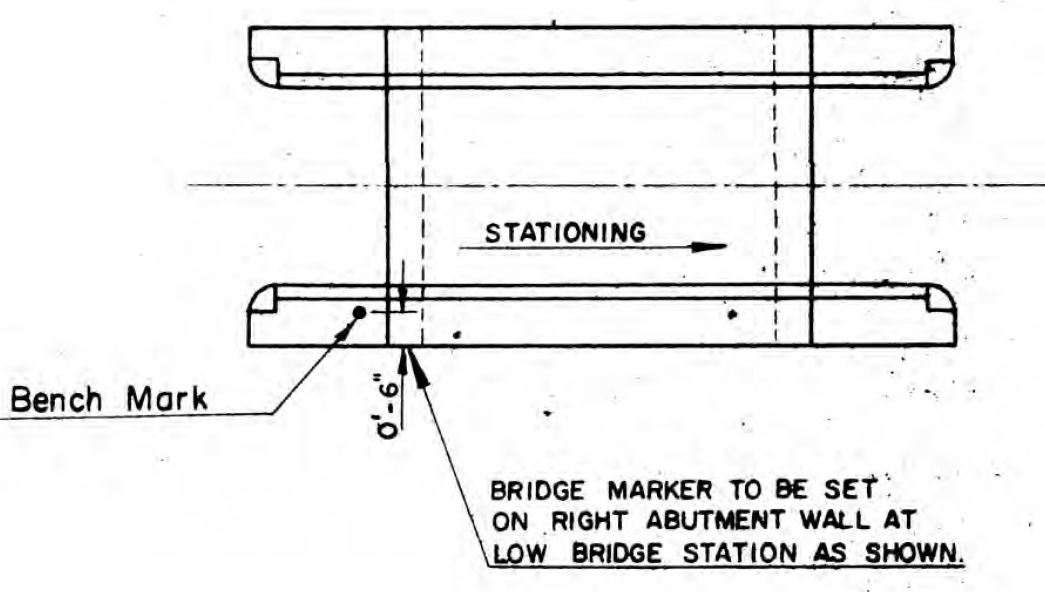
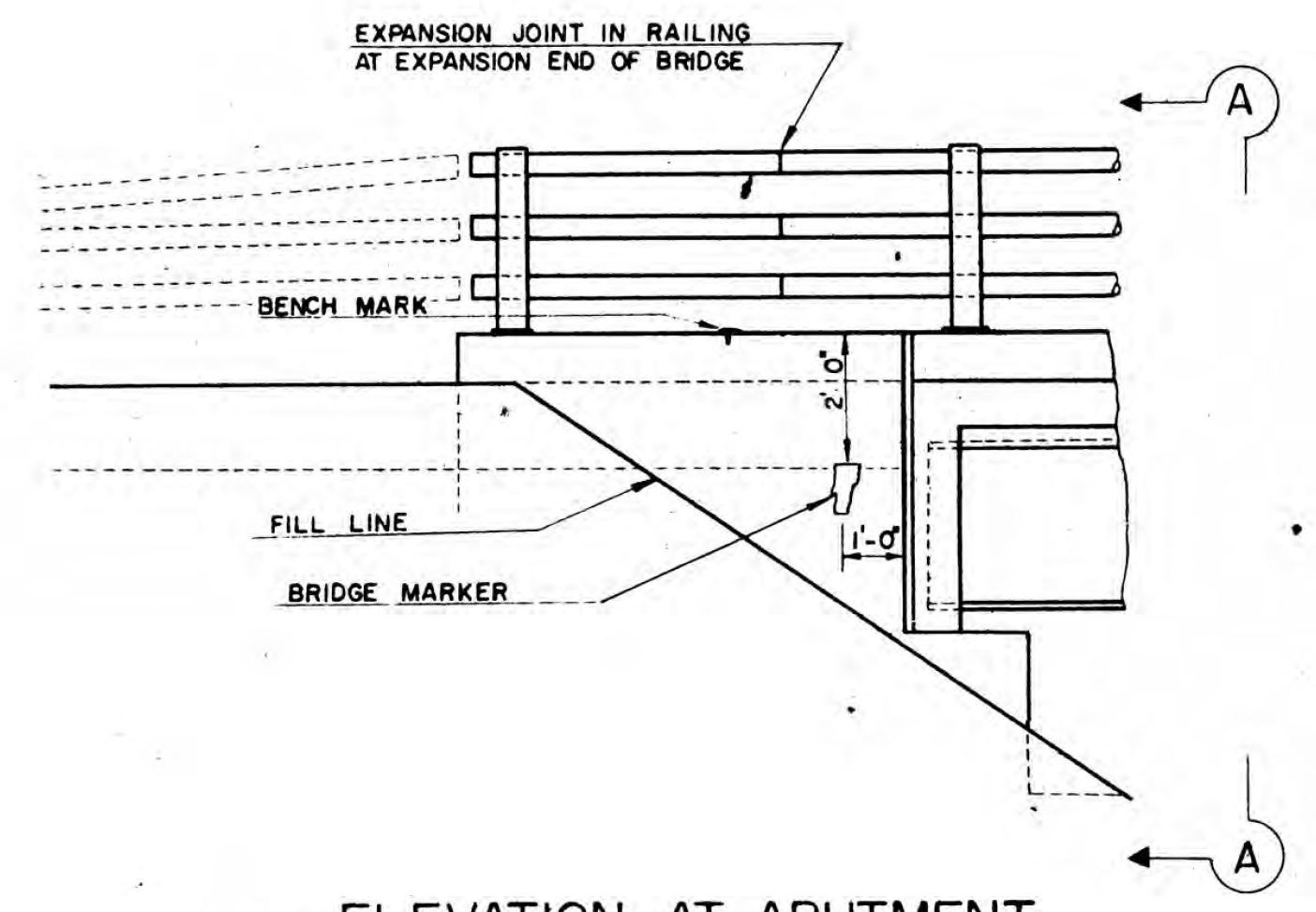


