STATE OF VERMONT
AGENCY OF TRANSPORTATION

PROPOSED IMPROVEMENT
BRIDGE PROJECT

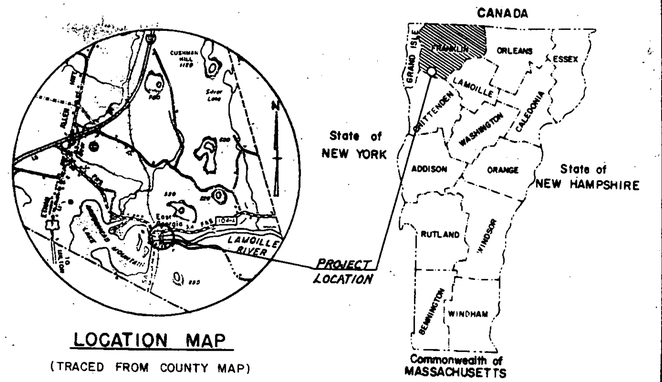
TOWN OF GEORGIA
COUNTY OF FRANKLIN

ROUTE NO: TH*1 CLASS 2 BRIDGE NO: 10

PROJECT LOCATION: BEGINNING AT A POINT APPROX. .055 MI. IN A WESTERLY DIRECTION FROM THE REVISED INTERSECTION OF TH*1 & TH*36 IN GEORGIA & EXTENDING ALONG TH*1 FOR APPROX. 0.147 MI.

PROJECT DESCRIPTION: REMOVAL OF EXISTING STRUCTURE; CONSTRUCTION OF A NEW 3 SPAN CONTINUOUS PLATE GIRDER BRIDGE W/ COMPOSITE CONCRETE SLAB DECK, CONCRETE ABUTMENTS, PIERS, & WINGWALLS; ROADWAY APPROACHES & RELATED CHANNEL WORK.

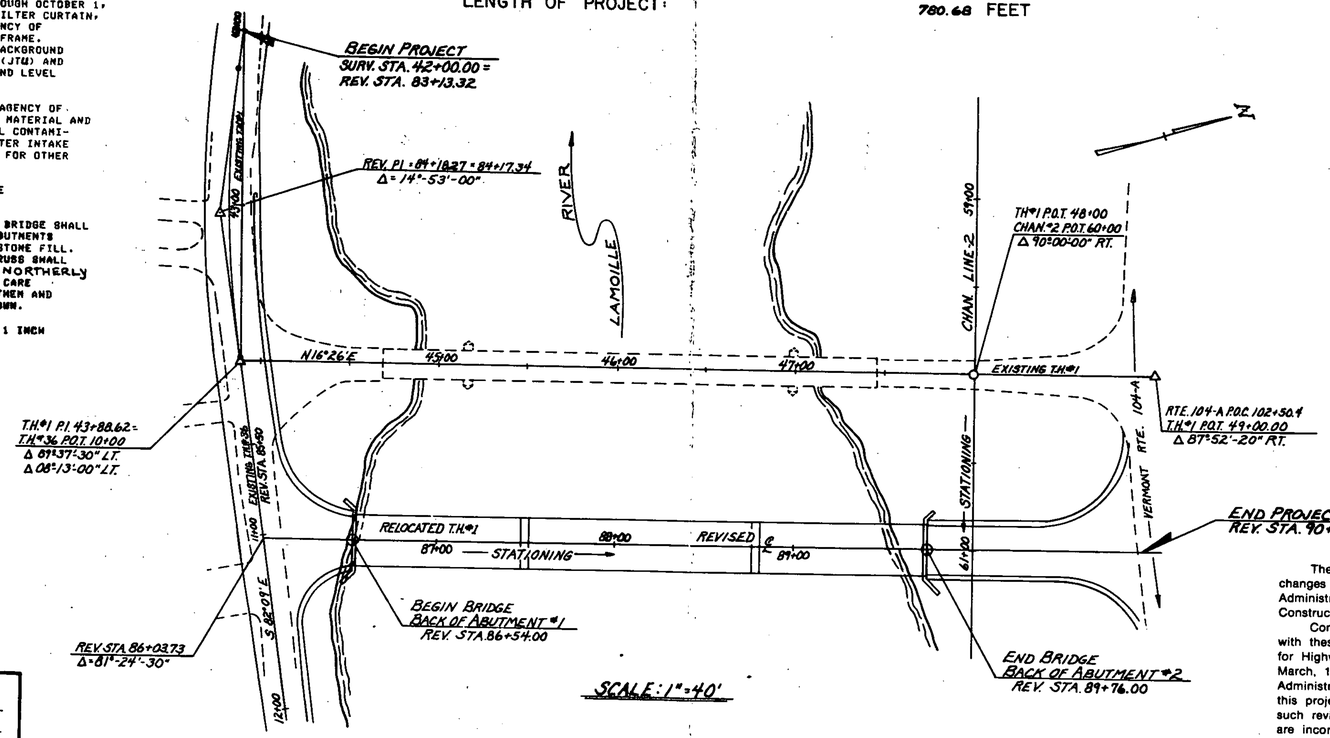
LENGTH OF STRUCTURE:	322.00 FEET
LENGTH OF PARTICIPATION ROADWAY:	458.68 FEET
LENGTH OF NON-PARTICIPATION ROADWAY:	—.— FEET
LENGTH OF PROJECT:	780.68 FEET



LOCATION MAP

(TRACED FROM COUNTY MAP)

SCALE: 1" = 1 MILE



INDEX OF SHEETS

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17. STRUCTURAL STEEL DETAILS
18. ADDITIONAL SUPERSTRUCTURE DETAILS
19. SCUPPER DETAILS
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22.-23. EXPANSION JOINT DETAILS
24. ABUTMENT # 1 DETAILS
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26. FOOTING REINFORCING PLAN & PILE LAYOUT
27. PIER # 1 DETAILS
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LIST OF STANDARDS

50.	STD. DWG.	E-3	12/15/78 R
51.	STD. DWG.	E-6	4/1/80 R
52.	STD. DWG.	E-7	2/2/83
53.	STD. DWG.	E-7A	4/8/82 R
54.	STD. DWG.	E-15C	7/18/84
55.	STD. DWG.	E-29	8/25/81 R
56.	STD. DWG.	G-1	6/5/84 R
57.	STD. DWG.	G-1d	6/5/84 R
58.	STD. DWG.	SB-R6-82	6/18/82 R
59.	STD. DWG.	SCB-D1-75	9/14/81 R
60.	STD. DWG.	SCB-D4-75	10/12/83 R
61.	STD. DWG.	SDB-D6-73 DET B&D	1/3/79 R

Date MAY 31 1985

Winterset, Inc.
Contractor

Gerald Bailey
Signature

President
Title

Susan C Crampton
Transportation Secretary's Signature

GENERAL NOTES

1. THE GENERAL NOTE PERTAINING TO SPECIFICATIONS, MATERIALS, AND CONSTRUCTION IS SHOWN ON STANDARD DRAWING SCB-D1-75. OTHER GENERAL NOTES ON THE STANDARD, NOT OTHERWISE SHOWN OR MODIFIED ON THESE PLANS, ARE NOTES 1, 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, 15, AND 16.
2. WATER REPELLENT SHALL BE APPLIED TO ALL EXPOSED CONCRETE ON BOTH SUBSTRUCTURE AND SUPERSTRUCTURE, EXCEPT THE UNDERSIDE OF THE SLAB BETWEEN DRIP BEADS.
3. IN ALL HORIZONTAL CONSTRUCTION JOINTS, SHEAR KEYS SHALL BE FORMED AS DETAILED ON STANDARD DRAWING SCB-D6-73, DETAIL "B", AND THEY SHALL BE CONTINUOUS FOR THE FULL LENGTH OF THE JOINT. ANY UPWARD KEY SHALL BE PLACED INTEGRALLY WITH THE CONCRETE BELOW THE JOINT.
4. TURF ESTABLISHMENT SHALL BE CONSIDERED SUBSIDIARY TO ALL OTHER ITEMS IN THE CONTRACT. SEE SPECIAL PROVISIONS.
5. IN-STREAM CONSTRUCTION SHALL BE RESTRICTED TO JUNE 1 THROUGH OCTOBER 1, UNLESS SUCH WORK IS PERFORMED WITHIN THE CONFINES OF A FILTER CURTAIN, OR UNLESS THE CONTRACTOR OBTAINS PERMISSION FROM THE AGENCY OF ENVIRONMENTAL CONSERVATION TO DO WORK OUTSIDE THAT TIME FRAME. OPERATIONS DURING SUMMER MONTHS SHALL NOT INCREASE THE BACKGROUND LEVEL OF TURBIDITY MORE THAN 10 JACKSON TURBIDITY UNITS (JTU) AND DURING THE WINTER MONTHS SHALL NOT INCREASE THE BACKGROUND LEVEL OF TURBIDITY AT ALL.
6. ALL CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT, AGENCY OF TRANSPORTATION, STANDARD SPECIFICATION 104.11 TO PREVENT MATERIAL AND DEBRIS FROM FALLING INTO THE STREAM AND CAUSING POTENTIAL CONTAMINATION TO THE TOWN OF MILTON WATER SUPPLY AND THE RAW WATER INTAKE FOR THE GEORGIA INDUSTRIAL PARK. SEE SPECIAL PROVISIONS FOR OTHER RESTRICTIONS.
7. THE "STONE FILL, TYPE IV" SHALL BE PLACED IN FRONT OF THE ABUTMENTS BEFORE THE GIRDERS ARE ERECTED.
8. AFTER TRAFFIC IS ALLOWED ON THE NEW BRIDGE, THE EXISTING BRIDGE SHALL BE REMOVED UNDER THE ITEM "REMOVAL OF STRUCTURE". THE ABUTMENTS SHALL BE REMOVED DOWN TO FINISH GRADE; I.E., TOP OF THE STONE FILL. THE PIERS SHALL BE REMOVED DOWN TO THE STREAMBED. THE TRUSS SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THE SPANS ON THE NORTHERLY SPAN SHALL BECOME THE PROPERTY OF THE TOWN OF GEORGIA. CARE SHALL BE USED DURING REMOVAL OF THE BEAMS NOT TO DAMAGE THEM AND THEY SHALL BE STORED ON THE PROJECT FOR REMOVAL BY THE TOWN.
9. THE STRUCTURE IS DESIGNED FOR AN HS-20-44 LIVE LOAD WITH 1 INCH FUTURE PAVEMENT ALLOWANCE.
10. THE PIERS ARE DESIGNED FOR A MAXIMUM FOOTING PRESSURE OF 6.5 KSF.
11. THE MINIMUM CLEAR COVER FOR REINFORCING STEEL SHALL BE AS SHOWN ON THE DETAIL SHEETS.
12. THE COST OF ON-PROJECT SIGNS AND BARRICADES REQUIRED SHALL BE SUBSIDIARY TO THE ITEM "MAINTENANCE OF TRAFFIC FOR BRIDGE PROJECTS".
13. TRAFFIC SHALL BE MAINTAINED ON TOWN HIGHWAY NO. 1 VIA THE EXISTING BRIDGE AND ALSO ON T.H. #36 DURING CONSTRUCTION OF THE NEW BRIDGE UNDER THE ITEM "MAINTENANCE OF TRAFFIC FOR BRIDGE PROJECT".
14. STOP SIGNS SHALL BE ERECTED AT THE INTERSECTION OF T.H. #1 AND VT. RTE. 104A, AND THE INTERSECTION OF T.H. #36 AND T.H. #1 AS DIRECTED BY THE ENGINEER. THIS WORK TO BE PAID UNDER THE ITEMS "TRAFFIC SIGNS, TYPE A" AND "TRAFFIC SIGN POSTS, TYPE A".
15. THE MAIL BOXES (5) AT REVISED STATION 85+35+/- LT. AND THE "ARROWHEAD RD #1" SIGN AT REVISED STATION 84+75+/- RT. SHALL BE REMOVED AND RESET AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO ALL OTHER ITEMS IN THIS PROJECT.
16. FLEMING BRACKETS OR SIMILAR FALSEWORK SHALL BE SPACED AT A MAXIMUM OF FOUR (4) FEET.
17. SEE ADDITIONAL NOTES PERTAINING TO BEARINGS AND BRIDGE SEATS ON SHEETS 20 & 21.
18. DRIP PLATES ARE TO BE PLACED ON GIRDERS 1 & 4 IN THE LOCATIONS AS SHOWN ON SHEET 17 AND ACCORDING TO DETAIL "C" ON STANDARD SHEET SCB-D7-71.
19. THERE ARE TWO (2) PILE LOADING TESTS INCLUDED IN THE ESTIMATE WITH ADDITIONAL PILE LOADING TESTS TO BE USED AS DEEMED NECESSARY BY THE RESIDENT ENGINEER.
20. THE ABUTMENTS ARE DESIGNED TO BE ON FRICTION PILES WITH A DESIGN LOAD CAPACITY OF 90 KIPS PER PILE.
21. A CONCRETE SEAL BELOW THE BOTTOM OF THE PIER FOOTING SHALL BE AT THE CONTRACTOR'S OPTION. IF THE CONTRACTOR ELECTS TO USE A CONCRETE SEAL, IT SHALL MEET THE REQUIREMENTS OF SECTION 530 AND THE COST SHALL BE SUBSIDIARY TO THE UNIT PRICE BID FOR ITEM 530.10.
22. THE BAILEY BRIDGE BEING USED FOR THE SOUTHERLY END SPAN OF THE EXISTING BRIDGE IS THE PROPERTY OF THE VERMONT AGENCY OF TRANSPORTATION, DISTRICT #8, AND SHALL REMAIN THE PROPERTY OF THE STATE OF VERMONT. THE DISTRICT TRANSPORTATION ADMINISTRATOR OF DISTRICT #8 IN ST. ALBANS SHALL BE NOTIFIED AT LEAST 2 (TWO) WEEKS IN ADVANCE OF THE DESIRED REMOVAL BY THE CONTRACTOR SO THAT DISTRICT #8 MAY PLAN TO REMOVE THE BAILEY BRIDGE.
23. ALL CONCRETE ABOVE THE BOTTOM OF THE FOOTING SHALL BE PLACED IN THE DRY.
24. ALL GIRDERS SHALL BE BLAST CLEANED ACCORDING TO VERMONT SPECIFICATION 506.47(b)2.

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 NGVD 1927
HORIZONTAL N/A

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

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

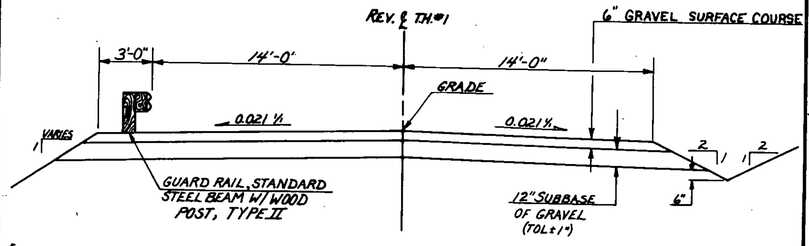
SUBMITTED BY ORDER OF THE STATE TRANSPORTATION BOARD

APPROVED Charles E. Ward DATE 2-25-85
DIRECTOR OF ENGINEERING AND CONSTRUCTION

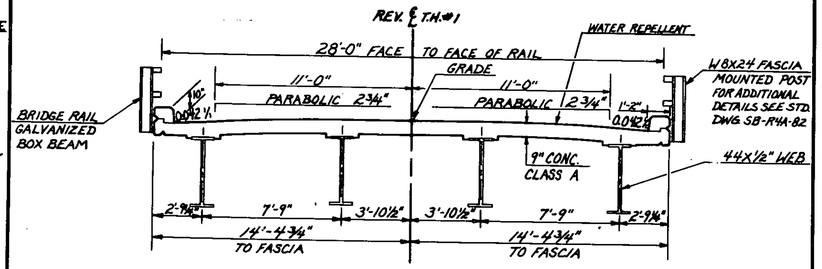
PROJECT	PROJECT NO.
GEORGIA	BRZ 1448(3)

SHEET 1 OF 61 SHEETS

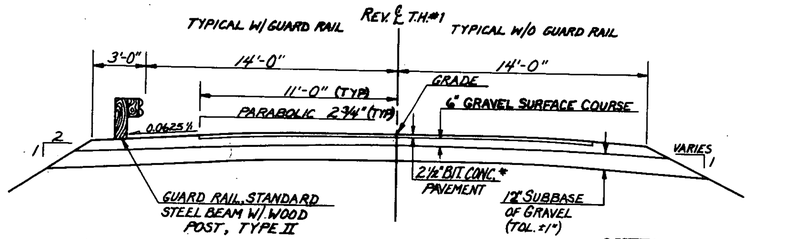
SJB 7/21/81



TYPICAL SECTION-T.H.#1 W/O PAVEMENT
SCALE: 1/4"=1'-0"

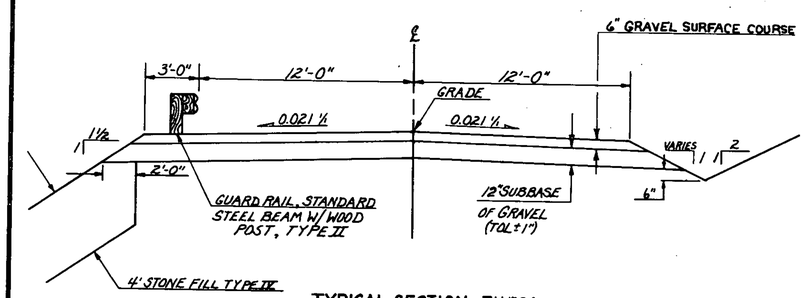


BRIDGE TYPICAL SECTION
SCALE: 1/4"=1'-0"



NOTE: TYPICAL SECTION EXTENDS FROM END OF BRIDGE TO VT. 104-A

TYPICAL SECTION-T.H.#1 W/ PAVEMENT
SCALE: 1/4"=1'-0"



TYPICAL SECTION-T.H.#36
SCALE: 1/4"=1'-0"

EXISTING STRUCTURE

1. STRUCTURE TYPE END SPANS-ROLLED BEAM CENTER-TRUSS OVERALL LENGTH 276.00' INVENTORY RATING NOT DONE
2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS 44'-177'-44'
3. CLEAR SPAN LENGTH(S) NORMAL TO STREAM 42'-177'-42'
4. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM) 4870 SQ. FT. to EL. 300 VERTICAL CLEARANCE ABOVE STREAMBED 27' AVERAGE
5. WATER SURFACE ELEVATION @ Q 2.33 290.0± WATER SURFACE ELEVATION @ Q 100 294.1±
6. WATER SURFACE ELEVATION AT FLOOD OF RECORD 303± YEAR Nov. 4 1927 ESTIMATED DISCHARGE 88,000 CFS
7. DOES ALL WATER PASS THROUGH EXISTING STRUCTURE? Yes IF NOT, AT WHAT FREQUENCY AND ELEVATION DOES RELIEF OCCUR? > Q100, 302±
   ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF Impassable
8. TYPE OF SUBSTRUCTURE FOUNDATION MATERIAL Silt, Sand & Gravel
9. DISPOSITION OF STRUCTURE TO BE REMOVED

NEW STRUCTURE

STRUCTURE GEOMETRY:
1. STRUCTURE TYPE 3 SPAN CONTINUOUS PLATE GIRDER OVERALL LENGTH 322.00'
2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS 95'-129'-95'
3. VERTICAL CLEARANCE ABOVE STREAMBED OR ROAD UNDER 26' MINIMUM
4. CLEAR SPAN LENGTH(S) NORMAL TO STREAM 92'-125'-92'
5. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM) 5290 SQ. FT. TO ELEV. 300
6. ARE PROVISIONS TO BE MADE FOR PUBLIC UTILITIES? NO

HYDRAULIC DATA:
1. Q 2.33 12,000 CFS WATER ELEVATION 290.1± (296)² VELOCITY 3.7 FPS
   Q 10 18,000 CFS WATER ELEVATION 291.1 (298) VELOCITY 5.1 FPS
   Q 25 25,000 CFS WATER ELEVATION 292.2 (300) VELOCITY 6.4 FPS
   Q 50 35,000 CFS WATER ELEVATION 293.4 (303) VELOCITY 8.1 FPS
   Q 100 45,000 CFS WATER ELEVATION 294.6 (304) VELOCITY 9.5 FPS
2. DRAINAGE AREA 686.2 Sq. Mi. CHARACTER OF TERRAIN Mountainous to Rolling
3. ARE THERE OBJECTIONS TO A PIER IN THE STREAM? No
4. DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY? No IS ORDINARY RISE RAPID? No
5. NATURE OF NATURAL STREAMBED Silt, Sand & Gravel
6. ESTIMATED SCOUR DEPTH 2' → 8' COMMENT ON: DRIFT Moderate ICE Heavy
7. WILL ALL WATER PASS THROUGH NEW STRUCTURE? Yes IF NOT, WHAT FREQUENCY AND ELEVATION WILL RELIEF OCCUR? ≥Q100, 306±
   ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF Impassable
8. VERTICAL CLEARANCE ABOVE Q 50 = 11.8'
9. ALLOWABLE WATER SURFACE ELEVATION 309.1 LIMITED BY Low Bridge Seat
10. IS DESIGN STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? Yes IF YES, DESCRIBE Backwater effects from I-89
11. AVERAGE DAILY LOW FLOW 400 CFS DEPTH ELEV. 290 AVERAGE DAILY HIGH FLOW 1400 CFS DEPTH ELEV. 291
12. STREAMBANK OR CHANNEL PROTECTION REQUIRED Type IV Stone Fill w/ 1' Gravel Filter Blanket
13. DISTANCE TO EXISTING UPSTREAM STRUCTURE 4.4 miles SPAN 157' WATERWAY AREA OF FULL OPENING 2,000 SQ. FT.
14. DISTANCE TO EXISTING DOWNSTREAM STRUCTURE 940' SPAN 6@75' WATERWAY AREA OF FULL OPENING 31,500 SQ. FT.

ALLOWABLE STRESSES:
1. DESIGN LIVE LOAD AASHTO HS 20 W/ALLOWANCE FOR 1" FUTURE PAVING
2. ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL 6.5 KSF ON LEDGE —
3. ALLOWABLE LOAD FOR PILING 90 KIPS TYPE HP 12X53 ESTIMATED LENGTH 21' & 31'
4. ALLOWABLE STRESS FOR STRUCTURAL STEEL ASTM A 588 TENSION 27,000 PSI
5. ALLOWABLE STRESS FOR REINFORCING STEEL GRADE 60 TENSION 24,000 PSI COMPRESSION 20,000 PSI
6. ALLOWABLE STRESS FOR CONCRETE CLASS A f'_c 3,500 PSI f_c 1400 PSI
   CLASS B f'_c 3,500 PSI f_c 1,400 PSI

TRAFFIC MAINTENANCE:
1. IS TRAFFIC TO BE MAINTAINED? YES IF YES, ON EXISTING STRUCTURE YES OR ON TEMPORARY BRIDGE NO
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? —

1. Based on free flow conditions
2. Based on 6' thick ice jam

ADDITIONAL DESIGN CONSIDERATIONS

Traffic Data

1985 ADT = 425
1995 ADT = 500
1995 DHV = 70
D = 52 %
T = 0 % (DHV)
T = 2 % (ADT)

LOAD RATING (TONS)

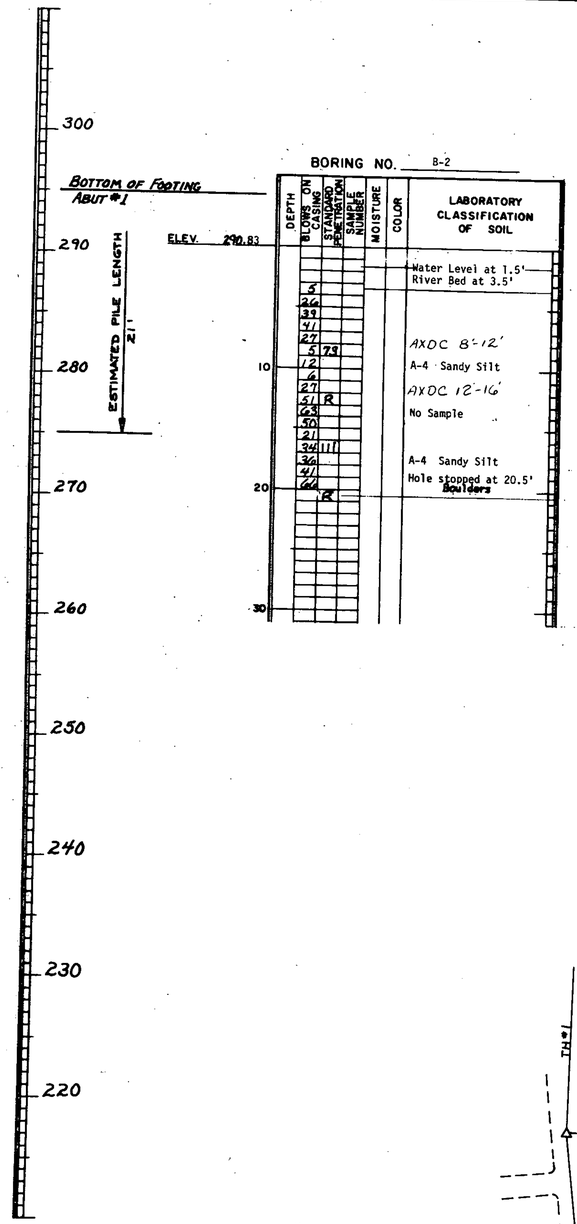
STRESS LEVELS	TRUCK						
	H	HS	3S2	6 AXLE	3A. STR.	4A. STR.	5A. SEMI
INVENTORY 0.55 Fy = 27.0	35	39					
POSTED 0.67 Fy = 33.5	52		66		54	57	62
OPERATING 0.75 Fy = 37.5			78	91			

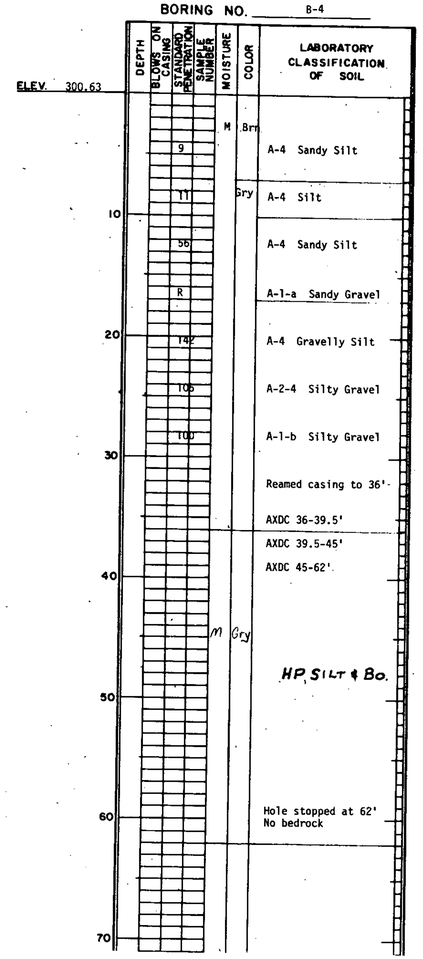
REVISIONS

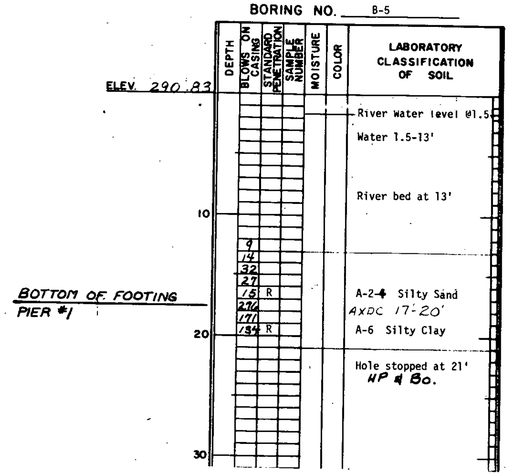
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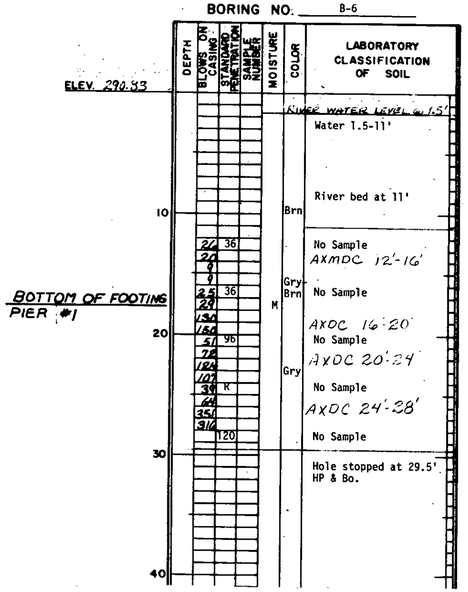
STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF GEORGIA — Bridge No. 10 — Log Sta. —
HIGHWAY NO. T.H.#1 — REV. Sta. 88+15.00
T.H.#1 OVER LAMOILLE RIVER
— PRELIMINARY INFORMATION —
Designed by C.P. WILLIAMS — Drawn by E.C. HOUSTON
Checked by C.P. WILLIAMS date 11/84 — Bridge Design Supervisor F.W. Balkum date 2/85
PROJECT GEORGIA — PROJECT NO. BRZ 1448(3)
Bridge Sheet No. — Sheet 2 of 61



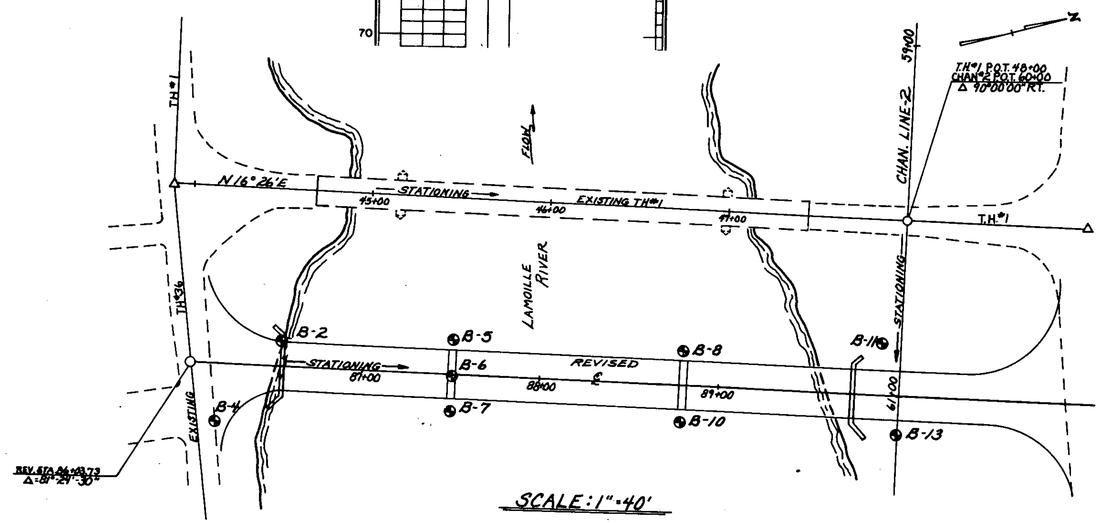






NOTE:

HP = HARD PAN
BO = BOULDER



BORING NO.	SURVEY STATION	OFFSET
B-2	44+53	85' RT.
B-4	44+18	132' RT.
B-5	45+50	80' RT.
B-6	45+50	100' RT.
B-7	45+50	120' RT.
B-8	46+78	80' RT.
B-10	46+78	120' RT.
B-11	47+88	70' RT.
B-13	47+99	121' RT.

