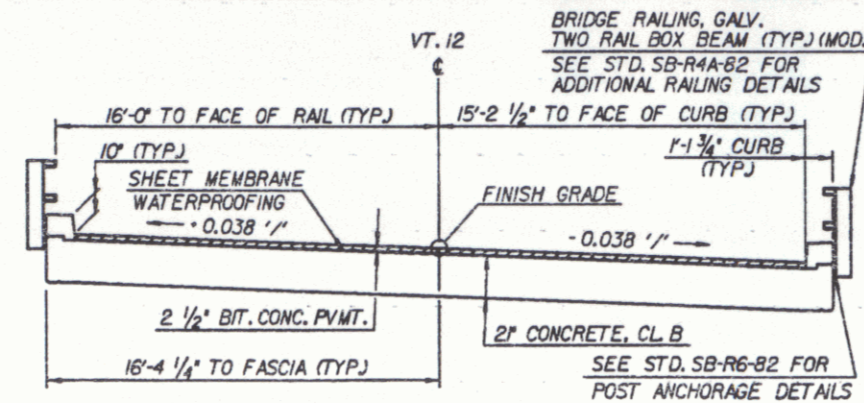


INDEX OF SHEETS

BR100	PRELIMINARY INFORMATION AND GENERAL NOTES
BR101	BRIDGE QUANTITY SHEET
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BR103	SLAB DETAILS
BR104	ABUTMENT AND WINGWALL DETAILS
BR105	APPROACH SLAB DETAILS
BR106	REINFORCING STEEL SCHEDULE
BR107-BR100	CHANNEL SECTIONS

