PRECAST LOAD TABLES

Double Tees · Planks · L-Beams · IT Beams · Piles



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click a sheet to open it

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LEGEND

TABLE CELL
189 / 1.2 / 1.5
Top: safe superimposed service load (psf for decks, plf for beams). Middle: camber at erection, in. Bottom: long-time camber, in.

NEGATIVE CAMBER
-0.4
Shown in red — the member deflects downward.

TAN SHADED CELL
143
Double tees and beams: requires release strength above 3,500 psi.

BLANK CELL
Load outside the table range, φMn < 1.2Mcr, or not published.

STRAND PATTERN
128-S
No. of strands + diameter in 16ths; S = straight, D = depressed (D1 = one depression point). Dots show the strand count.

MEMBER TAG
8FS6 + 2
Width (ft) · type · thickness (in.); "+ 2" = 2 in. topping; "S" = shored.

ROW COLOUR
Each strand pattern keeps its colour in the table and in the chart below it.

CHART LINES
Solid = shored (or the sheet's case); dashed = same pattern unshored.

SHORING NOTE
Red-outlined band on every sheet states whether the member is shored or not.

BASIS
Calculated
PCI Handbook
Red = calculated / designed by ART (PCI method). Grey = reproduced from PCI Design Handbook.

PAGE BOX
PAGE 5 of 25
Bottom right of every sheet. Click it to return to this cover sheet.

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SHEET TITLE
PRECAST LOAD TABLES
COVER SHEET — CONTENTS & LEGEND
PRELIMINARY — FOR COORDINATION, NOT FOR CONSTRUCTION

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SCALE **NTS**
DATE **10/24/2026**
PAGE **1 of 25**
SHEET **CS**

PRECAST LOAD TABLES Double Tees · Planks · Beams · Piles

ART Constructors LLC

SHEET INDEX

SHEET		PRODUCT	MEMBERS	BASIS	f'c / f'ci, psi	PAGE
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DT-3		Double tee	10DT18 / 10DT18+2	Calculated (PCI method)	6,000 / 3,500	5
DT-4		Double tee	10DT24 / 10DT24+2	Calculated (PCI method)	6,000 / 3,500	6
DT-5		Double tee	10DT32 / 10DT32+2	Calculated (PCI method)	6,000 / 3,500	7
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FS-5		Solid flat slab plank, 8'-0" wide	8FS3½ / 8FS3½+2	Designed, ½" ≤ 12	6,000 / 4,000	12
FS-6		Solid flat slab plank, 8'-0" wide	8FS4 / 8FS4+2	Designed, ½" ≤ 12	6,000 / 4,000	13
FS-7		Solid flat slab plank, 8'-0" wide	8FS6 / 8FS6+2	Designed, ½" ≤ 12	6,000 / 4,000	14
FS-8		Solid flat slab plank, 8'-0" wide	8FS8 / 8FS8+2	Designed, ½" ≤ 12	6,000 / 4,000	15
FS-9		Plank 4'-0" wide — SHORED	4FS3½+2 S	Designed, shored	6,000 / 4,000	16
FS-10		Plank 8'-0" wide — SHORED	8FS3½+2 S	Designed, shored	6,000 / 4,000	17
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PL-1		Prestressed pile — solid	Square & octagonal 10"–24"	PCI Design Handbook	5,000–10,000	25

GENERAL NOTES

1. Tables are for preliminary sizing and architectural coordination only. Final member design, strand patterns, camber, connections, end details and handling are by ART Constructors' engineer of record.
2. Safe superimposed service loads include the superimposed dead load stated on each sheet; the remainder is live load. Long-time cambers include superimposed dead load but not live load. Negative cambers (downward) are shown in red.
3. "Calculated" and "Designed" sheets were produced with the PCI Design Handbook method (strain-compatibility strength, time-dependent losses, PCI camber multipliers) and checked against published PCI tables of similar sections. "PCI Design Handbook" sheets reproduce published values; verify against the current edition.
4. Double tee sections per sheet DT-1. 12", 18" and 24" double tees are assumed cast in the 32" form with the same stem taper; strand patterns for these depths are assumed and must be confirmed.
5. Planks on FS-1 and FS-5 to FS-8 are designed with ½" dia. strand only (maximum 12 per 8'-0" plank, 6 per 4'-0"), f'c = 6,000 psi at 28 days and f'ci = 4,000 psi at transfer. Blank cells do not meet φMn ≥ 1.2Mcr (ACI 318) or fall outside 25–400 psf.
6. Double tees, L-beams and IT beams are calculated at f'c = 6,000 psi (f'ci = 3,500 psi). Cells shaded tan require release strength above 3,500 psi. The 4'-0" flat slabs FS-2 to FS-4 reproduce PCI values at 5,000 psi.
7. Except sheets FS-9 to FS-13, all precast members are assumed NOT shored during erection and topping placement: the precast section alone carries its own weight and the weight of any cast-in-place topping.
8. Sheets FS-9 to FS-13 assume planks fully shored until the topping reaches 75% of f'c, so topping weight is carried by the composite section. Topping interface to be roughened to ¼" amplitude; horizontal shear is checked without ties. Shoring design by contractor.
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SHEET TITLE

PRECAST LOAD TABLES

SHEET INDEX & GENERAL NOTES

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SCALE **NTS**

DATE **10/24/2026**

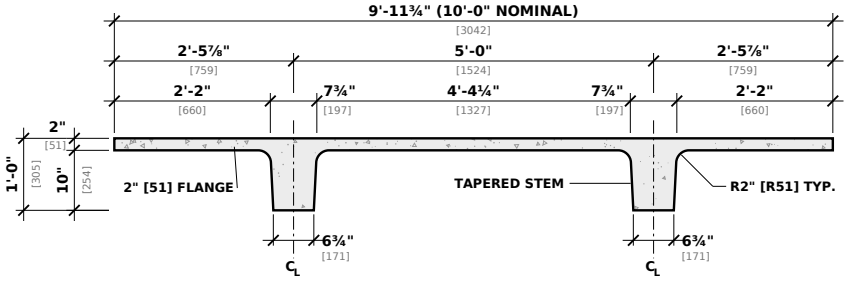
SHEET **G-1**

▲ CONTENTS

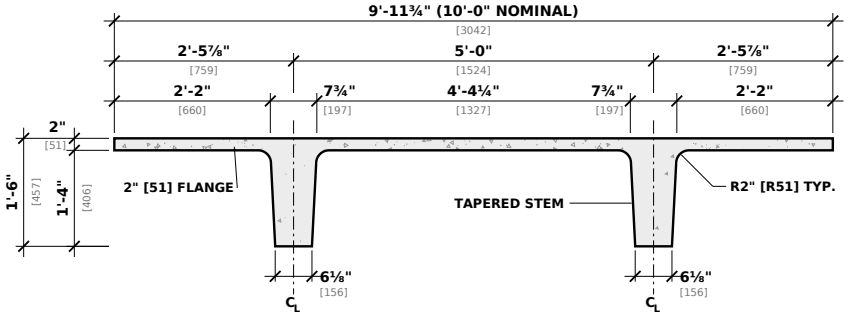
DOUBLE TEE 10'-0" Wide · Standard Sections

Scale 3/8" = 1'-0"

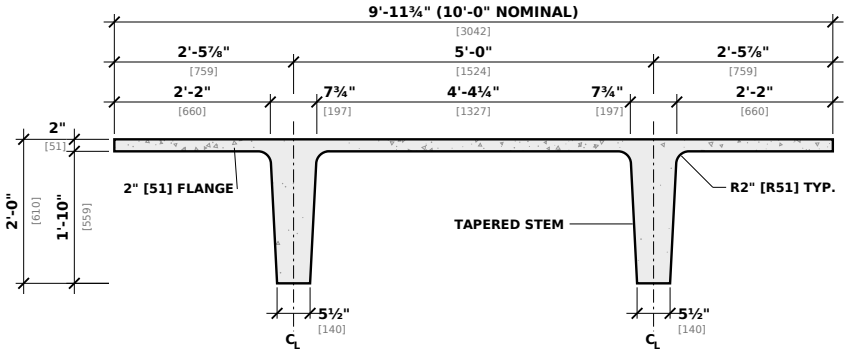
1 DOUBLE TEE — 10DT12 (12" DEEP)



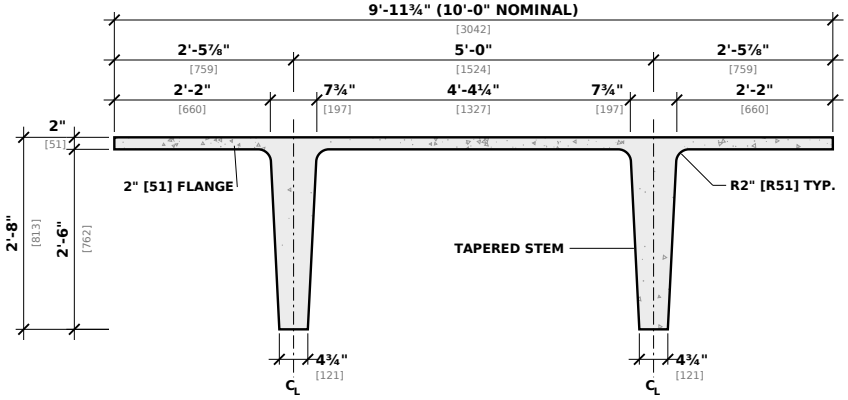
2 DOUBLE TEE — 10DT18 (18" DEEP)



3 DOUBLE TEE — 10DT24 (24" DEEP)



4 DOUBLE TEE — 10DT32 (32" DEEP)



PROPERTIES	DT12	DT18	DT24	DT32
Nominal width	10'-0"	10'-0"	10'-0"	10'-0"
Actual width	9'-11¾"	9'-11¾"	9'-11¾"	9'-11¾"
Overall depth	1'-0" (12")	1'-6" (18")	2'-0" (24")	2'-8" (32")
Flange	2"	2"	2"	2"
Stem spacing	5'-0"	5'-0"	5'-0"	5'-0"
Stem, top	7¾"	7¾"	7¾"	7¾"
Stem, bottom	6¾"	6⅛"	5½"	4¾"
Area	388 in²	465 in²	534 in²	618 in²
Self weight*	404 plf 40 psf	484 plf 48 psf	556 plf 56 psf	643 plf 64 psf

NOTES

1. Dimensions in feet-inches [millimeters].
2. 10'-0" nominal width includes a ¼" joint between adjacent tees.
3. 10DT12, 10DT18 and 10DT24 are cast in the 10DT32 form; stem taper is the same for all depths.
4. *Self weight based on normal weight concrete at 150 pcf.
5. Strand pattern, camber, end details and connections are project specific — confirm with ART Constructors.
6. Load tables: sheets DT-2 to DT-5.

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SHEET TITLE

10'-0" WIDE PRECAST DOUBLE TEE

STANDARD SECTIONS — 10DT12 TO 10DT32

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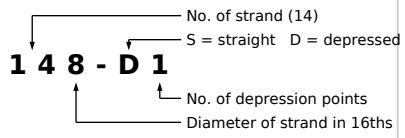
SCALE **3/8" = 1'-0"**

DATE **10/24/2026**

DOUBLE TEE 10'-0" x 12" · Normal Weight Concrete

f'c = 6,000 psi · f'ci = 3,500 psi · fpu = 270,000 psi

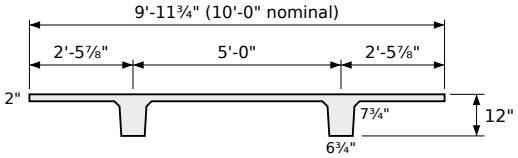
STRAND PATTERN DESIGNATION



Safe loads include superimposed dead load of 10 psf (untopped) and 15 psf (topped); the remainder is live load. Long-time cambers include superimposed dead load but not live load.

KEY

189	← Safe superimposed load, psf
1.2	← Camber at erection, in.
1.5	← Long-time camber, in.



2" topping f'c = 3,000 psi (where used)

SECTION PROPERTIES

	Untopped	Topped
A	**388** in.²	**—** in.²
I	**4,417** in.⁴	**6,565** in.⁴
y_b	**8.79** in.	**10.07** in.
y_t	**3.21** in.	**3.93** in.
S_b	**503** in.³	**652** in.³
S_t	**1,375** in.³	**1,669** in.³
wt	**404** plf	**654** plf
DL	**40** psf	**65** psf
V/S	**1.38** in.	

Table of safe superimposed service load (psf) and cambers (in.)

No Topping **10DT12**

STRAND	ys, in.	SPAN, FT															
Pattern	end / center	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
48-S ●●●●	2.00 2.00	**157** 0.4 0.5	**121** 0.5 0.6	**95** 0.6 0.6	**76** 0.6 0.7	**60** 0.6 0.7	**48** 0.7 0.6	**38** 0.7 0.5									
68-S ●●●●●●	2.67 2.67		**180** 0.7 0.9	**144** 0.8 1.0	**116** 0.9 1.1	**95** 1.0 1.2	**78** 1.1 1.2	**64** 1.1 1.2	**53** 1.2 1.2	**44** 1.2 1.0	**36** 1.1 0.8	**29** 1.1 0.5					
88-S ●●●●●●●●	3.00 3.00			**191** 1.1 1.4	**156** 1.2 1.5	**129** 1.4 1.7	**107** 1.5 1.8	**90** 1.6 1.9	**75** 1.7 1.9	**63** 1.8 1.9	**54** 1.8 1.8	**45** 1.8 1.6	**38** 1.8 1.3	**32** 1.7 1.0	**26** 1.5 0.5		
108-S ●●●●●●●●●●	3.60 3.60				**184** 1.4 1.8	**153** 1.6 1.9	**128** 1.7 2.1	**108** 1.9 2.2	**91** 2.0 2.3	**78** 2.1 2.3	**66** 2.2 2.3	**57** 2.3 2.2	**48** 2.3 2.0	**41** 2.2 1.7	**35** 2.1 1.3	**29** 2.0 0.7	**25** 1.7 0.0
128-S ●●●●●●●●●●●●	4.00 4.00					**172** 1.8 2.2	**144** 2.0 2.4	**121** 2.2 2.6	**103** 2.3 2.7	**88** 2.5 2.8	**75** 2.6 2.8	**64** 2.7 2.8	**55** 2.8 2.6	**47** 2.8 2.4	**40** 2.7 2.1	**34** 2.6 1.6	**29** 2.4 1.0

Table of safe superimposed service load (psf) and cambers (in.)

2 in. Normal Weight Topping **10DT12 + 2**

STRAND	ys, in.	SPAN, FT															
Pattern	end / center	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
48-S ●●●●	2.00 2.00	**174** 0.4 0.4	**132** 0.4 0.4	**101** 0.5 0.4	**78** 0.5 0.4	**60** 0.5 0.3	**45** 0.5 0.2	**33** 0.4 0.0									
68-S ●●●●●●	2.67 2.67			**160** 0.8 0.8	**127** 0.8 0.8	**102** 0.9 0.8	**81** 0.9 0.7	**65** 0.9 0.6	**51** 0.9 0.4	**38** 0.8 0.1	**26** 0.7 –0.3						
88-S ●●●●●●●●	3.00 3.00				**175** 1.1 1.1	**142** 1.2 1.2	**116** 1.3 1.2	**94** 1.4 1.1	**74** 1.4 1.0	**57** 1.4 0.8	**43** 1.4 0.5	**31** 1.3 0.1					
108-S ●●●●●●●●●●	3.60 3.60					**170** 1.4 1.4	**136** 1.6 1.5	**109** 1.7 1.5	**87** 1.7 1.4	**69** 1.8 1.2	**53** 1.8 1.0	**40** 1.7 0.6	**29** 1.6 0.1				
128-S ●●●●●●●●●●●●	4.00 4.00					**189** 1.6 1.7	**152** 1.8 1.8	**123** 1.9 1.8	**100** 2.0 1.8	**80** 2.1 1.7	**63** 2.2 1.5	**49** 2.1 1.2	**37** 2.1 0.7	**27** 1.9 0.2			

SHORING: All precast members are assumed NOT shored — the precast section alone carries its own weight and the weight of any cast-in-place topping.

Strength by strain compatibility (1.2D + 1.6L); bottom tension ≤ 12√f'c. Shaded cells require release strength above 3,500 psi. Negative cambers (downward) shown in red.
½" dia. 270 ksi low-relax strand at 0.75 fpu; losses and cambers by PCI method. Strand patterns for 12", 18" and 24" assumed — confirm with plant. Shear, end details, connections and handling by engineer of record.

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SHEET TITLE
10'-0" WIDE PRECAST DOUBLE TEE
LOAD TABLES — 10DT12 & 10DT12+2
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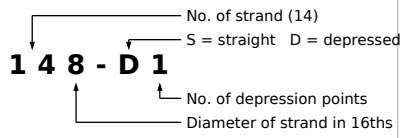
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SCALE **NTS**
DATE **10/24/2026**

DOUBLE TEE 10'-0" x 18" · Normal Weight Concrete

f'c = 6,000 psi · f'ci = 3,500 psi · fpu = 270,000 psi

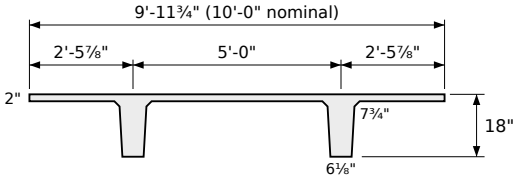
STRAND PATTERN DESIGNATION



Safe loads include superimposed dead load of 10 psf (untopped) and 15 psf (topped); the remainder is live load. Long-time cambers include superimposed dead load but not live load.

KEY

189	← Safe superimposed load, psf
1.2	← Camber at erection, in.
1.5	← Long-time camber, in.



2" topping f'c = 3,000 psi (where used)

SECTION PROPERTIES

	Untopped	Topped
A	**465** in.²	**—** in.²
I	**13,513** in.⁴	**18,280** in.⁴
y_b	**12.84** in.	**14.48** in.
y_t	**5.16** in.	**5.52** in.
S_b	**1,052** in.³	**1,262** in.³
S_t	**2,619** in.³	**3,315** in.³
wt	**484** plf	**734** plf
DL	**48** psf	**73** psf
V/S	**1.53** in.	

Table of safe superimposed service load (psf) and cambers (in.)