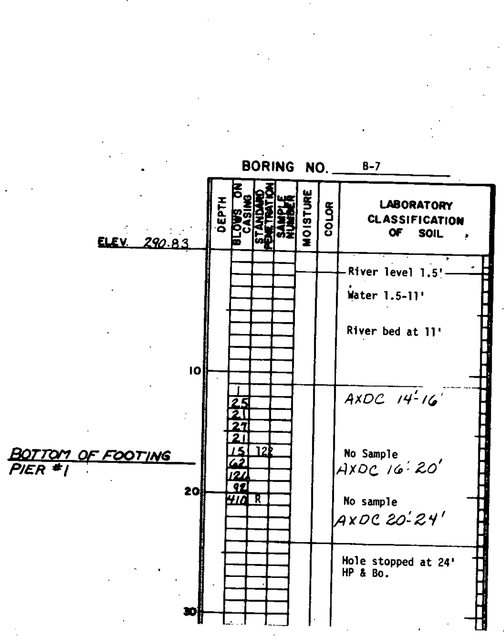
BORING NOMENCLATURE

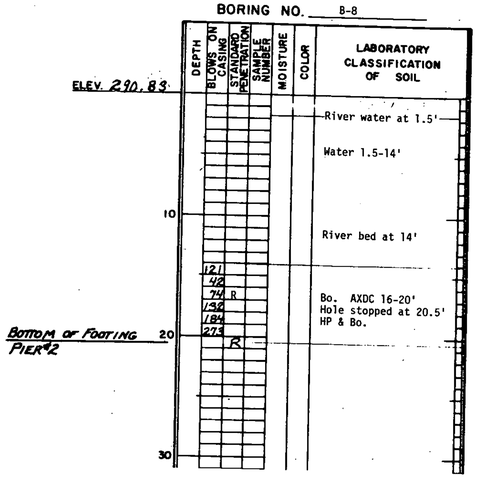
- STANDARD PENETRATION BORINGS
  - SAMPLER OUTSIDE DIAMETER 2"
  - SAMPLER INSIDE DIAMETER 1 3/8"
  - WEIGHT OF HAMMER 140 LBS
  - HAMMER FALL 30"

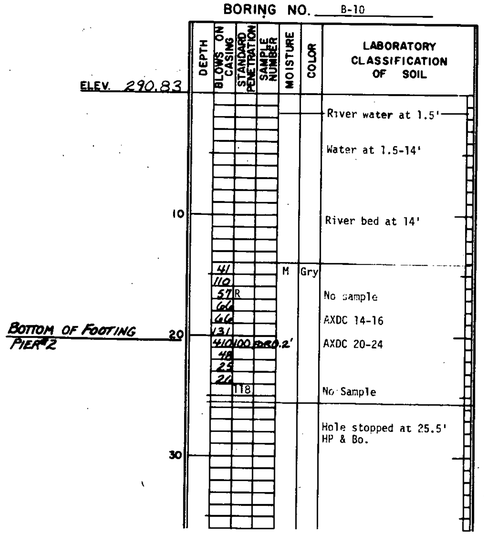
BLOWS ON CASING - THE NUMBER OF BLOWS PER FOOT REQUIRED TO DRIVE 3" O.D. CASING USING A 350 LB. HAMMER WITH A 24" DROP.

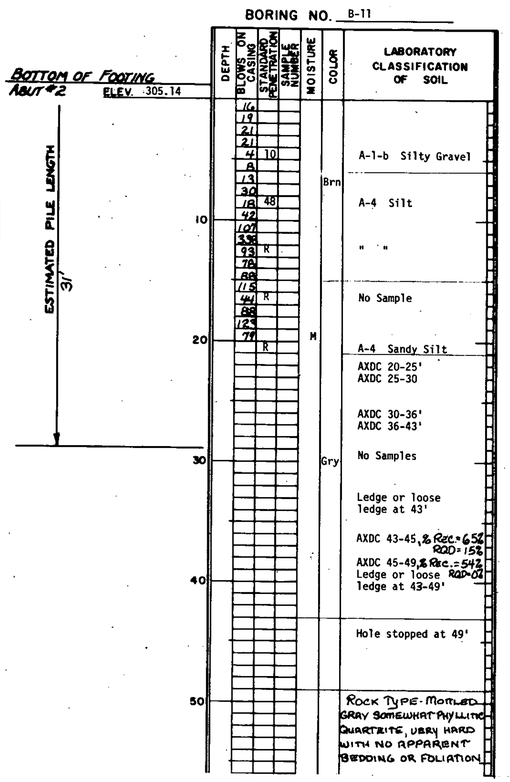
STATE OF VERMONT
AGENCY OF TRANSPORTATION

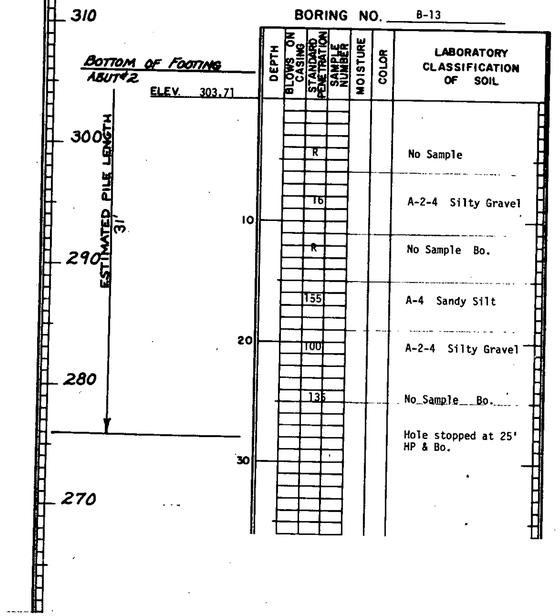
TOWN OF GEORGIA	Bridge No. 10
HIGHWAY NO. TH #1	Log Sta. —
	REV. Sta. 88+15.00
BORING LOG	
TH #1 OVER LAMOILLE RIVER	
Designed by C.P. WILLIAMS	Drawn by E.C. HOUSTON
Checked by C.P. WILLIAMS date 11/84	Bridge Design Supervisor F.W. Bolkum date 2/85
PROJECT GEORGIA	PROJECT NO. BRZ 1448(3)
Bridge Sheet No.	Sheet 3 of 61











GENERAL NOTES

THE SUBSURFACE EXPLORATIONS SHOWN HEREON WERE MADE BETWEEN 10/81 AND 12/81 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.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF GEORGIA	Bridge No. 10
	Log Sta. ———
HIGHWAY NO. TH #1	REV. Sta. 88+15.00
BORING LOG	
TH #1 OVER LAMOILLE RIVER	
Designed by C.P. WILLIAMS	Drawn by E.C. HOUSTON
Checked by C.P. WILLIAMS date 11/84	Bridge Design Supervisor E.W. Bolkum date 2/85
PROJECT GEORGIA	PROJECT NO. BRZ 1448(3)
Bridge Sheet No.	Sheet 4 of 61

CURVE DATA
Δ 68°-20' Rt
D 48°-00'
R 119.37'
T 80.82'
L 142.36'
E 24.90'
2T-L 19.28'

N

P.O.T. 38+05.80

38+24
12" CGMP (POOR)

LAMOILLE RIVER

P.C. 40+26.81

P.I. 41+07.63 =
40+88.35
Δ=68°-20' RT.

P.T. 41+69.17

BEGIN PROJECT
SURV. STA. 42+00 =
REV. STA. 83+13.32
CONSTRUCT SATISFACTORY
APPROACH

STONE FILL

6" ELM

N 26°41' E

36

37

N 37°44' E

38

39

40

41

T.H. #1

T-28.80

T-28.79

T-28.27

T-28.61

T-29.54

15" OAK

10" WHITE BIRCH

18" ELM

4" ELM

15" BUTTERNUT

16" OAK

STONE FILL

12" ELM
T-11.70

15" POP
T-12.2

12" ELM
T-2.97

WOODS

BM-3B
US ELEV.
299.16

P.I. 36+57.10
Δ 11°03' Rt.

WOODS

REMOVE LEDGE AS DIRECTED
BY THE RESIDENT ENGINEER

BM-3A
US ELEV
297.01

C.V.R.R.
ABUT. #1

R.R.
PIER
#1

LAMOILLE RIVER

S 73°56' E

STONE FILL

MATCH LINE

SEE SHEET 6 OF 61
WOODS

EXISTING 3 ROD RIGHT-OF-WAY

2" POPLAR

STEEL POST

4" CEDAR

LAWN

1 STY.
W.F. HO.

0 10 20 40
SCALE IN FEET

SURVEYED BY R. BRADY DATE 12/79
DRAWN BY T. PAGE DATE 1/80
TRACED BY W.M. HEDGES DATE 1/80

GEORGIA
PROJ. NO. BRZ 1448(3)
SHEET 5 OF 61

D-7

SEE SHEET 5 OF 61

TH#1 REV STA 83+47
NEW 18"x 50' ACCGMP (0.064" TH)

WOODS

REV. PC 83+35.12

MATCH LINE

BEGIN PROJECT
SURV. STA. 42+00.00 =
REV. STA. 83+13.32
CONSTRUCT SATISFACTORY APPROACH

2" POPLAR

STEEL POST

4" CEDER

DECK

1 STY W.F. Ho.

LAWN

EXISTING STONE FILL

REV. PI. 84+18.27 =
84+17.34

CRUSHED STONE DRIVE

TH#1 REV. STA. 84+03 → 84+57
NEW 15"x 56' ACCGMP
(0.064 TH.)

CRUSHED STONE DRIVE

WATER LEACHES FROM BANK

ARROWHEAD RD#1 SIGN

REV. PT. 85+00.49

N 16° 26' E

TH#1 REV. STA. 85+15 → 85+47
NEW 15"x 32' ACCGMP
(0.064" TH)

GARAGE DRIVE

TH#1 P.I. 43+88.62
TH-36 POT. 10+00
Δ 89°37'30" Lt.
Δ 08°13'00" Lt.
= REV. STA. 85+02.59

PERF. DRAIN

6" BALSAM

PUMP HOUSE

4" BALSAM

4" BALSAM

TIMBER RET. WALL

REMOVE EXISTING PIPE AND 2'x 2' CONC. BOX

2'x 2' CONC. BOX W/GRATE

CRUSHED STONE DRIVE

BEGIN APPROACH
STA. 11+25.00

TH#1 REV. STA. 86+03.79
Δ = 81°-24'-30"
= TH#36 11+01.14

WOODS

TH-36 11+82.18 "ACCGMP (POOR)
REMOVE

TH#1

TH-36

BRUSH

STONE FILL

16,000# LOAD LIMIT SIGN

MAIL BOX POST (3 BOXES)

2 CABLE GD. RAIL W/WD. POSTS

50' RAD.

1 on 1½

STONE FILL TYPE IV

BACK OF ABUTMENT #1
REV. STA. 86+54.00

100'-00"

LAMOILLE RIVER

SCUPPERS

87+00

88+00

℄ BEARING ABUTMENT #1
REV. STA. 86+55.00
FIN. GR. 310.33
EXPANSION END
STONE FILL TYPE IV

℄ BEARING PIER #1
REV. STA. 87+50.00
FIXED

35' RAD.

EXISTING 3 ROD RIGHT-OF-WAY

MATCH LINE
MATCH TO SHEET 7 OF 61

GUARD RAIL, STANDARD STEEL BEAM W/WOOD POSTS, TYPE II

REV. STA. 84+08 LT. → 86+40 LT.
REV. STA. 89+89 LT. → 90+87 LT.
REV. STA. 89+89 RT. → 90+94 RT.
STA. (TH#36) // +25 LT. → 12+90 LT.

GUARD RAIL, APPROACH SECTION, TYPE II

REV. STA. 86+40 RT.℄ LT. → 86+53 RT.℄ LT.
REV. STA. 89+77 RT.℄ LT. → 89+89 RT.℄ LT.

BRIDGE RAIL, GALVANIZED BOX BEAM

REV. STA. 86+53 RT.℄ LT. → 89+77 RT.℄ LT.

CONSTRUCT DRIVE

REV. STA. 84+18 RT.
REV. STA. 84+44 RT.
REV. STA. 85+30 RT.
STA. (TH#36) // +30 RT.

GUARD RAIL ANCHORS

REV. STA. 84+16 LT.
REV. STA. 90+96 RT.
TH 36 STA. 12+84 LT.

NOTE: THE "ARROWHEAD RD#1" SIGN AND THE MAIL BOX POST (5 BOXES) SHALL BE REMOVED AND RESET AS DETERMINED BY THE ENGINEER. COST TO BE SUBSIDIARY TO ALL OTHER ITEMS ON THE PROJECT.

BREAKAWAY CABLE TERMINAL
REV. STA. 90+80 LT.

MAG. 1979

STATIONING → 59

T.H.#1 - POT. 48+00
CHAN 2 POT. 60+00
Δ 90°00'00" Rt.

EXISTING RIGHT-OF-WAY

WOODS

6" ELM

STD. ST. BM. GD. RAIL

T-39.83

T-35.53

EXISTING 3 R.C.P.

GUIDE POSTS

TEMP. LOAD LIMIT SIGNS

T-51.41

T.H.#1

T-38.51

NAIL IN LEDGE

T-37.88

6" ELM

IRON PIPE

T-55.53

T-62.24

GUIDE POSTS

30" PINE

50' R

RT 104-A POC. 102+50.4
TH#1 POT. 49+00.00
Δ 87°52'20" Rt.

STONE FILL TYPE IV

1 on 1½

℄ BEARING ABUTMENT #2
REV. STA. 89+74.00
FIN. GR. 321.18
EXP. END

11'-6" TYP.

15' TYP.

89+00

SCUPPERS

REV. STA. 90+00.00
= CHAN #2 POT. 61+00.00
Δ = 90°-00'-00" RT.

END PROJECT
REV. STA. 90+94.00
CONSTRUCT SATISFACTORY APPROACH

℄ BEARING PIER #2
REV. STA. 88+79.00 (EXP.)
EXPANSION

BACK OF ABUTMENT #2
REV. STA. 89+76.00

STONE FILL TYPE IV

1 on 1½

WOODS

50' R

16' R

0 10 20 40
SCALE IN FEET

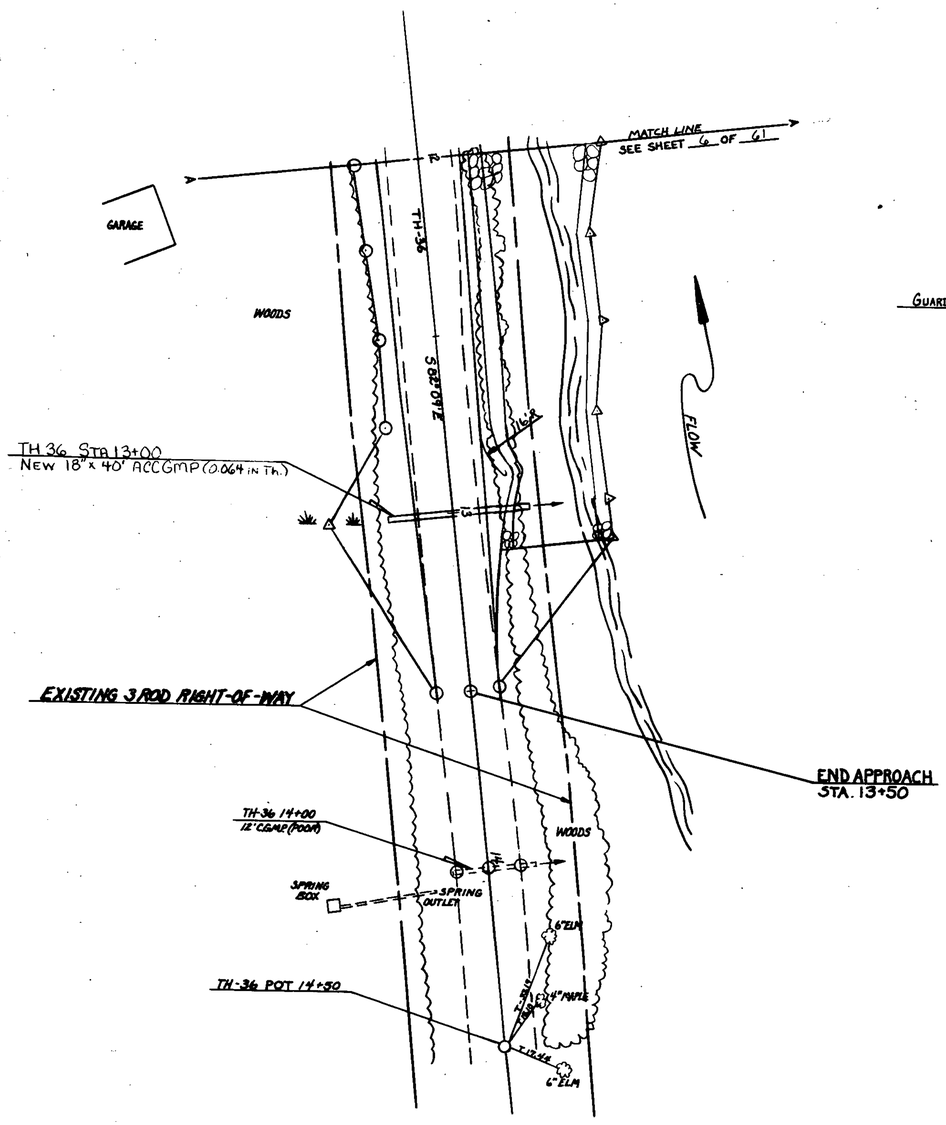
SEE SHEET 7 OF 61

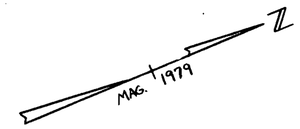
MATCH LINE

SURVEYED BY R. BRADY DATE 12/79
DRAWN BY W.M. HEDGES DATE 1/80
TRACED BY W.M. HEDGES DATE 1/80

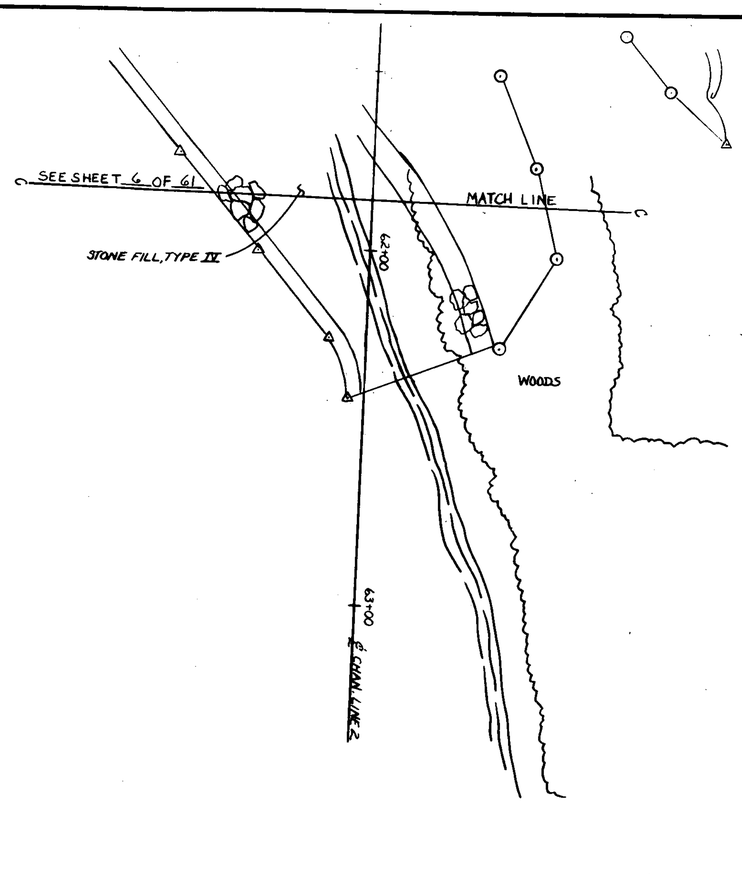
GEORGIA
PROJ. NO. BRZ 1448(3)
SHEET 6 OF 61

D-7





GUARD RAIL, STANDARD STEEL BEAM W/WOOD POSTS, TYPE II
STA. (T.H.#36) 12+00 ⟶ 12+90 LT.



STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF GEORGIA	Bridge No. 10
HIGHWAY NO. T.H.#1	Log Sta. ———
	REV. Sta. 88+15.0
T.H.#1 OVER LAMOILLE RIVER	
Designed by C.P. WILLIAMS	Drawn by E.C. HOUSTON
Checked by C.P. WILLIAMS date 11/84	Bridge Design Supervisor F.W. Bolkum date 2/85
PROJECT GEORGIA	PROJECT NO. BRZ 1448(3)
Bridge Sheet No.	Sheet 7 of 61

SURVEYED	
PLOTTED	
ALIGNMENT CHECKED	
AS-BUILT CHECKED	
NOTE BOOK	
NO.	

BEGIN PROJECT SURVSTA 42+00 = REVSTA 86+03.73
CONSTRUCT SAFETY APPROACH

PVC REV.STA. 84+76.23

REVISED ℄ T.H.#1

PVI REV.STA. 86+03.73
=11+01.14

STA. 13+25.00
BEGIN APPROACH

PVT DATA CURVE #2
STATION = 13+00.00
V.C. LENGTH = 140.00'
ELEV. = 301.14
K = 9.33
X = 25.1

STA. 13+38.39
END APPROACH

PVT STA. 13+70.00

PVI STA. 13+00.00

PVT STA. 12+28.64

PVC STA. 12+30.00

+3.80 %

-3.80 %

+1.40 %

PVT. DATA CURVE #1
REV. STATION = 86+03.73 = 11+01.14
V.C. LENGTH = 255.00'
ELEV. = 309.50
K = -2.42
X = 33.6'

SCALE
VERT. 1"=20'
HORIZ. 1"=20'

| | | |

NOTE BOOK NO.
ALIGNMENT CHECKED
RT. OF WAY CHECKED

NOTE BOOK NO.
GRADES CHECKED
R.L. APPROVED
STRUCTURE NO.&THIS DWG

REVISED

LENGTH OF BRIDGE = 322'

℄ BEARING

℄ BEARING

96'

129'

97'

PVC REV. STA. 86+14.5

BEGIN BRIDGE REV. STA. 86+34

PIER #1 REV. STA. 87+50

PVI REV. STA. 88+14.5

PIER #2 REV. STA. 88+79

END BRIDGE REV. STA. 89+76

PVT REV. STA. 90+14.5

END PROJECT REV. STA. 90+74.00 CONSTRUCT SATISFACTORY APPROACH

+6.00 %

+0.20 %

FIXED

EXP

EXP

44" x ½" WEB PLATE GIRDER

GRANULAR BORROW

GRANULAR BORROW

50' (TYP.)

EXISTING GROUND

EXISTING GROUND

ELEV. 296.00

1½

2

1½

1

4' OF STONE FILL TYPE IV 4'-0" TOE (TYP.)

HP 12X53 EST. LENGTH = 21'

4' OF STONE FILL, TYPE IV

ELEV. 273.00

ELEV. 270.00

4' OF STONE FILL TYPE IV

1½

1

1½

1

ELEV. 326.00

HP 12X53 EST. LENGTH = 31'

330

300

270

310.03

312.85

315.26

317.28

318.90

320.11

320.93

321.34

321.46

321.55

86+50

87+00

87+50 — STATIONING → 88+00

88+50

89+00

89+50

90+00

90+50

90+94.00

P.V.I. DATA

REV. STA. = 88+14.5
V.C. LENGTH = 400.00'
ELEV. = 320.99
E = 3.2
K = 62.5

SCALE
VERT. 1" = 20'
HORIZ. 1" = 20'

GEORGIA BR#10
BRZ 1448 (3)
T.H.#1 OVER LAMOILLE RIVER
(RELOCATED)
— PROFILE SHEET —
SHEET 9 OF 61

BRUNING 44-131-40151

BR-3

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
1	DELETED												FORMERLY CENTRAL VERMONT RAILWAY
2	RUSHFORD, MARY J.	5	REV. 83+40 RT. REV. 83+43 RT. REV. 83+65 RT. REV. 84+18 RT. REV. 84+44 RT.	REV. 83+63 RT. REV. 84+61 RT. REV. 84+00 RT.			DITCH (P) (138 S.F.±) CONST. EASE. (T) (0.02 A±) DRAINAGE (P) DRIVE (T) DRIVE (T)	WDOE	6-30-83	GEORGIA	51	107-108	885 S.F.±
3	FAVREAU, PAUL M. FAVREAU, LEONA E.- LIFE EST.	5	REV. 84+61 RT. REV. 85+08 RT. REV. 85+38 RT. REV. 85+50 RT.	REV. 86+07 RT. REV. 85+23 RT. REV. 85+66 RT.			CONST. EASE. (T) (0.03 A±) SLOPE (T) (19 S.F.±) SLOPE (T) (82 S.F.±) DRIVE (T)	AGREE.					1140 S.F.±
4	TRESLER, GEORGE C. & CLAIRE A.	5,6	TH 36 11+05 RT. TH 36 11+06 RT. TH 36 11+30 RT. TH 36 11+45 RT. TH 36 12+87 RT.	TH36 13+40 RT. TH36 11+15 RT. TH 36 11+55 RT. TH 36 13+20 RT.			CONST. EASE. (T) (0.03 A.±) SLOPE (T) (28 S.F.±) DRIVE (T) SLOPE (T) (5 S.F.±) DITCH (P) (157 S.F.±)	WDOE	6-24-83	GEORGIA	51	77-78	1325 S.F.±
5	CENTRAL VERMONT PUBLIC SERVICE CORP.	5,6	REV. 86+24 LT. REV. 83+35 LT. REV. 86+20 LT. REV. 88+75 LT. REV. 89+15 RT. TH36 11+42 LT. TH 36 13+00 LT.	REV. 89+69 RT. REV. 86+95 LT. REV. 89+51 LT. REV. 90+12 RT. TH36 13+32 LT	0.41 A.±		CULVERT & DRAINAGE (P) CHANNEL (P) (0.07 A.±) CHANNEL (T) (0.07 A.±) CHANNEL (P) (0.11 A.±) CHANNEL (P) (0.11 A.±) DRAINAGE (P)	WDOE		GEORGIA			2973 S.F.± 2915 S.F.±

TABLE OF REVISIONS

REVISION NO.	SHEET NO.	DESCRIPTION OF REVISION	DATE	MADE BY	APPROVED BY
1	3,5	PARCEL #3 FAVREAU, CORRECTED SPELLING OF NAME PER C.O.#5782.	1-28-83	M.W.H.	R.L.S
2	3	PARCEL #5 C.V.P.S.C., CORRECTED BEGINNING STA. OF CH. RT. 89+15 LT. TO 89+15 RT. PER C.O.#5780	2-14-83	DEM	J.F.O.
3	3,5	PARCEL #3 FAVREAU, DELETED KATHI FAVREAU FROM TITLE & ADDED LEONA E. FAVREAU-LIFE ESTATE TO TITLE PER C.O.#5893	5-31-83	M.W.H.	R.L.S.
4	3,4,5	PARCEL #1 CENTRAL VERMONT RAILWAY, REVISED CULVERT FROM STA. 83+38 TO STA 83+47 AND DELETED PARCEL #1, PER CO#6328	10-2-84	DEM	[illegible]
5	3,5	Parcel #5 C.V.P.S.C., Revised Channel at Sta. Rev. 89+12 LT ~ Rev. 89+52 LT. To Rev. 88+79 LT. ~ Rev. 89+52 LT 0.07 Ac. Change Channel RT. "(P)" To "(T)" Per Revised Des. # C.O.#6388 Mylars to Structures 3-14-85	12-26-84	B.A.M.	[illegible]

MADE BY: M.W.H. DATE 1-18-83

CHECKED BY: F.J.M. DATE 1-18-83

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

APPROVED _____ DATE _____
CHIEF OF PLANS & TITLES

PROJECT GEORGIA
NO. BRZ 1448(3)
SHEET 10 OF 61

ROW

CURVE DATA
I 42°-00' Rt
D 48°-00'
R 119.31
T 80.56'
L 112.36'
E 24.90'
CT L 19.40'

P.O.T. 38+05.80

LAMOILLE RIVER

38+24
12" CGMP (POOR)

PC 40+26.81

BEGIN R.O.W. PROJECT
BRZ 1448(3) STA. 41+00 ℄

PI 41+07.63 =
40+88.35
Δ = 68°-20' RT.

PI 41+69.17

BEGIN PROJECT
SURV. STA. 42+00 =
REV. STA. 83+13.32
CONSTRUCT SATISFACTORY APPROACH

STONE FILL
6" ELM
36
37
38
39
40
N 26° 41' E
N 37° 41' E
19" ELM
15" OAK
10" WHITE BIRCH
4" ELM
15" BUTTERNUT
16" OAK
T.H. #1
STONE FILL
4" ELM
15" POP
12" ELM
75'
EXISTING 3 ROD RIGHT-OF-WAY

BM-3B
US ELEV.
299.16

PI. 36+57.10
Δ 11° 03' Rt.

REMOVE LEDGE AS DIRECTED BY THE RESIDENT ENGINEER

BM-3A
US ELEV.
297.01

C.V.R.R. ABUT #1

CENTRAL VERMONT RAILWAY

R.R. PIER #1

LAMOILLE RIVER

CENTRAL VERMONT PUBLIC SERVICE CORP.

STONE FILL

S 73° 56' E

MAIN LINE

SEE SHEET 12 OF 61

NOTE: THIS SHEET IS FOR R.O.W. INFORMATION ONLY - SEE OTHER PLAN SHEETS FOR CONSTRUCTION DETAILS.

0 10 20 40
SCALE IN FEET

SURVEYED BY [illegible] DATE 10/79
DRAWN BY T.H.G.E. DATE 11/80
TRACED BY W.M. TORRES DATE 11/80

GEORGIA
PROJ. NO. BRZ 1448(3)
SHEET 11 OF 61

BRUNING 44-131 40592

SEE SHEET 11 OF 61

TH #1 REV STA 83+47
NEW 18" x 50' ACCGMP (.064" TH.)

CENTRAL VERMONT RAILWAY

REV. PC 83+35.12

DIT (P) RT.

MARY J. RUSHFORD

2

4" CEDAR

1 STY W.F. HS

DECK

DRIVE RT. (T)

CRUSHED STONE DRIVE

CONST. EASE. (T)

TH #1 REV STA 84+ = 84+7
NEW 12" x 56' ACCGMP
(.064 TH.)

DRIVE RT. (T)

CRUSHED STONE DRIVE

CONST. EASE. (T)

WATER LEACHES FROM BANK

ARROWHEAD RD #1 SIGN

REV. PT. 85+00.49

3

CONST. EASE. (T)

TH #1 REV STA. ESTIMATED = 85+47
NEW 12" x 32' ACCGMP (.064 TH.)

SR (T)

PAUL M. FAVREAU
LEONA E. FAVREAU - LIFE ESTATE
TH #1 PI 83+55.62
TH-36 POT 10+00
Δ 51°37'30" Lt
Δ 08°13'00" Lt
= REV STA 85+02.59

DRIVE RT. (T)

GRAVEL DRIVE

CONST. EASE. (T)

SR (T)

PERF. LINE

6" BALSAM

PUMP HOUSE

4" BALSAM

CONST. EASE. (T)

SR (T)

TIMBER RET. WALL

DRIVE RT. (T)

CRUSHED STONE DRIVE

GEORGE C. & CLAIRE A. TRESLER

4

BEGIN APPROACH
STA. 11+25.00

TH #1 REV. STA. 86+03.73
Δ = 81°-24'-30"
= TH #36 11+01.14

CONST. EASE. (T)

TH #36 11+ 18" ACCGMP (.064")
REMOVE

MATCH LINE

SEE SHEET 13 OF 61

N

MATCH LINE

BEGIN PROJECT
SURV. STA. 42+00.00 =
REV. STA. 83+13.32
CONSTRUCT SATISFACTORY APPROACH

SAVE POPLAR

STEEL POST

EXISTING STONE FILL

REV. PI 84+18.27 =
84+17.34

TH #1

CRUSHED STONE DRIVE

CENTRAL VERMONT PUBLIC SERVICE CORP.

WATER LEACHES FROM BANK

ARROWHEAD RD #1 SIGN

T-MARK

N 10° 26' E

45

46

SMALL BOX POST (3 BOXES)

STONE FILL

REV. 86+24
47' LT.

CENTRAL VERMONT PUBLIC SERVICE CORP.
CH. RT. (P)

STONE FILL TYPE IV

REV. 87+00
25' LT.
E. BEARING ABUTMENT #1
REV. STA. 86+55.00
FIN. GR. 316.33
FIXED END
STONE FILL TYPE IV

CENTRAL VERMONT PUBLIC SERVICE CORP.
CH. RT. (P)

EXISTING 3 ROD RIGHT-OF-WAY

MATCH LINE
MATCH TO SHEET 13 OF 61

TH #36

79'

10 on 1½

R=30'

40'

120'-00"

LAMOILLE RIVER

25'

5

187+00

88+00

89+00

REV. 86+36
43' RT.

66'

REV. 87+00
25' RT.

E. BEARING ABUTMENT #1
REV. STA. 86+55.00
FIN. GR. 316.33
FIXED END
STONE FILL TYPE IV

E. BEARING PIER #1
REV. STA. 87+50.00 (EXP.)

269'

CENTRAL VERMONT PUBLIC SERVICE CORP.

E. BEARING PIER #2
REV. STA. 88+79.00 (EXP.)

ABUTMENT #2
REV. STA. 89+75.00

STONE FILL TYPE IV

10 on 1½

CH. RT. (P)

SEE SHEET 13 OF 61

MATCH LINE

NOTE: THIS SHEET IS FOR R.O.W. INFORMATION ONLY - SEE OTHER PLAN SHEETS FOR CONSTRUCTION DETAILS.

CONSTRUCT DRIVE
REV. STA. 84+18 RT.
REV. STA. 84+44 RT.
REV. STA. 85+30 RT.
STA. (TH #36) 11+30 RT.

GUARD RAIL, STANDARD STEEL BEAM W/WOOD POSTS, TYPE II
REV. STA. 84+08 LT. → 86+40 LT.
REV. STA. 89+88 LT. → 90+87 LT.
REV. STA. 89+88 RT. → 90+94 RT.
STA. (TH #36) 11+25 LT. → 12+00 LT.

GUARD RAIL, APPROACH SECTION, TYPE II
REV. STA. 86+40 RT & LT. → 86+53 RT. & LT.
REV. STA. 89+76 RT. & LT. → 89+88 RT. & LT.

BRIDGE RAIL, GALVANIZED BOX BEAM
REV. STA. 86+53 RT & LT. → 89+76 RT. & LT.

