

Project ID: EA: Project Name: Date:
Detailer: Designer: Checker:

Note: Structure Design Technician(T), Designer(D), and Checker(C) are responsible for checking each item or indicating not applicable (NA).

T D C NA Plan

- 1. Orient on sheet the same as the GENERAL PLAN.
- 2. The maximum scale is 1/8" = 1'-0". Use 1" = 20' for line diagram type GIRDER LAYOUT.
- 3. Show North arrow.
- 4. Show girders with solid lines (view is below the deck).
- 5. Show and place intermediate diaphragms parallel to transverse deck reinforcement.
 - a) Precast girder intermediate diaphragms and other details shown on typical XS-sheets.
- 6. Combine the GIRDER LAYOUT and TYPICAL SECTION sheets when possible.
- 7. Place "DETAIL A" for curved girders on TYPICAL SECTION sheet. Detail can also be placed on GIRDER LAYOUT sheet if there is not enough room on TYPICAL SECTION. For "DETAIL A", see *Bridge Design Memo 5.27*.
- 8. Dimension length of supports from station line to centerline of exterior girders, but do not show intermediate girder spacing unless it differs from the TYPICAL SECTION.
- 9. Do not show stations and layout given on GENERAL PLAN and FOUNDATION PLAN.
- 10. On girder layouts for steel girders detail the length and bearing of girders.
- 11. Length of girders are tabulated on precast girder standard XS-sheets but note the bearing of the girders on the GIRDER LAYOUT.
- 12. Show vertical fillets (not required for skews less than 20-degrees).
- 13. Show Utility Opening locations and call out type with reference to the appropriate *Standard Plan*.
- 14. Dimension girder flare lengths.
 - a) Sloped exterior girders must be flared to 18" web thickness at the end diaphragms over a minimum 16-foot length.
- 15. Dimension girder stem thickness.
- 16. Show portion of transverse deck reinforcement layout.
- 17. Show details of skewed deck corners at ends of bridge, bent joints and hinges.
- 18. Show soffit and deck access openings.
- 19. Show Soffit Vent Holes.
- 20. Do not show ducts or duct vents.

Longitudinal Section

- 1. Show stirrup spacing. Stirrup spacing shall not exceed 12" within 8 feet of supports and anchor ends.
- 2. Show soffit flares near supports.

Longitudinal Section Cont'd

3. Show cable path for prestressed bridges. Note control dimensions to center of gravity of prestressing force at centerline of supports and locate inflection points of cable path. Dimension high points, low points, points of inflection and cable ends from bottom of soffit. The cable path should be labeled as parabolic between points shown.
4. Add standard cell for PRESTRESSING NOTES for each frame and construction stage.
- a) Specify P_{jack} and the number of girders for which it applies.
- b) Include all assumptions for prestress losses (assumed K and μ as well as average long term loss stress).
- c) Include the final force ratio allowed between any two girders.
- d) Clearly identify the physical location of the point of no movement along the cable path in the LONGITUDINAL SECTION view. Indicate the force coefficient at the point of no movement in decimal form (round to nearest 0.001).
- e) Specify either one end or two end stressing. If one end stressing, specify which end is to be the stressing end.

Camber Diagram

1. Draw proportionally correct, but do not add scale.
2. Use one diagram for all girders except unusual conditions.
3. Avoid negative camber values especially in conjunction with flat bridge profiles.
4. Camber units are shown in feet and to the nearest 0.01'.
- a) For precast girders, camber values are tabulated on precast girder standard detail sheets.

End Diaphragm Section

1. The minimum scale is $\frac{1}{2}'' = 1'-0''$.
2. SECTION should be taken from PLAN view on GIRDER LAYOUT sheet.
3. Show width of End Diaphragm.
4. Show approximate prestress blockout location. For prestressing Grillage, reference *Standard Plan B8-5*. For reinforcement, see *Bridge Design Memo 5.26*.
5. Show Joint Seal Blockout for movement ranges greater than 2".
6. Show all reinforcement.
7. Show limits of Transverse Reinforcement in deck and soffit.
8. Only show lines that intersect the section cut plane (do not show lines and reinforcement that are beyond the section cut plane).
9. In some cases, multiple SECTIONS may be required. If multiple SECTIONS are required, then consider adding END DIAPHRAGM DETAILS sheet.