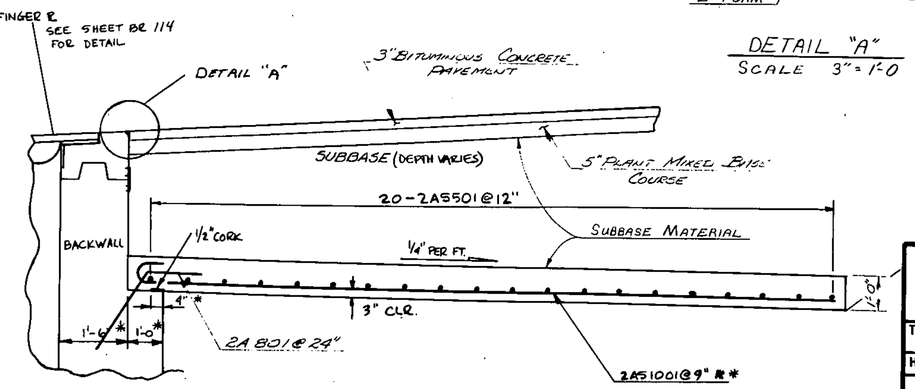
DETAIL "A"
SCALE 3" = 1'-0



ELEVATION–
APPROACH SLAB #1
SCALE: ½" = 1'-0

NOTE: ** = SLANT IN FIELD TO MAINTAIN CLEARANCE ON HOOK.

* NORMAL TO ABUTMENT



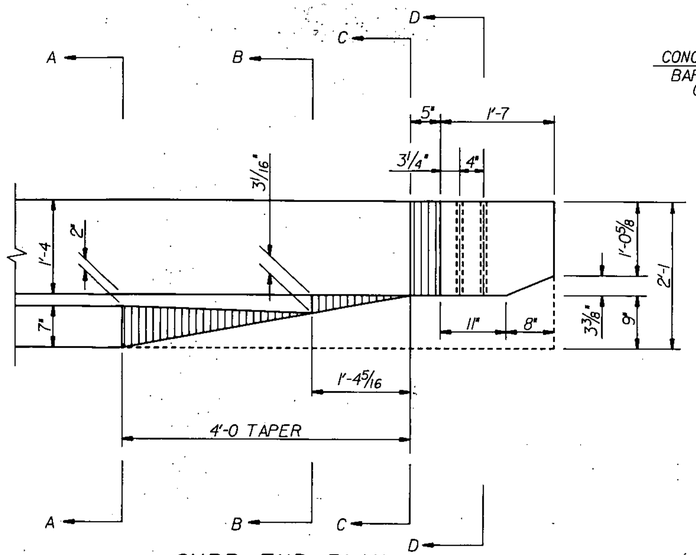
ELEVATION–
APPROACH SLAB #2
SCALE: ½" = 1'-0

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of ST. JOHNSBURY	Bridge No. /
Highway No. I91	Log Sta. / Surv. Sta. 60+00
APPROACH SLAB DETAILS	
I91 NORTH CONNECTOR OVER PASSUMPSIC RIVER	
Designed By G.V. SPILAR	Drawn By T.J. GRACE
Checked By DAVID WILLEY Date 8-20-84	Bridge Design Supervisor R.S. HAUPT Date 8-84
PROJECT ST. JOHNSBURY	PROJECT NO. DP-FF041-1(10)
L.G.C. Info.	
Bridge Sheet No. BR125	Sheet 83 of 229

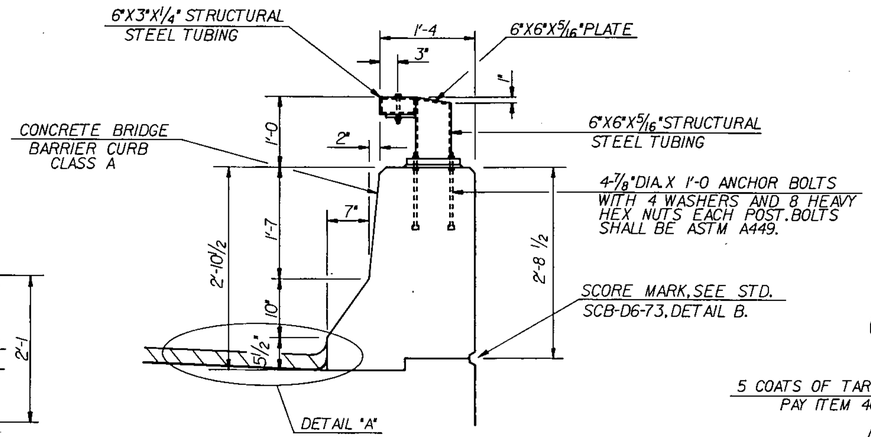
BRUNING 42165

BR-6



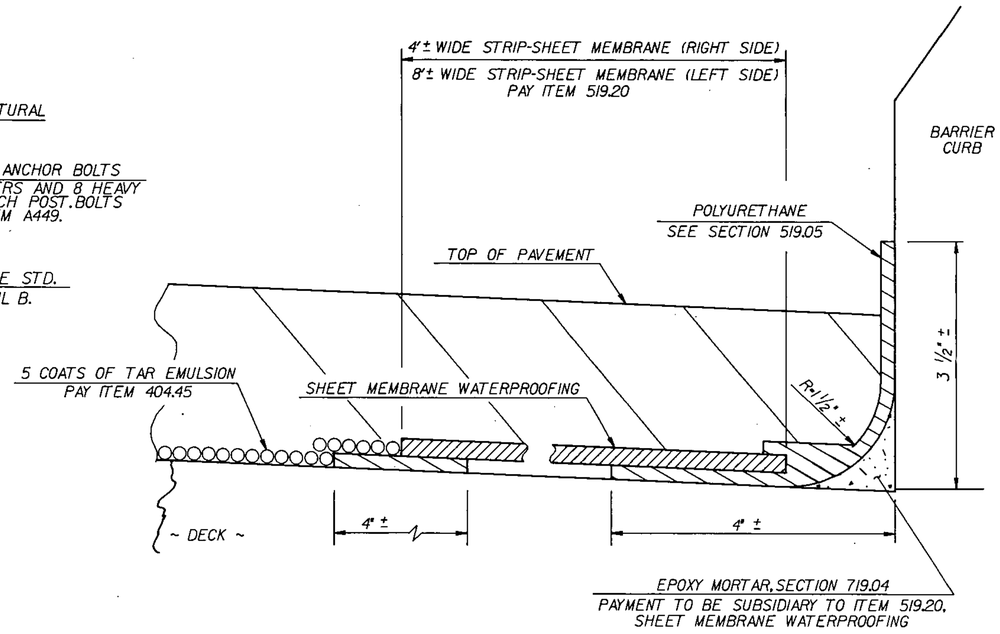
CURB END PLAN

SCALE 1" = 1'-0



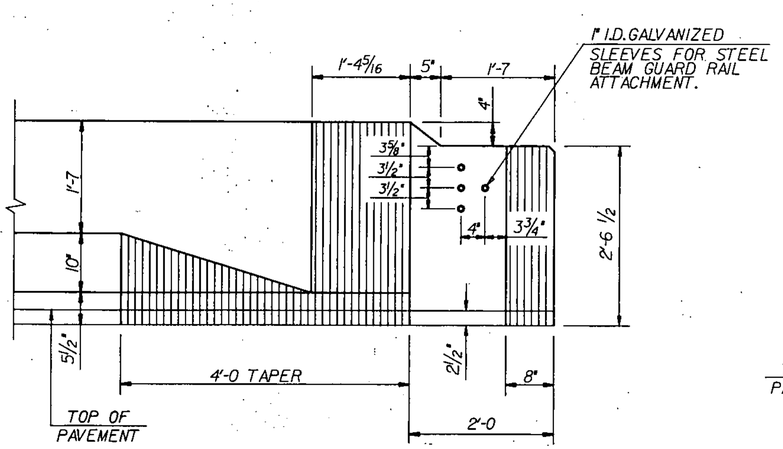
BRIDGE BARRIER CURB & RAIL DETAIL

SCALE 1"=1'-0



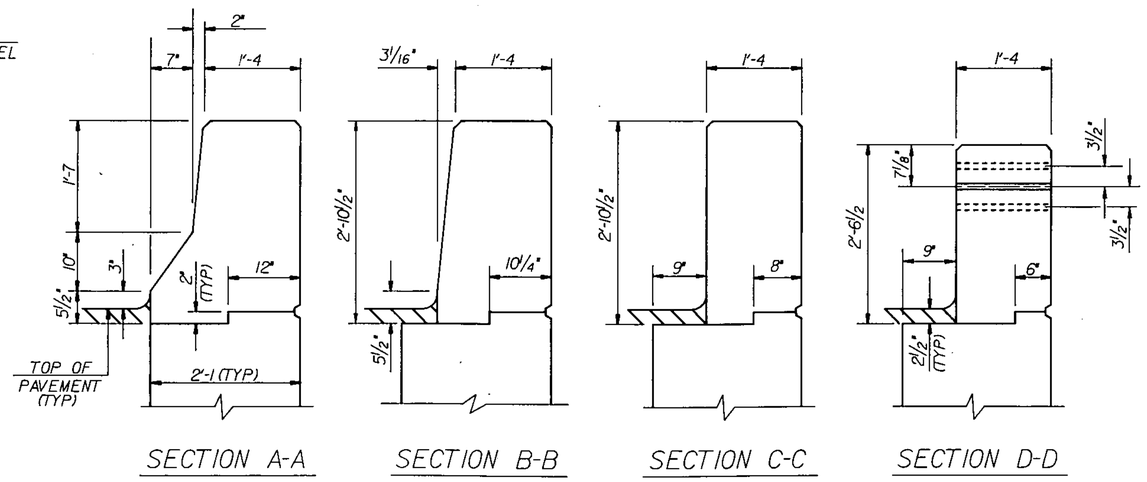
DETAIL "A"

SCALE 1" = 1'



CURB END ELEVATION

SCALE 1" = 1'-0



CURB END SECTIONS

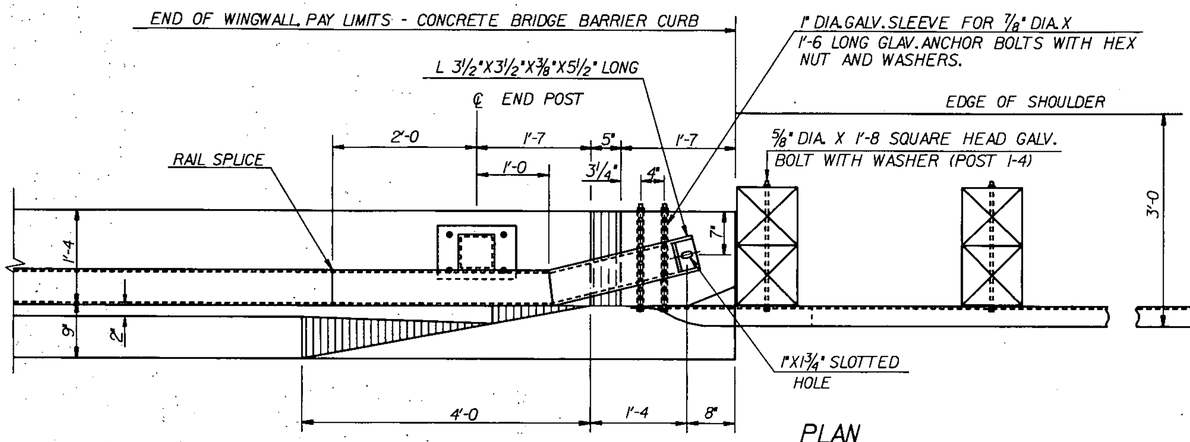
SCALE 1" = 1'-0

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of ST. JOHNSBURY	Bridge No. 1
Highway No. 191 NORTHERN CONN.	Log Sta. Surv. Sta. 60+00
191 NORTHERN CONNECTOR OVER THE PASSUMPIC RIVER	
CONCRETE BRIDGE BARRIER CURB END DETAILS	
Designed By G. SPILAK	Drawn By D. C. WILLEY
Checked By M. GARCIA Date 9-84	Bridge Design Supervisor R. S. HAUPT Date 9-84
PROJECT ST. JOHNSBURY	PROJECT NO. DP-FF041-1(10)
I.G.C. Info. OSA:L30,25,176,007/NWI.DGN	
Bridge Sheet No. BRI26	Sheet 84 of 229

BRUNING 62165

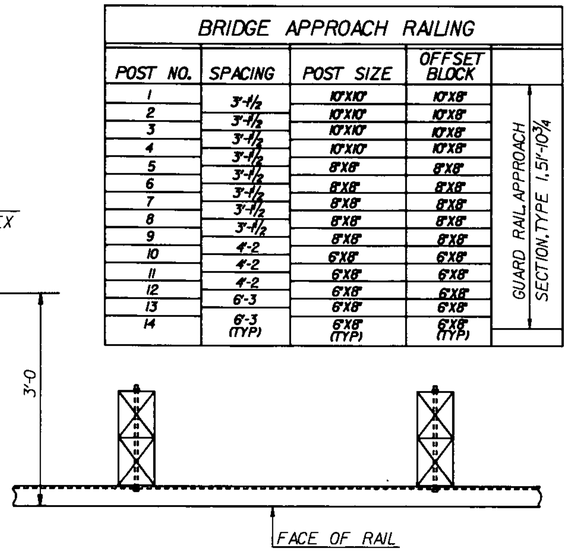
BR-6

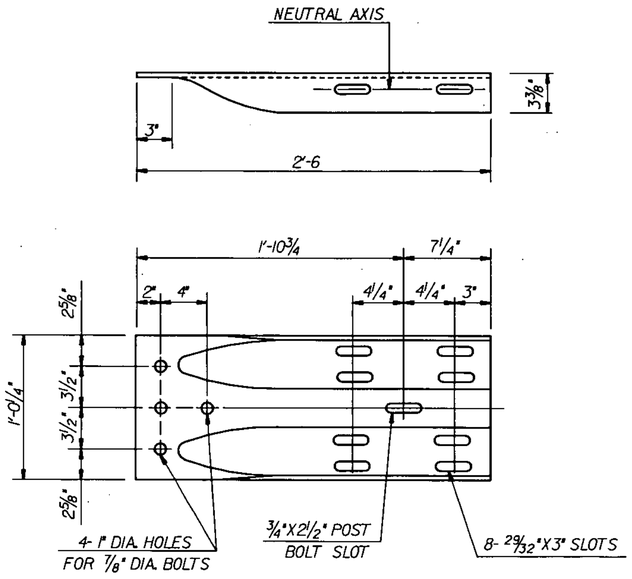


PLAN

SCALE 1" = 1'-0

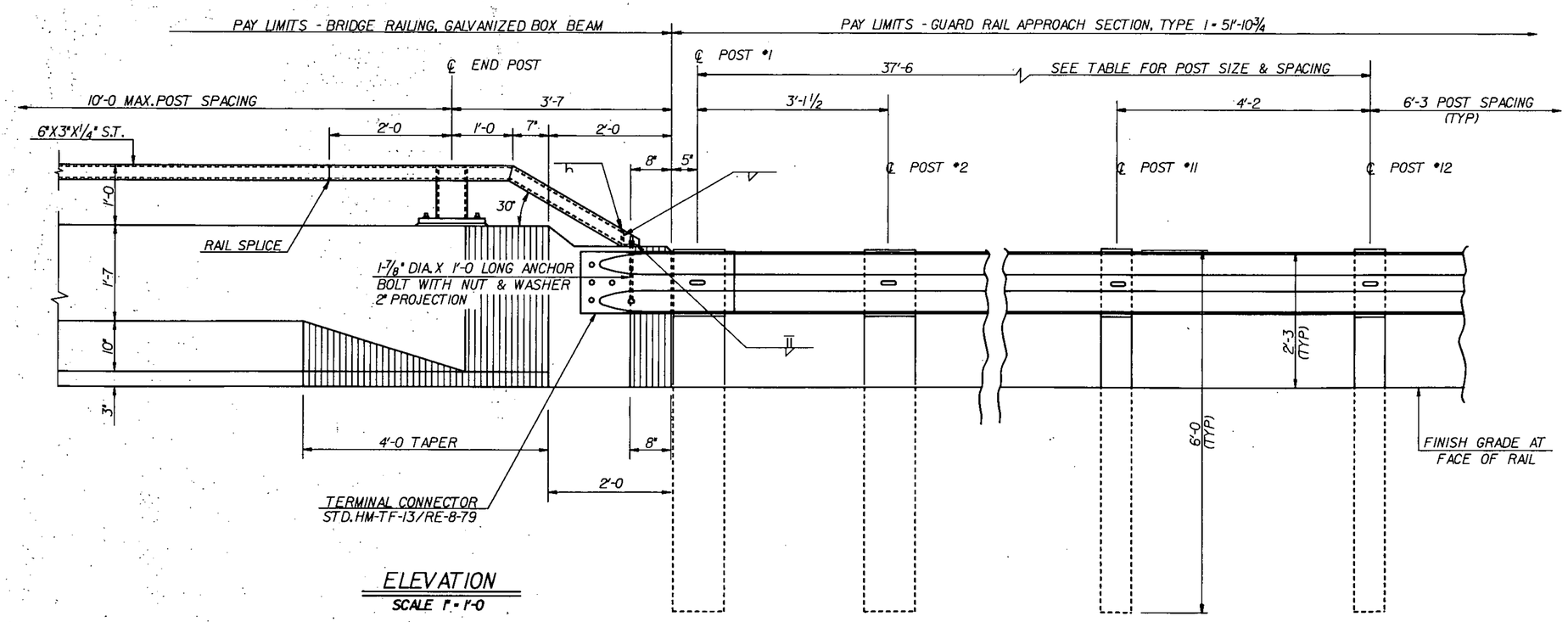
BRIDGE APPROACH RAILING				
POST NO.	SPACING	POST SIZE	OFFSET BLOCK	
1	3'-1½	10"X10"	10"X8"	GUARD RAIL APPROACH SECTION, TYPE 1, 51'-10¾
2	3'-1½	10"X10"	10"X8"	
3	3'-1½	10"X10"	10"X8"	
4	3'-1½	10"X10"	10"X8"	
5	3'-1½	8"X8"	8"X8"	
6	3'-1½	8"X8"	8"X8"	
7	3'-1½	8"X8"	8"X8"	
8	3'-1½	8"X8"	8"X8"	
9	4'-2	8"X8"	8"X8"	
10	4'-2	6"X8"	6"X8"	
11	4'-2	6"X8"	6"X8"	
12	6'-3	6"X8"	6"X8"	
13	6'-3 (TYP)	6"X8"	6"X8"	
14		6"X8" (TYP)	6"X8" (TYP)	





TERMINAL CONNECTOR

SCALE 2" = 1'-0



ELEVATION

SCALE 1" = 1'-0

NOTES

1. FOR DETAILS OF CONCRETE BRIDGE BARRIER CURB SEE SHEET BRI26.
2. FOR DETAILS OF BRIDGE RAILING SEE STD. SB-R4A-82.
3. FOR ADDITIONAL APPROACH RAIL DETAILS SEE STD. G-1.
4. THE ITEM GUARD RAIL APPROACH SECTION, TYPE 1, SHALL INCLUDE TERMINAL CONNECTOR, RAIL, POST, BLOCKS AND ATTACHMENT HARDWARE.
5. GUARD RAIL APPROACH SECTION, TYPE 1, SHALL BE HEAVY DUTY STEEL BEAM WITH WOOD POST AND OFFSET BLOCKS.
6. APPROACH RAIL SHALL LAP IN THE DIRECTION OF TRAFFIC FLOW.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town of ST. JOHNSBURY	Bridge No. 1
Highway No. 191 NORTHERN CONN.	Log Sta. / Surv. Sta. 60-00
BRIDGE APPROACH RAIL DETAILS	
191 NORTHERN CONNECTOR OVER THE PASSUMPIC RIVER	
Designed By G. SPILAK	Drawn By D. C. WILLEY
Checked By M. GARCIA Date 9-84	Bridge Design Supervisor R. S. HAUPT Date 9-84
PROJECT ST. JOHNSBURY	PROJECT NO. DP-FF041-I(10)
L.G.C. Info.	USA:L30,25176D07/MWI.DGN
Bridge Sheet No. BRI27	Sheet 85 of 229

BRUNING 62103

ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
1																	
2																	
3					SUPERSTRUCTURE												
4				EPOXY	COATED												
5	777	5	40-0	ES501	STR												
6	1554	↓	25-8	ES502	↓												
7	207		26-5	ES503													
8	345		27-10	ES504													
9	414		27-4	ES505													
10	756		29-9	ES506													
11	12		26-6	ES507	↓								CUT TO FIT				
12	312	5	19-7	ES511	STR												
13																	
14*	1555	6	6-9	ES601	STR												
15	364	6	15-0	ES602	STR		CHAIR	BARS									
16*	68	8	20-0	ES501	STR												
17*	68	10	20-0	ES1001	STR												
18																	
19																	
20																	
21																	
22	51	5	3-3	ES508	17		1-0	1-3	1-0								
23	51	5	3-9	ES509	17		/	2-9	1-0								
24	51	5	3-9	ES510	17		1-0	1-9	1-0								
25																	
26																	
27																	
28																	
29																	
30																	
31																	
32																	
33	776	5	7-5	ES512	23	0-5½	0-10	2-9	1-0	2-9		0-5½			0-3		
34	776	5	7-0	ES513	T5	0-5½	0-11	1-0	0-11	1-6	1-9	0-5½	0-10		0-7		
35																	
36																	
37																	
38																	
39																	
40																	
41					ABUTMENT #1												
42																	
43																	
44	53	5	7-9	IA501	STR												
45	18	↓	28-6	IA502	↓												
46	44		26-6	IA503													
47*	5		6-9	IA504													
48	56	5	4-0	IA505	STR												
49	52	5	4-8	IA509	STR								CUT TO FIT IN FIELD				
50																	
51	18	8	29-4	IA801	STR												
52																	
53	8	11	31-1	IA1101	STR												
54																	
55																	
56																	
57	51	5	8-6	IA505	17		1-6	7-0	/								
58	52	5	5-9	IA506	17		1-0	3-9	1-0				CUT TO FIT				
59	52	5	10-11	IA507	17		6-8	0-9	3-6								
60	51	5	5-6	IA510	17		1-6	4-0	/								
61																	
62	53	6	9-1	IA601	1	0-8	7-9					0-8					
63																	
64	24	8	4-6	IA802	19		2-0	2-6	/								
65																	
66																	
67																	
68																	
69																	
70					WINGWALL #1												
71																	
72																	
73	16	5	4-0	IW501	STR												
74	12	↓	5-6	IW502	↓												
75	7		17-2	IW503													
76	26		11-4	IW504													
77	10	5	15-6	IW505	STR								CUT TO FIT				
78				IW506	NOT USED												
79																	
80																	

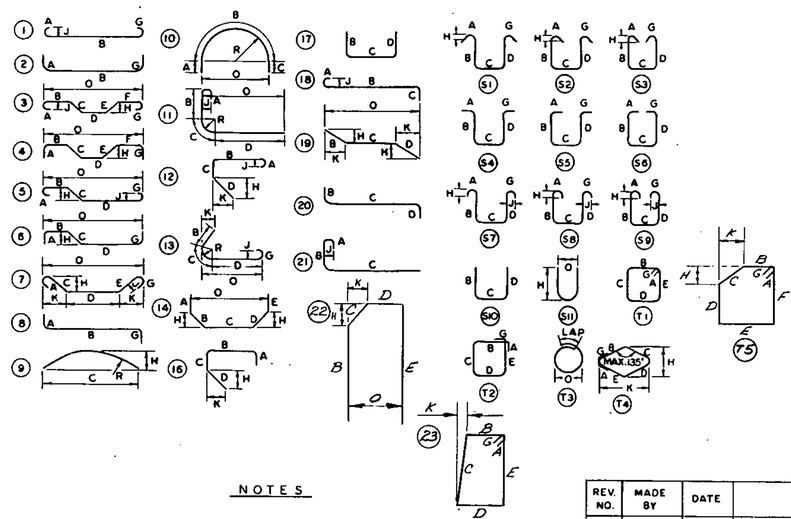
ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
81																	
82																	
83	2	5	4-5	IW506	STR												
84	10	↓	13-6	IW509	↓												
85	4	5	11-5	IW510	STR												
86																	
87																	
88	7	8	17-2	IW801	STR												
89																	
90	4	11	17-2	IW1101	STR												
91																	
92																	
93																	
94	12	5	5-0	IW507	17		4-0	1-0	/								
95	5	5	10-4	IW511	1	0-7	9-2					0-7					
96	5	5	7-10	IW512	1	0-7	6-8					0-7					
97																	
98																	
99*	13	6	6-10	IW601	1	0-8	5-6					0-8					
100																	
101																	
102					EPOXY COATED												
103																	
104*	9	5	13-5	IEW501	STR									CUT TO FIT			
105																	
106																	
107	6	5	7-11	IEW502	22		2-7	1-0	0-11	3-5			0-10		0-7		1-6
108	*8	5	7-8	IEW503	17		3-5	0-10	3-5								
109	10	5	7-5	IEW504	23	0-5½	0-10	2-4	1-0	2-4		0-5½			0-3		
110	3	5	6-5	IEW505	T1	0-5½	0-10	1-11	0-10	1-11		0-5½					
111																	
112																	
113																	
114																	
115																	
116					WINGWALL #2												
117																	
118																	
119	16	5	4-0	2W501	STR												
120	12	↓	5-6	2W502	↓												
121	7		17-0	2W503													
122	26		10-6	2W504													
123	8		15-6	2W505													
124				2W506	NOT USED												
125	2		3-8	2W508													
126	12		13-6	2W509	↓												
127	2	5	12-6	2W510	STR												
128																	
129																	
130	7	8	17-0	2W801	STR												
131																	
132	*5	11	17-0	2W1101	STR												
133																	
134																	
135																	
136	12	5	5-0	2W507	17		4-0	1-0	/								
137	4	5	12-8	2W511	1	0-7	11-6					0-7					
138	4	5	9-8	2W512	1	0-7	8-6					0-7					
139																	
140																	
141	12	6	6-10	2W601	1	0-8	5-6					0-8					
142																	
143																	
144					EPOXY COATED												
145																	
146*	9	5	14-6	2EW501	STR									CUT TO FIT			
147																	
148																	
149	7	5	7-11	2EW502	22		2-7	1-0	0-11	3-5			0-10		0-7		1-6
150	*8	5	7-8	2EW503	17		3-5	0-10	3-5								
151	11	5	7-5	2EW504	23	0-5½	0-10	2-4	1-0	2-4		0-5½			0-3		
152	3	5	6-5	2EW505	T1	0-5½	0-10	1-11	0-10	1-11		0-5½					
153																	
154																	
155																	
156																	
157																	
158																	
159																	
160																	

ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
161					PIER #1												
162	96	5	26-0	IP501	STR												
163																	
164	18	6	28-4	IP601													
165	56	6	7-6	IP602													
166																	
167*	109	7	11-0	IP701													
168	220	7	13-10	IP703													
169	16	8	29-4	IP801													
170																	
171	8	11	31-1	IP1101	STR												
172																	
173																	
174	50	5	8-6	IP502	17		3-0	2-6	3-0								
175	48	5	7-11	IP503	10	2-0	3-11	2-0							1-3	2-6	
176	84	5	12-5	IP504	T1	0-5½	2-6	3-3	2-6	3-3		0-5½					
177																	
178*	221	7	7-4	IP702	17		1-6	5-10	/								
179																	
180	110	8	9-4	IP802	1	0-11	7-6					0-11					

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 A 615 -511, 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 ST. JOHNSBURY	BRIDGE NO. 1
	LOG STA.
HIGHWAY NO. I 91 NORTHERN CONN.	SURV. STA. 60+0
I 91 NORTHERN CONNECTOR OVER PASSUMPSIC RIVER	
REINFORCING STEEL SCHEDULE	
DESIGNED BY G.V. SPICAR	DRAWN BY M. GARCIA
CHECKED BY D.C. WILLEY DATE 12/84	BRIDGE DESIGN SUPERVISOR R.S. HAUPT DATE 11/84
PROJECT ST. JOHNSBURY	PROJECT NO. DP.FF 041-1(10)
BRIDGE SHEET NO. BR128	SHEET 86 OF 229

BRUNING 44-131 40151

BR-5

ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
1																	
2							PIER #2										
3																	
4																	
5	32	5	29-3	2P501	STR												
6	168	5	25-6	2P502	STR												
7	64	5	14-6	2P505	STR												
8																	
9																	
10	32	9	30-7	2P901	STR												
11	212	9	26-0	2P903	STR												
12*	107	9	19-11	2P904	STR												
13																	
14																	
15																	
16	50	5	8-6	2P502	17		3-0	2-6	3-0								
17	84	5	7-11	2P504	10	2-0	3-11	2-0								1-3	2-6
18	190	5	12-5	2P506	T1	0-5½	2-6	3-3	2-6	3-3		0-5½					
19																	
20																	
21	208	9	18-6	2P902	21	1-3	8-6	8-9									
22	14	9	17-3	2P905	17		8-9	8-6	″					CUT TO FIT			
23																	
24	15	8	4-0	5S801	STR		DOWELS FOR STRUCTURAL SEAL										
25																	
26																	
27							ABUTMENT #2										
28																	
29																	
30	18	5	28-6	2A501	STR												
31	53	↓	7-4	2A502	↓												
32	51		6-6	2A504													
33	72		26-6	2A506													
34	52		10-0	2A507													
35	5		4-0	2A508													
36	52	↓	7-4	2A509	↓												
37	5	5	9-11	2A512	STR									CUT TO FIT			
38																	
39	16	9	29-10	2A901	STR												
40																	
41*	9	11	31-1	2A1101	STR												
42																	
43	51	5	6-0	2A503	17		2-0	4-0	″								
44	52	↓	5-0	2A505	↓		1-0	4-0	″					CUT TO FIT			
45	52		6-11	2A510			1-0	4-11	1-0								
46	51	5	12-3	2A511	17		2-0	10-3	″								
47																	
48	53	6	8-8	2A601	1	0-8	7-4					0-8					
49																	
50*	25	8	4-6	2A801	19		2-0	2-6									
51																	
52																	
53																	
54																	
55																	
56							WINGWALL #3										
57																	
58																	
59	7	5	30-6	3W501	STR												
60	27	↓	5-6	3W502	↓												
61	31		4-0	3W503													
62	28		9-4	3W504													
63	29		9-0	3W505										CUT TO FIT			
64	28		9-0	3W506										CUT TO FIT			
65	2		7-1	3W507													
66	14	↓	30-6	3W508	↓												
67	20	5	27-6	3W509	STR												
68																	
69	28	6	9-6	3W604	STR												
70*	8	9	30-6	3W901	STR												
71																	
72	4	11	30-6	3W1101	STR												
73																	
74																	
75																	
76	7	5	14-8	3W510	1	0-7	13-6					0-7					
77	4	5	10-2	3W511	1	0-7	9-0					0-7					
78																	
79																	
80																	

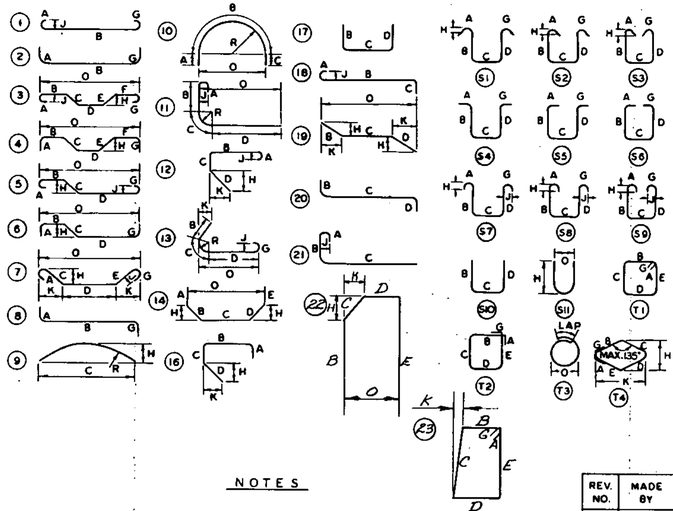
ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
81																	
82	27	6	6-10	3W601	1	0-8	5-6					0-8					
83	27	6	8-9	3W602	17		7-3	1-6	/								
84	28	6	5-6	3W603	17		4-0	1-6	/								
85																	
86																	
87							EPOXY COATED										
88																	
89	8	5	29-4	3EW504	STR								CUT TO FIT				
90																	
91																	
92	2	5	6-5	3EW501	T1	0-5½	0-10	1-11	0-10	1-11		0-5½					
93	26	↓	7-5	3EW502	23	0-5½	0-10	2-4	1-0	2-4		0-5½			0-3		
94	21	↓	7-11	3EW503	22		2-7	1-0	0-11	3-5			0-10		0-7		1-6
95	7	5	7-8	3EW505	17		3-5	0-10	3-5								
96																	
97																	
98																	
99																	
100																	
101							WINGWALL #4										
102																	
103																	
104	7	5	28-7	4W501	STR												
105	22	↓	5-6	4W502	↓												
106*	29		4-0	4W503													
107	26		8-7	4W504													
108	26		8-10	4W505									CUT TO FIT				
109	24		8-10	4W506									″ ″ ″				
110	2		6-4	4W507													
111	14	↓	27-6	4W508	↓												
112	18	5	29-6	4W509	STR												
113																	
114	24	6	8-8	4W604	STR												
115	7	9	28-7	4W901	STR												
116																	
117	4	11	28-7	4W1101	STR												
118																	
119																	
120																	
121	7	5	11-8	4W510	1	0-7	10-6					0-7					
122	4	5	8-2	4W511	1	0-7	7-0					0-7					
123																	
124																	
125	22	6	6-10	4W601	1	0-8	5-6					0-8					
126	23	6	8-9	4W602	17		7-3	1-6	/								
127	24	6	5-6	4W603	17		4-0	1-6	/								
128																	
129																	
130							EPOXY COATED										
131																	
132	8	5	25-9	4EW504	STR								CUT TO FIT				
133																	
134																	
135	2	5	6-5	4EW501	T1	0-5½	0-10	1-11	0-10	1-11		0-5½					
136	22	↓	7-5	4EW502	23	0-5½	0-10	2-4	1-0	2-4		0-5½			0-3		
137	18	↓	7-11	4EW503	22		2-7	1-0	0-11	3-5			0-10		0-7		1-6
138	6	5	7-8	4EW505	17		3-5	0-10	3-5								
139																	
140																	
141																	
142																	
143																	
144							APPROACH SLAB #1										
145																	
146																	
147	40	5	24-3	4AS501	STR												
148																	
149																	
150*	62	10	20-11	4AS1001	1	1-5	19-6					/					
151																	
152																	
153							APPROACH SLAB #2										
154																	
155																	
156	40	5	24-3	2AS501	STR												
157																	
158																	
159	61	10	20-11	2AS1001	1	1-5	19-6					/					
160																	

ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
161																	
162																	
163																	
164																	
165																	
166																	
167																	
168																	
169																	
170																	
171																	
172																	
173																	
174																	
175																	
176																	
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 A 615 GRADE 60. -S11),
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.

