INDEX OF SHEETS

LIST OF STANDARDS

7. E-3	12-15-78 (R)	
8. E-6	12-15-78 (R)	
9. E-7	9-5-78 (R)	
10. E-7a	6-8-77 (R)	
11. G-1d	9-12-77 (R)	
12. SCB-D1-75	4-3-78 (R)	

STATE OF VERMONT
AGENCY OF TRANSPORTATION

RECORD PLANS-MATERIAL SUPPLIERS

CONTRACTOR-WALLIN CORP, CAVENDISH, VT. CONTRACT DATED-11 JULY 1979

CONSTRUCTION BEGAN-19 JULY 1979 COMPLETED-7 SEPTEMBER 1979

RESIDENT ENGINEER-RONALD D. GRAY RECORD PLANS-PAUL E. SINGLETON

GUARD RAIL-LAFAYETTE-SHELDON INC., ESSEX JCT., VT

GRANULAR BORROW, GRANULAR BACKFILL FOR STRUCTURES, SUB-BASE OF GRAVEL-THERON FISHER PIT, GRAFTON, VT.

CONSTRUCTION ACCEPTED-21 SEPTEMBER 1979

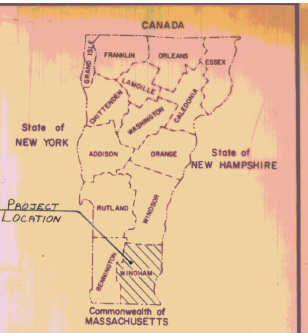
CONCRETE-CHARLESTOWN READY MIX INC., CHARLESTOWN, N.H.

REINFORCING STEEL-PIONEER VALLEY STEEL CO. INC., GREENFIELD, MASS.

13'-5"x8'-5"x44' CGMPPA-REPUBLIC STEEL CORP., BOSTON, MASS.

LOCATION MAP

(TRACED FROM TOWN MAP)



PROPOSED IMPROVEMENT
BRIDGE PROJECT

TOWN OF GRAFTON

COUNTY OF WINDHAM

ROUTE NO: T.H. 38, CL. 3 BRIDGE NO: 31

PROJECT LOCATION: Beginning At A Point On T.H. 38, 0.10 Miles Northerly Of The Intersection Of Vt. Rte. 121 And T.H. 38 And Extending Northerly 0.038 Miles On T.H. 38.

PROJECT DESCRIPTION: Removal Of Existing Pipes And Construction Of A 13'-5"x 8'-5"x 44' CGMPPA With Concrete Headwalls. Related Roadway And Channel Work.

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

LENGTH OF STRUCTURE:	—	FEET
LENGTH OF PARTICIPATION ROADWAY:	200	FEET
LENGTH OF NON-PARTICIPATION ROADWAY:	—	FEET
LENGTH OF PROJECT:	200	FEET

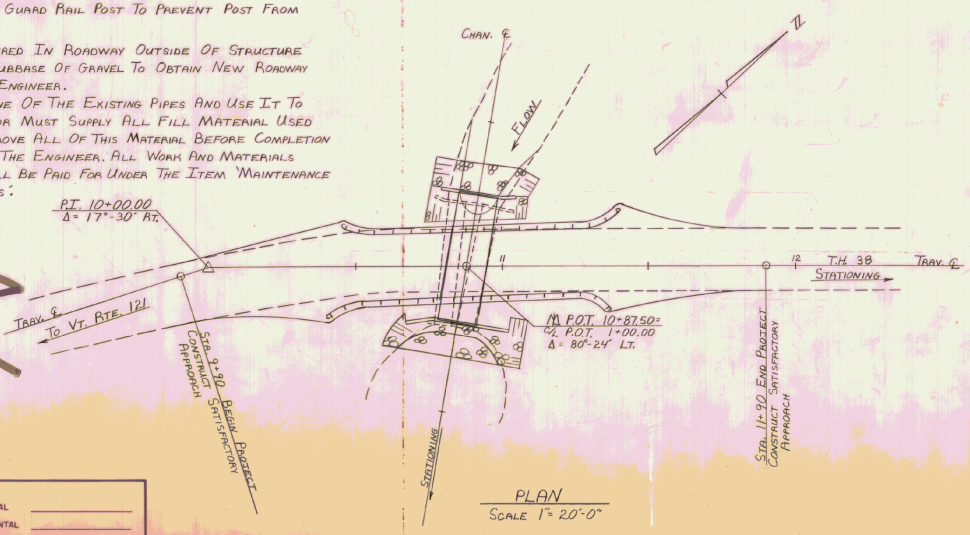
GENERAL NOTES

1. For Additional Notes See Standard SCB-D1-75.
2. Roadway Augment Shall Match Existing As Directed By The Engineer.
3. All Reinforcing Steel Shall Have A Minimum Cover Of 3", Measured From The Concrete Surface To The Face Of The Reinforcement.
4. Traffic Shall Be Maintained Under The Item 'Maintenance Of Traffic For Bridge Projects'. All Signs And Barricades Shall Be Subsidiary To This Item.
5. The Two Existing Pipes Shall Be Removed Under The Item 'Removal Of Structure'. Care Shall Be Taken Not To Damage These Pipes Which Shall Remain The Property Of The Town.
6. Turf Establishment Shall Be Subsidiary To All Other Items In The Contract.
7. Care Shall Be Taken In Driving Guard Rail Post To Prevent Post From Damaging The Top Of The Pipe.
8. No Excavation Shall Be Required In Roadway Outside Of Structure Limits. Shim Roadway With Subbase Of Gravel To Obtain New Roadway Grade As Determined By The Engineer.
9. The Contractor May Remove One Of The Existing Pipes And Use It To Build A Detour. The Contractor Must Supply All Fill Material Used In The Detour, And Must Remove All Of This Material Before Completion Of The Project, As Directed By The Engineer. All Work And Materials Necessary For The Detour Shall Be Paid For Under The Item 'Maintenance Of Traffic For Bridge Projects'.

