

4.6.2.2 Beam-Slab Bridges

For bridges meeting the provisions of Article 4.6.2.2 that have cast-in-place composite decks, all dead loads applied to the composite section may be assumed to be applied equally to all girders.

Voided slabs connected by shear keys, tie rods and weld tabs or UHPC filled shear keys, shall be assumed that the connectivity is only enough to prevent relative vertical displacement at the interface and no distribution of dead loads shall be allowed. The exception is parapet loads which can be distributed assuming 60% to the exterior girder and 40% to the adjacent interior girder.

Deck Bulb-Tee girders connected by UHPC or generic equivalent filled shear keys, shall be assumed that the connectivity fully develops the reinforcement and can be designed fully continuous. Parapet and dead loads placed after the closure pour can be distributed to all girders.

Commentary:

Assuming no distribution of loads across the interface of voided slabs connected by UHPC shear keys is conservative but provides a factor of safety.

Revisions:

May 2021	Clarified the design distribution assumption for UHPC filled shear key connections. Added parapet load distribution. Added Commentary.
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