NOTE: THE "ARROWHEAD RD #1" SIGN AND THE MAIL BOX POST (5 BOXES) SHALL BE REMOVED AND RESET AS DETERMINED BY THE ENGINEER. COST TO BE SUBSIDIARY TO ALL OTHER ITEMS ON THE PROJECT.

STATIONING

CENTRAL VERMONT PUBLIC SERVICE CORP.

EXISTING RIGHT-OF-WAY

P L

TH #1 POT 48+00
TH #2 POT 60+00
Δ 90°00'00" Rt

TH #1

END R.O.W. PROJECT
BRZ 1448(3) REV. STA. 90+94 ℄

TOWN OF GEORGIA

REV. STA 90+00.00
TH #1 POT 61+00.00
Δ 73°00' Rt. AT.

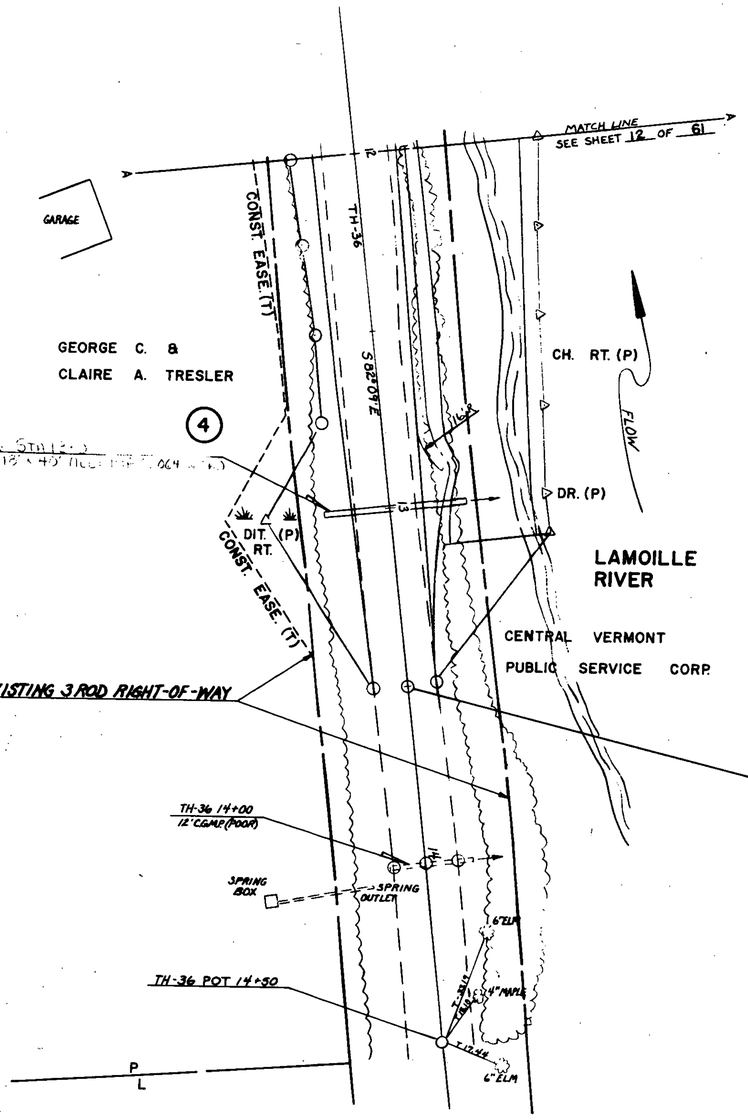
END PROJECT
REV. STA. 90+94.00
CONSTRUCT SATISFACTORY APPROACH

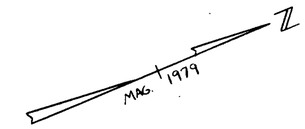
TOWN OF GEORGIA

SURVEYED BY [illegible] DATE 12/19
DRAWN BY [illegible] DATE 1/80
TRACED BY [illegible] DATE 1/80

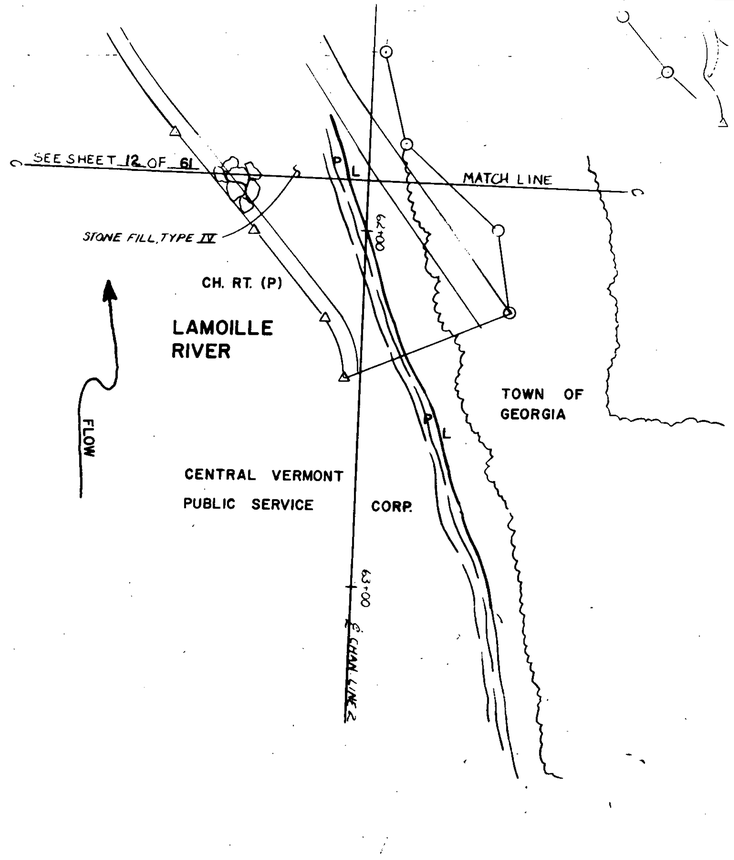
GEORGIA
PROJ. NO. BRZ 1448(3)
SHEET 12 OF 61

D-7





GUARD RAIL, STANDARD STEEL BEAM W/WOOD POSTS, TYPE II
STA. (T.H. #36) 12+00 ⟶ 12+90 RT.



NOTE: THIS INFORMATION IS FOR R.O.W. INFORMATION ONLY - SEE OTHER PLAN SHEETS FOR CONSTRUCTION DETAILS.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF GEORGIA	Bridge No. 10
	Log Sta.
HIGHWAY NO. T.H. #1	REV. Sta. 88+14.5
T.H. #1 OVER LAMOILLE RIVER	
Designed by G.S. ROGERS	Drawn by E.C. HOUSTON
Checked by date	Bridge Design Supervisor date
PROJECT GEORGIA	PROJECT NO. BRZ 1448 (3)
Bridge Sheet No.	Sheet 13 of 61

EARTHWORK

V.C.	% 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
AGENCY OF TRANSPORTATION
STRUCTURES DIVISION

NO.	ITEM	UNIT	QUANTITY BREAKDOWN: SUPER-STRUCTURE	ABUT #1	ABUT. #2	PIER #1	PIER #2	CHANNEL	ROADWAY TH#1	APPROACH WORK	TOTAL	FINAL
201.10	CLEARING AND GRUBBING	L.S.							1		1	
202.25	REMOVAL OF STRUCTURE	EA.							1		1	
202.40	REMOVAL & DISPOSAL OF EXISTING GUARD RAIL	L.F.							400		400	
203.15	COMMON EXCAVATION	C.Y.							40	100	140	
203.27	UNCLASSIFIED CHANNEL EXCAVATION	C.Y.						2380			2380	
203.30	EARTH BORROW	C.Y.							1630		1630	
203.32	GRANULAR BORROW	C.Y.		2020	3240						5260	
204.20	TRENCH EXCAVATION OF EARTH	C.Y.							60		60	
301.15	SUBBASE OF GRAVEL	C.Y.						1060	670	360	2090	
401.10	GRAVEL SURFACE COURSE	C.Y.							380	170	550	
406.25	BITUMINOUS CONCRETE PAVEMENT	TON							55		55	
501.20	CONCRETE CLASS A	C.Y.	301								301	
501.25	CONCRETE CLASS B	C.Y.		86	108	181	216				591	
504.10	FURNISHING EQUIPMENT FOR DRIVING PILING	L.S.		½	½						1	
505.15	STEEL PILING (HP 12 X53)	L.F.		420	682						1102	
505.40	PILE LOADING TESTS	EA.		1	1						2	
506.91	STRUCTURAL STEEL (PLATE GIRDER)	LB.	276,190			1,450	1,830				279,470	
506.99	BEARING DEVICE ASSEMBLY	EA.	16								16	
507.15	REINFORCING STEEL	LB.	34,580	7,720	9,150	20,180	29,360				100,990	
507.17	EPOXY COATED REINFORCING STEEL	LB.	43,090								43,090	
508.15	SHEAR CONNECTORS (2896 - 7/8"ø x 7")	L.S.	1								1	
514.10	WATER REPELLENT	GAL.	73	3	4	12	14				106	
516.33	ELASTOMERIC EXPANSION DAM 3" MOVEMENT	L.F.	29								29	
530.10	COFFERDAM @ REV. STA. 87+50	L.S.				1					1	
530.10	COFFERDAM @ REV. STA. 88+79	L.S.					1				1	
601.1542	ACCGMP (15", .064")	L.F.							88		88	
601.1552	ACCGMP (18", .064")	L.F.							90		90	
608.25	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	HR.							100		100	
613.13	STONE FILL, TYPE IV	C.Y.						4530			4530	
614.10	JOINT SEALER, HOT-POURED	GAL							1		1	
617.30	BRIDGE RAILING, GALVANIZED BOX BEAM	L.F.	648								648	
621.28	GUARD RAIL, STANDARD STEEL BEAM WITH WOOD POSTS, TYPE II	L.F.							503		503	
621.70	ANCHOR FOR STEEL BEAM GUARD RAIL WITH STEEL OR WOOD POSTS AT OPENINGS	EA.							3		3	
621.77	BREAKAWAY CABLE TERMINAL	EA.							1		1	
621.91	GUARD RAIL APPROACH SECTION, TYPE II	EA							4		4	
631.10	FIELD OFFICE - ENGINEERS	L.S.	1								1	
634.10	EMPLOYEE TRAINEESHIP	HR.	720								720	
635.10	MOBILIZATION	L.S.	1								1	
637.10	MAINTENANCE OF TRAFFIC FOR BRIDGE PROJECTS	L.S.							1		1	
675.20	TRAFFIC SIGNS, TYPE A	S.F.							13		13	
675.35	TRAFFIC SIGN POSTS, TYPE A	LB.							60		60	

BRIDGE (S) AT STATION (S) 88+15.00
LOCATION (S) TH #1 OVER LAMOILLE RIVER

Prepared by: M.J. RYAN | Checked by: C.F. WILLIAMS
SUPERVISOR: F.W. Bolkum

GEORGIA
BR ___ OF ___

PROJECT NO. BRZ 1448(3)
SHEET NO. 14 OF 61

EARTHWORK

V.C.	% GRADE	STATION	GRADES ELEVATION ON TANGENT	GRADES ELEVATION ON V. CURVES	GRADES CORR. V.C.	DIST.	COMMON AREA	COMMON CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.	SUBBASE OF GRAVEL AREA	SUBBASE OF GRAVEL CU. YDS.	GRAVEL SURFACE COURSE AREA	GRAVEL SURFACE COURSE CU. YDS.
		TH #1	APPROACH WORK											
		STA 40+50	MATCH EXISTING GRADE				0				0		0	
		41+00	294.66			50		19				21		9
		41+25	295.61			25	20		0		23		10	
		41+50	296.56			25	0	9	17	8	24	22	12	10
		41+75	297.51			25	0		37	25	28	24	13	12
		REV STA	BEGIN PROJECT-CONSTRUCT			25	0	4	55	48	30	27	15	13
		83+13.32	298.46				8		50	49	31	28	15	13
		83+38.5	299.42			25	9	8	37	40	31	29	15	13
		83+63.7	300.37			25	0	5	50	40	32	29	15	13
		83+88.7	301.32			25	7	3	55	49	35	31	16	14
		84+13.8	302.28			25	0	3	58	52	35	32	17	15
		84+38.8	303.23			25	0		70	59	34	32	16	15
	+3.8%	84+63.9	304.18			25	5	2	80	69	35	32	16	15
PVC		84+76.23	304.65	304.65	0	12.26								
		84+88.9	305.13	305.11	-.02	12.74		5		129		50		23
		85+02.59	305.65	305.55	-.10	13.62	2		100		35		16	
		85+27.59	306.60	306.21	-.39	25	0	1	96	91		66	—	30
		85+52.59	307.55	306.68	-.87	25	5	2	130	105	35		16	
		85+77.59	308.50	306.97	-1.53	25	0	2	255	178	47	38	21	17
		86+02.59	309.45	307.07	-2.38	25			600	396	67	53	33	25
PVI		86+03.73	309.50	307.08	-2.42	1.14								
		TH #36	APPROACH WORK			23.86				552		60		30
		STA 11+25	308.59	306.99	-1.60				592		63		31	
		11+50	307.64	306.72	-.92	25			184	340	39	47	18	23
		11+75	306.69	306.26	-.43	25			150	156	31	32	14	15
		12+00	305.74	305.62	-.12	25			116	123	30	28	14	13
		12+25	304.79	304.79	0	25			72	87	28	22	13	13
PVI	-2.8%	12+28.64	304.65	304.65	0	3.64								
PVC		12+30	304.60	304.60	0	1.36				51		26		12
		12+50	303.84	303.92	.08	20			38		27		12	
		12+75	302.89	303.28	.39	25	0		15	25	26	25	12	11
PVT		13+00	301.94	302.89	.95	25	46	21	5	9	27	25	13	12
		13+50	302.74	302.82	.08	50	0	43			0	25	0	12
PVC		13+70	END APPROACH 303.06	303.06	0	20								

140' VC

255' VC

MATCH EXISTING GRADE

DRAINAGE SUMMARY

		STA.	DIA	LENGTH	THICK.	TRENCH EARTH
NEW	TH #1 REV.	83+47	18"	50'	0.064"	11 CY
	TH 36 STA.	13+00	18"	40'	0.064"	14 CY
				90 Ft.		25 CY
	TH #1 REV.	84+30	12"	56'	0.064"	5 CY
	TH #1 REV.	85+31	12"	32'	0.064"	4 CY
				88 Ft.		9 CY
REMOVE EXISTING	TH 36 STA.	11+25	18"	30'	0.064"	12 CY
	TH 36 STA.	11+82	18"	26'	0.064"	10 CY
	TOTAL TRENCH			56'		22 CY
					ROUNDING	4 CY
	TOTAL TRENCH EXCAVATION =					60 CY

CARRIED FORWARD
COLUMN FOOTINGS

EARTHWORK

V.C.	% GRADE	STATION	GRADES ELEVATION ON TANGENT	GRADES ELEVATION ON V. CURVES	GRADES CORR. V.C.	DIST.	COMMON AREA	COMMON CU. YDS.	EMBANKMENT AREA	EMBANKMENT CU. YDS.	SUBBASE OF GRAVEL AREA	SUBBASE OF GRAVEL CU. YDS.	GRAVEL SURFACE COURSE AREA	GRAVEL SURFACE COURSE CU. YDS.
		TH #1												
		REV. STA												
		86+03.73	307.08											
PVC		86+14.50	307.79	307.79	0	10.77								
		86+25	308.48	308.47	-.01	10.5								
		86+50	310.13	310.03	-.10	25								
		87+00	313.43	313.85	-.68	50								
		87+50	316.73	315.26	-1.47	50								
		88+00	320.03	317.28	-2.75	50								
PVI		88+14.5	320.99	317.79	-3.20	14.5								
		88+50	321.06	318.90	-2.16	35.5								
		89+00	321.16	320.11	-1.05	50								
		89+50	321.26	320.93	-.33	50								
	+0.2%	89+76	321.31	321.19	-.12	26								
		90+00	321.36	321.34	-.02	24					42		20	
		90+14.5	321.39	321.39	0	14.5					42	37	20	18
		90+25	321.41			10.5						37		17
		90+50	321.46			25					37		17	
		90+60	321.48			10					39	35	19	17
		90+94	321.55			34					49	16	22	8
											90	88	29	32
					APPROACH WORK		96		936			357		168
					ROUNDING		4					3		2
					TOTAL APPROACH WORK		100		940			360		170
					TH #1		31		1760			664		302
					ROUNDING		9		0			6		8
					TOTAL TH #1		40		1760			670		310
									CHAN 5280		CHAN	1060		
									DRIVES 60				DRIVES	70
					- SUBTRACT GRANULAR BORROW				-5260					
					TOTALS		140		2780			2090		550

EARTHWORK SUMMARY

PLANIMETERED FILL	=	2780
FILL FACTOR (0.15)	=	417
PLANIMETERED FILL + FACTOR		3197

MATERIALS AVAILABLE

COMMON EXCAVATION	140 X 1.00 =	140
UNCLASSIFIED CHANNEL EXCAVATION	2380 X 0.6 =	1428
TOTAL MATERIAL AVAILABLE FOR FILL		1568
TOTAL FILL INCLUDING FACTOR		3197
EARTH BORROW NEEDED		1629
ROUNDING		-1
TOTAL		1630

CARRIED FORWARD
COLUMN FOOTINGS

EARTHWORK SUMMARY

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

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
SUMMARY OF BALANCES								

SHEET NO.	COL. NO.	SUMMARY BY COLUMNS				
		EXCAVATION TOTAL CU. YDS.	EXCAVATION ROCK CU. YDS.	EMBANKMENT CUBIC YARDS		BASE CUBIC YARDS

REMARKS

EARTH AND ROCK EXCAVATION
SOLID ROCK EXCAVATION
EARTH EXCAVATION

PLANIMETERED FILL
LESS FACTORED SOLID ROCK
LESS DISPLACEMENT OF ANY LARGE STRUCTURES
NET PLANIMETERED FILL
FACTOR
PLANIMETERED FILL INCLUDING FACTOR

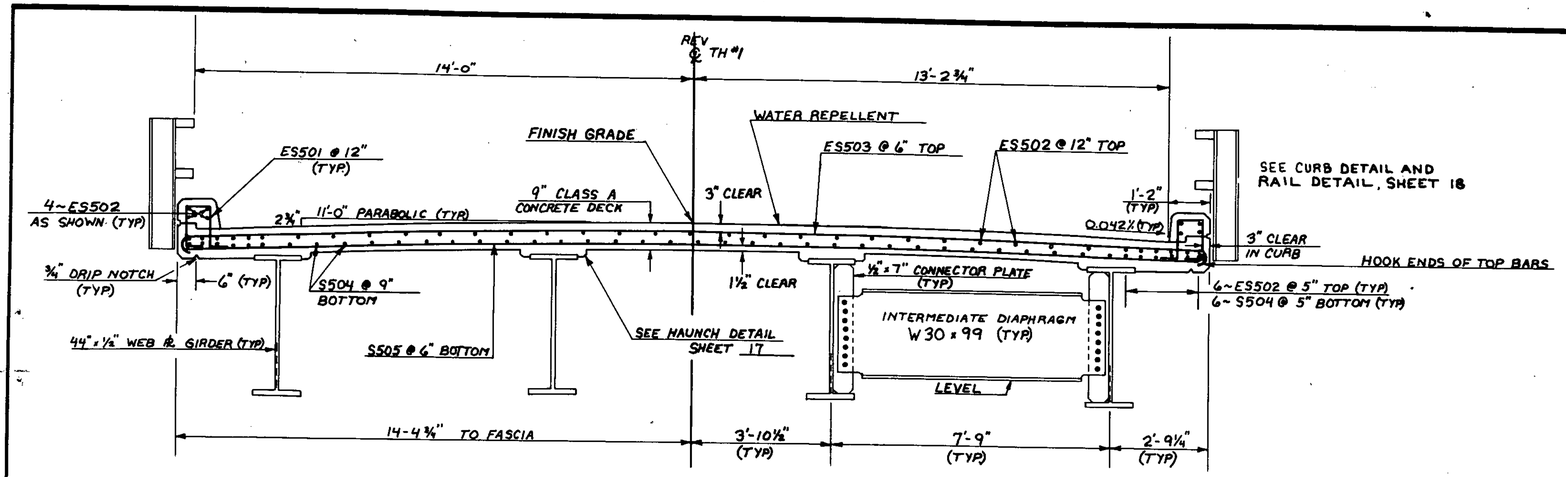
MATERIALS AVAILABLE FOR FILLS
EARTH EXCAVATION
CHANNEL EXCAVATION
UNDERDRAIN EXCAVATION
STRUCTURE EXCAVATION

TOTAL MATERIAL AVAILABLE FOR FILL

TOTAL FILL INCLUDING FACTOR
TOTAL MATERIAL FOR FILL
BORROW

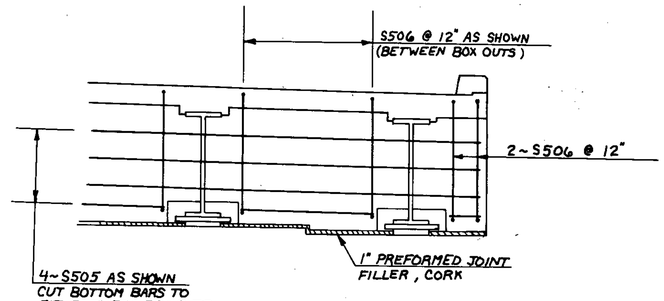
PROJECT GEORGIA

PROJECT GEORGIA NO. BRZ 1448(3)
SHEET 15 OF 61 SHEETS

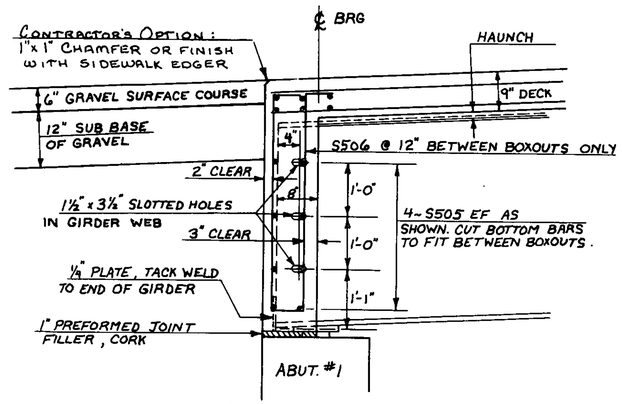


TYPICAL BRIDGE SECTION
½" = 1'-0"

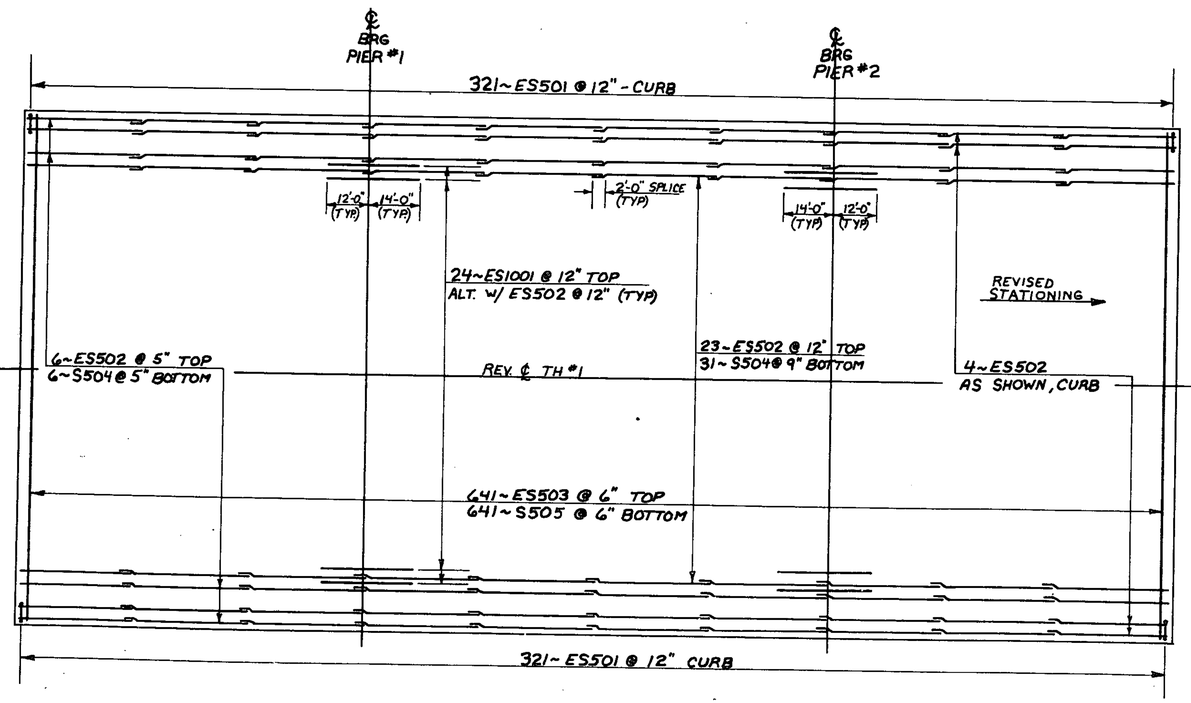
THE PREFIX ES DENOTES EPOXY COATED BARS



CURTAIN WALL ELEVATION
⅜" = 1'-0"



CURTAIN WALL DETAIL
¾" = 1'-0"

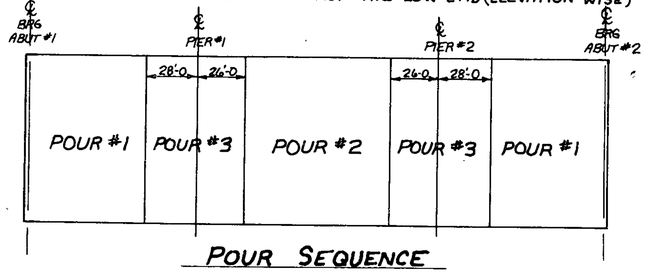


DECK REINFORCING PLAN
1" = 20'-0" ↔
1" = 4'-0" ↕

SEE BACKWALL AND CURTAIN WALL DETAILS FOR ADDITIONAL BARS IN DECK SHEET 18 AND THIS SHEET RESPECTIVELY

NOTES:

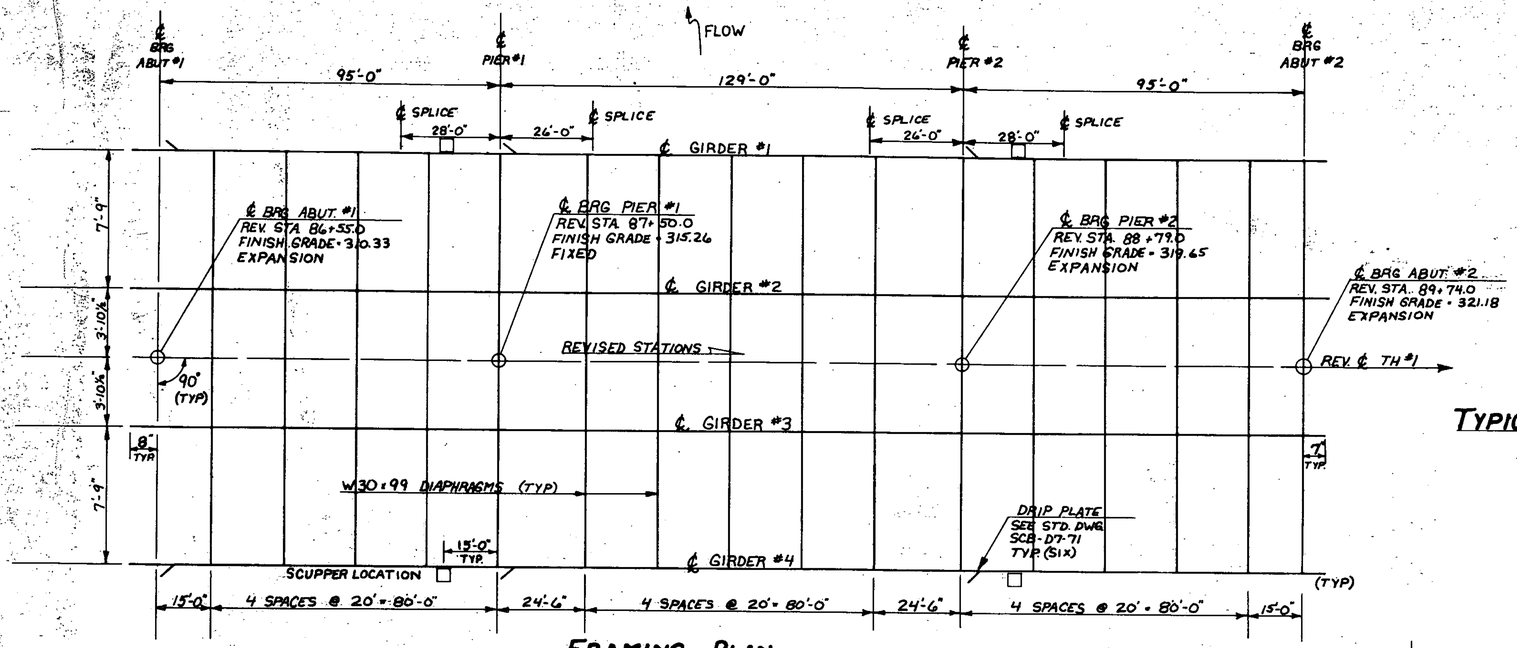
1. POUR #1 MAY BE MADE IN 2 POURS AS LONG AS THE MINIMUM DELAY PERIOD OF 96 HOURS BETWEEN POURS IS FOLLOWED. #1, #2, AND #3 INDICATE THE SEQUENCE IN WHICH THE SECTIONS ARE TO BE POURED. A MINIMUM OF 96 HOURS BETWEEN POURS IS REQUIRED. SEE NOTE 15, SCB-D1-75
2. IF APPROVED BY THE ENGINEER, POURS #1 AND #2 MAY BE POURED THE SAME DAY PROVIDED THAT THE MAXIMUM TIME SPAN OF THE POUR IS 6 HOURS AND THAT THE INDICATED POURING SEQUENCE IS FOLLOWED AND THAT A RETARDING ADMIXTURE IS USED SO THAT THE DECK CONCRETE WILL NOT SET UP UNTIL ALL THE POUR HAS BEEN MADE. THE RETARDING ADMIXTURE WILL BE SUBSIDIARY TO THE ITEM "CONCRETE, CLASS A"
3. USE BRIDGE SLAB CONSTRUCTION JOINTS BETWEEN POURS. SEE STD. DWG SCB-D6-73 DETAIL D. JOINTS SHALL BE PARALLEL TO ℄ BEARING.
4. ALL POURS SHALL START FROM THE LOW END (ELEVATION WISE)



POUR SEQUENCE
NO SCALE

STATE OF VERMONT
AGENCY OF TRANSPORTATION

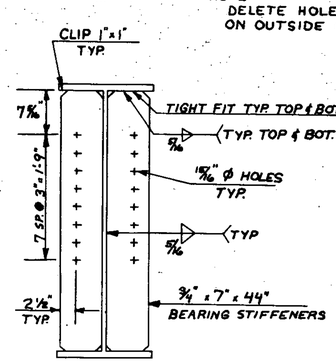
Town Of GEORGIA	Bridge No. 10
Highway No. TH #1	Log Sta. —
	REV. Surv. Sta. 88+15.00
TH #1 OVER LAMOILLE RIVER	
SUPERSTRUCTURE DETAILS	
Designed By CHRIS WILLIAMS	Drawn By CHRIS WILLIAMS
Checked By G.S. ROGERS Date 12/84	Bridge Design Supervisor F.W. Bolkum Date 2/85
PROJECT GEORGIA	PROJECT NO. BRZ 1448(3)
L.G.C. Info.	
Bridge Sheet No.	Sheet 16 of 61



FRAMING PLAN

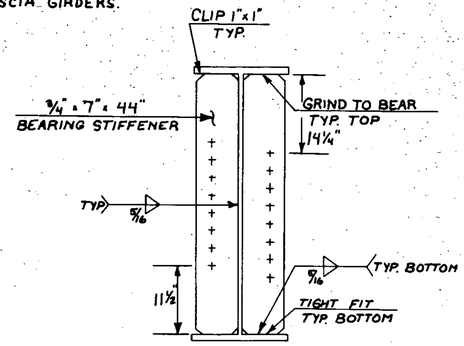
1" = 20' ⟷
1" = 4' ↕

NOTE:
DELETE HOLES IN BEARING STIFFENER ON OUTSIDE OF FASCIA GIRDERS.