No Topping **10DT18**

STRAND	ys, in.	SPAN, FT																				
Pattern	end / center	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66
68-S ●●●●●●	2.67 2.67	**170** 0.6 0.8	**142** 0.7 0.8	**119** 0.7 0.9	**100** 0.8 0.9	**85** 0.8 1.0	**72** 0.9 1.0	**61** 0.9 0.9	**52** 0.9 0.8	**44** 0.9 0.7	**37** 0.8 0.6	**31** 0.8 0.4	**26** 0.7 0.1									
88-S ●●●●●●●●	3.00 3.00		**194** 0.9 1.2	**165** 1.0 1.3	**140** 1.1 1.4	**121** 1.2 1.5	**104** 1.3 1.5	**90** 1.4 1.6	**78** 1.4 1.6	**67** 1.5 1.5	**58** 1.5 1.4	**50** 1.5 1.3	**43** 1.4 1.2	**37** 1.4 0.9	**32** 1.3 0.6	**27** 1.1 0.3						
108-S ●●●●●●●●●●	3.60 3.60				**174** 1.4 1.7	**150** 1.5 1.8	**130** 1.6 2.0	**114** 1.7 2.0	**99** 1.8 2.1	**87** 1.9 2.1	**76** 1.9 2.1	**67** 2.0 2.0	**58** 2.0 1.9	**51** 2.0 1.8	**45** 1.9 1.5	**39** 1.8 1.3	**34** 1.7 0.9	**29** 1.6 0.5	**25** 1.3 -0.1			
128-S ●●●●●●●●●●●●	4.00 4.00					**180** 1.8 2.2	**157** 1.9 2.4	**137** 2.1 2.5	**121** 2.2 2.6	**106** 2.3 2.7	**94** 2.4 2.7	**83** 2.5 2.7	**73** 2.5 2.7	**65** 2.6 2.6	**57** 2.6 2.4	**51** 2.6 2.2	**45** 2.5 1.9	**39** 2.4 1.6	**35** 2.2 1.1	**30** 2.0 0.6	**26** 1.8 -0.1	
148-S ●●●●●●●●●●●●●●	4.57 4.57						**175** 2.1 2.7	**154** 2.3 2.8	**135** 2.5 3.0	**119** 2.6 3.1	**106** 2.7 3.2	**94** 2.8 3.2	**83** 2.9 3.2	**74** 3.0 3.2	**66** 3.0 3.1	**59** 3.0 2.9	**52** 3.0 2.6	**46** 2.9 2.3	**41** 2.8 1.9	**36** 2.7 1.5	**32** 2.5 0.9	**28** 2.2 0.2

Table of safe superimposed service load (psf) and cambers (in.)

2 in. Normal Weight Topping **10DT18 + 2**

STRAND	ys, in.	SPAN, FT																				
Pattern	end / center	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66
68-S ●●●●●●	2.67 2.67	**176** 0.6 0.6	**145** 0.6 0.6	**120** 0.7 0.6	**99** 0.7 0.6	**82** 0.7 0.6	**67** 0.7 0.5	**55** 0.7 0.4	**45** 0.7 0.2	**36** 0.6 0.0	**28** 0.5 -0.3											
88-S ●●●●●●●●	3.00 3.00			**170** 1.0 1.0	**144** 1.0 1.0	**121** 1.1 1.0	**103** 1.2 1.0	**87** 1.2 0.9	**73** 1.2 0.8	**62** 1.2 0.7	**52** 1.1 0.5	**43** 1.1 0.2	**35** 1.0 -0.1	**27** 0.8 -0.5								
108-S ●●●●●●●●●●	3.60 3.60				**182** 1.3 1.3	**155** 1.4 1.4	**133** 1.5 1.4	**114** 1.5 1.4	**98** 1.6 1.3	**84** 1.6 1.2	**71** 1.6 1.1	**59** 1.6 0.8	**48** 1.5 0.6	**38** 1.4 0.2	**30** 1.3 -0.2							
128-S ●●●●●●●●●●●●	4.00 4.00					**188** 1.7 1.7	**162** 1.8 1.8	**139** 1.9 1.8	**118** 2.0 1.8	**100** 2.0 1.7	**85** 2.1 1.6	**71** 2.1 1.5	**60** 2.1 1.2	**49** 2.0 0.9	**40** 1.9 0.6	**32** 1.8 0.1						
148-S ●●●●●●●●●●●●●●	4.57 4.57						**178** 2.0 2.0	**152** 2.1 2.1	**130** 2.2 2.1	**112** 2.3 2.1	**95** 2.4 2.0	**81** 2.4 1.9	**68** 2.5 1.7	**57** 2.4 1.5	**47** 2.4 1.1	**39** 2.3 0.7	**31** 2.1 0.2					

SHORING: All precast members are assumed NOT shored — the precast section alone carries its own weight and the weight of any cast-in-place topping.

Strength by strain compatibility (1.2D + 1.6L); bottom tension ≤ 12√f'c. Shaded cells require release strength above 3,500 psi. Negative cambers (downward) shown in red.
½" dia. 270 ksi low-relax strand at 0.75 fpu; losses and cambers by PCI method. Strand patterns for 12", 18" and 24" assumed — confirm with plant. Shear, end details, connections and handling by engineer of record.

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SHEET TITLE
10'-0" WIDE PRECAST DOUBLE TEE
LOAD TABLES — 10DT18 & 10DT18+2
PRELIMINARY — CALCULATED, FOR COORDINATION, NOT FOR CONSTRUCTION

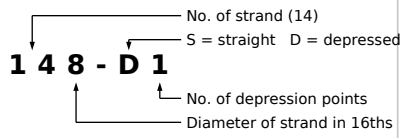
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SCALE **NTS**
DATE **10/24/2026**

DOUBLE TEE 10'-0" x 24" · Normal Weight Concrete

f'c = 6,000 psi · f'ci = 3,500 psi · fpu = 270,000 psi

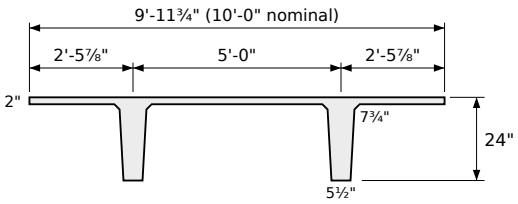
STRAND PATTERN DESIGNATION



Safe loads include superimposed dead load of 10 psf (untopped) and 15 psf (topped); the remainder is live load. Long-time cambers include superimposed dead load but not live load.

KEY

189	← Safe superimposed load, psf
1.2	← Camber at erection, in.
1.5	← Long-time camber, in.



2" topping f'c = 3,000 psi (where used)

SECTION PROPERTIES

	Untopped	Topped
A	**534** in.²	**—** in.²
I	**28,816** in.⁴	**37,554** in.⁴
y_b	**16.78** in.	**18.76** in.
y_t	**7.22** in.	**7.24** in.
S_b	**1,717** in.³	**2,002** in.³
S_t	**3,993** in.³	**5,188** in.³
wt	**556** plf	**806** plf
DL	**56** psf	**81** psf
V/S	**1.63** in.	

Table of safe superimposed service load (psf) and cambers (in.)

No Topping — **10DT24**

STRAND	ys, in.	SPAN, FT																											
Pattern	end / center	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84
88-S	5.00 5.00	**182** 0.7 0.8	**157** 0.7 0.9	**136** 0.8 0.9	**118** 0.8 0.9	**102** 0.8 1.0	**89** 0.9 0.9	**78** 0.9 0.9	**68** 0.9 0.9	**59** 0.9 0.8	**51** 0.8 0.7	**44** 0.8 0.5	**38** 0.7 0.4	**33** 0.6 0.1	**28** 0.5 –0.1													
108-S	6.00 6.00		**192** 0.9 1.1	**167** 0.9 1.1	**146** 1.0 1.2	**128** 1.0 1.2	**112** 1.1 1.2	**99** 1.1 1.2	**87** 1.1 1.2	**77** 1.1 1.2	**68** 1.1 1.1	**59** 1.1 1.0	**52** 1.1 0.8	**46** 1.0 0.6	**40** 0.9 0.4	**35** 0.8 0.1	**30** 0.6 –0.2	**26** 0.5 –0.6										
128-S	7.00 7.00			**194** 1.0 1.3	**170** 1.1 1.3	**149** 1.2 1.4	**132** 1.2 1.4	**116** 1.3 1.5	**103** 1.3 1.4	**92** 1.3 1.4	**81** 1.3 1.4	**72** 1.3 1.3	**64** 1.3 1.2	**57** 1.3 1.0	**50** 1.2 0.8	**44** 1.1 0.5	**39** 1.0 0.2	**34** 0.8 –0.1	**30** 0.6 –0.5	**26** 0.4 –1.0								
148-S	8.00 8.00				**189** 1.2 1.4	**167** 1.2 1.5	**147** 1.3 1.5	**131** 1.4 1.6	**116** 1.4 1.6	**104** 1.4 1.6	**92** 1.5 1.5	**82** 1.5 1.5	**74** 1.4 1.3	**66** 1.4 1.2	**58** 1.3 1.0	**52** 1.2 0.8	**46** 1.1 0.5	**41** 1.0 0.1	**36** 0.8 –0.3	**32** 0.6 –0.7	**28** 0.3 –1.3							
148-D1	10.75 3.43						**199** 1.7 2.0	**178** 1.8 2.1	**160** 1.8 2.2	**144** 1.9 2.2	**130** 2.0 2.3	**117** 2.0 2.3	**106** 2.1 2.2	**96** 2.1 2.1	**87** 2.1 2.0	**79** 2.1 1.9	**71** 2.0 1.7	**65** 1.9 1.4	**58** 1.8 1.1	**53** 1.7 0.8	**47** 1.5 0.4	**43** 1.3 –0.1	**38** 1.1 –0.7	**34** 0.8 –1.3	**31** 0.5 –2.0	**27** 0.1 –2.9	
168-D1	11.50 3.75							**191** 2.0 2.4	**172** 2.1 2.5	**155** 2.2 2.6	**140** 2.3 2.6	**127** 2.3 2.6	**115** 2.4 2.6	**105** 2.4 2.6	**95** 2.5 2.5	**87** 2.5 2.4	**79** 2.4 2.3	**72** 2.4 2.0	**66** 2.3 1.8	**60** 2.2 1.5	**54** 2.1 1.1	**50** 1.9 0.6	**45** 1.7 0.1	**41** 1.4 –0.5	**37** 1.1 –1.1	**34** 0.8 –1.9	**30** 0.4 –2.7	**27** –0.1 –3.7

Table of safe superimposed service load (psf) and cambers (in.)

2 in. Normal Weight Topping — **10DT24 + 2**

STRAND	ys, in.	SPAN, FT																											
Pattern	end / center	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84
88-S	5.00 5.00	**186** 0.6 0.6	**158** 0.7 0.6	**135** 0.7 0.6	**115** 0.7 0.6	**98** 0.7 0.6	**84** 0.7 0.5	**71** 0.7 0.4	**60** 0.7 0.3	**51** 0.6 0.2	**42** 0.6 0.0	**35** 0.5 –0.3	**28** 0.4 –0.6															
108-S	6.00 6.00		**197** 0.8 0.8	**169** 0.8 0.8	**146** 0.9 0.8	**126** 0.9 0.8	**109** 0.9 0.8	**94** 0.9 0.7	**82** 0.9 0.6	**70** 0.9 0.5	**60** 0.9 0.3	**51** 0.8 0.1	**43** 0.7 –0.1	**36** 0.6 –0.5	**30** 0.4 –0.8												
128-S	7.00 7.00			**199** 1.0 1.0	**172** 1.0 1.0	**150** 1.1 1.0	**131** 1.1 1.0	**114** 1.1 0.9	**100** 1.1 0.8	**87** 1.1 0.7	**75** 1.1 0.6	**65** 1.0 0.4	**57** 0.9 0.1	**49** 0.8 –0.1	**40** 0.7 –0.5	**31** 0.5 –0.9											
148-S	8.00 8.00				**194** 1.1 1.1	**169** 1.1 1.1	**148** 1.2 1.1	**130** 1.2 1.0	**114** 1.2 1.0	**100** 1.2 0.9	**88** 1.2 0.7	**77** 1.1 0.5	**66** 1.1 0.3	**55** 1.0 0.0	**46** 0.9 –0.3	**37** 0.7 –0.7	**29** 0.5 –1.1											
148-D1	10.75 3.43							**176** 1.6 1.5	**155** 1.7 1.5	**136** 1.7 1.5	**120** 1.7 1.4	**105** 1.7 1.3	**92** 1.7 1.1	**81** 1.7 0.9	**70** 1.6 0.6	**61** 1.5 0.3	**52** 1.4 0.0	**44** 1.2 –0.5	**37** 1.1 –1.0	**31** 0.8 –1.5	**25** 0.5 –2.2							
168-D1	11.50 3.75							**191** 1.8 1.8	**169** 1.9 1.8	**149** 2.0 1.8	**132** 2.0 1.7	**116** 2.0 1.6	**103** 2.0 1.5	**90** 2.0 1.3	**79** 2.0 1.1	**70** 1.9 0.8	**61** 1.8 0.5	**52** 1.7 0.1	**45** 1.5 –0.4	**38** 1.3 –0.9	**32** 1.1 –1.5	**26** 0.8 –2.2						

SHORING: All precast members are assumed NOT shored — the precast section alone carries its own weight and the weight of any cast-in-place topping.

Strength by strain compatibility (1.2D + 1.6L); bottom tension ≤ 12√f'c. Shaded cells require release strength above 3,500 psi. Negative cambers (downward) shown in red.
½" dia. 270 ksi low-relax strand at 0.75 fpu; losses and cambers by PCI method. Strand patterns for 12", 18" and 24" assumed — confirm with plant. Shear, end details, connections and handling by engineer of record.

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SHEET TITLE
10'-0" WIDE PRECAST DOUBLE TEE
LOAD TABLES — 10DT24 & 10DT24+2
PRELIMINARY — CALCULATED, FOR COORDINATION, NOT FOR CONSTRUCTION

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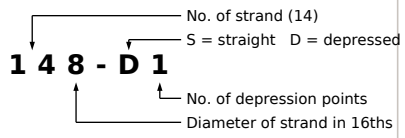
SCALE **NTS**
DATE **10/24/2026**
PAGE **6 of 25**
SHEET **DT-4**

▲ CONTENTS

DOUBLE TEE 10'-0" x 32" · Normal Weight Concrete

f'c = 6,000 psi · f'ci = 3,500 psi · fpu = 270,000 psi

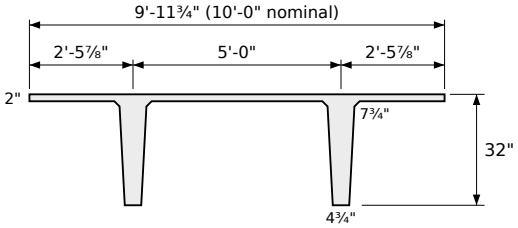
STRAND PATTERN DESIGNATION



Safe loads include superimposed dead load of 10 psf (untopped) and 15 psf (topped); the remainder is live load. Long-time cambers include superimposed dead load but not live load.

KEY

189	← Safe superimposed load, psf
1.2	← Camber at erection, in.
1.5	← Long-time camber, in.



2" topping f'c = 3,000 psi (where used)

SECTION PROPERTIES

	Untopped	Topped
A	618 in.²	— in.²
I	59,875 in.⁴	75,985 in.⁴
y_b	22.01 in.	24.37 in.
y_t	9.99 in.	9.63 in.
S_b	2,720 in.³	3,117 in.³
S_t	5,994 in.³	7,894 in.³
wt	644 plf	893 plf
DL	64 psf	89 psf
V/S	1.73 in.	

Table of safe superimposed service load (psf) and cambers (in.)

No Topping — **10DT32**

STRAND	ys, in.	SPAN, FT																																		
Pattern	end / center	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84	86	88	90	92	94	96	98	100	102	104	106
128-S	7.00 7.00	185 1.1 1.3	166 1.1 1.4	148 1.2 1.4	133 1.2 1.4	119 1.3 1.5	107 1.3 1.4	97 1.3 1.4	87 1.3 1.4	78 1.3 1.3	70 1.3 1.2	63 1.2 1.1	57 1.2 0.9	51 1.1 0.8	45 1.0 0.5	40 0.9 0.3	36 0.8 0.0	31 0.6 –0.4	27 0.4 –0.7																		
148-S	8.00 8.00		190 1.3 1.6	171 1.3 1.6	154 1.4 1.7	139 1.4 1.7	125 1.5 1.7	113 1.5 1.7	102 1.5 1.7	93 1.5 1.6	84 1.5 1.6	76 1.5 1.5	69 1.5 1.3	62 1.4 1.2	56 1.4 1.0	50 1.3 0.7	45 1.1 0.5	40 1.0 0.2	36 0.8 –0.2	32 0.7 –0.6	28 0.4 –1.1	25 0.2 –1.6													
168-S	9.00 9.00			191 1.4 1.8	172 1.5 1.8	156 1.6 1.9	141 1.6 1.9	128 1.7 1.9	116 1.7 1.9	105 1.7 1.9	96 1.7 1.8	87 1.7 1.7	79 1.7 1.6	72 1.7 1.5	65 1.6 1.3	59 1.5 1.1	53 1.4 0.8	48 1.3 0.5	43 1.1 0.2	39 1.0 –0.2	35 0.8 –0.6	31 0.5 –1.1	28 0.3 –1.6											
188-S	10.00 10.00				188 1.6 1.9	170 1.7 2.0	154 1.7 2.0	140 1.8 2.0	128 1.8 2.0	116 1.8 2.0	106 1.8 2.0	97 1.8 1.9	88 1.8 1.8	80 1.8 1.7	73 1.7 1.5	67 1.7 1.3	61 1.6 1.1	55 1.5 0.8	50 1.3 0.5	45 1.2 0.1	41 1.0 –0.3	36 0.7 –0.8	32 0.5 –1.3	29 0.2 –1.9	25 –0.1 –2.6									
188-D1	14.39 4.00						192 2.1 2.6	176 2.2 2.7	161 2.3 2.7	148 2.4 2.7	136 2.4 2.8	125 2.5 2.7	116 2.5 2.7	107 2.5 2.6	98 2.5 2.5	91 2.5 2.4	84 2.5 2.2	77 2.4 2.0	71 2.3 1.8	66 2.2 1.5	61 2.1 1.2	56 1.9 0.8	52 1.7 0.4	48 1.5 –0.1	44 1.3 –0.7	40 1.0 –1.3	37 0.7 –1.9	34 0.3 –2.7	31 –0.1 –3.5	28 –0.5 –4.4	25 –1.0 –5.3		
208-D1	15.50 4.20							186 2.4 2.9	170 2.5 3.0	157 2.6 3.0	144 2.7 3.1	133 2.7 3.1	123 2.8 3.1	114 2.8 3.0	105 2.8 3.0	97 2.8 2.9	90 2.8 2.7	84 2.8 2.6	78 2.7 2.3	72 2.6 2.1	67 2.5 1.8	62 2.4 1.4	57 2.2 1.0	53 2.0 0.6	49 1.8 0.1	45 1.6 –0.5	42 1.3 –1.1	38 0.9 –1.8	35 0.6 –2.6	33 0.1 –3.4	30 –0.3 –4.4	27 –0.8 –5.4	25 –1.4 –6.4

Table of safe superimposed service load (psf) and cambers (in.)