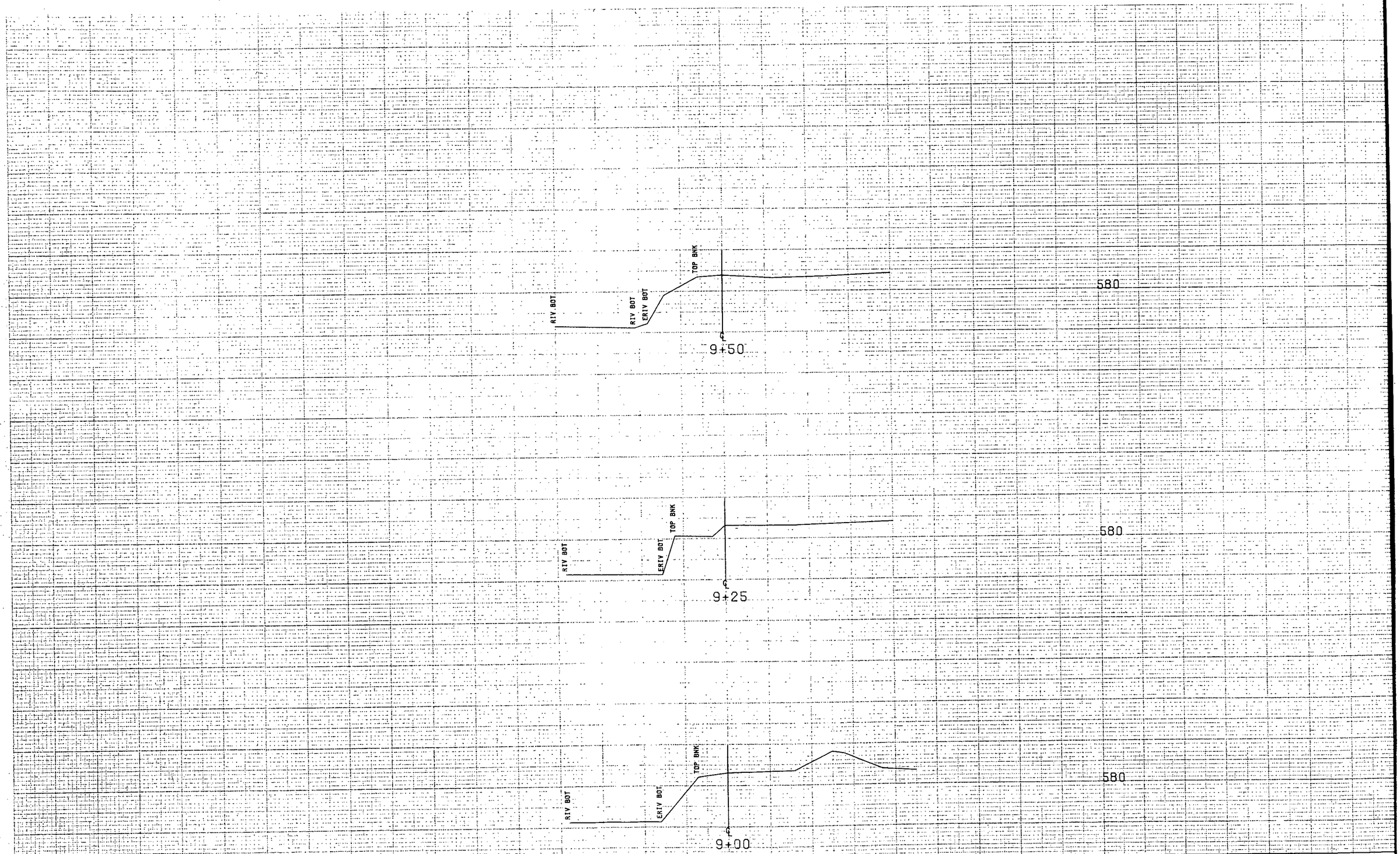
REV. NO.	MADE BY	DATE	DESCRIPTION

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ST. JOHNSBURY	BRIDGE NO. 1
	LOG STA.
HIGHWAY NO. I 91 NORTHERN CONN.	SURV. STA. 60+0
I 91 NORTHERN CONNECTOR OVER PASSUMPSIC RIVER	
REINFORCING STEEL SCHEDULE	
DESIGNED BY G.K. JALAK	DRAWN BY M. GARCIA
CHECKED BY O.C. WILLEY DATE 12/84	BRIDGE DESIGN SUPERVISOR R.S. HAUPT DATE 11/84
PROJECT ST. JOHNSBURY	PROJECT NO. DP-FF 091-1(10)
BRIDGE SHEET NO. BR129	SHEET 87 OF 229

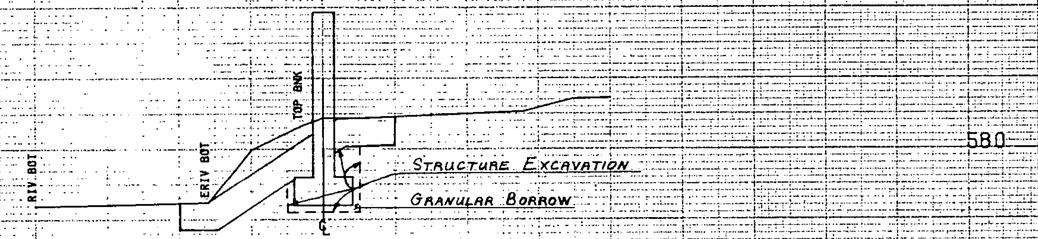
BRUNING 44-131 40151

BR-5

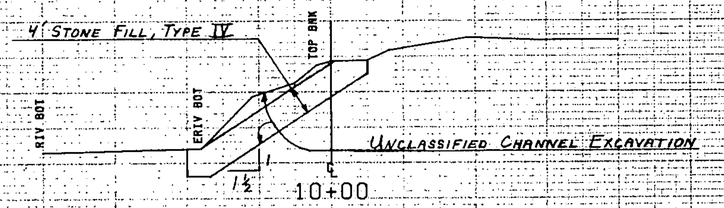


FROM STA. 9+00 TO STA. 9+50
PROJECT NAME ST JOHNSBURY PIER 1
NO. DP-FFD41-1(10) PLOTTED 02/28/85
SURVEYED BY LEWIN FEB 1985
SHEET 90 OF 227 SHEETS 88/90

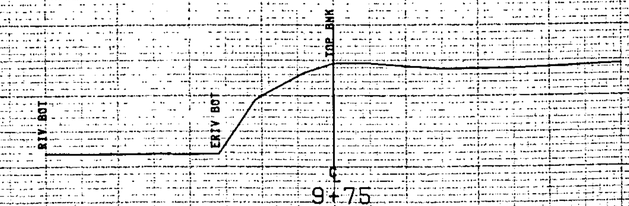
SCALE 10 FEET



STA. 10+19
BEGIN STRUCTURE EXCAVATION
BEGIN GRANULAR BORROW

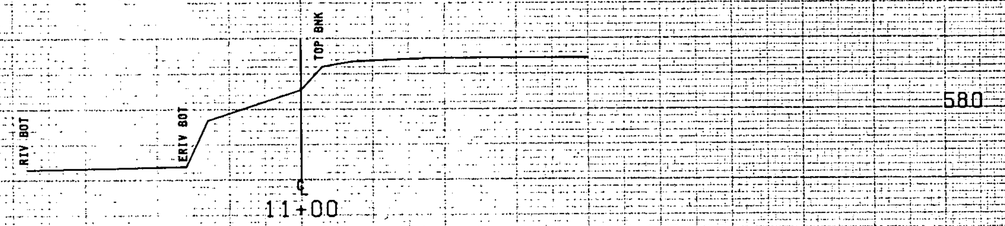


STA. 9+95
BEGIN UNCLASSIFIED CHANNEL EXCAVATION
BEGIN STONE FILL, TYPE IV

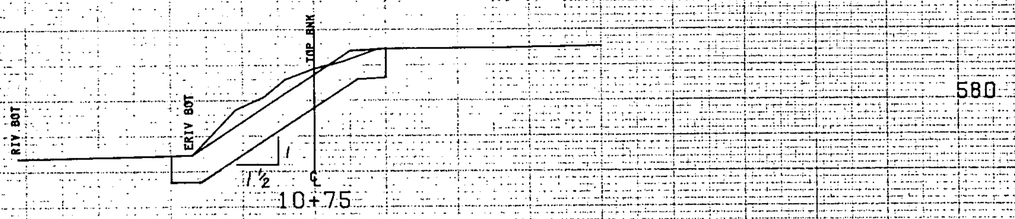


FROM STA. 9+75 TO STA. 10+25
PROJECT NAME ST JOHNSBURY PIER 1
PROJECT NO. DP-FP041-1(10) PLOTTED 02/28/86
SURVEYED BY LEWIN FEB 1986
SHEET 89 OF 282 SHEETS 89/37

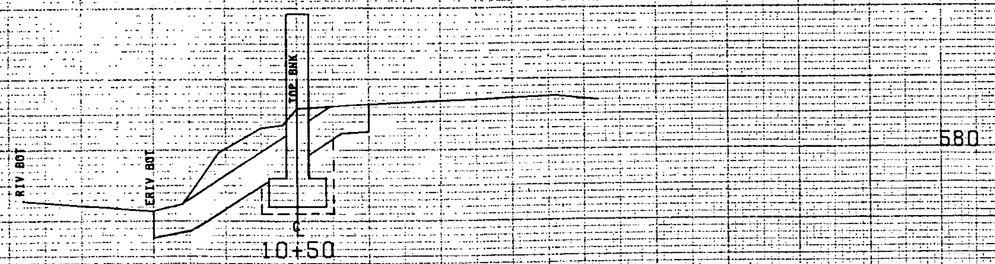
SCALE 1" = 10 FEET



STA. 10+90
END STONE FILL, TYPE IV
END UNCLASSIFIED CHANNEL EXCAVATION



STA. 10+70
END STRUCTURE EXCAVATION
END GRANULAR BORROW



FROM STA. 10+50 TO STA. 11+00
PROJECT NAME ST. JOHNSBURY PIER 1
NO. DP-FFO41-1(10) PLOTTED 02/28/86
SURVEYED BY LEWIN FEB 1986
SHEET 70 OF 222 SHEETS 88152

SCALE 10 FEET

RIV BOT

ERIV BOT

TOP BNK

11+25

580

RIV BOT

ERIV BOT

TOP BNK

11+50

580

PROFILES 11+25 TO 11+50

PROJECT NAME: 21 JOHNSON RD

PROJECT NO: PF0041-1(01)

SURVEYED BY: CHK

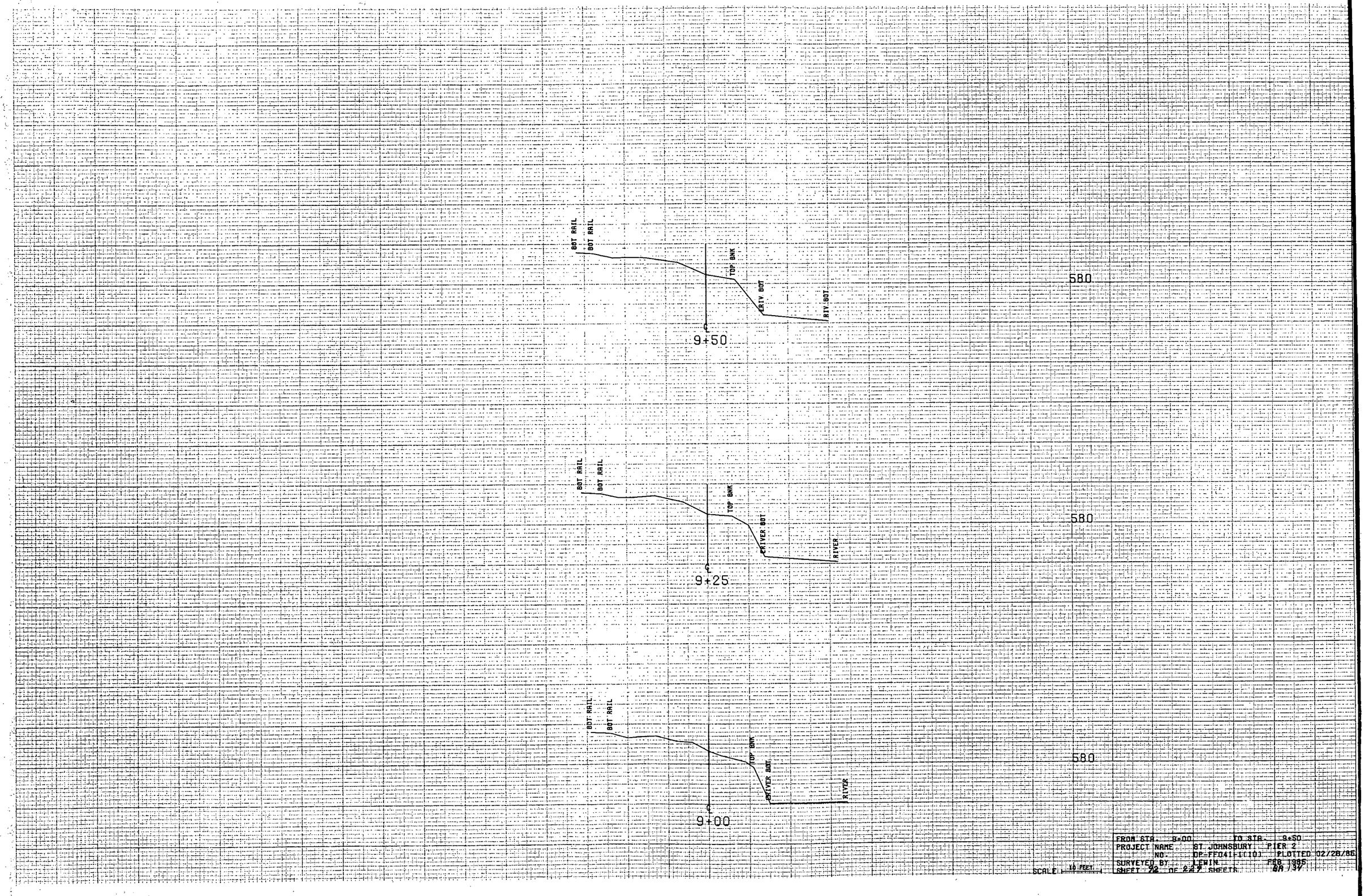
DRAWN BY: AR

CHECKED BY: AR

DATE PLOTTED: 02/20/08

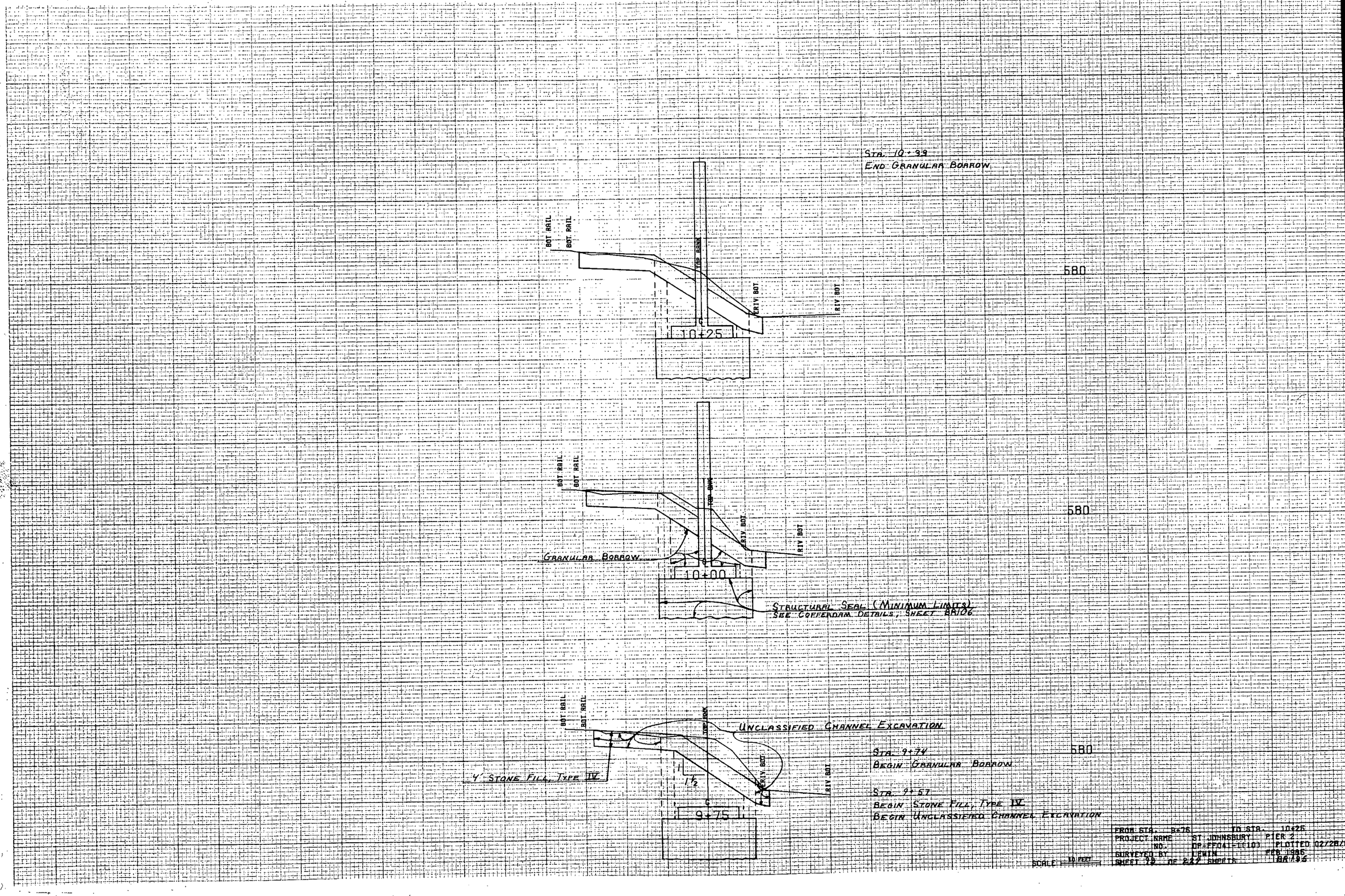
SHEET 77 OF 242 SHEETS

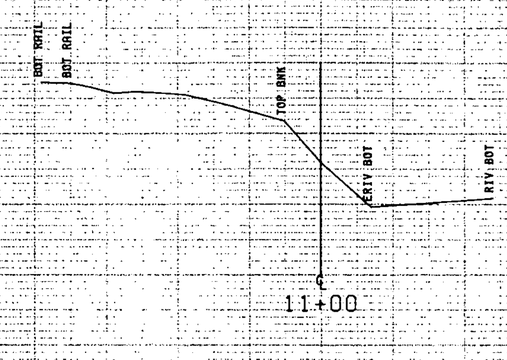
SCALE: 10 FEET

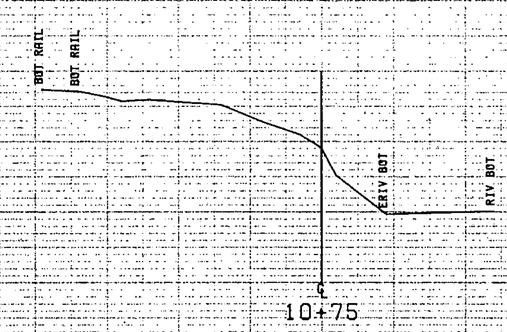


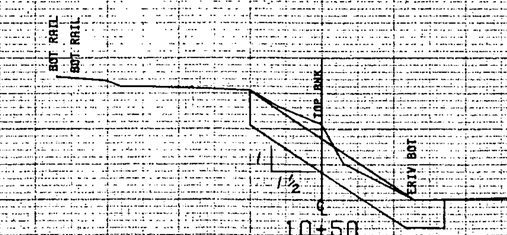
FROM STA. 9+00 TO STA. 9+50
PROJECT NAME ST JOHNSBURY PIER 2
NO. DP-FF041-IC103 PLOTTED 02/28/86
SURVEYED BY LEWIN FEB 1985
SHEET 72 OF 229 SHEETS BA 37

SCALE 10 FEET


STA. 10+39
END GRANULAR BORROW
BOT RAIL
BOT. RAIL
TOP BANK
RIV BOT
580
10+25
BOT RAIL
BOT. RAIL
TOP BANK
RIV. BOT
RIV BOT
580
GRANULAR BORROW
10+00
STRUCTURAL SEAL (MINIMUM LIMITS)
SEE COFFERDAM DETAILS, SHEET BRIO6
BOT. RAIL
BOT. RAIL
TOP BANK
UNCLASSIFIED CHANNEL EXCAVATION
STA. 9+74
BEGIN GRANULAR BORROW
580
4' STONE FILL, TYPE IV
1½
RIV. BOT
RIV BOT
STA. 9+57
BEGIN STONE FILL, TYPE IV
BEGIN UNCLASSIFIED CHANNEL EXCAVATION
9+75
FROM STA. 8+76 TO STA. 10+25
PROJECT NAME ST JOHNSBURY PIER 2
NO. DP-FF041-(1)103 PLOTTED 02/28/86
SURVEYED BY LEWIN FEB 1986
SHEET 79 OF 242 SHEETS BR195
SCALE 10 FEET







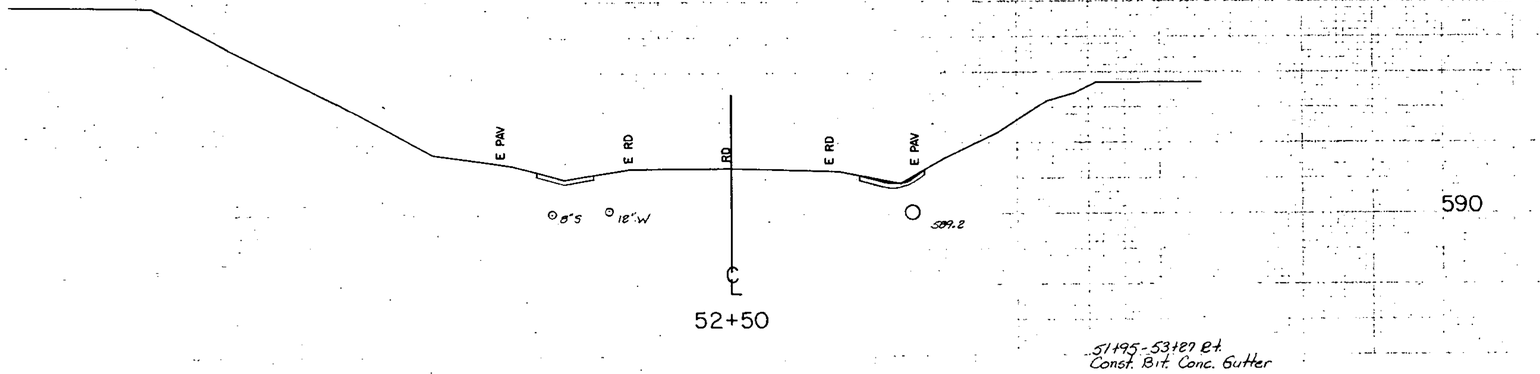
570

570

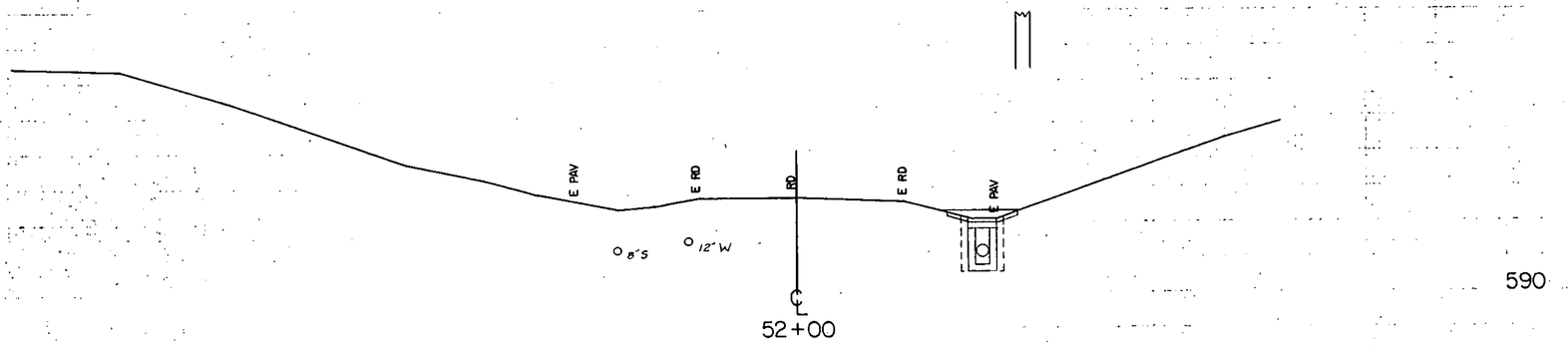
580

STA. 10+52
END STONE FILL, TYPE IV.
END UNCLASSIFIED CHANNEL EXCAVATION

FROM STA. 10+50 TO STA. 11+00
PROJECT NAME ST JOHNSBURY PIER 2
NO. DP-FF041-1(10) PLOTTED 02/28/86
SURVEYED BY LEWIN FEB 1986
SCALE 10 FEET
SHEET 24 OF 222 SHEETS 80/86

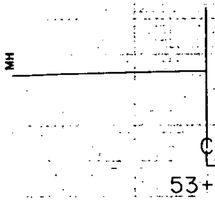


51+95-53+29 Rt
Const. Bit. Conc. Gutter



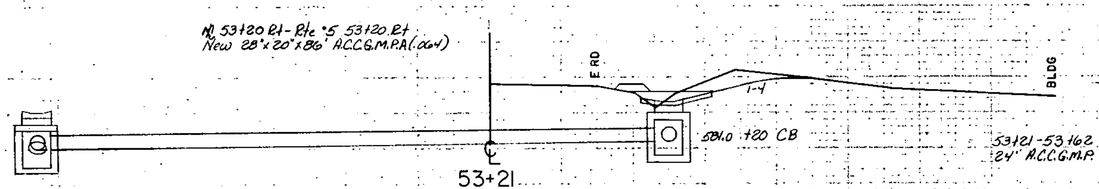
51+95
Begin Approach Construction

FROM STA. 52+00	TO STA. 52+50
PROJECT NAME—	ST. JOHNSBURY MAIN LINE
NO. DP	FF041-1 (10)
SURVEYED BY	FANTONI 11/78
SHEET 100 OF 329 SHEETS	



580

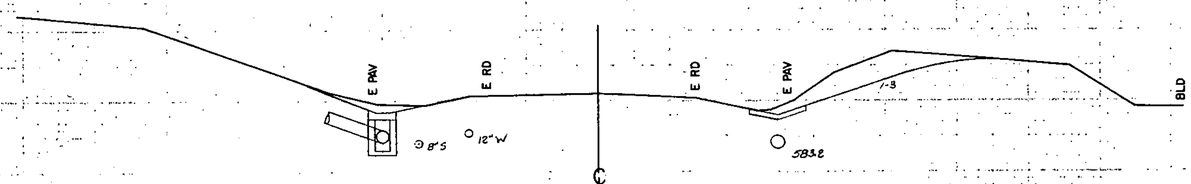
53+27 Rt Rt - 54+51 Rt & Rt
Cast in Place Cement Concrete
Curb Type A



590

53+21 Rt Rt 5 53+20 Rt
New 28"x20"x86' A.C.C.G.M.P.A. (.064)

53+21 - 53+62 Rt
24" A.C.C.G.M.P. - Remove



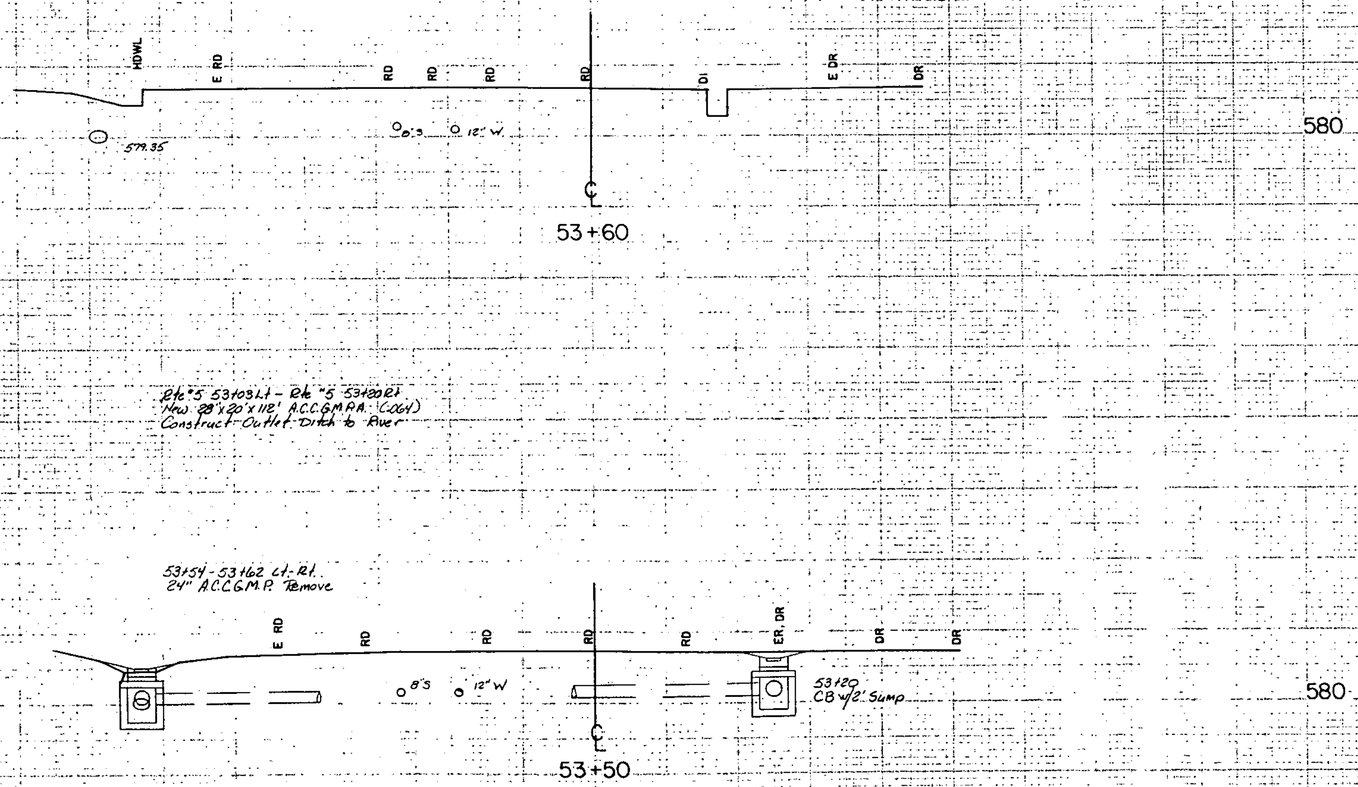
590

52+97 Lt - 53+20 Rt & Rt 5
New 24"x52' R.C.P. cl III
w/2 Type B Grates

52+50 - 53+00 Lt
Const. Bit. Conc. Gutter

52+02 - 53+18 Rt
New 24"x116 R.C.P. cl III
w/2 Type B Grates (4x6) D.I. 12" Sump

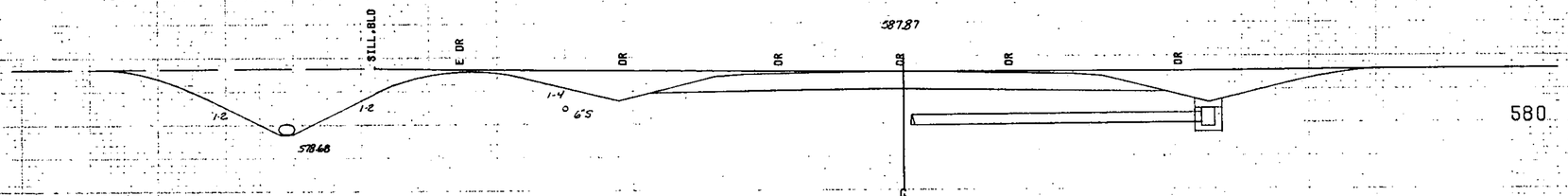
FROM STA. 53+00	TO STA. 53+35
PROJECT NAME	ST. JOHNSBURY MAIN LINE
NO.	DP FF041-1(10)
SURVEYED BY	FANTONI 11/78
SHEET 101 OF 229 SHEETS	



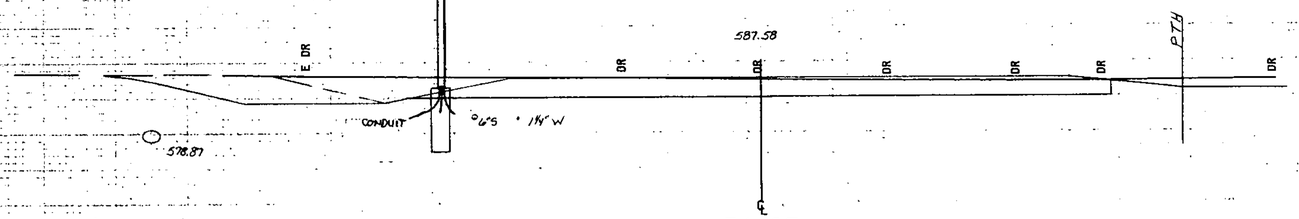
FROM STA. 53+50 TO STA. 53+60
PROJECT NAME ST. JOHNSBURY MAIN LINE
NO. DP-FF041-1(10)
SURVEYED BY FANTONI 11/78
SHEET 102 OF 229 SHEETS

54150 - 56400 Rt
Erosion Matting
(8' wide)

