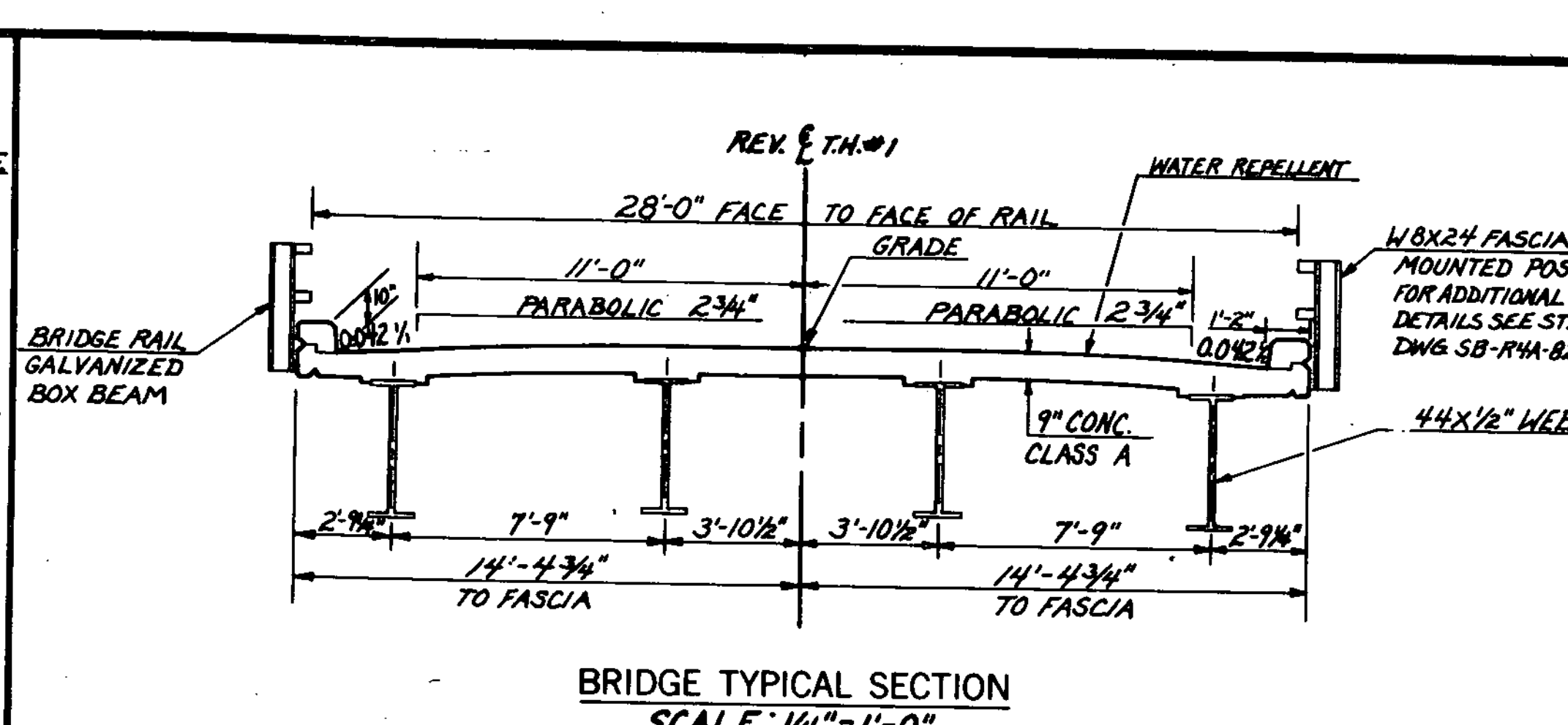
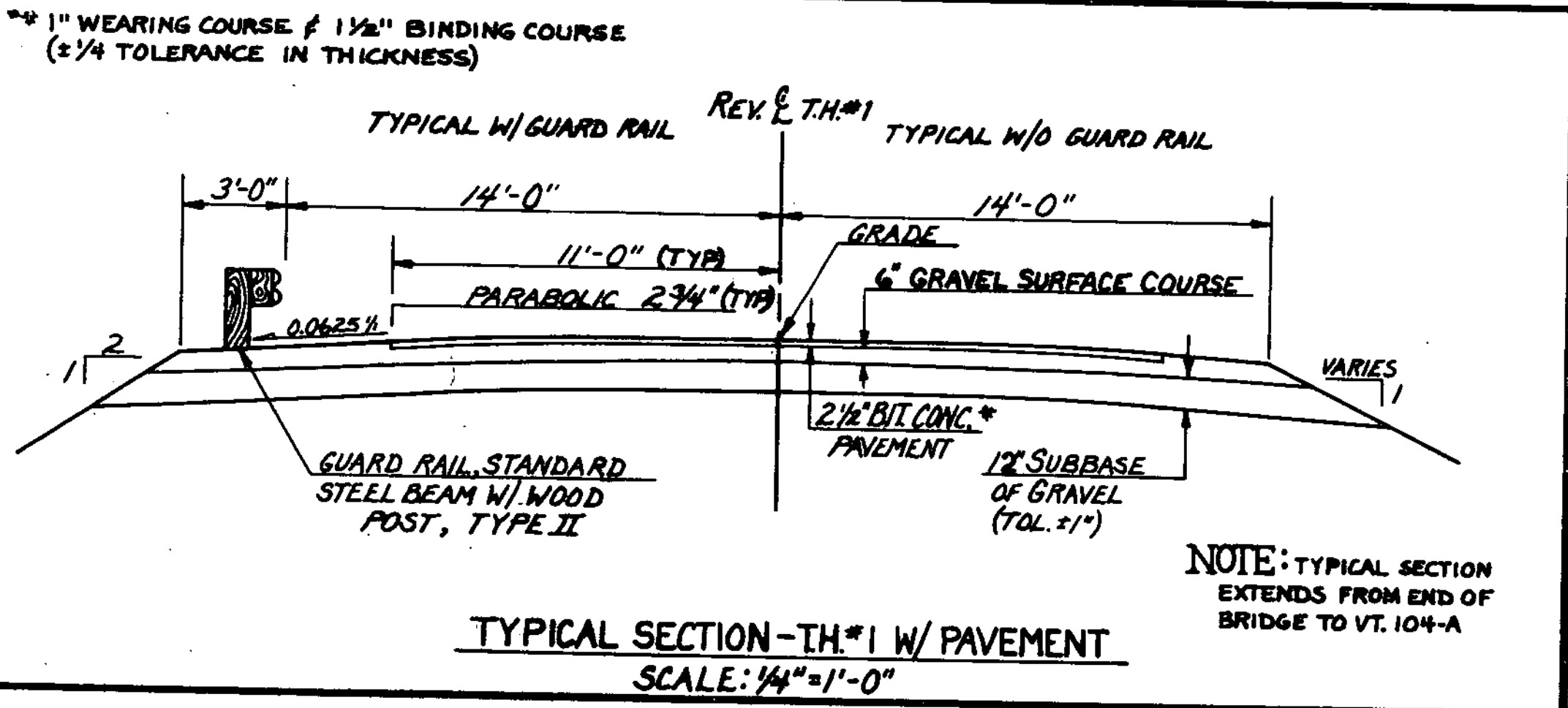