CONVENTIONAL SIGNS

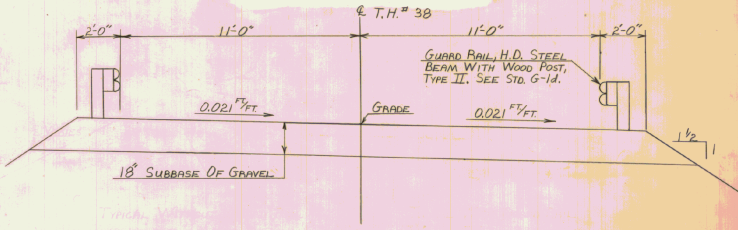
COUNTY LINE
TOWN LINE
LIMITS OF ACCESS
POINT OF ACCESS
FENCE LINE
STONE WALL
TRAVELED WAY
GUARD RAIL
RAILROAD
SURVEY LINE
CULVERT
POWER POLE
TELEPHONE POLE
TREES
CONTROL OF ACCESS
PROPERTY LINE
R.O.W. TAKING LINE
SLOPE RIGHTS
TOP OF CUT
TOE OF SLOPE

DATUM
VERTICAL
HORIZONTAL



PLAN

SCALE 1" = 20'-0"



TYPICAL ROADWAY SECTION (At Structure)

SCALE 3/8" = 1'-0

BUILT AS DESIGNED

SUBMITTED BY ORDER OF THE STATE TRANSPORTATION BOARD

APPROVED L. J. Gage DATE 4-6-79

DIR. OF ENGINEERING AND CONSTRUCTION

PROJECT GRAFTON NO. TH 3903

SHEET 1 OF 12 SHEETS

D-10

EARTHWORK

GRADES V.C.	GRADES % GRD	STATION	ELEVATION ON TAN.	ELEVATION ON V.C.	CORR. V.C.	DIST.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.

BRIDGE QUANTITY SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
BRIDGE DIVISION

NO.	ITEM	UNIT	QUANTITY BREAKDOWN: STRUCTURE	ROADWAY	CHANNEL	TOTAL	FINAL
202.25	REMOVAL OF STRUCTURE	Ea.	1			1	1
203.27	UNCLASSIFIED CHANNEL EXCAVATION	C.Y.			110	110	105
203.30	EARTH BORROW	C.Y.		20		20	15
203.32	GRANULAR BORROW	C.Y.	150			150	125
204.25	STRUCTURE EXCAVATION	C.Y.	390			390	363
204.30	GRAN. BACKFILL FOR STRUCTURES	C.Y.	60			60	62
301.15	SUBBASE OF GRAVEL	C.Y.		60		60	151
501.25	CONCRETE, CLASS B	C.Y.	42			42	42.34
507.15	REINFORCING STEEL	LBS.	2,730			2,730	2729
511.15	13'-5"x 8'-5" CGMPPA 44' LONG 0.168" THICK, 16,148 LBS.	Ea.	1			1	1
613.11	STONE FILL, TYPE II	C.Y.			70	70	0
613.12	STONE FILL, TYPE III	C.Y.			80	80	177.5
621.38	GUARD RAIL, HEAVY DUTY STEEL BEAM W/ WOOD POST, TYPE II	L.F.		248		248	248
637.10	MAINTENANCE OF TRAFFIC FOR BRIDGE PROJECTS	L.S.		1		1	1

BRIDGE (S) AT STATION (S) 10+87.50
LOCATION (S) T.H. #38 OVER BROOK

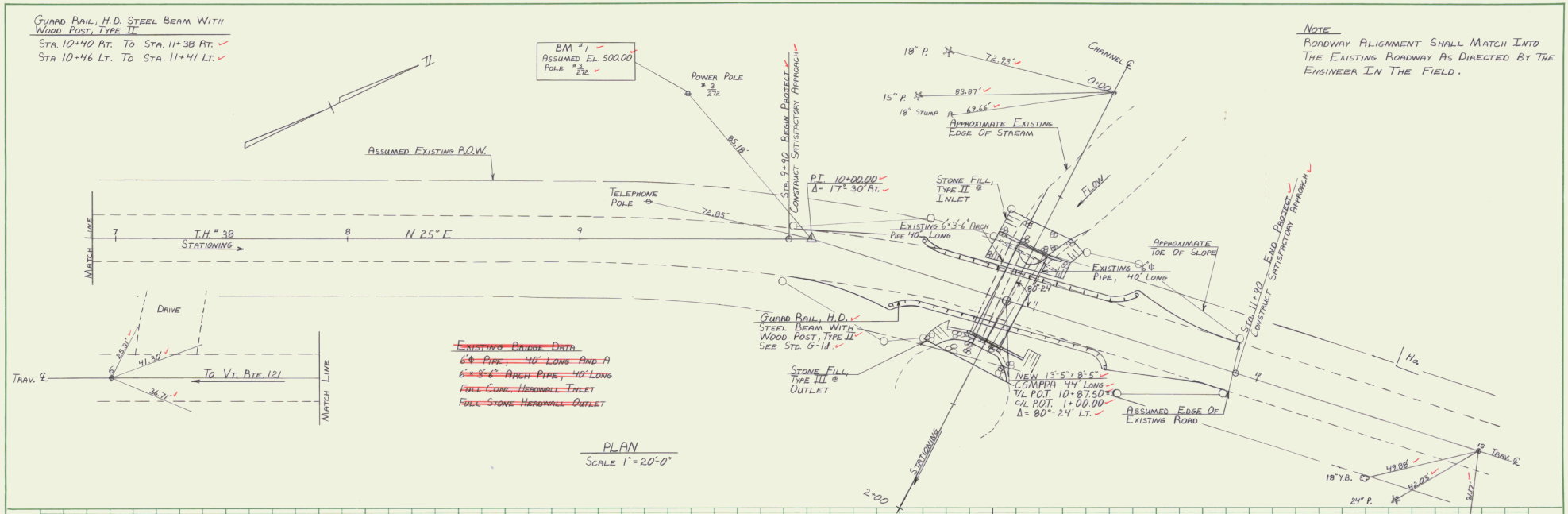
Prepared by: DAVE WILLEY | Checked by: M. CERUTTI
SUPERVISOR: R.L. Dooley

