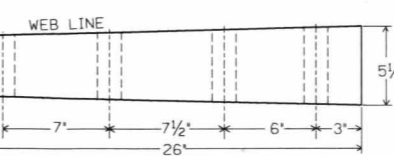
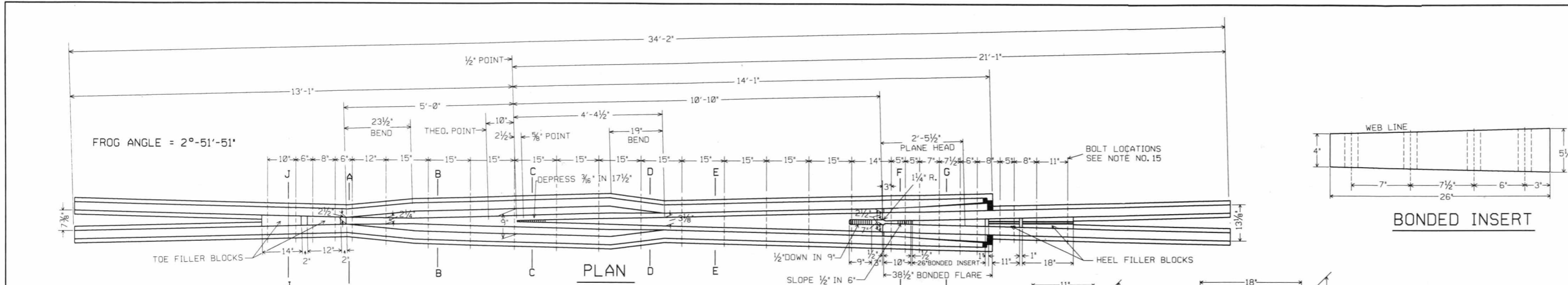
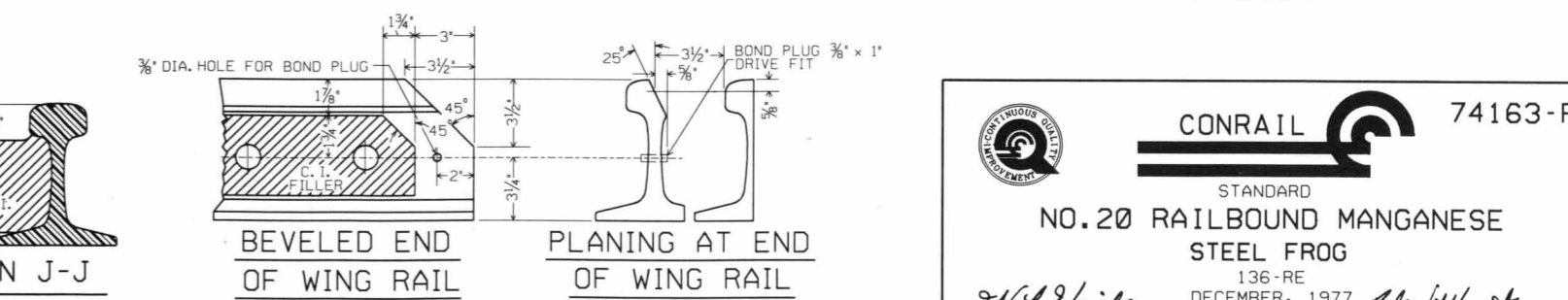
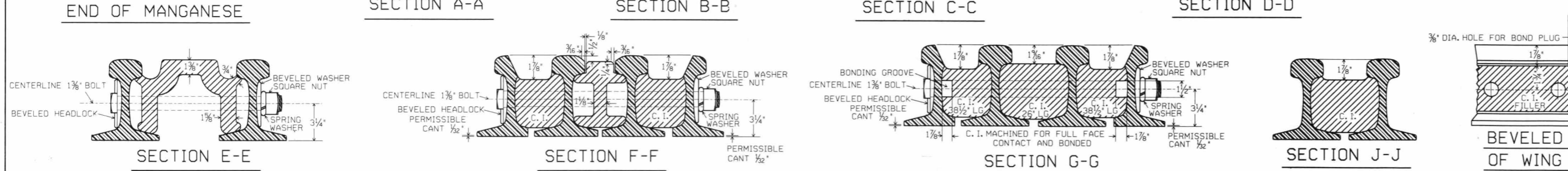
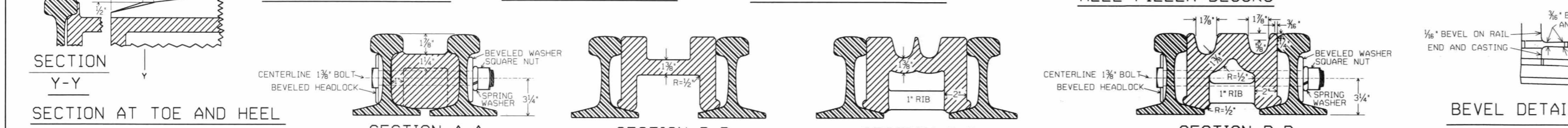
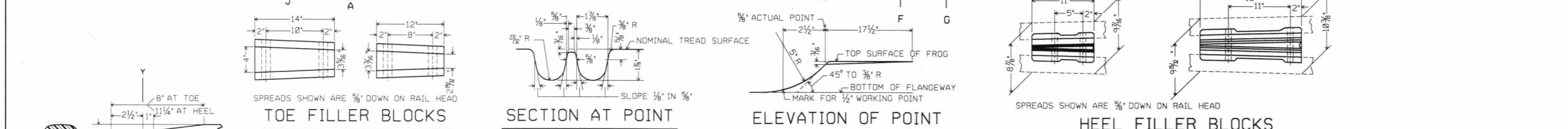


