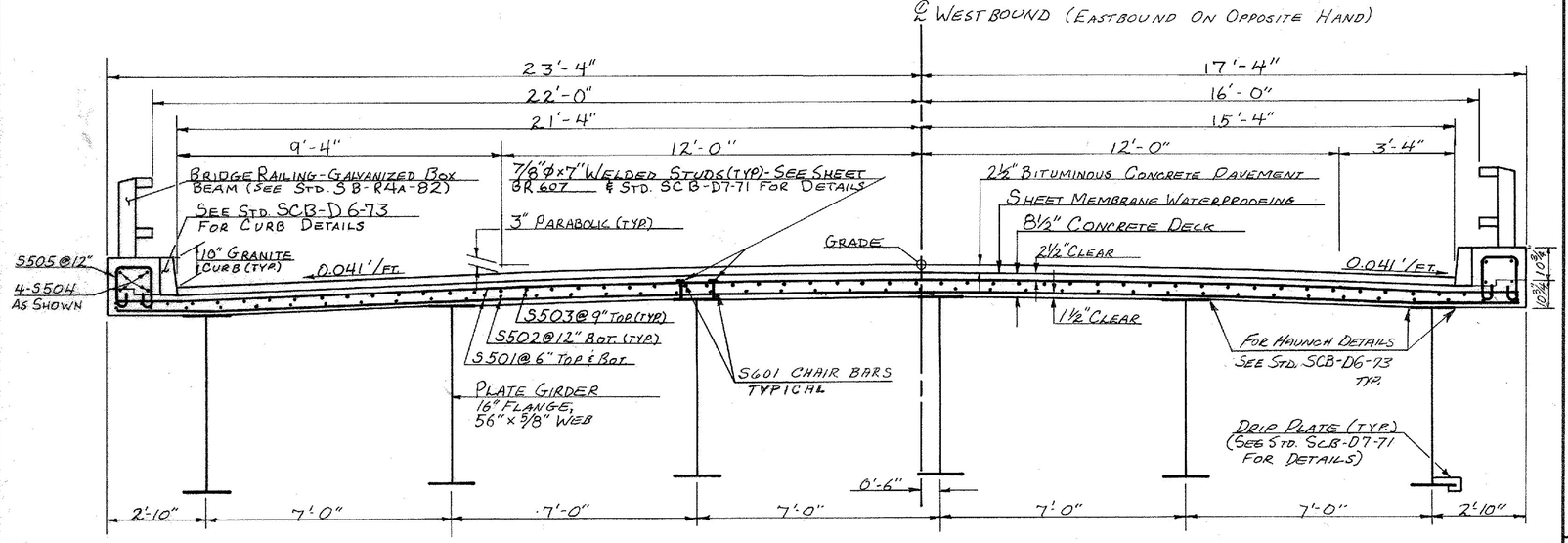
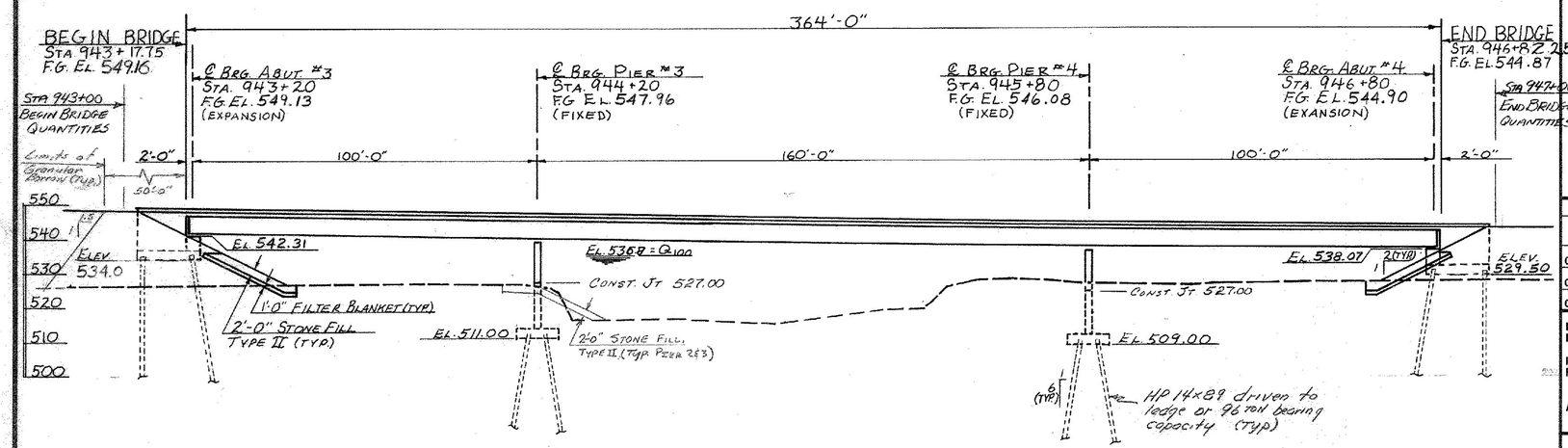