GRAFTON
BR. 31

PROJECT NO. TH 3903
SHEET NO. 2 OF 12

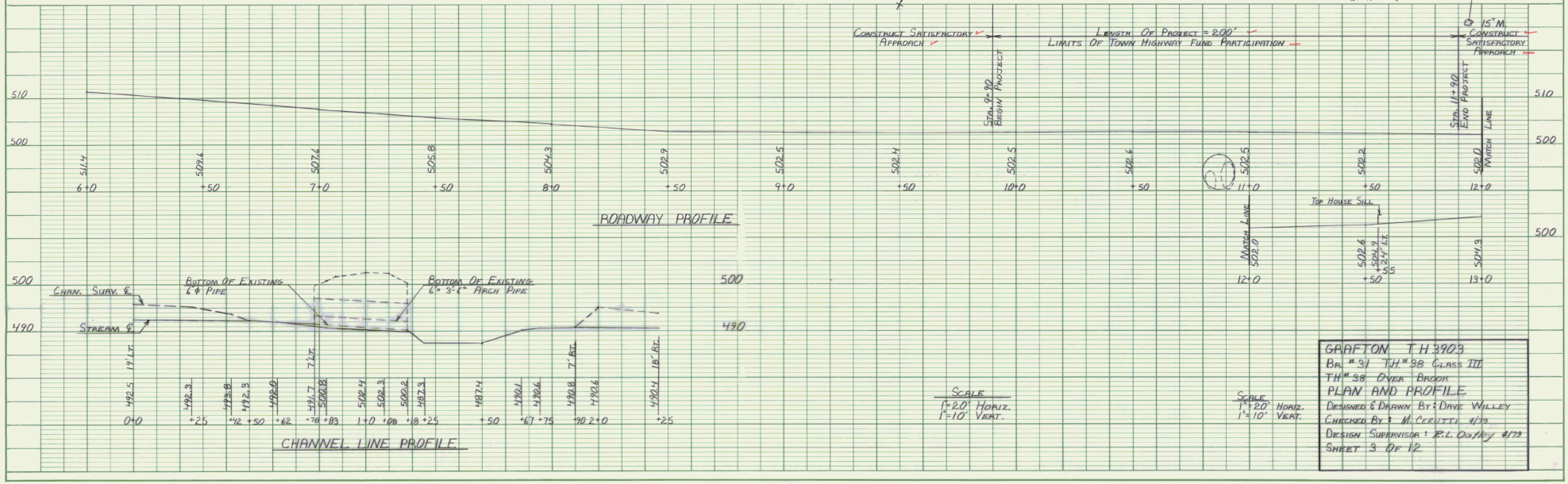
BR-1

Guard Rail, H.D. Steel Beam With Wood Post, Type II
Sta. 10+40 Rt. To Sta. 11+38 Rt.
Sta 10+46 Lt. To Sta. 11+41 Lt.



PLAN
Scale 1" = 20'-0"

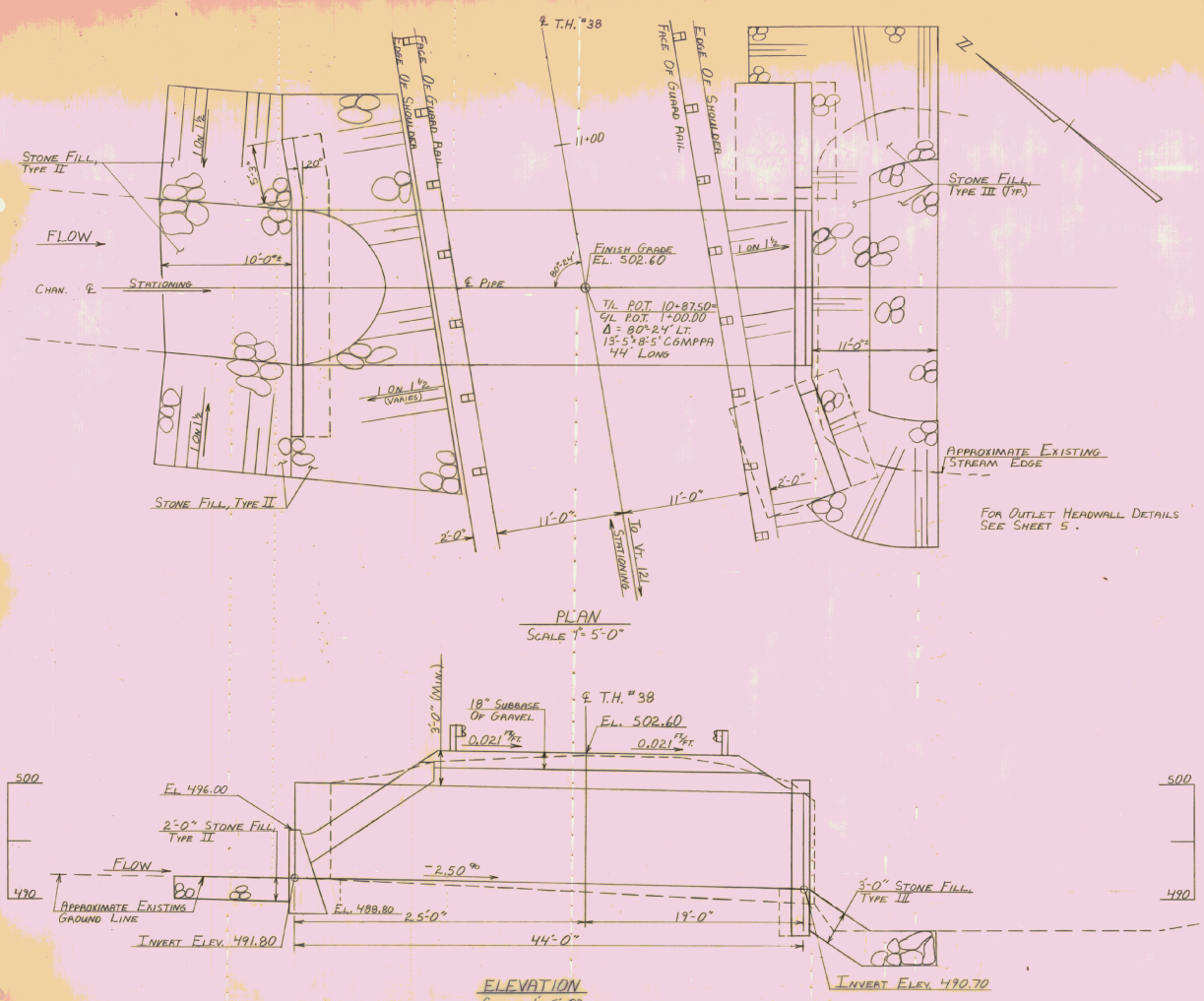
Note
Roadway Alignment Shall Match Into The Existing Roadway As Directed By The Engineer In The Field.