2 in. Normal Weight Topping — **10DT32 + 2**

STRAND	ys, in.	SPAN, FT																																		
Pattern	end / center	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84	86	88	90	92	94	96	98	100	102	104	106
128-S	7.00 7.00	183 1.0 1.0	162 1.0 1.0	143 1.1 1.0	127 1.1 1.0	113 1.1 0.9	100 1.1 0.9	88 1.1 0.8	78 1.1 0.7	69 1.0 0.5	60 1.0 0.3	53 0.9 0.1	46 0.8 –0.1	40 0.7 –0.4	34 0.6 –0.7	28 0.4 –1.1																				
148-S	8.00 8.00		188 1.2 1.2	168 1.2 1.2	149 1.3 1.2	133 1.3 1.1	119 1.3 1.1	106 1.3 1.0	95 1.3 0.9	84 1.3 0.8	75 1.2 0.6	66 1.2 0.5	59 1.1 0.2	52 1.0 0.0	45 0.9 –0.4	37 0.7 –0.7	31 0.5 –1.1																			
168-S	9.00 9.00			189 1.3 1.3	169 1.4 1.3	151 1.4 1.3	136 1.5 1.3	122 1.5 1.2	109 1.5 1.1	98 1.5 1.0	88 1.4 0.9	78 1.4 0.7	69 1.3 0.5	60 1.2 0.2	52 1.1 –0.1	44 1.0 –0.4	37 0.8 –0.8	30 0.6 –1.2																	
188-S	10.00 10.00				186 1.5 1.4	167 1.5 1.4	150 1.5 1.4	135 1.6 1.3	122 1.6 1.3	109 1.6 1.2	97 1.6 1.0	86 1.5 0.9	75 1.5 0.7	66 1.4 0.4	57 1.3 0.1	49 1.1 –0.2	41 1.0 –0.6	35 0.8 –1.0	28 0.6 –1.5															
188-D1	14.39 4.00						189 2.0 1.9	171 2.0 1.9	154 2.1 1.9	139 2.1 1.8	125 2.1 1.7	113 2.1 1.6	101 2.1 1.5	91 2.1 1.3	82 2.0 1.1	73 2.0 0.8	65 1.9 0.5	58 1.7 0.1	51 1.6 –0.3	45 1.4 –0.7	39 1.2 –1.2	33 0.9 –1.8	28 0.6 –2.5									
208-D1	15.50 4.20							181 2.2 2.1	164 2.3 2.1	148 2.3 2.1	134 2.4 2.0	122 2.4 1.9	110 2.4 1.8	99 2.4 1.6	89 2.3 1.4	80 2.3 1.2	72 2.2 0.9	65 2.1 0.6	58 2.0 0.2	51 1.8 –0.2	45 1.6 –0.7	39 1.4 –1.2	34 1.1 –1.9	29 0.8 –2.5	25 0.5 –3.3							

SHORING: All precast members are assumed NOT shored — the precast section alone carries its own weight and the weight of any cast-in-place topping.

Strength by strain compatibility (1.2D + 1.6L); bottom tension ≤ 12√f'c. Shaded cells require release strength above 3,500 psi. Negative cambers (downward) shown in red.
½" dia. 270 ksi low-relax strand at 0.75 fpu; losses and cambers by PCI method. Strand patterns for 12", 18" and 24" assumed — confirm with plant. Shear, end details, connections and handling by engineer of record.

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SHEET TITLE
10'-0" WIDE PRECAST DOUBLE TEE
LOAD TABLES — 10DT32 & 10DT32+2
PRELIMINARY — CALCULATED, FOR COORDINATION, NOT FOR CONSTRUCTION

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SCALE **NTS**
DATE **10/24/2026**

SOLID FLAT SLAB PLANK 4'-0" Wide · 3½ in. Thick

f'c = 6,000 psi · f'ci = 4,000 psi · fpu = 270 ksi

STRAND PATTERN DESIGNATION

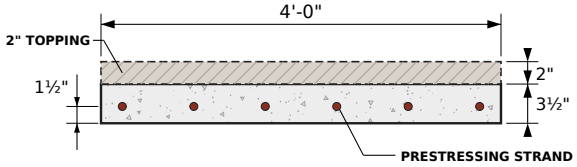
6 8 - S ●●●●●●

- S = straight
- Diameter of strand in 16ths
- No. of strand (6)

Safe loads include superimposed dead load of 10 psf (untopped) and 15 psf (topped); the remainder is live load. Long-time cambers include superimposed dead load but not live load.

KEY

267	← Safe superimposed load, psf
0.0	← Camber at erection, in.
0.0	← Long-time camber, in.



SECTION PROPERTIES

	Untopped	Topped
A	**168** in.²	**264** in.²
I	**172** in.⁴	**560** in.⁴
y_b	**1.75** in.	**2.54** in.
y_t	**1.75** in.	**2.96** in.
S_b	**98** in.³	**220** in.³
S_t	**98** in.³	**189** in.³
wt	**175** plf	**275** plf
DL	**44** psf	**69** psf
V/S	**1.63** in.	

Table of safe superimposed service load (psf) and cambers (in.)

No Topping **4FS3½**

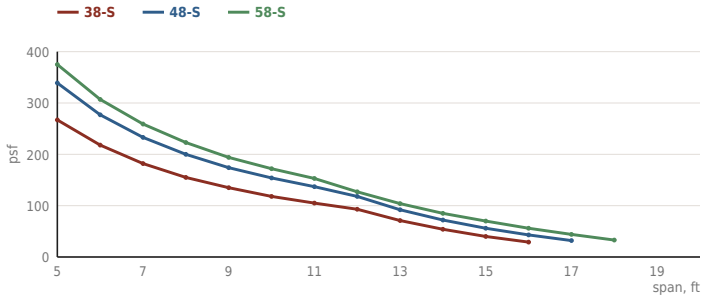
STRAND	SPAN, FT													
Designation Code	5	6	7	8	9	10	11	12	13	14	15	16	17	18
38-S ●●●	**267** 0.0 0.0	**218** 0.0 0.0	**182** 0.0 0.0	**155** 0.0 0.0	**135** 0.0 0.0	**118** 0.0 0.0	**105** 0.0 –0.1	**93** –0.1 –0.2	**71** –0.1 –0.3	**54** –0.2 –0.4	**40** –0.3 –0.6	**29** –0.4 –0.9		
48-S ●●●●	**339** 0.0 0.0	**277** 0.0 0.0	**233** 0.0 0.1	**200** 0.0 0.0	**174** 0.0 0.0	**154** 0.0 0.0	**137** 0.0 0.0	**118** 0.0 –0.1	**92** –0.1 –0.2	**72** –0.1 –0.4	**56** –0.2 –0.5	**43** –0.3 –0.8	**32** –0.5 –1.0	
58-S ●●●●●	**375** 0.0 0.1	**307** 0.1 0.1	**259** 0.1 0.1	**223** 0.1 0.1	**194** 0.1 0.1	**172** 0.1 0.1	**153** 0.1 0.0	**127** 0.0 0.0	**104** 0.0 –0.1	**85** –0.1 –0.3	**70** –0.1 –0.4	**56** –0.3 –0.6	**44** –0.4 –0.9	**33** –0.6 –1.2

Table of safe superimposed service load (psf) and cambers (in.)

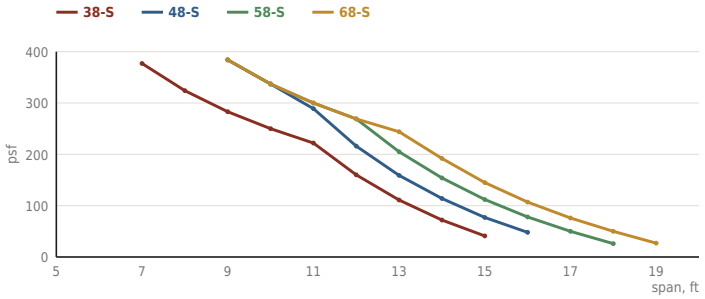
2 in. Normal Weight Topping **4FS3½ + 2**

STRAND	SPAN, FT												
Designation Code	7	8	9	10	11	12	13	14	15	16	17	18	19
38-S ●●●	**377** 0.0 0.0	**324** 0.0 0.0	**283** 0.0 0.0	**250** 0.0 –0.1	**222** –0.1 –0.2	**160** –0.1 –0.3	**111** –0.2 –0.4	**72** –0.3 –0.6	**41** –0.4 –0.8				
48-S ●●●●			**384** 0.0 0.0	**337** 0.0 0.0	**289** 0.0 –0.1	**216** –0.1 –0.2	**159** –0.1 –0.3	**114** –0.2 –0.5	**77** –0.4 –0.7	**48** –0.5 –1.0			
58-S ●●●●●			**384** 0.1 0.0	**337** 0.0 0.0	**300** 0.0 –0.1	**269** 0.0 –0.1	**205** –0.1 –0.3	**154** –0.2 –0.4	**112** –0.3 –0.6	**78** –0.4 –0.9	**50** –0.6 –1.2	**26** –0.9 –1.6	
68-S ●●●●●●			**384** 0.1 0.1	**337** 0.1 0.0	**300** 0.1 0.0	**269** 0.0 –0.1	**244** 0.0 –0.2	**192** –0.1 –0.3	**145** –0.2 –0.5	**107** –0.3 –0.8	**76** –0.5 –1.1	**50** –0.7 –1.5	**27** –1.0 –1.9

Safe superimposed load vs. span — no topping



Safe superimposed load vs. span — 2 in. topping



SHORING: All precast members are assumed NOT shored — the precast section alone carries its own weight and the weight of any cast-in-place topping.

Designed by PCI method: strength by strain compatibility (1.2D + 1.6L) incl. strand development; bottom tension ≤ 7.5√f'c; one-way shear without stirrups; φMn ≥ 1.2Mcr (ACI 318). ½" dia. 270 ksi low-relax strand only, 3 to 6 strands per plank, c.g. 1½" from bottom, jacked to 0.75 fpu. Release stresses checked at f'ci = 4,000 psi (all patterns OK). Blank cells: load outside 25–400 psf or φMn < 1.2Mcr (highest strand count does not meet 1.2Mcr untopped at 3½"). 2" topping f'c = 3,000 psi. Negative cambers shown in red. Preliminary — handling, shipping, lateral load distribution and connections to be checked by the engineer of record.

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SHEET TITLE

4'-0" WIDE SOLID FLAT SLAB PLANK

3½ IN. THICK — 4FS3½ & 4FS3½+2 LOAD TABLES

PRELIMINARY — CALCULATED, FOR COORDINATION, NOT FOR CONSTRUCTION

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SCALE **NTS**

DATE **10/24/2026**

SOLID FLAT SLAB 4 in. Thick · Normal Weight Concrete

f'c = 5,000 psi · fpu = 270,000 psi

STRAND PATTERN DESIGNATION

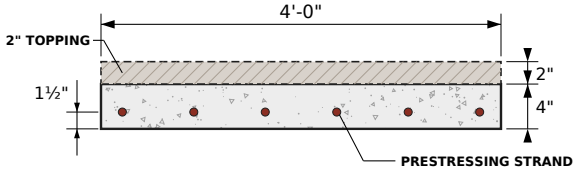
7 6 - S ●●●●●●●

- S = straight
- Diameter of strand in 16ths
- No. of strand (7)

Safe loads include superimposed dead load of 10 psf (untopped) and 15 psf (topped); the remainder is live load. Long-time cambers include superimposed dead load but not live load.

KEY

216	← Safe superimposed load, psf
0.1	← Camber at erection, in.
0.1	← Long-time camber, in.



SECTION PROPERTIES

	Untopped	Topped
A	**192** in.²	**288** in.²
I	**256** in.⁴	**763** in.⁴
y_b	**2.00** in.	**2.84** in.
y_t	**2.00** in.	**3.16** in.
S_b	**128** in.³	**269** in.³
S_t	**128** in.³	**242** in.³
wt	**200** plf	**300** plf
DL	**50** psf	**75** psf
V/S	**1.85** in.	

Table of safe superimposed service load (psf) and cambers (in.)

No Topping **FS4**

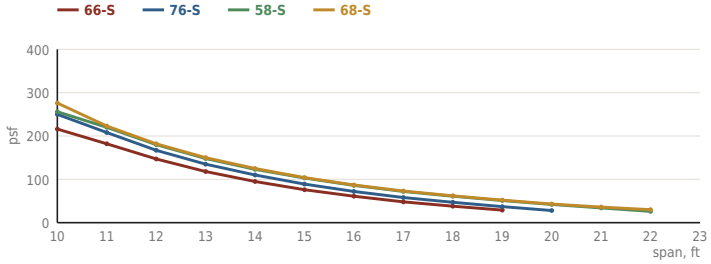
STRAND	SPAN, FT												
Designation Code	10	11	12	13	14	15	16	17	18	19	20	21	22
66-S ●●●●●●	**216** 0.1 0.1	**182** 0.1 0.1	**147** 0.1 0.0	**118** 0.0 0.0	**95** 0.0 –0.1	**76** –0.1 –0.3	**61** –0.2 –0.4	**48** –0.3 –0.6	**38** –0.4 –0.9	**29** –0.6 –1.2			
76-S ●●●●●●●	**250** 0.1 0.1	**208** 0.1 0.1	**167** 0.1 0.1	**135** 0.1 0.0	**110** 0.0 –0.1	**89** 0.0 –0.2	**72** –0.1 –0.3	**58** –0.2 –0.5	**47** –0.3 –0.7	**37** –0.5 –1.0	**28** –0.7 –1.4		
58-S ●●●●●	**256** 0.2 0.2	**220** 0.2 0.2	**180** 0.2 0.2	**148** 0.2 0.2	**123** 0.1 0.1	**103** 0.1 0.0	**86** 0.0 –0.1	**72** 0.0 –0.3	**61** –0.1 –0.5	**51** –0.3 –0.8	**42** –0.4 –1.1	**34** –0.7 –1.5	**26** –0.9 –1.9
68-S ●●●●●●	**276** 0.2 0.3	**223** 0.2 0.3	**182** 0.2 0.3	**150** 0.2 0.3	**125** 0.2 0.2	**104** 0.2 0.2	**87** 0.2 0.1	**73** 0.1 –0.1	**62** 0.0 –0.3	**52** –0.1 –0.5	**43** –0.3 –0.8	**36** –0.4 –1.2	**30** –0.7 –1.6

Table of safe superimposed service load (psf) and cambers (in.)

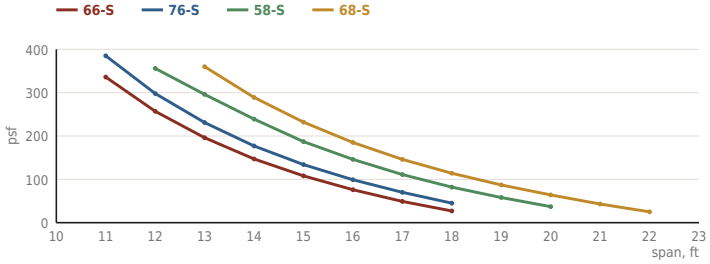
2 in. Normal Weight Topping **FS4 + 2**

STRAND	SPAN, FT											
Designation Code	11	12	13	14	15	16	17	18	19	20	21	22
66-S ●●●●●●	**336** 0.1 0.0	**257** 0.1 0.0	**196** 0.0 –0.1	**147** 0.0 –0.2	**108** –0.1 –0.3	**76** –0.2 –0.5	**49** –0.3 –0.7	**27** –0.4 –1.0				
76-S ●●●●●●●	**385** 0.1 0.0	**298** 0.1 0.0	**231** 0.1 –0.1	**177** 0.0 –0.1	**134** 0.0 –0.3	**99** –0.1 –0.4	**70** –0.2 –0.6	**45** –0.3 –0.9				
58-S ●●●●●		**356** 0.2 0.1	**296** 0.2 0.0	**239** 0.1 0.0	**187** 0.1 –0.1	**146** 0.0 –0.3	**111** 0.0 –0.4	**82** –0.1 –0.7	**58** –0.3 –0.9	**37** –0.4 –1.3		
68-S ●●●●●●			**360** 0.2 0.1	**289** 0.2 0.1	**232** 0.2 0.0	**185** 0.2 –0.1	**146** 0.1 –0.3	**114** 0.0 –0.5	**87** –0.1 –0.7	**64** –0.3 –1.0	**43** –0.4 –1.4	**25** –0.7 –1.9

Safe superimposed load vs. span — no topping



Safe superimposed load vs. span — 2 in. topping



SHORING: All precast members are assumed NOT shored — the precast section alone carries its own weight and the weight of any cast-in-place topping.

Strength is based on strain compatibility; bottom tension is limited to 7.5√f'c. Negative cambers (downward) shown in red.
Values from PCI Design Handbook load tables. Verify against the current edition before use.

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SHEET TITLE
SOLID FLAT SLAB
4 IN. THICK — FS4 & FS4+2 LOAD TABLES
FROM PCI DESIGN HANDBOOK — FOR COORDINATION, NOT FOR CONSTRUCTION

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SCALE **NTS**
DATE **10/24/2026**

SOLID FLAT SLAB 6 in. Thick · Normal Weight Concrete

f'c = 5,000 psi · fpu = 270,000 psi

STRAND PATTERN DESIGNATION

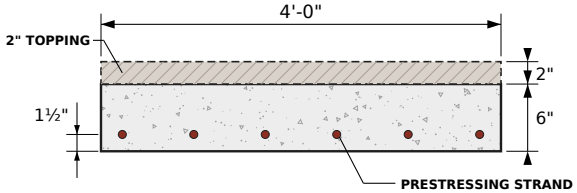
7 6 - S ●●●●●●●

- S = straight
- Diameter of strand in 16ths
- No. of strand (7)

Safe loads include superimposed dead load of 10 psf (untopped) and 15 psf (topped); the remainder is live load. Long-time cambers include superimposed dead load but not live load.

KEY

361	← Safe superimposed load, psf
0.1	← Camber at erection, in.
0.2	← Long-time camber, in.



SECTION PROPERTIES

	Untopped	Topped
A	**288** in.²	**384** in.²
I	**864** in.⁴	**1,834** in.⁴
y_b	**3.00** in.	**3.82** in.
y_t	**3.00** in.	**4.18** in.
S_b	**288** in.³	**480** in.³
S_t	**288** in.³	**439** in.³
wt	**300** plf	**400** plf
DL	**75** psf	**100** psf
V/S	**2.67** in.	

Table of safe superimposed service load (psf) and cambers (in.)

No Topping **FS6**

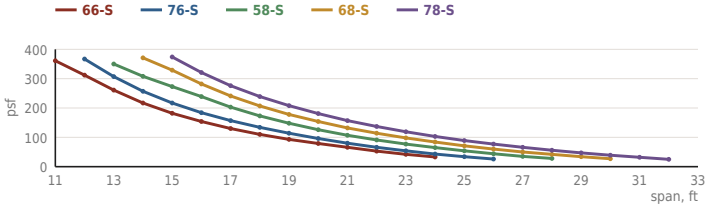
STRAND	SPAN, FT																				
Designation Code	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
66-S ●●●●●●	**361** 0.1 0.2	**312** 0.1 0.2	**261** 0.1 0.2	**217** 0.1 0.2	**182** 0.1 0.1	**154** 0.1 0.1	**130** 0.1 0.1	**110** 0.1 0.0	**93** 0.0 –0.1	**79** –0.1 –0.2	**66** –0.1 –0.4	**53** –0.2 –0.5	**42** –0.3 –0.7	**33** –0.5 –1.0								
76-S ●●●●●●●		**367** 0.2 0.2	**307** 0.2 0.2	**257** 0.2 0.2	**217** 0.2 0.2	**184** 0.2 0.2	**157** 0.2 0.2	**134** 0.1 0.1	**114** 0.1 0.0	**96** 0.0 –0.1	**80** 0.0 –0.2	**66** –0.1 –0.4	**54** –0.2 –0.5	**43** –0.3 –0.8	**34** –0.5 –1.0	**26** –0.7 –1.3						
58-S ●●●●●			**350** 0.3 0.3	**308** 0.3 0.4	**273** 0.3 0.4	**239** 0.3 0.4	**203** 0.3 0.4	**173** 0.3 0.3	**148** 0.3 0.3	**126** 0.2 0.2	**107** 0.2 0.1	**91** 0.1 0.0	**77** 0.0 –0.2	**65** –0.1 –0.4	**54** –0.2 –0.6	**44** –0.3 –0.9	**35** –0.5 –1.2	**28** –0.7 –1.6				
68-S ●●●●●●				**371** 0.4 0.5	**329** 0.4 0.5	**282** 0.4 0.5	**241** 0.4 0.5	**207** 0.4 0.5	**178** 0.4 0.5	**154** 0.4 0.5	**132** 0.4 0.4	**114** 0.3 0.3	**98** 0.3 0.2	**84** 0.2 0.0	**71** 0.1 –0.2	**60** 0.0 –0.4	**50** –0.2 –0.7	**42** –0.4 –1.1	**34** –0.6 –1.5	**27** –0.9 –1.9		
78-S ●●●●●●●					**374** 0.5 0.6	**321** 0.5 0.7	**276** 0.6 0.7	**239** 0.6 0.7	**208** 0.6 0.7	**181** 0.6 0.7	**157** 0.6 0.7	**137** 0.6 0.6	**119** 0.5 0.5	**103** 0.4 0.4	**89** 0.4 0.2	**77** 0.3 0.0	**66** 0.1 –0.3	**56** 0.0 –0.6	**47** –0.2 –0.9	**39** –0.5 –1.4	**32** –0.7 –1.8	**25** –1.0 –2.4

Table of safe superimposed service load (psf) and cambers (in.)

