

**Note:**  
 All materials and construction shall conform to the State of Vermont, Department of Highways Standard Specifications for Highway and Bridge Construction, dated April 1964 and AASHTO Standard Specification dated 1965, as modified by current Interim Specifications.  
 Structure designed for HS-20-44 loading modified for National System of Interstate Highways applied in accordance with the provisions of AASHTO Standard Specifications Article 1.2.8.

**Design Stresses:**  
 concrete -  $f_c = 3,000$  psi.  
 $f_c = 1,200$  psi.  
 Structural Steel -  $f_s = 20,000$  psi.  
 (A36 other steels as per AASHTO Specifications)  
 Reinforcing Steel -  $f_s = 20,000$  psi. (tension)  
 $f_s = 15,000$  psi. (compression)

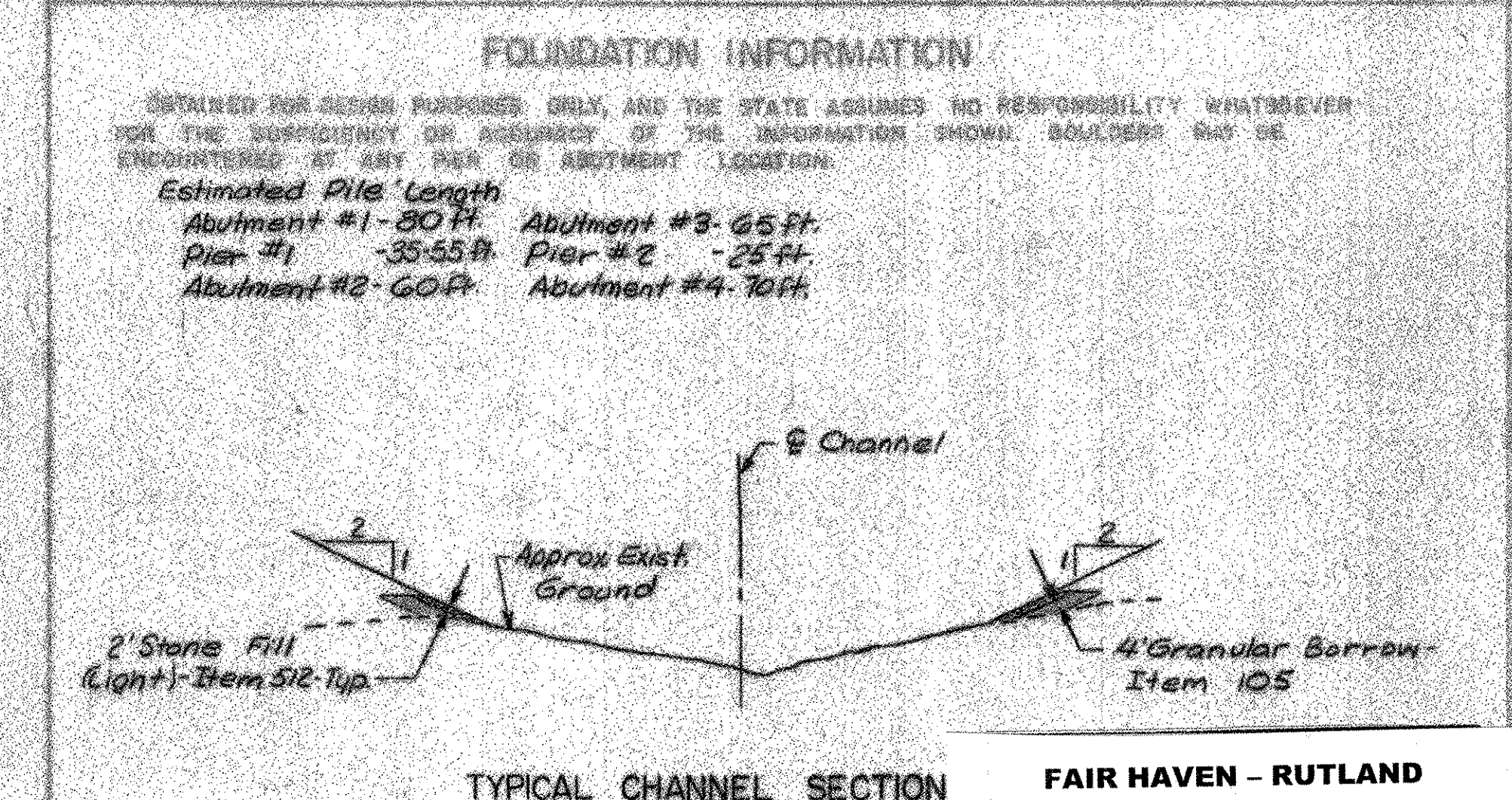
HIGHWAY NO. U.S. 4 NAME OF HIGHWAY U.S. ROUTE 4  
 STRUCTURE NO. 3 COUNTY RUTLAND TOWN FAIR HAVEN  
 PROJECT NO. F020-1141 LOCATION U.S. ROUTE 4 RELOCATED OVER CASTLETON RIVER 3 MILES UPSTREAM FROM ITS OUTLET INTO THE POULTNEY RIVER.