GRAFTON T.H. 3903
Br. #31 T.H. #38 Class III
T.H. #38 Over Brook
PLAN AND PROFILE
Designed & Drawn By: Dave Willey
Checked By: M. Cerutti 4/73
Design Supervisor: P.L. Oatley 4/73
Sheet 3 Of 12

PLATE 1, PLAN-PROFILE
KEUFFEL & ESSER CO.

BR-3

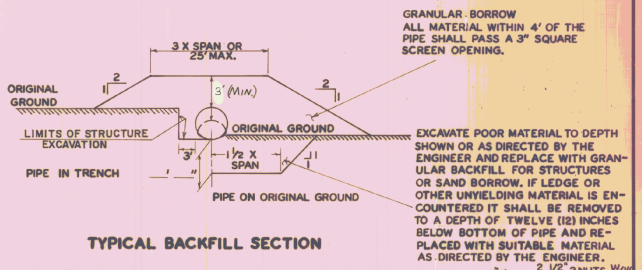


PLAN
SCALE 1"= 5'-0"

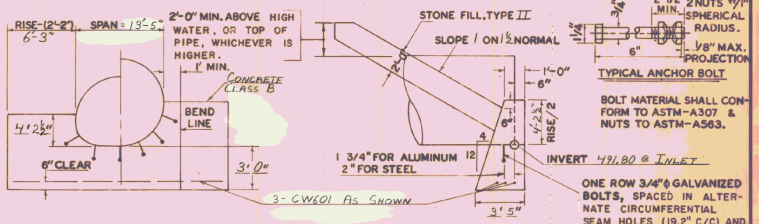
ELEVATION
SCALE 1"= 5'-0"

NOTES

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED MAR. 1976 AND THE A.A.S.H.T.O. STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES DATED 1973 AND ITS LATEST REVISIONS. DESIGN IS FOR H5-20 LIVE LOADING.
2. UNLESS OTHERWISE INDICATED FOUR (4) BOLTS PER LINEAR FOOT FOR STEEL PLATES AND FIVE AND ONE THIRD (5 1/3) BOLTS FOR ALUMINUM PLATES ARE REQUIRED ALONG THE LONGITUDINAL SEAMS. ALL CONNECTIONS FOR STRUCTURAL PLATE SECTIONS SHALL BE MADE WITH GALVANIZED ASTM A-325 BOLTS (AASHO M164).
3. WHEN NORMAL CONSTRUCTION OR REGULAR ROADWAY TRAFFIC IS MAINTAINED OVER THE PIPE THE CONTRACTOR SHALL MAINTAIN A MINIMUM COVER OF 4 FEET OF COMPACTED MATERIAL.
4. ALUMINUM PIPE THAT IS TO BE IN CONTACT WITH CONCRETE SHALL HAVE CONTACT SURFACES THOROUGHLY COATED WITH ZINC CHROMATE, OR BITUMINOUS, OR ASPHALTIC PAINT.
5. PIPES SHALL BE FACTORY ELONGATED 5% (PIPE ARCHES SHALL NOT BE ELONGATED).



TYPICAL BACKFILL SECTION



INLET CRADLE HEADWALL DETAILS

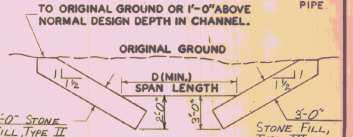
(FOR OUTLET HEADWALL DETAILS SEE SHEET 5.)

REINFORCING STEEL SCHEDULE (SEE SHEET 5)

NO. PIECES	SIZE	LENGTH	MARK	TYPE

ESTIMATED QUANTITIES SEE SHEET #2.

NO.	ITEM	UNIT	TOTAL	FINAL



TYPICAL CHANNEL SECTION

HYDRAULIC DATA

DRAINAGE AREA = 3.66 SQ. MI.

Q_{10} = 560 c.f.s	Q_{10} HEADWATER ELEVATION =	498.90
Q_{25} = 720 c.f.s	Q_{25} HEADWATER ELEVATION =	500.40
Q_{50} = 910 c.f.s	Q_{50} HEADWATER ELEVATION =	502.30
Q_{100} = 1100 c.f.s	Q_{100} HEADWATER ELEVATION =	504.60

TAILWATER DEPTH AT Q_{25} = 3.0 FEET

OUTLET VELOCITY AT Q_{25} = 14 F.P.S.

ADDITIONAL COMMENTS: STONE FILL, TYPE III AT OUTLET AND STONE FILL, TYPE II AT INLET.

DETAILS OF STRUCTURAL PLATE PIPE CULVERTS

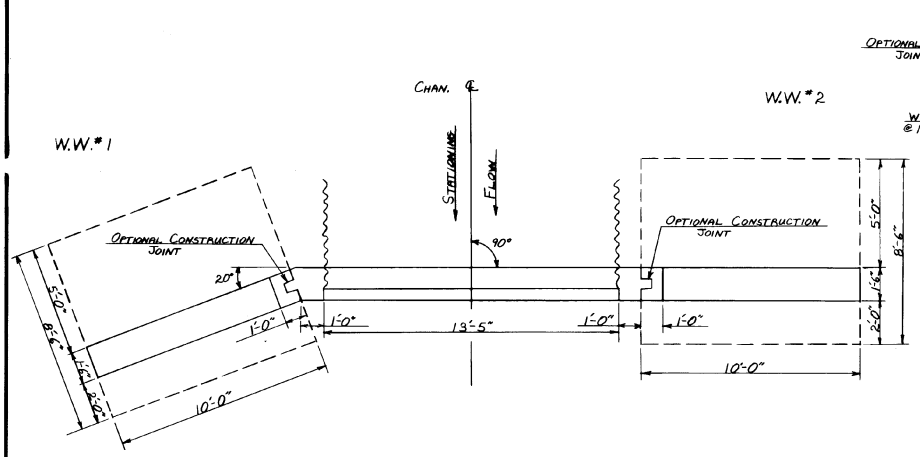
PIPE DATA:

	STEEL	ALUMINUM
CORRUGATIONS	6 x 2"	
SIZE OF PIPE OR PIPE ARCH	13'-5"x8'-5"	
WATERWAY AREA (S.F.)	89	
PLATE THICKNESS	0.168 (COATED) THICKNESS	
BOLT SIZE	3/4	
WT. LIN. FT.	367	
TOTAL WEIGHT	16,148	

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

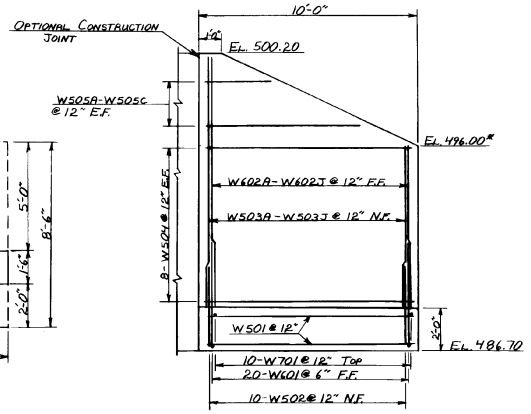
TOWN OF GRAFTON	Bridge No. 31
HIGHWAY NO. T.H. 38 CLASS 3	Log Sta.
T.H. # 38 OVER BROOK	Surv. Sta. 10+87.50
13'-5"x 8'-5"x 44' LONG CGMPPA DETAILS	
Designed by DAVE WILLEY	Drawn by DAVE WILLEY
Checked by M. CERUTTI date 3-79	Bridge Design Supervisor E. L. OOHEY date 4/79
PROJECT GRAFTON	PROJECT NO. T.H. 3903
Bridge Sheet No.	Sheet 4 of 12

BR-9

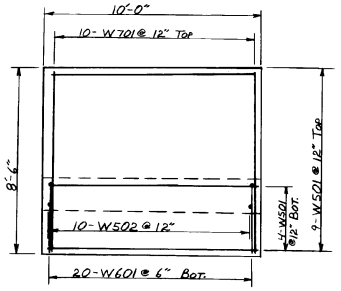


OUTLET HEADWALL PLAN
SCALE 3/8" = 1'-0"

△ WINGWALL No. 2 SHOWN, WINGWALL No. 1 IS THE SAME ONLY REVERSED.

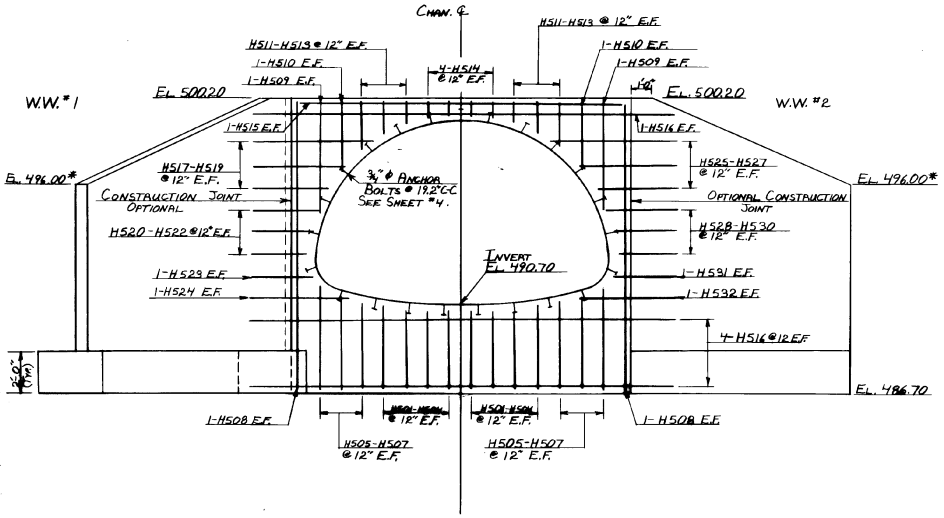


TYPICAL WINGWALL ELEVATION △
SCALE 3/8" = 1'-0"

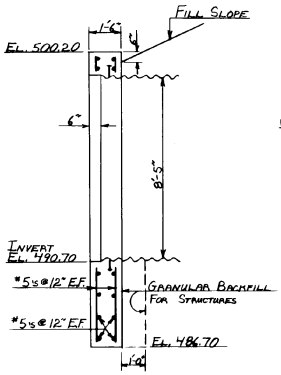


TYPICAL PLAN
FOOTING REINFORCING STEEL
SCALE 3/8" = 1'-0"

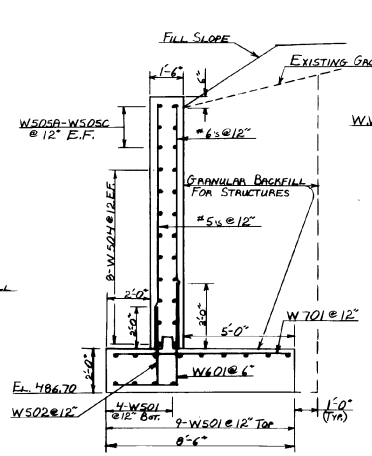
* WINGWALL END ELEVATIONS MAY BE CHANGED IN THE FIELD BY THE ENGINEER TO MEET EXISTING SLOPE CONDITIONS.



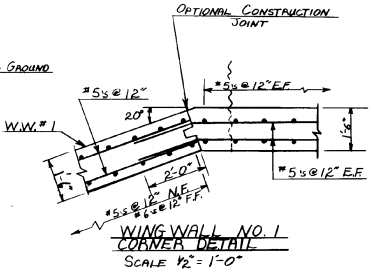
OUTLET HEADWALL ELEVATION
SCALE 3/8" = 1'-0"



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



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



WING WALL NO. 1
CORNER DETAIL
SCALE 1/2" = 1'-0"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF GRAFTON	Bridge No. 31
HIGHWAY NO. TH # 38, CLASS 3	Leg Sta. Surv. Sta. 10+87.50
TH # 38 OVER BROOK	
OUTLET HEADWALL DETAILS	
Designed by DAVE WILLEY	Drawn by DAVE WILLEY
Checked by M. CECUTTI date 4/79	Bridge Design Supervisor R. L. Ooft/ey date 4/79
PROJECT GRAFTON	PROJECT NO. TH 3903
Bridge Sheet No.	Sheet 5 of 12