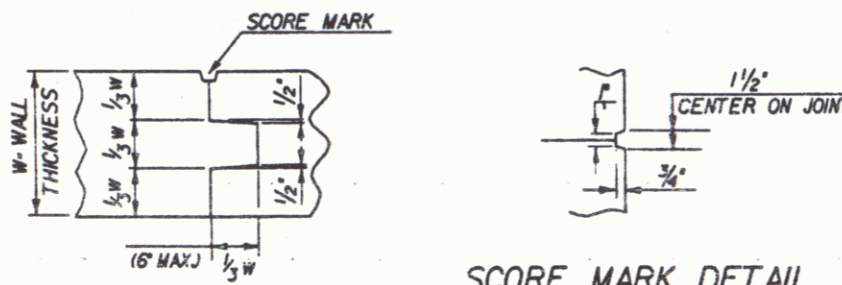
LIST OF STANDARDS

SB-R4A-82	9-19-89 R
SB-R4B-82	3-30-88 R
SB-R6B-82	12-13-84 R

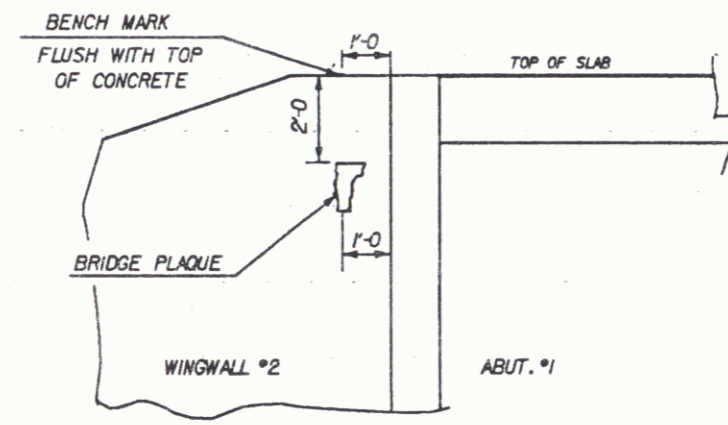


GENERAL NOTES

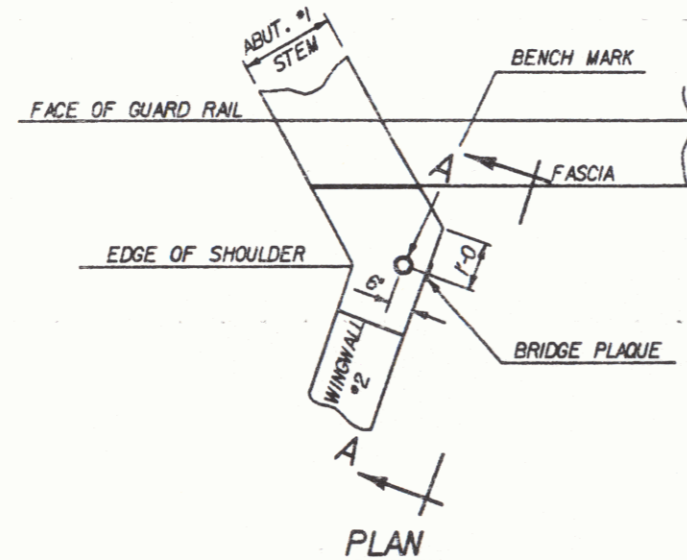
- ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE AGENCY OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 1990, AND ITS LATEST REVISIONS, AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, FOURTEENTH EDITION, AND ITS LATEST REVISIONS.
- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT SILTATION OR POLLUTION, ESPECIALLY THE DISCHARGE OF RAW CONCRETE, INTO THE HANCOCK BROOK, AS DIRECTED BY THE ENGINEER AND STANDARD SPECIFICATION SECTION 105.
- TEN CUBIC YARDS OF ADDITIONAL STONE FILL, TYPE III, (3-5 FT. DIA.) HAVE BEEN INCLUDED FOR A FISHERIES HABITAT MITIGATION BOULDER CLUSTER, AND SHALL BE PAID FOR UNDER THE ITEM "STONE FILL TYPE III". THE BOULDER CLUSTER WILL BE PLACED A MINIMUM OF 30 FEET DOWNSTREAM IN A LOCATION RECOMMENDED BY THE BIOLOGIST OR THE STREAM ALTERATION ENGINEER AND AS DIRECTED BY THE RESIDENT ENGINEER.
- TRAFFIC SHALL BE MAINTAINED ON VERMONT ROUTE NO. 12 DURING CONSTRUCTION OF THE NEW BRIDGE UNDER THE ITEM "TWO WAY TEMPORARY BRIDGE." SEE DETAILS ON THIS SHEET FOR TEMPORARY BRIDGE REQUIREMENTS. (SUMMERTIME USAGE ONLY.)
- THE ITEM "PARTIAL REMOVAL OF STRUCTURE" CONSISTS OF REMOVING EXISTING SUPERSTRUCTURE DOWN TO THE BRIDGE SEATS.
- THE EXISTING WINGWALLS AND ABUTMENTS SHALL BE REMOVED TO THE LIMITS SHOWN ON THE PLAN UNDER THE ITEMS "STRUCTURE EXCAVATION" AND "UNCLASSIFIED CHANNEL EXCAVATION."
- NO TRAFFIC SHALL BE ALLOWED ON THE NEW SLAB UNTIL THE CURE PERIOD IS UP AND THE 28 DAY DESIGN STRENGTH IS ATTAINED, AS EVIDENCED BY TEST CYLINDERS CURED UNDER FIELD CONDITIONS.
- IN-STREAM CONSTRUCTION SHALL BE RESTRICTED TO JUNE 1 TO OCTOBER 1, UNLESS THE CONTRACTOR OBTAINS WRITTEN PERMISSION FROM THE AGENCY OF NATURAL RESOURCES TO DO WORK OUTSIDE THAT TIME FRAME.
- THE HEIGHT OF FILL BEHIND ABUTMENTS WILL BE LIMITED TO TWO FEET BELOW THE BRIDGE SEAT ELEVATION UNTIL THE SLAB HAS BEEN POURED AND CURED.
- ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1" BY 1".
- WATER REPELLENT SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES EXCEPT THE UNDERSIDE OF DECK BETWEEN DRIP BEADS.
- JOINTS AND SCORE MARKS IN CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- THE KEY IN CONCRETE CONSTRUCTION JOINTS SHALL BE MONOLITHIC AND CONTINUOUS FOR THE FULL LENGTH OF THE JOINT.
- REINFORCING PLACEMENT TOLERANCES SHALL BE:
SPACING + - 1"
CLEARANCE + - 1/4"
- THE FOLLOWING TABLE OF ALLOWABLE STRESSES AND WEIGHTS APPLY TO THESE PLANS FOR DESIGN PURPOSES:
CONCRETE: $f'_c = 3500$ PSI $f_{ci} = 4000$ PSI
REINFORCING STEEL: $F_y = 24,000$ PSI Grade 60
SOIL: UNIT WEIGHT 140 PCF
- BRIDGE IS DESIGNED FOR HS 25-44