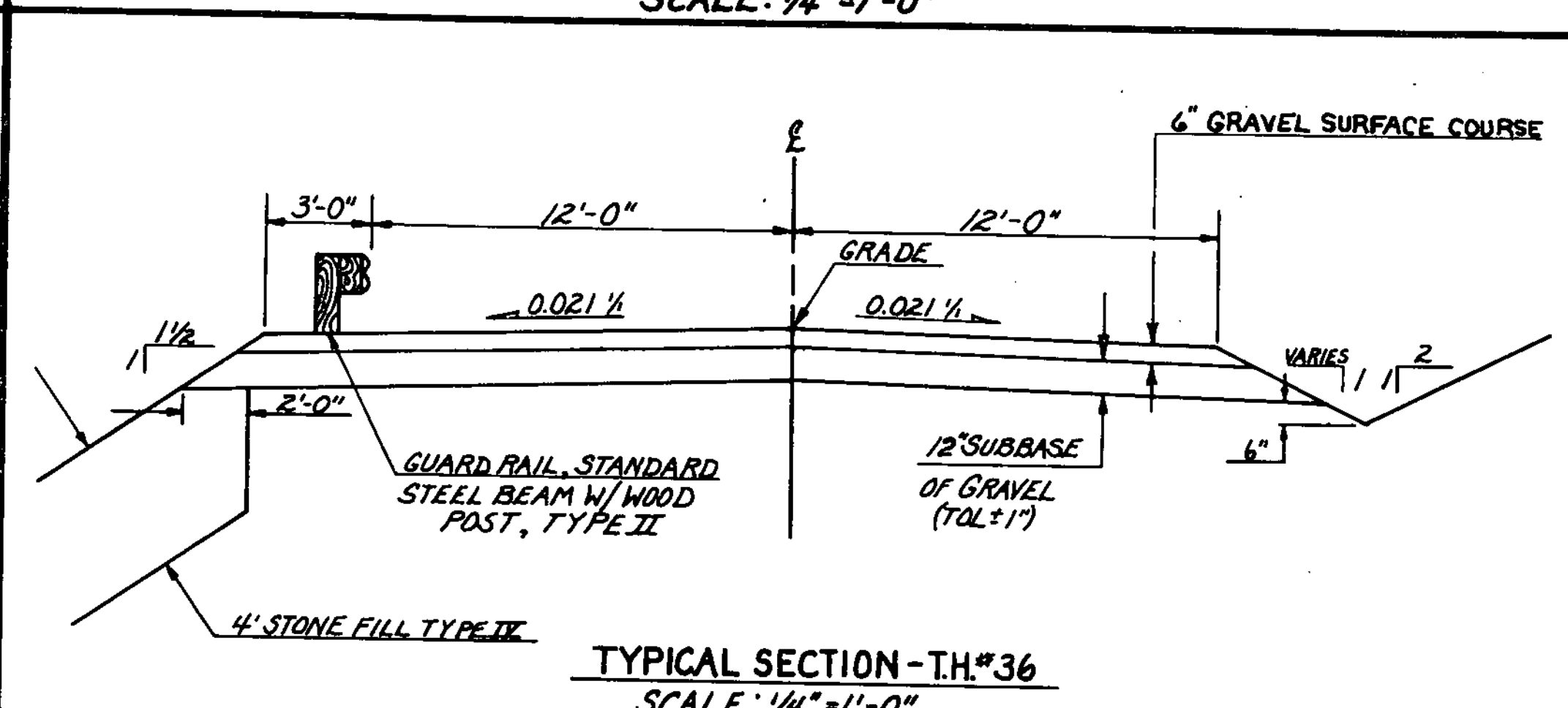
TYPICAL SECTION - TH#1 W/O PAVEMENT  
SCALE: 1/4" = 1'-0"