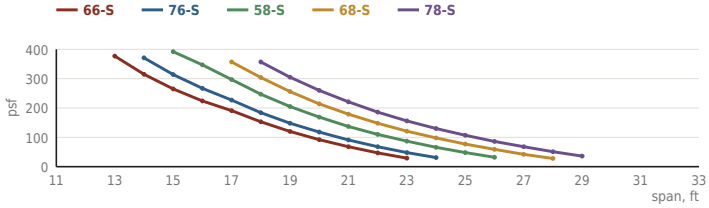
2 in. Normal Weight Topping **FS6 + 2**

STRAND	SPAN, FT																
Designation Code	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
66-S ●●●●●●	**377** 0.1 0.1	**315** 0.1 0.1	**265** 0.1 0.1	**224** 0.1 0.0	**191** 0.1 0.0	**153** 0.1 –0.1	**120** 0.0 –0.2	**92** –0.1 –0.3	**68** –0.1 –0.5	**47** –0.2 –0.7	**29** –0.3 –0.9						
76-S ●●●●●●●		**371** 0.2 0.2	**314** 0.2 0.1	**267** 0.2 0.1	**227** 0.2 0.0	**184** 0.1 0.0	**148** 0.1 –0.1	**118** 0.0 –0.2	**91** 0.0 –0.4	**68** –0.1 –0.5	**48** –0.2 –0.7	**31** –0.3 –1.0					
58-S ●●●●●			**392** 0.3 0.3	**347** 0.3 0.2	**297** 0.3 0.2	**247** 0.3 0.2	**205** 0.3 0.1	**169** 0.2 0.0	**137** 0.2 –0.1	**110** 0.1 –0.3	**87** 0.0 –0.4	**66** –0.1 –0.7	**48** –0.2 –0.9	**32** –0.3 –1.2			
68-S ●●●●●●					**357** 0.4 0.4	**304** 0.4 0.3	**256** 0.4 0.3	**214** 0.4 0.2	**179** 0.4 0.1	**148** 0.3 0.0	**121** 0.3 –0.2	**98** 0.2 –0.3	**77** 0.1 –0.6	**59** 0.0 –0.9	**42** –0.2 –1.2	**28** –0.4 –1.5	
78-S ●●●●●●●						**357** 0.6 0.5	**305** 0.6 0.5	**260** 0.6 0.4	**221** 0.6 0.4	**186** 0.6 0.3	**156** 0.5 0.1	**130** 0.4 0.0	**107** 0.4 –0.2	**86** 0.3 –0.5	**68** 0.1 –0.8	**51** 0.0 –1.1	**36** –0.2 –1.5

Safe superimposed load vs. span — no topping



Safe superimposed load vs. span — 2 in. topping



SHORING: All precast members are assumed NOT shored — the precast section alone carries its own weight and the weight of any cast-in-place topping.

Strength is based on strain compatibility; bottom tension is limited to 7.5√f'c. Negative cambers (downward) shown in red.
Values from PCI Design Handbook load tables. Verify against the current edition before use.

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SHEET TITLE
SOLID FLAT SLAB
6 IN. THICK — FS6 & FS6+2 LOAD TABLES
FROM PCI DESIGN HANDBOOK — FOR COORDINATION, NOT FOR CONSTRUCTION

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SCALE **NTS**
DATE **10/24/2026**
PAGE **10 of 25**

SHEET **FS-3**

▲ CONTENTS

SOLID FLAT SLAB 8 in. Thick · Normal Weight Concrete

f'c = 5,000 psi · fpu = 270,000 psi

STRAND PATTERN DESIGNATION

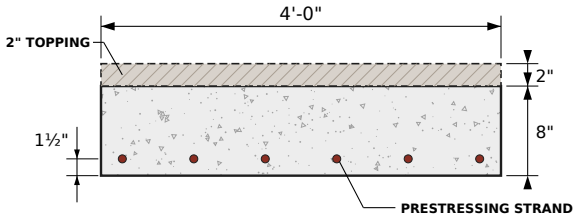
7 6 - S ●●●●●●●

- S = straight
- Diameter of strand in 16ths
- No. of strand (7)

Safe loads include superimposed dead load of 10 psf (untopped) and 15 psf (topped); the remainder is live load. Long-time cambers include superimposed dead load but not live load.

KEY

361	← Safe superimposed load, psf
0.1	← Camber at erection, in.
0.2	← Long-time camber, in.



SECTION PROPERTIES

	Untopped	Topped
A	**384** in.²	**480** in.²
I	**2,048** in.⁴	**3,630** in.⁴
y_b	**4.00** in.	**4.81** in.
y_t	**4.00** in.	**5.19** in.
S_b	**512** in.³	**755** in.³
S_t	**512** in.³	**699** in.³
wt	**400** plf	**500** plf
DL	**100** psf	**125** psf
V/S	**3.43** in.	

Table of safe superimposed service load (psf) and cambers (in.)

No Topping **FS8**

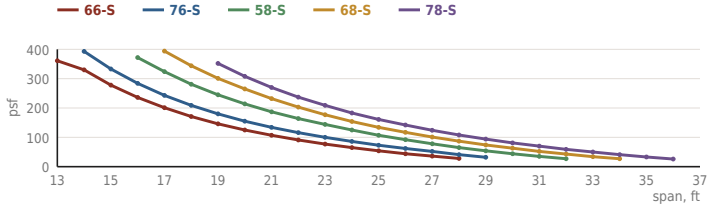
STRAND	SPAN, FT																							
Designation Code	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
66-S ●●●●●●	**361** 0.1 0.2	**330** 0.1 0.2	**278** 0.1 0.1	**236** 0.1 0.1	**201** 0.1 0.1	**171** 0.1 0.1	**146** 0.1 0.1	**125** 0.1 0.0	**107** 0.0 0.0	**91** 0.0 –0.1	**77** –0.1 –0.2	**65** –0.2 –0.3	**54** –0.2 –0.5	**44** –0.3 –0.6	**36** –0.4 –0.8	**28** –0.6 –1.0								
76-S ●●●●●●●		**393** 0.1 0.2	**333** 0.2 0.2	**284** 0.2 0.2	**243** 0.2 0.2	**209** 0.2 0.2	**180** 0.1 0.2	**155** 0.1 0.1	**134** 0.1 0.1	**116** 0.1 0.0	**100** 0.0 –0.1	**86** –0.1 –0.2	**73** –0.1 –0.3	**62** –0.2 –0.5	**52** –0.3 –0.7	**41** –0.4 –0.9	**32** –0.6 –1.1							
58-S ●●●●●				**372** 0.2 0.3	**324** 0.3 0.3	**281** 0.3 0.3	**245** 0.3 0.3	**214** 0.3 0.3	**187** 0.2 0.3	**164** 0.2 0.2	**144** 0.2 0.2	**125** 0.1 0.1	**107** 0.1 0.0	**92** 0.0 –0.1	**78** –0.1 –0.3	**65** –0.2 –0.5	**54** –0.3 –0.7	**44** –0.4 –0.9	**35** –0.6 –1.2	**27** –0.8 –1.5				
68-S ●●●●●●					**394** 0.3 0.5	**344** 0.4 0.5	**301** 0.4 0.5	**265** 0.4 0.5	**232** 0.4 0.5	**203** 0.4 0.4	**177** 0.4 0.4	**154** 0.3 0.3	**134** 0.3 0.3	**117** 0.2 0.2	**101** 0.2 0.0	**87** 0.1 –0.1	**74** 0.0 –0.3	**63** –0.1 –0.5	**52** –0.3 –0.8	**43** –0.5 –1.0	**34** –0.6 –1.4	**27** –0.9 –1.7		
78-S ●●●●●●●							**352** 0.5 0.6	**308** 0.5 0.7	**270** 0.5 0.7	**237** 0.5 0.7	**209** 0.5 0.6	**183** 0.5 0.6	**161** 0.5 0.5	**142** 0.4 0.5	**124** 0.4 0.3	**108** 0.3 0.2	**94** 0.2 0.1	**81** 0.1 –0.1	**70** 0.0 –0.3	**59** –0.1 –0.6	**50** –0.3 –0.9	**41** –0.5 –1.2	**33** –0.7 –1.6	**26** –1.0 –2.0

Table of safe superimposed service load (psf) and cambers (in.)

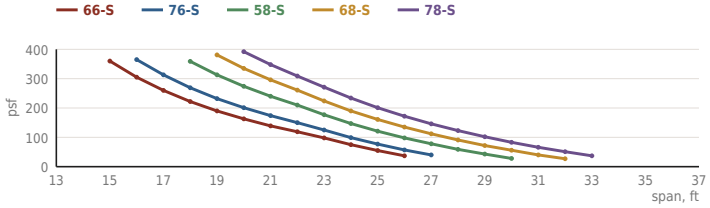
2 in. Normal Weight Topping **FS8 + 2**

STRAND	SPAN, FT																		
Designation Code	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
66-S ●●●●●●	**360** 0.1 0.1	**305** 0.1 0.1	**260** 0.1 0.1	**222** 0.1 0.0	**190** 0.1 0.0	**163** 0.1 –0.1	**139** 0.0 –0.1	**119** 0.0 –0.2	**98** –0.1 –0.3	**75** –0.2 –0.4	**55** –0.2 –0.6	**37** –0.3 –0.8							
76-S ●●●●●●●		**365** 0.2 0.1	**313** 0.2 0.1	**269** 0.2 0.1	**232** 0.1 0.1	**201** 0.1 0.0	**174** 0.1 0.0	**150** 0.1 –0.1	**125** 0.0 –0.2	**99** –0.1 –0.3	**77** –0.1 –0.5	**57** –0.2 –0.6	**40** –0.3 –0.8						
58-S ●●●●●				**359** 0.3 0.2	**313** 0.3 0.2	**274** 0.3 0.2	**240** 0.2 0.2	**210** 0.2 0.1	**177** 0.2 0.0	**147** 0.1 –0.1	**121** 0.1 –0.2	**98** 0.0 –0.3	**78** –0.1 –0.5	**59** –0.2 –0.7	**43** –0.3 –0.9	**28** –0.4 –1.1			
68-S ●●●●●●					**381** 0.4 0.4	**335** 0.4 0.4	**296** 0.4 0.3	**261** 0.4 0.3	**224** 0.4 0.2	**190** 0.3 0.2	**161** 0.3 0.1	**135** 0.2 –0.1	**112** 0.2 –0.2	**91** 0.1 –0.4	**72** 0.0 –0.6	**56** –0.1 –0.8	**40** –0.3 –1.1	**27** –0.5 –1.4	
78-S ●●●●●●●						**392** 0.5 0.5	**348** 0.5 0.5	**309** 0.5 0.5	**271** 0.5 0.4	**234** 0.5 0.4	**201** 0.5 0.3	**172** 0.4 0.2	**146** 0.4 0.1	**123** 0.3 –0.1	**102** 0.2 –0.2	**83** 0.1 –0.5	**66** 0.0 –0.7	**51** –0.1 –1.0	**37** –0.3 –1.3

Safe superimposed load vs. span — no topping



Safe superimposed load vs. span — 2 in. topping



SHORING: All precast members are assumed NOT shored — the precast section alone carries its own weight and the weight of any cast-in-place topping.

Strength is based on strain compatibility; bottom tension is limited to 7.5√f'c. Negative cambers (downward) shown in red.
Values from PCI Design Handbook load tables. Verify against the current edition before use.

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SHEET TITLE
SOLID FLAT SLAB
8 IN. THICK — FS8 & FS8+2 LOAD TABLES
FROM PCI DESIGN HANDBOOK — FOR COORDINATION, NOT FOR CONSTRUCTION

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SCALE **NTS**
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SHEET **FS-4**

▲ CONTENTS

SOLID FLAT SLAB PLANK 8'-0" Wide · 3½ in. Thick

f'c = 6,000 psi · f'ci = 4,000 psi · fpu = 270 ksi

STRAND PATTERN DESIGNATION

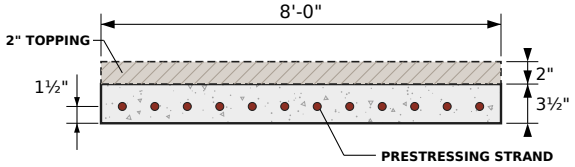
1 2 8 - S ●●●●●●●●●●●●

- 1 2 8 → No. of strand (12)
- 1 2 8 → Diameter of strand in 16ths
- S → S = straight

Safe loads include superimposed dead load of 10 psf (untopped) and 15 psf (topped); the remainder is live load. Long-time cambers include superimposed dead load but not live load.

KEY

267	← Safe superimposed load, psf
0.0	← Camber at erection, in.
0.0	← Long-time camber, in.



SECTION PROPERTIES

	Untopped	Topped
A	336 in.²	528 in.²
I	343 in.⁴	1,120 in.⁴
y_b	1.75 in.	2.54 in.
y_t	1.75 in.	2.96 in.
S_b	196 in.³	441 in.³
S_t	196 in.³	378 in.³
wt	350 plf	550 plf
DL	44 psf	69 psf
V/S	1.69 in.	

Table of safe superimposed service load (psf) and cambers (in.)

No Topping — **8FS3½**

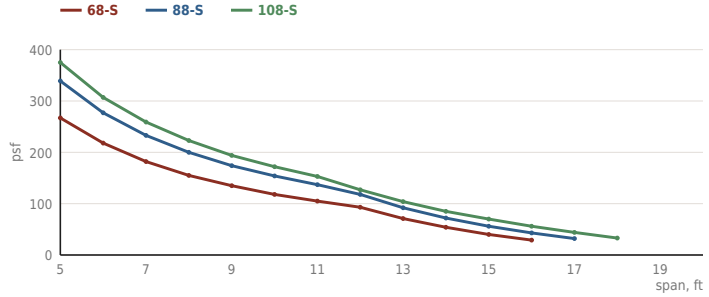
STRAND Designation Code	SPAN, FT 5	6	7	8	9	10	11	12	13	14	15	16	17	18
68-S ●●●●●●	**267** 0.0 0.0	**218** 0.0 0.0	**182** 0.0 0.0	**155** 0.0 0.0	**135** 0.0 0.0	**118** 0.0 0.0	**105** 0.0 –0.1	**93** –0.1 –0.2	**71** –0.1 –0.3	**54** –0.2 –0.4	**40** –0.3 –0.6	**29** –0.4 –0.9		
88-S ●●●●●●●●	**339** 0.0 0.0	**277** 0.0 0.0	**233** 0.0 0.1	**200** 0.0 0.0	**174** 0.0 0.0	**154** 0.0 0.0	**137** 0.0 0.0	**118** 0.0 –0.1	**92** –0.1 –0.2	**72** –0.1 –0.4	**56** –0.2 –0.5	**43** –0.3 –0.8	**32** –0.5 –1.0	
108-S ●●●●●●●●●●	**375** 0.0 0.1	**307** 0.1 0.1	**259** 0.1 0.1	**223** 0.1 0.1	**194** 0.1 0.1	**172** 0.1 0.1	**153** 0.1 0.0	**127** 0.0 0.0	**104** 0.0 –0.1	**85** –0.1 –0.3	**70** –0.1 –0.4	**56** –0.3 –0.6	**44** –0.4 –0.9	**33** –0.6 –1.2

Table of safe superimposed service load (psf) and cambers (in.)

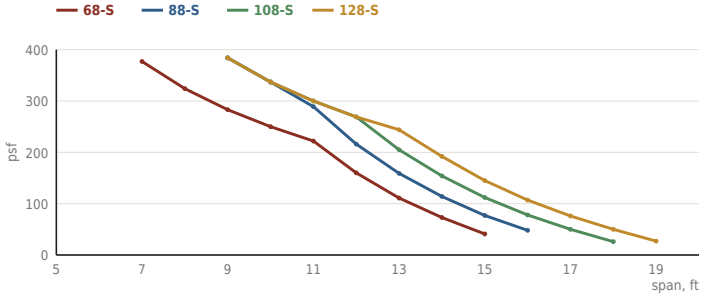
2 in. Normal Weight Topping — **8FS3½ + 2**

STRAND Designation Code	SPAN, FT 7	8	9	10	11	12	13	14	15	16	17	18	19
68-S ●●●●●●	**377** 0.0 0.0	**324** 0.0 0.0	**283** 0.0 0.0	**250** 0.0 –0.1	**222** –0.1 –0.2	**160** –0.1 –0.3	**111** –0.2 –0.4	**73** –0.3 –0.6	**41** –0.4 –0.8				
88-S ●●●●●●●●			**384** 0.0 0.0	**337** 0.0 0.0	**289** 0.0 –0.1	**216** –0.1 –0.2	**159** –0.1 –0.3	**114** –0.2 –0.5	**77** –0.4 –0.7	**48** –0.5 –1.0			
108-S ●●●●●●●●●●			**384** 0.1 0.0	**337** 0.0 0.0	**300** 0.0 –0.1	**269** 0.0 –0.1	**205** –0.1 –0.3	**154** –0.2 –0.4	**112** –0.3 –0.6	**78** –0.4 –0.9	**50** –0.6 –1.2	**26** –0.9 –1.6	
128-S ●●●●●●●●●●●●			**384** 0.1 0.1	**337** 0.1 0.0	**300** 0.1 0.0	**269** 0.0 –0.1	**244** 0.0 –0.2	**192** –0.1 –0.3	**145** –0.2 –0.5	**107** –0.3 –0.8	**76** –0.5 –1.1	**50** –0.7 –1.5	**27** –1.0 –1.9

Safe superimposed load vs. span — no topping



Safe superimposed load vs. span — 2 in. topping



SHORING: All precast members are assumed NOT shored — the precast section alone carries its own weight and the weight of any cast-in-place topping.

Designed by PCI method: strength by strain compatibility (1.2D + 1.6L) incl. strand development; bottom tension ≤ 7.5√f'c; one-way shear without stirrups; φMn ≥ 1.2Mcr (ACI 318). ½" dia. 270 ksi low-relax strand only, 6 to 12 strands per plank, c.g. 1½" from bottom, jacked to 0.75 fpu. Release stresses checked at f'ci = 4,000 psi (all patterns OK). Blank cells: load outside 25–400 psf or φMn < 1.2Mcr (highest strand count does not meet 1.2Mcr untopped at 3½"). 2" topping f'c = 3,000 psi. Negative cambers shown in red. Preliminary — handling, shipping, lateral load distribution and connections to be checked by the engineer of record.