**EXISTING STRUCTURE**

1. DATE OF EXISTING STRUCTURE \_\_\_\_\_  
 2. TYPE OF EXISTING STRUCTURE \_\_\_\_\_  
 3. UNDERLIE ELEVATION OF EXISTING STRUCTURE \_\_\_\_\_  
 4. WHY DISPOSITION SHOULD BE MADE OF EXISTING STRUCTURE? LOSS OF REMOVAL  
 5. SHOULD EXISTING STRUCTURE BE USED TO MAINTAIN TRAFFIC DURING CONSTRUCTION OF NEW STRUCTURE? NO  
 6. SHOULD NEW TEMPORARY STRUCTURE BE BUILT? NO  
 7. ORDINARY HIGH WATER SURFACE ELEV. AT EXISTING STRUCTURE \_\_\_\_\_ WATERWAY TO ORDINARY H.W. \_\_\_\_\_  
 8. EXTREME HIGH WATER AT EXISTING STRUCTURE \_\_\_\_\_ WATERWAY TO EXTREME H.W. \_\_\_\_\_  
 9. SPAN OF EXISTING BRIDGE UPSTREAM \_\_\_\_\_ WATERWAY TO EXTREME H.W. \_\_\_\_\_  
 10. SPAN OF EXISTING BRIDGE DOWNSTREAM \_\_\_\_\_ WATERWAY TO EXTREME H.W. \_\_\_\_\_  
 11. TYPE OF FOUNDATION UNDER EXISTING ABUTMENTS \_\_\_\_\_  
 12. DOES ALL WATER AT FLOOD ELEVATION PASS THROUGH EXISTING STRUCTURE? NO  
 13. IF NOT AT WHAT ELEVATION IS RELIEF AFFORDED? \_\_\_\_\_  
 14. IS ADDITIONAL WATERWAY AREA PROVIDED? NO

**NEW STRUCTURE**

1. RECOMMENDED TYPE OF STRUCTURE 2 span continuous curved welded R.Girder - Composite  
 2. RECOMMENDED CLEAR SPAN OR SPANS 120'-0" - 120'-0"  
 3. MEASURED PARALLEL TO E. NEW HIGHWAY 120'-0" - 120'-0"  
 4. MEASURED AT RIGHT ANGLES TO E. STREAM 120'-0" - 120'-0"  
 5. ARE THERE OBSTRUCTIONS TO A PIER IN THE STREAM? ANSWER YES OR NO No  
 6. ORDINARY HIGH WATER ELEVATION AT NEW STRUCTURE 296.2  
 7. EXTREME HIGH WATER ELEVATION AT NEW STRUCTURE 306 SOURCE OF INFORMATION 1927 Flood  
 8. IS ALL WATER INTENDED TO PASS THROUGH NEW STRUCTURE? Yes  
 9. LOW WATER ELEVATION AT NEW STRUCTURE 292.0  
 10. DRAINAGE AREA IN ACRES ABOVE STRUCTURE 63,552 CHARACTER OF TERRAIN Mountainous  
 11. IS STREAM EVER DRY? No  
 12. VELOCITY OF STREAM AT HIGH WATER STAGE 4,908 f.p.s. ESTIMATED DISCHARGE 9781 cfs 1927 Flood  
 13. AREA FULL OPENING 6201 ft<sup>2</sup> AREA BELOW ORDINARY H.W. 665 ft<sup>2</sup>  
 14. CHARACTER OF SOIL Moderate DRIFT Some ICE Moderate  
 15. ESTIMATED DRAINAGE AREA ABOVE NATURAL OR ARTIFICIAL STORAGE 37.7 sq. miles  
 16. VERTICAL CLEARANCE ABOVE FLOOD ELEVATION 23.5 ft.  
 17. ARE DIMENSIONS REQUIRED? IF SO, ON WHAT SIZE? No BOTH SIDES \_\_\_\_\_  
 18. RECOMMENDED TYPE OF PAVEMENT 2" Bituminous Concrete & 8" Concrete  
 19. TRAFFIC TO BE MAINTAINED UNDER ITEM NO. \_\_\_\_\_ ONE OR TWO WAY \_\_\_\_\_ PROBABLY COST \_\_\_\_\_  
 20. IS POSSIBLE COST OF CLEARING AND BRUSHING STREAM CHANNEL AT STRUCTURE SITE \_\_\_\_\_  
 21. SHOULD PROVISIONS BE MADE FOR PUBLIC UTILITIES? No  
 22. ESTIMATED LOADABLE LOAD ON FOUNDATIONS 40 tons/ft. shield piles or used if Yes SEE L&M See Below



**FAIR HAVEN - RUTLAND BHF MEMB(2) SHEET 12 OF 45 BRIDGE 3 E & W FOR REFERENCE ONLY**

STATE OF VERMONT DEPARTMENT OF HIGHWAYS

RECOMMENDED FOR APPROVAL R. L. Lusk 9/28/67 DATE  
 CONSTRUCTION ENGINEER

RECOMMENDED FOR APPROVAL W. J. Johnson 9/27/67 DATE  
 CIVIL ENGINEER

RECOMMENDED FOR APPROVAL E. W. Stebbins 9/28/67 DATE  
 ASST. CIVIL ENGINEER

APPROVED BY R. J. Arnold 9/28/67 DATE  
 CHIEF ENGINEER

PROJECT NO. F020-1141 SHEET 13A OF 532

REVISIONS: Bridge Width JHT-1130-67  
Correction: Estimated Discharge 9781 cfs 1927 Flood, Velocity 4,908 f.p.s.