DRAWING 44-131-80151

OUTLET HEADWALL / WINGWALLS / INLET CRADLE HEADWALL

ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
1																	
2																	
3																	
4			OUTLET HEADWALL														
5																	
6																	
7	4	5	3-6	H501	STR.												
8	↓		TO	THRU			VARY IN 3 EQUAL INCREMENTS										
9	4		3-9	H504													
10	4		3-10	H505													
11	↓		TO	THRU			VARY IN 2 EQUAL INCREMENTS										
12	4		4-9	H507													
13	4		13-0	H508													
14	4		5-0	H509													
15	4		3-3	H510													
16	4		2-2	H511													
17	↓		TO	THRU			VARY IN 2 EQUAL INCREMENTS										
18	4		1-0	H513													
19	8	↓	0-7	H514	↓												
20	2	5	15-5	H515	STR.												
21																	
22																	
23	10	5	19-9	H516	14		2-0	17-9					0-8				19-6
24	2		5-6	H517			2-0	3-6					0-8				
25	↓		TO	THRU			VARY IN 2 EQUAL INCREMENTS										
26	2		3-9	H519			2-0	1-9					0-8				
27	2		3-3	H520			2-0	1-3					0-8				
28	↓		TO	THRU			VARY IN 2 EQUAL INCREMENTS										
29	2		2-9	H522			2-0	0-9					0-8				
30	2	↓	3-0	H523	↓		2-0	1-0					0-8				
31	2	5	4-9	H524	14		2-0	2-9					0-8				
32			CONTINUED IN NEXT COLUMN														
33																	
34																	
35																	
36																	
37							WINGWALLS										
38	*27	5	9-6	W501	STR.												
39	20		3-9	W502													
40	2		7-0	W503A													
41	↓		TO	THRU			VARY IN 9 EQUAL INCREMENTS										
42	2		11-3	W503J			CUT TO FIT IN FIELD										
43	32		9-9	W504													
44	4		3-0	W505A													
45	↓	↓	TO	THRU	↓		VARY IN 2 EQUAL INCREMENTS										
46	4	5	7-0	W505C	STR.		CUT TO FIT IN FIELD										
47																	
48																	
49	2	6	7-0	W602A	STR.												
50	↓	↓	TO	THRU	↓		VARY IN 9 EQUAL INCREMENTS										
51	2	6	11-3	W602J	STR.		CUT TO FIT IN FIELD										
52																	
53																	
54	*41	6	7-9	W601	17		4-9	3-0									
55																	
56																	
57	*21	7	8-0	W701	STR.												
58																	
59																	
60																	
61																	
62																	
63			INLET CRADLE HEADWALL														
64																	
65																	
[illegible]	3	6	25-8	CW601	19		5-0	20-0					1-9		4-8		
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ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
81																	
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85																	
86																	
87																	
88																	
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90																	
91																	
92																	
93																	
94																	
95																	
96																	
97																	
98																	
99																	
100					OUTLET HEADWALL (CONT.)												
101																	
102																	
103																	
104	2	5	5-6	H525	STR.												
105	↓		TO	THRU			VARY IN 2 EQUAL INCREMENTS										
106	2		3-9	H527													
107	2		3-3	H528													
108	↓		TO	THRU			VARY IN 2 EQUAL INCREMENTS										
109	2		2-9	H530													
110	2	↓	3-0	H531	↓												
111	2	5	4-9	H532	STR.												
112																	
113																	
114																	
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157																	
158																	
159																	
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																	
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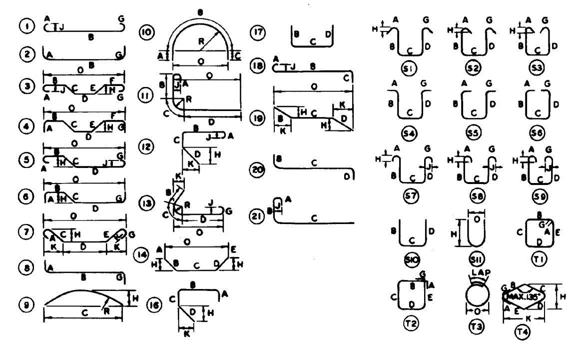
175																	
176																	
177																	
178																	
179																	
180																	

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

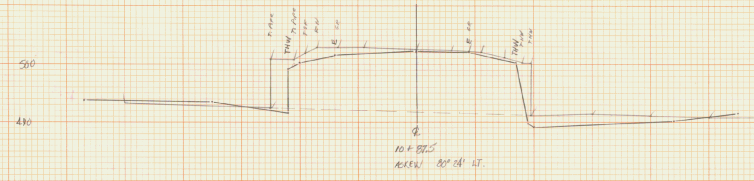
1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT," AASHTO M 31 (ASTM A 615), GRADE 60.
2. FOR TYPICAL BENDING DETAILS, RECOMMENDED PIN 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.

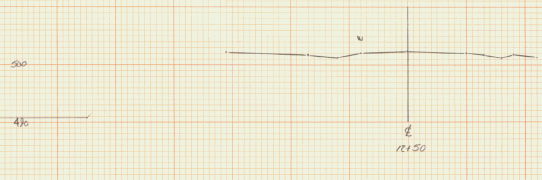
* DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.

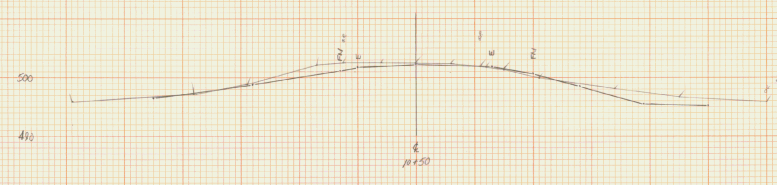
REV. NO.	MADE BY	DATE	DESCRIPTION
1	J. WOOD	8/11/75	A.A.S.H.O. CHANGED TO A.A.S.H.T.O. AND GRADE 40 CHANGED TO GRADE 60.