TYPICAL CONCRETE CONSTRUCTION JOINT



VIEW "A - A"



LOCATE BENCH MARK AND BRIDGE PLAQUE

THE BRIDGE PLAQUE AND BENCH MARK WILL BE SUPPLIED BY THE AGENCY OF TRANSPORTATION AND SHALL BE INSTALLED BY THE CONTRACTOR AT ABUTMENT #1 ON THE RIGHT SIDE AS SHOWN OR AS DIRECTED BY THE ENGINEER. (DETAILS ABOVE ARE NOT MEANT TO BE SITE SPECIFIC.)

EXISTING STRUCTURE

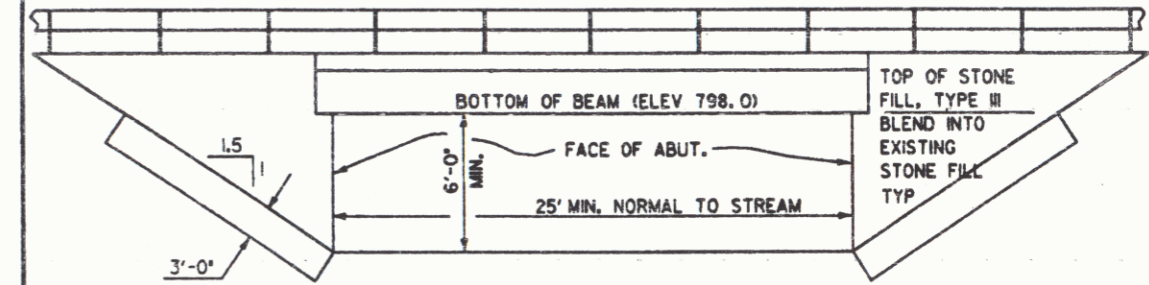
1. STRUCTURE TYPE	SINGLE SPAN CONCRETE SLAB BRIDGE	OVERALL LENGTH	23 FT	INVENTORY RATING	HS
2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS			8 FT		
3. CLEAR SPAN LENGTH(S) NORMAL TO STREAM			8 FT		
4. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM)	80 SQ FT	VERTICAL CLEARANCE ABOVE STREAMBED	8 FT		
5. WATER SURFACE ELEVATION @ 0.25 CFS	EL. 796.5	WATER SURFACE ELEVATION @ 0.50	EL. 796.5	130 SQ FT	
6. WATER SURFACE ELEVATION AT FLOOD OF RECORD	UNDETERMINED	YEAR		ESTIMATED DISCHARGE	
7. DOES ALL WATER PASS THROUGH EXISTING STRUCTURE? YES IF NOT, AT WHAT FREQUENCY AND ELEVATION DOES RELIEF OCCUR?					
8. TYPE OF SUBSTRUCTURE FOUNDATION MATERIAL	UNDESIGN	REMOVAL OF STRUCTURE			
9. DISPOSITION OF STRUCTURE					

NEW STRUCTURE

1. STRUCTURE TYPE	SINGLE SPAN CONCRETE SLAB BRIDGE	OVERALL LENGTH	23 FT
2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS			8 FT
3. VERTICAL CLEARANCE ABOVE STREAMBED OR ROAD UNDER			8 FT
4. CLEAR SPAN LENGTH(S) NORMAL TO STREAM			8 FT
5. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM)	80 SQ FT		8 FT
6. ARE PROVISIONS TO BE MADE FOR PUBLIC UTILITIES?			R / A