54150 - 54175 RT.-Lt.
New 18"x.134" R.C.P. cl III



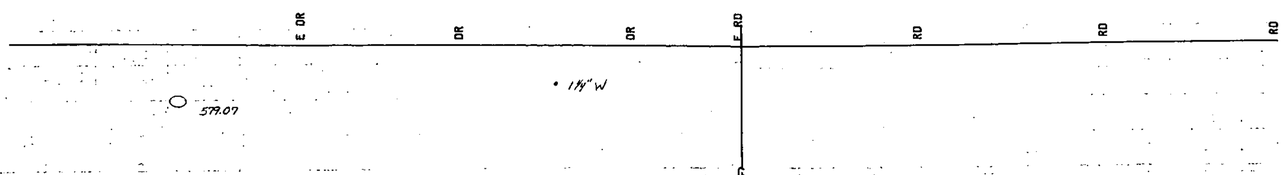
℄ 54+50



℄ 54+25
Butt Quantites

54114 Rt. - 55+19 Lt.
24" H.C.C.& M.P. Remove

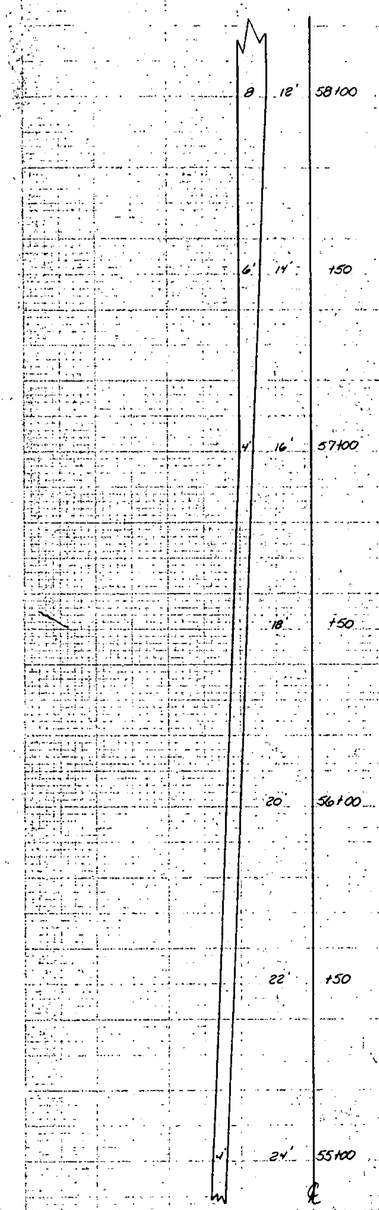
54+07
Begin Project
Match to U.S. 5



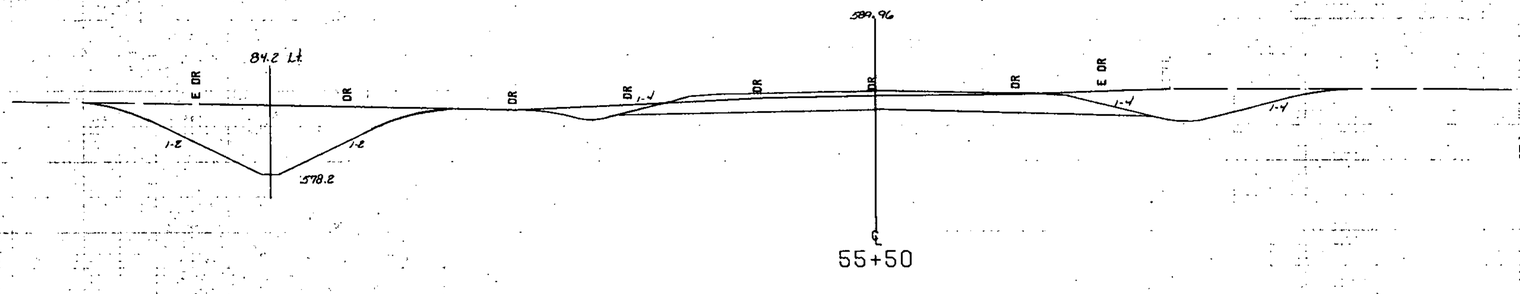
℄ 54+00

SCALE 10 FEET

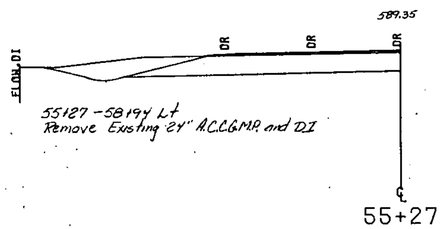
FROM STA. 54+00	TO STA. 54+60
PROJECT NAME	ST. JOHNSBURY MAIN
NO.	DP-FF041-1(10) PLOTTED 12/11/84
SURVEYED BY	PANTONI 11/76
SHEET 103 OF 229 SHEETS	



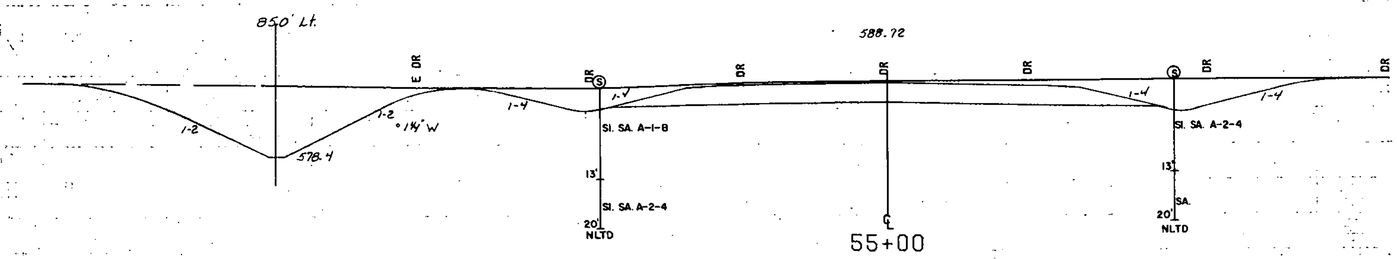
Pavement Transition
Scale 1" = 80'



54119 - 59105 Lt
Construct Special Ditch



55127 - 58194 Lt
Remove Existing 24" R.C.C.M.P. and DI

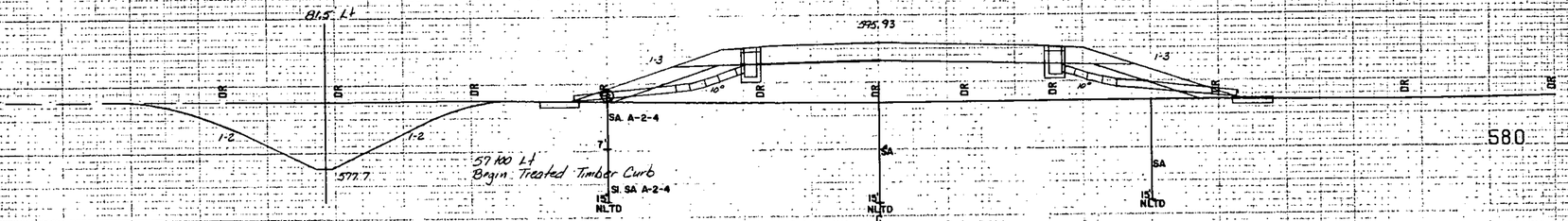


FROM STA.	55+00 TO STA. 55+60
PROJECT NAME	ST-JOHNSBURY MAIN
NO.	DP-FF041-1(10) PLOTTED 12/11/84
SURVEYED BY	FANTONI 11/78
SHEET	104 OF 229 SHEETS

SCALE 10 FEET

57+00 Lt
New 12"x18" CGMP (.064) or CAACP (.060)
w/ 1-10° Elbow and Stone Pad @ Outlet

57+00 Rt
New 12"x18" CGMP (.064) or CAACP (.060)
w/ 1-10° Elbow and Stone Pad @ Outlet

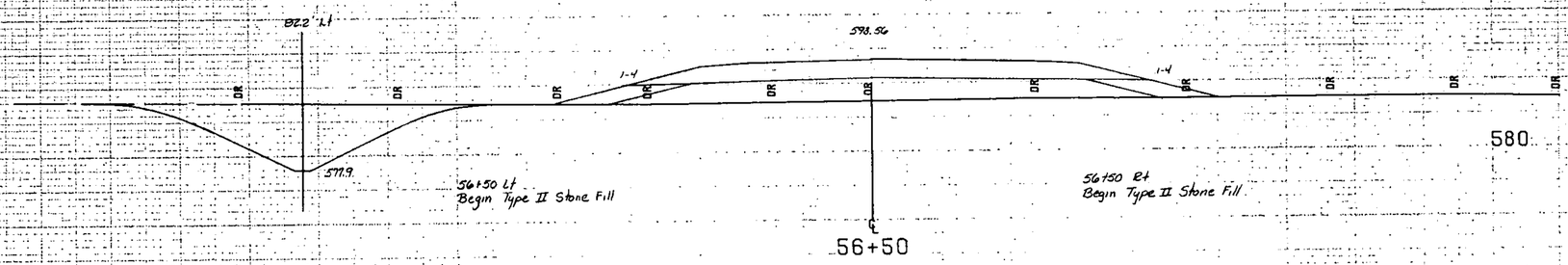


56+53 - 57+28 Lt
Guard Rail Std. St. Beam
w/ Wood Posts, Type II

57+00 Rt
Begin Treated Timber Curb

56+28 - 56+53 Lt
Breakaway Cable Terminal

56+26.5 - 57+14 Rt
Guard Rail Std. Steel Beam
w/ Wood Posts, Type II

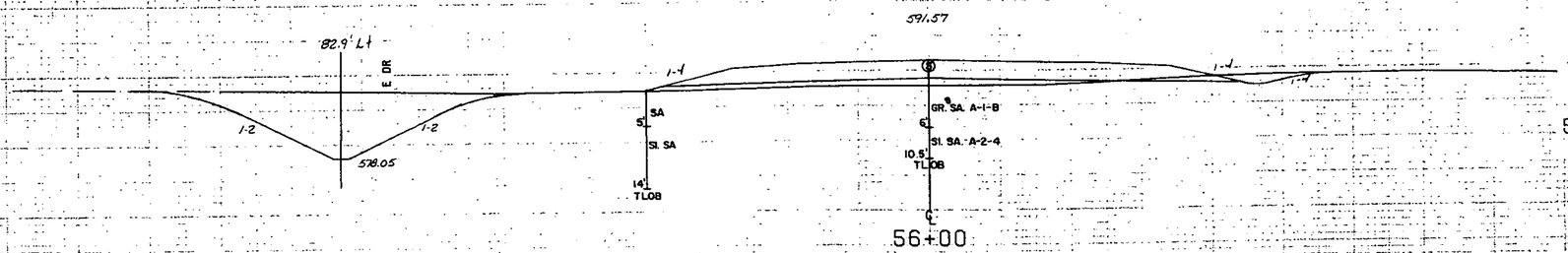


56+50 Lt
Begin Type II Stone Fill

56+50 Rt
Begin Type II Stone Fill

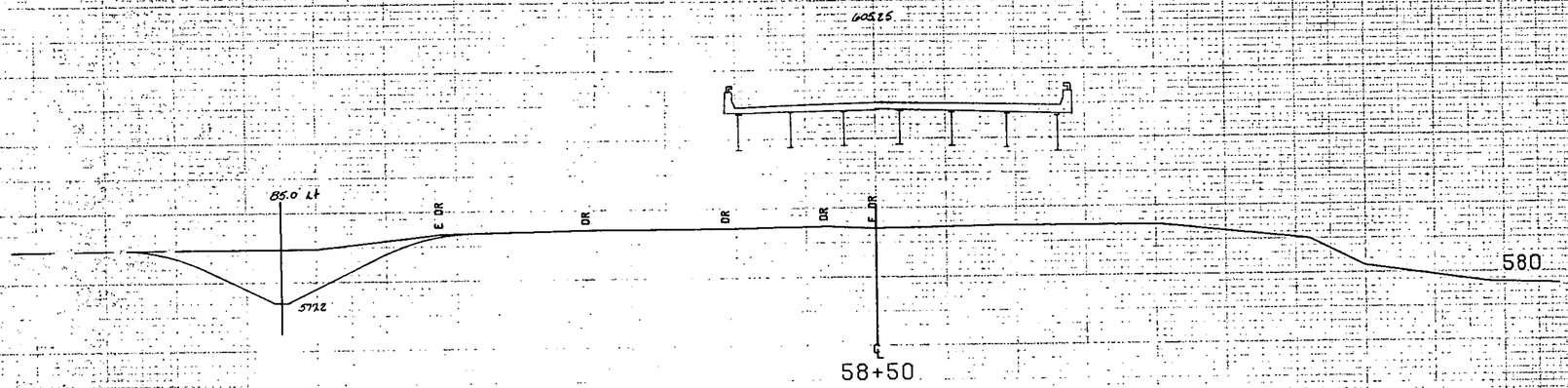
56+01.5 - 56+26.5 Rt
Breakaway Cable Terminal

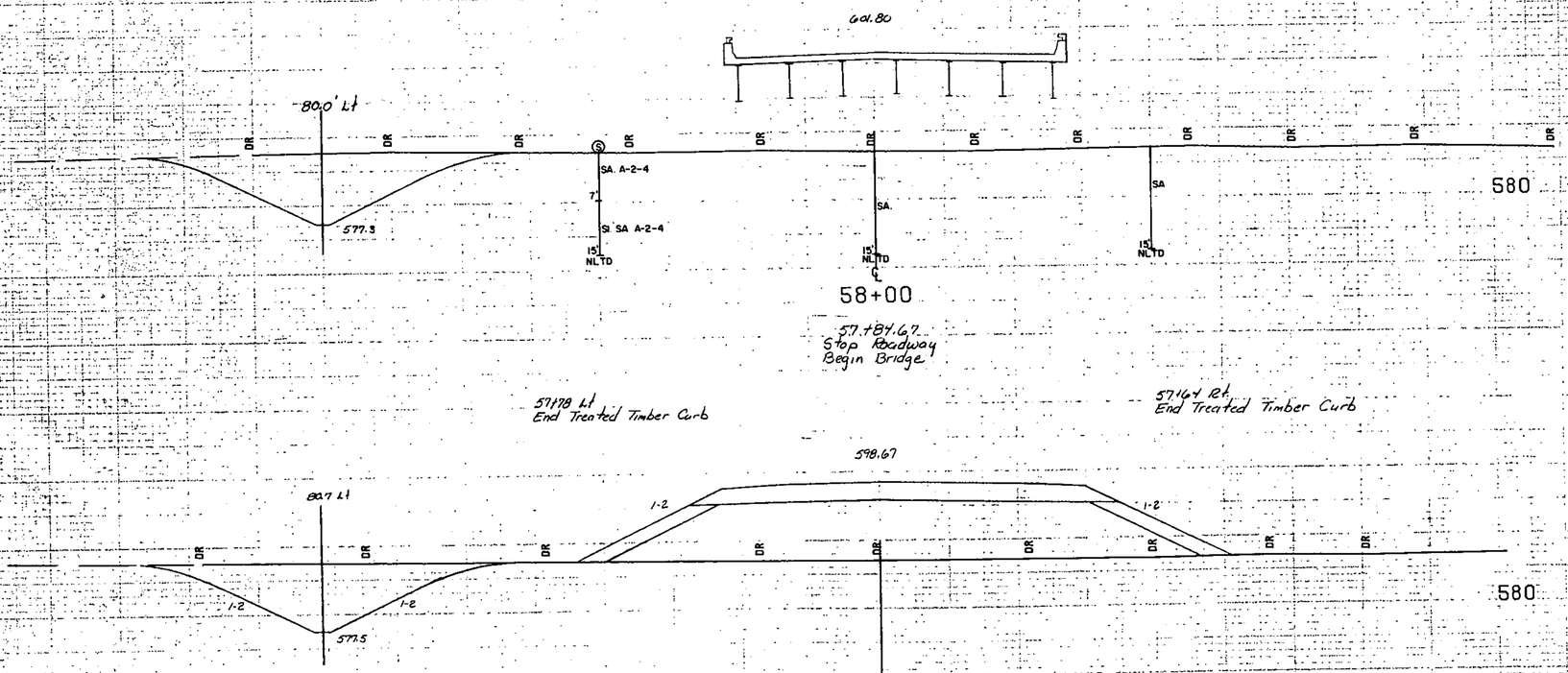
56+25 Rt
End Erosion Matting



FROM STA.: 56+00 TO STA.: 57+00
PROJECT NAME: ST. JOHNSBURY MAIN
NO.: DP-FF041-1(10) PLOTTED 12/11/84
SURVEYED BY: FANTONI 11/78
SHEET 105 OF 229 SHEETS

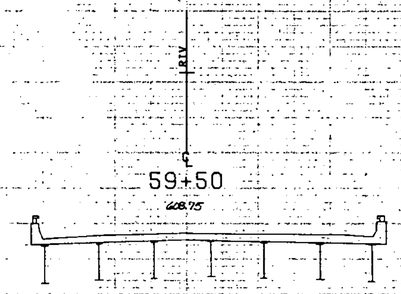
SCALE 1" = 10' FEET



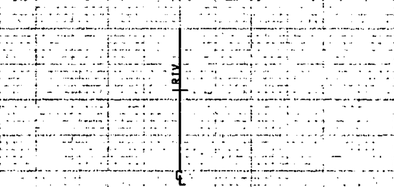


FROM STA. 57+50 TO STA. 58+50
PROJECT NAME ST. JOHNSBURY MAIN
NO. OP-FF041-1(10) PLOTTED 12/11/84
SURVEYED BY FANTONI 11778
SHEET 106 OF 229 SHEETS

SCALE 10 FEET

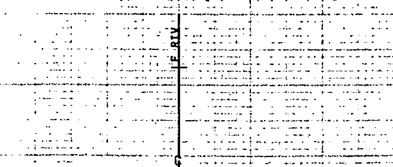


570



570

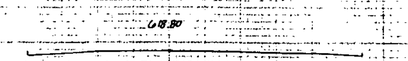
59+05 ±
End Outlet Ditch
Type I Stone Fill from
58+94 To End of Ditch



570

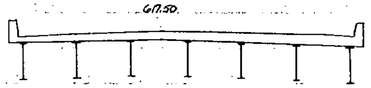
FROM STA.: 58+82 TO STA.: 69+50
PROJECT NAME: ST.JOHNSBURY MAIN
NO.: DP-FF041-1(10) PLOTTED 12/11/84
SURVEYED BY: FANTONI 11/76
SHEET 07 OF 209 SHEETS

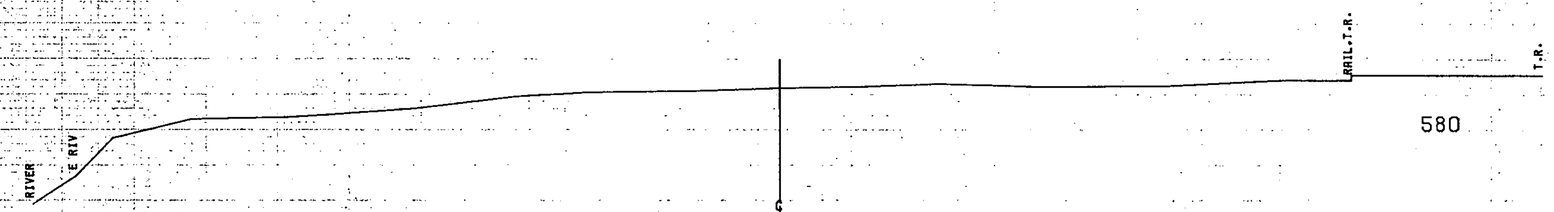
SCALE 1" = 10 FEET



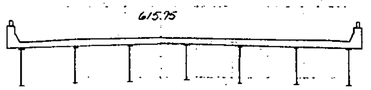
580

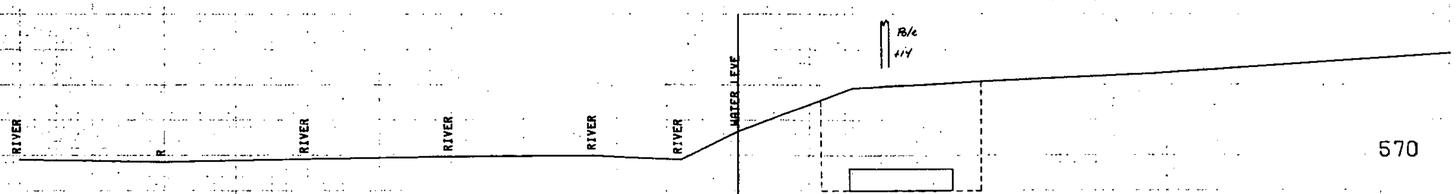
60+43.50





60+25

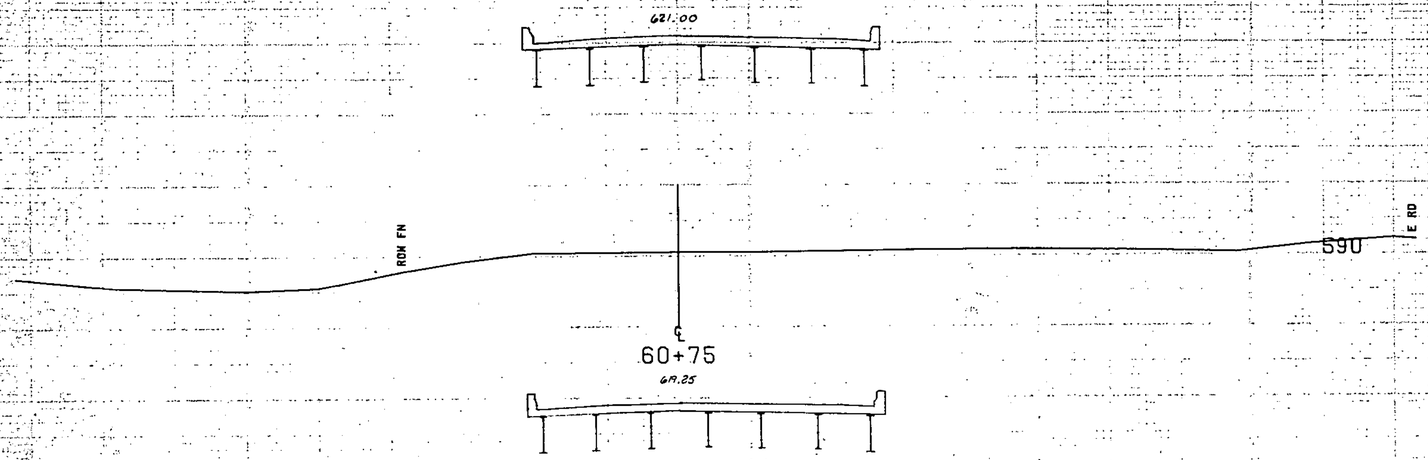


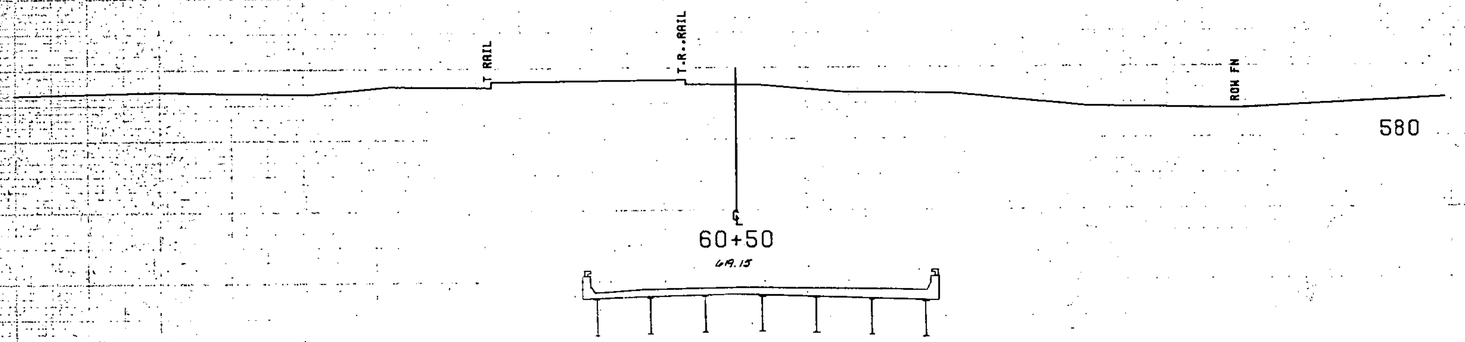


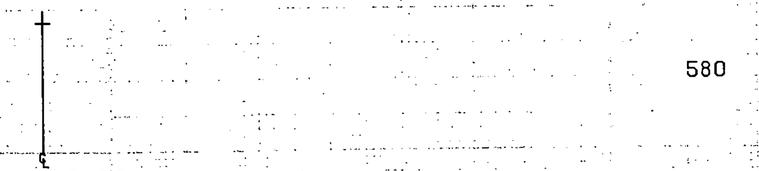
60+00

FROM STA.	60+00	TO STA.	60+43.50
PROJECT NAME	ST.JOHNSBURY MAIN		
NO.	DP-FF041-1(10)	PLOTTED	12/11/84
SURVEYED BY	FANTONI		11/78
SHEET 108 OF [redacted]	SHEETS 229		

SCALE 10 FEET

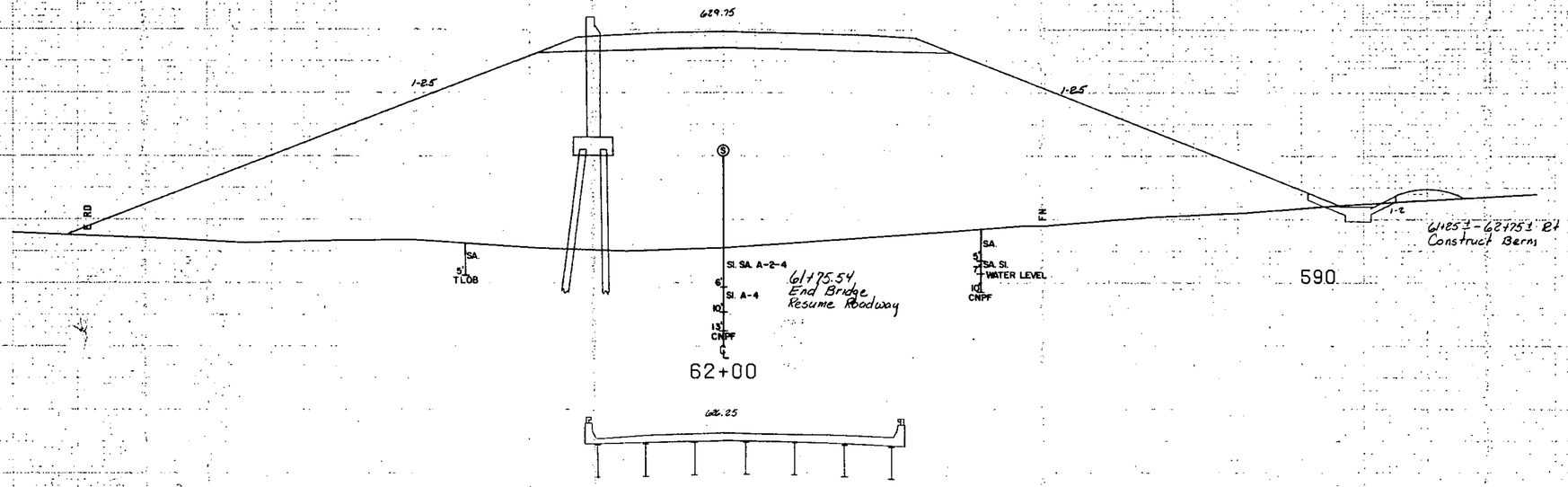


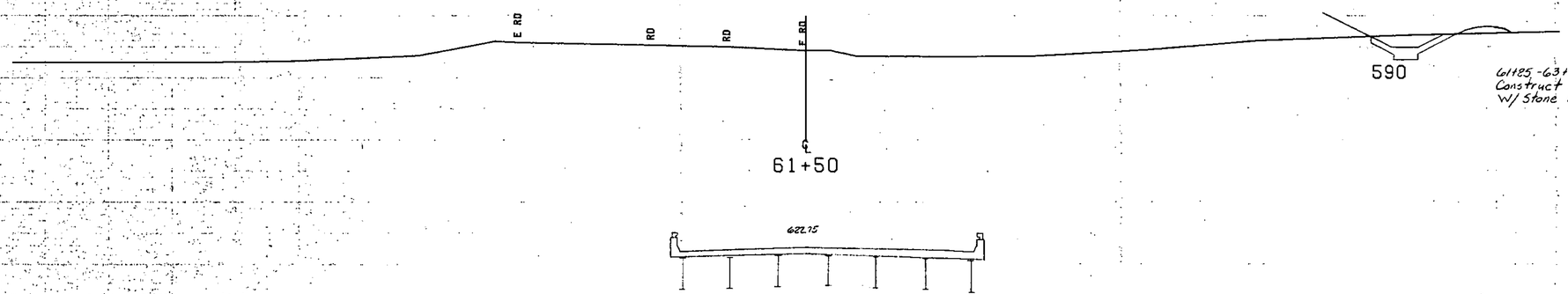


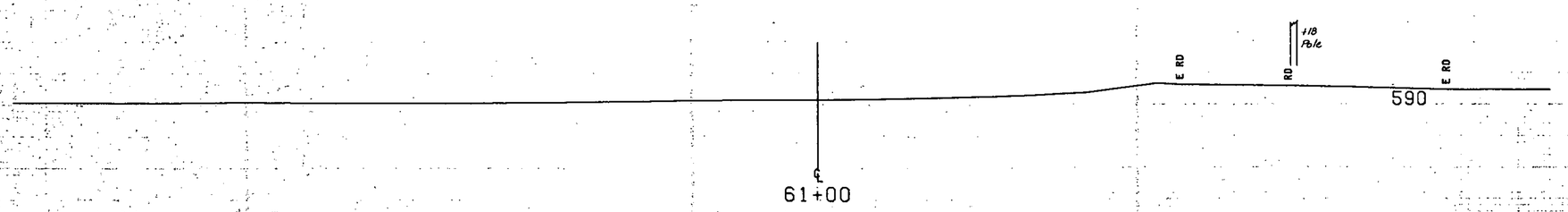


SCALE 10 FEET

FROM STA. 60+48.50	TO STA. 60+76
PROJECT NAME	ST.JOHNSBURY MAIN
NO.	DP-FF041-1(10) PLOTTED 12/11/8
SURVEYED BY	FANTONI 11/76
SHEET 109 OF [redacted]	SHEETS 229



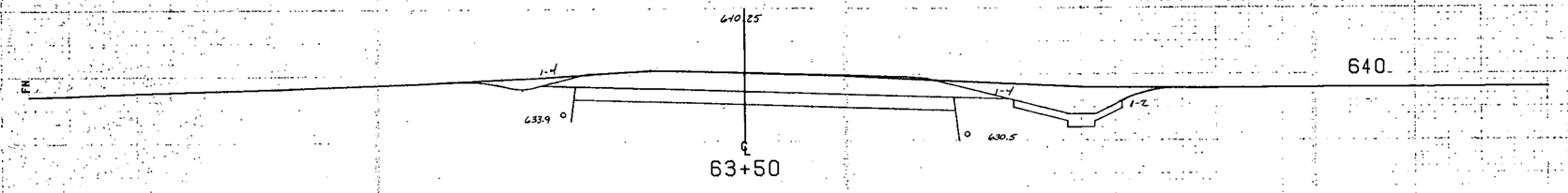




FROM STA.	61+00	TO STA.	62+00
PROJECT NAME		ST. JOHNSBURY MAIN	
NO.		DP-FF041-1(10)	PLOTTED 12/11/84
SURVEYED BY		FANTONI	11/78
SHEET NO	OF	SHEETS 229	

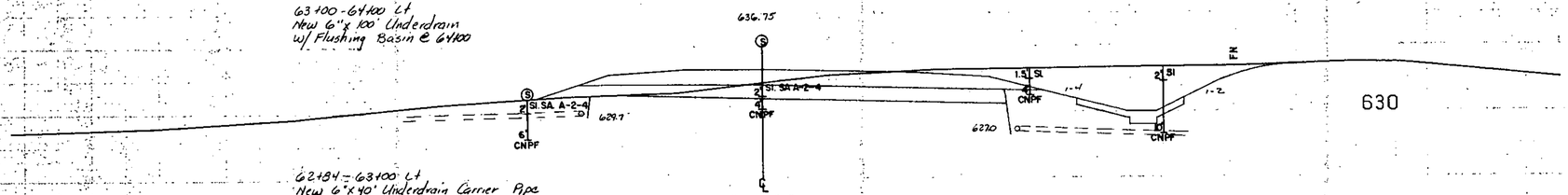
SCALE 10 FEET

63+00.5 - 63+55.5 Lt
Breakaway Cable Terminal



63+00 - 68+50 Rt
New 6"x 550' Underdrain
W/ Flushing Basin @ 68+50

63+00 - 64+00 Lt
New 6" x 100' Underdrain
w/ Flushing Basin @ 64+00



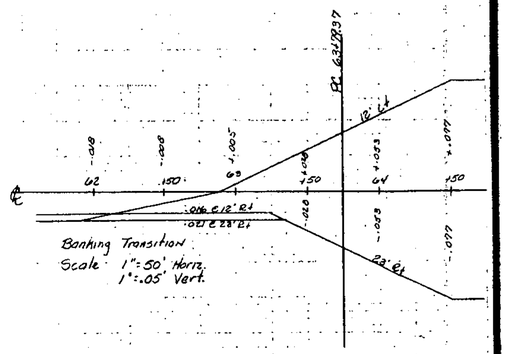
62+84 - 63+00 Lt
New 6"x 40' Underdrain Carrier Pipe

63+00±
Begin 24" Sand Borrow

62+75±
Begin Drilling and Blasting
of Solid Rock Subgrade

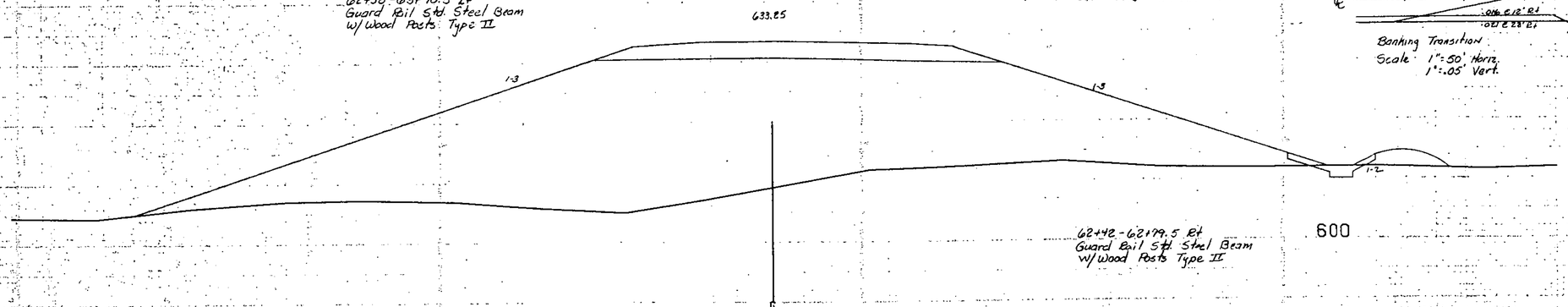
62+75 Rt - 63+00 Rt
New 6"x 40' Underdrain Carrier Pipe

62+79.5 - 63+04.5 Rt
Breakaway Cable Terminal



Banking Transition
Scale 1"=50' Horiz.
1"=.05' Vert.