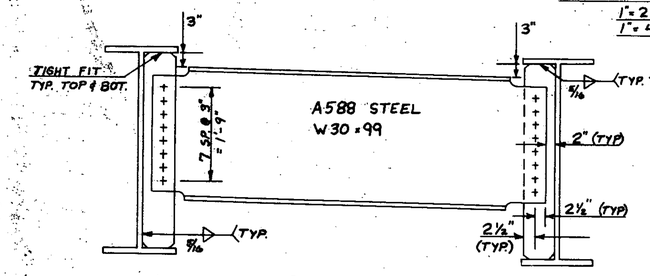
TYPICAL BEARING STIFFENER @ ABUT. #2

1" = 1'-0"

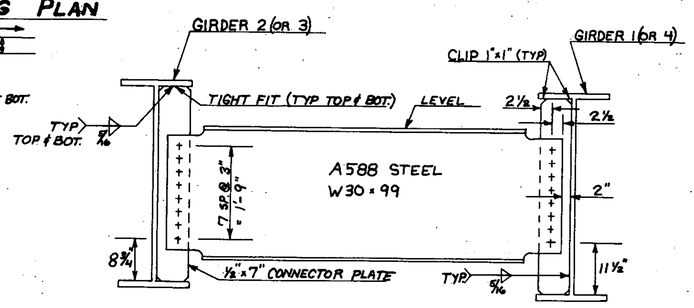


TYPICAL BEARING STIFFENER @ PIERS

1" = 1'-0"

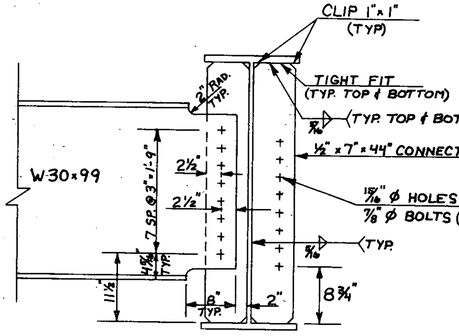


DIAPHRAGM DETAIL @ ABUT. #2



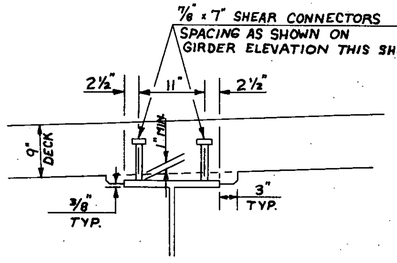
TYPICAL DIAPHRAGM DETAIL

¾" = 1'-0"



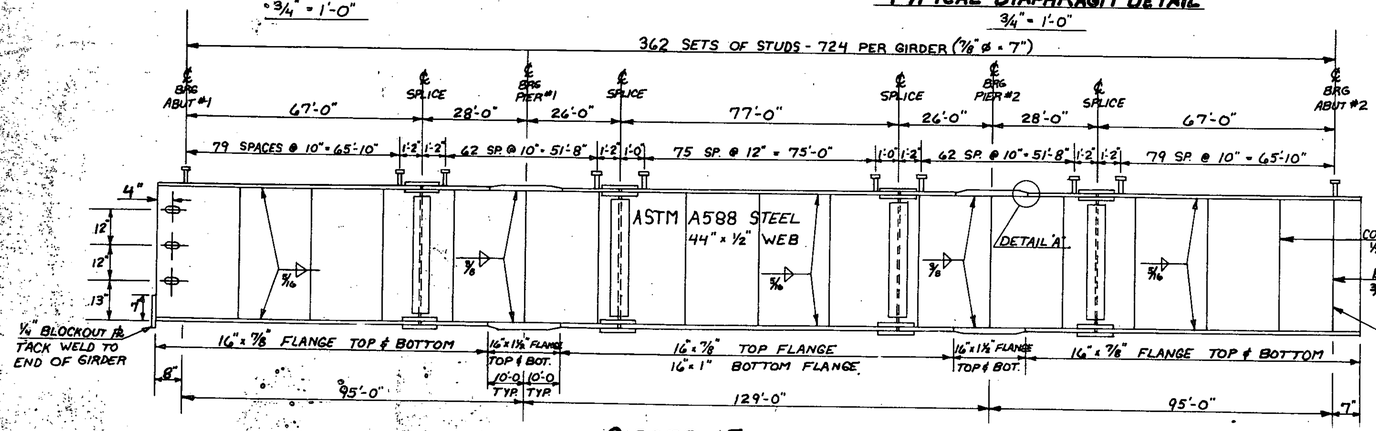
INTERMEDIATE CONNECTOR PLATE

1" = 1'-0"



HAUNCH DETAIL

1" = 1'-0"

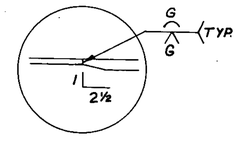


GIRDER ELEVATION

1" = 20' ⟷
1" = 2' ↕

NOTES:

1. CAMBER TOLERANCE AT ANY POINT SHALL NOT EXCEED (-0) OR + ⅛ (DISTANCE TO NEAREST SUPPORT / 10)
2. CUT THE ENDS OF THE GIRDER TO BE VERTICAL IN THE ERECTED POSITION.

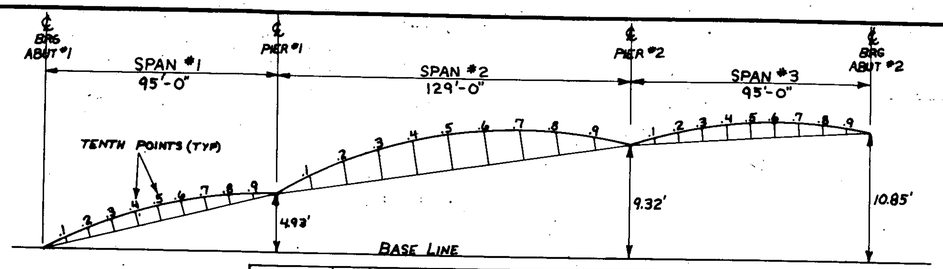


DETAIL 'A'

NO SCALE

STATE OF VERMONT
AGENCY OF TRANSPORTATION

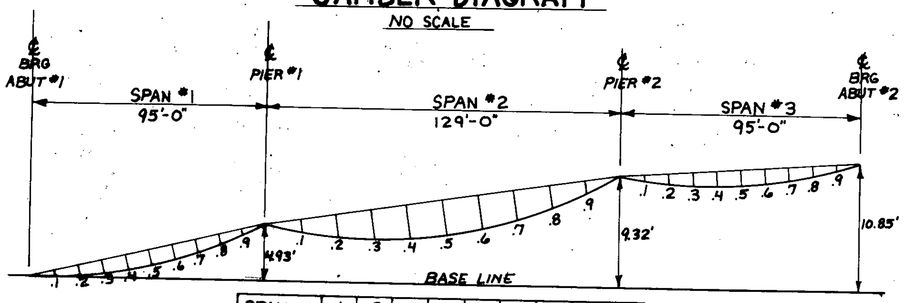
Town Of GEORGIA	Bridge No. 10
Highway No. TH #1	Log Sta. REV. Survey Sta. 88+15.00
TH #1 OVER LAMOILLE RIVER	
STRUCTURAL STEEL DETAILS	
Designed By CHRIS WILLIAMS	Drawn By CHRIS WILLIAMS
Checked By G.S. ROGERS Date 12/84	Bridge Design Supervisor F.W. Bolkum Date 2/85
PROJECT GEORGIA	PROJECT NO. BRZ 1448(3)
L.G.C. Info.	
Bridge Sheet No.	Sheet 17 of 61



SPAN No.	.1	.2	.3	.4	.5	.6	.7	.8	.9
1	1 7/16	2 3/8	3 1/16	3 3/4	3 7/16	3 1/16	2 7/16	1 11/16	13/16
2	1 7/8	3 7/8	5 1/2	6 5/8	7	6 5/8	5 1/2	3 7/8	1 7/8
3	1 13/16	1 11/16	2 7/16	3 1/16	3 7/16	3 3/16	3 1/16	2 3/8	1 7/16

CAMBER IN INCHES.
DIMENSIONS SHOWN ARE PERPENDICULAR TO CHORDS BETWEEN SUPPORTS.

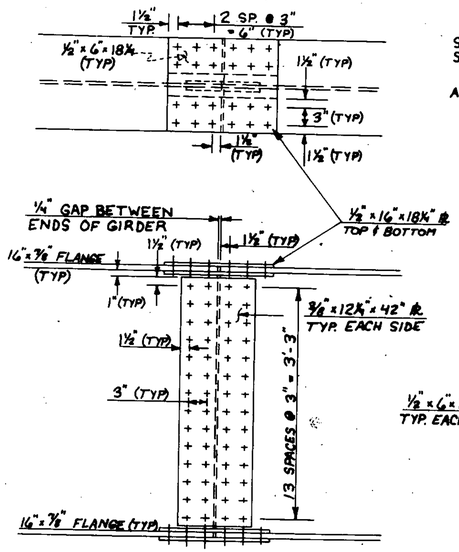
CAMBER DIAGRAM
NO SCALE



SPAN No.	.1	.2	.3	.4	.5	.6	.7	.8	.9
1	9/16	1	1 1/4	1 5/16	1 1/4	1	5/8	1/4	0
2	7/16	1 3/16	2 3/16	2 5/16	3	2 5/16	2 3/16	1 5/16	7/16
3	0	1/4	5/8	1	1 1/4	1 5/16	1 1/4	1	5/16

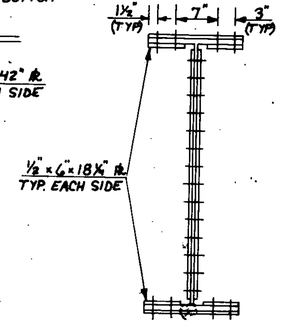
DEFLECTIONS IN INCHES

DEAD LOAD DEFLECTION DIAGRAM
NO SCALE

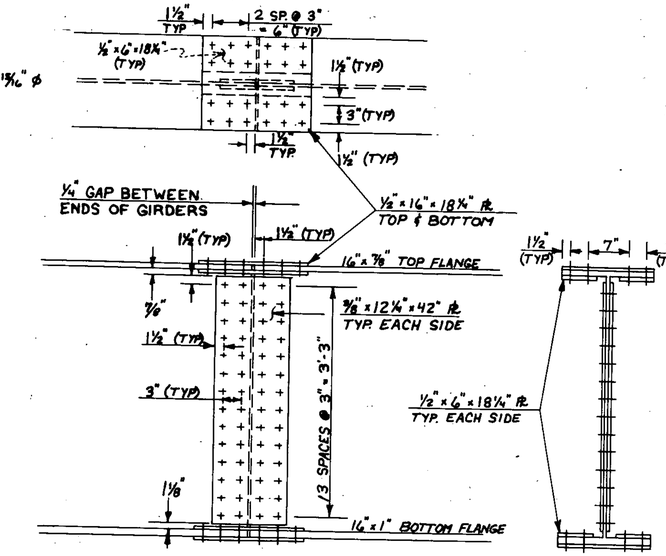


SEE GENERAL NOTE 24 SHEET 1 OF 61

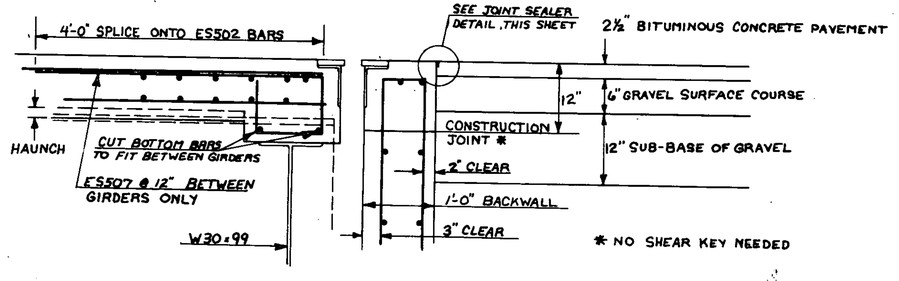
ALL HOLES IN SPLICE ARE 15/16" ø



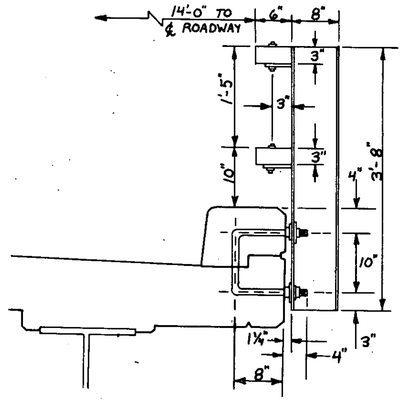
SPLICE DETAIL FOR SPANS #1 AND #3
1"=1'-0"



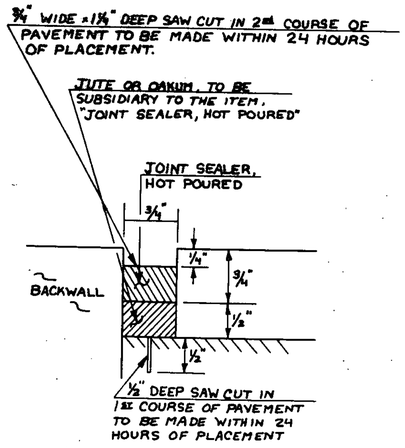
SPLICE DETAIL FOR SPAN #2
1"=1'-0"



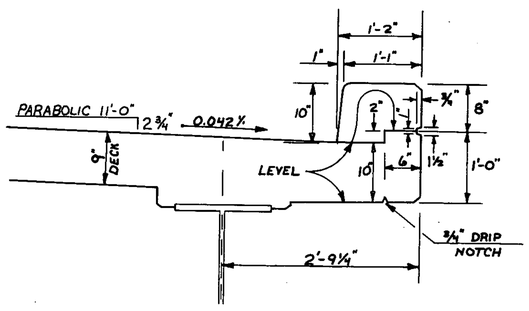
BACKWALL DETAIL
1"=1'-0"



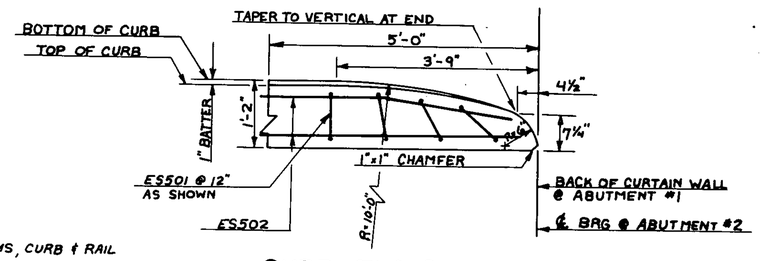
RAIL DETAIL
1"=1'-0"



JOINT SEALER DETAIL
1"=1"



CURB DETAIL
1"=1'-0"



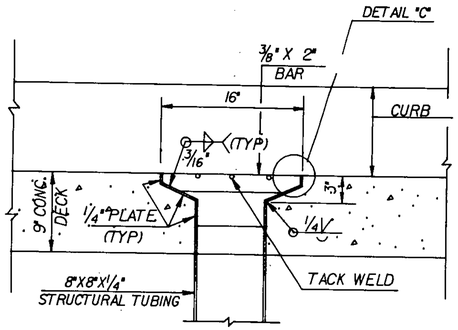
CURB END DETAIL
¾"=1'-0"

CAMBER NOTES

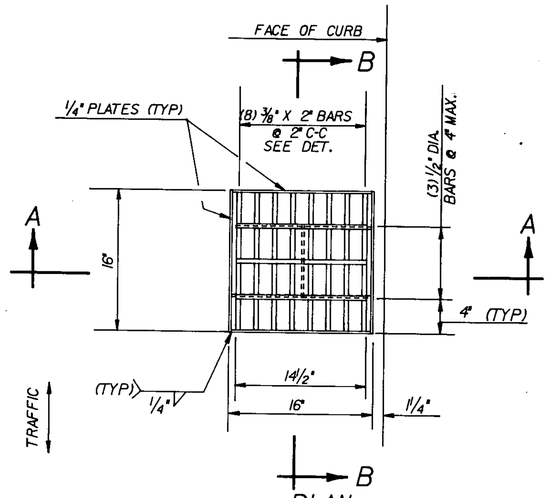
1. LIVE LOAD DEFLECTION - SPAN #1 = ¾", SPAN #2 = 1½", SPAN #3 = ¾"
2. DEAD LOAD DEFLECTION (AS SHOWN) IS DUE TO GIRDERS, DECK, DIAPHRAGMS, CURB & RAIL
3. VERTICAL CURVE CAMBER - SPAN #1 = 2 5/16", SPAN #2 = 4", SPAN #3 = 2 5/16"
4. TOTAL CAMBER IS AS SHOWN ON CAMBER DIAGRAM

STATE OF VERMONT
AGENCY OF TRANSPORTATION

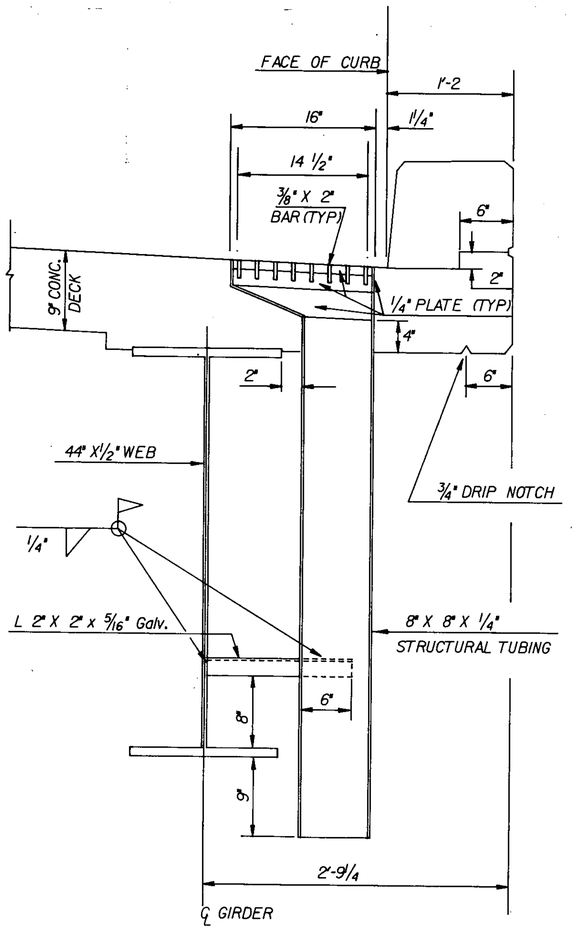
TOWN OF GEORGIA	Bridge No. 10
HIGHWAY NO. TH #1	Log Sta. REV. Sta. 88+15.00
TH #1 OVER LAMOILLE RIVER	
ADDITIONAL SUPERSTRUCTURE DETAILS	
Designed by CHRIS WILLIAMS	Drawn by CHRIS WILLIAMS
Checked by G.S. ROGERS date 12/84	Bridge Design Supervisor F.W. Bolkum date 2/85
PROJECT GEORGIA	PROJECT NO. BRZ 1448(3)
Bridge Sheet No.	Sheet 18 of 61



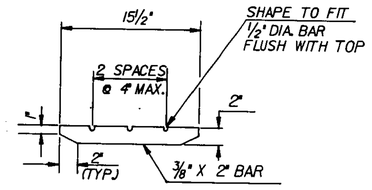
SECTION B-B
SCALE: 1 1/2" = 1'-0



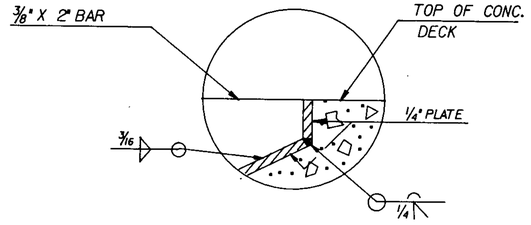
PLAN
SCALE 1 1/2" = 1'-0



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



BAR DETAIL FOR GRATE
SCALE: 1 1/2" = 1'-0



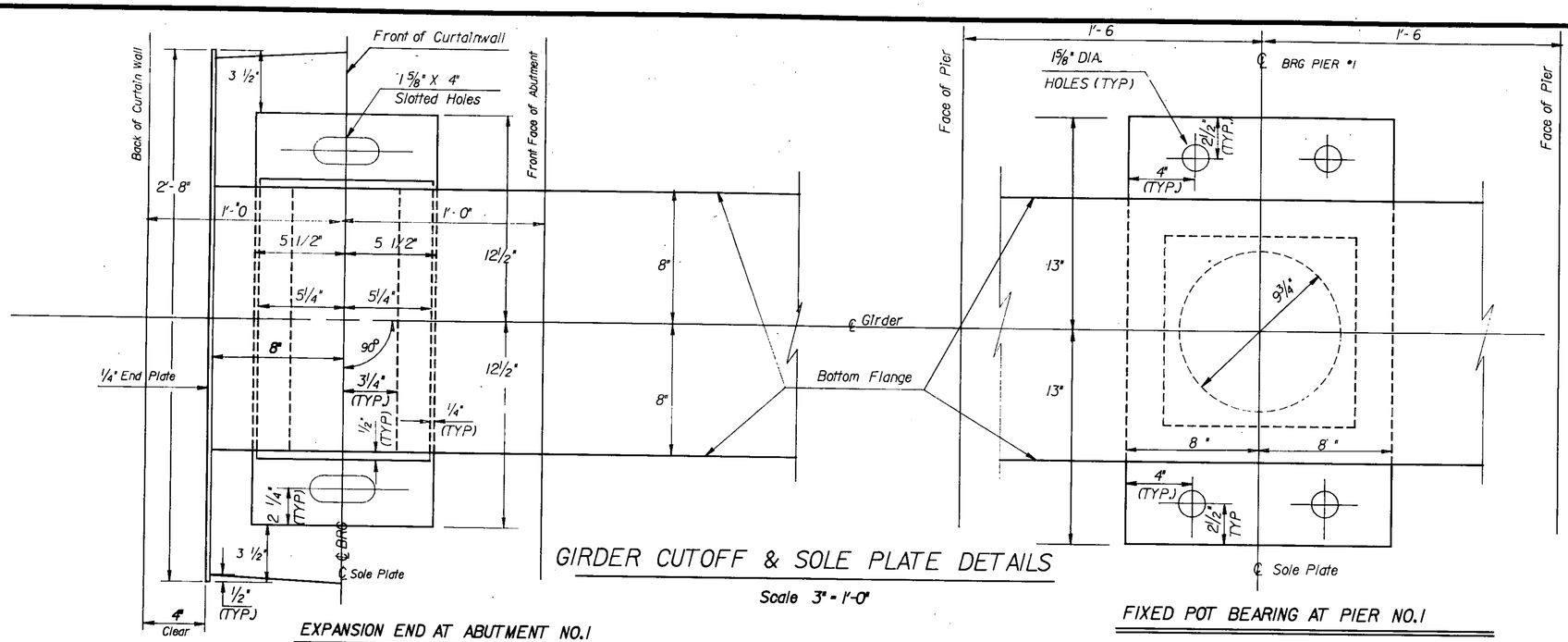
DETAIL "C"
NTS

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. ALL SCUPPERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A-123 AFTER FABRICATION.
4. THE TOP SURFACE OF SCUPPER SHALL BE SLOPED TO MATCH ROADWAY SLOPE AND GRADE.
5. THE BAR AND GRATE SECTION MAY BE PREFABRICATED PROVIDING THE GEOMETRY AND SECTION PROPERTIES ARE EQUIVALENT TO THE DETAILS SHOWN.
6. SEE SHEET 17 FOR SCUPPER LOCATIONS.
7. COAT CONCRETE CONTACT SURFACES OF SCUPPER WITH AN EPOXY BONDING COMPOUND MEETING THE REQUIREMENTS OF SUBSECTION 719.03. PAYMENT SHALL BE SUBSIDIARY TO THE UNIT PRICE BID FOR ITEM 506.91, STRUCTURAL STEEL (PLATE GIRDER).

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of GEORGIA	Bridge No. 10
Highway No. TH #1	Log Sta. ——— Rev Sta. 88+15.0
TH #1 OVER LAMOILLE RIVER	
SCUPPER DETAILS	
Designed By G. ROGERS	Drawn By G.SCHELLEY
Checked By G.ROGERS Date 12-84	Bridge Design Supervisor F.W. Bolkum Date 2/85
PROJECT GEORGIA	PROJECT NO. BRZ 1448 (3)
L.G.C. Info. QSA#:130,33J63B070SCU	
Bridge Sheet No.	Sheet 19 of 61

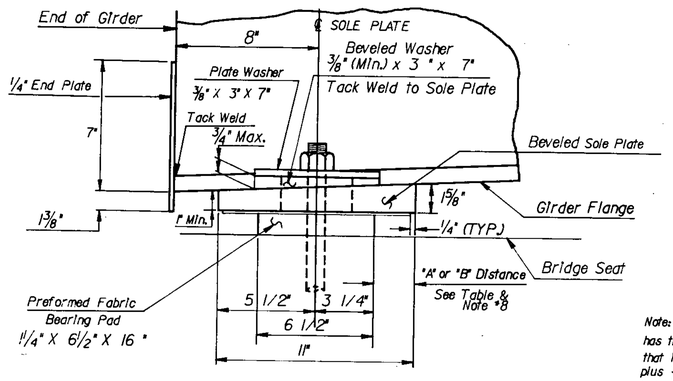


GIRDER CUTOFF & SOLE PLATE DETAILS

Scale 3" = 1'-0"

EXPANSION END AT ABUTMENT NO.1

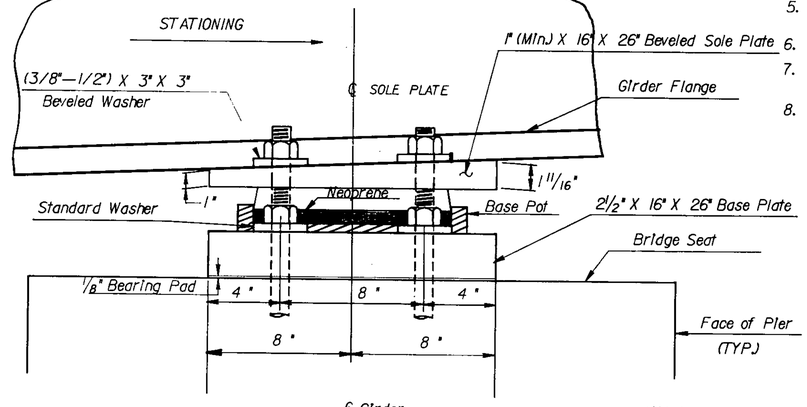
FIXED POT BEARING AT PIER NO.1

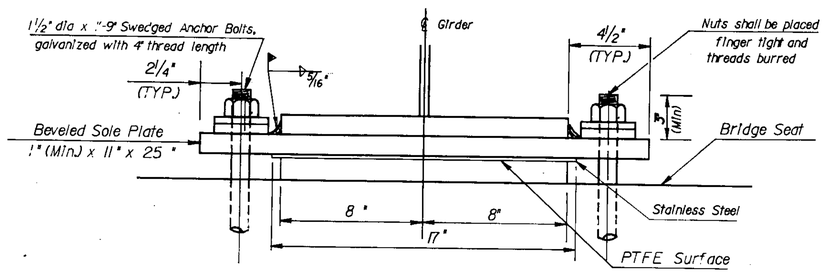


Side Elevation

Scale 3" = 1'-0"

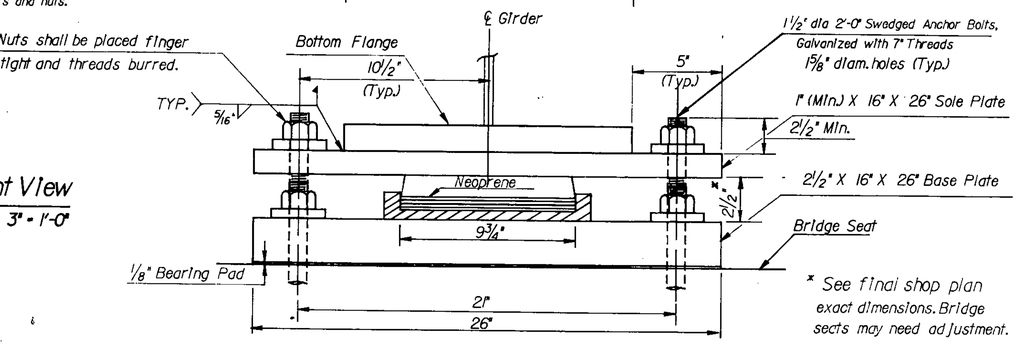
Note: In lieu of beveled washers, the fabricator has the option of milling the sole plate such that it is beveled for the width of the flanges plus 3/4" on each side with remainder being full thickness under flat washers and nuts.





Front View

Scale 3" = 1'-0"



* See final shop plan exact dimensions. Bridge sects may need adjustment.

EXPANSION BEARING DETAILS AT ABUTMENT NO.1

FIXED BEARING DETAILS AT PIER NO.1

ABUTMENT NO.1

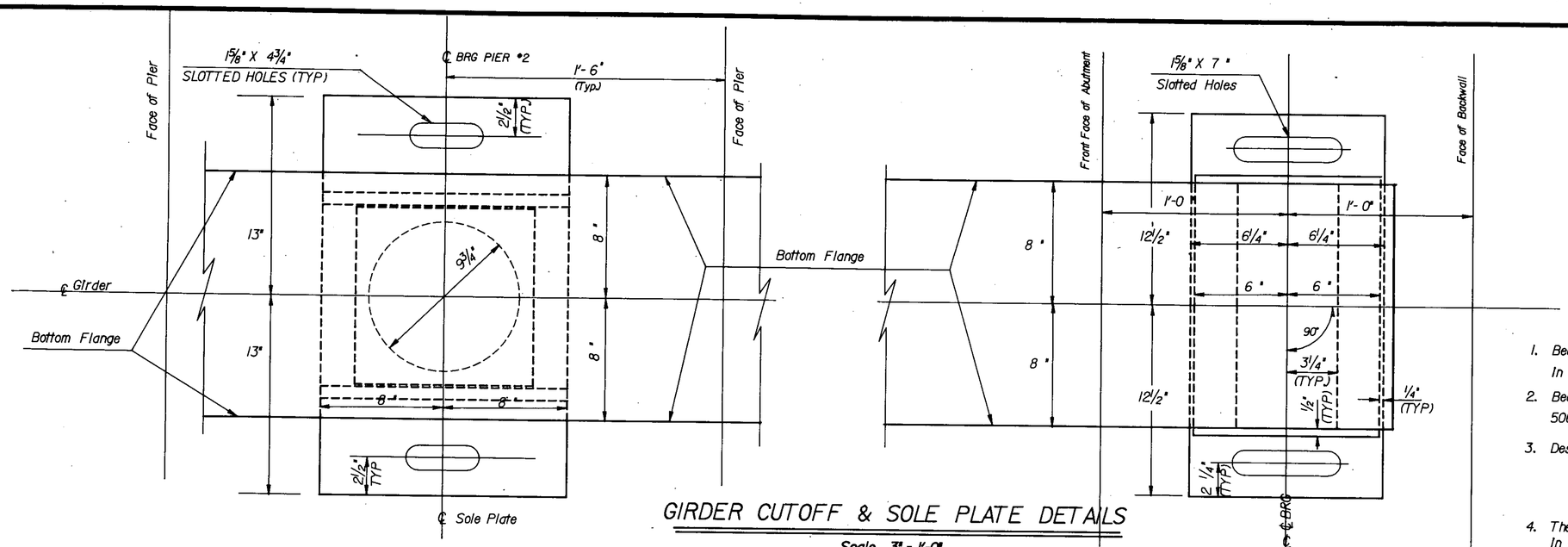
TEMP	"A" DIST	"B" DIST
0°F	2 3/16"	2 3/4"
15°F	2 1/2"	2 11/16"
30°F	2 3/8"	2 9/16"
45°F	2 1/4"	2 7/16"
60°F	2 1/8"	2 5/16"
75°F	2"	2 3/16"
90°F	1 15/16"	2 1/8"

SOLE PLATE & BEARING DETAIL NOTES

1. TFE EXPANSION BEARINGS SHALL CONFORM TO SUBSECTION 731.
2. FIXED BEARINGS SHALL CONFORM TO ALL APPLICABLE SECTIONS OF SUBSECTION 731 (OMIT TFE & STAINLESS STEEL).
3. BEARINGS SHALL BE PAID FOR UNDER THE ITEM "BEARING DEVICE ASSEMBLY".
4. SHOP DRAWINGS CONFORMING TO SUBSECTION 506.04 MUST BE SUBMITTED, AND INCLUDE THE WELDING PROCEDURE IF THE STAINLESS STEEL PLATE IS GOING TO BE WELDED TO THE SOLE PLATE, OR THE BONDING PROCEDURE IF THE STAINLESS STEEL PLATE IS BONDED TO THE SOLE PLATE.
5. SOLE PLATES AND WASHERS ARE TO BE GALVANIZED OR METALIZED AS PER GENERAL SPECIAL PROVISION 731.06 FOR THIS PROJECT.
6. THE CONCRETE SURFACE UNDER THE BEARINGS SHALL BE LEVEL.
7. SEE STANDARD DRAWING SCB-D9-71 DETAIL "A" FOR ADDITIONAL DETAILS FOR BLOCKING OUT THE BEARINGS IN THE CURTAIN WALLS.
8. "A" DISTANCE IS THE FINAL SETTING FOR THE BEARING PAD AFTER THE CONCRETE SLAB, CURB, AND BRIDGE RAIL ARE IN PLACE. HOWEVER, MOST CONTRACTORS LIKE TO ADJUST THE BEARING PAD AFTER THE STRUCTURAL STEEL HAS BEEN ERECTED AND BEFORE THE CONCRETE DECK IS POURED. THEREFORE, "B" DISTANCE IS LISTED FOR CONTRACTORS WHO SET BEARING PAD BEFORE POURING DECK. THE DIFFERENCE, 3/16 INCHES AT ABUTMENT NO 1. IS THE ELONGATION IN THE BOTTOM FLANGE DUE TO DEAD LOAD DEFLECTION CAUSED BY THE CONCRETE SLAB, CURBS, AND BRIDGE RAIL. THIS DIFFERENCE IS A THEORETICAL DISTANCE AND SHOULD NOT BE CONSIDERED AS A FINAL SETTING. THE FINAL "A" DISTANCE, AS SHOWN IN THE TABLE, MUST BE REACHED WITHIN 1/8 INCH ±.
9. ALL STEEL REQUIRED IN THE BEARINGS SHALL BE ASTM A-36.
10. SEE NOTES ON SHEET 21 .

