** Typical Prestressed Slab Details **

** ESTIMATED DEFORMATION OF Prestressed Girder AT RELEASE **

** ESTIMATED DEFORMATION OF Prestressed Girder AT ERECTION **

** Notes **

1. Girder designed using immediate prestress losses of psi and final total prestress losses of psi.

2. Provide "I" § ASTM A449 high strength tie rods.

3. Provide an initial minimum tension of 20,000 lbs. for the rods.

4. Measure bolt tension by the use of direct tension indicators. Provide TII, that conform to ASTM A199 and hardened steel washers that conform to ASTM A56.

5. Provide bearing plates that conform to ASTM A36.

6. Provide nuts that conform to ASTM A563 grade OH.

7. Hot dip galvanize tie rods, nuts, washers and bearing plates after fabrication, apply an anti-galling lubricant to the threads prior to tensioning the tie rods.

** Concrete **

8. Provide concrete as shown on the plans.

9. Provide concrete that conforms to Section 502 except that entrained air will be 5% max. Self-consolidating concrete may be used in accordance with Section 502.

** Grout **

10. Provide grout that conforms to Type "G", Class I non-metallic non-shrink as specified in subsection 502.02.

11. Sandblast, clean, and grout level with surrounding girder surfaces, keyways and blockouts, provide a backer rod as a seal for the grout.

12. No vehicular traffic will be allowed on the structure until the grout has attained a minimum strength of 4000 psi.

** Shop Drawings **

13. Provide shop drawing details that conform to current AASHTO specifications, show detensioning sequence and grout lift points on shop drawings.

14. Submit shop drawings to the engineer electronically in PDF format in accordance with Section 502.04 and include complete details of fabrication, clearly specify materials being used, furnish the engineer electronic as-built shop drawings in PDF before project completion.

15. Keep the prestressed girder in an upright position at all times during transportation and erection. Lift only by means of the lifting devices provided, submit the proof the support points to be used during transportation to the job site for approval.

** Miscellaneous Girder Details **

16. All dimensions are horizontal dimensions. Correct the finished length of the girder for grade and allowance made for beam shortening.

17. Fabricate in accordance with subsection 506.03.

18. Finish the top surface of the girder in accordance with Section 502.03, Part 1, Paragraph 36.4.

19. Girder erection/beam placement assumed to occur 60-90 days after girder fabrication.

** Strands **

20. Design based upon 0.05" dia. AASHTO Grade 157 low relaxation strand.

** Girder Shipping **

21. Do not ship prestressed concrete members until tests on concrete cylinders manufactured from the same concrete and cured under the same conditions as the girders indicate that the concrete of the particular member has attained a compressive strength equal to, or greater than, the specified design 28 day compressive strength or until seven days after concrete placement, whichever is longer.

** Construction Sequence **

1. Set girders.

2. Tension tie rods.

3. Grout 4" dia. vertical dowel hole at the abutment.

4. Weld "I" section rod at weld tie locations.

5. Grout keyway.