



Section 1 - Bridge Superstructure PC/Pretensioned Bulb-Tee Girder (Misc Details)

XS Sheet Numbers:

XS 1-121-3

Description of Component:

Precast Pretensioned Bulb-Tee Girder (Misc Details), Use this sheet with XS 1-121-1 or XS 1-121-2

Standard Drawing Features:

1) Optional End Block:

- If end blocks are required, use six feet minimum for the length so that it gives precasters some flexibility to adjust the standard section form.
- Consider one end block for the girder if necessary.
- If inverted T bent caps are used, a notched end block is required. The designer is responsible for modifying the details.
- Three holes for #8 dowels are shown. But designer could change numbers of the holes based on the girder height and dowel spacing.

2) Section E-E:

- If an end block is needed, a 2 feet-5 ½ inches width is standard.
- At abutment locations where a girder end block is not used, the shear key design requires special attention. If bearings need to be replaced in the future, thick polyethylene may be required at top of the bottom flange of the girder so that the girder could be jacked to provide the space.

3) Detail B:

- Normally, it is for exterior girder only at diaphragm locations.

4) Intermediate Diaphragm and Section B-B:

- Standard details are provided.
- End diaphragms are project specific.

5) Welded Wire Reinforcement (WWR) Alternative and Detail A:

- Shear reinforcement could be replaced by WWR. The contractor needs to show it on the shop drawings.
- AASHTO LRFD Bridge Specifications, MTD 11-8, and Standard Specifications list the requirements to use WWR.
- WWR size could vary based on the design. Minimum requirements for size and locations are shown on the Detail A.

Design/General Notes:

N/A

Additional Drawings Needed to Complete PS&E:

This sheet works with XS 1-121-1 or XS 1-121-2



Caltrans® User Guide to Bridge Standard Detail Sheets

Section 1 - Bridge Superstructure

PC/Pretensioned Bulb-Tee Girder (Misc Details)

Contract Specifications:

Standard Specifications 2018

Restrictions on Use of Standard Drawings:

The project designer and project engineer are responsible for designing this sheet and stamping this sheet.

Special Considerations:

The project designer and project engineer may modify this sheet based on project needs. Caltrans designers are urged to consult with the Concrete Design Committee on any design change to the girder cross-section. Consultant designers may check with the precast industry (PCI West).