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SHEET TITLE

8'-0" WIDE SOLID FLAT SLAB PLANK

3½ IN. THICK — 8FS3½ & 8FS3½+2 LOAD TABLES

PRELIMINARY — CALCULATED, FOR COORDINATION, NOT FOR CONSTRUCTION

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SCALE **NTS**

DATE **10/24/2026**

SOLID FLAT SLAB PLANK 8'-0" Wide · 4 in. Thick

f'c = 6,000 psi · f'ci = 4,000 psi · fpu = 270 ksi

STRAND PATTERN DESIGNATION

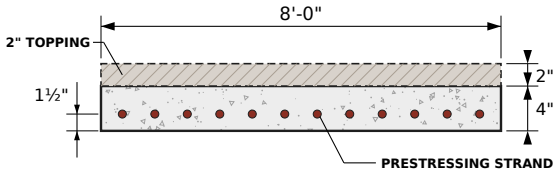
1 2 8 - S ●●●●●●●●●●●●

- 1 2 8 — No. of strand (12)
- 2 — Diameter of strand in 16ths
- S = straight

Safe loads include superimposed dead load of 10 psf (untopped) and 15 psf (topped); the remainder is live load. Long-time cambers include superimposed dead load but not live load.

KEY

337	← Safe superimposed load, psf
0.0	← Camber at erection, in.
0.0	← Long-time camber, in.



SECTION PROPERTIES

	Untopped	Topped
A	**384** in.²	**576** in.²
I	**512** in.⁴	**1,460** in.⁴
y_b	**2.00** in.	**2.78** in.
y_t	**2.00** in.	**3.22** in.
S_b	**256** in.³	**524** in.³
S_t	**256** in.³	**454** in.³
wt	**400** plf	**600** plf
DL	**50** psf	**75** psf
V/S	**1.92** in.	

Table of safe superimposed service load (psf) and cambers (in.)

No Topping **8FS4**

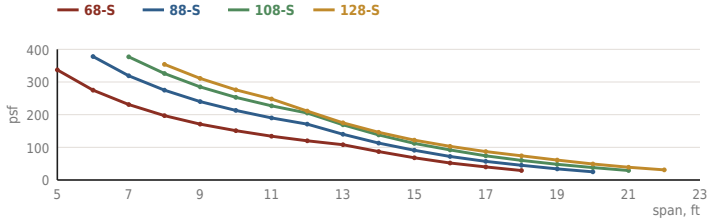
STRAND	SPAN, FT																	
Designation Code	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
68-S ●●●●●●	**337** 0.0 0.0	**275** 0.0 0.1	**231** 0.1 0.1	**197** 0.1 0.1	**171** 0.1 0.1	**151** 0.1 0.1	**134** 0.1 0.0	**120** 0.0 0.0	**108** 0.0 –0.1	**87** 0.0 –0.2	**68** –0.1 –0.3	**52** –0.2 –0.4	**40** –0.3 –0.6	**29** –0.4 –0.9				
88-S ●●●●●●●●		**378** 0.1 0.1	**319** 0.1 0.1	**275** 0.1 0.1	**240** 0.1 0.1	**213** 0.1 0.1	**190** 0.1 0.1	**171** 0.1 0.1	**140** 0.1 0.0	**113** 0.1 0.0	**91** 0.0 –0.1	**72** 0.0 –0.3	**57** –0.1 –0.4	**45** –0.2 –0.6	**34** –0.4 –0.9	**25** –0.6 –1.2		
108-S ●●●●●●●●●●			**377** 0.1 0.1	**326** 0.1 0.2	**285** 0.1 0.2	**253** 0.2 0.2	**227** 0.2 0.2	**205** 0.2 0.2	**169** 0.2 0.2	**138** 0.2 0.1	**112** 0.1 0.0	**92** 0.1 –0.1	**74** 0.0 –0.2	**60** –0.1 –0.4	**48** –0.2 –0.7	**38** –0.4 –1.0	**29** –0.5 –1.3	
128-S ●●●●●●●●●●●●				**354** 0.2 0.2	**311** 0.2 0.2	**276** 0.2 0.3	**248** 0.2 0.3	**211** 0.3 0.3	**175** 0.3 0.3	**146** 0.3 0.2	**122** 0.2 0.2	**103** 0.2 0.1	**87** 0.2 –0.1	**74** 0.1 –0.2	**61** 0.0 –0.4	**49** –0.2 –0.7	**39** –0.3 –1.1	**31** –0.5 –1.5

Table of safe superimposed service load (psf) and cambers (in.)

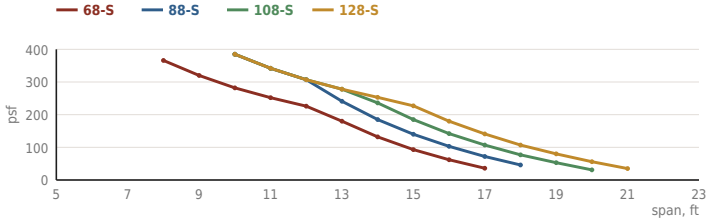
2 in. Normal Weight Topping **8FS4 + 2**

STRAND	SPAN, FT													
Designation Code	8	9	10	11	12	13	14	15	16	17	18	19	20	21
68-S ●●●●●●	**366** 0.1 0.1	**320** 0.1 0.0	**282** 0.0 0.0	**252** 0.0 0.0	**226** 0.0 –0.1	**180** 0.0 –0.2	**132** –0.1 –0.3	**93** –0.2 –0.4	**62** –0.3 –0.6	**36** –0.4 –0.8				
88-S ●●●●●●●●			**385** 0.1 0.1	**342** 0.1 0.1	**307** 0.1 0.0	**241** 0.0 –0.1	**185** 0.0 –0.2	**140** –0.1 –0.3	**103** –0.2 –0.5	**72** –0.3 –0.7	**46** –0.4 –0.9			
108-S ●●●●●●●●●●			**385** 0.1 0.1	**342** 0.1 0.1	**307** 0.1 0.1	**278** 0.1 0.0	**236** 0.1 0.0	**185** 0.0 –0.2	**142** 0.0 –0.3	**107** –0.1 –0.5	**77** –0.3 –0.7	**53** –0.4 –1.0	**31** –0.7 –1.4	
128-S ●●●●●●●●●●●●			**385** 0.2 0.2	**342** 0.2 0.2	**307** 0.2 0.2	**278** 0.2 0.1	**253** 0.2 0.1	**227** 0.1 0.0	**180** 0.1 –0.2	**141** 0.0 –0.3	**107** –0.1 –0.6	**80** –0.3 –0.8	**56** –0.5 –1.2	**35** –0.7 –1.6

Safe superimposed load vs. span — no topping



Safe superimposed load vs. span — 2 in. topping



SHORING: All precast members are assumed NOT shored — the precast section alone carries its own weight and the weight of any cast-in-place topping.

Designed by PCI method: strength by strain compatibility (1.2D + 1.6L) incl. strand development; bottom tension ≤ 7.5√f'c; one-way shear without stirrups; φMn ≥ 1.2Mcr (ACI 318).
½" dia. 270 ksi low-relax strand only, 6 to 12 strands per plank, c.g. 1½" from bottom, jacked to 0.75 fpu. Release stresses checked at f'ci = 4,000 psi (all patterns OK).
Blank cells: load outside 25–400 psf or φMn < 1.2Mcr. 2" topping f'c = 3,000 psi. Negative cambers (downward) shown in red.
Preliminary — handling, shipping, lateral load distribution and connections to be checked by the engineer of record.

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SHEET TITLE
8'-0" WIDE SOLID FLAT SLAB PLANK
4 IN. THICK — 8FS4 & 8FS4+2 LOAD TABLES
PRELIMINARY — CALCULATED, FOR COORDINATION, NOT FOR CONSTRUCTION

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SCALE **NTS**
DATE **10/24/2026**

SOLID FLAT SLAB PLANK 8'-0" Wide · 6 in. Thick

f'c = 6,000 psi · f'ci = 4,000 psi · fpu = 270 ksi

STRAND PATTERN DESIGNATION

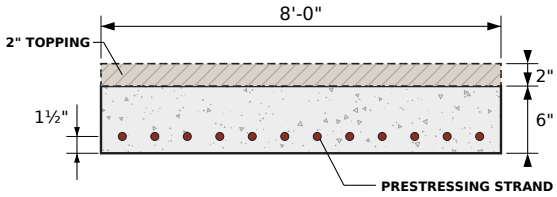
1 2 8 - S ●●●●●●●●●●●●

- 1 2 8 — No. of strand (12)
- 2 — Diameter of strand in 16ths
- S = straight

Safe loads include superimposed dead load of 10 psf (untopped) and 15 psf (topped); the remainder is live load. Long-time cambers include superimposed dead load but not live load.

KEY

365	← Safe superimposed load, psf
0.1	← Camber at erection, in.
0.1	← Long-time camber, in.



SECTION PROPERTIES

	Untopped	Topped
A	**576** in.²	**768** in.²
I	**1,728** in.⁴	**3,531** in.⁴
y_b	**3.00** in.	**3.76** in.
y_t	**3.00** in.	**4.24** in.
S_b	**576** in.³	**938** in.³
S_t	**576** in.³	**833** in.³
wt	**600** plf	**800** plf
DL	**75** psf	**100** psf
V/S	**2.82** in.	

Table of safe superimposed service load (psf) and cambers (in.)

No Topping **8FS6**

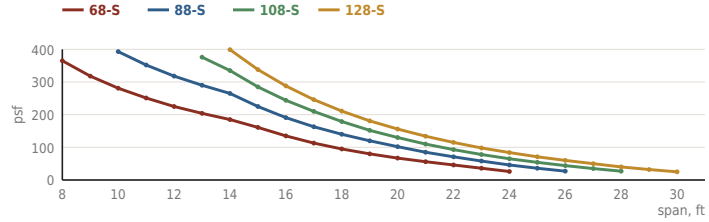
STRAND	SPAN, FT																						
Designation Code	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
68-S ●●●●●●	**365** 0.1 0.1	**318** 0.1 0.1	**281** 0.1 0.1	**251** 0.1 0.1	**225** 0.1 0.1	**204** 0.1 0.1	**185** 0.1 0.1	**161** 0.1 0.1	**135** 0.1 0.1	**113** 0.1 0.0	**95** 0.0 –0.1	**80** 0.0 –0.1	**67** –0.1 –0.2	**56** –0.1 –0.4	**46** –0.2 –0.6	**36** –0.3 –0.7	**26** –0.5 –1.0						
88-S ●●●●●●●●			**393** 0.1 0.2	**352** 0.2 0.2	**318** 0.2 0.2	**290** 0.2 0.2	**265** 0.2 0.2	**225** 0.2 0.2	**191** 0.2 0.2	**163** 0.2 0.2	**140** 0.2 0.1	**120** 0.2 0.1	**102** 0.1 0.0	**85** 0.1 –0.1	**71** 0.0 –0.3	**58** –0.1 –0.4	**46** –0.2 –0.6	**36** –0.3 –0.9	**27** –0.5 –1.2				
108-S ●●●●●●●●●●						**376** 0.3 0.3	**335** 0.3 0.4	**285** 0.3 0.4	**244** 0.3 0.4	**210** 0.3 0.4	**179** 0.3 0.3	**152** 0.3 0.3	**130** 0.3 0.2	**110** 0.3 0.1	**93** 0.2 0.0	**78** 0.1 –0.1	**65** 0.0 –0.3	**54** –0.1 –0.5	**44** –0.2 –0.8	**35** –0.4 –1.0	**27** –0.6 –1.4		
128-S ●●●●●●●●●●●●							**399** 0.4 0.5	**338** 0.4 0.5	**288** 0.4 0.5	**246** 0.5 0.5	**211** 0.5 0.5	**181** 0.5 0.5	**156** 0.5 0.5	**134** 0.4 0.4	**115** 0.4 0.3	**98** 0.4 0.2	**84** 0.3 0.0	**71** 0.2 –0.1	**60** 0.1 –0.4	**50** 0.0 –0.6	**40** –0.2 –0.9	**32** –0.4 –1.3	**25** –0.6 –1.7

Table of safe superimposed service load (psf) and cambers (in.)

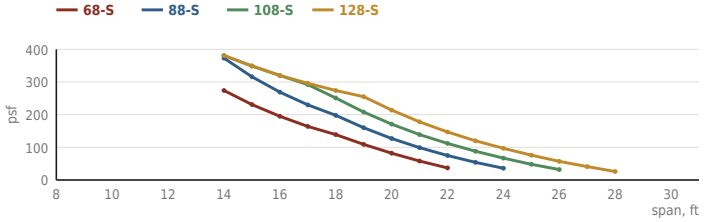
2 in. Normal Weight Topping **8FS6 + 2**

STRAND	SPAN, FT														
Designation Code	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
68-S ●●●●●●	**274** 0.1 0.1	**231** 0.1 0.0	**195** 0.1 0.0	**164** 0.0 –0.1	**139** 0.0 –0.2	**109** –0.1 –0.3	**82** –0.2 –0.4	**58** –0.2 –0.6	**37** –0.4 –0.8						
88-S ●●●●●●●●	**373** 0.2 0.2	**316** 0.2 0.2	**269** 0.2 0.1	**230** 0.2 0.1	**198** 0.1 0.0	**160** 0.1 –0.1	**127** 0.0 –0.2	**99** 0.0 –0.3	**75** –0.1 –0.5	**54** –0.3 –0.7	**36** –0.4 –0.9				
108-S ●●●●●●●●●●	**381** 0.3 0.3	**349** 0.3 0.3	**320** 0.3 0.3	**292** 0.3 0.2	**251** 0.3 0.2	**208** 0.2 0.1	**171** 0.2 0.0	**139** 0.1 –0.1	**112** 0.1 –0.2	**88** 0.0 –0.4	**67** –0.1 –0.6	**48** –0.3 –0.9	**32** –0.5 –1.2		
128-S ●●●●●●●●●●●●	**381** 0.4 0.4	**349** 0.4 0.4	**320** 0.4 0.4	**296** 0.4 0.4	**274** 0.4 0.4	**255** 0.4 0.3	**214** 0.4 0.2	**178** 0.3 0.1	**147** 0.3 0.0	**120** 0.2 –0.1	**97** 0.1 –0.3	**76** 0.0 –0.6	**57** –0.2 –0.8	**41** –0.3 –1.1	**26** –0.6 –1.5

Safe superimposed load vs. span — no topping



Safe superimposed load vs. span — 2 in. topping



SHORING: All precast members are assumed NOT shored — the precast section alone carries its own weight and the weight of any cast-in-place topping.

Designed by PCI method: strength by strain compatibility (1.2D + 1.6L) incl. strand development; bottom tension ≤ 7.5√f'c; one-way shear without stirrups; φMn ≥ 1.2Mcr (ACI 318).
½" dia. 270 ksi low-relax strand only, 6 to 12 strands per plank, c.g. 1½" from bottom, jacked to 0.75 fpu. Release stresses checked at f'ci = 4,000 psi (all patterns OK).
Blank cells: load outside 25–400 psf or φMn < 1.2Mcr. 2" topping f'c = 3,000 psi. Negative cambers (downward) shown in red.
Preliminary — handling, shipping, lateral load distribution and connections to be checked by the engineer of record.

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SHEET TITLE
8'-0" WIDE SOLID FLAT SLAB PLANK
6 IN. THICK — 8FS6 & 8FS6+2 LOAD TABLES
PRELIMINARY — CALCULATED, FOR COORDINATION, NOT FOR CONSTRUCTION

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SCALE **NTS**
DATE **10/24/2026**

SOLID FLAT SLAB PLANK 8'-0" Wide · 8 in. Thick

f'c = 6,000 psi · f'ci = 4,000 psi · fpu = 270 ksi

STRAND PATTERN DESIGNATION

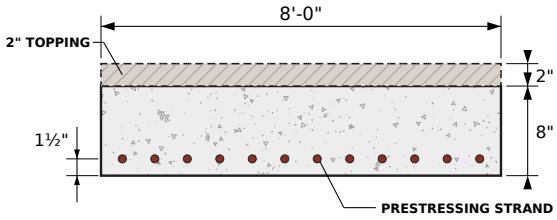
1 2 8 - S ●●●●●●●●●●●●

- 1 2 8 → No. of strand (12)
- 1 2 8 → Diameter of strand in 16ths
- S → S = straight

Safe loads include superimposed dead load of 10 psf (untopped) and 15 psf (topped); the remainder is live load. Long-time cambers include superimposed dead load but not live load.

KEY

388	← Safe superimposed load, psf
0.2	← Camber at erection, in.
0.2	← Long-time camber, in.



SECTION PROPERTIES

	Untopped	Topped
A	**768** in.²	**960** in.²
I	**4,096** in.⁴	**7,026** in.⁴
y_b	**4.00** in.	**4.75** in.
y_t	**4.00** in.	**5.25** in.
S_b	**1,024** in.³	**1,479** in.³
S_t	**1,024** in.³	**1,338** in.³
wt	**800** plf	**1,000** plf
DL	**100** psf	**125** psf
V/S	**3.69** in.	

Table of safe superimposed service load (psf) and cambers (in.)

No Topping **8FS8**

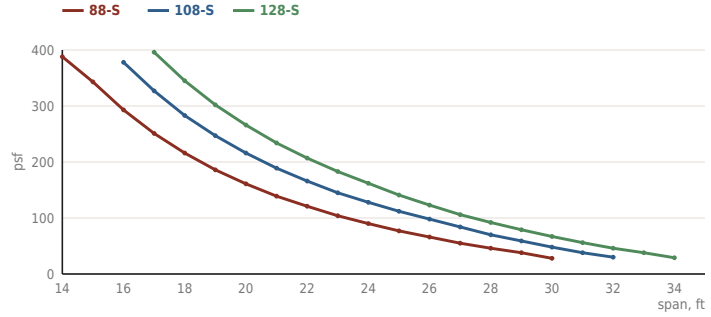
STRAND	SPAN, FT																				
Designation Code	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
88-S ●●●●●●●●	**388** 0.2 0.2	**343** 0.2 0.2	**293** 0.2 0.2	**251** 0.2 0.2	**216** 0.2 0.2	**186** 0.2 0.2	**161** 0.2 0.1	**139** 0.1 0.1	**121** 0.1 0.0	**104** 0.1 0.0	**90** 0.0 –0.1	**77** 0.0 –0.2	**66** –0.1 –0.4	**55** –0.2 –0.5	**46** –0.3 –0.7	**38** –0.4 –0.9	**28** –0.6 –1.2				
108-S ●●●●●●●●●●			**378** 0.3 0.3	**327** 0.3 0.3	**283** 0.3 0.3	**247** 0.3 0.3	**216** 0.3 0.3	**189** 0.3 0.3	**166** 0.3 0.2	**145** 0.2 0.2	**128** 0.2 0.1	**112** 0.2 0.0	**98** 0.1 –0.1	**84** 0.0 –0.2	**70** –0.1 –0.4	**59** –0.2 –0.6	**48** –0.3 –0.8	**38** –0.4 –1.0	**30** –0.6 –1.3		
128-S ●●●●●●●●●●●●				**396** 0.4 0.5	**345** 0.4 0.5	**302** 0.4 0.5	**266** 0.4 0.5	**234** 0.4 0.5	**207** 0.4 0.4	**183** 0.4 0.4	**162** 0.4 0.4	**141** 0.3 0.3	**123** 0.3 0.2	**106** 0.2 0.1	**92** 0.2 –0.1	**79** 0.1 –0.2	**67** 0.0 –0.4	**56** –0.1 –0.6	**46** –0.3 –0.9	**38** –0.4 –1.2	**29** –0.6 –1.5

Table of safe superimposed service load (psf) and cambers (in.)