62+58 - 63+70.5 Lt
Guard Rail Std. Steel Beam
w/ Wood Posts Type II



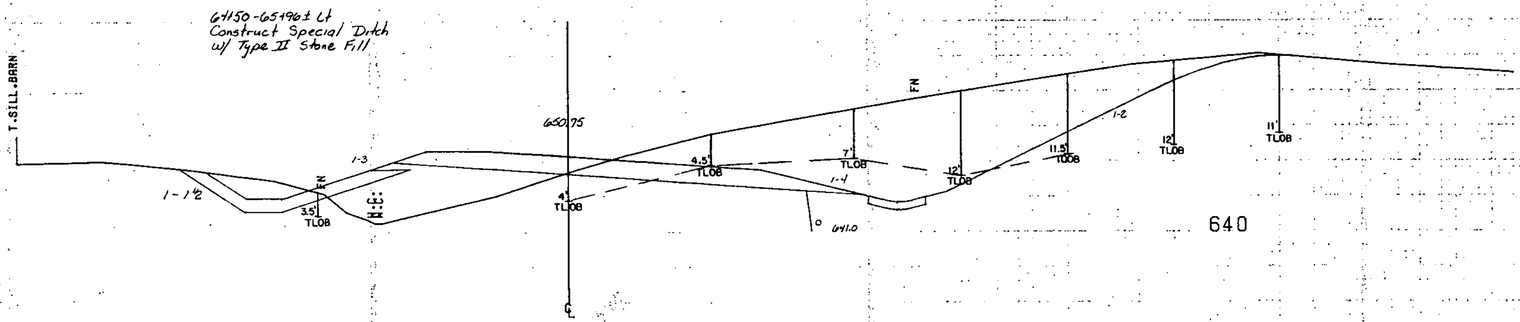
62+42 - 62+79.5 Rt
Guard Rail Std. Steel Beam
w/ Wood Posts Type II

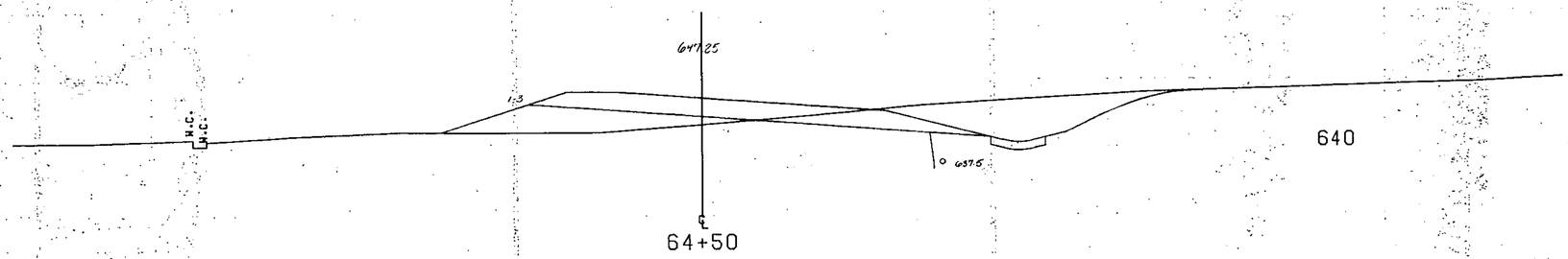
FROM STA.	62+50	TO STA.	63+50
PROJECT NAME		ST. JOHNSBURY MAIN	
NO.		DP-FF041-1(10)	PLOTTED 12/11/84
SURVEYED BY		FANTONI	11/78
SHEET	[illegible]	OF [illegible]	SHEETS 229

SCALE: 10 FEET

65+35± Lt
Shed and Concrete Wall
Refer to Layouts for Details

64+50-65+90± Lt
Construct Special Ditch
w/ Type II Stone Fill

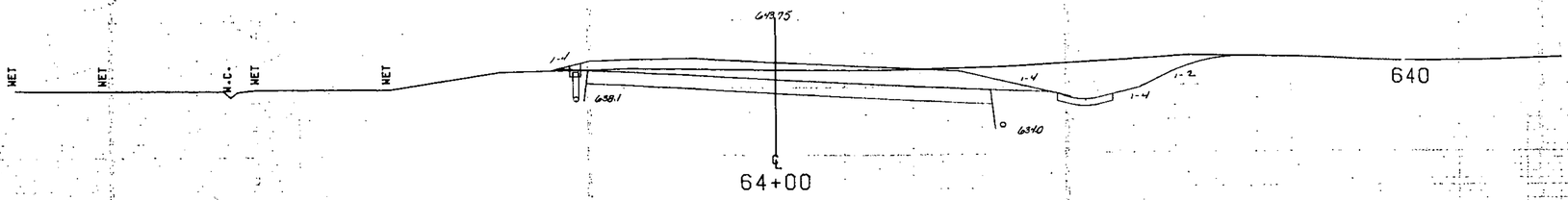




PC 63+79.37
D 10° Rt
Bank .077 Ft/Ft.

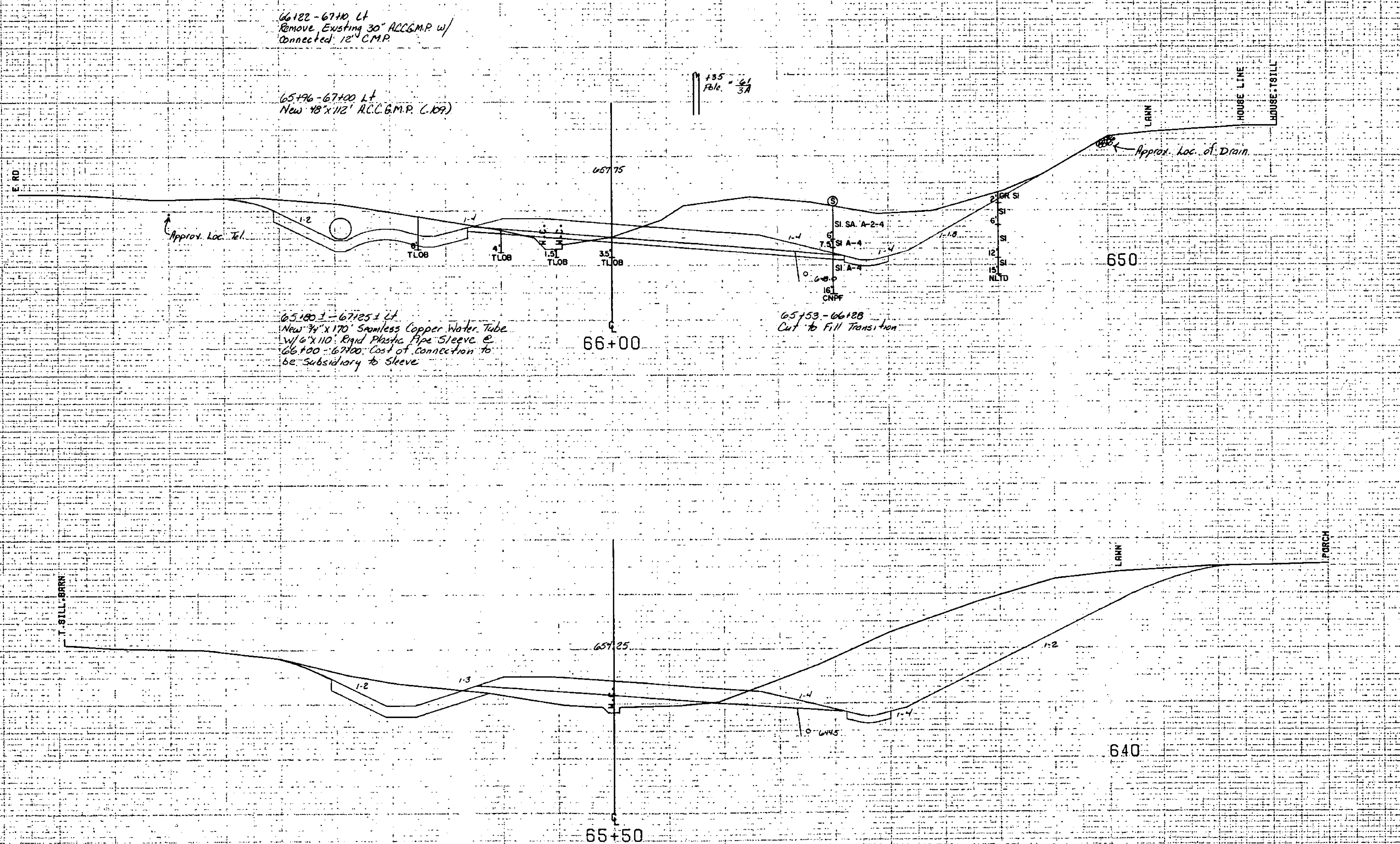
64+00
End 24" Sand Borrow

63+50-66+04 Rt
Construct Ditch w/
Type I Stone Fill



FROM STA.	64+00	TO STA.	66+00
PROJECT NAME	ST.JOHNSBURY MAIN		
NO.	DP-FF041-1(10)	PLOTTED	12/11/84
SURVEYED BY	FANTONI		11/78
SHEET 12 OF [redacted]	SHEETS 229		

SCALE 10 FEET



SCALE 10 FEET

FROM STA. 65+50		TO STA. 66+00	
PROJECT NAME	ST.JOHNSBURY MAIN		
NO.	DP-FF041-(10)	PLOTTED 12/11/84	
SURVEYED BY	FANTONI	11/78	
SHEET 113 OF [redacted] SHEETS 229			

67+25±
End Drilling and Blasting
of Solid Rock Subgrade

664.75

FN

E RD

RD

E PAVT

E FLD

7'
TLDB

4.5'
TLDB

6550

660

1-4

67+00

+12
Rate = 3/12

66187 - 69150 Rt
Construct Special Ditch
w/ Type I Stone Fill

661.95

DR

DR

DR

DR

DR

DR

DR

DRRROE

660

1-2

66+60

66160 Rt
Construct Drive
New 18"x72' Option Pipe

16'

12" Subbase of Gravel

1-12

1-5.5±

Drive Typical in Fill

16'

1-2

1-2

6"

Drive Typical in Cut

18" Subbase of Gravel
2" Bit. Conc. Pavement

20'

1-5

1-12

Approx. Ill Ditch Grade

Approach Typical

661.25

FN

E RD

RD

E RD

E PAV

DR

DR

DR

DR

E DR

1-4

1-2

1-4

656.0

Approx. Loc. Tel.

651.5

660

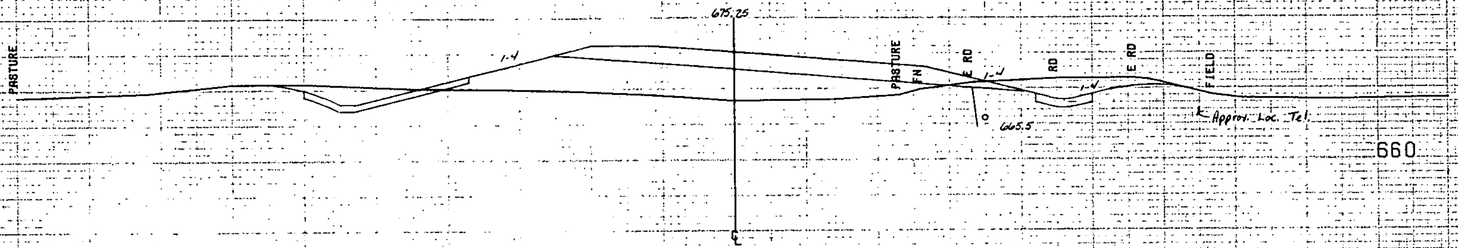
66+50

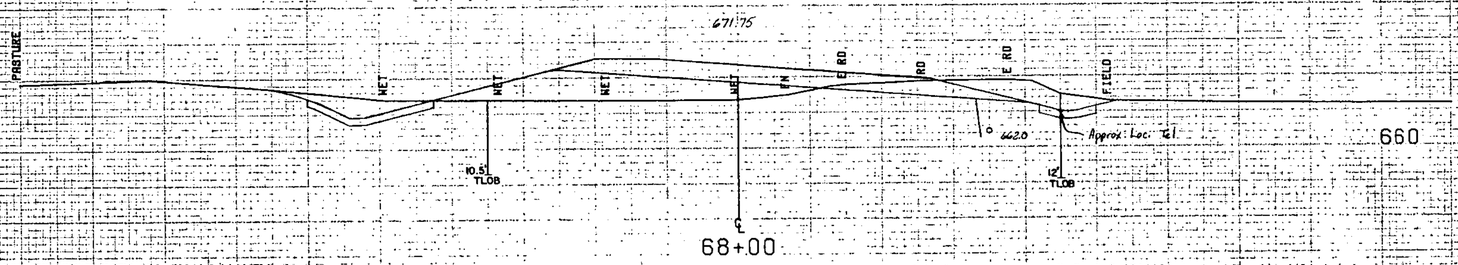
66150 Lt
Construct Approach (Paved)
(T.H. = 52')

FROM STA.	66+50	TO STA.	67+00
PROJECT NAME	ST. JOHNSBURY MAIN		
NO.	OP-FF041-1(10)	PLOTTED	12/11/84
SURVEYED BY	FANTONI		11/78
SHEET 114 OF ■	SHEETS 229		

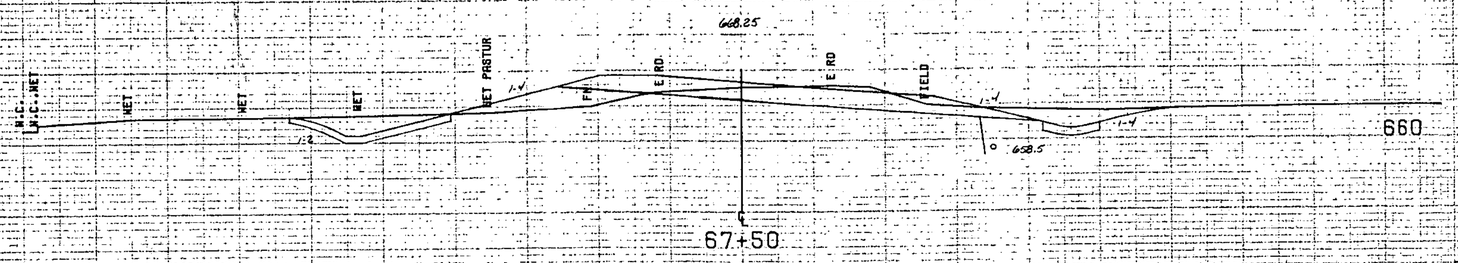
SCALE 10 FEET

68155 ± Rt
Begin Excavation and Removal of Road Surfaces and Pavements



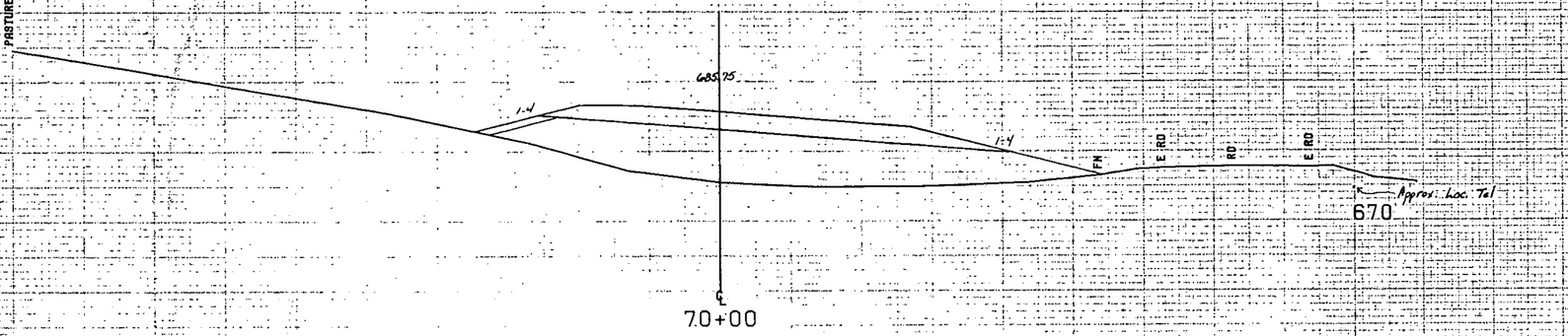


67100-69150 ± Lt
Construct Special Ditch w/ Type I Stone Fill

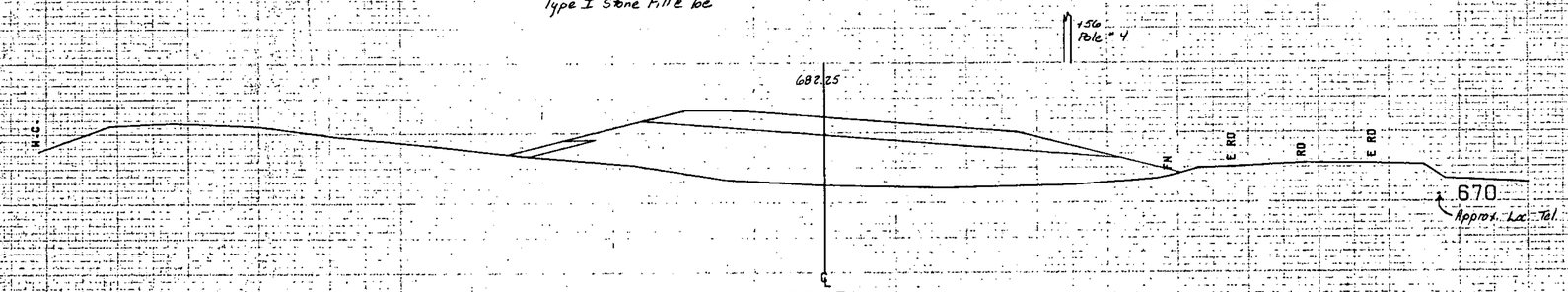


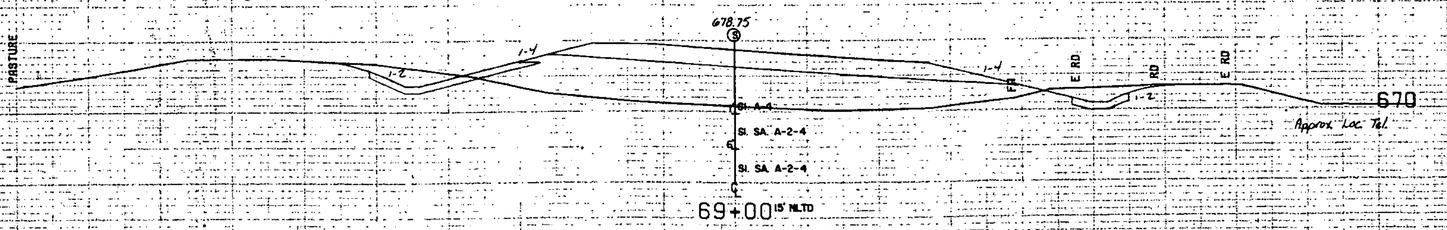
SCALE 1" = 10 FEET

FROM STA: 67+50	TO STA. 68+50
PROJECT NAME	ST. JOHNSBURY MAIN
NO.	DP-FF041-1(10) PLOTTED 12/11/84
SURVEYED BY	FANTONI 11/78
SHEET 45 OF [illegible] SHEETS 229	



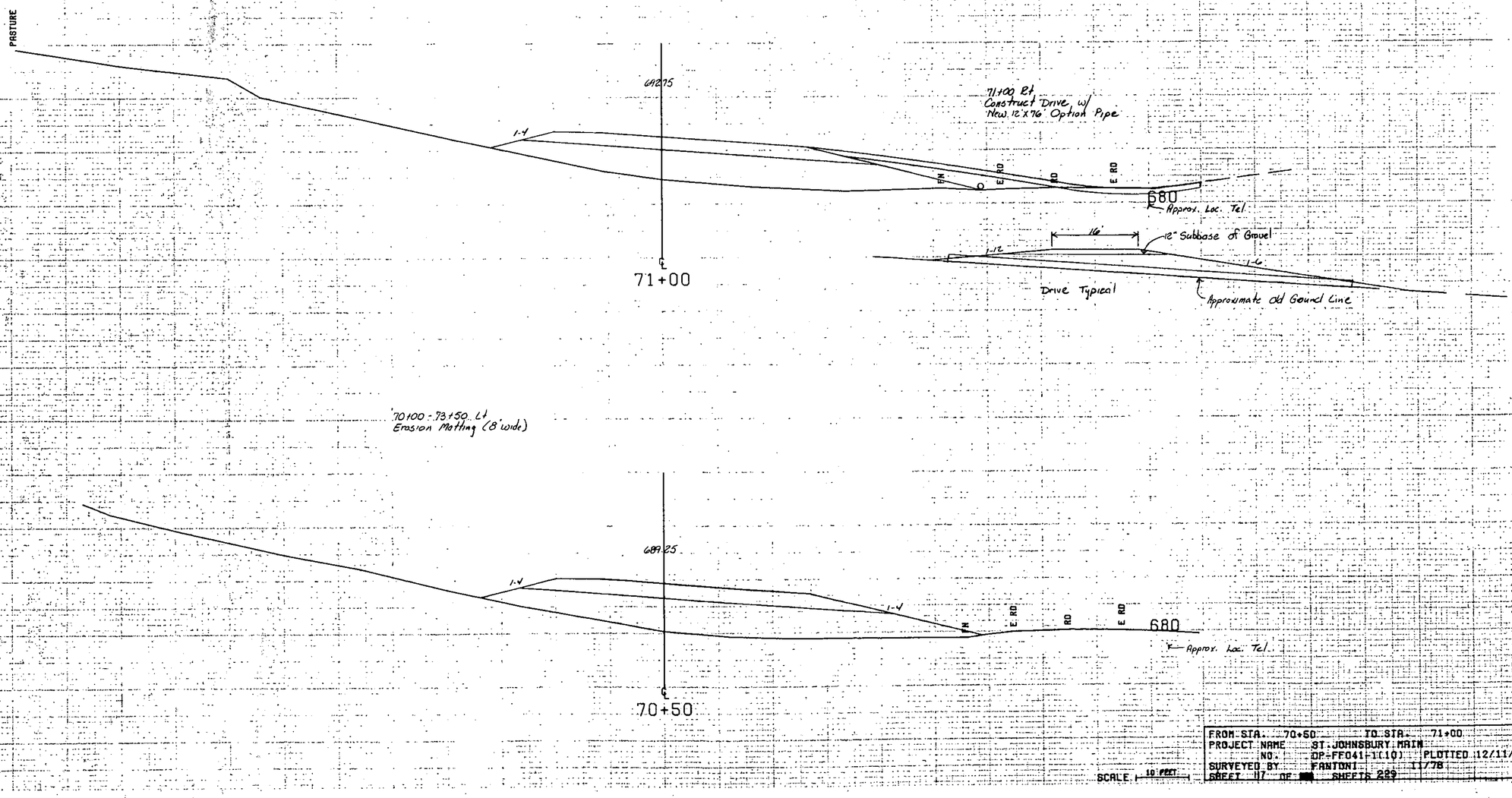
69150 - 70100 Lt.
Type I Stone Fill Toe





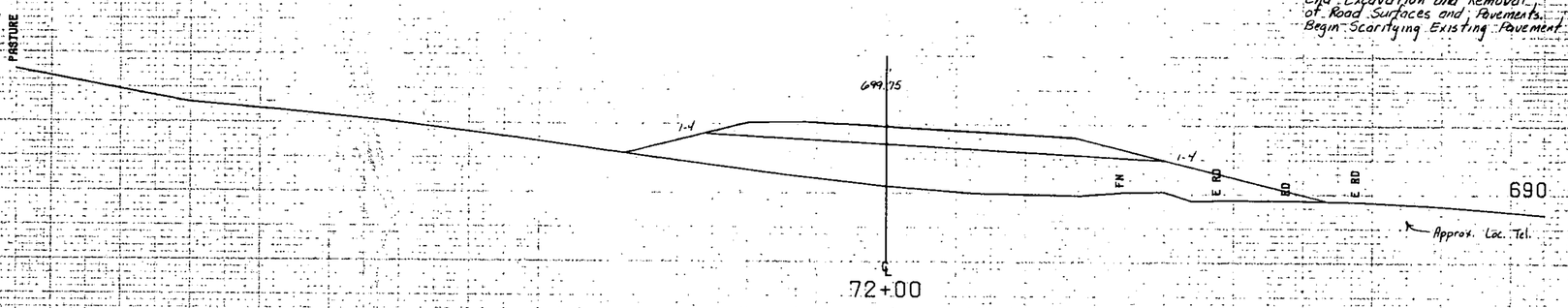
SCALE 1" = 10 FEET

FROM STA.	69+00 TO STA. 70+00
PROJECT NAME	ST. JOHNSBURY MAIN
NO.	DP-FF041-1(10) PLOTTED 12/11/84
SURVEYED BY	FANTONI 11/78
SHEET 18 OF 20	SHEETS 229



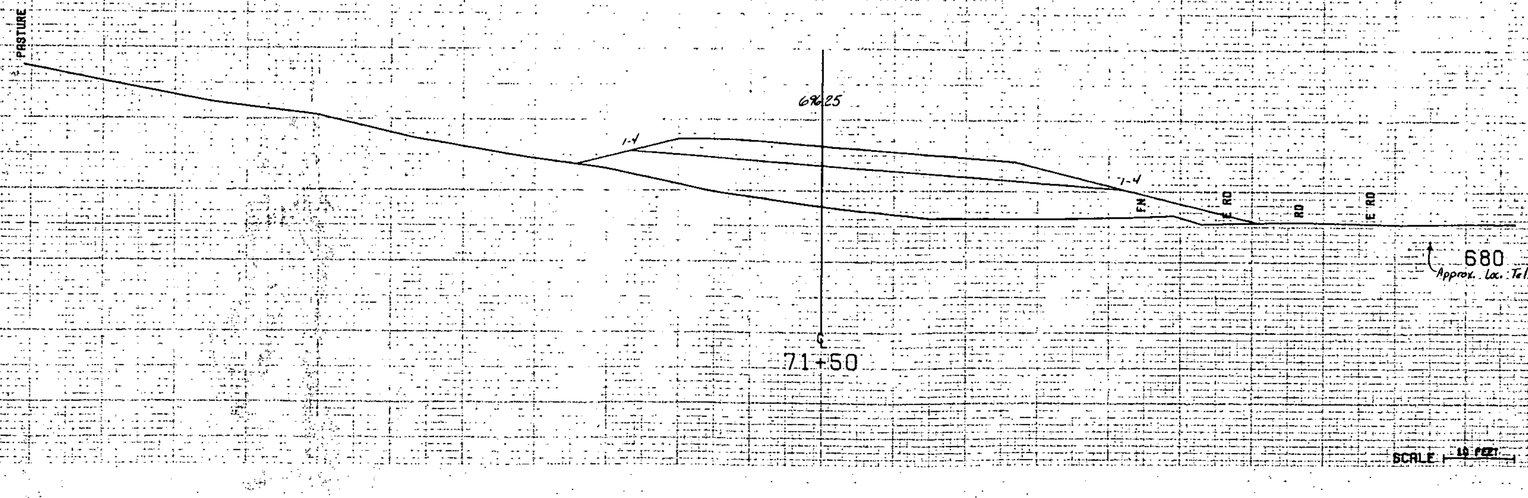
FROM STA. 70+50		TO STA. 71+00	
PROJECT NAME	ST. JOHNSBURY MAIN		
NO.	DP-FF041-1(10)	PLOTTED	12/11/84
SURVEYED BY	FANTONI		11/78
SHEET 17 OF [redacted]	SHEETS 289		

SCALE 10 FEET



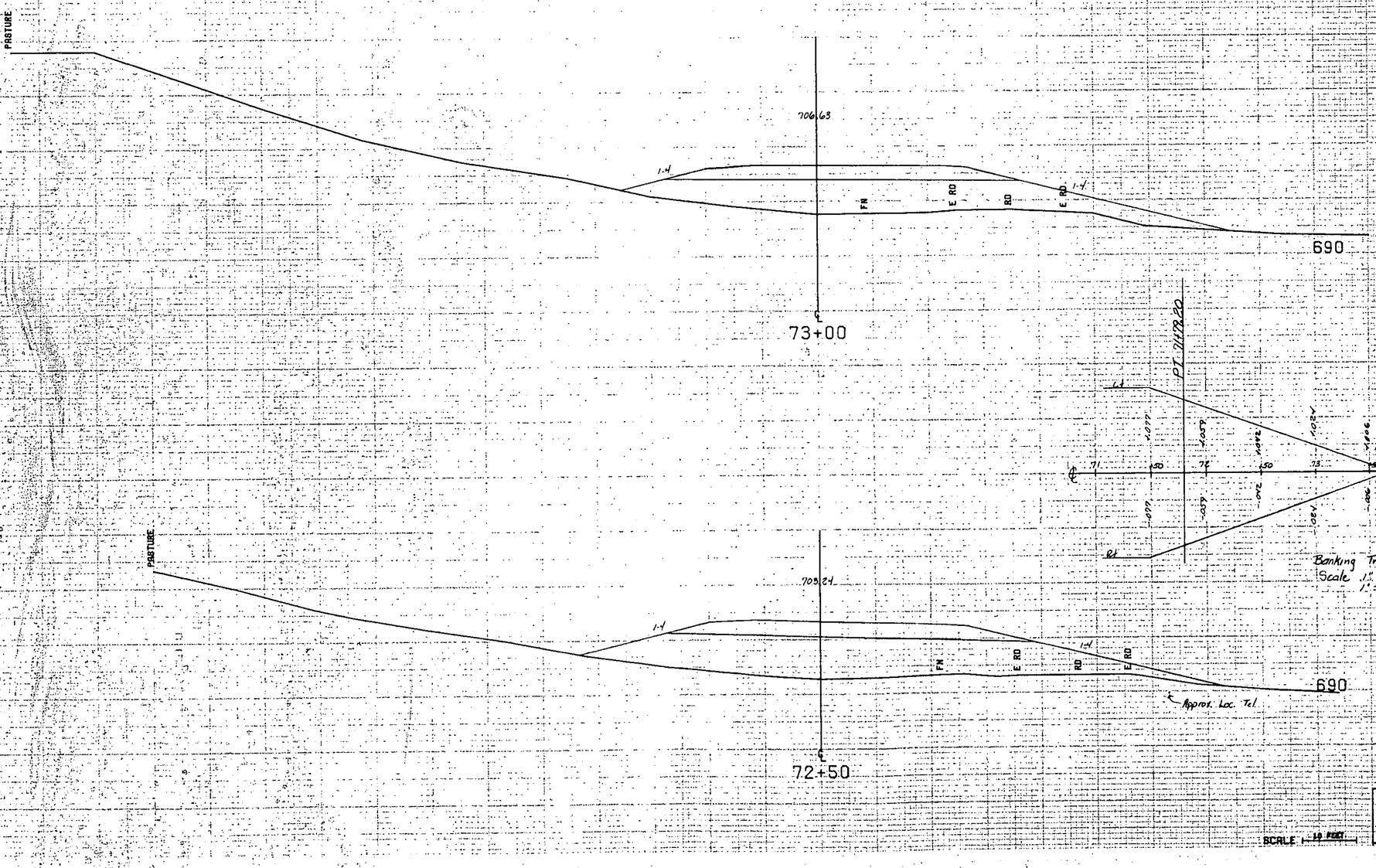
72+00.Rt
End Excavation and Removal
of Road Surfaces and Pavements
Begin Scarifying Existing Pavement

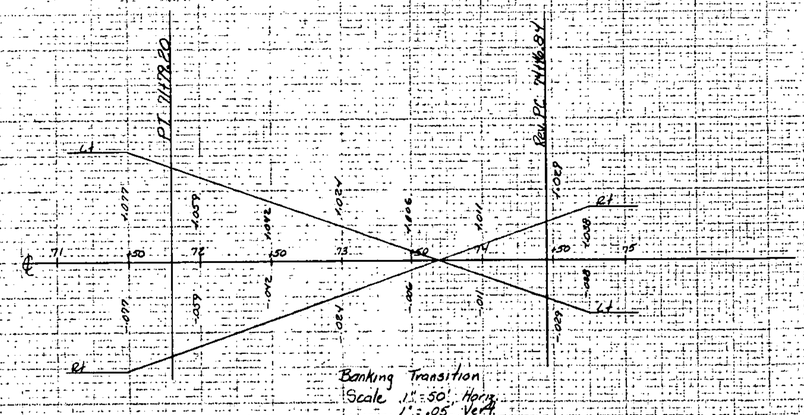
P.T. 71+79.20
D 10° Rt.
Bank .079 ft/ft



FROM STA: 71+50	TO STA: 72+00		
PROJECT NAME: ST. JOHNSBURY MATH			
NO: DP-FF041-1(10)	PLOTTED: 12/11/84		
SURVEYED BY: FRANTONI	11/78		
SHEET 10A OF [redacted] SHEETS 229			