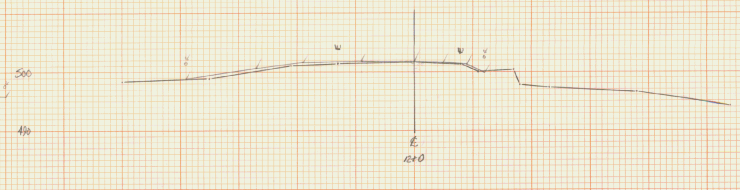
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

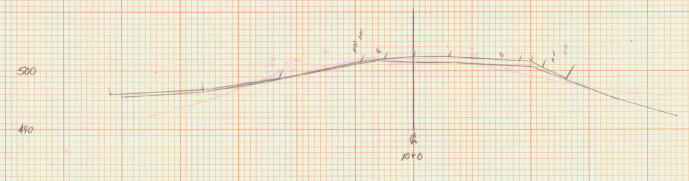
TOWN OF GRAFTON	BRIDGE NO. 31
	LOG STA.
HIGHWAY NO. T.H. #38, CLASS 3	SURV. STA. 10+87.50
T.H. # 38 OVER BROOK	
REINFORCING STEEL SCHEDULE	
DESIGNED BY DAVE WILLEY	DRAWN BY DAVE WILLEY
CHECKED BY M. CERUTTI DATE 3-79	BRIDGE DESIGN SUPERVISOR R. L. Oatley DATE 4/79
PROJECT GRAFTON	PROJECT NO. TH 3903
BRIDGE SHEET NO.	SHEET 6 OF 12

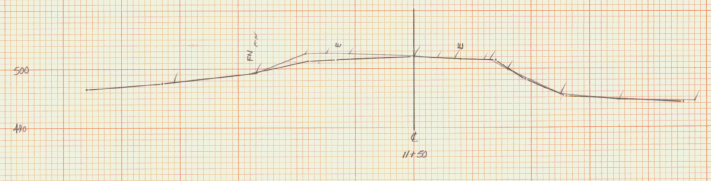


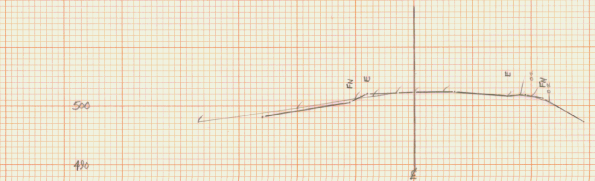


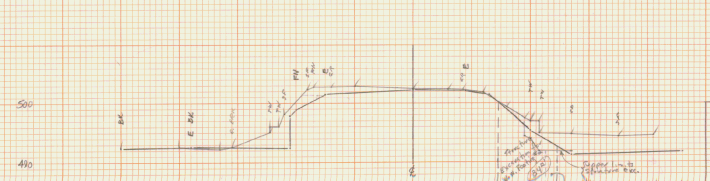








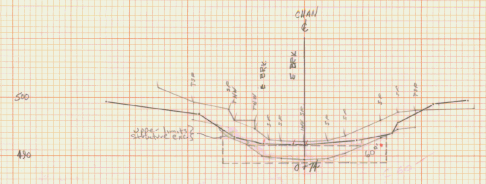


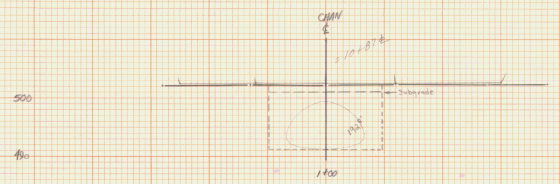


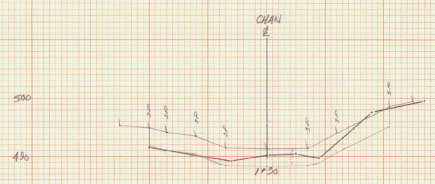
SHEET #1

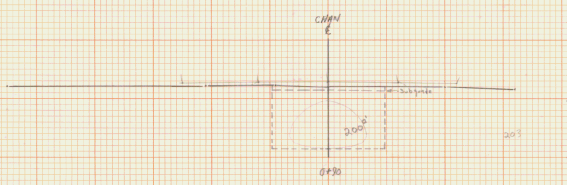
GRAFTON	TH 32/93	
ROADWAY	SECTIONS	
SECTIONS	PDG	7-17-79
PLOTTED	PDG	8-1-79
FINAL PLOTS	PDG	9-14-79

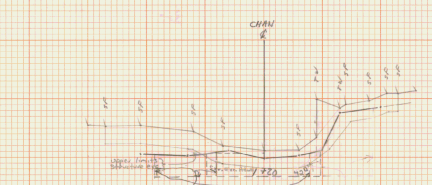
K&E STANDARD ® CROSS SECTION
10 X 10 TO THE INCH
KEUFFEL & ESSER CO.
MADE IN U.S.A.