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



TYPICAL SECTION - TH#1 W/ PAVEMENT  
SCALE: 1/4" = 1'-0"



TYPICAL SECTION - TH#36  
SCALE: 1/4" = 1'-0"

EXISTING STRUCTURE

- STRUCTURE TYPE END SPANS-ROLLED BEAM CENTER-TRUSS OVERALL LENGTH 276.00' INVENTORY RATING NOT DONE
- SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS 44'-17"-4 1/2"
- CLEAR SPAN LENGTH(S) NORMAL TO STREAM 42'-17"-4 1/2"
- WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM) 4870 SQ. FT. @ ELEV. 300 VERTICAL CLEARANCE ABOVE STREAMBED 27' AVERAGE
- WATER SURFACE ELEVATION AT FLOOD OF RECORD 290.0 WATER SURFACE ELEVATION @ 0.100 294.11
- WATER SURFACE ELEVATION AT FLOOD OF RECORD 303.5 YEAR Nov. 4, 1927 ESTIMATED DISCHARGE 88,000 CFS
- DOES ALL WATER PASS THROUGH EXISTING STRUCTURE? YES IF NOT, AT WHAT FREQUENCY AND ELEVATION DOES RELIEF OCCUR? > 0.100, 302'
- ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF IMPERMEABLE
- TYPE OF SUBSTRUCTURE FOUNDATION MATERIAL SILT, SAND & GRAVEL
- DISPOSITION OF STRUCTURE TO BE REMOVED