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of GEORGIA	Bridge No. 10
Highway No. TOWN HIGHWAY NO.1	Log Sta. / Surv. Sta. 88+15.00
TOWN HIGHWAY NO.1 OVER THE LAMOILLE RIVER	
BEARING DEVICE DETAILS FOR ABUTMENT NO.1 & PIER NO.1	
Designed By C.P.WILLIAMS	Drawn By W.RYAN & D.NEWTON
Checked By G.S. ROGERS Date JAN.1985	Bridge Design Supervisor F.W. Bolkum Date 2/85
PROJECT GEORGIA	PROJECT NO. BRZ 1448(3)
L.G.C. info.	QSAIL30,32/GEORGIADGN
Bridge Sheet No.	Sheet 20 of 61



GIRDER CUTOFF & SOLE PLATE DETAILS

Scale 3" = 1'-0"

PIER NO.2

TEMP	"A" DIST	"B" DIST
0°F	7 9/16"	7 3/16"
15°F	7 11/16"	7 5/16"
30°F	7 1/8"	7 1/2"
45°F	8"	7 3/8"
60°F	8 1/8"	7 3/4"
75°F	8 5/16"	7 15/16"
90°F	8 1/16"	8 1/16"

ABUTMENT NO.2

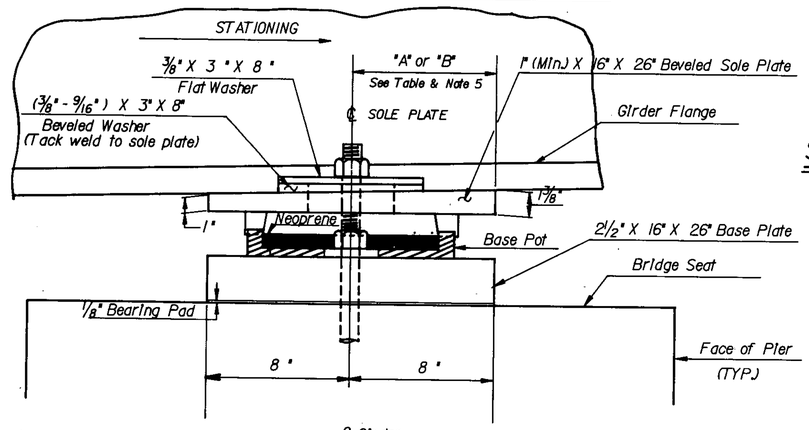
TEMP	"A" DIST	"B" DIST
0°F	3 13/16"	4 3/16"
15°F	3 1/2"	4 1/16"
30°F	3 1/4"	3 13/16"
45°F	3"	3 9/16"
60°F	2 3/4"	3 5/16"
75°F	2 1/2"	3 1/16"
90°F	2 3/16"	2 3/4"

NOTES (Piers 1 & 2)

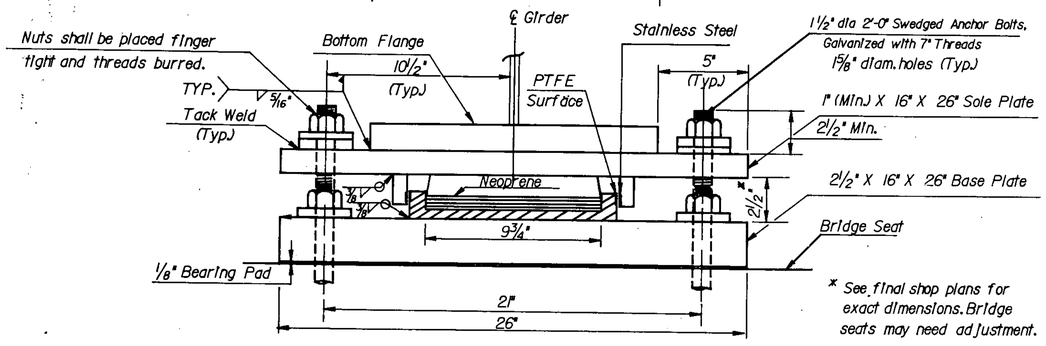
1. Bearing base plates shall be placed on a 1/8" fabric pad as specified in Section 731.01 or 731.02.
2. Bearing devices shall be paid for at the unit bid price each for item 506.99, Bearing Device Assembly.
3. Design Criteria : A- Unfilled T.F.E. Bearing surface bearing pressure : 3500 p.s.i.
   B- Base plates to concrete beam seat bearing pressure : 1000 p.s.i.
   C- Rotation capacity: 0.015 radians (Minimum)
4. The manufacturer of the bearing device assembly item 506.99 shall, in addition to the type D certification required in section 731.10, certify that the units supplied are designed to meet the loading requirements indicated below.

	Expansion
Vertical	253 Kips
Longitudinal	8 Kips
Transverse	6 Kips

EXPANSION POT BEARING AT PIER NO.2



Side Elevation
Scale 3" = 1'-0"

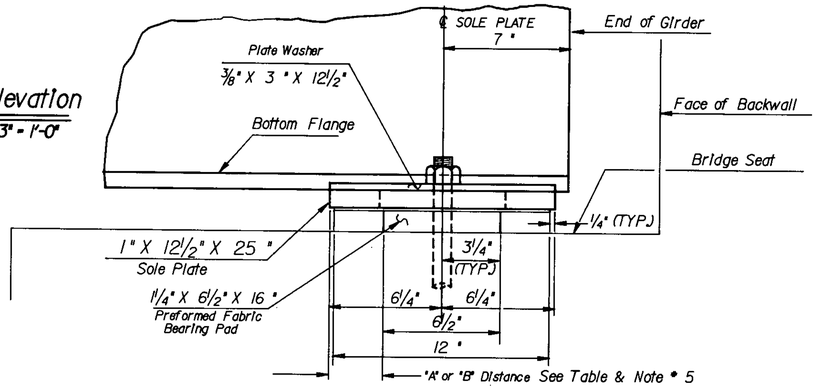


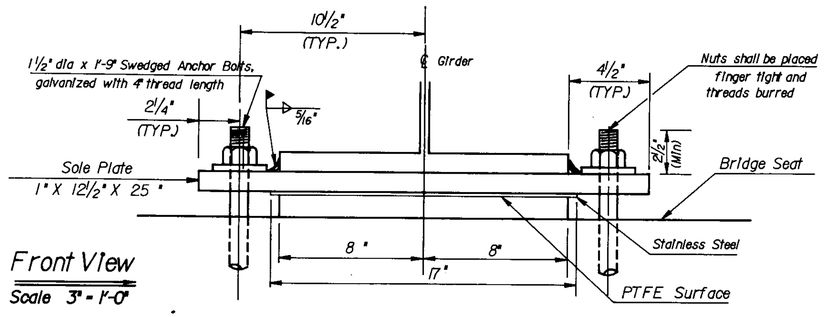
* See final shop plans for exact dimensions. Bridge seats may need adjustment.

Front View
Scale 3" = 1'-0"

EXPANSION BEARING DETAILS AT PIER NO.2

EXPANSION END AT ABUTMENT NO.2





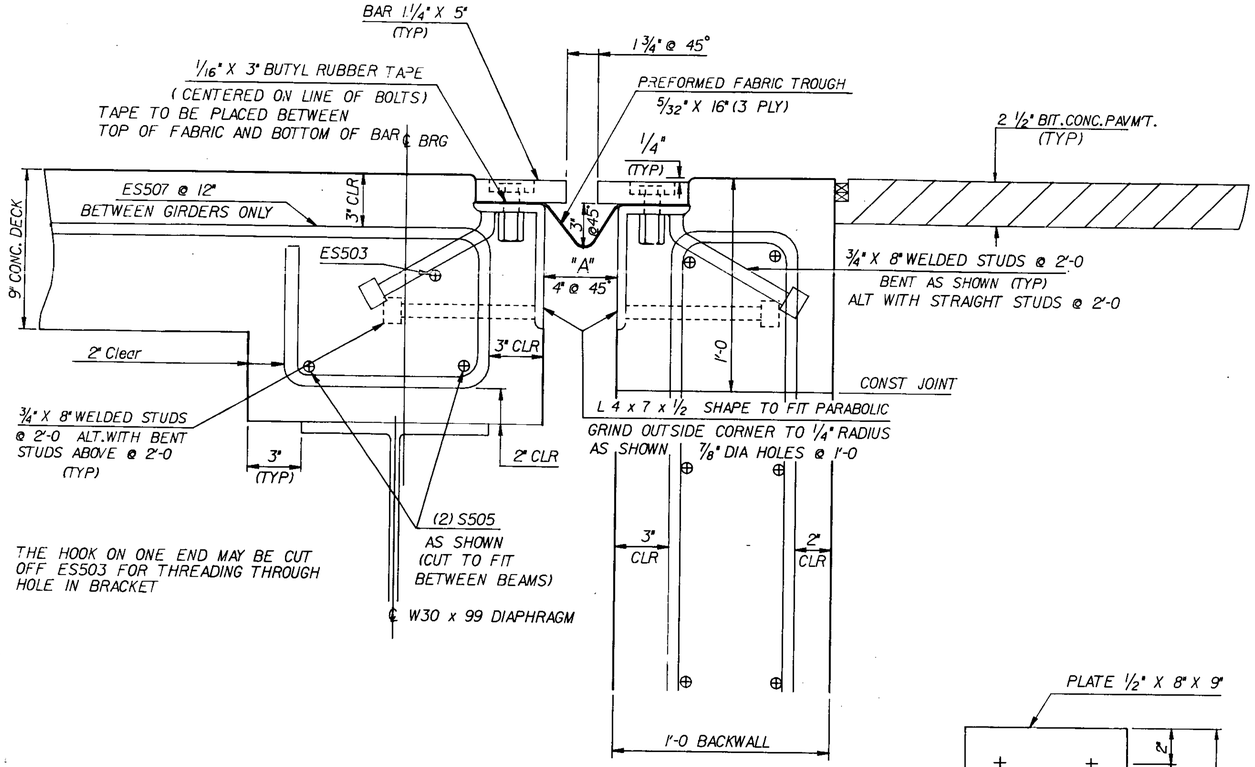
EXPANSION BEARING DETAILS AT ABUTMENT NO.2

Notes (Abutment #2 & Pier #2)

5. "A" distance is the final setting for the bearing pad after the concrete slab, curb, and bridge rail are in place. However, most contractors like to adjust the bearing pad after the structural steel has been erected and before the concrete deck is poured. Therefore, "B" distance is listed for contractors who set bearing pad before pouring deck. The difference, 3/8 inches, at Pier No.2, and 9/16 inches, at Abutment No.2, is the elongation in the bottom flange due to dead load deflection caused by the concrete slab, curbs, and bridge rail. This difference is a theoretical distance and should not be considered as a final setting. The final "A" distance, as shown in the table, must be reached within 1/8 inch ± .
6. See Notes on Sheet 20

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of GEORGIA	Bridge No. 10
Highway No. TOWN HIGHWAY NO.1	Log Sta. Surv. Sta. 88 + 15.00
TOWN HIGHWAY NO.1 OVER THE LAMOILLE RIVER	
BEARING DEVICE DETAILS FOR ABUTMENT NO.2 & PIER NO.2	
Designed By C.P.WILLIAMS	Drawn By D.NEWTON & M.RYAN
Checked By G.S.ROGERS Date JAN.1985	Bridge Design Supervisor F.W. Bolkum Date 2/85
PROJECT GEORGIA	PROJECT NO. BRZ 1448(3)
L.C. Info.	QSAI #2.30,32,163B07OBRGD.DGN
Bridge Sheet No.	Sheet 21 of 61



TYPICAL SECTION BETWEEN GIRDERS AT ABUT #2

SCALE 3" = 1'-0

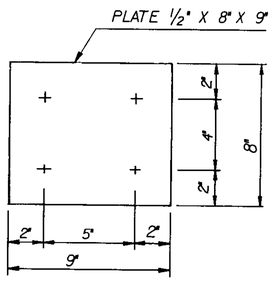
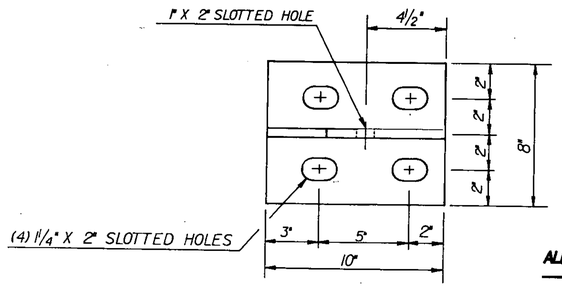


PLATE PLAN VIEW

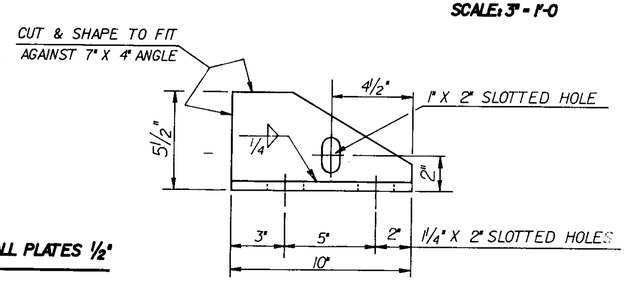
SCALE: 3" = 1'-0



BRACKET PLAN

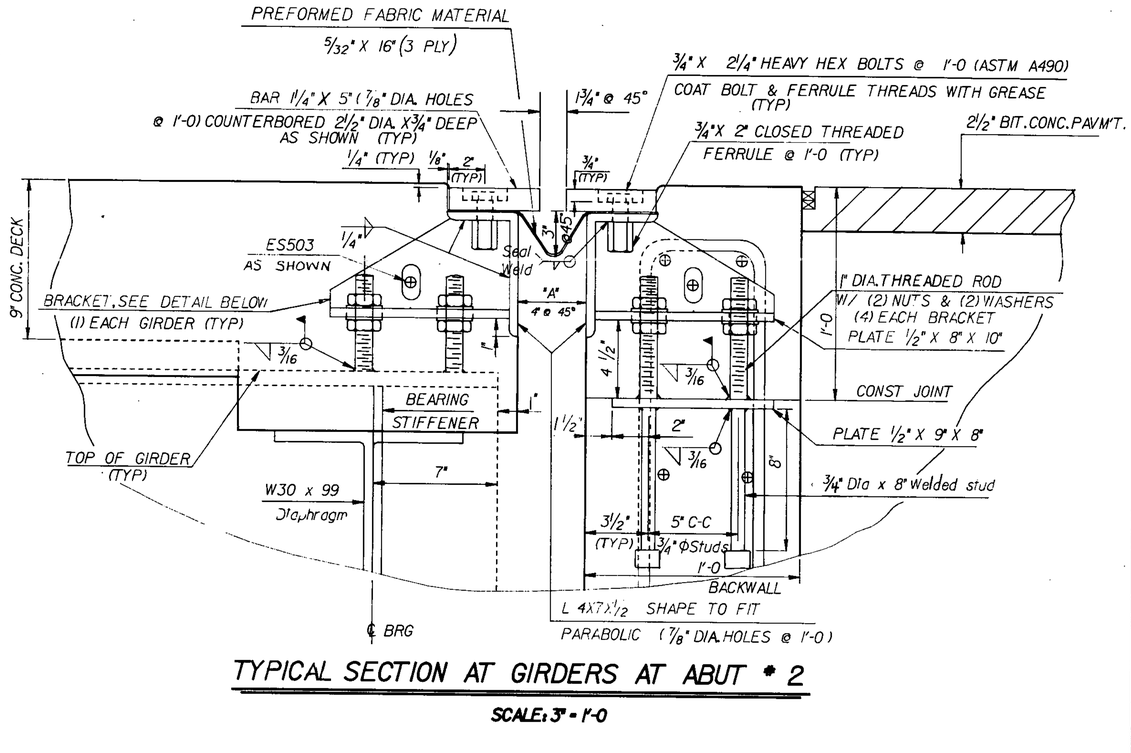
SCALE: 3" = 1'-0

ALL PLATES 1/2"



BRACKET ELEVATION

SCALE: 3" = 1'-0



TYPICAL SECTION AT GIRDERS AT ABUT # 2

SCALE: 3" = 1'-0

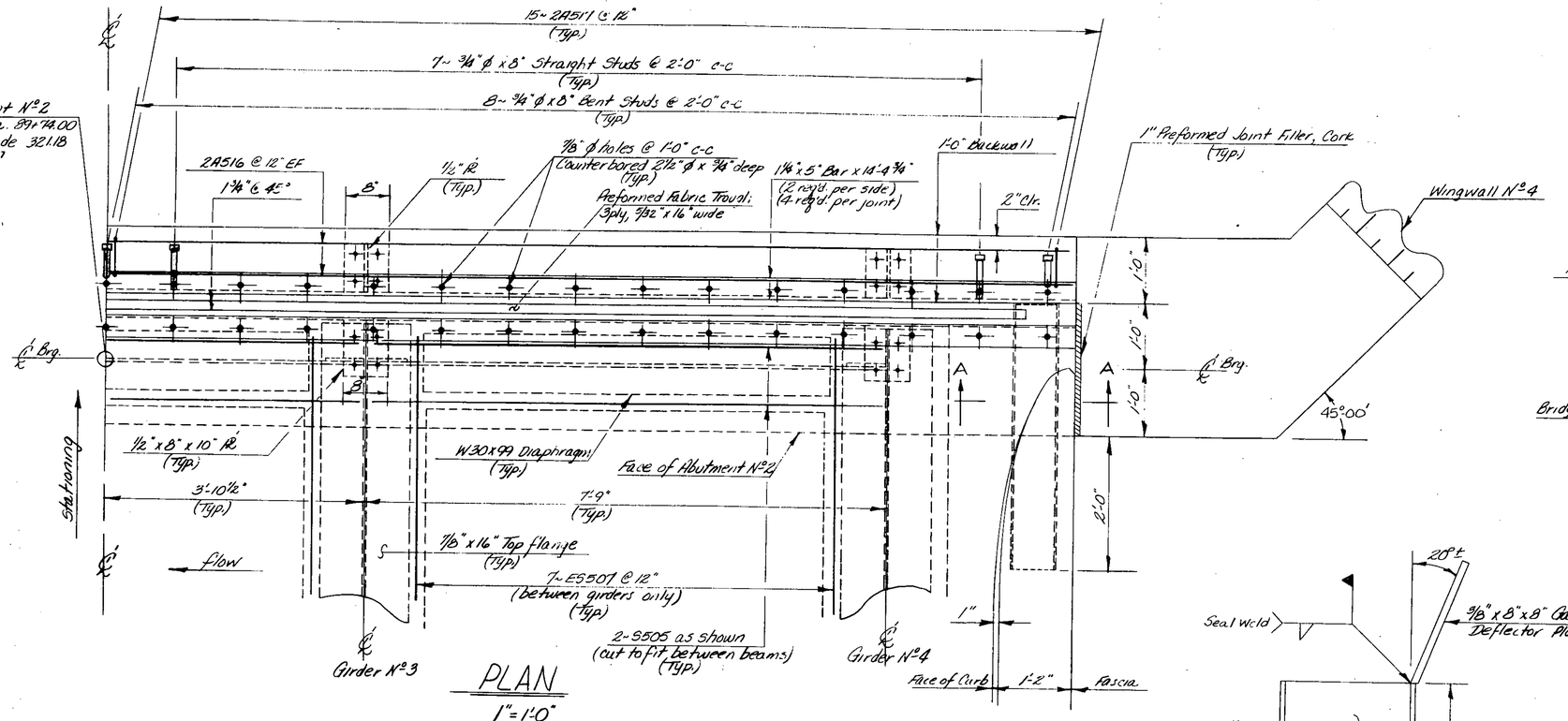
NOTES:

1. PREFORMED FABRIC MATERIAL SHALL BE CONTINUOUS AND SHALL CONFORM TO VT. SPEC. SUBSECTION 707.13
2. BUTYL RUBBER TAPE SHALL CONFORM TO MILITARY SPEC. ML-C-1896A, TYPE II
3. ALL STEEL COMPONENTS USED IN EXPANSION JOINTS SHALL BE A.S.T.M. A36, GALVANIZED, OR METALIZED AFTER FABRICATION AS PER SECTION 731.06, UNLESS OTHERWISE NOTED.
4. COAT CONCRETE CONTACT SURFACES WITH AN EPOXY BONDING COMPOUND MEETING THE REQUIREMENTS OF SUBSECTION 719.03. PAYMENT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 516 "ELASTOMERIC EXPANSION DAMS (3" MOVEMENT).
5. ALTERNATE EXPANSION JOINTS CAPABLE OF PROVIDING A TOTAL MOVEMENT OF 3" MAY BE SUBMITTED FOR APPROVAL TO THE ENGINEER IN LIEU OF THE DESIGN AS DETAILED (OR THE OPTION SHOWN ON SHEET 23)
6. THE FABRICATOR SHALL SEND DETAILED DRAWINGS OF THE EXPANSION DAM TO THE STRUCTURES DIVISION FOR APPROVAL PRIOR TO FABRICATION.
7. THE ITEM "ELASTOMERIC EXPANSION DAM (3" MOVEMENT) SHALL INCLUDE IN THE COST PER LINEAR FOOT THE FABRICATION AND ERECTION OF THE COMPLETE JOINT ASSEMBLY INCLUDING ALL STEEL PLATES, ANGLES, WELDED STUDS OR RODS, DRAIN TROUGHS, PREFORMED FABRIC MATERIAL, BUTYL RUBBER TAPE AND ANY OTHER MISCELLANEOUS HARDWARE.
8. THE 1 1/4" X 5" PLATES SHALL BE FURNISHED IN TWO LENGTHS (SEE EXPANSION JOINT PLAN). THE ANGLES 7" X 4" X 1/2" SHALL BE FURNISHED IN CONTINUOUS LENGTHS.

AIR TEMP	"A" DISTANCE
0°F	4 13/16"
10°F	4 5/8"
20°F	4 7/16"
30°F	4 1/4"
45°F	4"
60°F	3 3/4"
70°F	3 9/16"
80°F	3 3/8"
90°F	3 3/16"

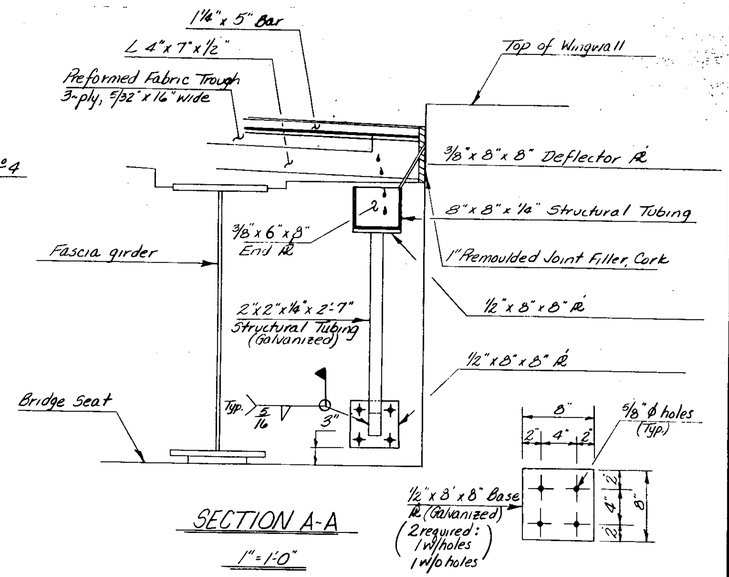
STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of GEORGIA	Bridge No. 10
Highway No. TH # 1	Log Sta. —— / Surv. Sta. 88+15.0
TH #1 over LAMOILLE RIVER	
EXPANSION JOINT DETAILS @ ABUT #2	
Designed By C.P. WILLIAMS	Drawn By E. BLODGETT
Checked By D.NEWTON Date 1-85	Bridge Design Supervisor F. W. Bolkum Date 2/85
PROJECT GEORGIA	PROJECT NO. BRZ 1448(3)
L.G.C. Info. QSA:L30,23J63B070EXP	
Bridge Sheet No.	Sheet 22 of 61



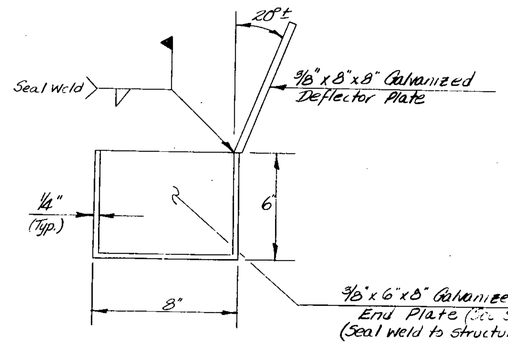
PLAN

1" = 1'-0"



SECTION A-A

1" = 1'-0"

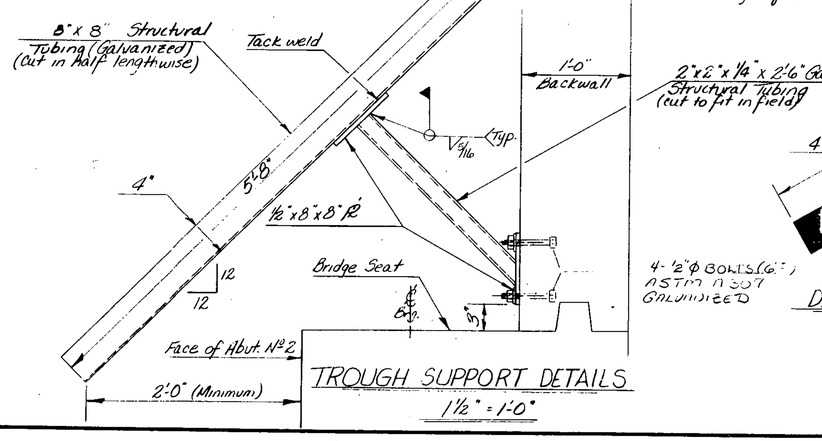


END DETAIL

3" = 1'-0"

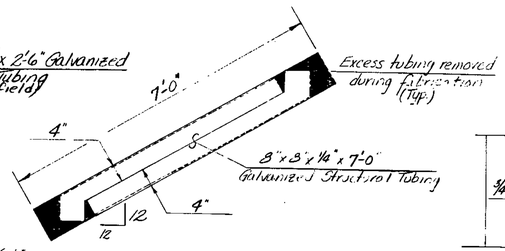
TYPICAL SECTION

3" = 1'-0"



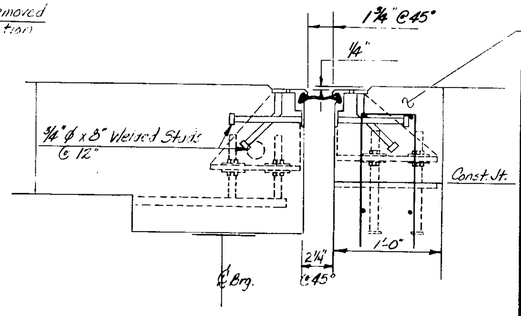
TROUGH SUPPORT DETAILS

1 1/2" = 1'-0"



DRAIN TROUGH DETAIL

N.T.S.



OPTIONAL JOINT DETAIL

1 1/2" = 1'-0"

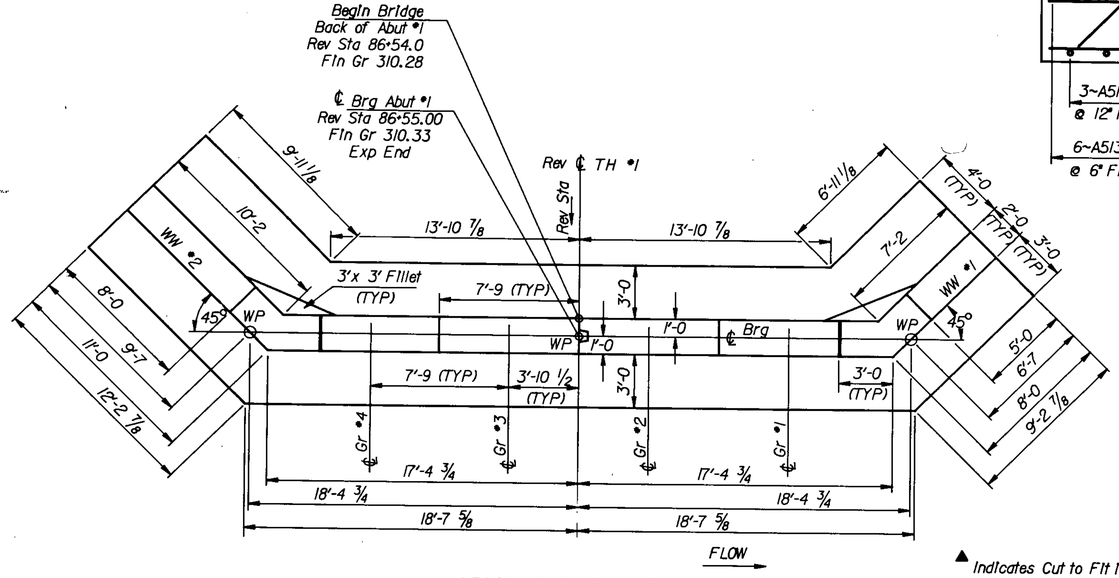
NOTES

1. The fabricator may have the option of fabricating the drain trough from a piece of 1/4" x 16" plate in lieu of using the structural tubing as shown.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of GEORGIA	Bridge No. 10
Highway No. TOWN HIGHWAY N°1	Log Sta. Surv. Sta. BB+19.00
TOWN HIGHWAY N°1 over LAMOILLE RIVER	
EXPANSION JOINT AND DRAIN TROUGH DETAILS	
Designed By D.W. NEWTON	Drawn By D.W. NEWTON
Checked By G.S. ROGERS Date 2/85	Bridge Design Supervisor F.W. Bolkum Date 2/85
PROJECT GEORGIA	PROJECT NO. BRZ 1448(3)
L.G.C. Info.	
Bridge Sheet No.	Sheet 23 of 61

BR-6

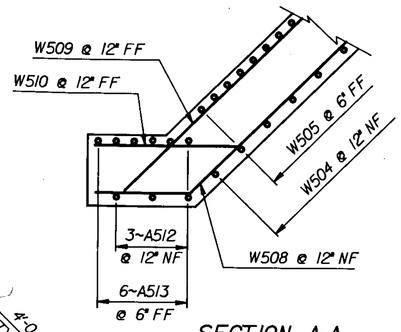


ABUTMENT No 1 PLAN

Scale 1/4" = 1'-0"

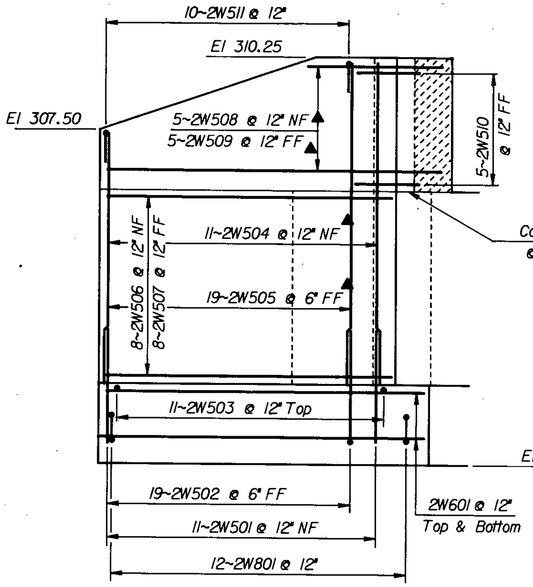
▲ Indicates Cut to Fit In Field

FF = Far Face
NF = Near Face
EF = Each Face



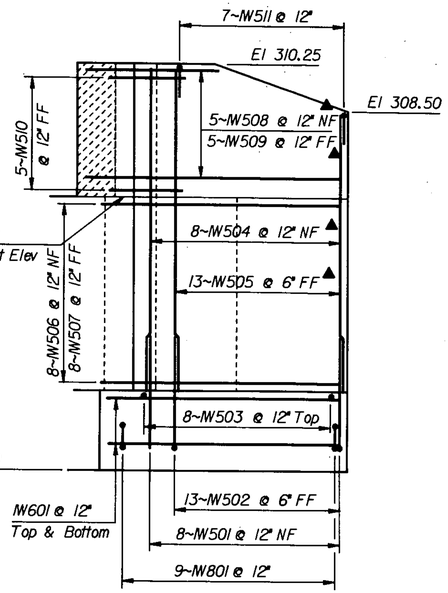
SECTION A-A

Scale 1/2" = 1'-0"



WINGWALL No 2 ELEVATION

Scale 3/8" = 1'-0"

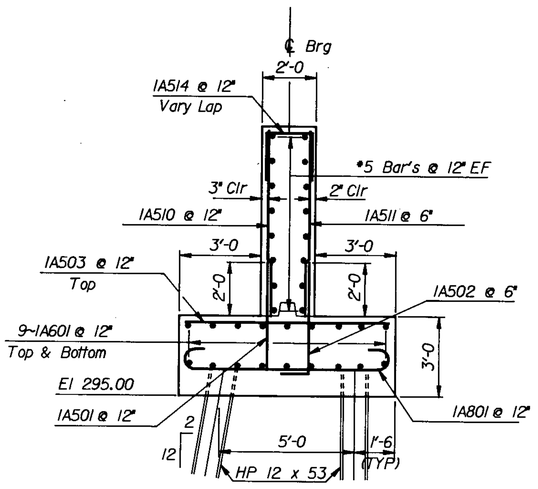


WINGWALL No 1 ELEVATION

Scale 3/8" = 1'-0"

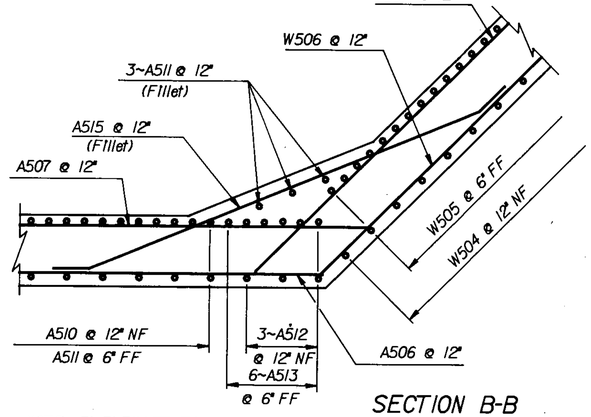
SECTION A-A & B-B are TYPICAL for both Abutments.