PLAN AT ABUTMENT



SECTION A-A



ELEVATION AT ABUTMENT

*Dave Ledlow  
828-2631  
Thomas Cole  
one inch fixed  
2" offset  
200' span 1/2" minimum cold -30°  
warm +120°F  
2" at 45° = 1" min.  
or 3" max.*

GENERAL NOTES

ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, DATED JAN. 1972 AND THE A.A.S.H.O. STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DATED 1973 AND ITS LATEST REVISIONS. DESIGN IS FOR HS20-44 LOADING MODIFIED FOR THE NATIONAL SYSTEM OF INTERSTATE HIGHWAYS, APPLIED IN ACCORDANCE WITH THE PROVISIONS OF A.A.S.H.O. STANDARD SPECIFICATIONS.

- THE FOLLOWING NOTES SHALL APPLY UNLESS OTHERWISE NOTED ON PROJECT PLANS.
- ALL STRUCTURAL STEEL SHALL CONFORM TO A.S.T.M. DESIGNATION A-36. ALL FIELD CONNECTIONS SHALL BE MADE WITH 7/8" Ø A.S.T.M. A325 BOLTS IN 15/16" Ø HOLES. WHERE CONNECTIONS ARE NOT DETAILED ON THE PLANS THEY SHALL BE DETAILED BY THE FABRICATOR AND SUBMITTED TO THE STATE FOR APPROVAL.
  - SIMPLE BEAMS SHALL BE CAMBERED FOR THE DEAD LOAD DEFLECTION PLUS ONE-EIGHTH (1/8) INCH FOR EACH TEN FEET OF SPAN OR FRACTION THEREOF. THE CAMBER SHALL APPROXIMATE A SIMPLE CIRCULAR CURVE FROM END TO END OF BEAM. TOLERANCES IN CAMBER SHALL BE AS INDICATED IN THE A.I.S.C. HANDBOOK FOR ROLLED BEAMS AND AS INDICATED IN THE A.W.S. SPECIFICATIONS FOR WELDED GIRDERS.
  - ALL WELDING AND DIMENSIONAL TOLERANCES OF WELDED MEMBERS SHALL CONFORM TO THE AMERICAN WELDING SOCIETY EXCEPT AS MODIFIED BY THE WELDING SPECIAL PROVISIONS. AWS D2.0-69
  - AFTER SUPERSTRUCTURE STEEL HAS BEEN ERECTED, ELEVATIONS AT INTERVALS ALONG THE TOP OF THE ERECTED BEAMS SHALL BE TAKEN UNDER THE DIRECTION OF THE ENGINEER FOR USE IN DETERMINING THE FINAL GRADE.
  - SCUFPERS SHALL BE USED ONLY WHEN INDICATED ON THE PROJECT PLANS. THEY SHALL BE PLACED MIDWAY BETWEEN INTERMEDIATE DIAPHRAGMS. ON SUPERELEVATED BRIDGES PLACE SCUFPERS ON LOW SIDE ONLY. PAYMENT FOR SCUFPERS SHALL BE AT THE UNIT PRICE BID FOR STRUCTURAL STEEL, SECTION 506.
  - CHANNEL SHEAR CONNECTORS MAY BE SUBSTITUTED FOR THE STUDS SHOWN ON THE STANDARDS. DETAILS OF SHEAR CONNECTORS SHALL BE SUBMITTED TO THE STATE FOR APPROVAL.
  - THE FINAL COAT OF FIELD PAINT SHALL BE GREEN.
  - ALL CONCRETE IN THE SUPERSTRUCTURE SHALL BE CLASS A. ALL EXPOSED EDGES OF CONCRETE IN THE SUBSTRUCTURE AND SUPERSTRUCTURE SHALL BE CHAMFERED 1" X 1".
  - SLAB REINFORCING STEEL FOR SKEWED BRIDGES SHALL BE MODIFIED FROM THAT INDICATED ON THE STANDARDS FOR SQUARE SPANS AS FOLLOWS:
    - TRANSVERSE BARS SHALL BE FURNISHED AS FOR A SQUARE SPAN. THESE BARS SHALL BE CUT IN THE FIELD TO FIT ONE END, WITH CUT-OFF BARS USED AT THE OPPOSITE END OF THE SPAN.
    - THE S506 BARS SHALL BE LENGTHENED
    - THE QUANTITY OF S402 AND S 602 BARS SHALL BE INCREASED.
    - S506 AND S507 BARS SHALL BE INCREASED.
  - SPIRAL COLUMN REINFORCEMENT SHALL CONFORM TO A.A.S.H.O. SPECIFICATION M-32 COLD DRAWN STEEL #14 FOR CONCRETE REINFORCEMENT.
  - MINIMUM COVER FOR REINFORCING STEEL SHALL BE 2" MEASURED FROM THE CONCRETE SURFACE TO THE FACE OF THE REINFORCEMENT.
  - LAYOUT AND DETAIL DRAWINGS FOR GRANITE BRIDGE CURB SHALL BE SUBMITTED IN TRIPLICATE TO THE STATE OF VERMONT FOR APPROVAL PRIOR TO FABRICATION AND SHIPMENT. GRANITE CURB ENDS SHALL BE SAWED ON EACH SIDE OF ALL JOINTS WHEN NEOPRENE JOINT SEALER-PREFORMED IS USED OR WHERE THE CURB BUTTS A METAL EXPANSION JOINT. GRANITE CURB SHALL BE FURNISHED IN RANDOM LENGTHS RANGING FROM 4' MINIMUM TO 10' MAXIMUM.
  - WATER REPELLENT SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES NOT OTHERWISE TREATED IN BOTH SUPERSTRUCTURE AND SUBSTRUCTURE, EXCEPT FOR THAT PORTION OF THE DECK SLAB AND CURTAIN OR BACKWALLS BETWEEN FASCIA BEAMS
  - BRIDGE SEATS OF ALL PIERS AND ABUTMENTS SHALL BE SLOPED 1/4" PER FOOT EXCEPT UNDER BEARING PLATES WHERE THE SURFACES SHALL BE LEVEL. ABUTMENT BRIDGE SEATS SHALL BE SLOPED THE FULL WIDTH, AND PIER BRIDGE SEATS SHALL BE SLOPED EACH WAY FROM THE CENTERLINE OF PIER. THE ENTIRE EXPOSED TOP SURFACE OF THE ABUTMENTS AND PIERS, EXCEPT THE TOP OF ABUTMENT WINGS SHALL BE SMOOTH STEEL TROWEL FINISHED.
  - ALL EXPANSION MATERIAL SHALL CONFORM TO A.A.S.H.O. DESIGNATION M53, AND SHALL NOT CONTAIN ASPHALT OR BITUMINOUS MATERIAL.
  - WHERE BITUMINOUS CONCRETE PAVEMENT IS CALLED FOR AS A WEARING SURFACE ON BRIDGE DECKS AND APPROACH SLABS, IT SHALL BE TYPE IV MIX APPLIED IN TWO COURSES.
  - BORINGS INDICATED ON THE DRAWINGS HAVE BEEN MADE FOR DESIGN PURPOSES ONLY AND ARE NOT WARRANTED TO SHOW ACTUAL SUB-SURFACE CONDITIONS.
  - ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL.
  - ALLOWABLE DESIGN STRESSES:
 