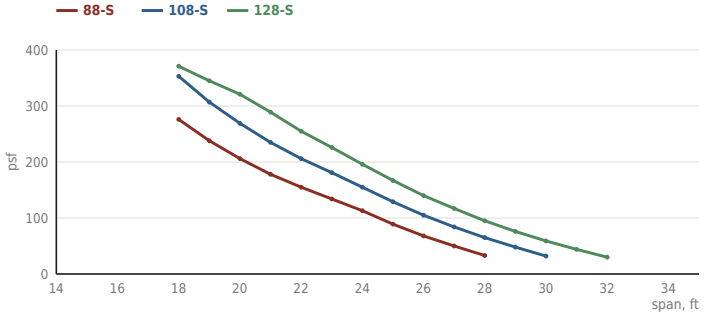
2 in. Normal Weight Topping **8FS8 + 2**

STRAND	SPAN, FT														
Designation Code	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
88-S ●●●●●●●●	**276** 0.2 0.1	**238** 0.1 0.1	**206** 0.1 0.1	**178** 0.1 0.0	**155** 0.1 –0.1	**134** 0.0 –0.2	**113** –0.1 –0.3	**89** –0.1 –0.4	**68** –0.2 –0.6	**50** –0.3 –0.7	**33** –0.4 –0.9				
108-S ●●●●●●●●●●	**353** 0.3 0.2	**307** 0.3 0.2	**269** 0.3 0.2	**235** 0.2 0.2	**206** 0.2 0.1	**181** 0.2 0.0	**155** 0.1 –0.1	**129** 0.1 –0.2	**105** 0.0 –0.3	**84** –0.1 –0.5	**65** –0.2 –0.7	**48** –0.3 –0.9	**32** –0.5 –1.1		
128-S ●●●●●●●●●●●●	**371** 0.4 0.4	**345** 0.4 0.4	**321** 0.4 0.3	**289** 0.4 0.3	**255** 0.4 0.3	**226** 0.3 0.2	**196** 0.3 0.2	**167** 0.3 0.1	**140** 0.2 –0.1	**117** 0.1 –0.2	**95** 0.0 –0.4	**76** –0.1 –0.6	**59** –0.2 –0.8	**44** –0.3 –1.0	**30** –0.5 –1.3

Safe superimposed load vs. span — no topping



Safe superimposed load vs. span — 2 in. topping



SHORING: All precast members are assumed NOT shored — the precast section alone carries its own weight and the weight of any cast-in-place topping.

Designed by PCI method: strength by strain compatibility (1.2D + 1.6L) incl. strand development; bottom tension ≤ 7.5√f'c; one-way shear without stirrups; φMn ≥ 1.2Mcr (ACI 318).
½" dia. 270 ksi low-relax strand only, 8 to 12 strands per plank, c.g. 1½" from bottom, jacked to 0.75 fpu. Release stresses checked at f'ci = 4,000 psi (all patterns OK).
Blank cells: load outside 25–400 psf or φMn < 1.2Mcr. 2" topping f'c = 3,000 psi. Negative cambers (downward) shown in red.
Preliminary — handling, shipping, lateral load distribution and connections to be checked by the engineer of record.

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SHEET TITLE
8'-0" WIDE SOLID FLAT SLAB PLANK
8 IN. THICK — 8FS8 & 8FS8+2 LOAD TABLES
PRELIMINARY — CALCULATED, FOR COORDINATION, NOT FOR CONSTRUCTION

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SCALE **NTS**
DATE **10/24/2026**

SHORED PLANK 4'-0" Wide · 3½ in. Thick · 2 in. Topping

f'c = 6,000 psi · f'ci = 4,000 psi · fpu = 270 ksi

STRAND PATTERN DESIGNATION

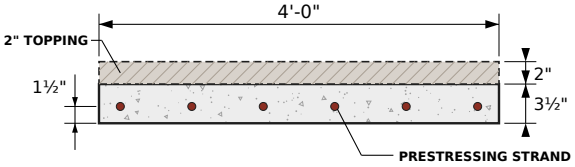
6 8 - S ●●●●●●

- S = straight
- Diameter of strand in 16ths
- No. of strand (6)

Safe loads include superimposed dead load of 10 psf (untopped) and 15 psf (topped); the remainder is live load. Long-time cambers include superimposed dead load but not live load.

KEY

377	← Safe superimposed load, psf
0.0	← Camber at erection, in.
0.0	← Long-time camber, in.



SECTION PROPERTIES

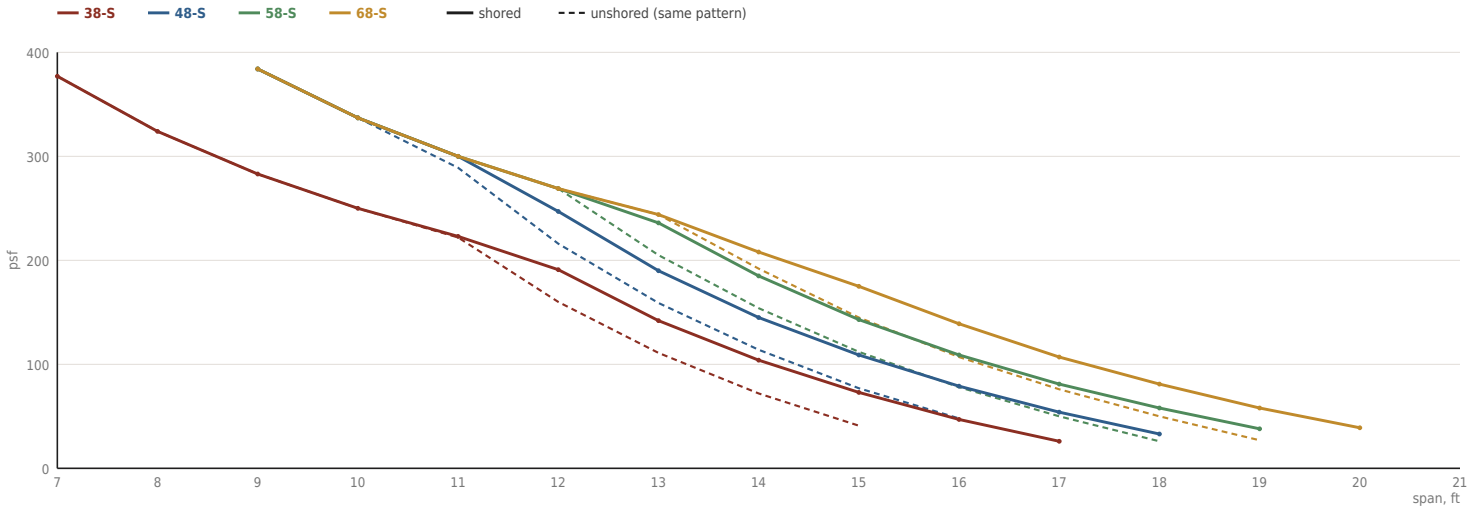
	Untopped	Topped
A	**168** in.²	**264** in.²
I	**172** in.⁴	**560** in.⁴
y_b	**1.75** in.	**2.54** in.
y_t	**1.75** in.	**2.96** in.
S_b	**98** in.³	**220** in.³
S_t	**98** in.³	**189** in.³
wt	**175** plf	**275** plf
DL	**44** psf	**69** psf
V/S	**1.63** in.	

Table of safe superimposed service load (psf) and cambers (in.)

2 in. Normal Weight Topping — SHORED **4FS3½ + 2 S**

STRAND	SPAN, FT													
Designation Code	7	8	9	10	11	12	13	14	15	16	17	18	19	20
38-S ●●●	**377** 0.0 0.0	**324** 0.0 0.0	**283** 0.0 0.0	**250** 0.0 0.0	**223** 0.0 –0.1	**191** –0.1 –0.2	**142** –0.2 –0.3	**104** –0.2 –0.4	**73** –0.4 –0.6	**47** –0.5 –0.8	**26** –0.7 –1.1			
48-S ●●●●			**384** 0.0 0.0	**337** 0.0 0.0	**300** 0.0 0.0	**247** 0.0 –0.1	**190** –0.1 –0.2	**145** –0.2 –0.3	**109** –0.3 –0.5	**79** –0.4 –0.7	**54** –0.6 –1.0	**33** –0.8 –1.3		
58-S ●●●●●			**384** 0.1 0.1	**337** 0.1 0.0	**300** 0.0 0.0	**269** 0.0 0.0	**236** 0.0 –0.1	**185** –0.1 –0.2	**143** –0.2 –0.4	**109** –0.3 –0.6	**81** –0.5 –0.8	**58** –0.7 –1.1	**38** –0.9 –1.5	
68-S ●●●●●●			**384** 0.1 0.1	**337** 0.1 0.1	**300** 0.1 0.1	**269** 0.1 0.0	**244** 0.0 –0.1	**208** 0.0 –0.2	**175** –0.1 –0.3	**139** –0.2 –0.5	**107** –0.4 –0.7	**81** –0.5 –1.0	**58** –0.8 –1.4	**39** –1.0 –1.8

Safe superimposed load vs. span — shored vs. unshored, 2 in. topping



SHORED: Planks are assumed fully shored until the topping reaches 75% of f'c — the topping weight is carried by the composite section.

Designed by PCI method: strength by strain compatibility (1.2D + 1.6L) incl. strand development; bottom tension ≤ 7.5√f'c; one-way shear without stirrups; φMn ≥ 1.2Mcr (ACI 318). Plank self-weight on precast section; topping weight and superimposed loads on composite section. Horizontal shear at topping interface ≤ φ80b_vd (roughened ¼", no ties). ½" dia. 270 ksi low-relax strand only, 3 to 6 strands per plank; f'ci = 4,000 psi (all patterns OK). 2" topping f'c = 3,000 psi. Blank cells: outside 25–400 psf or φMn < 1.2Mcr. Shoring design, spacing and removal by contractor. Negative cambers (downward) shown in red. Preliminary — to be checked by the engineer of record.

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SHEET TITLE

4'-0" WIDE SOLID FLAT SLAB PLANK

3½ IN. THICK — 4FS3½+2 SHORED LOAD TABLE

PRELIMINARY — CALCULATED, FOR COORDINATION, NOT FOR CONSTRUCTION

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SCALE **NTS**

DATE **10/24/2026**

SHORED PLANK 8'-0" Wide · 3½ in. Thick · 2 in. Topping

f'c = 6,000 psi · f'ci = 4,000 psi · fpu = 270 ksi

STRAND PATTERN DESIGNATION

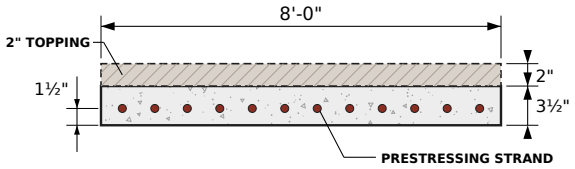
1 2 8 - S ●●●●●●●●●●●●

- 1 2 8 — No. of strand (12)
- 1 2 8 — Diameter of strand in 16ths
- S = straight

Safe loads include superimposed dead load of 10 psf (untopped) and 15 psf (topped); the remainder is live load. Long-time cambers include superimposed dead load but not live load.

KEY

377	← Safe superimposed load, psf
0.0	← Camber at erection, in.
0.0	← Long-time camber, in.



SECTION PROPERTIES

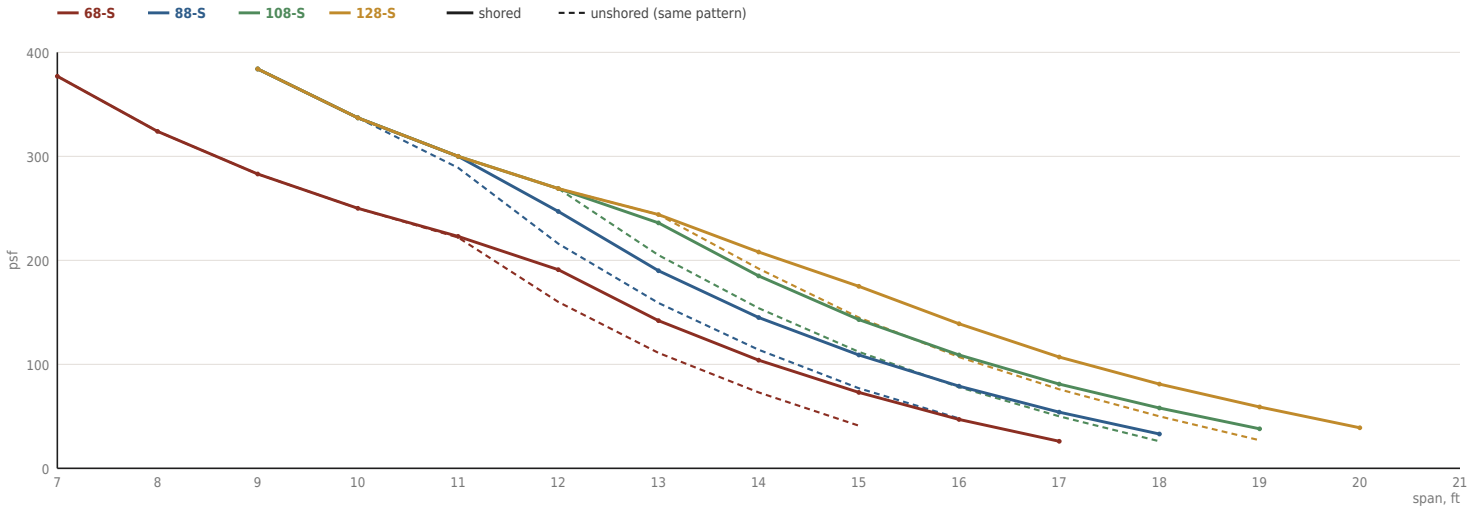
	Untopped	Topped
A	**336** in.²	**528** in.²
I	**343** in.⁴	**1,120** in.⁴
y_b	**1.75** in.	**2.54** in.
y_t	**1.75** in.	**2.96** in.
S_b	**196** in.³	**441** in.³
S_t	**196** in.³	**378** in.³
wt	**350** plf	**550** plf
DL	**44** psf	**69** psf
V/S	**1.69** in.	

Table of safe superimposed service load (psf) and cambers (in.)

2 in. Normal Weight Topping — SHORED **8FS3½ + 2 S**

STRAND Designation Code	SPAN, FT 7	8	9	10	11	12	13	14	15	16	17	18	19	20
68-S ●●●●●●	**377** 0.0 0.0	**324** 0.0 0.0	**283** 0.0 0.0	**250** 0.0 0.0	**223** 0.0 –0.1	**191** –0.1 –0.2	**142** –0.2 –0.3	**104** –0.2 –0.4	**73** –0.4 –0.6	**47** –0.5 –0.8	**26** –0.7 –1.1			
88-S ●●●●●●●●			**384** 0.0 0.0	**337** 0.0 0.0	**300** 0.0 0.0	**247** 0.0 –0.1	**190** –0.1 –0.2	**145** –0.2 –0.3	**109** –0.3 –0.5	**79** –0.4 –0.7	**54** –0.6 –1.0	**33** –0.8 –1.3		
108-S ●●●●●●●●●●			**384** 0.1 0.1	**337** 0.1 0.0	**300** 0.0 0.0	**269** 0.0 0.0	**236** 0.0 –0.1	**185** –0.1 –0.2	**143** –0.2 –0.4	**109** –0.3 –0.6	**81** –0.5 –0.8	**58** –0.7 –1.1	**38** –0.9 –1.5	
128-S ●●●●●●●●●●●●			**384** 0.1 0.1	**337** 0.1 0.1	**300** 0.1 0.1	**269** 0.1 0.0	**244** 0.0 –0.1	**208** 0.0 –0.2	**175** –0.1 –0.3	**139** –0.2 –0.5	**107** –0.4 –0.7	**81** –0.5 –1.0	**59** –0.8 –1.4	**39** –1.0 –1.8

Safe superimposed load vs. span — shored vs. unshored, 2 in. topping



SHORED: Planks are assumed fully shored until the topping reaches 75% of f'c — the topping weight is carried by the composite section.

Designed by PCI method: strength by strain compatibility (1.2D + 1.6L) incl. strand development; bottom tension ≤ 7.5√f'c; one-way shear without stirrups; φMn ≥ 1.2Mcr (ACI 318). Plank self-weight on precast section; topping weight and superimposed loads on composite section. Horizontal shear at topping interface ≤ φ80b_vd (roughened ¼", no ties). ½" dia. 270 ksi low-relax strand only, 6 to 12 strands per plank; f'ci = 4,000 psi (all patterns OK). 2" topping f'c = 3,000 psi. Blank cells: outside 25–400 psf or φMn < 1.2Mcr. Shoring design, spacing and removal by contractor. Negative cambers (downward) shown in red. Preliminary — to be checked by the engineer of record.

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SHEET TITLE

8'-0" WIDE SOLID FLAT SLAB PLANK

3½ IN. THICK — 8FS3½+2 SHORED LOAD TABLE

PRELIMINARY — CALCULATED, FOR COORDINATION, NOT FOR CONSTRUCTION

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SCALE **NTS**

DATE **10/24/2026**

SHORED PLANK 8'-0" Wide · 4 in. Thick · 2 in. Topping

f'c = 6,000 psi · f'ci = 4,000 psi · fpu = 270 ksi

STRAND PATTERN DESIGNATION

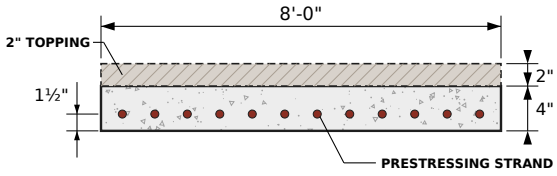
1 2 8 - S ●●●●●●●●●●●●

- 1 2 8 → No. of strand (12)
- 128 → Diameter of strand in 16ths
- S → S = straight

Safe loads include superimposed dead load of 10 psf (untopped) and 15 psf (topped); the remainder is live load. Long-time cambers include superimposed dead load but not live load.

KEY

366	← Safe superimposed load, psf
0.1	← Camber at erection, in.
0.1	← Long-time camber, in.