TYPICAL WINGWALL SECTION Is on next sheet.



ABUTMENT No 1 TYPICAL SECTION

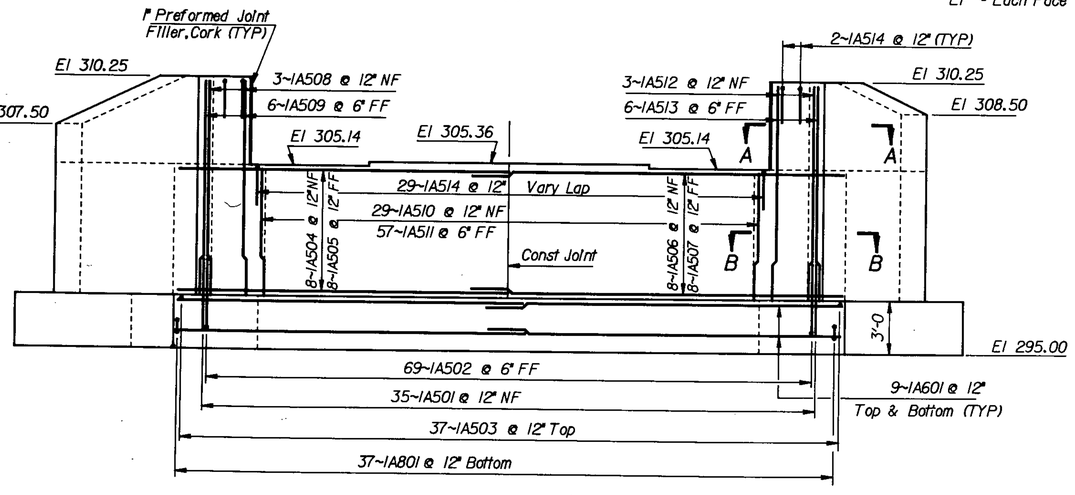
Scale 3/8" = 1'-0"



NOTE: 3'x3' FILLET TO BRIDGE SEAT ELEVATION ONLY (TYP BOTH ABUTS)

SECTION B-B

Scale 1/2" = 1'-0"

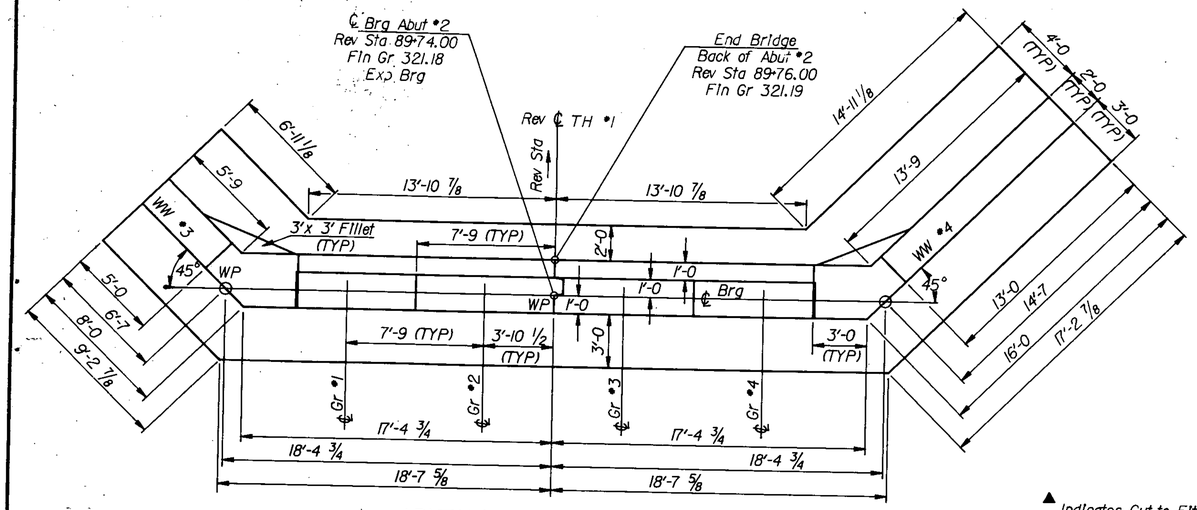


ABUTMENT No 1 ELEVATION

Scale 1/4" = 1'-0"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of GEORGIA	Bridge No. 10
Highway No. TH #1	Log Sta. Sta. Rev 88+15.00
TH #1 over LAMOILLE RIVER	
ABUTMENT No 1 DETAILS	
Designed By G. WILLIAMS	Drawn By E. BLODGETT
Checked By G. ROGERS Date 12/84	Bridge Design Supervisor F.W. Bolkum Date 2/85
PROJECT GEORGIA	PROJECT NO. BRZ 1448(3)
L.G.C. Info.	QSAVE\30\2363807\ABI.DGN
Bridge Sheet No.	Sheet 24 of 61

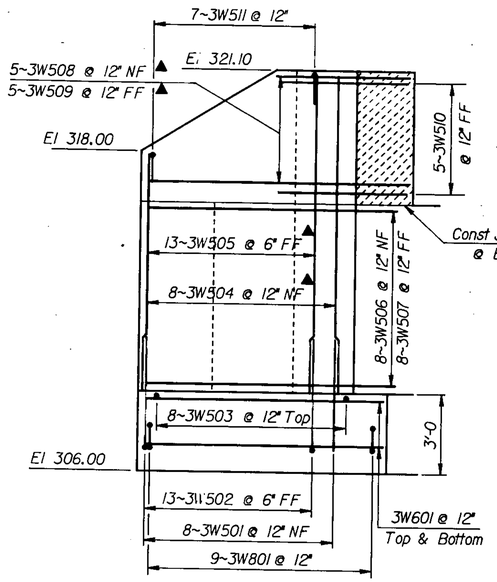


ABUTMENT No 2 PLAN

Scale 1/4" = 1'-0"

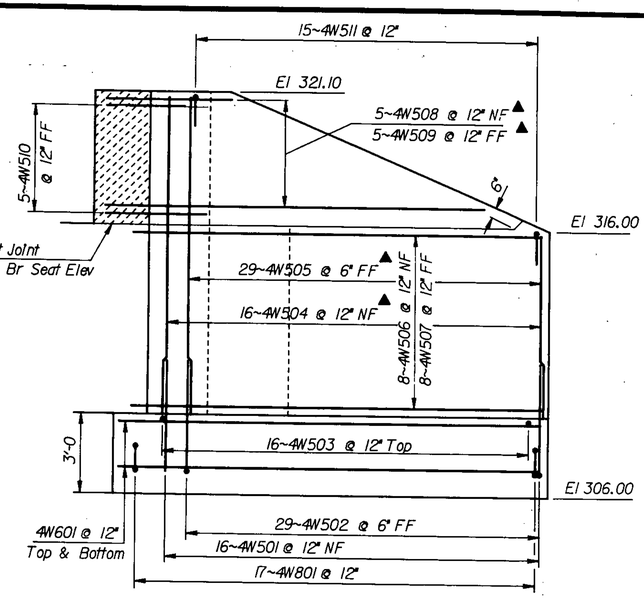
▲ Indicates Cut to Fit In Field

FF = Far Face
NF = Near Face
EF = Each Face



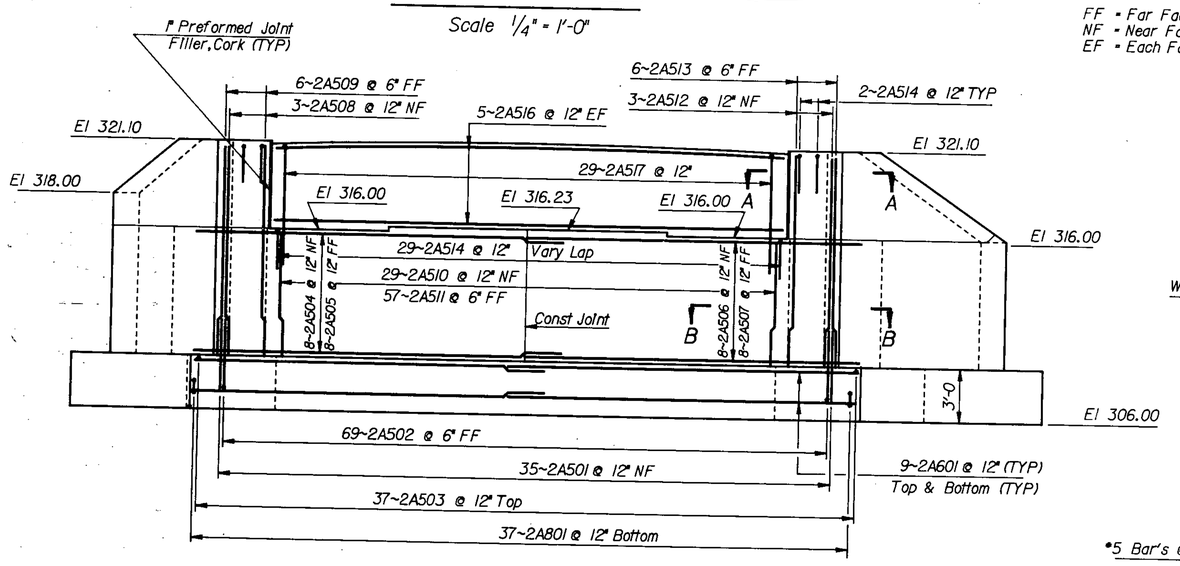
WINGWALL No 3 ELEVATION

Scale 3/8" = 1'-0"



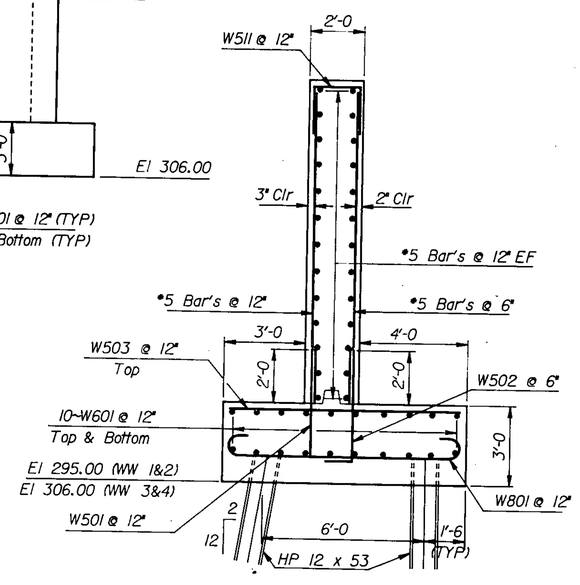
WINGWALL No 4 ELEVATION

Scale 3/8" = 1'-0"



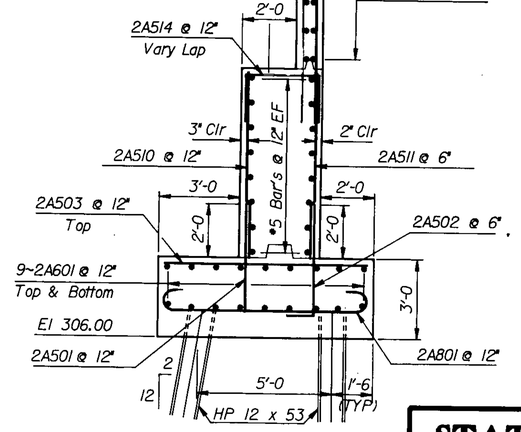
ABUTMENT No 2 ELEVATION

Scale 1/4" = 1'-0"



TYPICAL WINGWALL SECTION

Scale 3/8" = 1'-0"

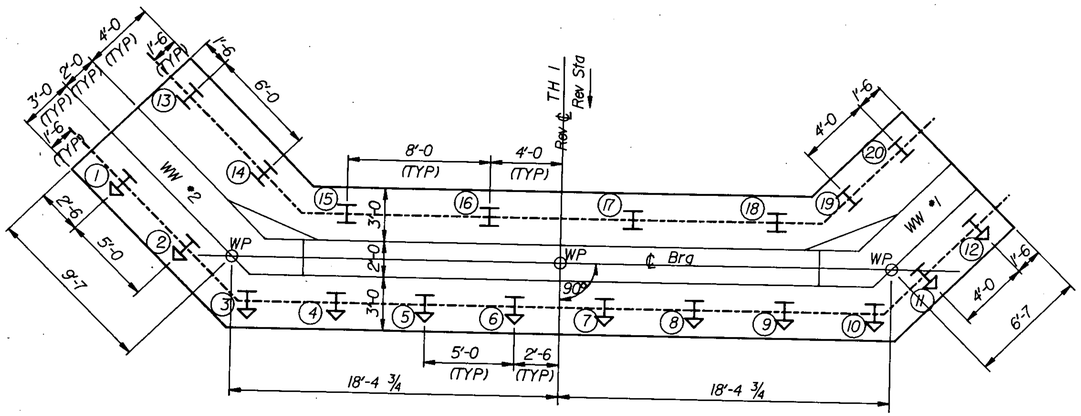


ABUTMENT No 2 TYPICAL SECTION

Scale 3/8" = 1'-0"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of GEORGIA	Bridge No. 10
Highway No. TH #1	Log Sta. ——
	Surv. Sta. Rev 88+15.00
TH #1 over LAMOILLE RIVER	
ABUTMENT No 2 DETAILS	
Designed By C. WILLIAMS	Drawn By E. BLODGETT
Checked By G. ROGERS Date 12/84	Bridge Design Supervisor F.W. Balkum Date 2/85
PROJECT GEORGIA	PROJECT NO. BRZ 1448(3)
L.G.C. Info.	QSAVE\30.E\3635B07OABI.DGN
Bridge Sheet No.	Sheet 25 of 61



ABUTMENT No 1 PILE LAYOUT

Scale 1/4" = 1'-0"

PILING TABLE (HP 12X53)		
LOCATION	NO OF PILES	APPROX. LENGTH
ABUT # 1	20	21'
ABUT # 2	22	31'

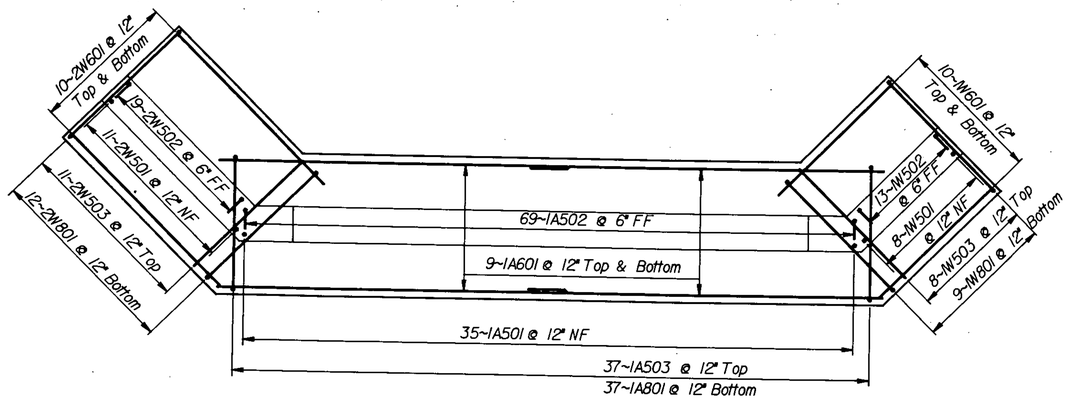
PILES ARE DESIGNED TO BE FRICTION TYPE PILES WITH A MAXIMUM PILE LOAD CAPACITY OF 90 K.

NOTE:

LAST 10' OF DESIGN PILE LENGTH SHALL NOT BE DRIVEN WITH A VIBRATORY HAMMER.

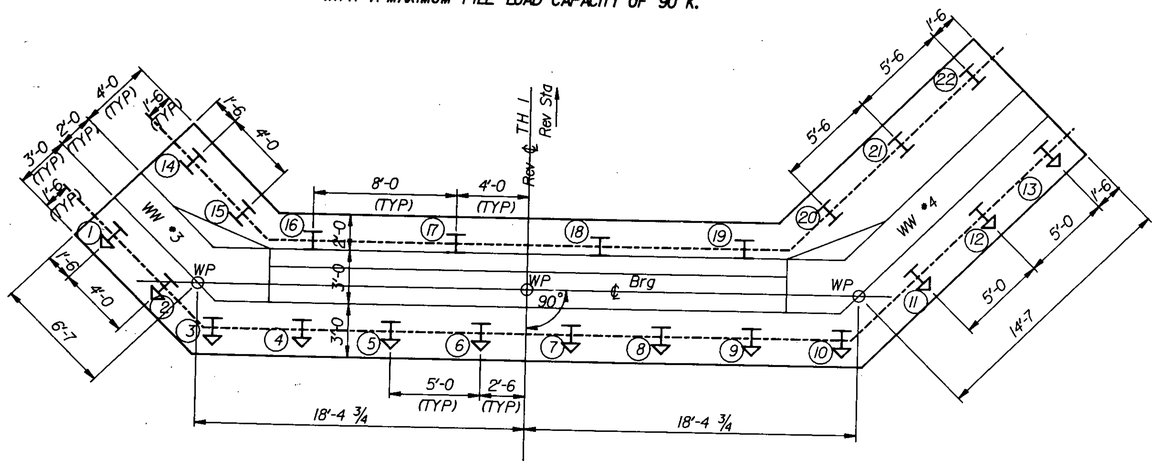
I INDICATES VERTICAL PILE

I INDICATES DIRECTION OF BATTERED PILE
BATTER TO BE 12 ON 2



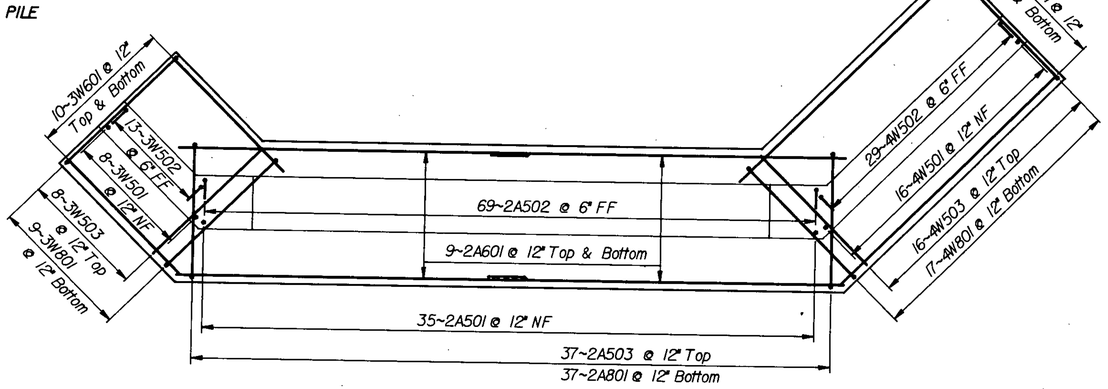
ABUTMENT No 1 FOOTING REINFORCING PLAN

Scale 1/4" = 1'-0"



ABUTMENT No 2 PILE LAYOUT

Scale 1/4" = 1'-0"



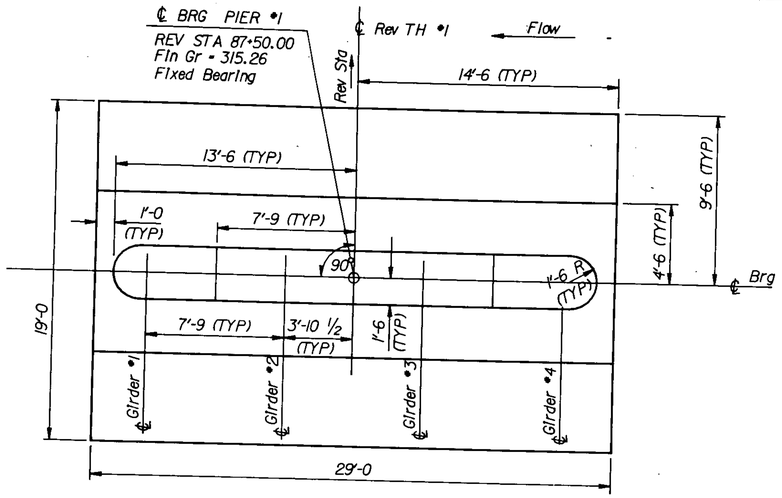
ABUTMENT No 2 FOOTING REINFORCING PLAN

Scale 1/4" = 1'-0"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

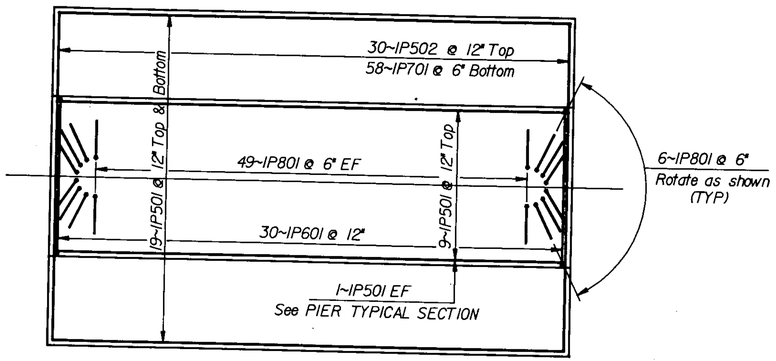
Town Of GEORGIA	Bridge No. 10
Highway No. TH #1	Log Sta. — Sta. Rev 88+15.00
TH #1 over LAMOILLE RIVER	
FOOTING REINFORCING PLAN & PILE LAYOUT	
Designed By C. WILLIAMS	Drawn By E. BLODGETT
Checked By C.WILLIAMS Date 12-84	Bridge Design Supervisor F.W. Bolkum Date 2/85
PROJECT GEORGIA	PROJECT NO. BRZ 1448(3)
L.G.C. Info.	QSAAE30,2363B070AB1.DGN
Bridge Sheet No.	Sheet 26 of 61

3R-6



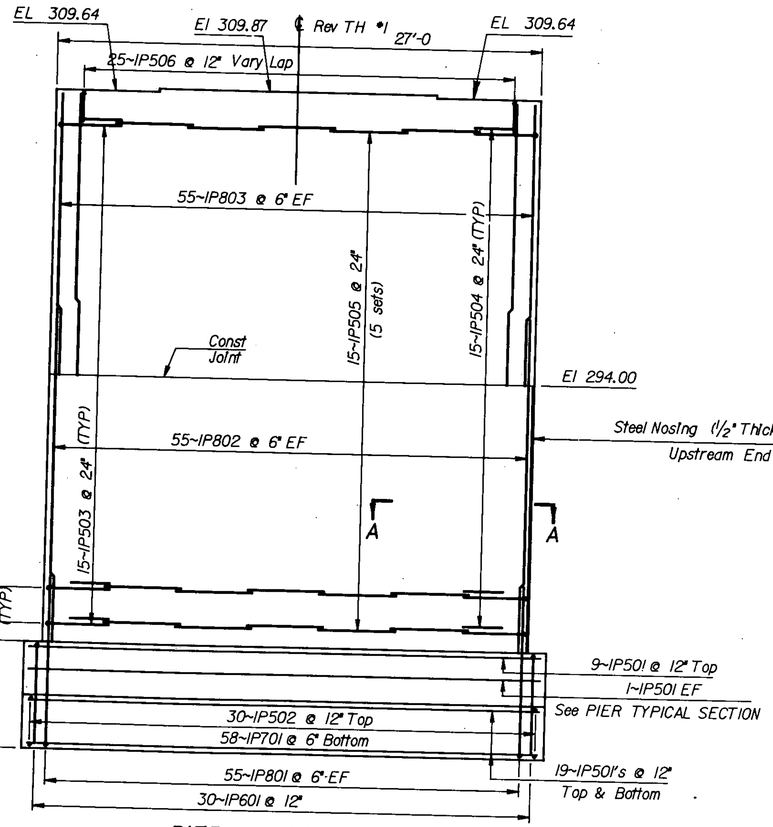
PIER No 1 PLAN

Scale 1/4" = 1'-0"



PIER No 1 FOOTING REINFORCING STEEL

Scale 1/4" = 1'-0"



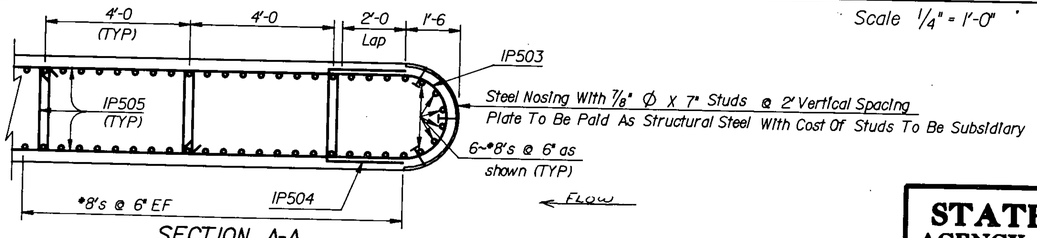
PIER No 1 ELEVATION

Scale 1/4" = 1'-0"

PIER NOTES

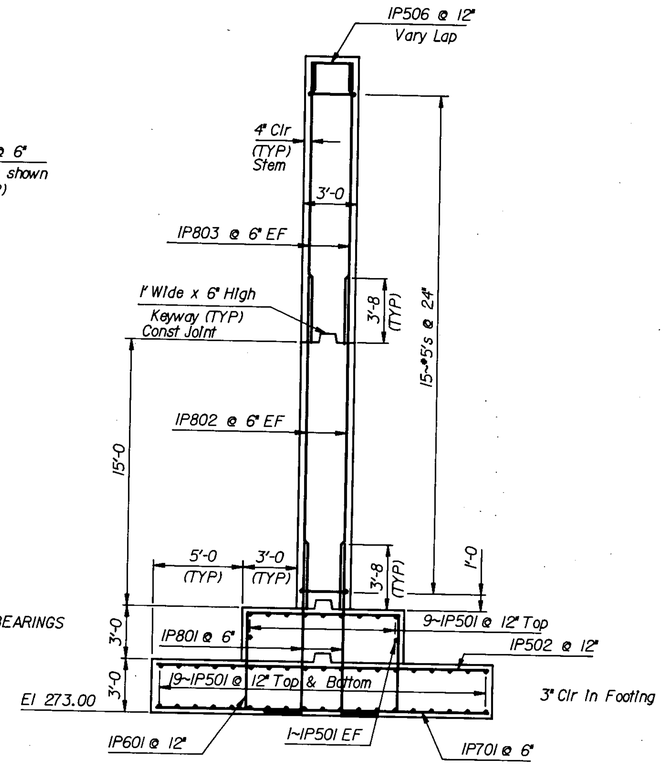
USE 4" CLEAR COVER IN STEM AND 3" CLEAR COVER IN FOOTING.

FINAL BRIDGE SEAT ELEVATIONS WILL BE ADJUSTED WHEN SHOP DRAWINGS FOR THE POT BEARINGS ARE RECEIVED FROM THE FABRICATOR.



SECTION A-A

Scale 1/2" = 1'-0"

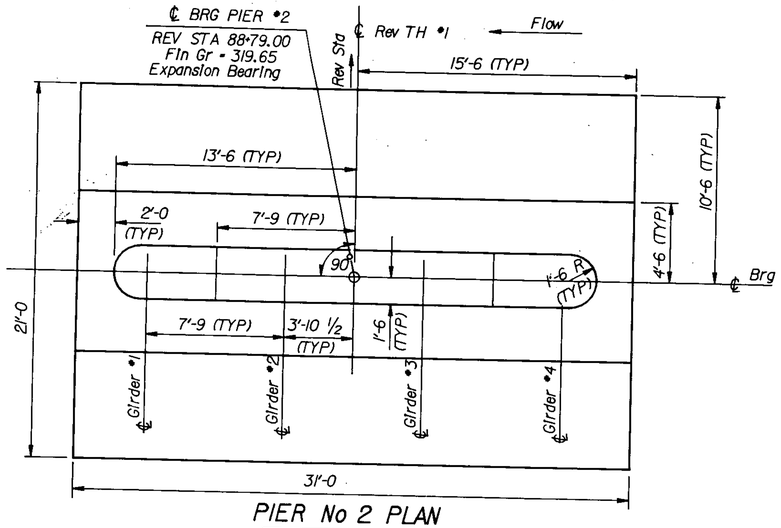


PIER No 1 TYPICAL SECTION

Scale 1/4" = 1'-0"

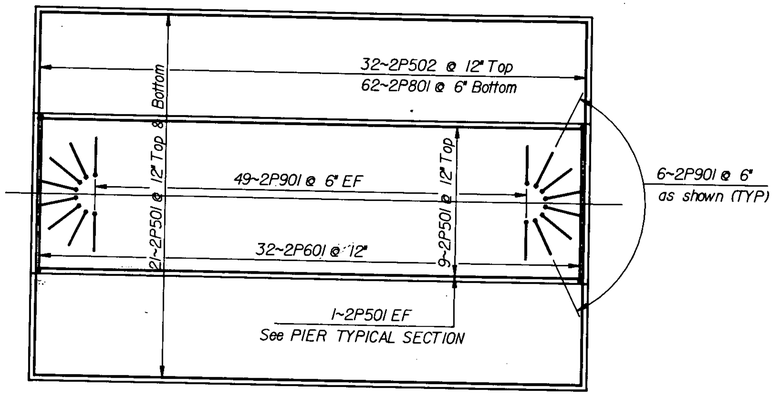
STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of GEORGIA	Bridge No. 10
Highway No. TH #1	Log Sta. ——
	Rev Sta. 88+15.0
TH #1 over LAMOILLE RIVER	
PIER #1 DETAILS	
Designed By C.P.WILLIAMS	Drawn By E. BLODGETT
Checked By C.P.WILLIAMS Date 11/84	Bridge Design Supervisor F.W. Bolkum Date 2/85
PROJECT GEORGIA	PROJECT NO. BRZ 1448(3)
L.G.C. Info.	QS:M:30,23:363807:0PR.DGN
Bridge Sheet No.	Sheet 27 of 61



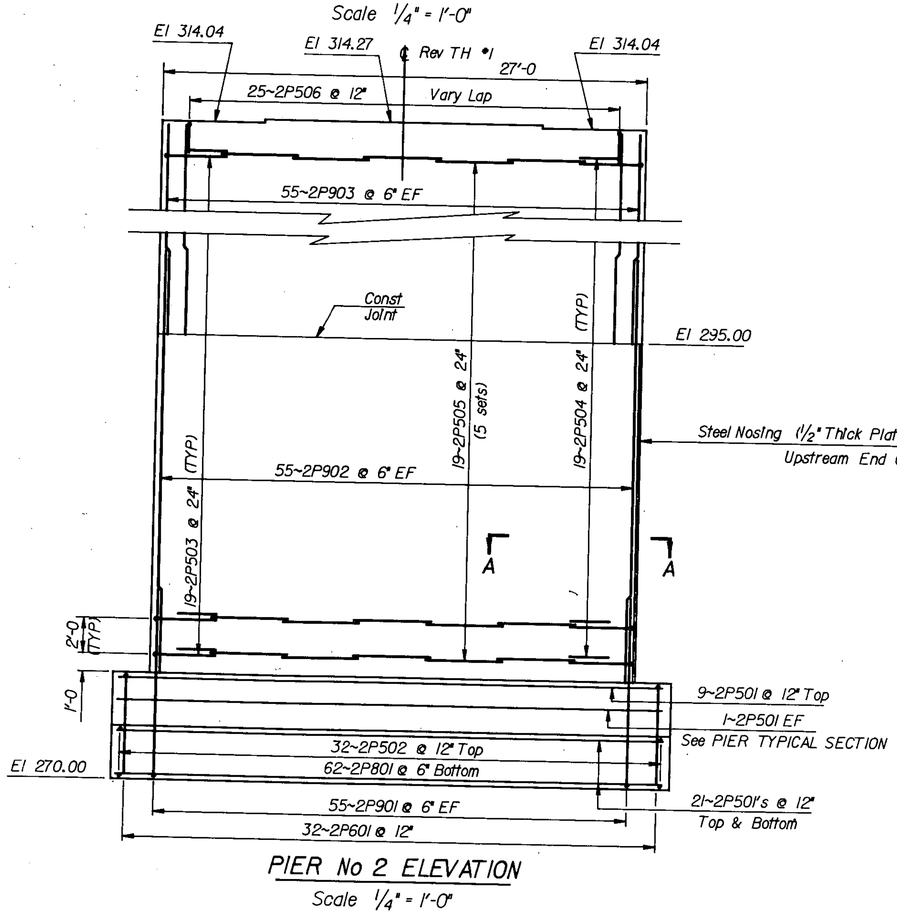
PIER No 2 PLAN

Scale 1/4" = 1'-0"



PIER No 2 FOOTING REINFORCING STEEL

Scale 1/4" = 1'-0"



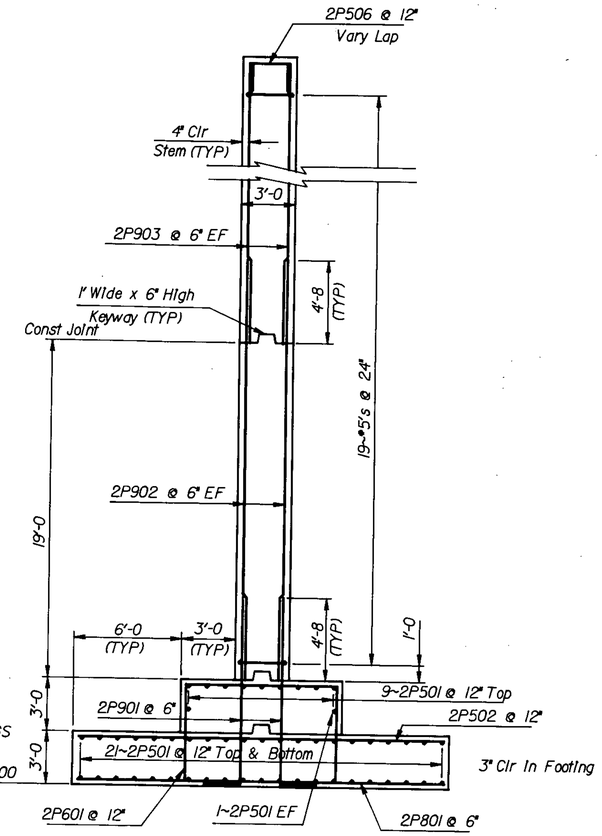
PIER No 2 ELEVATION

Scale 1/4" = 1'-0"

PIER NOTES

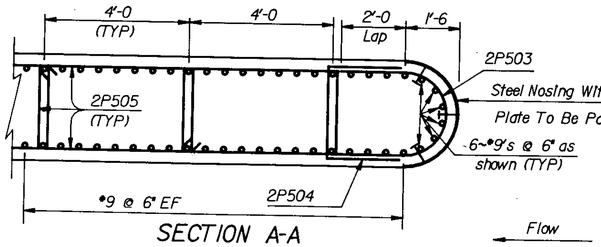
USE 4" CLEAR COVER IN STEM AND 3" CLEAR COVER IN FOOTING.