HYDRAULIC DATA:							
1. Q 2.33	450 CFS	WATER ELEVATION	796.4	VELOCITY	8.1 FPS		
0.10	750 CFS	WATER ELEVATION	796.5	VELOCITY	8.5 FPS		
0.25	1000 CFS	WATER ELEVATION	796.6	VELOCITY	8.8 FPS		
0.50	1200 CFS	WATER ELEVATION	796.6	VELOCITY	8.8 FPS		
0.100	1500 CFS	WATER ELEVATION	796.7	VELOCITY	8.8 FPS		
2. DRAINAGE AREA	3.6 SQ MI	CHARACTER OF TERRAIN	FLAT TO HILLSHADOWS				
3. ARE THERE OBJECTIONS TO A PIER IN THE STREAM?		YES	IS ORDINARY RISE RAPID?	YES			
4. DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY?		NO					
5. NATURE OF NATURAL STREAMBED		GRAVEL, COBBLES, AND BouldERS					
6. ESTIMATED SCOUR DEPTH	3 FT	COMMENT ON: DRIFT	MINOR	ICE	SLIGHT		
7. WILL ALL WATER PASS THROUGH NEW STRUCTURE? YES. IF NOT, WHAT FREQUENCY AND ELEVATION WILL RELIEF OCCUR?					R / A		
8. VERTICAL CLEARANCE ABOVE 0.25 CFS	8 FT						
9. ALLOWABLE WATER SURFACE ELEVATION	80.0	LIMITED BY	BOTTOM OF BRIDGE				
10. IS DESIGN STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS?	NO	IF YES, DESCRIBE					
11. ORDINARY LOW FLOW	4 CFS	DEPTH	1 FT	ORDINARY HIGH FLOW	800 CFS	DEPTH	3 FT
12. STREAMBANK OR CHANNEL PROTECTION REQUIRED		TYPE	STONE, 2 1/2' TYPE III				
13. DISTANCE TO EXISTING UPSTREAM STRUCTURE	1.3 MI	SPAN	24 FT	WATERWAY AREA OF FULL OPENING	180 SF		
14. DISTANCE TO EXISTING DOWNSTREAM STRUCTURE	2.3 MI	SPAN	24 FT	WATERWAY AREA OF FULL OPENING	180 SF		
NORTH BRANCH OF THE HANCOCK RIVER							

ALLOWABLE STRESSES:							
1. DESIGN LIVE LOAD	AASHTO	HS 25					
2. ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL		4.5K	ON LEDGE	N/A			
3. ALLOWABLE LOAD FOR PILING		82.2	TYPE	N/A	ESTIMATED LENGTH	N/A	N/A
4. ALLOWABLE STRESS FOR STRUCTURAL STEEL	AASHTO W 22	N/A	TENSION				
5. ALLOWABLE STRESS FOR REINFORCING STEEL	GRADE 60	TENSION	84,000 PSI	COMPRESSION	80,000 PSI		
6. ALLOWABLE STRESS FOR CONCRETE CLASS A	7.5	4,000 PSI			4,000 PSI		
	CLASS B	7.5	3,000 PSI		4,000 PSI		
TRAFFIC MAINTENANCE:							
1. IS TRAFFIC TO BE MAINTAINED?	YES	IF YES, ON EXISTING STRUCTURE	NO	OR ON TEMPORARY BRIDGE	YES		
2. TEMPORARY BRIDGE REQUIREMENTS: ONE OR TWO WAY	TWO	TRAFFIC CONTROL SIGNALS REQUIRED	NO				
	MINIMUM CLEAR SPAN	23 FT	MINIMUM CLEAR HEIGHT	8 FT	MINIMUM WATERWAY AREA	80 SQ FT	
	ARE SIDEWALKS REQUIRED?	NO	IF SO, ON WHAT SIDE?				



TEMPORARY BRIDGE ELEVATION

LOAD RATING (TONS)						
TRUCK						
STRESS LEVELS	H	HS	352	5 AXLE 3A STR. 44	STR. 44	SEN
INVENTORY	33	53				
POSTED	48	76	96	57	58	96
OPERATING		91	114	105	67	69

STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of	WORCESTER	Bridge No.	23
Highway No.	VT 12	Log Sta.	195 + 35
		Surv. Sta.	26 + 07.85

REVISIONS		BY & DATE
NO.	DESCRIPTION	

PRELIMINARY INFORMATION & GENERAL NOTES

Designed By P. THURBER Drawn By G. ADY & S. MANNAN

MAY 02 1994

WORCESTER
RS 0241 (26)
R.O.W. SHEET 4 OF 7 SHEETS