SECTION PROPERTIES

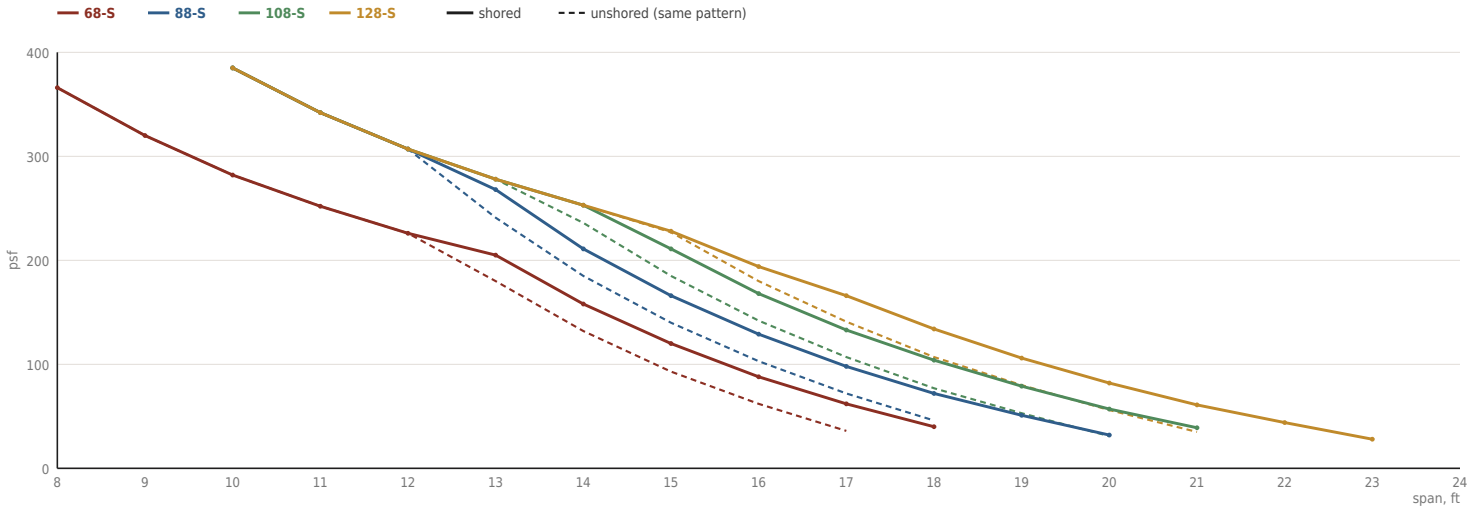
	Untopped	Topped
A	**384** in.²	**576** in.²
I	**512** in.⁴	**1,460** in.⁴
y_b	**2.00** in.	**2.78** in.
y_t	**2.00** in.	**3.22** in.
S_b	**256** in.³	**524** in.³
S_t	**256** in.³	**454** in.³
wt	**400** plf	**600** plf
DL	**50** psf	**75** psf
V/S	**1.92** in.	

Table of safe superimposed service load (psf) and cambers (in.)

2 in. Normal Weight Topping — SHORED **8FS4 + 2 S**

STRAND Designation Code	SPAN, FT 8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
68-S ●●●●●●	**366** 0.1 0.1	**320** 0.1 0.1	**282** 0.1 0.0	**252** 0.0 0.0	**226** 0.0 0.0	**205** 0.0 –0.1	**158** –0.1 –0.2	**120** –0.1 –0.3	**88** –0.2 –0.4	**62** –0.3 –0.6	**40** –0.5 –0.8					
88-S ●●●●●●●●			**385** 0.1 0.1	**342** 0.1 0.1	**307** 0.1 0.1	**268** 0.1 0.0	**211** 0.0 0.0	**166** 0.0 –0.1	**129** –0.1 –0.3	**98** –0.2 –0.4	**72** –0.3 –0.6	**51** –0.5 –0.9	**32** –0.7 –1.2			
108-S ●●●●●●●●●●			**385** 0.2 0.2	**342** 0.2 0.2	**307** 0.2 0.2	**278** 0.2 0.1	**253** 0.1 0.1	**211** 0.1 0.0	**168** 0.0 –0.1	**133** 0.0 –0.3	**104** –0.2 –0.5	**79** –0.3 –0.7	**57** –0.5 –1.0	**39** –0.7 –1.3		
128-S ●●●●●●●●●●●●			**385** 0.2 0.2	**342** 0.2 0.2	**307** 0.2 0.2	**278** 0.2 0.2	**253** 0.2 0.2	**228** 0.2 0.1	**194** 0.2 0.0	**166** 0.1 –0.1	**134** 0.0 –0.3	**106** –0.1 –0.5	**82** –0.3 –0.7	**61** –0.5 –1.1	**44** –0.7 –1.4	**28** –1.0 –1.9

Safe superimposed load vs. span — shored vs. unshored, 2 in. topping



SHORED: Planks are assumed fully shored until the topping reaches 75% of f'c — the topping weight is carried by the composite section.

Designed by PCI method: strength by strain compatibility (1.2D + 1.6L) incl. strand development; bottom tension ≤ 7.5√f'c; one-way shear without stirrups; φMn ≥ 1.2Mcr (ACI 318). Plank self-weight on precast section; topping weight and superimposed loads on composite section. Horizontal shear at topping interface ≤ φ80b_vd (roughened ¼", no ties). ½" dia. 270 ksi low-relax strand only, 6 to 12 strands per plank; f'ci = 4,000 psi (all patterns OK). 2" topping f'c = 3,000 psi. Blank cells: outside 25–400 psf or φMn < 1.2Mcr. Shoring design, spacing and removal by contractor. Negative cambers (downward) shown in red. Preliminary — to be checked by the engineer of record.

ART CONSTRUCTORS LLC

PRECAST / PRESTRESSED CONCRETE

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SHEET TITLE

8'-0" WIDE SOLID FLAT SLAB PLANK

4 IN. THICK — 8FS4+2 SHORED LOAD TABLE

PRELIMINARY — CALCULATED, FOR COORDINATION, NOT FOR CONSTRUCTION

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SCALE **NTS**

DATE **10/24/2026**

SHORED PLANK 8'-0" Wide · 6 in. Thick · 2 in. Topping

f'c = 6,000 psi · f'ci = 4,000 psi · fpu = 270 ksi

STRAND PATTERN DESIGNATION

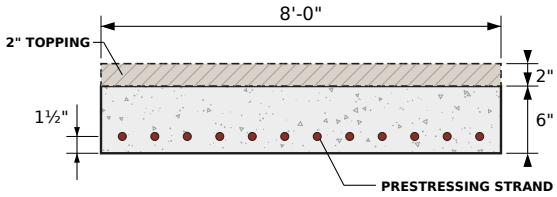
1 2 8 - S ●●●●●●●●●●●●

- 1 2 8 → No. of strand (12)
- 8 → Diameter of strand in 16ths
- S → S = straight

Safe loads include superimposed dead load of 10 psf (untopped) and 15 psf (topped); the remainder is live load. Long-time cambers include superimposed dead load but not live load.

KEY

164	← Safe superimposed load, psf
0.1	← Camber at erection, in.
0.0	← Long-time camber, in.



SECTION PROPERTIES

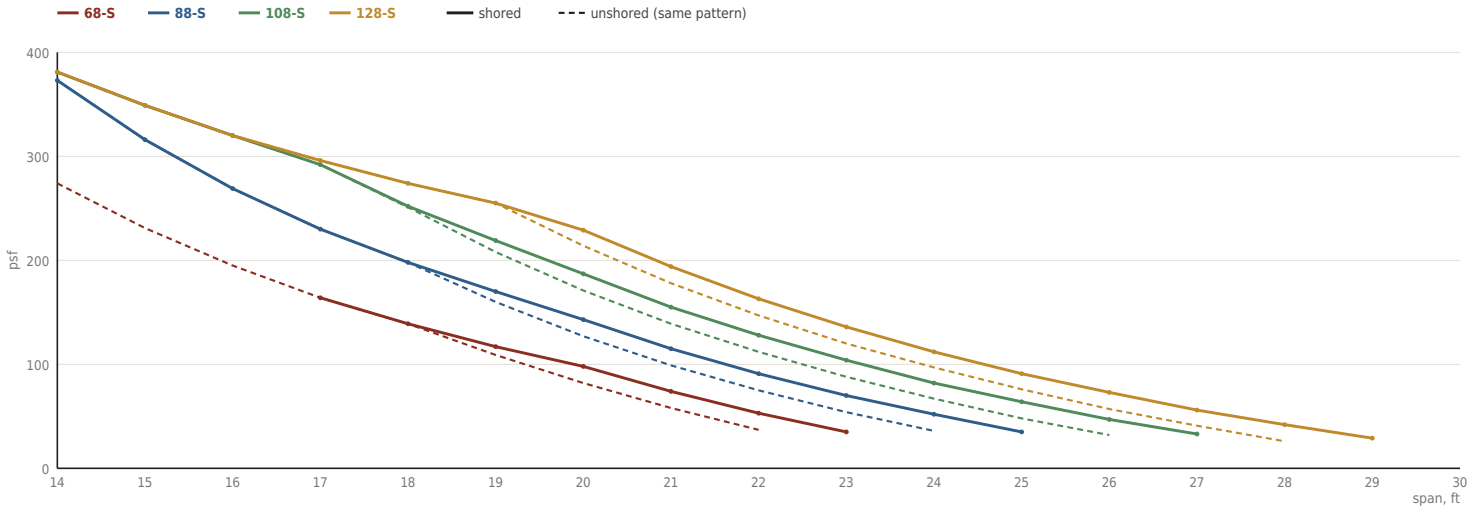
	Untopped	Topped
A	**576** in.²	**768** in.²
I	**1,728** in.⁴	**3,531** in.⁴
y_b	**3.00** in.	**3.76** in.
y_t	**3.00** in.	**4.24** in.
S_b	**576** in.³	**938** in.³
S_t	**576** in.³	**833** in.³
wt	**600** plf	**800** plf
DL	**75** psf	**100** psf
V/S	**2.82** in.	

Table of safe superimposed service load (psf) and cambers (in.)

2 in. Normal Weight Topping — SHORED **8FS6 + 2 S**

STRAND Designation Code	SPAN, FT 14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
68-S ●●●●●●				**164** 0.1 0.0	**139** 0.0 –0.1	**117** 0.0 –0.2	**98** –0.1 –0.3	**74** –0.2 –0.4	**53** –0.3 –0.6	**35** –0.4 –0.8						
88-S ●●●●●●●●	**373** 0.2 0.2	**316** 0.2 0.2	**269** 0.2 0.2	**230** 0.2 0.1	**198** 0.2 0.1	**170** 0.1 0.0	**143** 0.1 –0.1	**115** 0.0 –0.2	**91** –0.1 –0.3	**70** –0.2 –0.5	**52** –0.3 –0.7	**35** –0.5 –1.0				
108-S ●●●●●●●●●●	**381** 0.3 0.3	**349** 0.3 0.3	**320** 0.3 0.3	**292** 0.3 0.3	**252** 0.3 0.3	**219** 0.3 0.2	**187** 0.2 0.1	**155** 0.2 0.0	**128** 0.1 –0.1	**104** 0.1 –0.2	**82** –0.1 –0.4	**64** –0.2 –0.6	**47** –0.3 –0.9	**33** –0.5 –1.2		
128-S ●●●●●●●●●●●●	**381** 0.4 0.4	**349** 0.4 0.4	**320** 0.4 0.4	**296** 0.4 0.4	**274** 0.4 0.4	**255** 0.4 0.4	**229** 0.4 0.3	**194** 0.4 0.3	**163** 0.3 0.2	**136** 0.3 0.0	**112** 0.2 –0.1	**91** 0.1 –0.3	**73** 0.0 –0.5	**56** –0.2 –0.8	**42** –0.4 –1.1	**29** –0.6 –1.5

Safe superimposed load vs. span — shored vs. unshored, 2 in. topping



SHORED: Planks are assumed fully shored until the topping reaches 75% of f'c — the topping weight is carried by the composite section.

Designed by PCI method: strength by strain compatibility (1.2D + 1.6L) incl. strand development; bottom tension ≤ 7.5√f'c; one-way shear without stirrups; φMn ≥ 1.2Mcr (ACI 318). Plank self-weight on precast section; topping weight and superimposed loads on composite section. Horizontal shear at topping interface ≤ φ80b_vd (roughened ¼", no ties). ½" dia. 270 ksi low-relax strand only, 6 to 12 strands per plank; f'ci = 4,000 psi (all patterns OK). 2" topping f'c = 3,000 psi. Blank cells: outside 25–400 psf or φMn < 1.2Mcr. Shoring design, spacing and removal by contractor. Negative cambers (downward) shown in red. Preliminary — to be checked by the engineer of record.

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SHEET TITLE

8'-0" WIDE SOLID FLAT SLAB PLANK

6 IN. THICK — 8FS6+2 SHORED LOAD TABLE

PRELIMINARY — CALCULATED, FOR COORDINATION, NOT FOR CONSTRUCTION

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SCALE **NTS**

DATE **10/24/2026**

SHORED PLANK 8'-0" Wide · 8 in. Thick · 2 in. Topping

f'c = 6,000 psi · f'ci = 4,000 psi · fpu = 270 ksi

STRAND PATTERN DESIGNATION

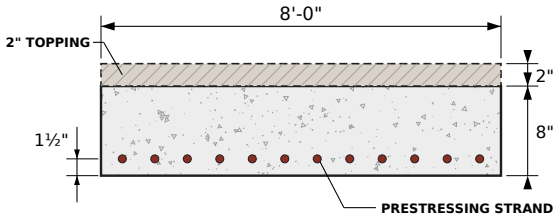
1 2 8 - S ●●●●●●●●●●●●

- S = straight
- Diameter of strand in 16ths
- No. of strand (12)

Safe loads include superimposed dead load of 10 psf (untopped) and 15 psf (topped); the remainder is live load. Long-time cambers include superimposed dead load but not live load.

KEY

178	← Safe superimposed load, psf
0.1	← Camber at erection, in.
0.0	← Long-time camber, in.



SECTION PROPERTIES

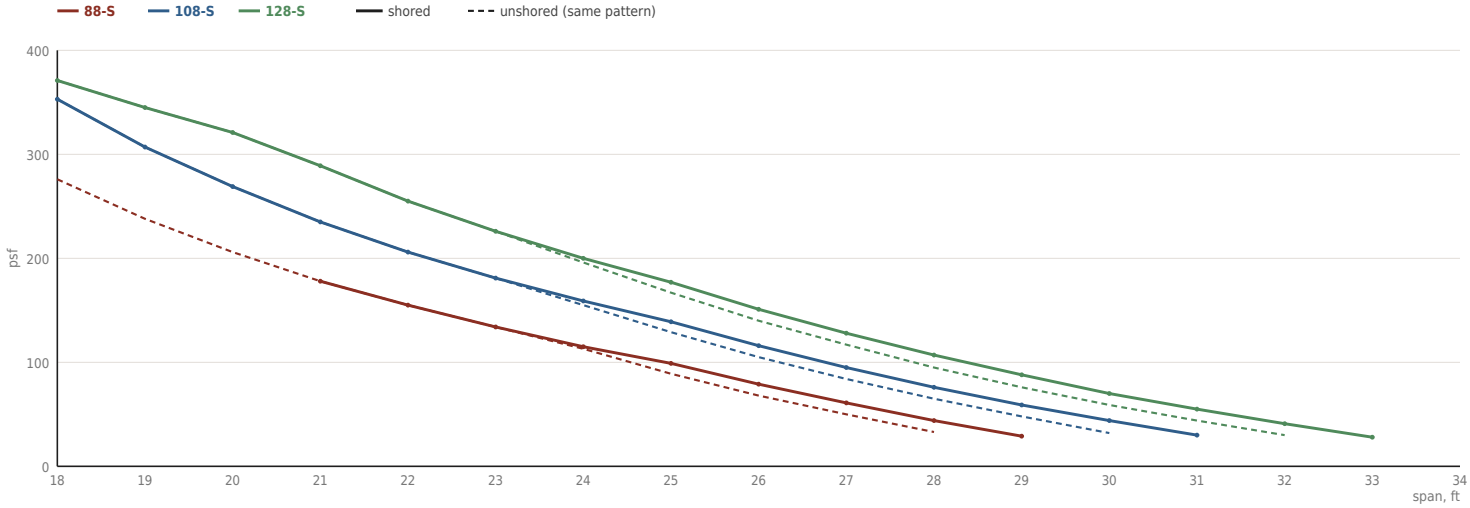
	Untopped	Topped
A	**768** in.²	**960** in.²
I	**4,096** in.⁴	**7,026** in.⁴
y_b	**4.00** in.	**4.75** in.
y_t	**4.00** in.	**5.25** in.
S_b	**1,024** in.³	**1,479** in.³
S_t	**1,024** in.³	**1,338** in.³
wt	**800** plf	**1,000** plf
DL	**100** psf	**125** psf
V/S	**3.69** in.	

Table of safe superimposed service load (psf) and cambers (in.)

2 in. Normal Weight Topping — SHORED **8FS8 + 2 S**

STRAND	SPAN, FT															
Designation Code	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
88-S ●●●●●●●●				**178** 0.1 0.0	**155** 0.1 0.0	**134** 0.0 –0.1	**115** 0.0 –0.2	**99** –0.1 –0.3	**79** –0.2 –0.5	**61** –0.3 –0.6	**44** –0.4 –0.8	**29** –0.5 –1.0				
108-S ●●●●●●●●●●	**353** 0.3 0.3	**307** 0.3 0.3	**269** 0.3 0.2	**235** 0.3 0.2	**206** 0.2 0.2	**181** 0.2 0.1	**159** 0.2 0.0	**139** 0.1 –0.1	**116** 0.0 –0.2	**95** 0.0 –0.3	**76** –0.1 –0.5	**59** –0.3 –0.7	**44** –0.4 –0.9	**30** –0.6 –1.2		
128-S ●●●●●●●●●●●●	**371** 0.4 0.4	**345** 0.4 0.4	**321** 0.4 0.4	**289** 0.4 0.4	**255** 0.4 0.3	**226** 0.4 0.3	**200** 0.3 0.2	**177** 0.3 0.1	**151** 0.2 0.0	**128** 0.2 –0.1	**107** 0.1 –0.2	**88** 0.0 –0.4	**70** –0.1 –0.6	**55** –0.3 –0.8	**41** –0.4 –1.1	**28** –0.6 –1.4

Safe superimposed load vs. span — shored vs. unshored, 2 in. topping



SHORED: Planks are assumed fully shored until the topping reaches 75% of f'c — the topping weight is carried by the composite section.

Designed by PCI method: strength by strain compatibility (1.2D + 1.6L) incl. strand development; bottom tension ≤ 7.5√f'c; one-way shear without stirrups; φMn ≥ 1.2Mcr (ACI 318). Plank self-weight on precast section; topping weight and superimposed loads on composite section. Horizontal shear at topping interface ≤ φ80bᵥd (roughened ¼", no ties). ½" dia. 270 ksi low-relax strand only, 8 to 12 strands per plank; f'ci = 4,000 psi (all patterns OK). 2" topping f'c = 3,000 psi. Blank cells: outside 25–400 psf or φMn < 1.2Mcr. Shoring design, spacing and removal by contractor. Negative cambers (downward) shown in red. Preliminary — to be checked by the engineer of record.

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SHEET TITLE

8'-0" WIDE SOLID FLAT SLAB PLANK

8 IN. THICK — 8FS8+2 SHORED LOAD TABLE

PRELIMINARY — CALCULATED, FOR COORDINATION, NOT FOR CONSTRUCTION

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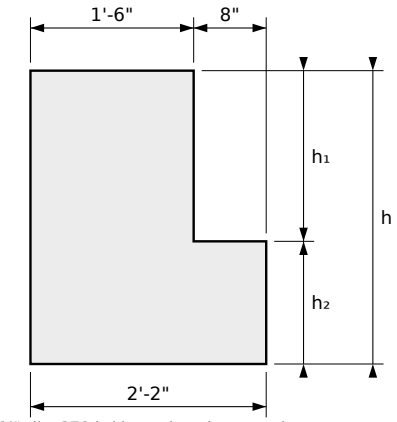
SCALE **NTS**

DATE **10/24/2026**

L-BEAMS 26LB Series · Normal Weight Concrete

f'c = 6,000 psi · f'ci = 3,500 psi

SECTION



½" dia. 270 ksi low-relaxation strand

KEY

10983	← Safe superimposed load, plf
0.4	← Camber at erection, in.
0.2	← Long-time camber, in.