FINAL BRIDGE SEAT ELEVATIONS WILL BE ADJUSTED WHEN SHOP DRAWINGS FOR THE POT BEARINGS ARE RECEIVED FROM THE FABRICATOR.



PIER No 2 TYPICAL SECTION

Scale 1/4" = 1'-0"



SECTION A-A

Scale 1/2" = 1'-0"

STATE OF VERMONT AGENCY OF TRANSPORTATION	
Town Of GEORGIA	Bridge No. 10
Highway No. TH #1	Log Sta. — Rev Sta. 88+15.0
TH #1 over LAMOILLE RIVER	
PIER #2 DETAILS	
Designed By C.P.WILLIAMS	Drawn By E. BLODGETT
Checked By C.P.WILLIAMS Date 11/84	Bridge Design Supervisor F.W. Bolkum Date 2/85
PROJECT GEORGIA	PROJECT NO. BRZ 1448(3)
L.G.C. Info.	QSAL130,2336380TOPR.DGN
Bridge Sheet No.	Sheet 28 of 61

ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
				SUPERSTRUCTURE													
3	430	5	33-10	ES502	STR												
4	430	5	33-10	S504	STR												
5	651	5	28-3	S505	STR												
7	49	10	26-0	ES1001	STR												
9	642	5	3-11	ES501	S5	0-6	1-2	0-7	1-2			0-6					
10	641	5	29-5	ES503	1	0-7	28-3					0-7					
11	22	5	9-9	S506	S5	0-6	4-1	0-7	4-1			0-6					
12	20	5	6-4	ES507	22	4-0	0-9	0-11	0-8								
				ABUTMENT #1													
18	37	5	4-0	1A501	STR												
19	37	5	7-6	1A503	STR												
20	8	5	17-5	1A504	STR												
21	8	5	19-0	1A505	STR												
22	8	5	19-5	1A506	STR												
23	8	5	21-0	1A507	STR												
24	3	5	12-0	1A508	STR												
25	6	5	12-0	1A509	STR												
26	29	5	6-11	1A510	STR												
27	63	5	6-11	1A511	STR												
28	3	5	12-0	1A512	STR												
29	6	5	12-0	1A513	STR												
31	36	6	19-8	1A601	STR												
33	69	5	5-0	1A502	17		1-0	4-0									
34	33	5	4-1	1A514	17		1-3	1-7	1-3								
35	16	5	14-6	1A515	14		1-0	12-6	1-0								
37	37	8	9-4	1A801	1	0-11	7-6					0-11					
				WINGWALL #1													
41	8	5	4-0	1W501	STR												
42	8	5	8-6	1W503	STR												
43	8	5	12-0	1W504	STR												
44	13	5	12-0	1W505	STR												
45	8	5	7-9	1W506	STR												
46	8	5	9-2	1W507	STR												
47	5	5	9-2	1W509	STR												
48	5	5	4-0	1W510	STR												
50	22	6	9-0	1W601	STR												
52	13	5	5-0	1W502	17		1-0	4-0									
53	5	5	10-5	1W508	19		2-8	7-9									
54	7	5	3-7	1W511	17		1-0	1-7	1-0								
56	9	8	10-4	1W801	1	0-11	8-6					0-11					
				WINGWALL #2													
62	11	5	4-0	2W501	STR												
63	11	5	8-6	2W503	STR												
64	11	5	12-0	2W504	STR												
65	19	5	12-0	2W505	STR												
66	8	5	10-9	2W506	STR												
67	8	5	12-2	2W507	STR												
68	5	5	12-2	2W509	STR												
69	5	5	4-0	2W510	STR												
71	20	6	12-0	2W601	STR												
73	19	5	5-0	2W502	17		1-0	4-0									
74	5	5	13-5	2W508	19		2-8	10-9									
75	10	5	3-7	2W511	17		1-0	1-7	1-0								
77	14	8	10-4	2W801	1	0-11	8-6					0-11					

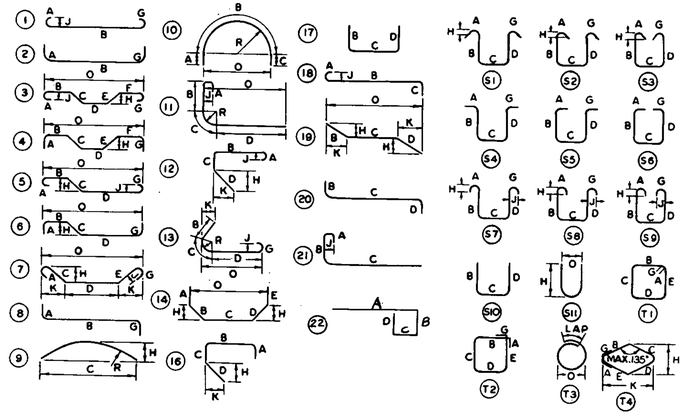
ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
				ABUTMENT #2													
83	35	5	4-0	2A501	STR												
84	37	5	7-6	2A503	STR												
85	8	5	19-5	2A504	STR												
86	8		21-10	2A505													
87	8		17-5	2A506													
88	8		19-10	2A507													
89	3		11-10	2A508													
90	6		11-10	2A509													
91	29		6-9	2A510													
92	63		6-9	2A511													
93	3		11-10	2A512													
94	6	5	11-10	2A513	STR												
95	10	5	28-3	2A516	STR												
97	36	6	19-8	2A601	STR												
99	69	5	5-0	2A502	17		1-0	4-0									
100	33	5	5-1	2A514	17		1-3	2-7	1-3								
101	16	5	15-11	2A515	14		1-0	13-11	1-0								
102	29	5	14-5	2A517	17		6-11	0-7	6-11								15-4
104	37	8	9-4	2A801	1	0-11	7-6					0-11					
				WINGWALL #3													
106	8	5	4-0	3W501	STR												
107	8	5	8-6	3W503													
108	8	5	11-10	3W504													
109	13	5	11-10	3W505													
110	8	5	7-9	3W506													
111	8	5	9-2	3W507													
112	5	5	9-2	3W509													
113	5	5	4-0	3W510	STR												
115	20	6	9-0	3W601	STR												13-11
117	13	5	5-0	3W502	17		1-0	4-0									
118	5	5	10-5	3W508	19		2-8	7-9									
119	7	5	3-7	3W511	17		1-0	1-7	1-0								
121	9	8	10-4	3W801	1	0-11	8-6					0-11					
				WINGWALL #4													
123	16	5	4-0	4W501	STR												
124	16	5	8-6	4W503	STR												
125	16	5	11-10	4W504													
126	29	5	11-10	4W505													
127	8	5	15-9	4W506													
128	8	5	17-2	4W507													
129	5	5	17-2	4W509													
130	5	5	4-0	4W510	STR												
132	20	6	17-0	4W601	STR												
134	29	5	5-0	4W502	17		1-0	4-0									
135	5	5	18-5	4W508	19		2-8	15-9									
136	15	5	3-7	4W511	17		1-0	1-7	1-0								
138	17	8	10-4	4W801	1	0-11	8-6					0-11					
				PIER #1													
142	49	5	28-6	1P501	STR												
143	30	5	18-6	1P502	STR												
145	60	7	18-6	1P701	STR												
147	110	8	18-8	1P802	STR												
148	110	8	15-4	1P803	STR												
150	30	5	7-8	1P503	10	2-0	3-8	2-0									
151	30	5	6-6	1P504	17		2-1	2-4	2-1								
152	75	5	13-11	1P505	T1	0-5½	2-4	4-2	2-4	4-2		0-5½					
153	25	5	4-10	1P506	17		1-3	2-4	1-3								
155	30	6	19-6	1P601	17		5-6	8-6	5-6								
157	110	8	11-5	1P801	17		2-0	9-5									

ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
				PIER #2													
161	53	5	30-6	2P501	STR												
162	32	5	20-6	2P502	STR												
164	62	8	20-6	2P801	STR												
166	110	9	23-8	2P902	STR												
167	110	9	18-9	2P903	STR												
169	38	5	7-8	2P503	10	2-0	3-8	2-0								1-2	2-4
170	38	5	6-6	2P504	17		2-1	2-4	2-1								
171	95	5	13-11	2P505	T1	0-5½	2-4	4-2	2-4	4-2		0-5½					
172	25	5	4-10	2P506	17		1-3	2-4	1-3								
174	32	6	19-6	2P601	17		5-6	8-6	5-6								
176	112	9	12-5	2P901	17		2-0	10-5									

ASTM STANDARD REINFORCING BARS

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

TYPICAL BAR BENDS



NOTES

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT," AASHTO M 31 (ASTM A615-81) 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 BARS TO BE CUT TO FIT IN FIELD
* DENOTES TWO EXTRA BARS ADDED FOR TESTING PURPOSES.

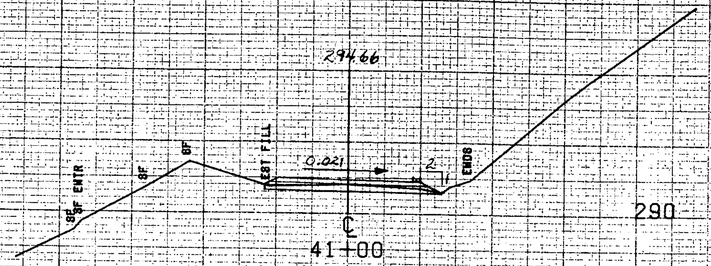
REV. NO.	MADE, BY	DATE	DESCRIPTION
1	J. WOOD	8/11/75	AASHO CHANGED TO AASHTO AND GRADE 40 CHANGED TO GRADE 60.

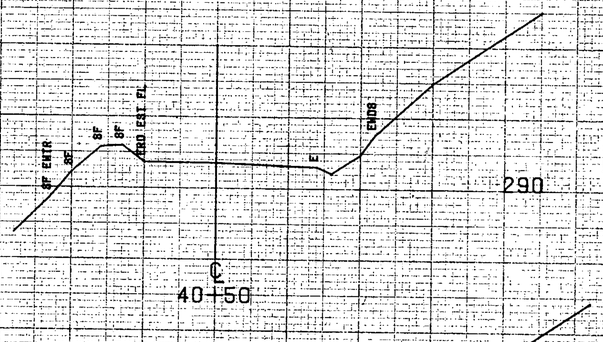
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

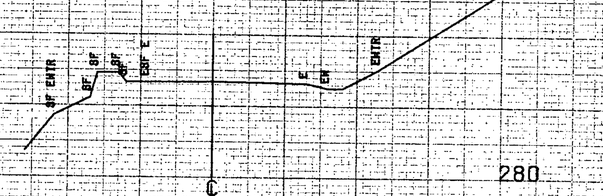
TOWN OF GEORGIA — BRIDGE NO. 10
HIGHWAY NO. TH #1 — LOG STA. —
~~SURV.~~ STA. ~~Rev~~ 18+15.0
TH #1 OVER LAMOILLE RIVER
REINFORCING STEEL SCHEDULE
DESIGNED BY C.P. Williams — DRAWN BY M. RYAN
CHECKED BY G.S. ROGERS BRIDGE DESIGN SUPERVISOR
DATE 1/85 F.W. Bolkum DATE 2/85
PROJECT GEORGIA — PROJECT NO. BRZ 1448(3)
BRIDGE SHEET NO. — SHEET 29 OF 61

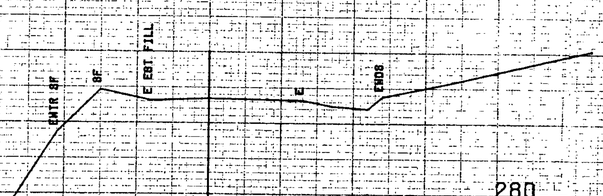
RP 6

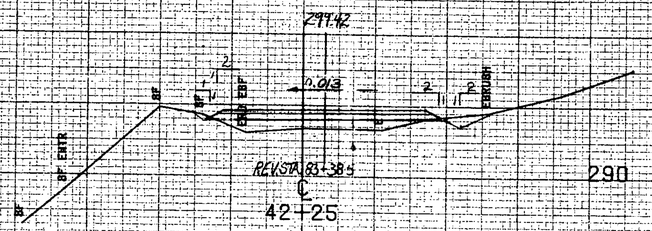
SEE NEXT SHEET FOR PIPE SECTION



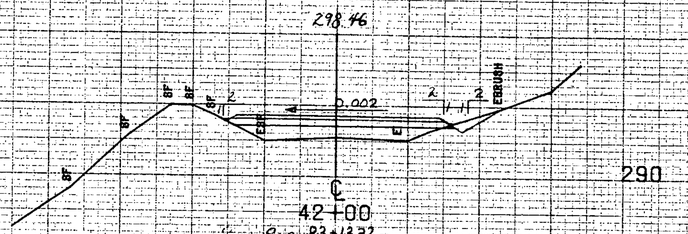


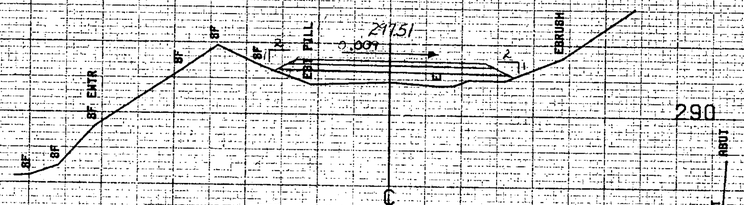


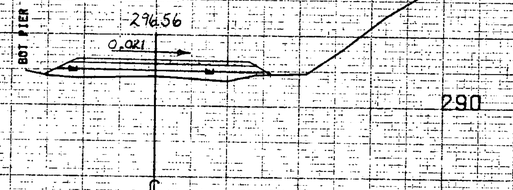


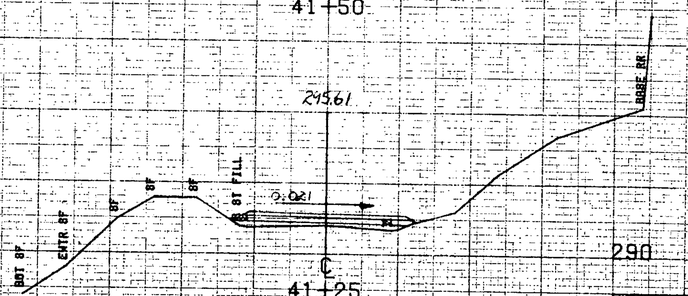


BEGIN PROJECT REV.STA. 83+13.32
CONSTRUCT SATISFACTORY APPROACH









SCALE 50 FEET

SCALE 50 FEET

FROM STA. 39+50 TO STA. 42+25
PROJECT NAME GEORGIA MAIN THI
NO. BRI-548(9) PLOTTED 01/02/80
SURVEYED BY BRADY DEC. 1979
SHEET 30 OF 61 SHEETS

RIGHT

LEFT

STA 43+00
=REV STA. 84+13.8

STA 42+50
=REV STA. 83+68.7

STA 42+40.5
=REV STA. 83+53.82

P.C. REV. STA. 83+35.12

52.43'

STA 42+00 = REV STA. 83+13.32

45'

STA. 41+95.5

45'

P.T. STA 41+69.17

STA 41+50

STA. 41+50.5

+.021 ⅓

-.021 ⅓

+.021 ⅓

TH #1 STA 41+00

LEFT

RIGHT

BANKING DIAGRAM

304.18

0.021

REV STA. 84+63.9

290

℄ 43+50

CONSTRUCT DRIVE REV STA. 84+44 RT.

323.23

REV STA. 84+38.8

290

℄ 43+25

CONSTRUCT DRIVE REV STA 84+18 RT.

302.28

TH #1 REV STA 84+03 → 84+57
NEW 12' SEC. ACCESS (0.064 IN TR.)

REV STA. 84+13.8

290

℄ 43+00

REV STA. 83+08 LT.
BEGIN GUARD RAIL STANDARD STEEL BEAM W/WOOD POSTS, TYPE II

301.32

REV STA. 83+88.1

290

℄ 42+75

299.76

0.016

REV STA 83+47

290

℄ 42+34

NEW 16'+30' ACCESS
(0.064 IN.)

300.37

0.021

REV STA. 83+63.7

290

℄ 42+50

FROM STA. 42+34 TO STA. 43+50
PROJECT NAME GEORGIA MAIN TH 1
NO. GRI-448(13) PLOTTED 01/08/80
SURVEYED BY BRADY DEC. 1978
SHEET 3 OF 67 SHEETS

SCALE 1" = 50'

PLATE 3 CROSS SECTION O. P. R. R. C. STANDARD
CITYGIN CORPORATION

SURVEY	
NOTE BOOK	SURVEYED
NO.	PLOTTED
	TEMPLATE
	AREAS
	AREAS CHECKED

℄ 315.26

300

BEGIN BRIDGE

℄ 45+50

871.50
312.65

300

℄ 45+00

℄ 87+00

STA. 86+53 LT.
END GUARD RAIL, APPROACH SECTION TYPE IE
BEGIN BRIDGE RAIL, GALVANIZED BOX BEAM

BEGIN BRIDGE
REV. STA. — 86+54

STA 86+53 RT.
END GUARD RAIL, APPROACH SECTION TYPE IE
BEGIN BRIDGE RAIL, GALVANIZED BOX BEAM

310.03

ERD
DRB
TOP SF
SF
SF
SF
SF
SE EMTR.
EBRUSH
EBRUSH

290

℄ 44+50

℄ 86+50

308.47

STA. 86+40 LT.
END GUARD RAIL, STANDARD STEEL BEAM W/POST POSTS, TYPE IE
BEGIN GUARD RAIL, APPROACH SECTION TYPE IE

STA. 86+40 RT.
BEGIN GUARD RAIL, APPROACH SECTION, TYPE IE

ED BRTL
TOP SE

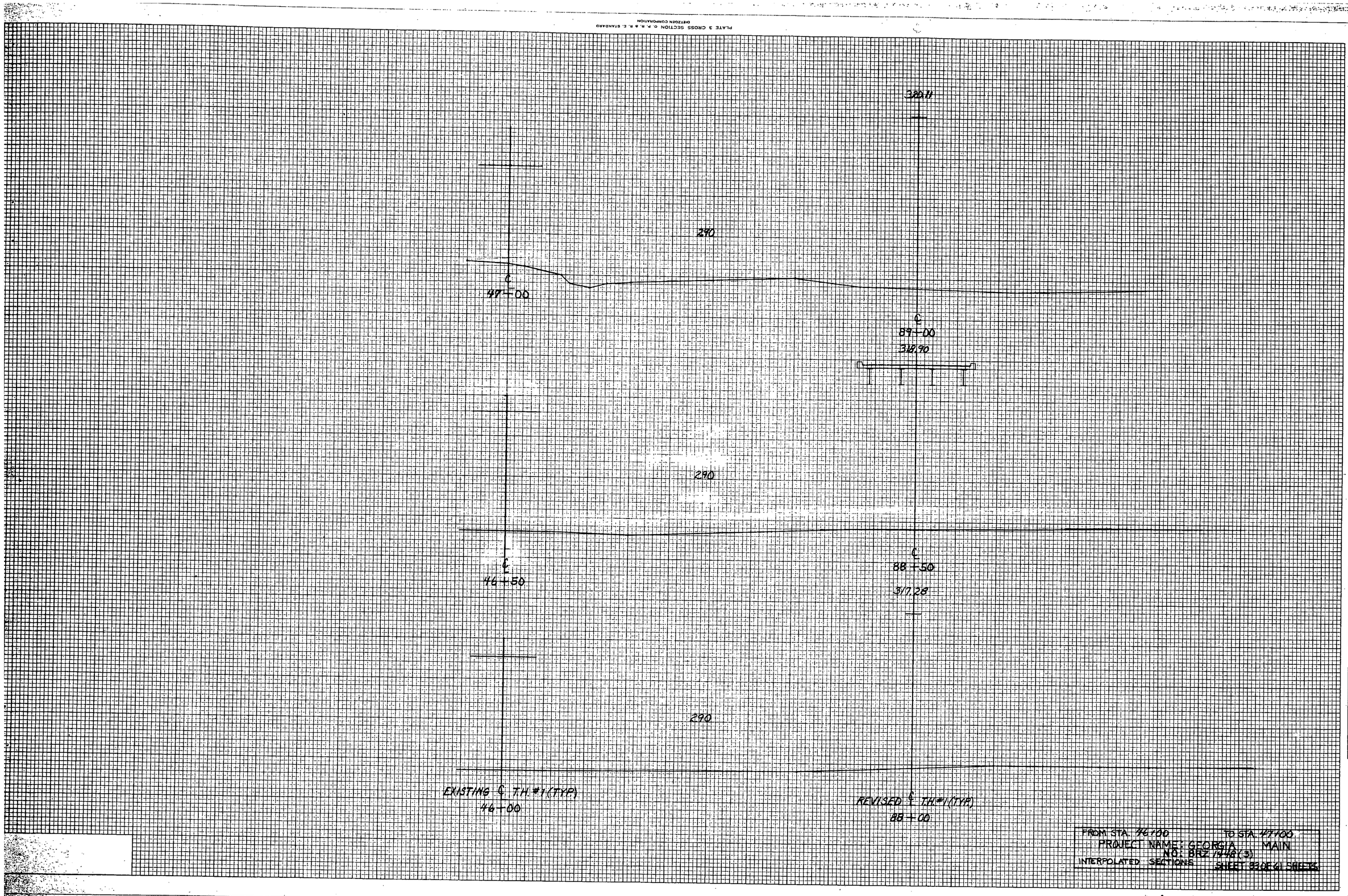
290

EXISTING ℄ TH #1 (TYP)
44+25

REVISED ℄ TH #1 (TYP)
86+25

FROM STA. 44+25 TO STA. 95+50
PROJECT NAME: GEORGIA MAIN
NO. BRZ 1448 (3) 5/5/82
INTERPOLATED SECTIONS SHEET 32 OF 61 SHEETS

PLATE 3 CROSS SECTION O. P. R. R. E. STANDARD
OREGON COMPORATION

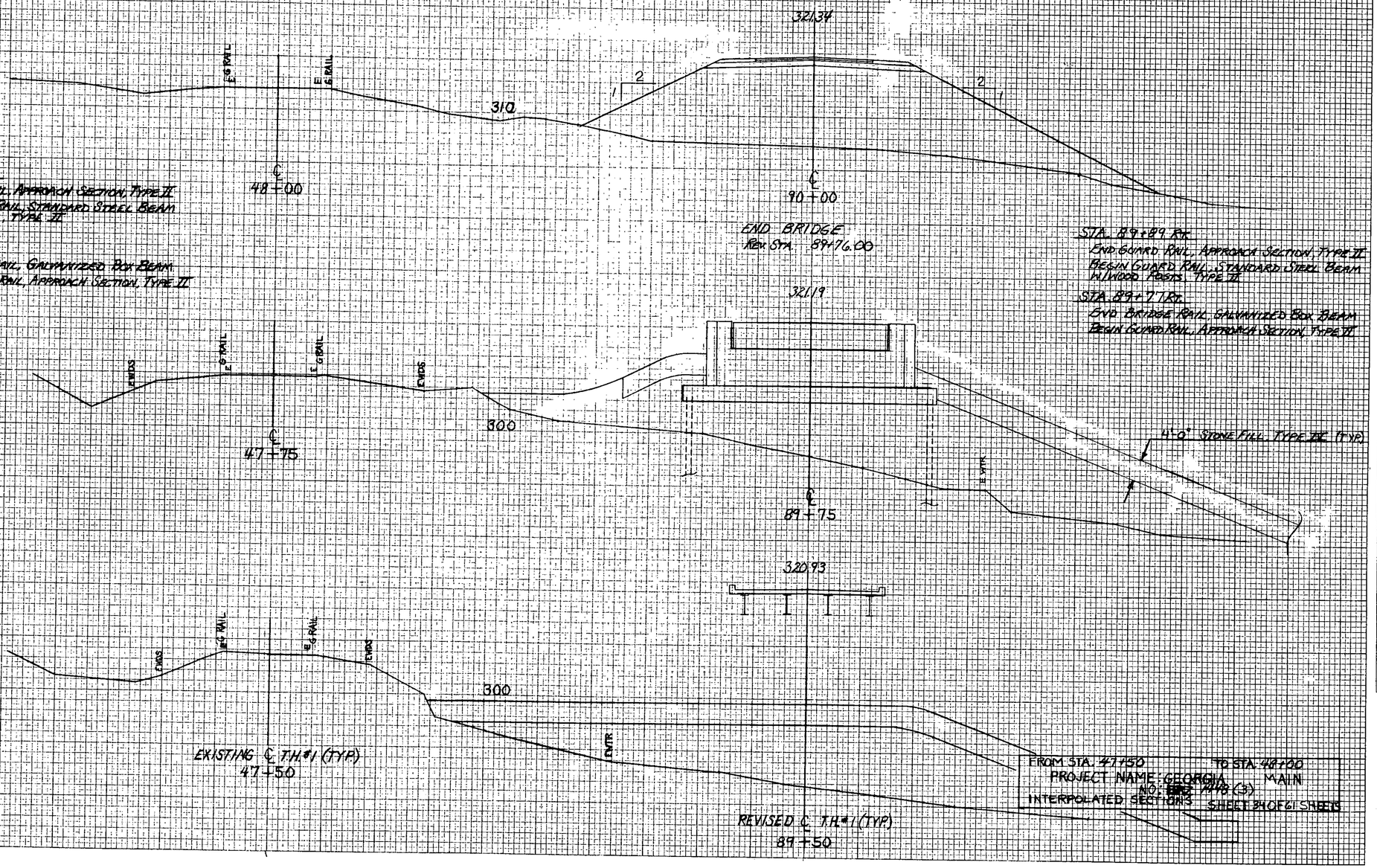


ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

FROM STA. 46+00 TO STA. 47+00
PROJECT NAME: GEORGIA MAIN
NO. BRZ 1448(3)
INTERPOLATED SECTIONS SHEET 33 OF 61 SHEETS

PLATE 3 CROSS SECTION O. P. R. & R. STANDARD
RETAINER CURB AND GUTTER



FROM STA. 47+50 TO STA. 48+00
PROJECT NAME: GEORGIA MAIN
NO: [redacted] 2478 (3)
INTERPOLATED SECTIONS SHEET 3 OF 6 SHEETS

ORIGINAL SURVEY			
NOTE BOOK	SURVEYED	BY	
NO.	PLOTTED		
	CHECKED		
	AREAS		
	AREAS CHECKED		DATE

FINAL SURVEY			
NOTE BOOK	SURVEYED	BY	
NO.	PLOTTED		
	CHECKED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		DATE

PLATE 3 CROSS SECTION C. P. R. R. STANCRO
BELDEN CORPORATION

STA. 90+87 LT.
END GUARD RAIL STANDARD STEEL BEAM W/WOOD POSTS TYPE II

END PROJECT
REF. STA. 90+94.00
CONSTRUCT SATISFACTORY APPROACH

STA. 90+94 RT.
END GUARD RAIL, STANDARD STEEL BEAM W/WOOD POSTS TYPE II

321.48
E
310
℄
48+60
90+60

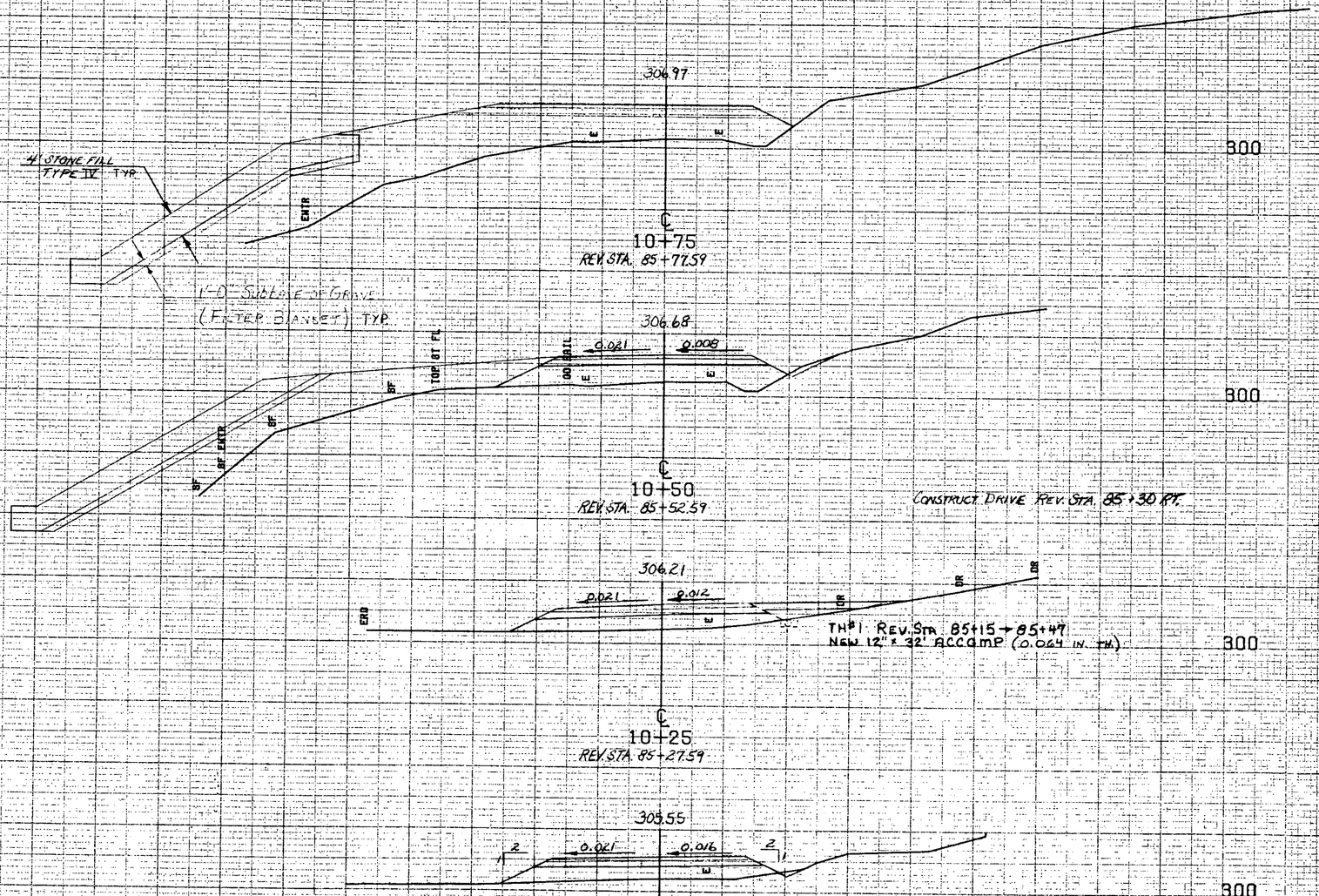
321.46
2 POSTS
2 NORMAL
1
2
1
310
℄
48+50
90+50