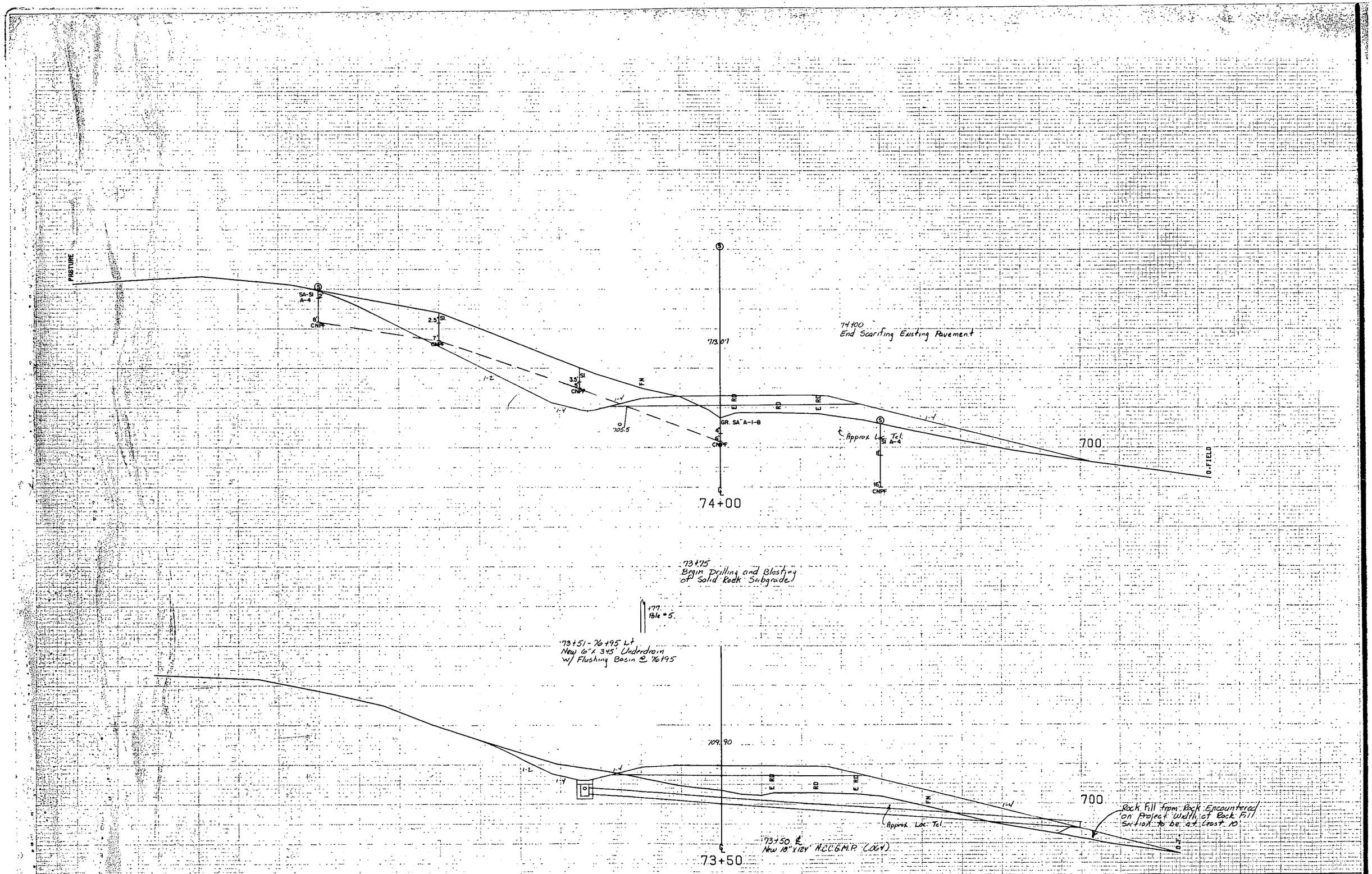
SCALE 1" = 10 FEET





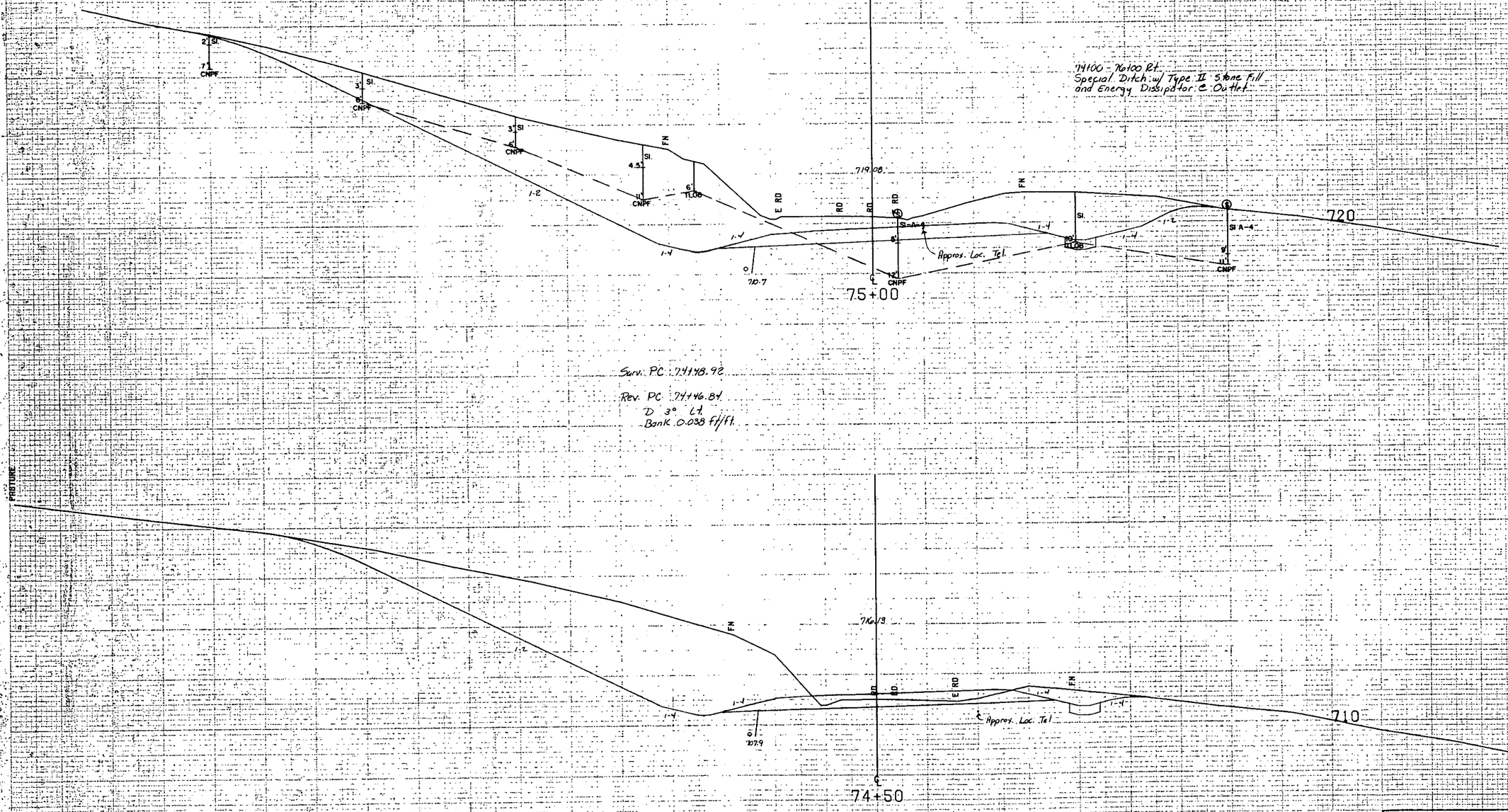
FROM STA. 72+50 TO STA. 73+00
PROJECT NAME ST. JOHNSBURY MAIN
NO. DP-FF041-1(10)T PLOTTED 12/11/84
SURVEYED BY ENATUI 1778
SHEET NO. OF [redacted] SHEETS 228

SCALE 10 FEET

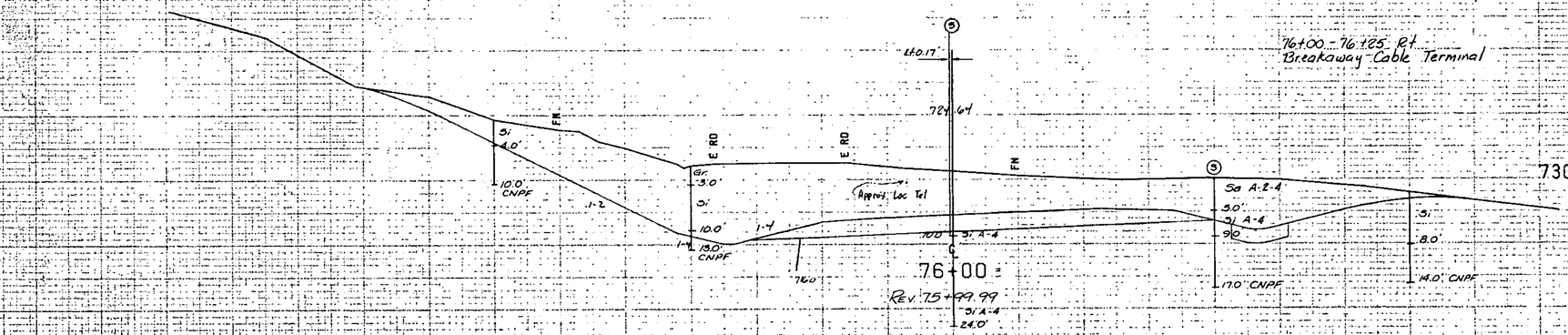


FROM STA.	73+50	TO STA.	74+00
PROJECT NAME		ST. JOHNSBURY MAIN	
NO.		OP-FF041-1(10)	PLOTTED 12/11/84
SURVEYED BY		FANTONI	11/78
SHEET NO. OF		SHEETS 229	

SCALE 10 FEET

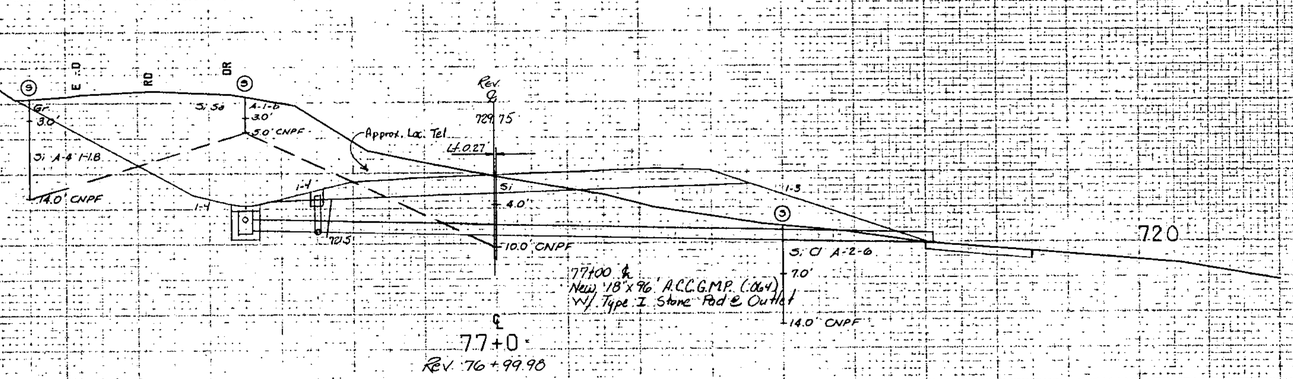

74100 - 76100 Rt.
Special Ditch w/ Type II Stone Fill
and Energy Dissipator @ Outlet
719.08
720
75+00
Approx. Loc. Tel
Surv. P.C. 74148.92
Rev. P.C. 74146.84
D 3° Lt.
Bank 0.038 Ft/Ft.
PASTURE
716.19
710
74+50
FROM STA. 74+50 TO STA. 75+00
PROJECT NAME ST JOHNSBURY MAIN
NO. DP-FFO41-1(10) PLOTTED 12/11/84
SURVEYED BY FANTONI 11/78
SHEET 121 OF ■ SHEETS 229
SCALE 1" = 10 FEET

76+00 - 76+25 Rt.
Breakaway Cable Terminal



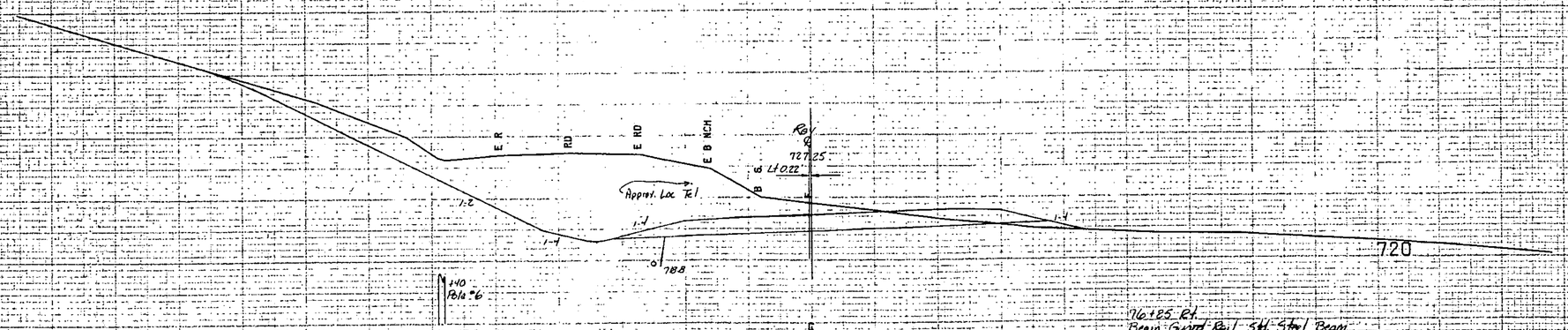
FROM STA.: 75+50 TO STA.: 76+00
PROJECT NAME: ST. JOHNSBURY MAIN
NO.: OP-FF041-1(10) PLOTTED 12/11/84
SURVEYED BY: FANTONI 11/78
SHEET 122 OF [redacted] SHEETS 229
SCALE: 10 FEET

77101 - 80+80 Lt.
New 6" x 376' Underdrain
w/ Flushing Basin @ 80+80



77+00 Rt
New 18"x 96' A.C.C.G.M.P. (.064)
w/ Type I Stone Pad & Outlet

℄
77+0
Rev. 76+99.90



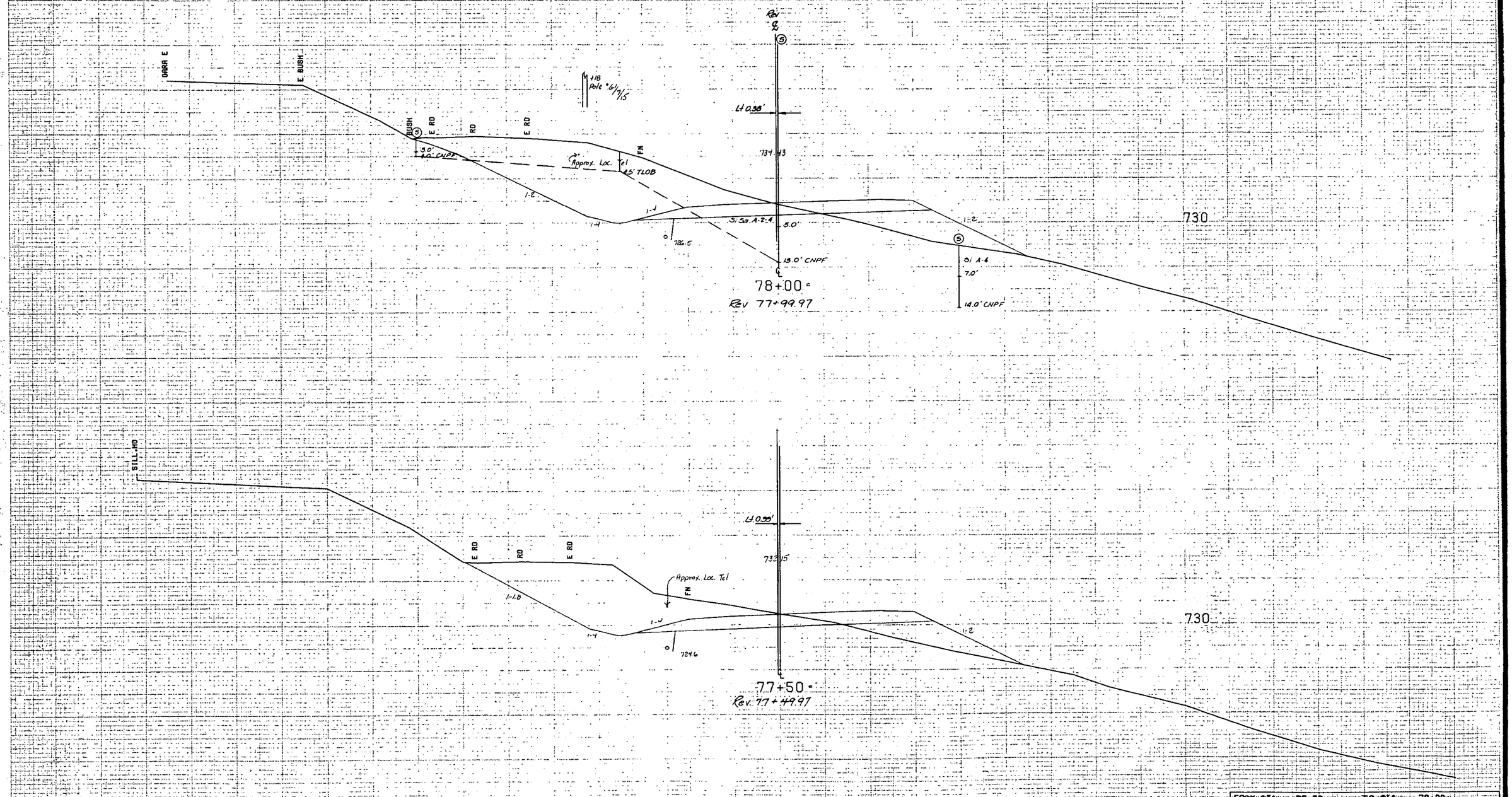
+10
Pole #6

76+25 Rt
Begin Guard Rail Std. Steel Beam
w/ Wood Posts, Type II

℄
76+50
Rev. 76+99.99

FROM STA.	76+00	TO STA.	77+00
PROJECT NAME	ST JOHNSBURY MAINLINE		
NO.	DP-FF041-1(10)	PLOTTED	12/21/04
SURVEYED BY	FANTONI		1177B
SHEET 123 OF [redacted] SHEETS 229			

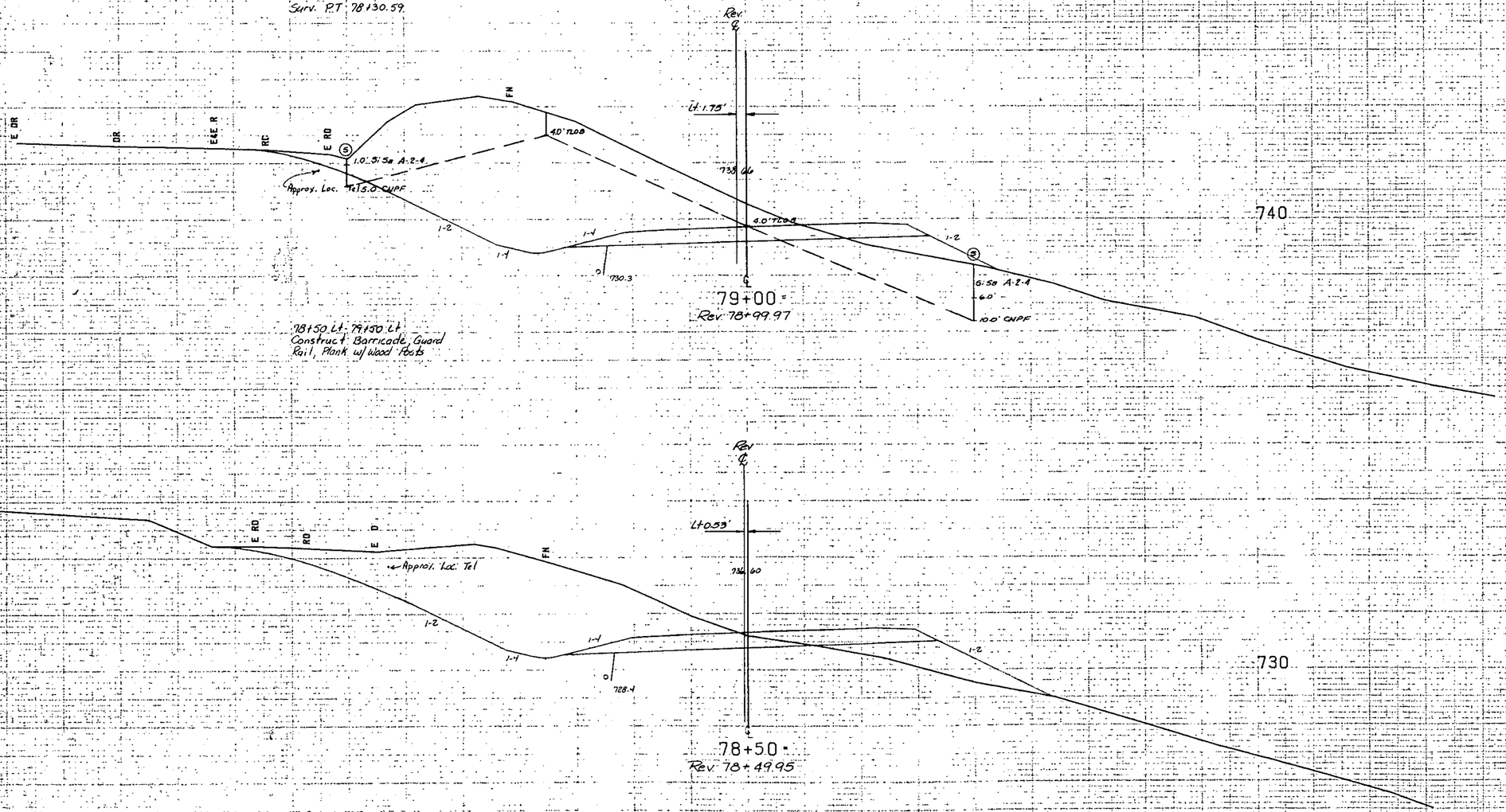
C.L.E. 10 57



FROM STA. 77+50 TO STA. 78+00
PROJECT ST. JOHNSBURY MAINLINE
NO. DP-FF041-1(10) PLOTTED 2/11/8
SURVEYED BY FANTONI 11/78
SCALE 10 FEET
SHEET 124 OF [redacted] SHEETS 229

Rev. P.T. 79+43.13
D 3° Lt.
Bank .038 ft/ft.

Surv. P.T. 78+30.59



740

730

79+00 ±
Rev. 78+99.97

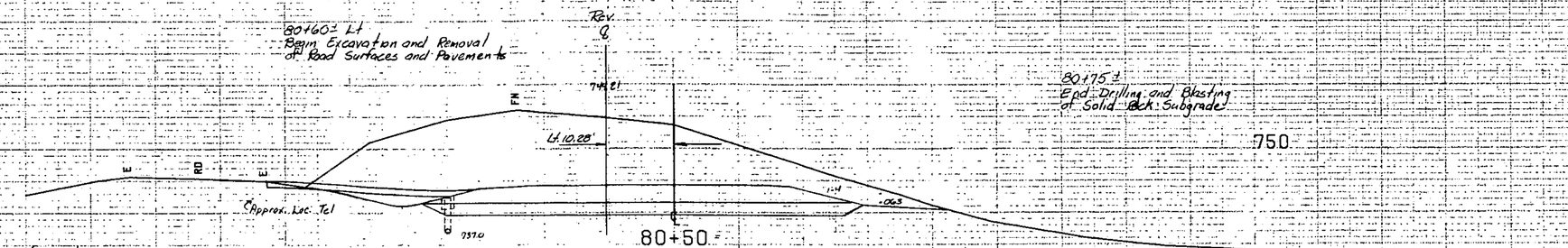
78+50 ±
Rev. 78+49.95

78+50 Lt. - 79+50 Lt.
Construct Barricade, Guard Rail, Plank w/ wood Posts

FROM STA. 8+50	TO STA. 9+00		
PROJECT NAME	ST. JOHNSBURY MAIN		
NO.	DP-FF041-1(10)	PLOTTED	2/11/84
SURVEYED BY	FANTONI	11/78	
SHEET 125 OF [redacted]	SHEETS 229		

SCALE 10 FEET

80+60± Lt
Begin Excavation and Removal of Road Surfaces and Pavements

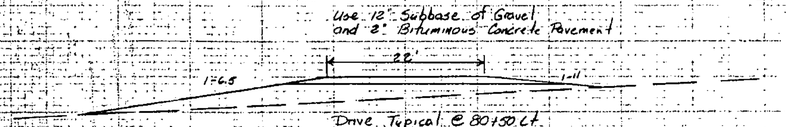


80+75±
End Drilling and Blasting of Solid Rock Subgrade

750

80+03-80+78
Cut to Fill Transition

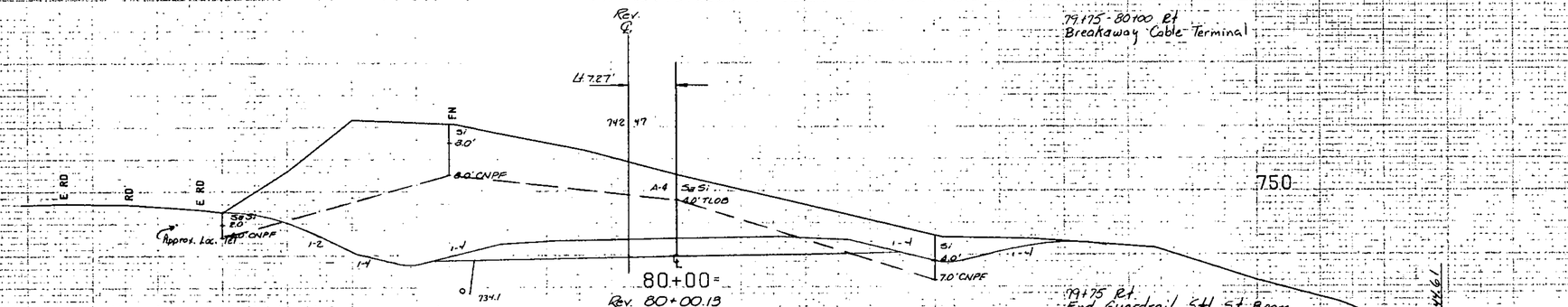
Use 12" Subbase of Gravel and 2" Bituminous Concrete Pavement



Drive Typical ℄ 80+50 Lt

80+50 Lt
Construct Drive (Paved)

79+75-80+00 Rt
Breakaway Cable Terminal

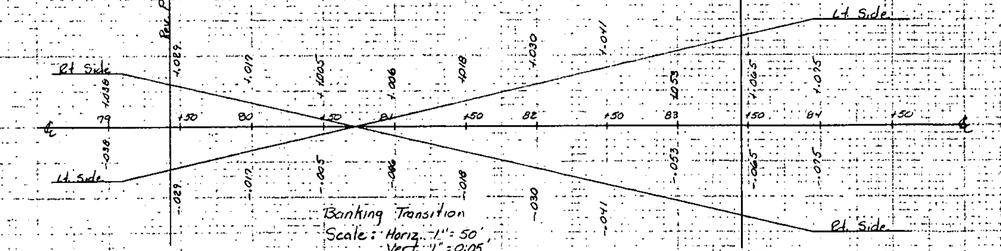


750

79+75 Rt
End Guardrail, Std St. Beam w/ Wood Posts Type II

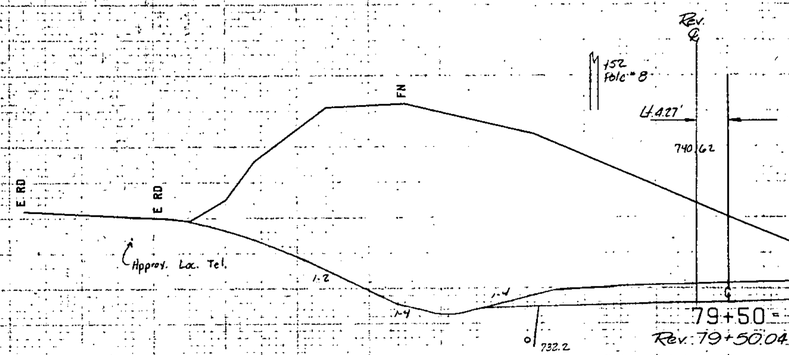
Rev. PT 79+43.62

Rev. PT 83+44.61



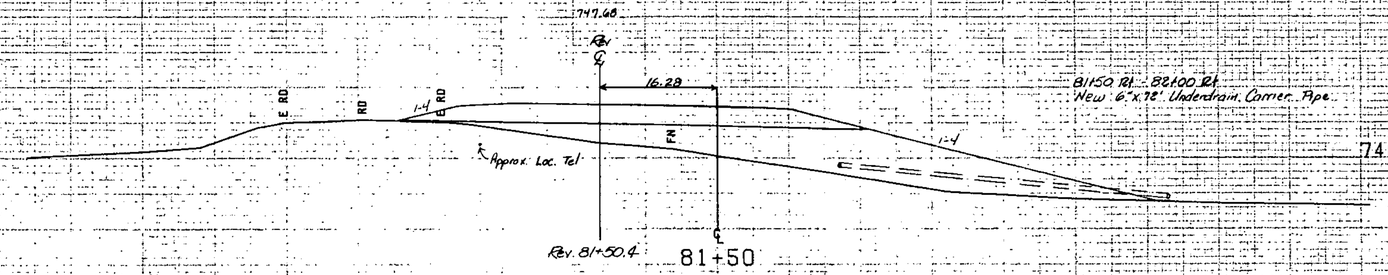
Banking Transition
Scale: Horiz. 1" = 50'
Vert. 1" = 0.05

750



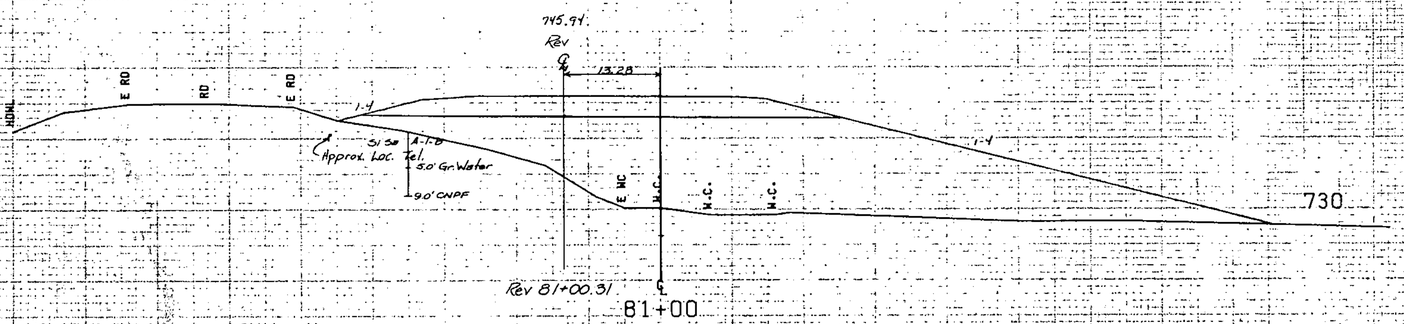
FROM STA.	79+50	TO STA.	80+50
PROJECT NAME		ST. JOHNSBURY MAIN	
NO.		DP-FF041-1(10)	PLOTTED 12/1/84
SURVEYED BY		FANTONI	11/78
SHEET 26 OF [redacted] SHEETS 229			

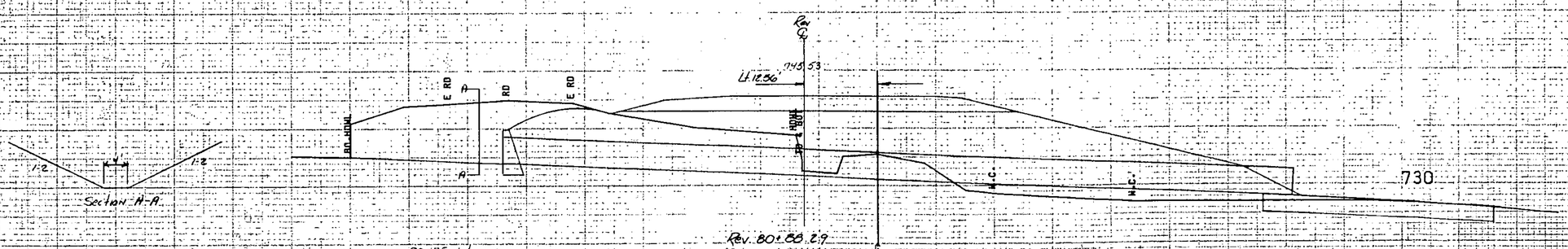
SCALE 10 FEET



81+50 Rt. to 82+00 Rt.
New 6"x 76' Underdrain Corner Pipe

81+43 Lt
Construct Barricades Guard Rail, Plank w/ Wood Posts



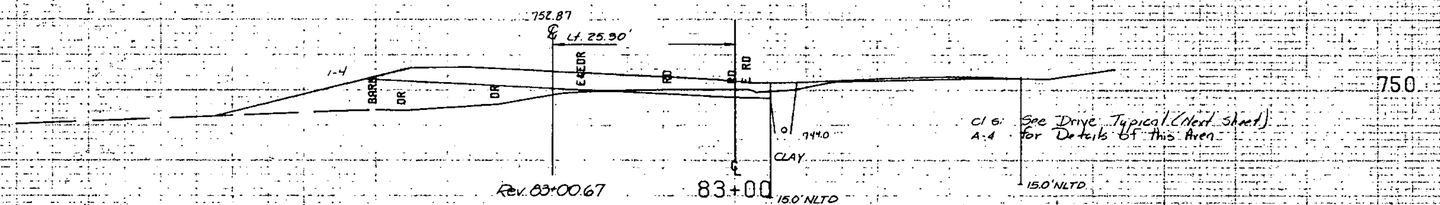


80+75 Lt
Construct Barricades Guard Rail, Plank w/ Wood Posts

80+88 Askew 84° Lt
24" ACCGMP Remove
New 54"x 136' ACCGMP (.109) w/
Type III Stone Fill @ Outlet

FROM STA.	80+88	TO STA.	81+50
PROJECT NAME		ST. JOHNSBURY MAIN	
NO.		DP-FF041-1C(10)	PLOTTED 12/11/84
SURVEYED BY		FANTONI	11/78
SHEET 127 OF ■■ SHEETS 229			

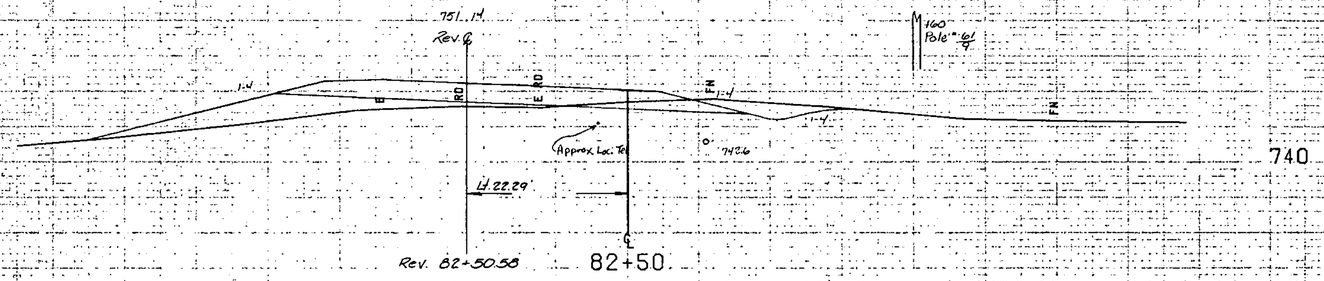
SCALE 1" = 40 FEET



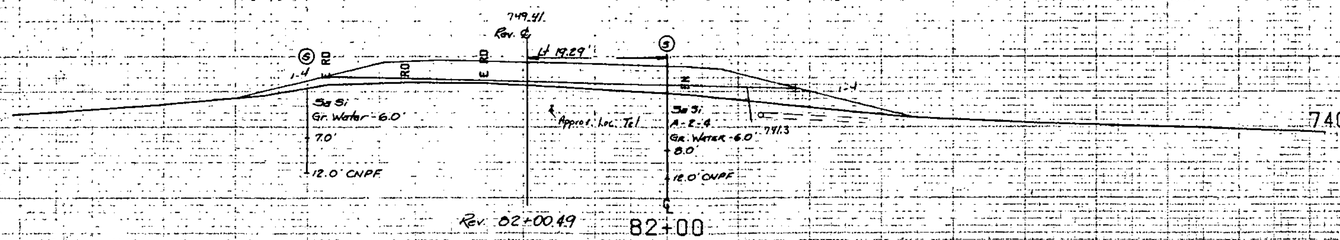
C/G: See Drive Typical (Next sheet) for Details of this Area

82150-84465 Lt
Construct Special Ditch
W/ Type I Stone Fill
(Refer to Layout)

82150
End Excavation and Removal
of Road Surfaces and Pavements



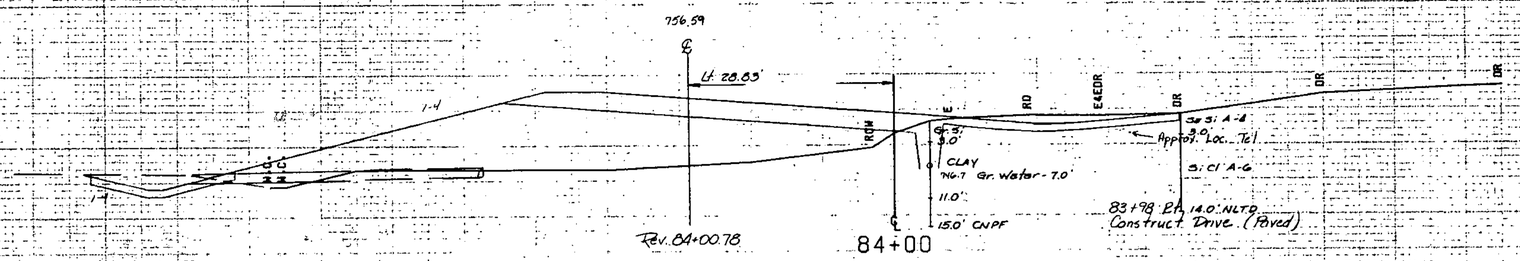
82100-84145 Rt.
New 6"x24" Underdrain



FROM STA.	82+00	TO STA.	83+00
PROJECT NAME		ST. JOHNSBURY MAIN	
NO.		DP-FF041-1(10)	PLOTTED 12/11/86
SURVEYED BY.		FANTONI	1/78
SHEET 12A OF [redacted] SHEETS 229			

