
***Appendix D: Distribution of Live Load
per Lane for Shear in Exterior Beams
(AASHTO Table 4.6.2.2.3b-1)***

Distribution of Live Load per Lane for Shear in Exterior Beams				
Type of Superstructure	Applicable Cross Section from Table 4.6.2.2.1-1	One Design Lane Loaded	Two or More Design Lanes Loaded	Range of Applicability
Wood Deck on Wood or Steel Beams	a, 1	Lever Rule	Lever Rule	N/A
Concrete Deck on Wood Beams	1	Lever Rule	Lever Rule	N/A
Concrete Deck, Filled Grid, Partially Filled Grid, or Unfilled Grid Deck Composite with Reinforced Concrete Slab on Steel or Concrete Beams; Concrete T-Beams, T- and Double T-Sections	a, e, k, and also i, j if sufficiently connected to act as a unit	Lever Rule	$g = e \, g_{\text{interior}}$ $e = 0.6 + \frac{d_e}{10}$	$-1.0 \leq d_e \leq 5.5$
Cast-in-Place Concrete Multicell Box	d	Lever Rule	Lever Rule	$N_b = 3$
		Lever Rule	$g = e \, g_{\text{interior}}$ $e = 0.64 + \frac{d_e}{12.5}$	$-2.0 \leq d_e \leq 5.0$
		or the provisions for a whole-width design specified in Article 4.6.2.2.1		
Concrete Deck on Concrete Spread Box Beams	b, c	Lever Rule	$g = e \, g_{\text{interior}}$ $e = 0.8 + \frac{d_e}{10}$	$0 \leq d_e \leq 4.5$
		Lever Rule	Lever Rule	$S > 18.0$

Concrete Box Beams Used in Multibeam Decks	f, g	$g = e \ g_{interior}$ $e = 1.25 + \frac{d_e}{20} \geq 1.0$	$g = e g_{interior} \left(\frac{48}{b} \right)$ $\frac{48}{b} \leq 1.0$ $e = 1 + \left(\frac{b}{12} - \frac{2.0}{40} \right)^{0.5} \geq 1.0$	$d_e \leq 2.0$ $35 \leq b \leq 60$
	h	Lever Rule	Lever Rule	N/A
Concrete Beams Other than Box Beams Used in Multibeam Decks	i, j if connected only enough to prevent relative vertical displacement at the interface			
Open Steel Grid Deck on Steel Beams	a	Lever Rule	Lever Rule	N/A
Concrete Deck on Multiple Steel Box Beams	b, c	As specified in Table 4.6.2.2b-1		
Source: AASHTO Table 4.6.2.2.3b-1.				