TYPICAL BRIDGE SECTION

SCALE: ½"=1'-0"

STA. 956+50
F.G. EL. 533.50
1400' V.C.
WB -1.1754% +0.8889%
EB -1.1754% +0.8519%
N.T.S.



EASTBOUND ELEVATION ALONG RIGHT FASCIA

SCALE: 1"=20'-0"

EXISTING STRUCTURE

1. STRUCTURE TYPE _____ OVERALL LENGTH _____ INVENTORY RATING _____
2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS _____
3. CLEAR SPAN LENGTH(S) NORMAL TO STREAM _____
4. WATERWAY AREA OF FULL OPENING NORMAL TO STREAM _____ VERTICAL CLEARANCE ABOVE STREAMBED _____
5. WATER SURFACE ELEVATION @ Q 2.33 _____ WATER SURFACE ELEVATION @ Q _____
6. WATER SURFACE ELEVATION AT FLOOD OF RECORD _____ YEAR _____ ESTIMATED DISCHARGE _____
7. DOES ALL WATER PASS THROUGH EXISTING STRUCTURE? _____ IF NOT, AT WHAT FREQUENCY AND ELEVATION DOES RELIEF OCCUR? _____
   ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF _____
8. TYPE OF SUBSTRUCTURE FOUNDATION MATERIAL _____
9. DISPOSITION OF STRUCTURE _____

NEW STRUCTURE

STRUCTURE GEOMETRY:

1. STRUCTURE TYPE 3 SPAN CONTINUOUS COMPOSITE PLATE GIRDER (A588) OVERALL LENGTH 364'-0"
2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS 100'-0" ; 160'-0" ; 100'-0"
3. VERTICAL CLEARANCE ABOVE STREAMBED OR ROAD UNDER _____
4. CLEAR SPAN LENGTH(S) NORMAL TO STREAM 98'-0" ; 158'-0" ; 98'-0"
5. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM) 5000 S.F. (320 S.M.)
6. ARE PROVISIONS TO BE MADE FOR PUBLIC UTILITIES? NO

HYDRAULIC DATA:

1. Q 2.33 6,000 C.F.S. WATER ELEVATION 529.1 VELOCITY 2.6 F.P.S.
   Q 10 11,000 C.F.S. WATER ELEVATION 531.9 VELOCITY 3.5 F.P.S.
   Q 25 14,500 C.F.S. WATER ELEVATION 533.5 VELOCITY 4.0 F.P.S.
   Q 50 17,000 C.F.S. WATER ELEVATION 534.6 VELOCITY 4.3 F.P.S.
   Q 100 22,000 C.F.S. WATER ELEVATION 536.8 VELOCITY 4.7 F.P.S.
2. DRAINAGE AREA 242 SQ. MI. CHARACTER OF TERRAIN ROLLING TO MOUNTAINOUS
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 SAND AND SILT
6. ESTIMATED SCOUR DEPTH 2'-6" COMMENT ON: DRIFT SLIGHT ICE MODERATE
7. WILL ALL WATER PASS THROUGH NEW STRUCTURE? YES IF NOT, WHAT FREQUENCY AND ELEVATION WILL RELIEF OCCUR? N.A.
   ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF —
8. VERTICAL CLEARANCE ABOVE Q 50 5' 1.4" @ ABUT. #4
9. ALLOWABLE WATER SURFACE ELEVATION 538.0 LIMITED BY LOW BEAM (@ ABUT #4)
10. IS DESIGN STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? NO IF YES, DESCRIBE _____
11. AVERAGE DAILY LOW FLOW 200 CFS DEPTH 5' AVERAGE DAILY HIGH FLOW 650 CFS DEPTH 8'
12. STREAMBANK OR CHANNEL PROTECTION REQUIRED YES - STONE FILL TYPE II W/GRAVEL FILTER BLANKET
13. DISTANCE TO EXISTING UPSTREAM STRUCTURE 10,000' SPAN 2@58' WATERWAY AREA OF FULL OPENING _____ Q
14. DISTANCE TO EXISTING DOWNSTREAM STRUCTURE 9,000' SPAN 127'-80' WATERWAY AREA OF FULL OPENING _____ Q

ALLOWABLE STRESSES:

1. DESIGN LIVE LOAD AASHTO HS 25
2. ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL NA ON LEDGE PILES TO LEDGE
3. ALLOWABLE LOAD FOR PILING 193 KIPS TYPE HP 14x89 ESTIMATED LENGTH SEE TABLE BELOW
4. ALLOWABLE STRESS FOR STRUCTURAL STEEL ASTM A 588 TENSION 27,000 P.S.I.
5. ALLOWABLE STRESS FOR REINFORCING STEEL GRADE 60 TENSION 24,000 P.S.I. COMPRESSION 20,000 P.S.I.
6. ALLOWABLE STRESS FOR CONCRETE CLASS A f_c 3500 PSI f_c 1400 PSI
   CLASS B f_c 3500 PSI f_c 1400 PSI

ESTIMATED PILE LENGTHS

WEST BOUND		EAST BOUND	
ABUTMENT # 1	110'	ABUTMENT # 3	100'
PIER # 1	100'	PIER # 3	90'
PIER # 2	140'	PIER # 4	140'
ABUTMENT # 2	160'	ABUTMENT # 4	160'

ADDITIONAL DESIGN CONSIDERATIONS

LANE LOAD CONTROLS 46 TONS INVENT.

LOAD RATING (TONS)

STRESS LEVELS	TRUCK H	HS	3S2	6 AXLE	3A. STR.	4A. STR.	5A. SEMI
INVENTORY 0.55 Fy =	50	55					
POSTED 0.67 Fy =	75	82	91		77	79	87
OPERATING 0.75 Fy =			110	121			

INDEX OF SHEETS

RECOMMENDED FOR APPROVAL Warren B. Tripp 4/25/83
STRUCTURES ENGINEER DATE

RECOMMENDED FOR APPROVAL [signature] Acting 4/27/83
CHIEF OF DESIGN DATE

APPROVED BY Acting [signature] 4/29/83
DIRECTOR OF ENGINEERING & CONSTRUCTION DATE

REVISIONS

NO.	DESCRIPTION	BY & DATE

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF RUTLAND	Bridge No. 6
	Log Sta.
HIGHWAY NO. U.S.4	Surv. Sta. 945+00

PRELIMINARY INFORMATION
U.S.4 OVER OTTER CREEK

Designed by G.K. Spilak	Drawn by S. Bascom
Checked by RP Gendron date 2-25-83	Bridge Design Supervisor R.S. Haupt date
PROJECT WEST RUTLAND-RUTLAND	PROJECT NO. F020-1(10)
Bridge Sheet No. BR600	Sheet 118 of 459

BRUNING 44-131-40151
BR-2