SCALE 10 FEET

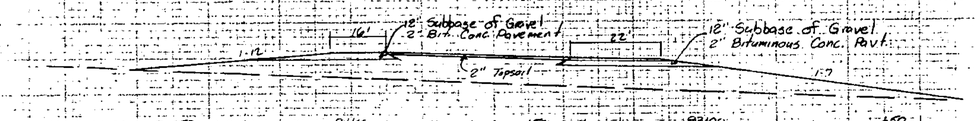
84100 Lt - 84+46 Rt
New 18" x 124' R.C.C.G.M.P. (064)



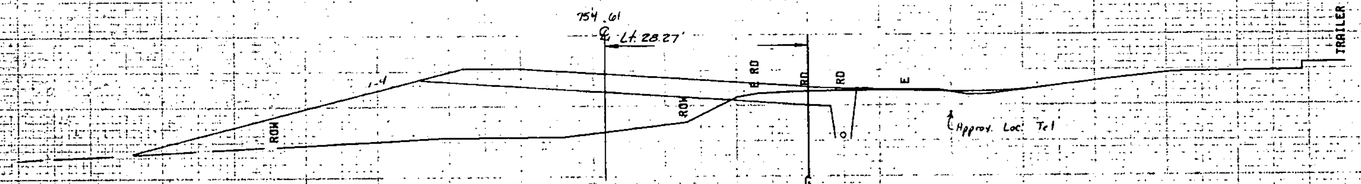
83+75 - 87+83 Lt
New Chain Link Fence (6')

83+18 - 87+35 Lt
Remove Chain Link Fence
Cost Subsidiary to price of New Fence

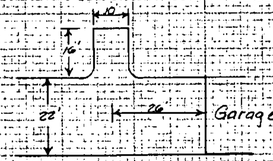
83+98 Rt, 14.0' NLTO
Construct Drive. (Paved)



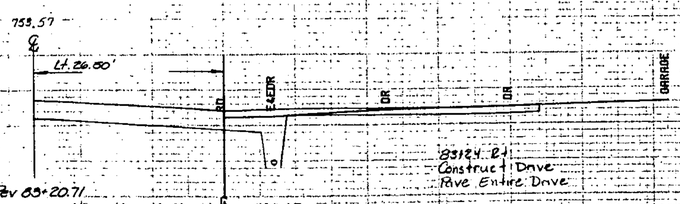
Drive Typicals for 83+24 and 83+98
Scale Hor. 1" = 20'
Vert. 1" = 10'



Rev. P.C. 83+44.61
D 9° Rt.
Bank .075 Ft/Ft



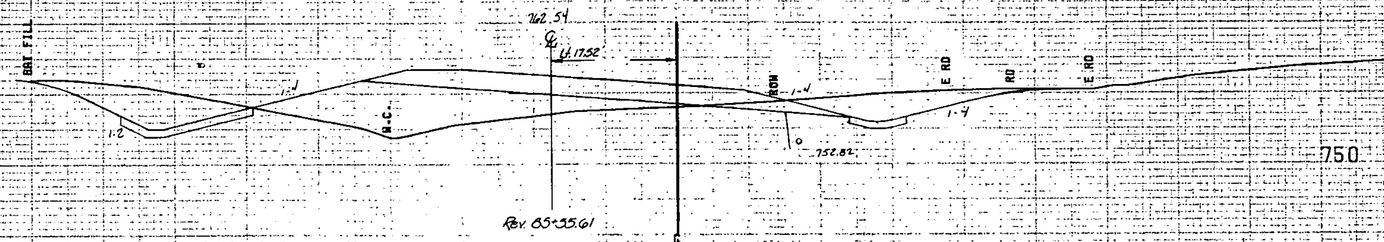
Plan View of Drive @ 83+24
Showing Turnaround
Scale 1" = 20'

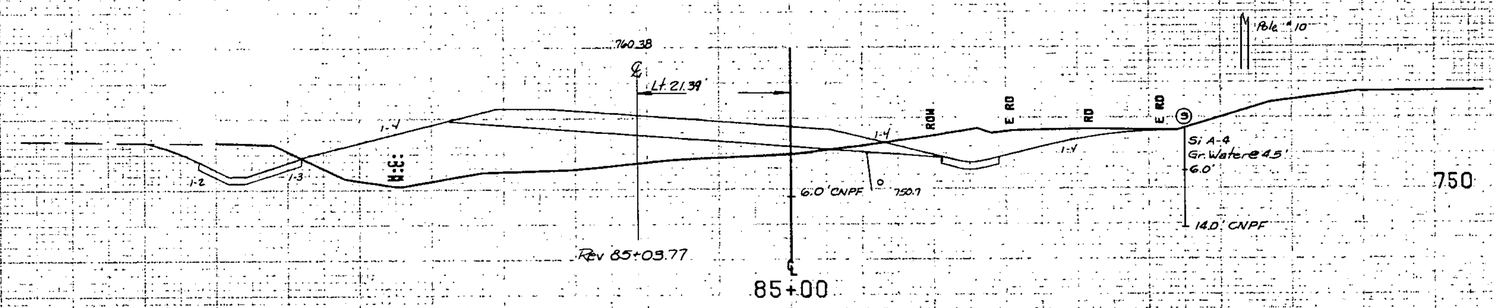


83+24 Rt
Construct Drive
Pave Entire Drive

FROM STA.	83+20	TO STA.	84+00
PROJECT NO.	NAME ST. JOHNSBURY MAIN DP-FF041-1(10)	PLOTTED	12/11/84
SURVEYED BY	PANTONI		11/78
SHEET 129 OF 223 SHEETS			

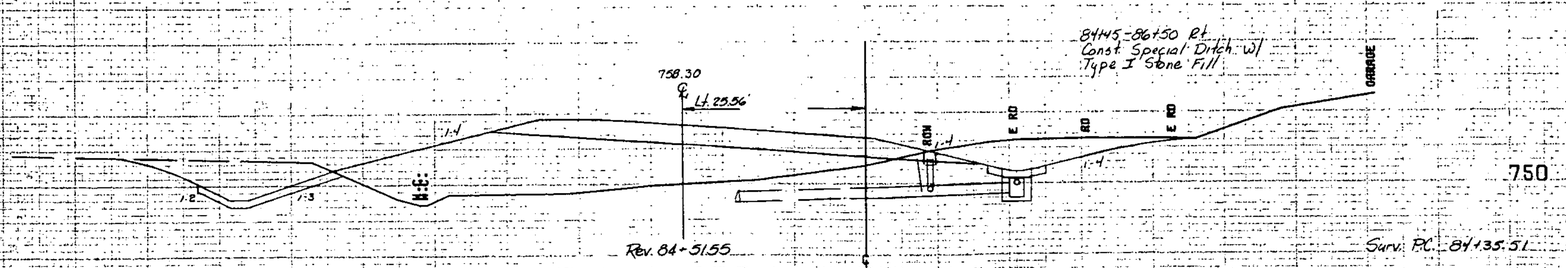
SCALE 1" = 10 FEET





84+47 - 89+50 Rt
New 6"x 586' Underdrain
w/ Flushing Basin @ 89+50 Rt

84+45 - 86+50 Rt
Const. Special Ditch w/
Type I Stone Fill



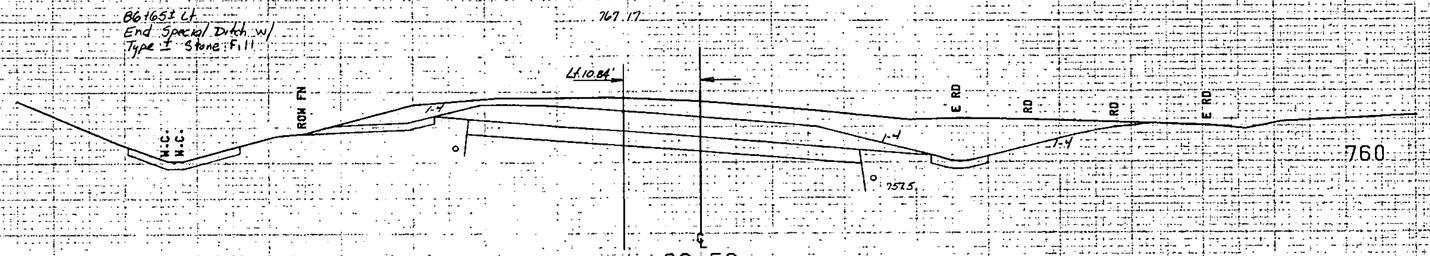
Surv. P.C. 84+35.51

FROM STA.	84+50	TO STA.	86+50
PROJECT NAME	ST. JOHNSBURY MAIN		
NO.	OP-FF041-1(103)	PLOTTED	12/11/84
SURVEYED BY	FANTONI		11/78
SHEET [illegible] OF [illegible] SHEETS	229		

SCALE 1" = 10 FEET

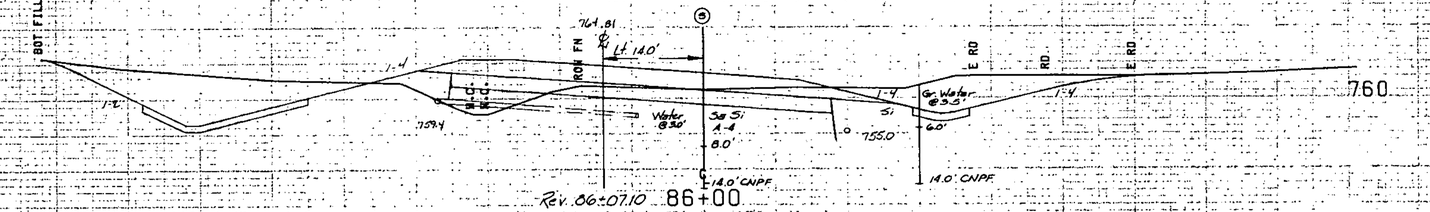
86+40 - 87+50 Lt.
Construct Special Ditch
w/ Type I Stone Fill

86+65 Lt.
End Special Ditch w/
Type I Stone Fill



86+50
Rev. 86+58.28

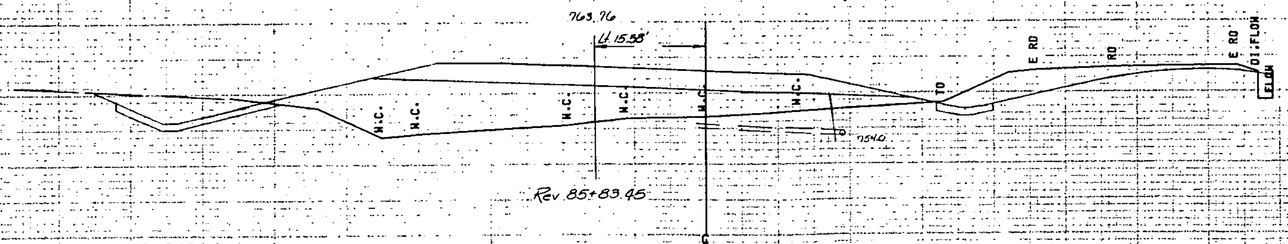
86+00 - 89+50 Lt.
New 6" x 350' Underdrain
w/ Flushing Basin @ 89+50.



Rev. 86+07.10 86+00

85+75
Begin 24" Sand Borrow

85+83 Rt - 86+20 Lt
New 6" x 62' Underdrain
w/ Flushing Basin @ 86+20 Lt

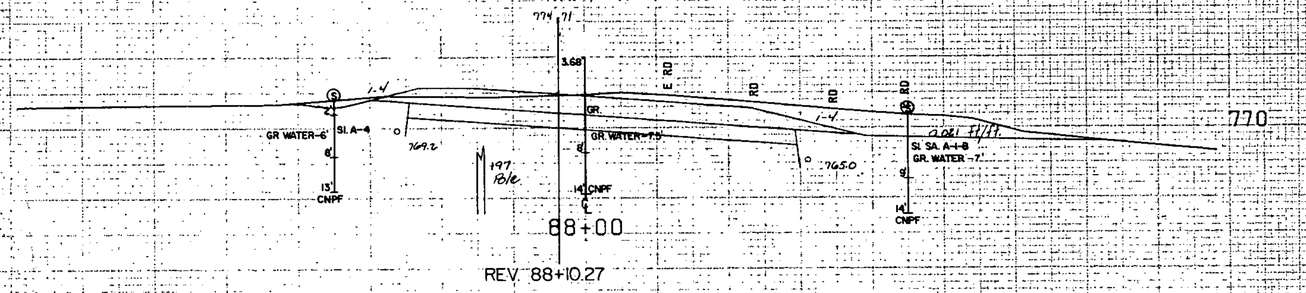


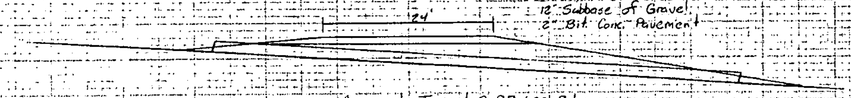
Rev 85+83.45

85+77 Askew 65° Rt
18" R.C.P. Rt. Remove

FROM STA.	85+77	TO STA.	86+50
PROJECT NAME	ST. JOHNSBURY MAIN		
NO.	DP-FF041-1C101	PLOTTED	12/11/84
SURVEYED BY	FARNUM		11/78
SHEET 121 OF [redacted] SHEETS 229			

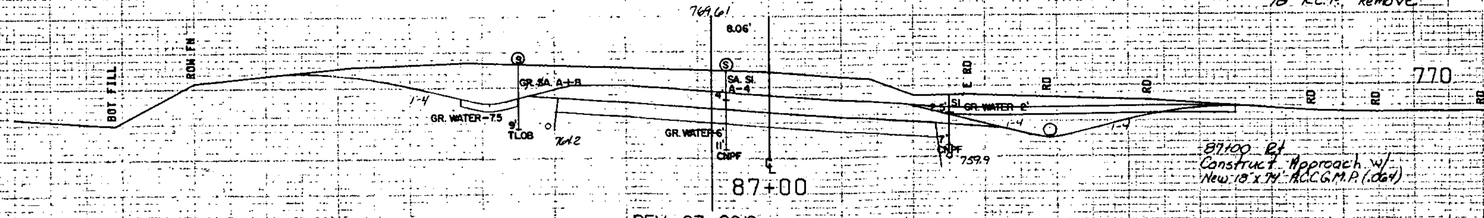
SCALE 10 FEET





Approach Typical @ 87+00 Rt
Scale 1" = 10'

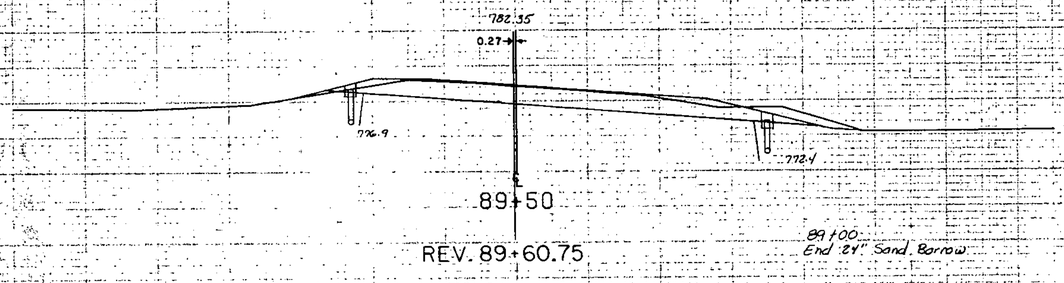
86+83 - 87+65 Rt.
18" R.C.P. Remove

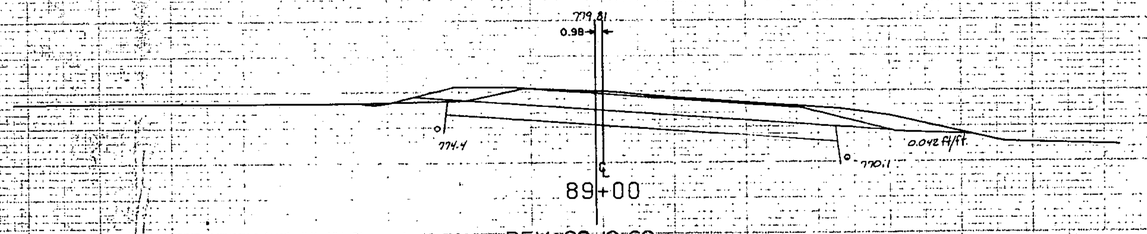


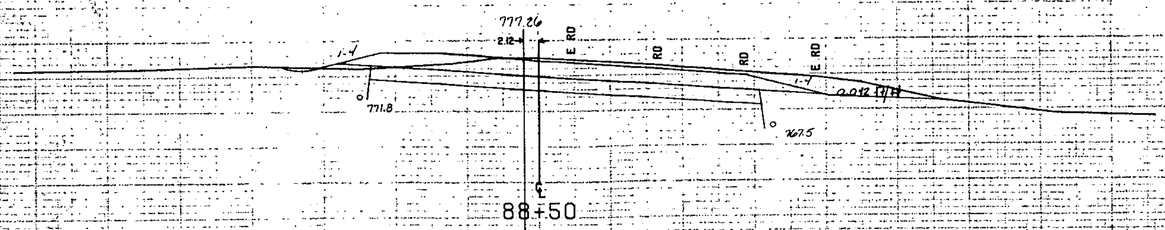
87+00 Rt
Construct Approach w/
New 18"x74" R.C.G.M.P. (.064)

SCALE 1" = 10 FEET

FROM STA.	87+00	TO STA.	88+00
PROJECT NAME	ST. JOHNSBURY MAIN		
NO.	DP-FF041-1(10)	PLOTTED	12/11/84
SURVEYED BY	FANTONI	11/78	
SHEET 152 OF [redacted] SHEETS	229		

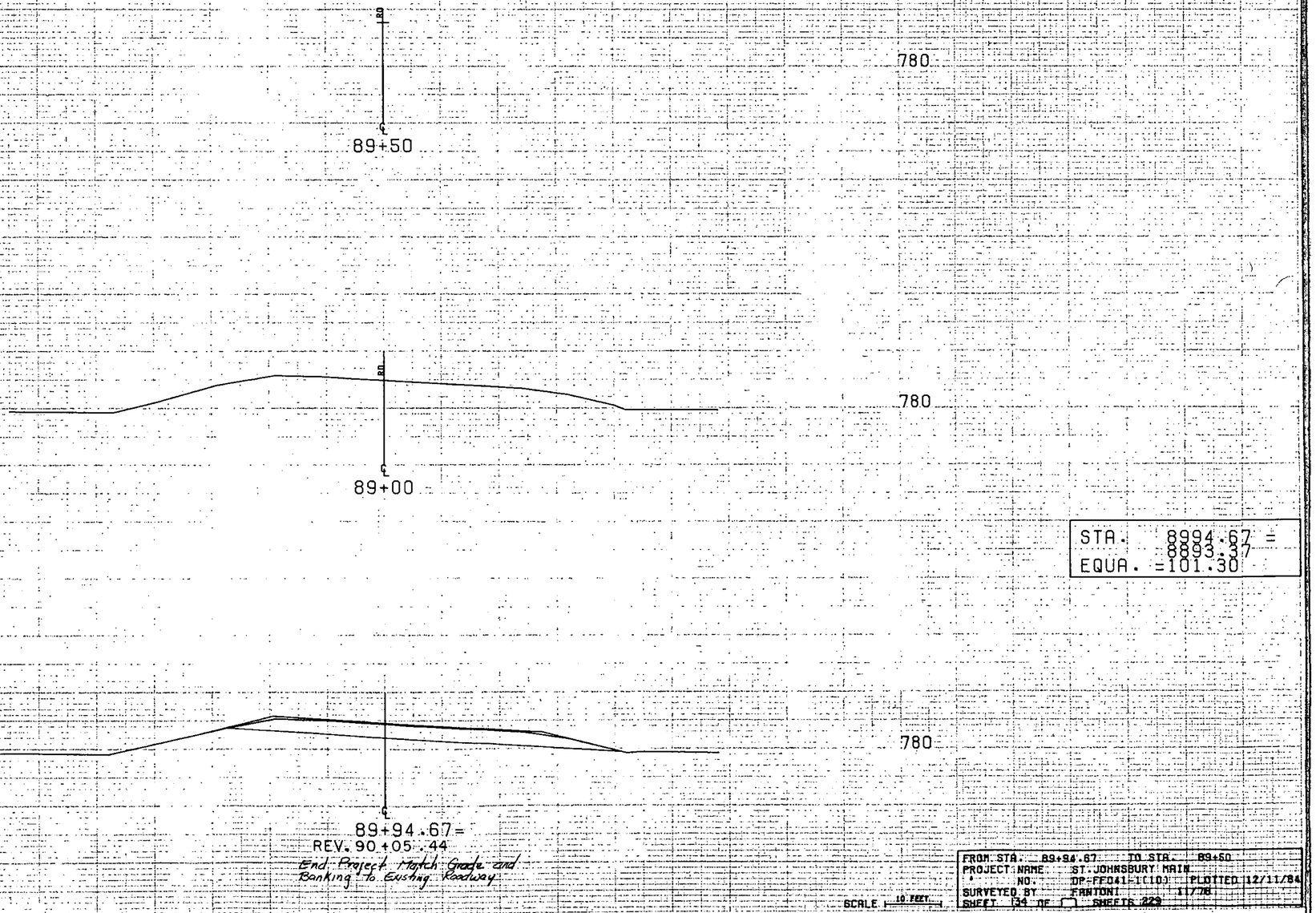






SCALE 1" = 10 FEET.

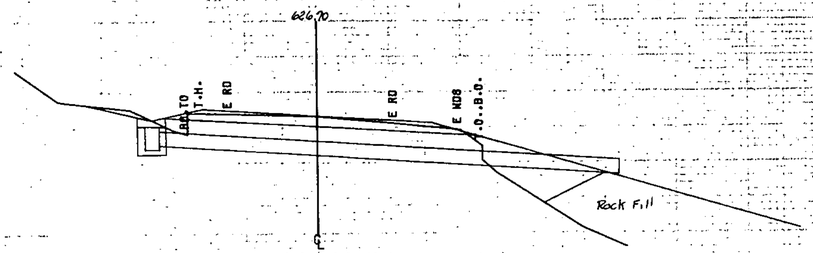
FROM STA. 88+50	TO STA. 89+50
PROJECT NAME	ST. JOHNSBURY MAIN
NO.	DP-FF041-1(10) PLOTTED 12/11/86
SURVEYED BY	FANTONI 11/78
SHEET 153 OF [redacted] SHEETS	229



STA. 8994.67 =
8893.37
EQUA. =101.30

FROM STA. 89+94.67 TO STA. 89+50
PROJECT NAME ST. JOHNSBURY MAIN
NO. DP-FF041-1(10) PLOTTED 12/11/84
SURVEYED BY FANTONI 11/78
SHEET 34 OF ☐ SHEETS #29

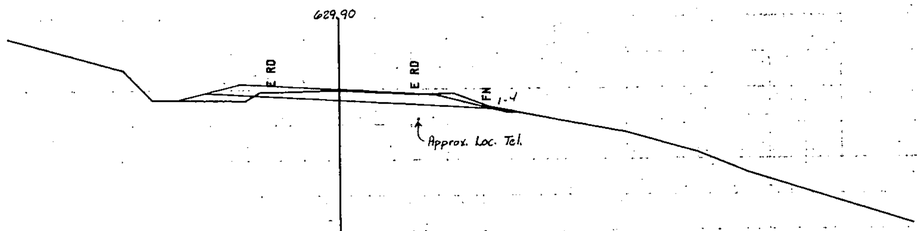
SCALE 10 FEET



11+41 Askew 58°07' Rt
24" ACCG/MP Remove
New 84"x64" ACCG M.P. (.064)

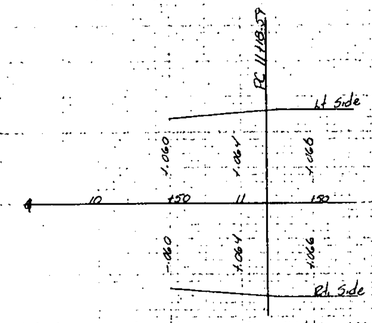
+37 Pole

PC 11+18.59
D 120 Rt
Bank 0.066 ft/ft.

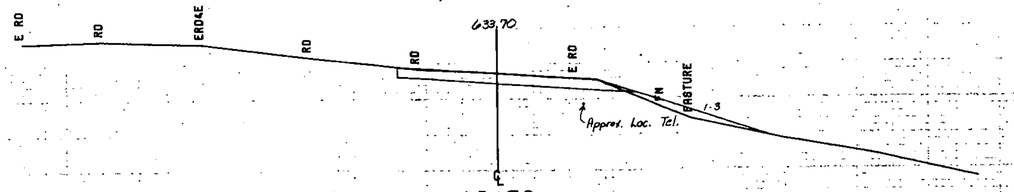


11+00

620



Banking Transition
Scale 1" = 50' Hor.
1" = 05' Vert

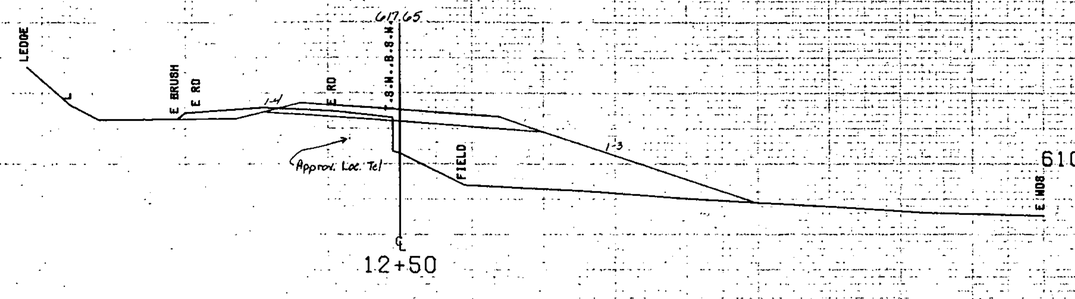


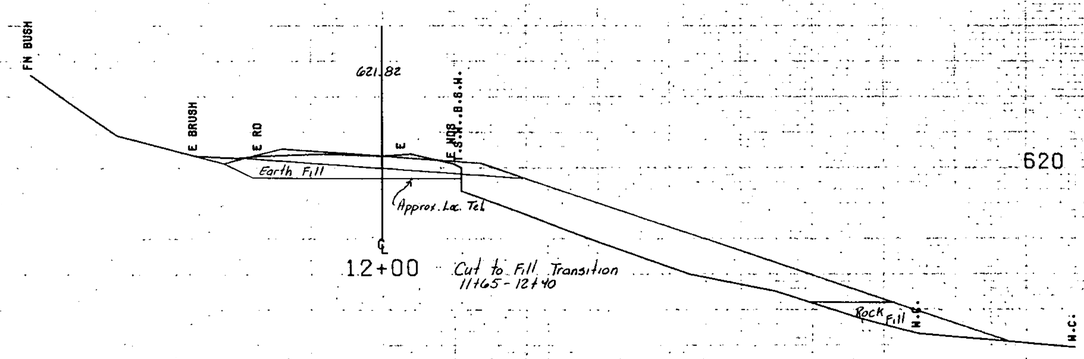
630

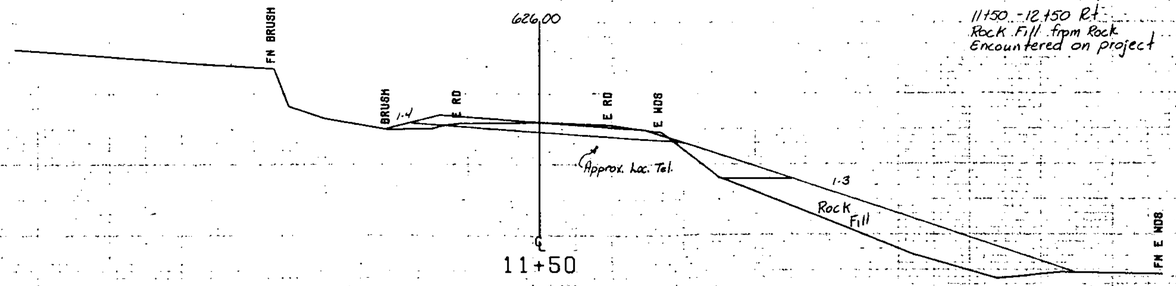
10+50
Begin T.H 27 Construction
Match Existing Roadway

FROM STA. 10+50 TO STA. 11+41
PROJECT NAME ST. JOHNSBURY T.H. 27
NO. DP-FFO41-1(10) PLOTTED 12/11/84
SURVEYED BY FANTONI 11/78
SHEET 137 OF [redacted] SHEETS 229

SCALE 10 FEET





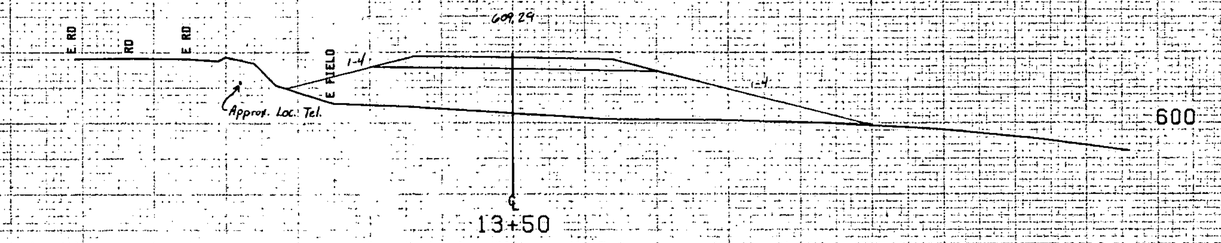


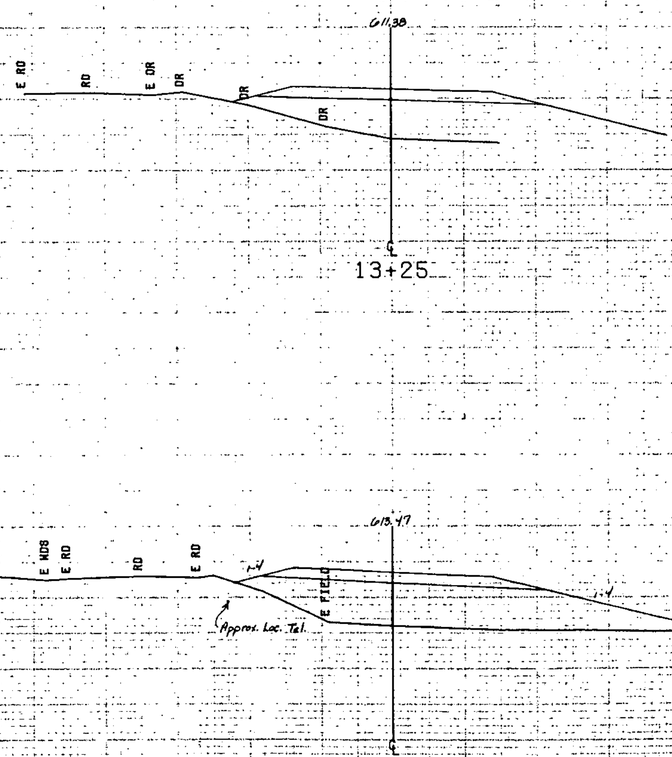
11+50 - 12+50 Rt.
Rock Fill from Rock
Encountered on project

FROM STA.	11+50	TO STA.	12+50
PROJECT NAME	ST. JOHNSBURY T.H. 27		
NO.	OP-FF041-1(10)	PLOTTED	12/11/84
SURVEYED BY	FANTONI		11/78
SHEET 58 OF [redacted] SHEETS 229			

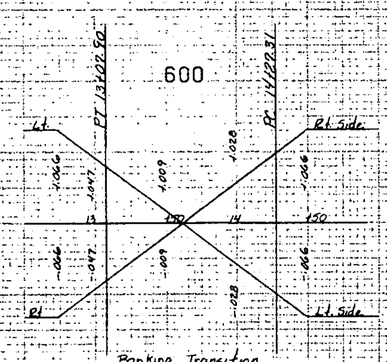
SCALE 10 FEET

13+50 Lt
Construct Barricade, Guard Rail, Plank w/ Wood Posts



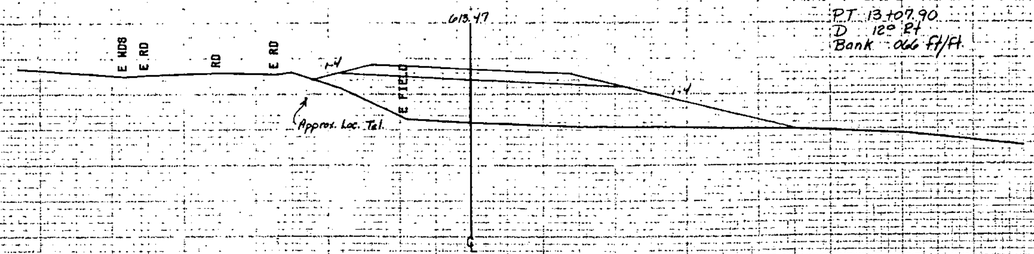


Note: The discontinued portion of T.H. 27 is to be topsoiled seeded, fertilized and mulched



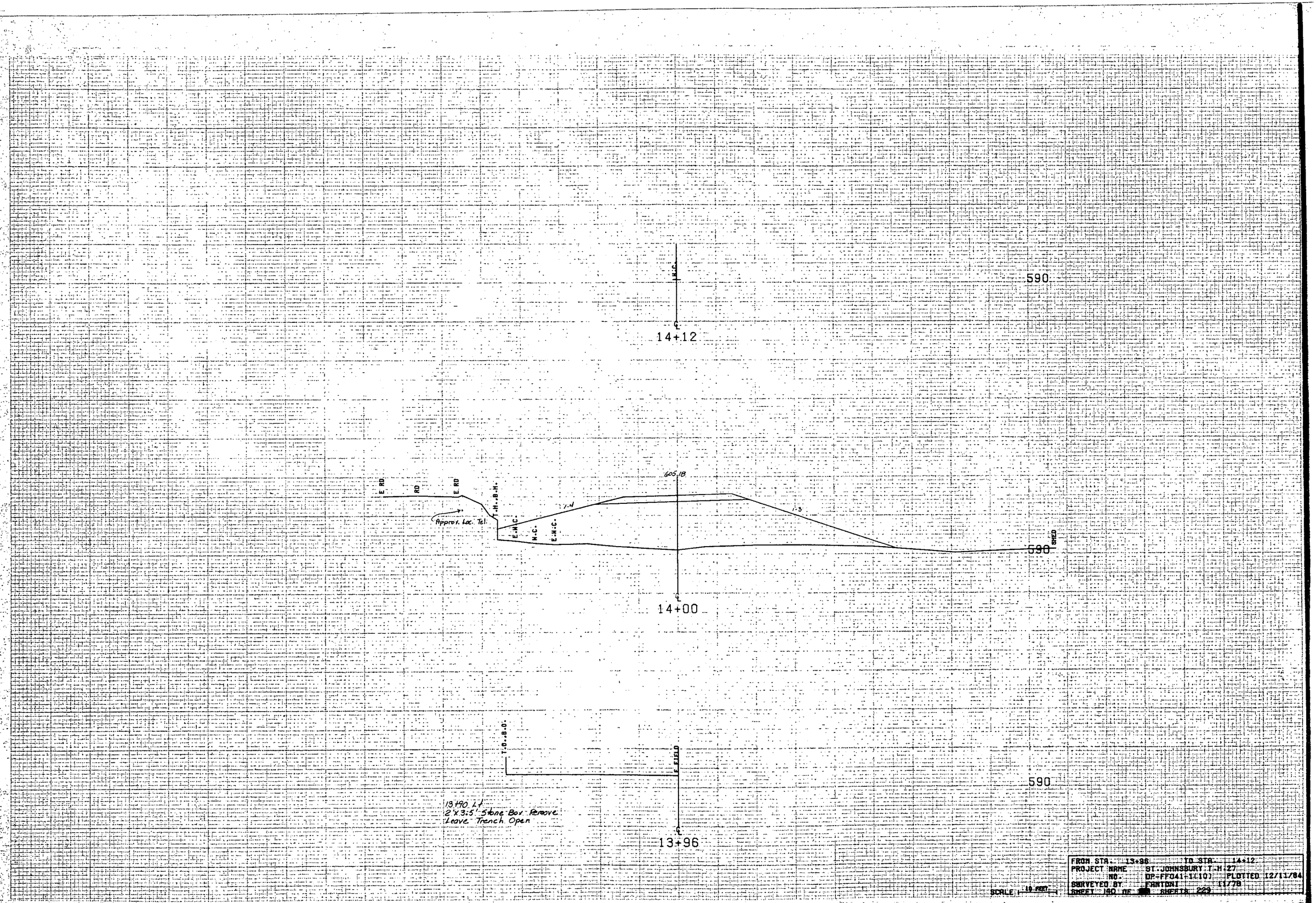
Banking Transition
Scale 1"=50' Horiz.
1"=.05' Vert.

