DESIGN CRITERIA

1.) Charts are based on the following:
   AASHTO LRFD Bridge Design Specifications, 4th Edition
   PGSuper V2.0.7 - Built April 21, 2008

2.) Dead Load (DC):
   Girder + Haunch + Main Slab
   + 32" F-Shape Traffic Barrier
   + Intermediate Diaphragms per B.D.M.
   Superimposed Dead Load (DW):
   2" Thick Future Asphalt Overlay
   Live Load (LL):
   HL-93 with 33% impact on the truck portion only

3.) Loading Combinations
   Flexure = Strength I Bridge Site Stage 3
   Shear = Strength I Bridge Site Stage 3
   Stresses = Service I Casting Yard Stage (Release)
   Service I Temporary Strand Removal
   Service I Bridge Site Stage 1
   Service I Bridge Site Stage 2
   Service I Bridge Site Stage 3
   Service IA Bridge Site Stage 3
   Service III Bridge Site Stage 3

4.) Live Load Distribution
   Moment = LRFD 4.6.2.2.2b-1 (Interior Girder, type "k" cross section)
   Shear = LRFD 4.6.2.2.3a-1 (Interior Girder, type "k" cross section)

5.) Main Slab Thickness for Girder Spacing < 12 ft
   7½" thick total deck with ½" sacrificial depth
   \( t_{\text{deck}} = 7" \) for strength and section properties
   \( t_{\text{deck}} = 7\frac{1}{2}" \) for dead load

6.) Concrete
   Girder \( f'_c \) = Variable ksi, \( w_c = 155 \) pcf for section properties, 160 pcf for weight calculations
   Girder \( f'_{ci} \) = Variable ksi
   Deck \( f'_c \) = 4.0 ksi, \( w_c = 155 \) pcf for section properties, 160 pcf for weight calculations

7.) Reinforcement
   Strand = 0.6" diameter, 270 ksi, 7-wire, low-relaxation
   \( f_p = 202.5 \) ksi
   \( E_{ps} = 28,500 \) ksi
   Rebar = Grade 60
   \( E_s = 28,900 \) ksi

8.) Prestress Losses
   Refined Estimate per WSDOT Bridge Design Manual