321.41
E
2
1
2
1
310
EXISTING ℄ T.H.#1 (TYP.)
48+25
REVISED ℄ T.H.#1 (TYP.)
90+25

FROM STA. 48+25 TO STA. 48+63
PROJECT NAME: GEORGIA MAIN
NO: BR2 (#48)(3)
INTERPOLATED SECTIONS SHEET 35 OF 61 SHEETS

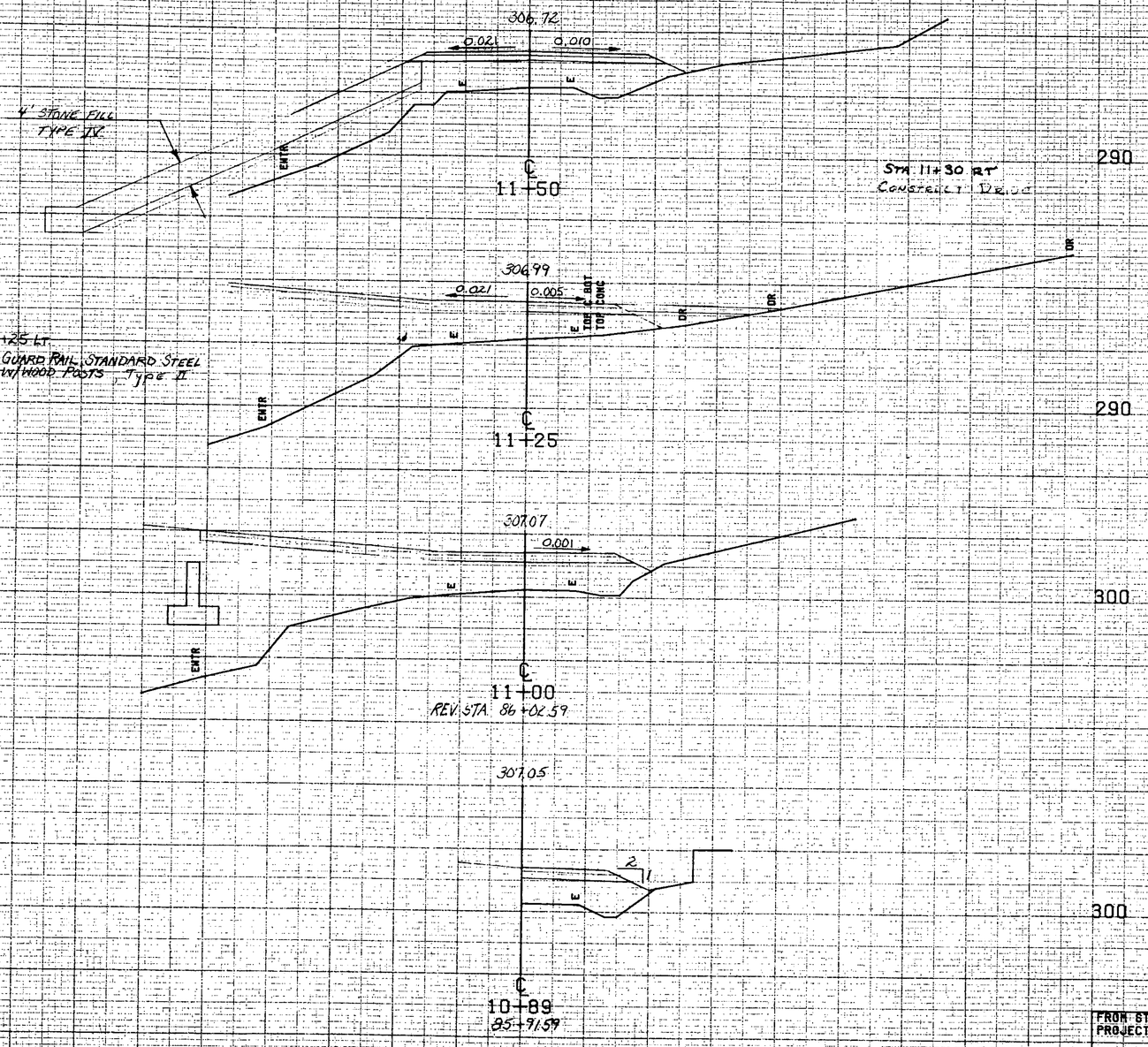
NO.	ORIGINAL SURVEY	BY	DATE
	NOTE BOOK		
	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		

NO.	FINAL SURVEY	BY	DATE
	NOTE BOOK		
	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		



FROM STA. 10+00			TO STA. 10+75
PROJECT NAME	GEORDIA	TH36	
NO.	BRZ1448(3)		PLOTTED 01/02/80
SURVEYED BY	BRADY		DEC. 1979
SHEET 36 OF 61 SHEETS			

SCALE 1" = 10 FEET



FROM STA. 10+85		TO STA. 11+50	
PROJECT NAME	GEORDIA	TH36	
NO.	BRZ1448(3)		PLOTTED 01/02/80
SURVEYED BY	BRADY		DEC. 1979
SHEET 37 OF 61 SHEETS			

SCALE: 1" = 10 FEET

TH #1 REV STA 87+00
= TH #36 STA. 11+97.41

REV STA 86+00 (TH #1)
= 10+97.41 (TH #36)

REV STA 85+00

REV STA 84+75

REV STA 84+50

TH #1 REV STA 84+03.73
= TH #36 STA 11+01.14

PT REV STA 85+00.49

RIGHT +0.021 ft/ft LEFT

-0.021 ft/ft

RIGHT LEFT

BANKING DIAGRAM

304.79

EXFR

E

E

EXOB

RET WALL TOP RET WL

GRADELINE

℄ 12+25

290

305.62

EXOBDH

0.021

0.021

2

11

EXOB

EXFR

EXOBDH

E

E

EXFR

℄ 12+00

290

306.10

TOP PIPE

BOT PIPE

0.021

0.018

3

11

TOP PIPE

BOT PIPE

E

E

EXOB

4" STONE FILL TYPE IV

1.5

1

EXFR

TH #36 STA 11+82 EXISTING 18" ACCGMP REMOVE

℄ 11+82

290

306.26

0.021

0.015

3

1

E

E

EXOB

EXFR

1.0' SUBBASE OF GRAVEL FILTER BLANKET

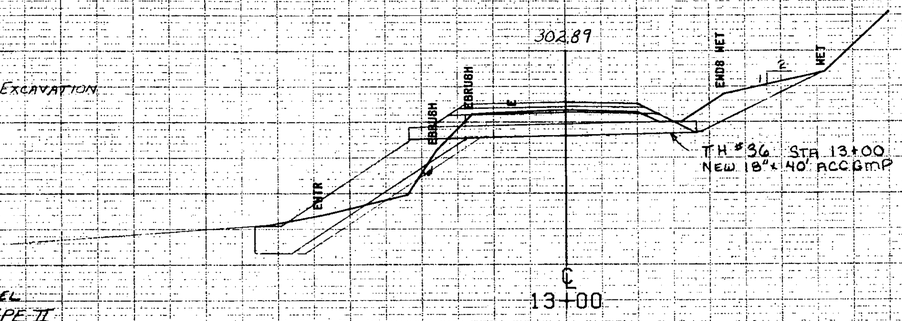
℄ 11+75

290

FROM STA. 11+75 TO STA. 12+25
PROJECT NAME GEORDIA TH96
NO. BRZ1440(5) PLOTTED 01/02/80
SURVEYED BY BRADY DEC. 1979
SHEET 38 OF 61 SHEETS

SCALE 1" = 10 FEET

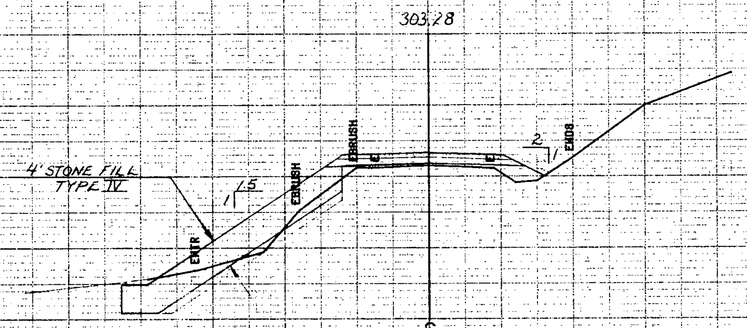
STA. 13+10
END STONE FILL TYPE III
END UNCLASSIFIED CHANNEL EXCAVATION



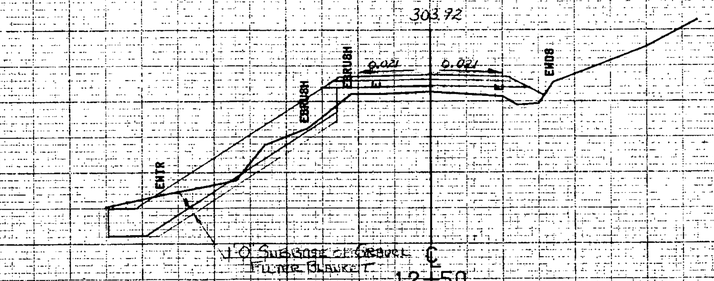
TH #36 STA 13+00
NEW 18"ϕ 40' ACCAMP (.064 IN. TH.)

290

STA. 12+90 LT.
END GUARD RAIL STD. STEEL
BEAM W/WOOD POSTS, TYPE II

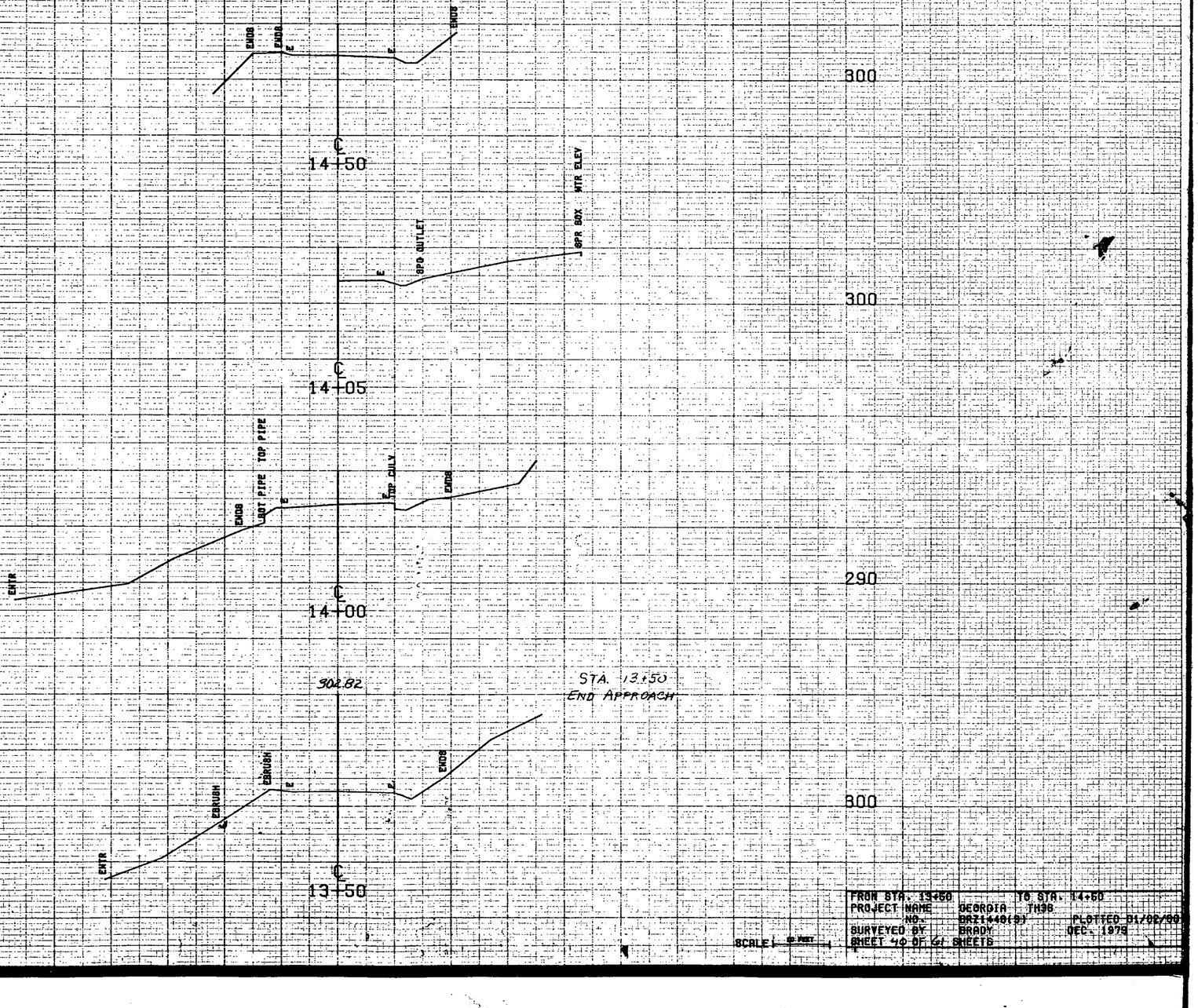


290



290

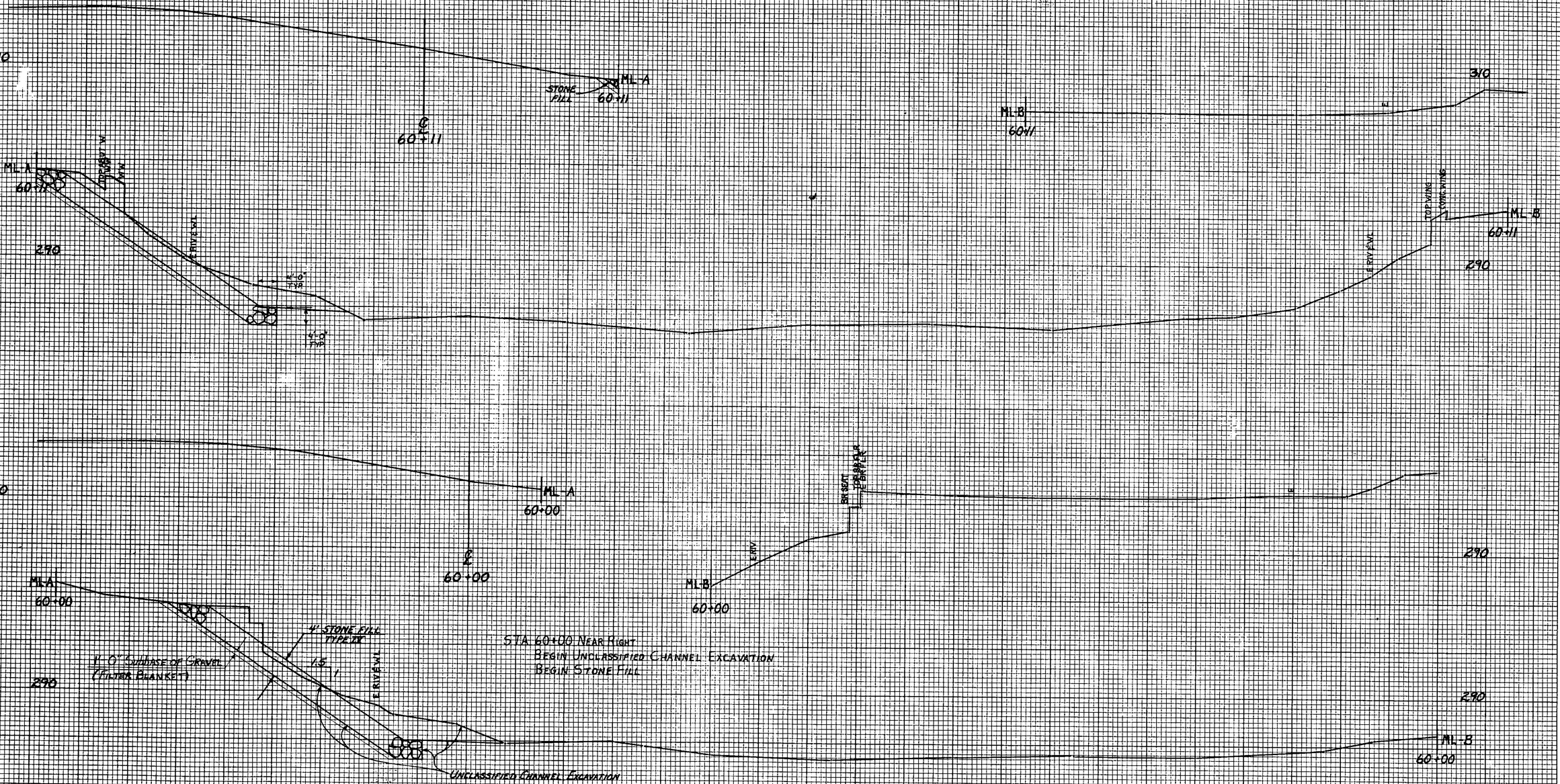
FROM STA. 12+50 TO STA. 13+80
PROJECT NAME GEORDIA TH36
NO. BRZ1440(9) PLOTTED 01/02/80
SURVEYED BY BRADY DEC. 1979
SHEET 39 OF 41 SHEETS
SCALE 1" = 10 FEET


300
300
290
300
℄ 14+50
℄ 14+05
℄ 14+00
℄ 13+50
ENDS
ENDS
E
E
ENDS
SPD BOX WTR ELEV
E
SPD OUTLET
ENTR
ENDS
BOT PIPE
TOP PIPE
E
TOP CULV
ENDS
302.82
STA. 13+50
END APPROACH
ENTR
EBRUSH
EBRUSH
E
E
ENDS
FROM STA. 13+50 TO STA. 14+50
PROJECT NAME GEORGIA TH36
NO. BRZ1448(5)
PLOTTED 01/02/80
SURVEYED BY BRADY DEC. 1979
SHEET 40 OF 61 SHEETS
SCALE: 0 FEET

BRUNING 44-131 42916

ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TRACED
AREA
AREA CHECKED
BY
DATE

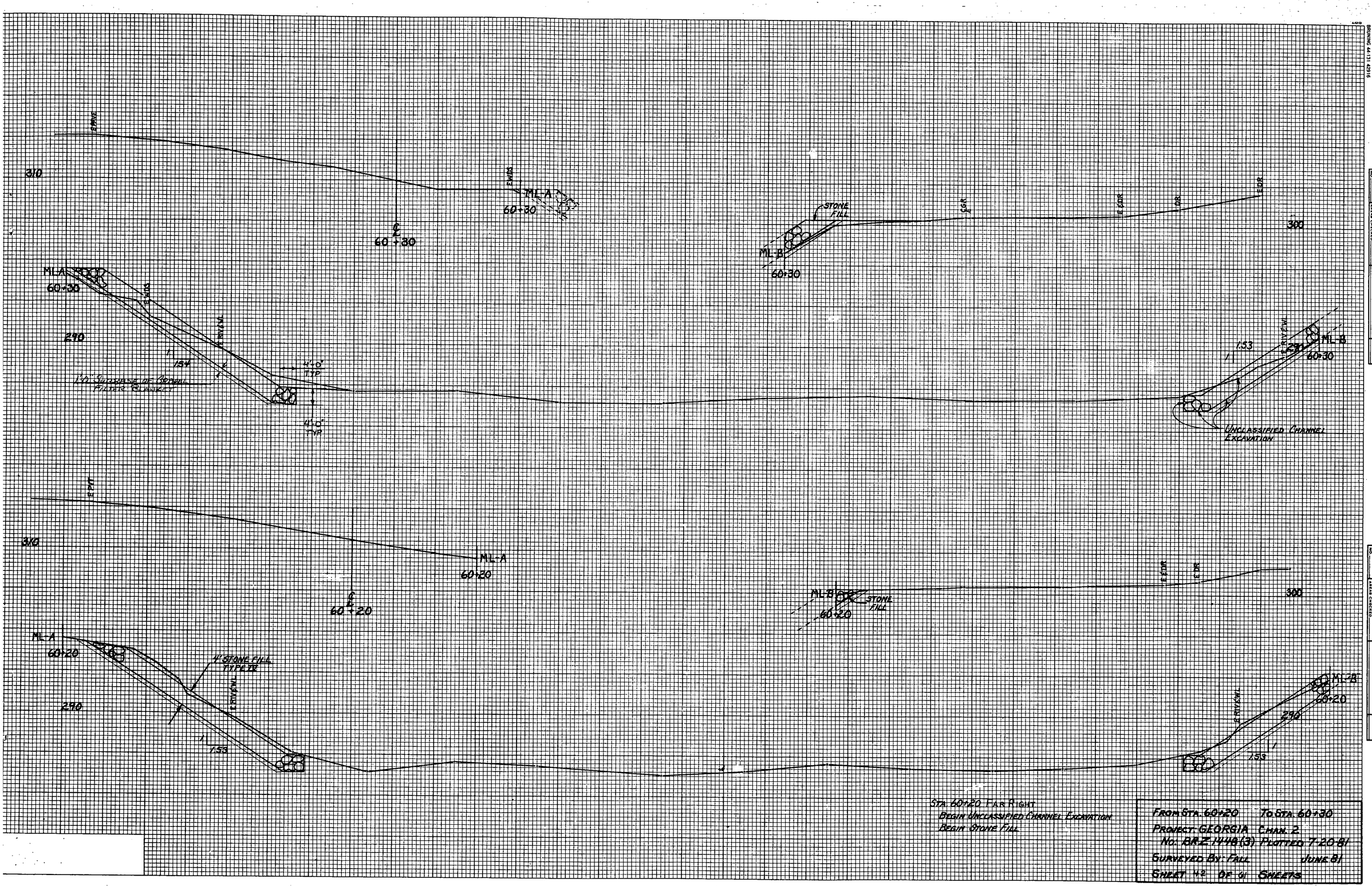
FINAL SURVEY
NOTE BOOK
NO.
SURVEYED JUNE '81
PLOTTED
TRACED
AREA
AREA CHECKED
FALL BY
DATE



STA 60+00 NEAR RIGHT
BEGIN UNCLASSIFIED CHANNEL EXCAVATION
BEGIN STONE FILL

FROM STA 60+00 TO STA 60+11
PROJECT: GEORGIA CHAN 2
NO. BRZ 1178(3) PLOTTED 7-20-81
SURVEYED BY: FALL JUNE 81
SHEETS 41 OF 61 SHEETS

BROWNING 44-131-42316


EMBK
ML-A
60+30
℄
60+30
ML-A
60+30
1:3
1:3
1:3

BRIDGE # 4131 42916

ORIGINAL SURVEY
NOTE BOOK NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

FINAL SURVEY
NOTE BOOK NO.
SURVEYED JUNE '81
PLOTTED FALL
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

EXIST
EXIST
EXIST

BRUINC 44-131 42916

ORIGINAL SURVEY		
NOTE BOOK	SURVEYED	
	PLOTTED	
	TEMPLATE	
	AREAS CHECKED	
NO.		BY / DATE

FINAL SURVEY		
NOTE BOOK	SURVEYED June 81	
	PLOTTED	
	TEMPLATE	FALL
	AREAS CHECKED	
NO.		BY / DATE

E. BANK

E. WDS.

E. WDS.

E. WDS.

E. WDS.

300

ML-A

61+00

℄ 61+00

HP 12x53 PILES (TYP)

12

1.5

1

ML-A

61+00

E. R/W LN.

290

E. BANK

E. WDS.

E. WDS.

E. WDS.

E. WDS.

300

ML-A

60+75

℄ 60+75

4'-0" STONE FILL TYPE II (TYP)

4'-0" TYP.

4'-0" TYP.

CO. QUARRIED GRAVEL (FILTER BLANKET)

1.5

1

ML-A

60+75

E. R/W LN.

290

E. BANK

E. R/W LN.

ML-B

61+00

1.5

1

290

ML-B

E. R/W LN.

UNCLASSIFIED CHANNEL EXCAVATION

UNCLASSIFIED CHANNEL EXCAVATION

℄ EXISTING TH 36

REV. ℄ TH 1

4' STONE FILL TYPE II

E. R/W LN.

GRANULAR BORROW (TYP)

EARTH BORROW (TYP)

300

ML-B

60+75

1.5

1

290

ML-B

60+75

E. R/W LN.

STA. 60+75

BEGIN STONE FILL @ PIER #1 & PIER #2

BEGIN UNCLASSIFIED CHANNEL EXCAVATION @ PIER #1 & PIER #2

FROM STA 60+75 TO STA 61+00

PROJECT: GEORGIA CHAN. 2

NO: BRZ 1448(3) PLOTTED 7-20-81

SURVEYED BY: FALL JUNE 81

SHEET 41 OF 61 SHEETS

BRUNING 44 131 42916

ORIGINAL SURVEY
NOTE BOOK NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

FINAL SURVEY
NOTE BOOK NO.
SURVEYED JUNE 81
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
FALL BY
DATE

290
60'
ML-A
61+50
℄ RIVER
℄ 61+50
ML-B
℄ TM 3%
290
290
ML-B
61+50
UNCLASSIFIED CHANNEL EXCAVATION
290
1.66
1.66
A
61+50
290
ML-A
61+25
℄ 61+25
EARTH BORROW (TYP)
GRANULAR BORROW (TYP)
4' STONE FILL TYPE IX
HP 12x53 PILES
ML-B
61+25
MINIMUM FOOTING
℄ TM 3%
290
290
1.16
1.16
290
+25
4'-0" TYP
4'-0" TYP
4'-0" STONE FILL TYPE IX (TYP)
UNCLASSIFIED CHANNEL EXCAVATION
1.66
290
ML-B
61+25
TOP SURFACE OF CHANNEL (PLAN & ELEVATION)

STA. 61+25
END STONE FILL @ PIER #1 & PIER #2
END UNCLASSIFIED CHANNEL EXCAVATION @ PIER #1 & PIER #2

FROM STA 61+25 TO STA 61+50
PROJECT: GEORGIA CHAN 2
NO: BRZ 1448(3) PLOTTED 7-20-81
SURVEYED BY: FALL JUNE 81
SHEET 45 OF 61 SHEETS

BRUNING 44-131 42916

NOTE:
REFER TO TAPE 36 SECTIONS FOR CONTINUATION OF CHANNEL TEMPLATING.

ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
FALL
BY
DATE

FROM STA 61+75 TO STA 62+00
PROJECT: GEORGIA CHAN. 2
NO. BRZ-1448(3) PLOTTED 7-20-81
SURVEYED BY: FALL JUNE 81
SHEET 116 OF 61 SHEETS

BRUNING A4-131 42916

ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

ML-A
℄ 62+50

ML-B
62+50

ML-A
℄ 62+50

ML-B
62+50

STA. 62+42 NEAR Rt.
END UNCLASSIFIED CHANNEL EXCAVATION
END STONE FILL

4' STONE FILL TYPE IV

UNCLASSIFIED CHANNEL EXCAVATION

1:0 SLOPE OF BANK (EXISTING CONDITION)

1:7

ML-A
℄ 62+25

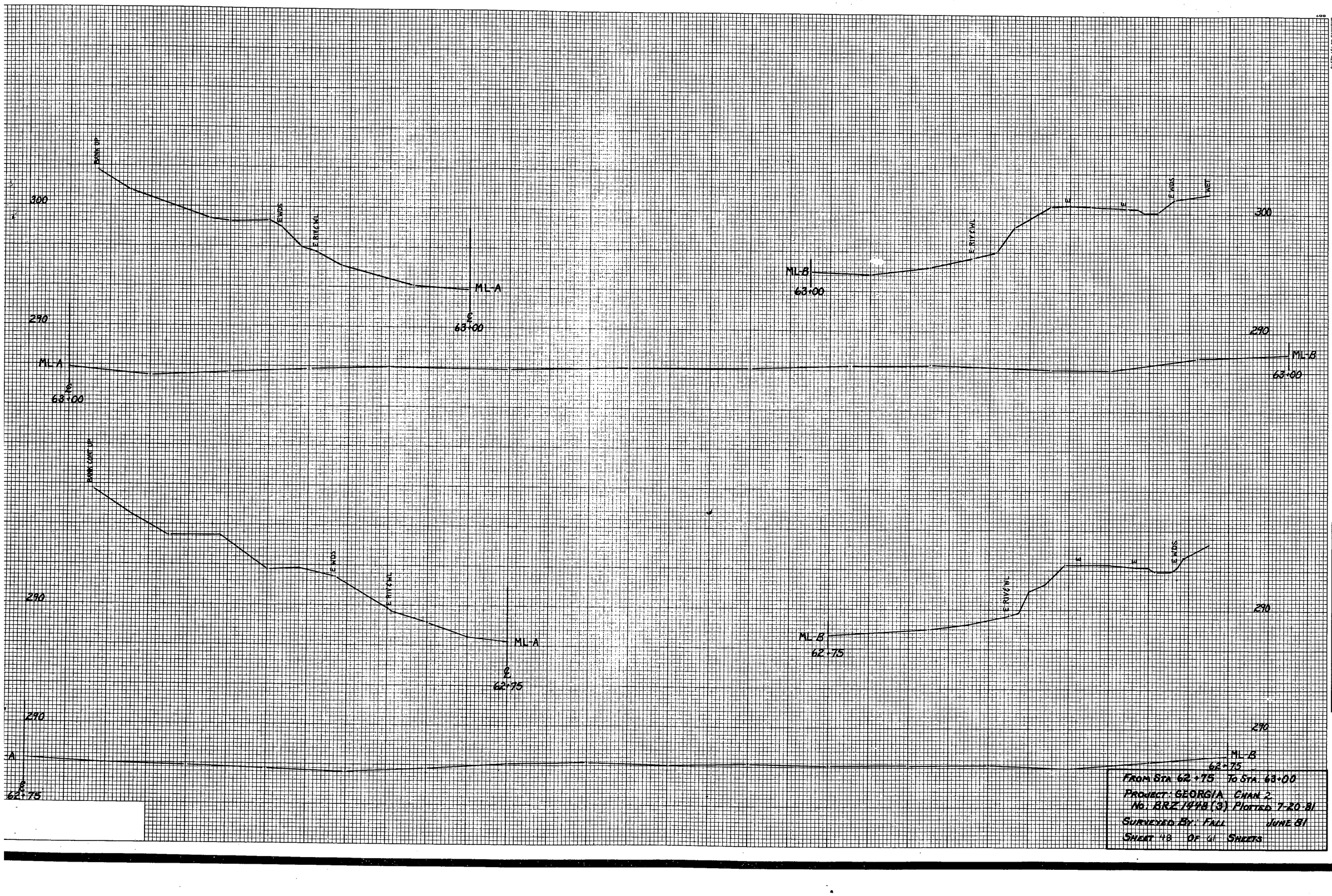
ML-B
62+25

ML-A
℄ 62+25

ML-B
62+25

FROM STA 62+25 TO STA 62+50
PROJECT: GEORGIA CHAN. 2
NO: BRZ 1418(3) PLOTTED 7-20-81
SURVEYED BY: FALL JUNE 81
SHEET 47 OF 61 SHEETS

BRUNING 44 131 429 6



ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TRACED
AREAS
AREAS CHECKED
BY
DATE

FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TRACED
AREAS
AREAS CHECKED
FALL
BY
DATE

FROM STA 62+75 TO STA. 63+00
PROJECT: GEORGIA CHAN 2
NO. ERZ 1498 (3) PLOTTED 7-20-81
SURVEYED BY: FALL JUNE 81
SHEET 48 OF 61 SHEETS

BRUNING 44-131-4296

BANK UP
E WDS
E RT/C&W
ML-A
℄
63+50
280
290

ML-B
63+50
E LFT/C&W
E
E WDS
290

290
ML-A
63+50
BANK UP
E WDS
E RT/C&W
280

ML-B
63+25
E RT/C&W
E
E WDS
290

290
ML-A
63+25
℄
3125

290
ML-B
63+25

ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

FINAL SURVEY
NOTE BOOK
NO.
SURVEYED June 81
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY FALL
DATE

FROM STA 63+25 TO STA 63+50
PROJECT: GEORGIA CHAN 2
No: BRZ 1448(3) PLOTTED 7-20-81
SURVEYED BY: FALL JUNE 81
SHEET 49 OF 61 SHEETS