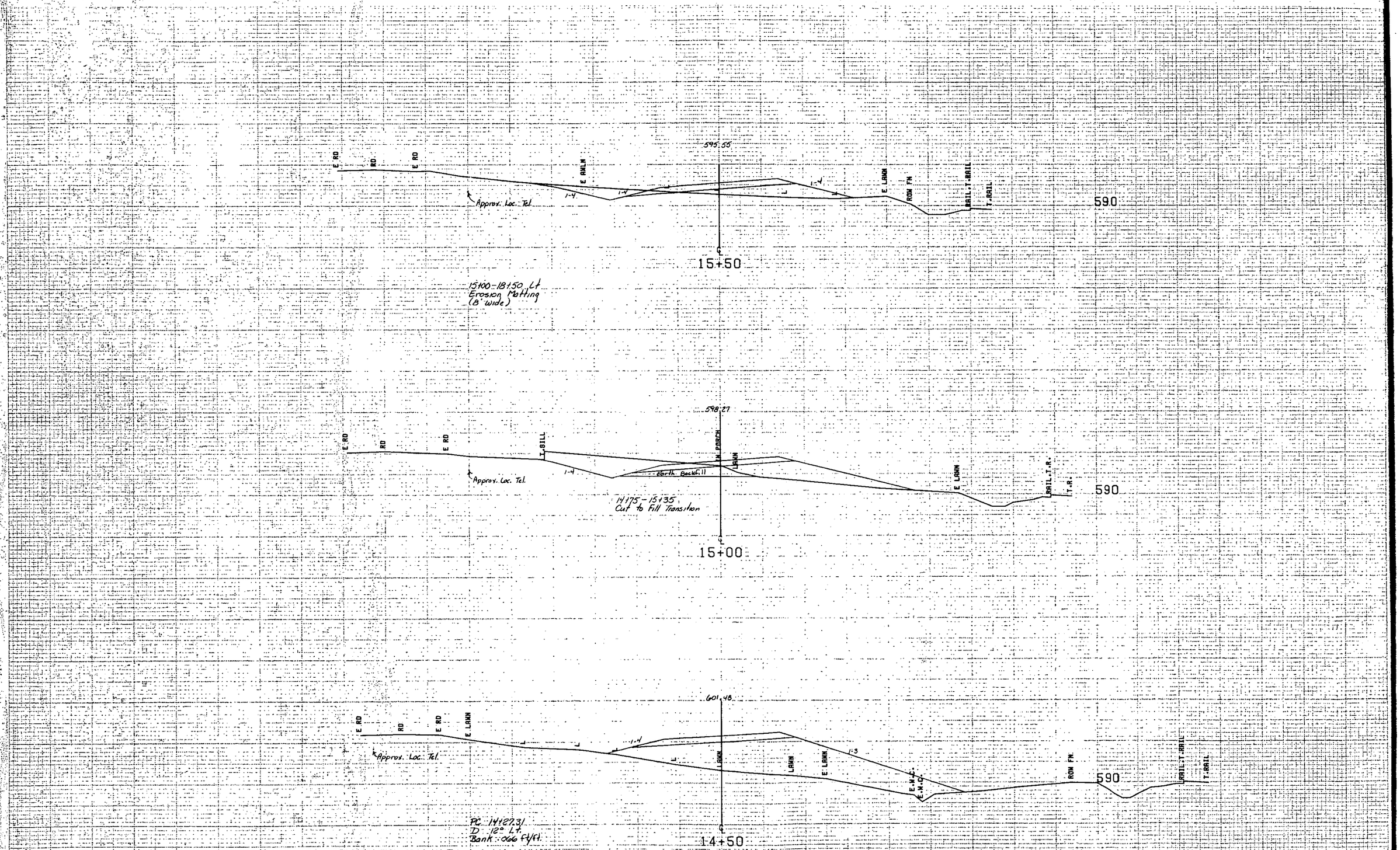
PT 13+07.90
D 12° 24'
Bank .066 ft/ft



FROM STA. 13+00		TO STA. 13+50	
PROJECT NAME	ST. JOHNSBURY T.H. 27		
NO.	DP-FF041-1(10)	PLOTTED	12/11/84
SURVEYED BY	FANTONI	11/78	
SHEET 152 OF [redacted] SHEETS 223			

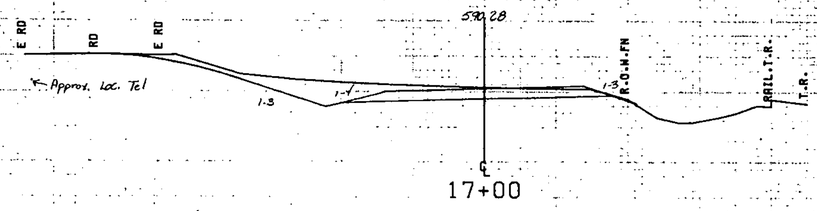
SCALE 10 FEET


590
E.W.C.
℄
14+12
605.18
E. RD
RD
E. RD
T.H.B.H.
Approx. loc. Tel.
E.W.C.
N.C.
E.W.C.
1-4
1-3
590
SHED
℄
14+00
T.O.B.O.
F. FIELD
590
13+90 Lt
2'x3.5' Stone Box Remove
Leave Trench Open
℄
13+96
SCALE 1" = 10 FEET
FROM STA. 13+96 TO STA. 14+12
PROJECT NAME ST. JOHNSBURY T.H. 27
NO. DP-FF041-1(10) PLOTTED 12/11/84
SURVEYED BY FANTONI 11/78
SHEET 180 OF ### SHEETS 223

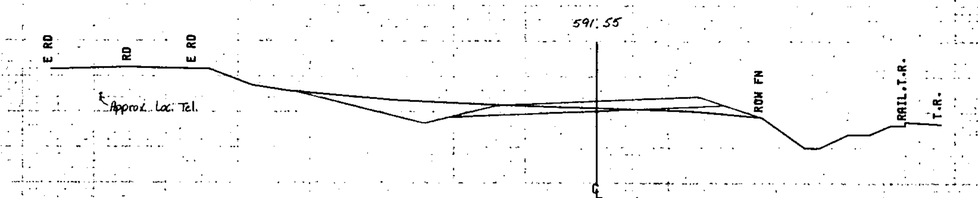


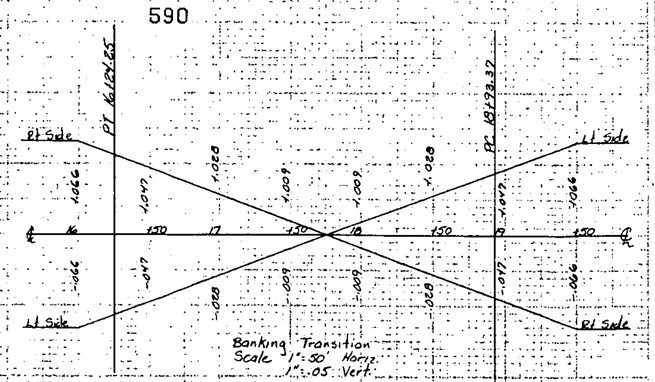
FROM STA. 14+50	TO STA. 15+50
PROJECT NAME	ST.JOHNSBURY T.M.27
NO.	DP-FFD41-1(10) PLOTTED 12/11/84
SURVEYED BY	FANTONI 11/78
SHEET 141 OF [redacted]	SHEETS 229

SCALE 10 FEET

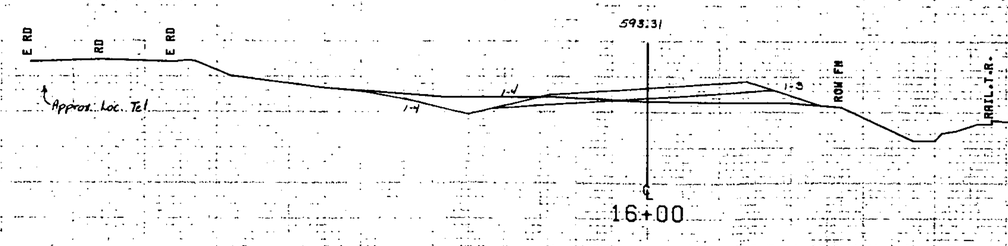


590





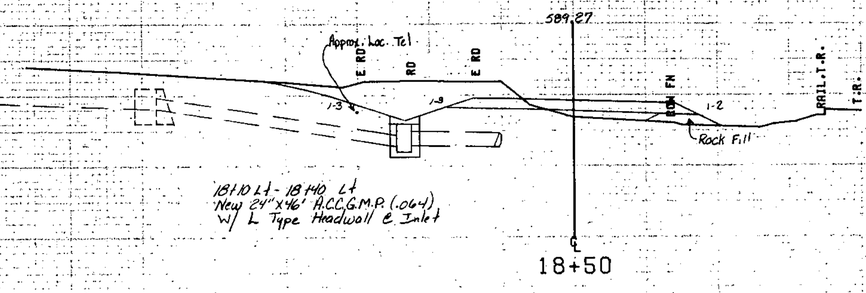
PT 16124.25
D 12° LT
Bank .066 ft/ft

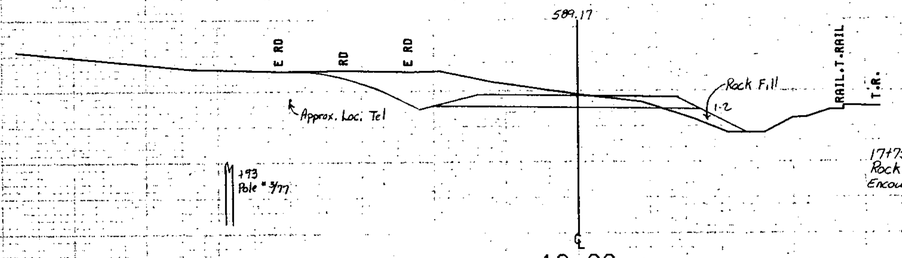


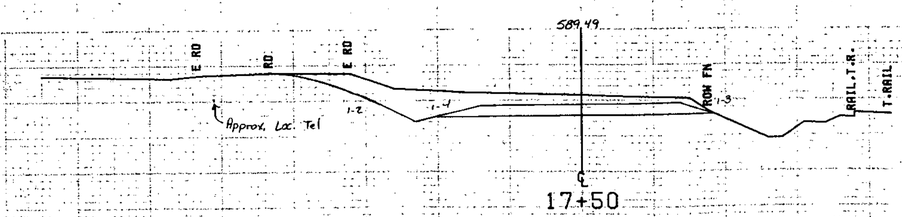
590

SCALE 10 FEET

FROM STA. 16+00	TO STA. 17+00		
PROJECT NAME	ST.JOHNSBURY T.H.27		
NO.	OP-FF041-1(10)	PLOTTED	12/11/84
SURVEYED BY	FANTONI	I77B	
SHEET 142 OF [redacted]	SHEETS 229		

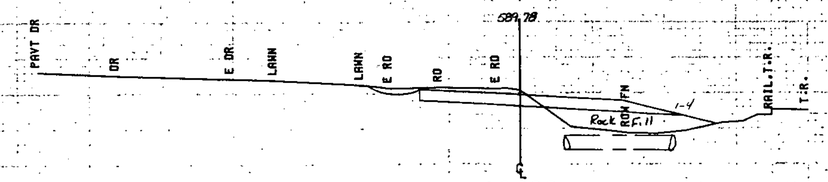






FROM STA.	17+50	TO STA.	18+50
PROJECT NAME	ST.JOHNSBURY T.H.27		
NO.	DP-FF041-1(10)	PLOTTED	12/11/84
SURVEYED BY	FANTONI		11/78
SHEET 143 OF [illegible]	SHEETS 229		

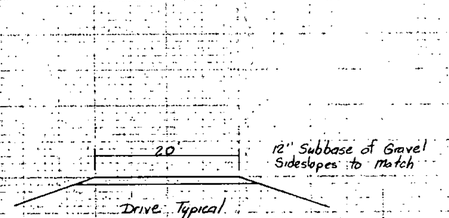
SCALE 1" = 10 FEET



590

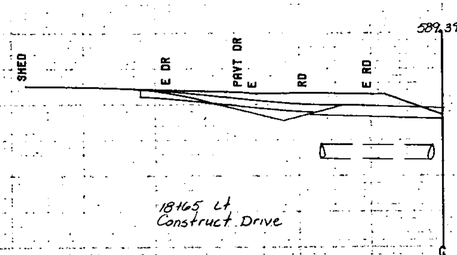
19+00
End Construction
Begin Approach

PC 18+93.39
D 12° Rt
Bank .066 ft/ft



12" Subbase of Gravel
Sideslopes to match

Drive Typical

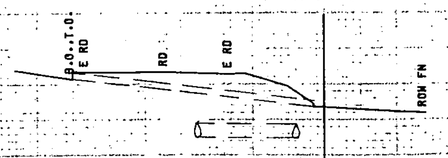


18+65 Lt
Construct Drive

18+65

580

18+40 Lt - 19+20 Rt
New 24"x92' A.C.G.M.P. (.064)



18+62
12" RCP Lt
Remove

580

FROM STA. 18+62	TO STA. 19+00
PROJECT NAME	ST. JOHNSBURY T.H. 27
NO.	DP-FF041-1(10) PLOTTED 12/11/84
SURVEYED BY	FANTONI 11/78
SHEET 184 OF [redacted] SHEETS	229

SCALE 10 FEET

150

2040

150

1910

Width Transition
Scale 1":10'

588.60

BLDG | E PAVT. DR | DR | DR | E DR | E RD | RD | E RD | RAIL | T.R. | T.R.

Approx. Loc. Tel.

580

20+00

+59
12" M.

589.58

DR | E DR | E RD | RD | E RD | ROW FN | RAIL | T.R. | T.R.

580

19+50

+40
Flag Pole
Do Not Disturb

589.83

E RD | ROW FN | 1-3 | SHLD. | RAIL | T.R. | T.R. | T.O.B.O. | 1-V

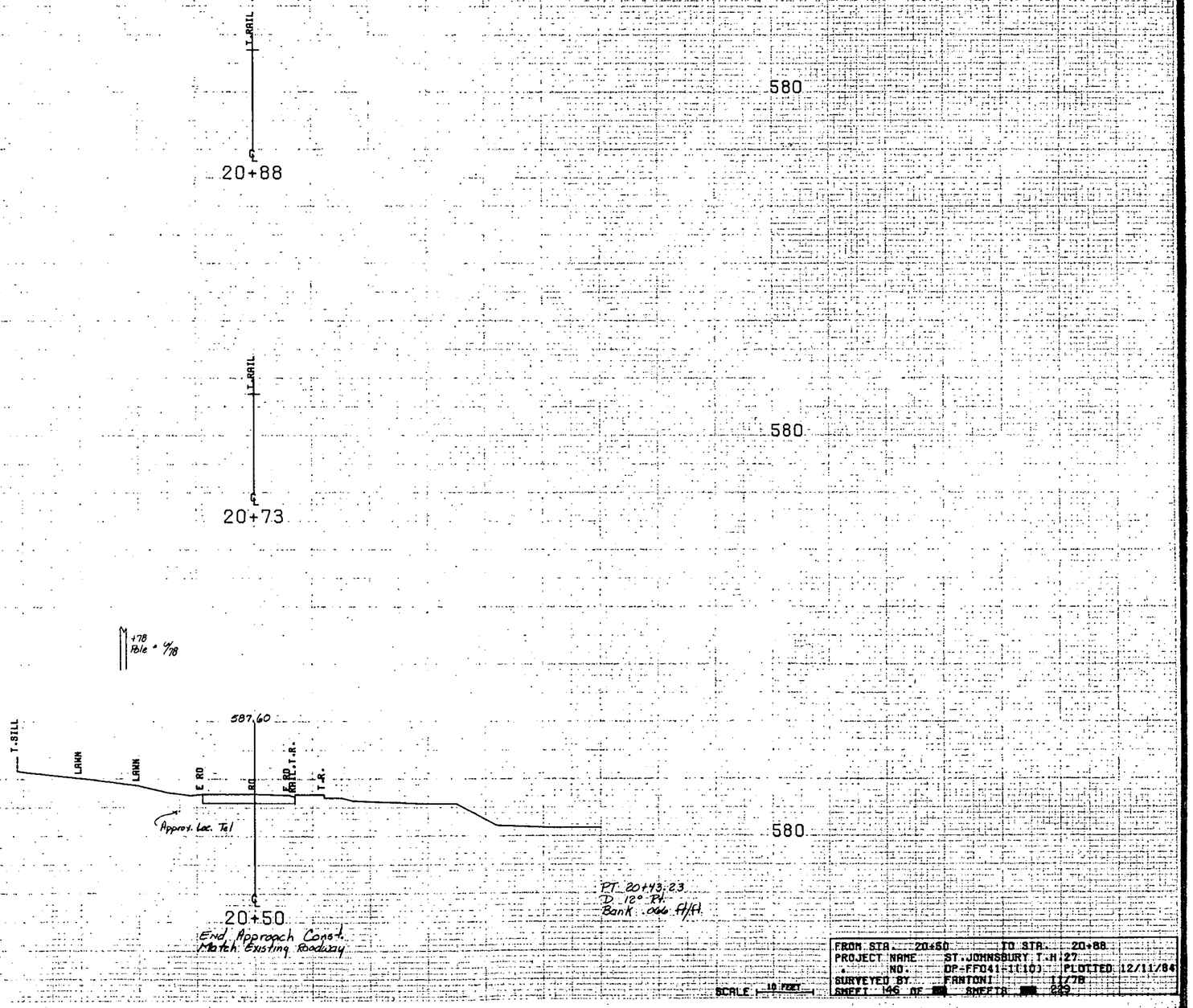
580

RR - 67+45
24" RCP Remove
New 24" x 32" A.C.C.G.M.P. (.109)
(Non-Government Participation)

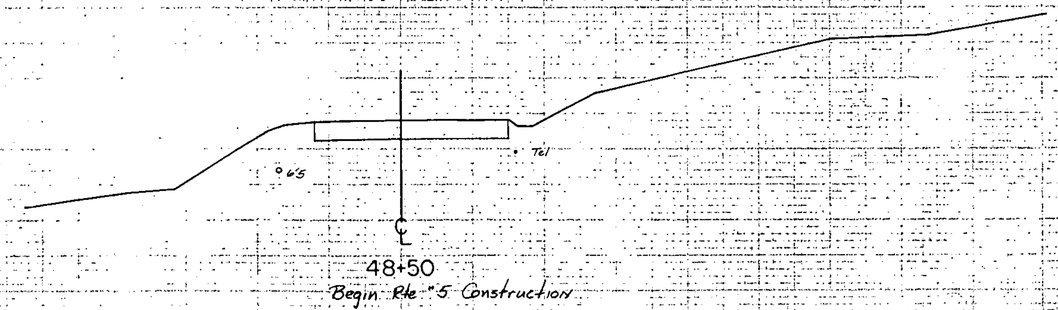
19+16 = R.R. TRAV. 67+45

FROM STA. 19+16 TO STA. 20+00
PROJECT NAME ST. JOHNSBURY T.H. 27
NO. DP-FF041-1(10) PLOTTED 12/11/84
SURVEYED BY FANTONI 11/78
SHEET 145 OF [redacted] SHEETS 229

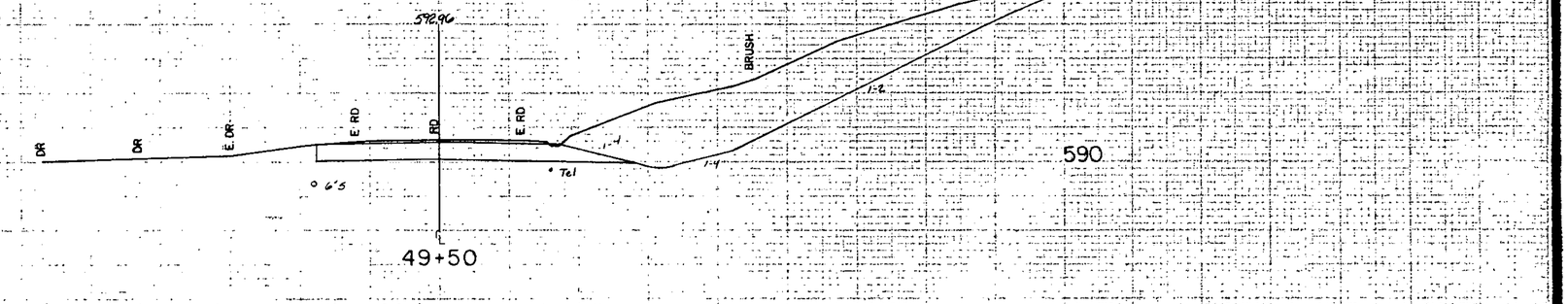
SCALE 10 FEET



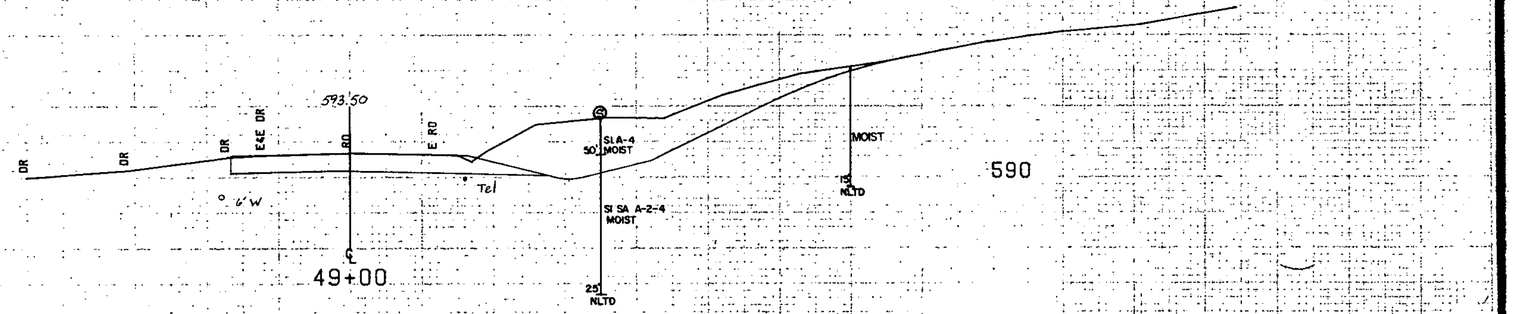
FROM STA.	20+50	TO STA.	20+88
PROJECT NAME	ST.JOHNSBURY T.H.27		
NO.	DP-FF041-1(10)	PLOTTED	12/11/84
SURVEYED BY	FANTONI		11/78
SHEET 146 OF [redacted]	AMEPTA [redacted]	643	

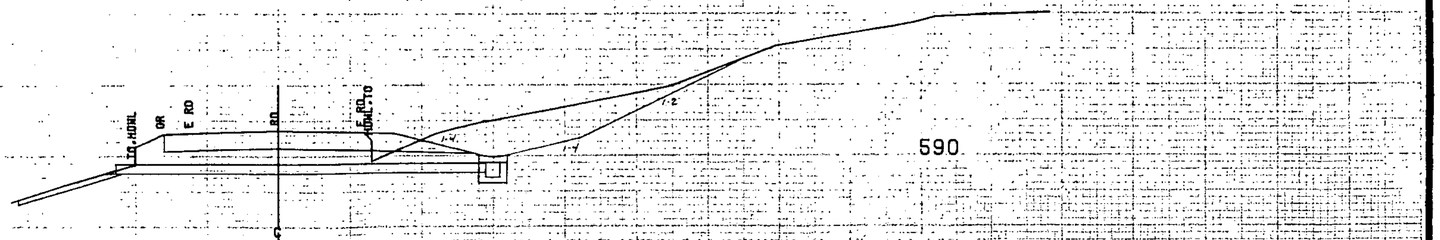


FROM STA. 48+50	TO STA. 48+50
PROJECT NAME	ST. JOHNSBURY U.S. RTE. 5
NO.	DPFF.041-1(10)
SHEET 149 OF ☐	SHEETS 223



49+22 Lt
Construct Drive
(Commercial Paved)

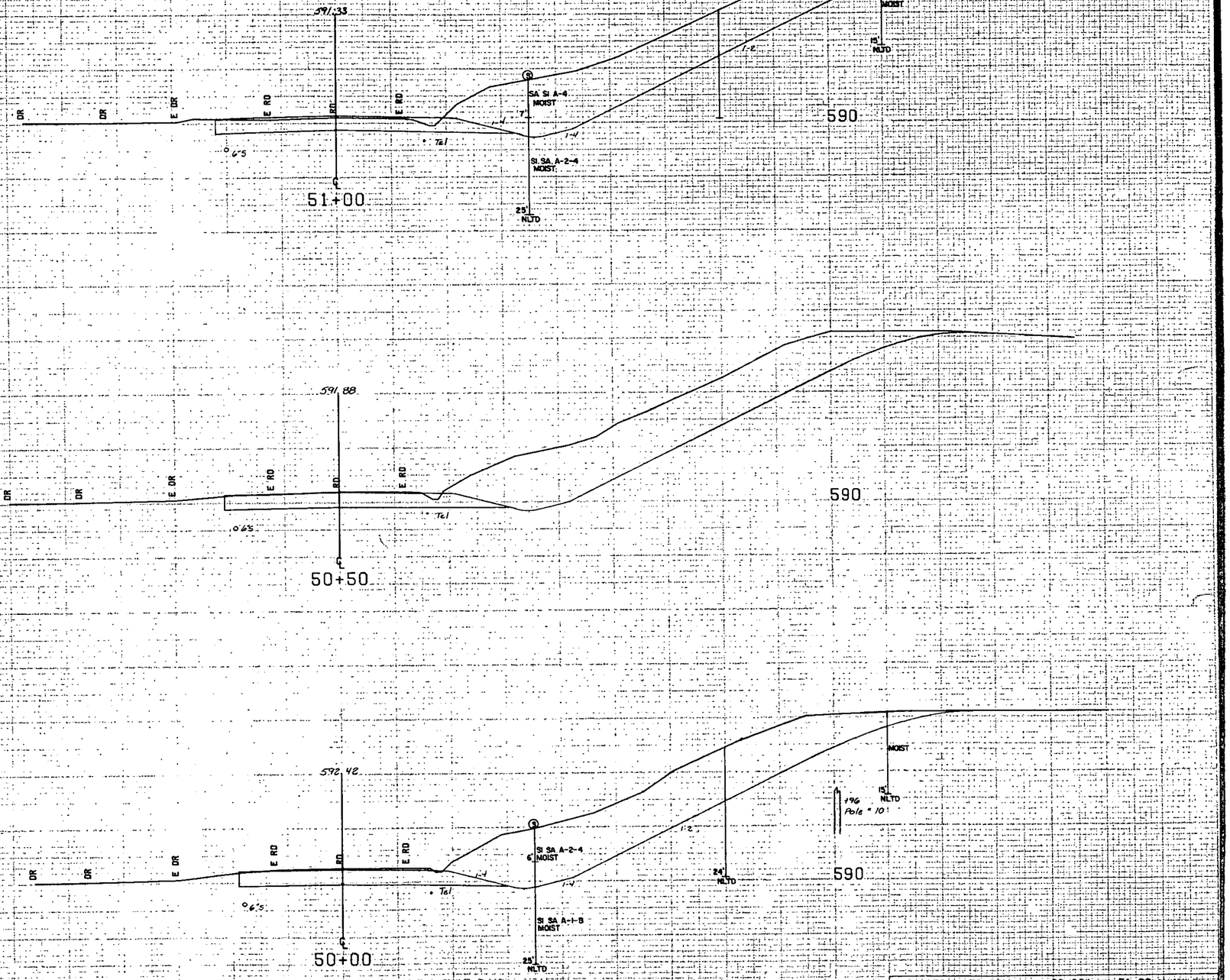




15" R.C.P. Remove
New 18"x52" R.C.P. cl. III
w/Type I Stone @ Outlet

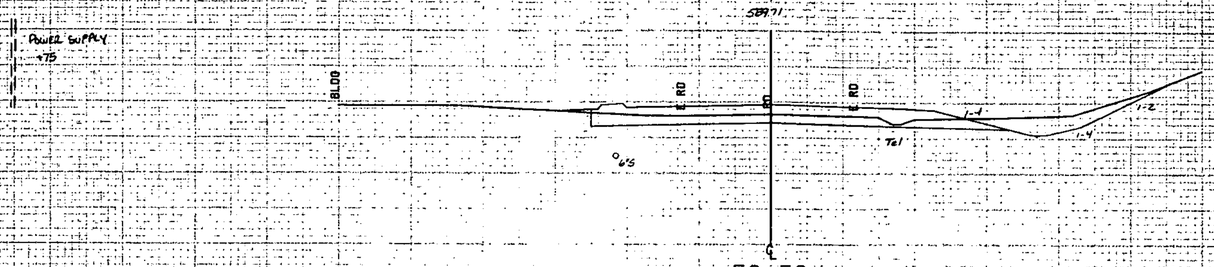
FROM STA.		TO STA.	
PROJECT NAME	ST. JOHNSBURY U.S. RTE. 5		
NO.	DP-FF041-1(10)	PLOTTED	12/11/84
SURVEYED BY	FANTONI		11/78
SHEET 150 OF [redacted] SHEETS 229			

SCALE 10 FEET

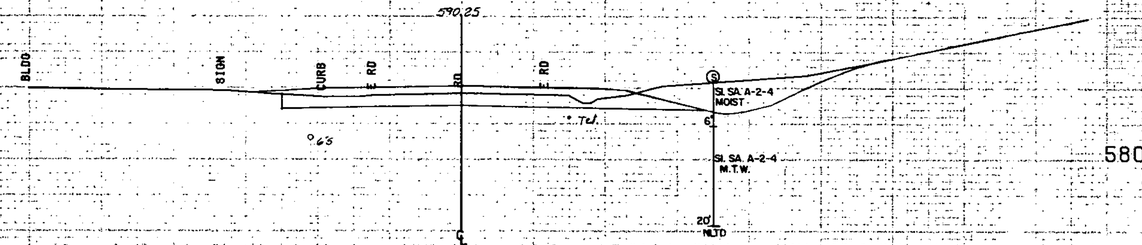


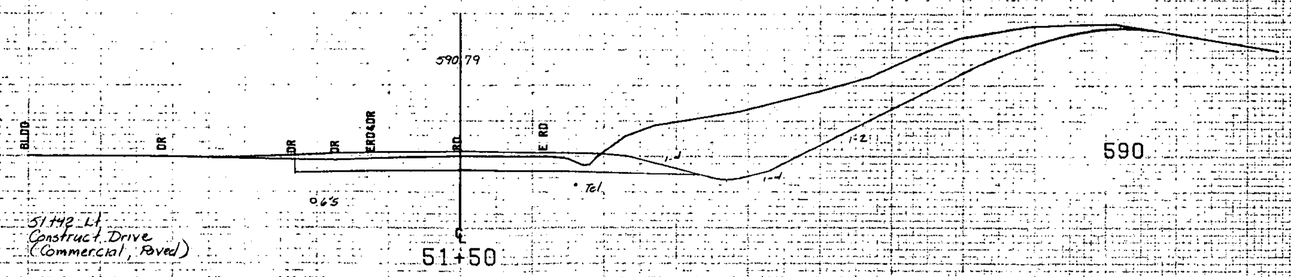
FROM STA. 50+00 TO STA. 51+00
PROJECT NAME ST. JOHNSBURY U.S. RTE. 5
NO. DP-FF041-1(10) PLOTTED 12/11/86
SURVEYED BY FANTONI 11/7/86
SHEET 191 OF ☐ SHEETS 229

SCALE: 10 FEET



Sta "S 51+80 - Sta "S 53+30
Cast in Place Cement Conc.
Curb Type A. (Island)