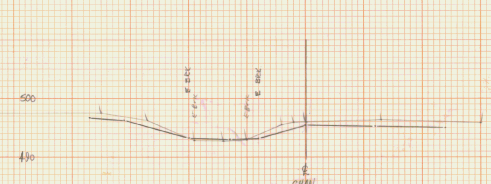


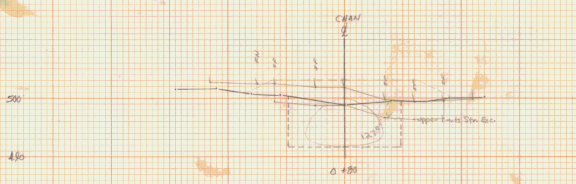


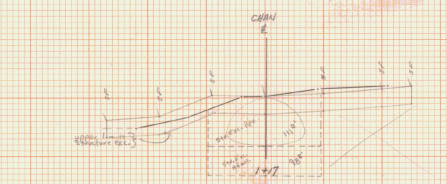


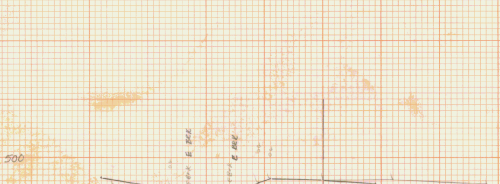


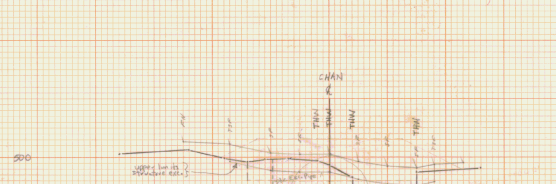


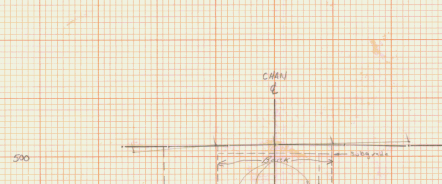












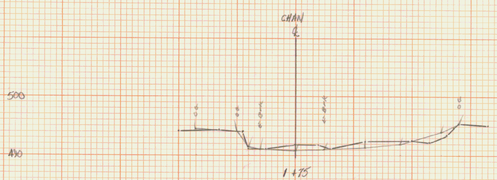
SHEET #2

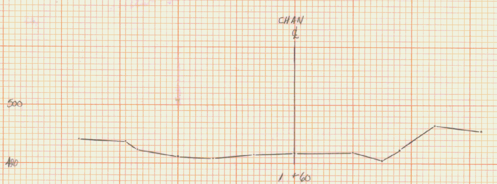
GRANTON TH 3909

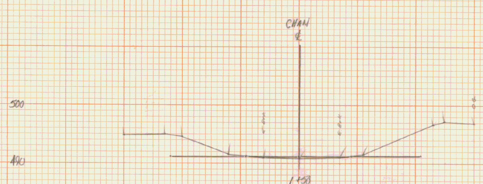
SECTIONED RDG 7-17-79

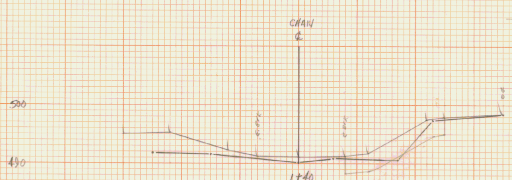
PLOTTED RDG 8-1-79

CHANNEL SECTIONS









Structure Excavation:

Station	Distance	End Area	Ave. End Area	Volume
Wing Wall Footing #2 (Sheet #1)				29.1
Wing Wall Footing #1 (Sheet #3)				46.1
Outlet Headwall		(Sheet #2)		
1+16.5 (use section for 1+17)		98 □'		
	3.5'		70 □'	9.1
1+20		42 □'		
Inlet Headwall		(Sheet #2)		
0+74		60 □'		
	5.4'		86 □'	17.2
0+79.4 (use section for 0+78.5)		112 □'		
Pipe (Sheet #2)				
0+74		0		
	4.5'		40 □'	6.7
0+78.5		80 □'		
	1.5'		103.5 □'	5.8
0+80		127 □'		
	10'		163.5 □'	60.6
0+90		200 □'		
	10'		196 □'	72.6
1+00		192 □'		
	10'		190 □'	70.4
1+10		188 □'		
	7'		149.5 □'	38.8
1+17		111 □'		
	3'		55.5 □'	6.2
1+20		0		
				362.6 CY

RB 11-5-79

9-20-79 FWR

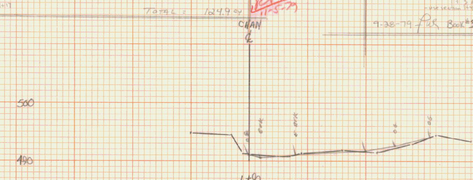
Book #3, Page #42

Granular Borrow:

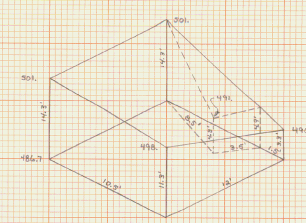
Station	Distance	End Area	Ave. End Area	Volume
0+75.5		0		
	3'		9.5 □'	1.1
0+78.5		19 □'		
	0		0	0
0+78.5		40 □'		
	1.5'		45.5 □'	2.5
0+80		51 □'		
	10'		79 □'	29.3
0+90		107 □'		
	10'		105 □'	38.9
1+00		103 □'		
	10'		100.5 □'	37.2
1+10		98 □'		
	2'		98 □'	7.3
1+12*		98 □'		
* use section 1+10	0		0	0
1+12*		67 □'		
	5.5'		42 □'	8.6
1+17.5†		17 □'		
† use section 1+17			Total =	124.9 CY

9-26-79 RB Book #3 Page #36

RB 11-5-79



Structure Excavation: Wing Wall Footing #1 (N.T.S.)



$$\frac{\frac{14.3'+14.3'+11.3'+3.3'}{4} \times 10.5' \times 12'}{27} = 50.4$$

minus volume already figured in Str. Exc. for Pipe:

$$\frac{\left(\frac{4.9+4.3+14.3}{3}\right) \times \left(\frac{3.5 \times 8.5}{2}\right)}{27} = -4.3$$

9-20-79 FWR — 46.1 CY

Subbase of Gravel:

Station	Dist (ft)	Area (ft²)	Avg Area	Volume (CY)
9+90		0		
	10		12	4.4
10+0		24		
	50		23.5	43.5
10+50		23		
	27.5		23	23.4
10+77.5 (Butt)		23		
10+97.5 (Butt)		17		
	2.5		17	1.6
11+0		17		
	50		18	33.3
11+50		19		
	40		9.5	14.1
11+90		0		
				120.3 CY

Sta. 10+77.5 to 10+97.5

$$\frac{(20\text{ ft})\left(\frac{26'(\text{top}) + 30.5'(\text{subgrade})}{2}\right)(1.5\text{ ft})}{27} = 31.4\text{ CY}$$

Total = 151.4 CY to Book #3, Pg #[illegible]

FWR 9-20-79

RB

Unclassified Channel Excavation:

Station	Distance	End Area	Ave. End Area	Volume
0+54 (use section 0+50)		90 □'		
	20'		72.5 □'	53.7
0+74		55 □'		
	4.5'		45.5 □'	7.6
0+78.5		36 □'		
	1.5'		43 □'	2.4
0+80		50 □'		
1+17		136 □'		
	3'		100 □'	11.1
1+20		64 □'		
	10'		60.5 □'	22.4
1+30		57 □'		
1+30		37 □'		
	7'		31.5 □'	8.2
1+37 (use section 1+40)		26 □'		
			Total =	105.4 CY

9-28-79 FWR Book #3, Page #22

RB 11-5-79

Sheet #3

Grafton TH 3903
Sections RDG 7-25-79
Plotted RDG 8-2-79
Channel Sections