REVISIONS  
 B-June, 1978  
 C-Oct., 1980  
 D-May, 1986  
 E-May, 1987  
 F-Sept., 1994  
 (Redrawn)



- NOTES**
- 1-This Plan is for use with Conrail Specification MW 180 for 136RE rail.
  - 2-The 136RE rail shall be per the current Conrail Plan 71016.
  - 3-All rails shall be fully Heat Treated (Brinell 341-388).
  - 4-Rail ends shall not be beveled, except where shown.
  - 5-Workmanship and materials shall be per current AREA Specifications.
  - 6-Heavy wall casting shall be per current AREA Specifications.
  - 7-Frog center casting shall be Explosion Hardened and done prior to assembly.
  - 8-Casting shall be Radiographed for internal soundness.
  - 9-Casting shall be Hi-Quality and to the internal soundness levels on the current Conrail Plan 74165.
  - 10-All bolt holes in rails shall be chamfered 1/16\"
  - 11-When frog is to be used in bolted track, the first bolt hole is to be drilled in the field by Conrail.
  - 12-The bolt holes in the heel end of the casting for heel rails, wing rails and fillers shall be cored 1 7/16\"
  - 13-Drilling of bolt holes in the toe end of the wing rails and both ends of the heel rails shall not be permitted through the stamping on a rail.
  - 14-Frog bolts shall be square head, Hi-Tensile, heat treated steel, Grade 5, 1 3/8\"
  - 15-For bolt lengths see the current Conrail Plan 71501.
  - 16-Frog bolts must be of proper length for each location throughout the frog. After torquing of the bolt, between 1/2\"-1 1/4\"
  - 17-Frog bolt nuts shall be tightened to 1650 Ft. Lbs. +/- 50 Ft. Lbs. with dry threads.
  - 18-For the location of Swivel Shoulder Frog Plates see the current Conrail Plan 73187.
  - 19-The weight of the frog is 6305 Lbs.
  - 20-The Item Numbers are 01-334760 for standard length and 01-334745 for maintenance length.
  - 21-Heel rail section of frog shall be glued using Allegheny Temprange Epoxy.



**CONRAIL** 74163-F  
 STANDARD  
 NO. 20 RAILBOUND MANGANESE  
 STEEL FROG  
 136-RE  
 DECEMBER, 1977  
*W. L. Heide* CHIEF ENGINEER  
 DIR. - STANDARDS & TRACK ANALYSIS