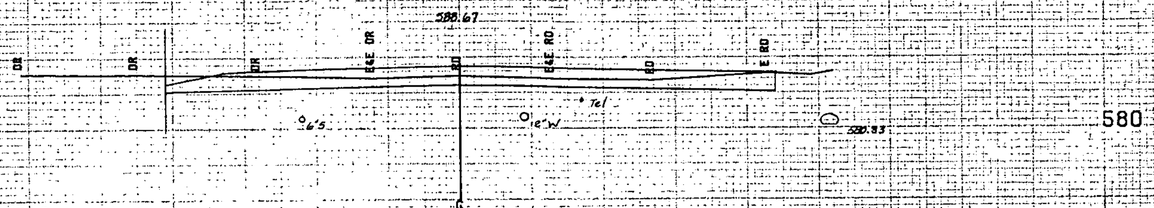


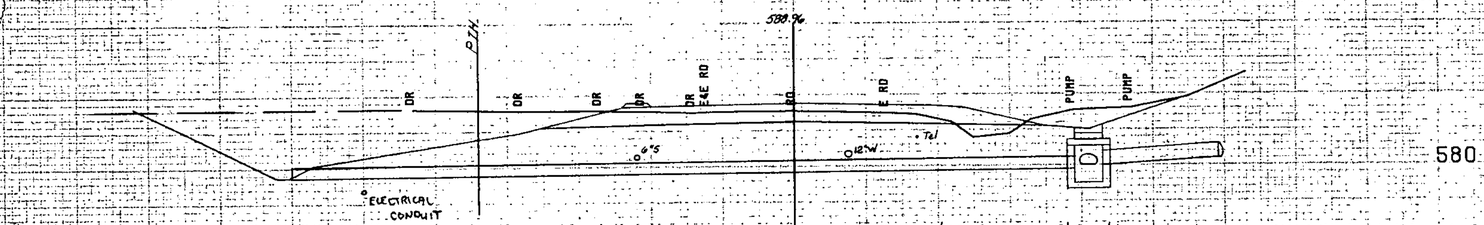


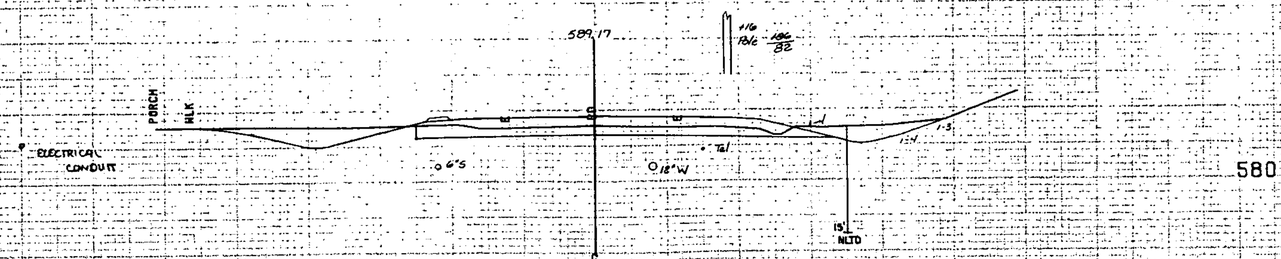
51.142-L1
Construct Drive
(Commercial, Paved)

FROM STA.	51+50	TO STA.	52+50
PROJECT NAME	ST. JOHNSBURY U.S. RTE. 5		
NO.	DP-FF041-1(10)	PLOTTED	12/11/84
SURVEYED BY	FANTONI		11/78
SHEET 152 OF [illegible]	SHEETS 229		

SCALE: 10 FEET

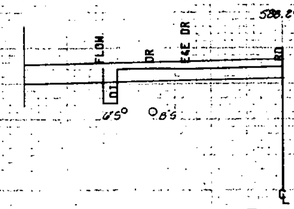






FROM STA. 53+00		TO STA. 53+50	
PROJECT NAME	ST. JOHNSBURY U.S. RTE. 5		
NO.	DP-FF041-1(10)	PLOTTED	12/11/84
SURVEYED BY	FANTONI	11/78	
SHEET 53 OF 63	SHEETS FOR 22A		

SCALE 10 FEET

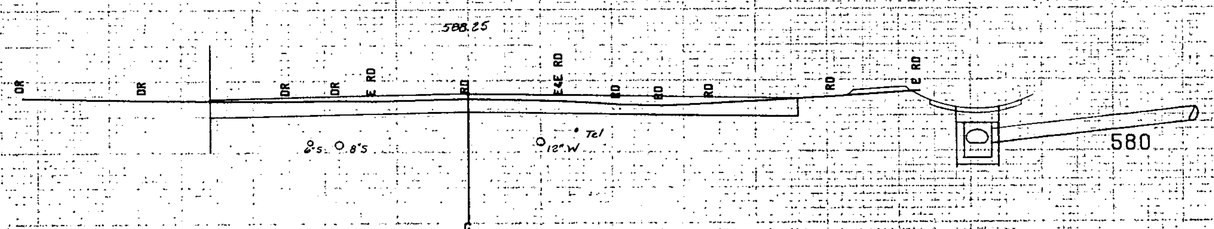


54+02

24" A.C.C.G.M.P. Remove

N. Rt. 53187 - Rte "5 Rt. 54151
Cast in place Cement Concrete
Curb Type A (Island)

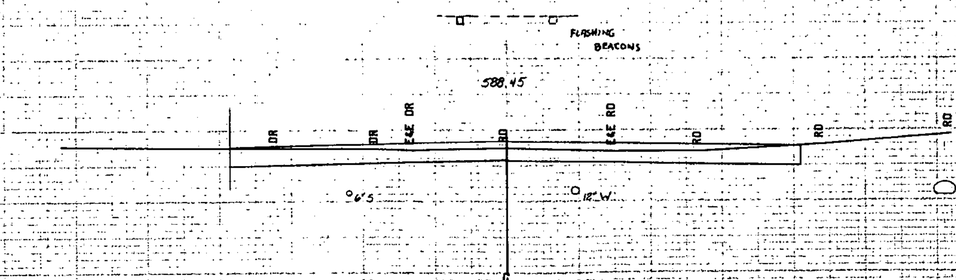
580



54+00

52.102 - 53148 N. Rt.
New 24"x116' R.C.P. cl III
w/2 Type B Grates

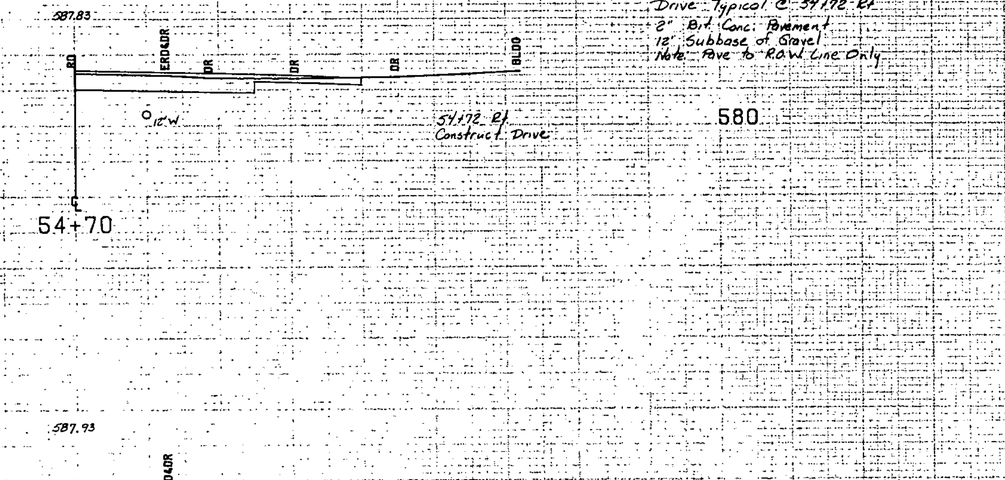
53120 N Rt - 53120 Rte "5 Rt.
New: 20'x20'x86' A.C.C.G.M.P.A. (CGV)
Conc. Catch Basin w/2 Type A Grates & Inlet.

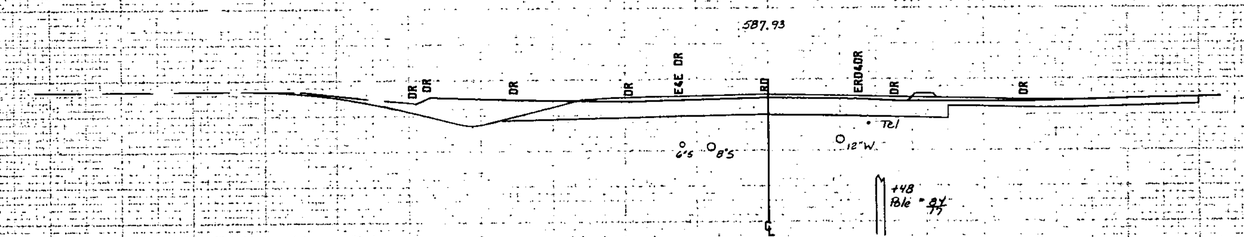


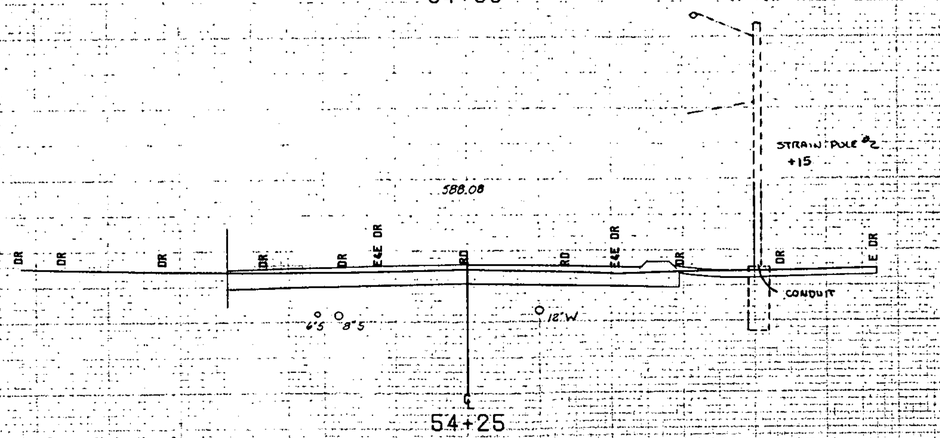
53+75

FROM STA. 53+75 TO STA. 54+02
PROJECT NAME ST. JOHNSBURY U.S. RTE. 5
NO. DP-FF041-1(10) PLOTTED 12/11/84
SURVEYED BY FANTONI 11/78
SHEET 154 OF [redacted] SHEETS [redacted] 229

SCALE 10 FEET





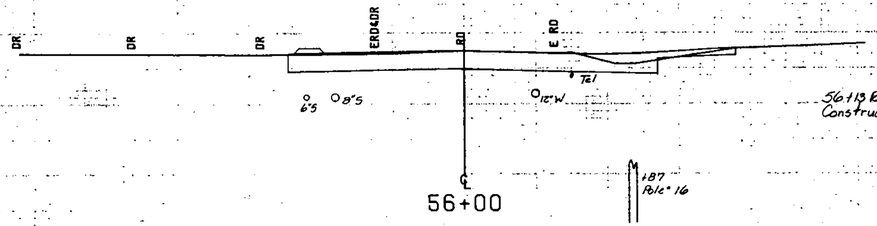


FROM STA. 54+25 TO STA. 54+70
PROJECT NAME ST. JOHNSBURY U.S. RTE. 5
NO. OP-FF041-1(10)1 PLOTTED 12/11/86
SURVEYED BY FANTONI 11/78
SHEET 106 OF [redacted] SHEETS [redacted] 228

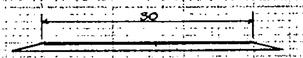
SCALE 10 FEET

55+95 - 56+43 Lt
15" CMP - Retain

587.48



56+18 Rt
Construct Drive.



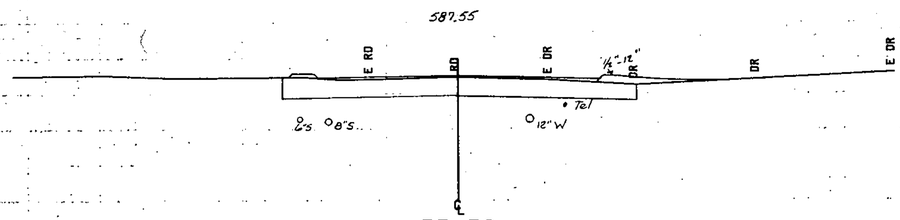
Drive Typical @ 56+18 Rt
1½" Bit. Conc. Pavement
12" Subbase of Gravel
Note: Pave to R.O.W. Only

580

187' Pole 16

54+75 - 56+25 Lt
Cast in Place Cement
Concrete Curb, Type A
(Island)

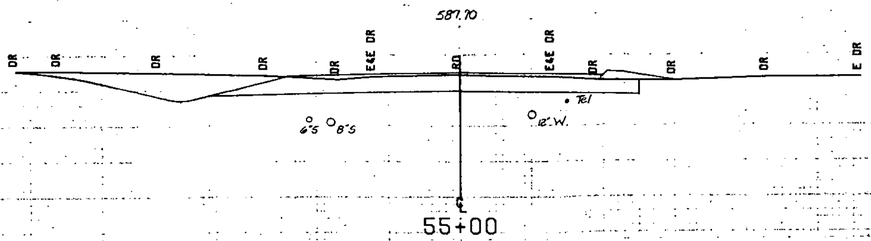
587.55



580

54+93 - 55+83 Rte 5 Rt
Cast-in-Place Cement Concrete
Curb, Type A (Island)

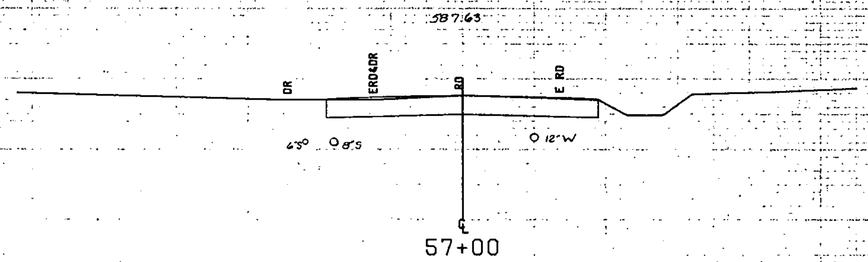
587.70

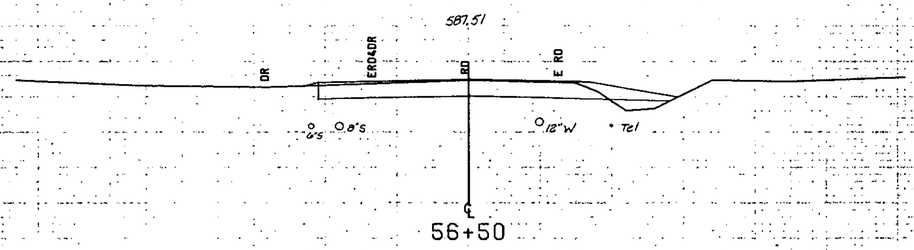


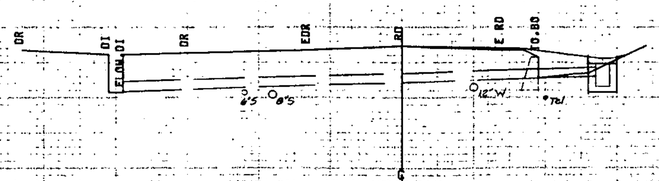
580

FROM STA.: 55+00		TO STA.: 58+00	
PROJECT NAME	ST. JOHNSBURY U.S. RTE. 5		
NO.	OP-FF041-1(10)	PLOTTED	12/11/84
SURVEYED BY	FANTONI		11/78
SHEET 156 OF [redacted] SHEETS		[redacted] 229	

SCALE 10 FEET



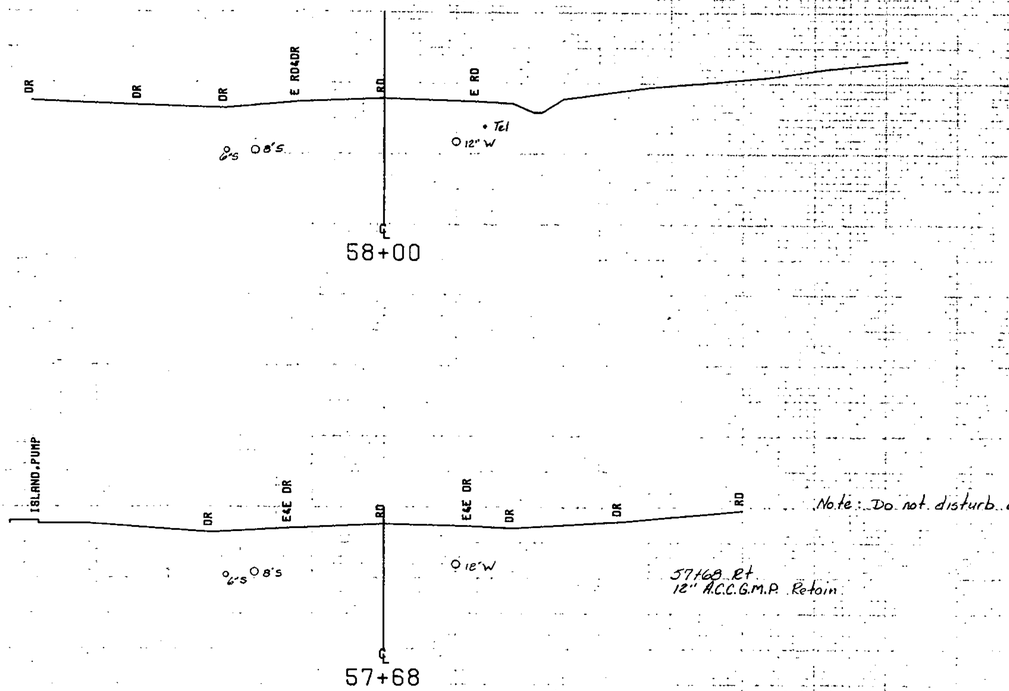




56+48 Askew 84°30' Rt
Existing 15" RCP Reform and Extend W
New 13"x12" RCP CI III

FROM STA.	56+48	TO STA.	57+00
PROJECT NAME	ST. JOHNSBURY U.S. RTE. 5		
NO.	DP-FF041-1(10)	PLOTTED	12/11/86
SURVEYED BY	FANTONI		11/78
SHEET	57 OF [redacted]	SHEETS	[redacted] 229

SCALE: 10 FEET



FROM STA. 57+50 TO STA. 58+00
PROJECT NAME ST. JOHNSBURY U.S. RTE. 5
NO. DP-FFO41-1(10) PLOTTED 12/11/84
SURVEYED BY FANTONI 11/78
SHEET 168 OF [redacted] SHEETS [redacted] 229

SCALE 10 FEET

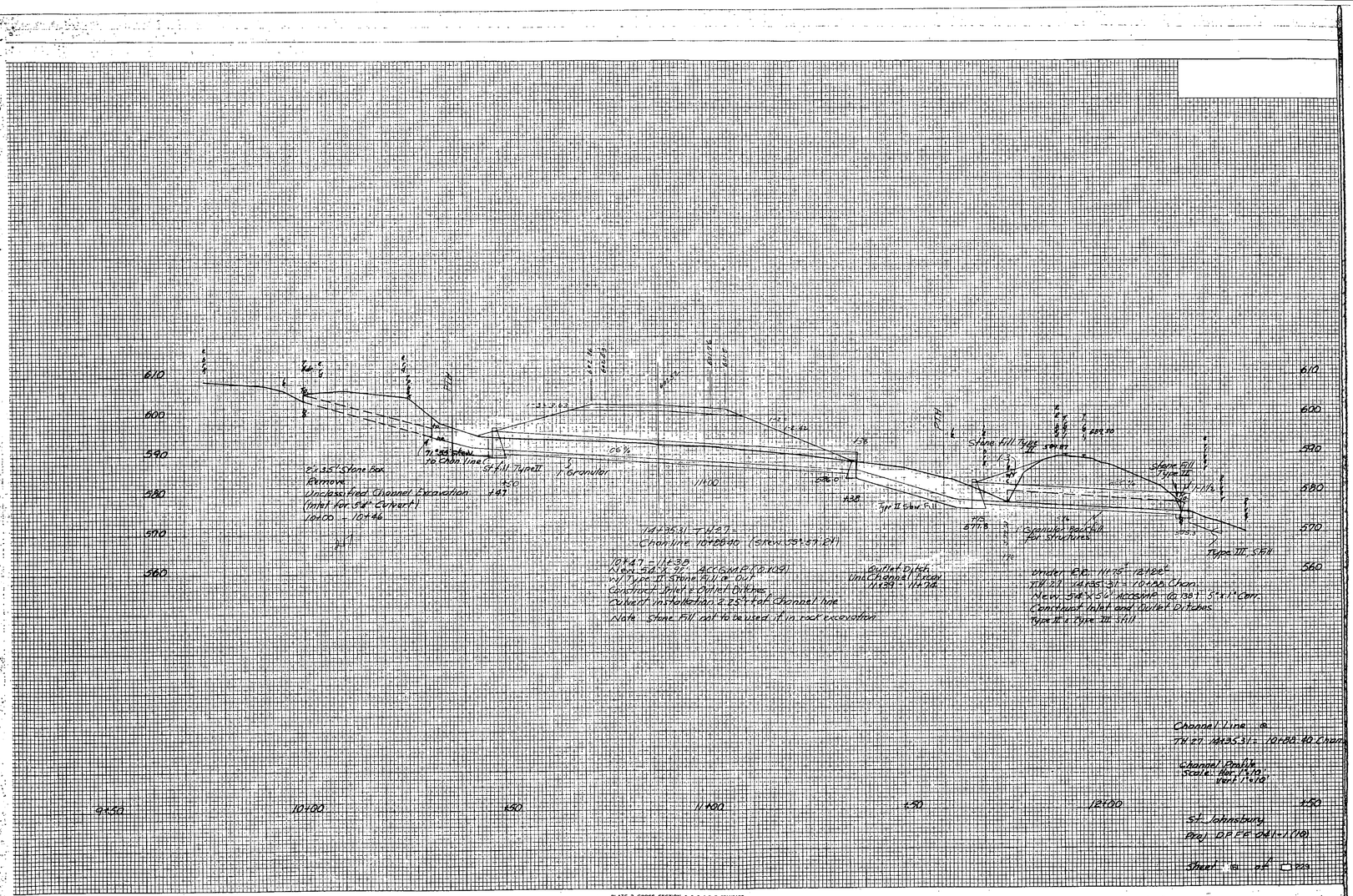
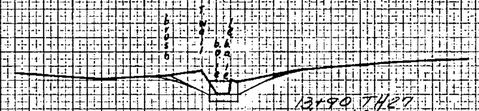


PLATE 3 CROSS SECTION U. P. A. A. A. C. STANDARD
NATIONAL COMMISSION

600.0

600

10+04



12"x90 THRU
24"x35" SPAN
Remove (Exact location to be determined in the field.
Refer to Sheet No.
(Culvert Profile)

600

10+00 Begin Unclassified Channel Excav. 1/4 t. to 54" Culv.

610

1:2 1:2

Ditch Typical
Scale 1"=10'

9+95

610

9+90

610

9+75

593.7

600

10+34

10+36 ± Begin Stone Fill Type II (if needed)

594.7

Inlet & End Hdw.

600

10+32

600

10+26

600

10+85

610

Channel Line at TH 27
Sta 14+35.31

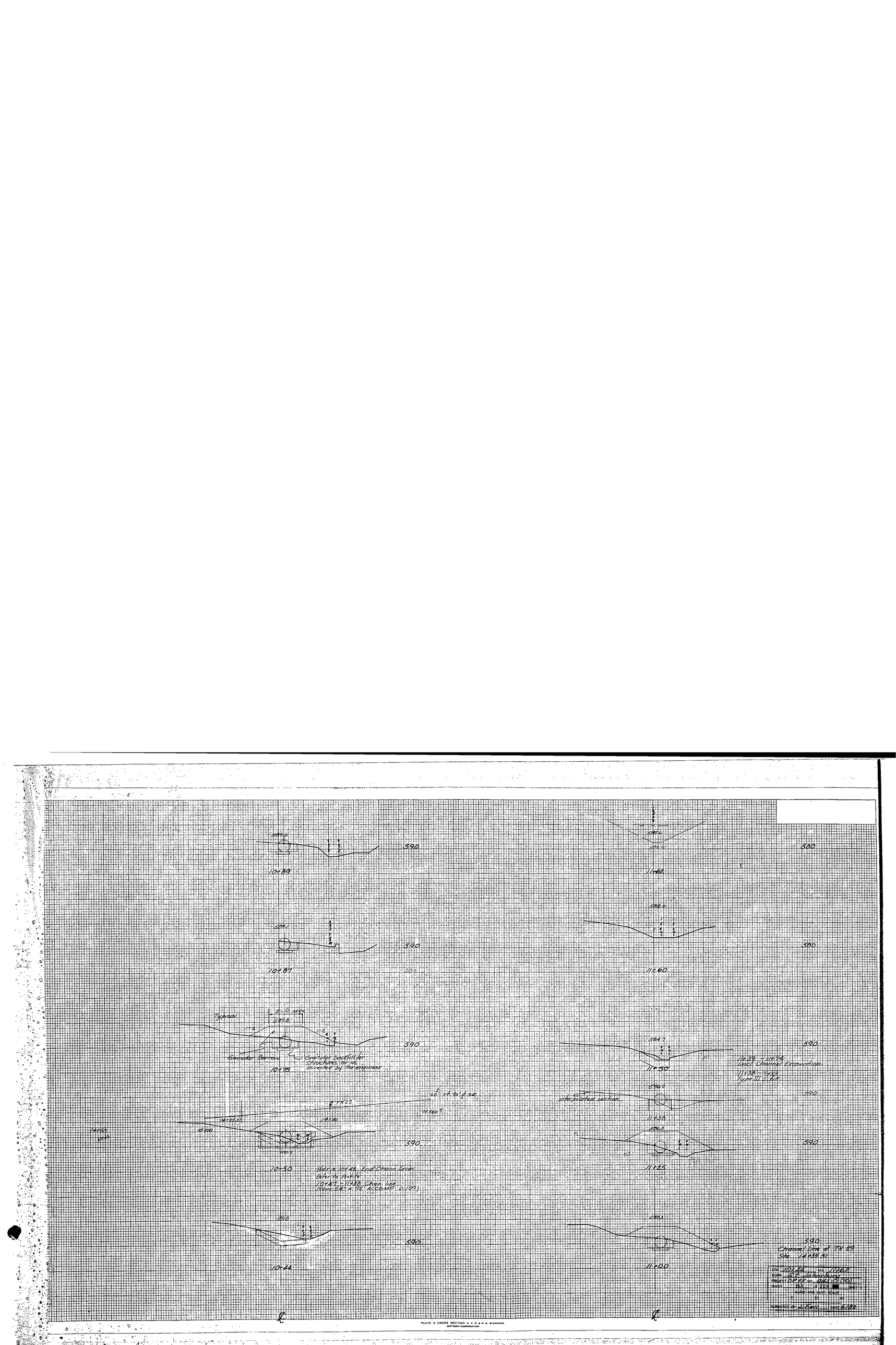
610

STA.	9+75	STA.	10+32
TOWN	St Johnsbury		
PROJECT	DPCF	NO.	0401-(028)
SHEET	162	OF 229	SHEETS

HORIZ. AND VERT. SCALE
0 10 20

SURVEYED BY A.Gall DATE 6/83

PLATE 3 CROSS SECTION O. P. R. & R. C. STANDARD
DIETZGEN CORPORATION


10+80
590
10+87
590
Typical
3.0 MIN.
5898
590
Concrete Barrier
Granular backfill for structures, or as directed by the engineer
10+75
590
10+50
Horiz. 10' 48" Rad. Chain Link Fence to Anchor
Begin 10+47 – 11+38 Chain link New 54" x 96" ACCAMP 0.1071
590
10+44
590
11+62
590
11+60
590
11+50
11+38 – 11+14 Limit Channel transition
11+38 – 11+63 Type III Chan.
590
11+38
590
11+25
590
11+00
590
Channel line of TH 89
Sta. 14+35.31
PLATE 3 CROSS SECTION U. S. N. A. R. E. STANDARD
HOFFMAN CORPORATION

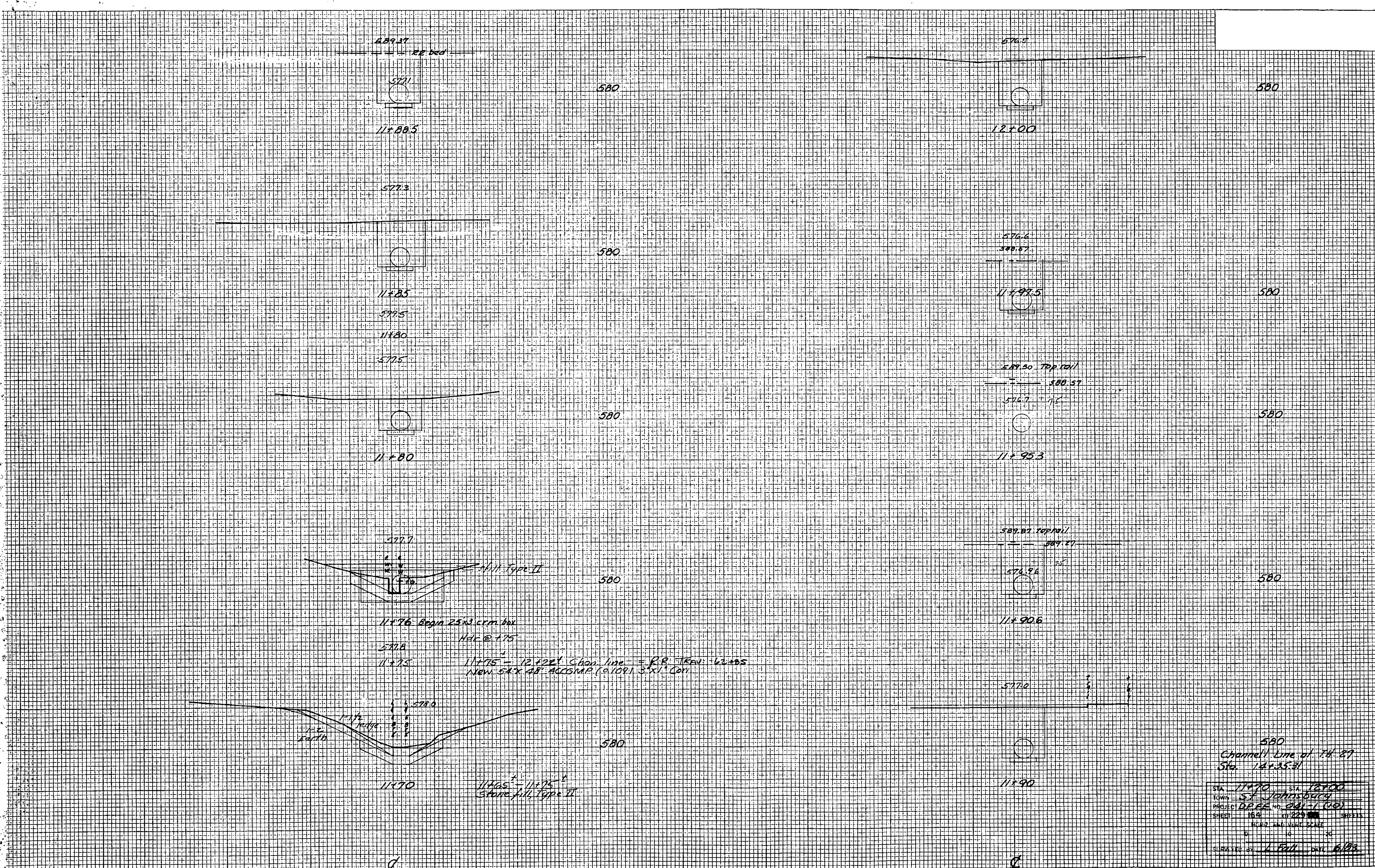


PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

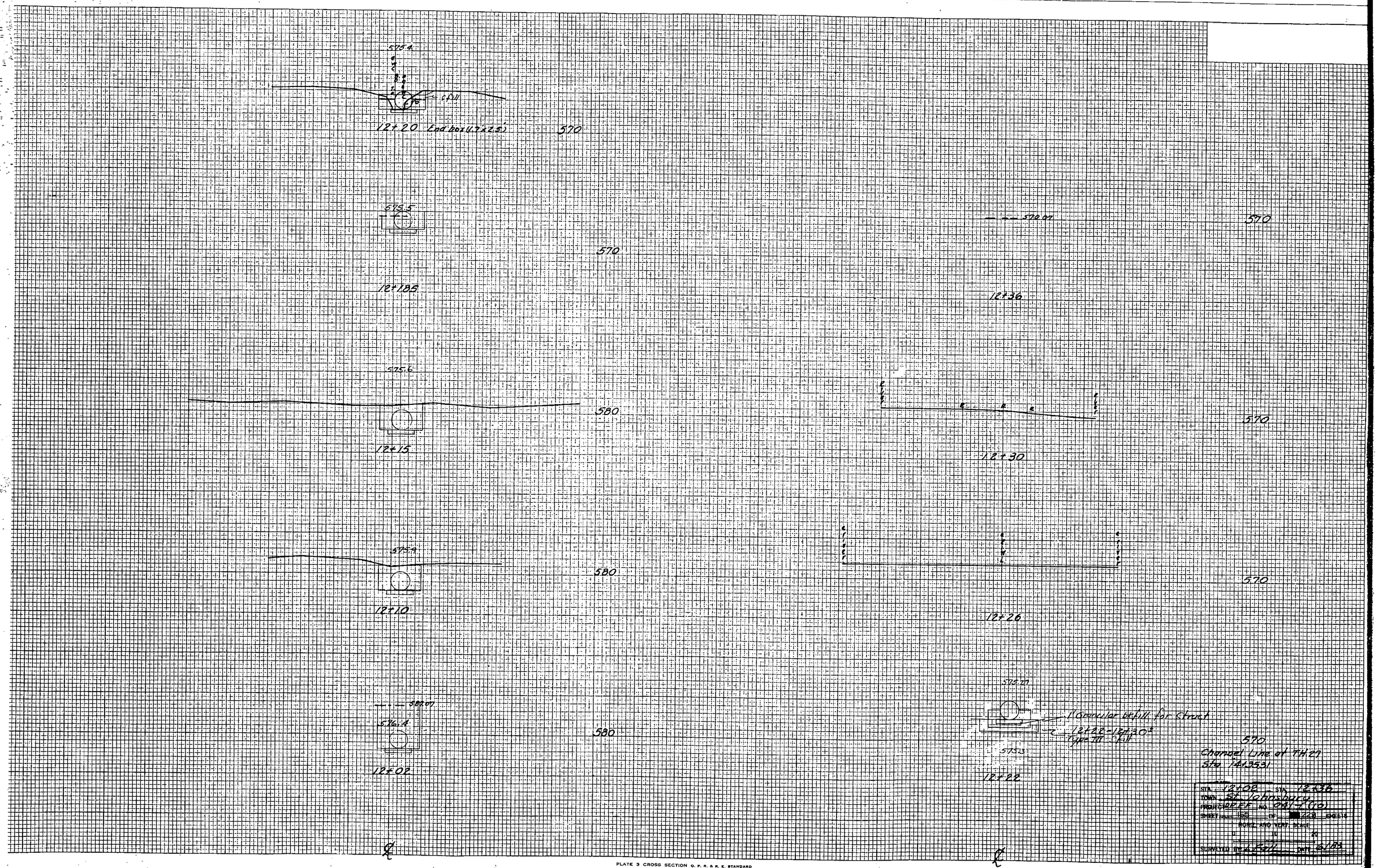


PLATE 3 CROSS SECTION O. P. R. A. R. E. STANDARD
DIETZGEN CORPORATION