CONCRETE: F <sub>c</sub> = 3,000 P.S.I.	F <sub>c</sub> = 1,200 P.S.I.
STRUCTURAL STEEL: F <sub>s</sub> = 20,000 P.S.I. - A36 (ALL OTHER STEELS AS PER A.A.S.H.O. SPECIFICATIONS)	
REINFORCING STEEL: F <sub>s</sub> = 20,000 P.S.I. TENSION	F <sub>s</sub> = 24,000 TENSION
F <sub>s</sub> = 16,000 P.S.I. COMPRESSION	F <sub>s</sub> = 20,000 COMPRESSION

20. WHEN PILE SUPPORTED SUBSTRUCTURES ARE PLACED ON EMBANKMENTS, THE CONSTRUCTION PROCEDURE OUTLINED UNDER SUB-SECTION 505.04 SHALL BE FOLLOWED. MATERIAL REMOVED WITHIN THE SIX (6) INCH DEPTH SHALL BE PAID FOR AS EXCAVATION FOR STRUCTURES.

**MONTPELIER  
BF BPNT(17)  
SHEET 16 OF 16  
FOR REFERENCE ONLY**

REVISIONS AND CORRECTIONS  
 1. REVISED NOTE #3 W.B.T. 1-24-72  
 2. REVISED NOTE #3 J. WOOD 1-22-73  
 3. REVISED AASHO. SPECIFICATIONS DATE FROM 1969 TO 1973.  
 J. WOOD 1/28/74.

APPROVED: DATE: 12/14/71  
*R.H. Crowell*  
 CHIEF ENGINEER  
*C.H. Stinchey*  
 ASST. CHIEF ENGINEER  
*J.M. Burn*  
 BRIDGE ENGINEER

DETAILS OF W BEAM BRIDGES  
 GENERAL INFORMATION  
 AND  
 GENERAL NOTES

VERMONT  
 DEPARTMENT OF HIGHWAYS  
 STRUCTURE STANDARDS  
**SCB-DI-71**