NEW STRUCTURE

- STRUCTURE GEOMETRY:
- STRUCTURE TYPE 3 SPAN CONTINUOUS PLATE GIRDER OVERALL LENGTH 322.00'
  - SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS 95'-2 1/2'-2 1/2'
  - VERTICAL CLEARANCE ABOVE STREAMBED OR ROAD UNDER 26' MINIMUM
  - CLEAR SPAN LENGTH(S) NORMAL TO STREAM 92'-25'-2 1/2'
  - WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM) 5290 SQ. FT. TO ELEV. 300
  - ARE PROVISIONS TO BE MADE FOR PUBLIC UTILITIES? NO

HYDRAULIC DATA:

Q 233	12,000 CFS	WATER ELEVATION	290.1 (296)	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 (306)	VELOCITY	9.5 FPS

- DRAINAGE AREA 686.2 SQ. MI. CHARACTER OF TERRAIN MOUNTAINOUS TO ROLLING
- ARE THERE OBJECTIONS TO A PIER IN THE STREAM? NO IS ORDINARY RISE RAPID? NO
- DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY? NO
- NATURE OF NATURAL STREAMBED SILT, SAND & GRAVEL
- ESTIMATED SCOUR DEPTH 2' COMMENT ON DRIFT MODERATE ICE HEAVY
- WILL ALL WATER PASS THROUGH NEW STRUCTURE? YES IF NOT, WHAT FREQUENCY AND ELEVATION WILL RELIEF OCCUR? > 0.100, 302'
- ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF IMPERMEABLE
- VERTICAL CLEARANCE ABOVE 50' = 11.8'
- ALLOWABLE WATER SURFACE ELEVATION 309.1 LIMITED BY LOW BRIDGE SEAT
- IS DESIGN STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? YES IF YES, DESCRIBE BACKWATER & ITS FORM FROM 1/4 MILE
- AVERAGE DAILY LOW FLOW 400 CFS DEPTH ELEV. 290 AVERAGE DAILY HIGH FLOW 1400 CFS DEPTH ELEV. 291
- STREAMBANK OR CHANNEL PROTECTION REQUIRED TYPE IV STONE FILL W/ 1' GRAVEL FILTER BLANKET
- DISTANCE TO EXISTING UPSTREAM STRUCTURE 4.4 MILES SPAN 157' WATERWAY AREA OF FULL OPENING 2,000 SQ. FT.
- DISTANCE TO EXISTING DOWNSTREAM STRUCTURE 3.0 MILES SPAN 6075' WATERWAY AREA OF FULL OPENING 31,500 SQ. FT.

ALLOWABLE STRESSES:

- DESIGN LIVE LOAD AASHTO HS 20 W/ ALLOWANCE FOR 1" FUTURE PAVING
- ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL 6.5 K/SF ON LEDGE -
- ALLOWABLE LOAD FOR PILING 90 K/IPS TYPE HP 12X53 ESTIMATED LENGTH 21' ± 3'
- ALLOWABLE STRESS FOR STRUCTURAL STEEL ASTM A 588 TENSION 27,000 PSI
- ALLOWABLE STRESS FOR REINFORCING STEEL GRADE 60 TENSION 24,000 PSI COMPRESSION 20,000 PSI
- ALLOWABLE STRESS FOR CONCRETE CLASS A: 3,500 PSI CLASS B: 3,500 PSI COMPRESSION 20,000 PSI

- TRAFFIC MAINTENANCE:
- IS TRAFFIC TO BE MAINTAINED? YES IF YES, ON EXISTING STRUCTURE YES OR ON TEMPORARY BRIDGE NO
  - 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? -
- BASED ON FREE FLOW CONDITIONS
  - 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	SS2	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			

STATE OF VERMONT  
AGENCY OF TRANSPORTATION

TOWN OF GEORGIA Bridge No. 10  
Log Sta. -

HIGHWAY NO. TH#1 REV. Sta. 88+15.00

**TH#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. BRZ1448(3)  
Bridge Sheet No. 2 of 61

REVISIONS

NO.	DESCRIPTION	BY & DATE