Table A2.1 ACI approximate design moments and shears for beams and one-way slabs

Positive moment	End spans	
	Discontinuous end unrestrained	$w_u\ell_n^2/11$
	Discontinuous end integral with support	$w_u\ell_n^2/14$
	Interior spans	$w_u\ell_n^2/16$
Negative moment	At exterior face of the first interior support	
	Two spans	$w_u\ell_n^2/9$
	More than two spans	$w_u\ell_n^2/10$
	At other faces of interior supports	$w_u\ell_n^2/11$
	At the face of all supports for SLABS with spans not exceeding 10 ft; and BEAMS where ratio of sum of column stiffnesses to beam stiffness exceeds 8 at each end of the span	$w_u\ell_n^2/12$
	At interior face of exterior support for members built integrally with supports	
	Where support is a spandrel beam	$w_u\ell_n^2/24$
	Where support is a column	$w_u\ell_n^2/16$
Shear	In end members at the face of the first interior support	$1.15\,w_u\ell_n/2$
	At face of all other supports	$w_u\ell_n/2$

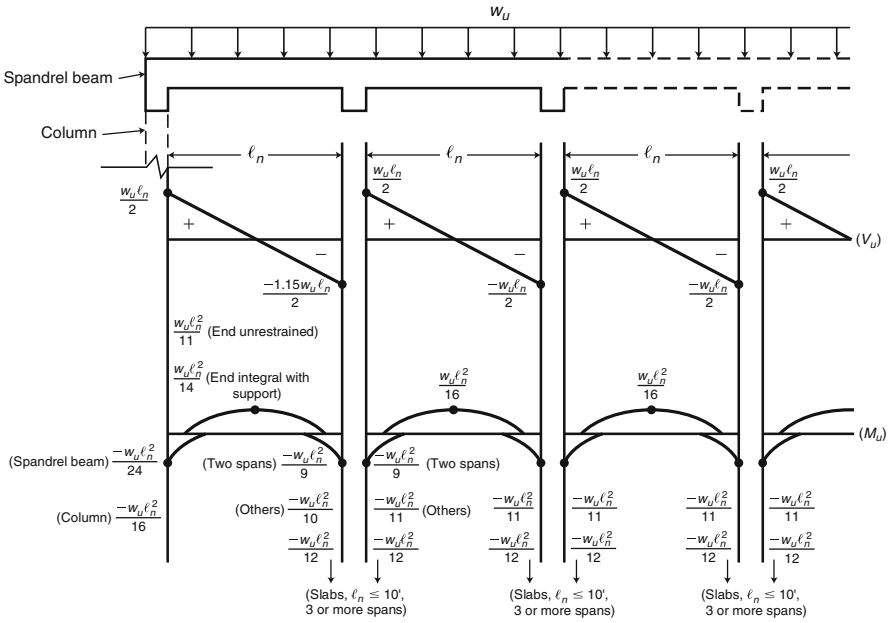

Table A2.2a Values of A_1 and B_1 for commonly used reinforcing steels

f_y (psi)	ε_{ty}	A_1	B_1
40,000	0.00138	0.555	69.1
60,000	0.00207	0.473	85.3
75,000	0.00259	0.381	103.7

Table A2.2b Values of A_2 and B_2 for commonly used reinforcing steels

f_y (psi)	d_t/c_b	c_b/d_t	A_2	B_2
40,000	1.460	0.685	0.345	0.208
60,000	1.690	0.592	0.233	0.250
75,000	1.863	0.537	0.067	0.312

Table A2.3 ρ_{max} and ρ_{tc} for common grades of steel and compressive strength of concrete (single layer of steel, i.e., $d = d_t$)

f_y (psi)	$f'_c = 3{,}000$ psi	$f'_c = 4{,}000$ psi	$f'_c = 5{,}000$ psi	ϕ
ρ_{max} ($\varepsilon_t = 0.004$)				
40,000	0.0232	0.0310	0.0364	0.83
60,000	0.0155	0.0207	0.0243	0.81
75,000	0.0124	0.0165	0.0194	0.80
ρ_{tc} ($\varepsilon_t = 0.005$)				
40,000	0.0203	0.0270	0.0318	0.90
60,000	0.0135	0.0180	0.0212	0.90
75,000	0.0108	0.0144	0.0169	0.90

Note: For multiple layers of reinforcements, multiply the table values by $\frac{d_t}{d}$

Table A2.4 Minimum steel ratio (ρ_{min})

f_y (psi)	ρ_{min}			
	$f'_c = 3{,}000$ psi	$f'_c = 4{,}000$ psi	$f'_c = 5{,}000$ psi	$f'_c = 6{,}000$ psi
40,000	0.0050	0.0050	0.0053	0.0058
60,000	0.0033	0.0033	0.0035	0.0039
75,000	0.0027	0.0027	0.0028	0.0031