Section 1 - BRIDGE SUPERSTRUCTURE

PC/PRETENSIONED BULB-TEE GIRDER (MISC DETAILS)

XS Sheet Numbers:

xs1-121-3

Description of Component:

Precast Pretensioned Bulb-Tee Girder (MISC DETAILS). Use this sheet with xs1-121-1 or xs1-121-2

Standard Drawing Features:

1) Optional Notched End Detail:

- If end blocks are required, specify a minimum of six feet for the length, which gives precast manufacturers some flexibility to adjust the standard section form.
- Consider one end block for the girder if necessary.
- A notched end block is required for inverted T-bent caps. The designer is responsible for customizing this detail for the project.
- Three holes for #8 dowels are shown. However, the designer could change the number of 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.
- The shear key design requires special attention at abutment locations where a girder end block is not used. 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:

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

4) Intermediate Diaphragm and Section B-B:

- Standard intermediate diaphragm details are provided.
- End diaphragm design is project-specific and the details for the intermediate diaphragms may be used for end diaphragms.

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-CA LRFD BDS, BDM 5.3, and the Standard Specifications list the requirements for WWR use.

- WWR size could vary based on the design. Minimum requirements for size and locations are shown in Detail A.
- This detail is typically only used for exterior girders at intermediate and end diaphragm locations.

Additional Drawings Needed to Complete PS&E:

This sheet must be accompanied by xs1-121-1 or xs1-121-2

Contract Specifications:

Standard Specifications 2024

Restrictions on Use of Standard Drawings:

The project engineer is responsible for designing and stamping this sheet.

Special Considerations:

The project engineer may modify this sheet based on project needs.