SECTION PROPERTIES

Designation	h	h₁/h₂	A	I	yb	Sb	St	wt
	in.	in./in.	in.²	in.⁴	in.	in.³	in.³	plf
26LB20	20	12/8	424	14,298	9.09	1,573	1,311	442
26LB24	24	12/12	528	24,716	10.91	2,265	1,888	550
26LB28	28	16/12	600	39,241	12.72	3,085	2,568	625
26LB32	32	20/12	672	58,533	14.57	4,017	3,358	700
26LB36	36	24/12	744	83,176	16.45	5,056	4,255	775
26LB40	40	24/16	848	114,381	18.19	6,288	5,244	883
26LB44	44	28/16	920	152,104	20.05	7,586	6,351	958
26LB48	48	32/16	992	197,159	21.94	8,986	7,566	1,033
26LB52	52	36/16	1,064	250,126	23.83	10,496	8,879	1,108
26LB56	56	40/16	1,136	311,586	25.75	12,100	10,300	1,183
26LB60	60	44/16	1,208	382,118	27.67	13,810	11,819	1,258

1. Check local area for availability of other sizes.
2. Safe loads shown include 50% superimposed dead load and 50% live load. 800 psi top tension has been allowed, therefore, additional top reinforcement is required.
3. Safe loads can be significantly increased by use of structural composite topping.

Table of safe superimposed service load (plf) and cambers (in.)

No Topping **26LB**

DESIG-	NO.	ys, in.	SPAN, FT																	
nation	Strand	end / center	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50
26LB20	**158-S**	**2.67** **2.67**	**10983** 0.4 0.2	**8599** 0.5 0.3	**6893** 0.6 0.3	**5632** 0.8 0.4	**4672** 0.9 0.4	**3925** 1.0 0.5	**3332** 1.1 0.5	**2854** 1.3 0.6	**2463** 1.4 0.6	**2139** 1.5 0.6	**1867** 1.7 0.6	**1637** 1.8 0.6	**1440** 1.9 0.6	**1271** 2.0 0.6	**1125** 2.1 0.6			
26LB24	**158-S**	**2.67** **2.67**			**10376** 0.5 0.2	**8494** 0.6 0.2	**7062** 0.7 0.2	**5948** 0.8 0.2	**5064** 0.9 0.3	**4350** 1.0 0.3	**3767** 1.1 0.3	**3283** 1.2 0.3	**2877** 1.3 0.3	**2534** 1.4 0.3	**2241** 1.4 0.2	**1989** 1.5 0.2	**1771** 1.6 0.1	**1580** 1.6 0.1	**1413** 1.7 0.0	**1265** 1.7 -0.1
26LB28	**188-S**	**3.33** **3.33**					**9571** 0.6 0.2	**8076** 0.7 0.2	**6890** 0.8 0.3	**5933** 0.9 0.3	**5150** 1.0 0.3	**4501** 1.1 0.3	**3957** 1.1 0.3	**3497** 1.2 0.3	**3104** 1.3 0.3	**2765** 1.4 0.3	**2472** 1.5 0.3	**2216** 1.6 0.2	**1992** 1.6 0.2	**1794** 1.7 0.1
26LB32	**218-S**	**4.00** **4.00**						**10518** 0.6 0.2	**8986** 0.7 0.2	**7751** 0.8 0.3	**6740** 0.9 0.3	**5902** 1.0 0.3	**5200** 1.0 0.3	**4606** 1.1 0.3	**4098** 1.2 0.4	**3662** 1.3 0.4	**3283** 1.4 0.3	**2953** 1.5 0.3	**2663** 1.6 0.3	**2407** 1.6 0.3
26LB36	**248-S**	**4.50** **4.50**								**9917** 0.7 0.3	**8636** 0.8 0.3	**7574** 0.9 0.3	**6684** 1.0 0.3	**5931** 1.1 0.4	**5289** 1.2 0.4	**4735** 1.2 0.4	**4256** 1.3 0.4	**3837** 1.4 0.4	**3470** 1.5 0.4	**3146** 1.6 0.4
26LB40	**278-S**	**5.11** **5.11**									**10667** 0.7 0.3	**9363** 0.8 0.3	**8270** 0.9 0.3	**7345** 1.0 0.3	**6555** 1.1 0.4	**5876** 1.1 0.4	**5287** 1.2 0.4	**4773** 1.3 0.4	**4322** 1.4 0.4	**3924** 1.5 0.4
26LB44	**288-S**	**5.29** **5.29**											**10232** 0.8 0.3	**9099** 0.9 0.3	**8132** 0.9 0.3	**7300** 1.0 0.3	**6579** 1.1 0.3	**5949** 1.2 0.3	**5397** 1.3 0.3	**4910** 1.3 0.3
26LB48	**328-S**	**5.75** **5.75**												**10974** 0.9 0.3	**9818** 0.9 0.3	**8823** 1.0 0.4	**7960** 1.1 0.4	**7208** 1.2 0.4	**6548** 1.3 0.4	**5965** 1.3 0.4
26LB52	**358-S**	**6.29** **6.29**														**10423** 1.0 0.4	**9413** 1.0 0.4	**8531** 1.1 0.4	**7758** 1.2 0.4	**7075** 1.3 0.4
26LB56	**378-S**	**7.00** **7.00**															**10881** 1.0 0.3	**9870** 1.0 0.4	**8982** 1.1 0.4	**8198** 1.2 0.4
26LB60	**388-S**	**7.68** **7.68**																**11293** 0.9 0.3	**10284** 1.0 0.3	**9393** 1.1 0.3

SHORING: All precast members are assumed NOT shored — the precast section alone carries its own weight and the weight of any cast-in-place topping.

Calculated by PCI method at f'c = 6,000 psi (same sections, strand counts and span ranges as PCI Design Handbook tables; method reproduces the published 5,000 psi values within 1%). Strength by strain compatibility, 1.2D + 1.6L; bottom tension ≤ 12√f'c.
Service top-fiber compression reaches about 0.75 f'c at the tabulated loads (as in the published PCI tables) — exceeds the ACI 318 limit of 0.60 f'c; engineer of record to verify. Tan cells: release strength above 3,500 psi. Negative cambers (downward) shown in red. Shear and ledge design by engineer of record.

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SHEET TITLE
L-BEAMS
26LB SERIES — SECTION PROPERTIES & LOAD TABLE
PRELIMINARY — CALCULATED, FOR COORDINATION, NOT FOR CONSTRUCTION

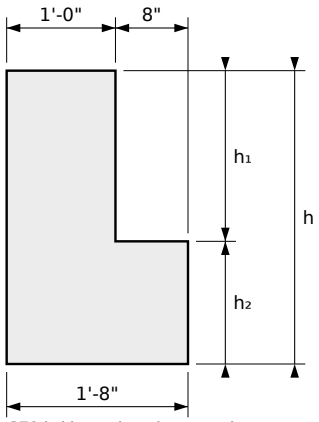
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SCALE **NTS**
DATE **10/24/2026**

L-BEAMS 20LB Series · Normal Weight Concrete

f'c = 6,000 psi · f'ci = 3,500 psi

SECTION



½" dia. 270 ksi low-relaxation strand

KEY

7442	← Safe superimposed load, plf
0.3	← Camber at erection, in.
0.1	← Long-time camber, in.

SECTION PROPERTIES

Designation	h	h₁/h₂	A	I	yb	Sb	St	wt
	in.	in./in.	in.²	in.⁴	in.	in.³	in.³	plf
20LB20	20	12/8	304	10,160	8.74	1,163	902	317
20LB24	24	12/12	384	17,568	10.50	1,673	1,301	400
20LB28	28	16/12	432	27,883	12.22	2,282	1,767	450
20LB32	32	20/12	480	41,600	14.00	2,971	2,311	500
20LB36	36	24/12	528	59,119	15.82	3,737	2,930	550
20LB40	40	24/16	608	81,282	17.47	4,653	3,608	633
20LB44	44	28/16	656	108,107	19.27	5,610	4,372	683
20LB48	48	32/16	704	140,133	21.09	6,645	5,208	733
20LB52	52	36/16	752	177,752	22.94	7,749	6,117	783
20LB56	56	40/16	800	221,355	24.80	8,926	7,095	833
20LB60	60	44/16	848	271,332	26.68	10,170	8,143	883

1. Check local area for availability of other sizes.
2. Safe loads shown include 50% superimposed dead load and 50% live load. 800 psi top tension has been allowed, therefore, additional top reinforcement is required.
3. Safe loads can be significantly increased by use of structural composite topping.

Table of safe superimposed service load (plf) and cambers (in.)

No Topping **20LB**

DESIG-	NO.	ys, in.	SPAN, FT																	
nation	Strand	end / center	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50
20LB20	**98-S**	**2.44** **2.44**	**7442** 0.3 0.1	**5823** 0.4 0.2	**4665** 0.5 0.2	**3809** 0.6 0.2	**3157** 0.7 0.2	**2650** 0.8 0.2	**2248** 0.9 0.3	**1923** 1.0 0.3	**1657** 1.1 0.3	**1437** 1.2 0.3	**1253** 1.3 0.2							
20LB24	**108-S**	**2.80** **2.80**	**10828** 0.3 0.1	**8484** 0.3 0.1	**6807** 0.4 0.1	**5566** 0.5 0.1	**4622** 0.6 0.1	**3888** 0.7 0.2	**3305** 0.7 0.2	**2835** 0.8 0.2	**2450** 0.9 0.2	**2131** 1.0 0.1	**1864** 1.1 0.1	**1638** 1.1 0.1	**1445** 1.2 0.0	**1279** 1.2 0.0	**1135** 1.3 -0.1			
20LB28	**128-S**	**3.33** **3.33**			**9319** 0.4 0.1	**7635** 0.4 0.1	**6354** 0.5 0.2	**5357** 0.6 0.2	**4566** 0.7 0.2	**3928** 0.8 0.2	**3406** 0.8 0.2	**2973** 0.9 0.2	**2610** 1.0 0.2	**2303** 1.1 0.2	**2041** 1.1 0.2	**1815** 1.2 0.1	**1620** 1.3 0.1	**1449** 1.3 0.0	**1300** 1.4 0.0	**1168** 1.4 -0.1
20LB32	**148-S**	**3.71** **3.71**				**10132** 0.4 0.1	**8446** 0.5 0.2	**7133** 0.5 0.2	**6091** 0.6 0.2	**5251** 0.7 0.2	**4563** 0.8 0.2	**3994** 0.9 0.2	**3516** 0.9 0.2	**3112** 1.0 0.2	**2767** 1.1 0.2	**2470** 1.2 0.2	**2212** 1.2 0.2	**1988** 1.3 0.2	**1791** 1.4 0.2	**1617** 1.4 0.1
20LB36	**168-S**	**4.25** **4.25**					**10721** 0.4 0.2	**9066** 0.5 0.2	**7752** 0.6 0.2	**6692** 0.6 0.2	**5825** 0.7 0.2	**5106** 0.8 0.2	**4504** 0.9 0.3	**3994** 1.0 0.3	**3559** 1.0 0.3	**3184** 1.1 0.3	**2859** 1.2 0.3	**2576** 1.3 0.3	**2327** 1.3 0.2	**2108** 1.4 0.2
20LB40	**188-S**	**4.89** **4.89**						**11137** 0.5 0.2	**9528** 0.5 0.2	**8230** 0.6 0.2	**7168** 0.7 0.2	**6288** 0.7 0.2	**5550** 0.8 0.2	**4925** 0.9 0.3	**4392** 0.9 0.3	**3934** 1.0 0.3	**3536** 1.1 0.3	**3189** 1.1 0.3	**2885** 1.2 0.3	**2616** 1.3 0.2
20LB44	**198-S**	**5.05** **5.05**								**10169** 0.5 0.2	**8866** 0.6 0.2	**7787** 0.7 0.2	**6883** 0.7 0.2	**6118** 0.8 0.2	**5464** 0.9 0.2	**4902** 0.9 0.2	**4414** 1.0 0.2	**3989** 1.1 0.2	**3616** 1.1 0.2	**3287** 1.2 0.2
20LB48	**218-S**	**5.81** **5.81**									**10479** 0.5 0.2	**9211** 0.6 0.2	**8148** 0.7 0.2	**7249** 0.7 0.2	**6481** 0.8 0.2	**5820** 0.9 0.2	**5247** 0.9 0.2	**4747** 1.0 0.2	**4309** 1.1 0.2	**3922** 1.1 0.2
20LB52	**238-S**	**6.17** **6.17**										**10946** 0.6 0.2	**9691** 0.6 0.2	**8629** 0.7 0.2	**7722** 0.8 0.2	**6942** 0.8 0.3	**6266** 0.9 0.3	**5676** 1.0 0.3	**5158** 1.0 0.3	**4701** 1.1 0.3
20LB56	**258-S**	**6.64** **6.64**											**11314** 0.6 0.2	**10081** 0.7 0.2	**9029** 0.7 0.3	**8123** 0.8 0.3	**7338** 0.9 0.3	**6653** 0.9 0.3	**6052** 1.0 0.3	**5522** 1.1 0.3
20LB60	**278-S**	**7.33** **7.33**													**10347** 0.7 0.2	**9314** 0.8 0.3	**8420** 0.8 0.3	**7639** 0.9 0.3	**6954** 1.0 0.3	**6350** 1.0 0.3

SHORING: All precast members are assumed NOT shored — the precast section alone carries its own weight and the weight of any cast-in-place topping.

Calculated by PCI method at f'c = 6,000 psi (same sections, strand counts and span ranges as PCI Design Handbook tables; method reproduces the published 5,000 psi values within 1%). Strength by strain compatibility, 1.2D + 1.6L; bottom tension ≤ 12√f'c.
Service top-fiber compression reaches about 0.75 f'c at the tabulated loads (as in the published PCI tables) — exceeds the ACI 318 limit of 0.60 f'c; engineer of record to verify. Tan cells: release strength above 3,500 psi. Negative cambers (downward) shown in red. Shear and ledge design by engineer of record.

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SHEET TITLE
L-BEAMS
20LB SERIES — SECTION PROPERTIES & LOAD TABLE
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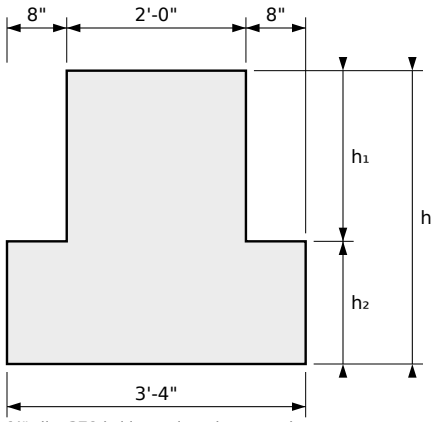
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SCALE **NTS**
DATE **10/24/2026**

INVERTED TEE BEAMS 40IT Series · Normal Weight Concrete

f'c = 6,000 psi · f'ci = 3,500 psi

SECTION



½" dia. 270 ksi low-relaxation strand

KEY

9570	← Safe superimposed load, plf
0.5	← Camber at erection, in.
0.2	← Long-time camber, in.

SECTION PROPERTIES

Designation	h	h₁/h₂	A	I	yb	Sb	St	wt
	in.	in./in.	in.²	in.⁴	in.	in.³	in.³	plf
40IT20	20	12/8	608	20,321	8.74	2,325	1,805	633
40IT24	24	12/12	768	35,136	10.50	3,346	2,603	800
40IT28	28	16/12	864	55,765	12.22	4,563	3,534	900
40IT32	32	20/12	960	83,200	14.00	5,943	4,622	1,000
40IT36	36	24/12	1,056	118,237	15.82	7,474	5,859	1,100
40IT40	40	24/16	1,216	162,564	17.47	9,305	7,215	1,267
40IT44	44	28/16	1,312	216,215	19.27	11,220	8,743	1,367
40IT48	48	32/16	1,408	280,266	21.09	13,289	10,415	1,467
40IT52	52	36/16	1,504	355,503	22.94	15,497	12,233	1,567

1. Check local area for availability of other sizes.
2. Safe loads shown include 50% superimposed dead load and 50% live load. 800 psi top tension has been allowed, therefore, additional top reinforcement is required.
3. Safe loads can be significantly increased by use of structural composite topping.

Table of safe superimposed service load (plf) and cambers (in.)

No Topping **40IT**

DESIG-	NO.	ys, in.	SPAN, FT																	
nation	Strand	end / center	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50
40IT20	**188-S**	**2.22** **2.22**			**9570** 0.5 0.2	**7815** 0.6 0.2	**6480** 0.7 0.2	**5442** 0.9 0.3	**4617** 1.0 0.3	**3952** 1.1 0.3	**3408** 1.2 0.3	**2957** 1.3 0.3	**2579** 1.4 0.3	**2259** 1.4 0.2	**1986** 1.5 0.2	**1751** 1.6 0.1	**1548** 1.6 0.0	**1370** 1.6 –0.1	**1214** 1.6 –0.2	
40IT24	**228-S**	**2.67** **2.67**				**11361** 0.6 0.2	**9437** 0.6 0.2	**7940** 0.7 0.3	**6752** 0.8 0.3	**5794** 0.9 0.3	**5009** 1.0 0.3	**4359** 1.1 0.3	**3814** 1.2 0.3	**3353** 1.3 0.3	**2960** 1.4 0.3	**2621** 1.5 0.2	**2327** 1.5 0.2	**2071** 1.6 0.1	**1846** 1.6 0.0	**1648** 1.6 –0.1
40IT28	**268-S**	**3.08** **3.08**						**11011** 0.7 0.2	**9388** 0.8 0.3	**8079** 0.8 0.3	**7008** 0.9 0.3	**6120** 1.0 0.3	**5376** 1.1 0.3	**4746** 1.2 0.4	**4208** 1.3 0.3	**3745** 1.4 0.3	**3344** 1.5 0.3	**2994** 1.5 0.3	**2687** 1.6 0.2	**2416** 1.7 0.2
40IT32	**308-S**	**3.33** **3.33**								**10858** 0.8 0.3	**9440** 0.9 0.3	**8265** 1.0 0.3	**7280** 1.1 0.4	**6446** 1.2 0.4	**5734** 1.3 0.4	**5122** 1.3 0.4	**4591** 1.4 0.4	**4127** 1.5 0.4	**3721** 1.6 0.4	**3362** 1.7 0.4
40IT36	**328-S**	**3.50** **3.50**										**10723** 0.9 0.3	**9463** 0.9 0.3	**8397** 1.0 0.3	**7486** 1.1 0.3	**6703** 1.2 0.3	**6024** 1.3 0.3	**5432** 1.4 0.3	**4912** 1.4 0.3	**4453** 1.5 0.3
40IT40	**388-S**	**4.32** **4.32**												**10240** 1.0 0.4	**9137** 1.1 0.4	**8187** 1.1 0.4	**7363** 1.2 0.4	**6645** 1.3 0.4	**6014** 1.4 0.4	**5458** 1.4 0.4
40IT44	**408-S**	**4.40** **4.40**													**11369** 1.0 0.3	**10203** 1.0 0.3	**9193** 1.1 0.3	**8312** 1.2 0.4	**7538** 1.3 0.4	**6856** 1.3 0.4
40IT48	**448-S**	**4.87** **4.87**															**11046** 1.1 0.4	**10000** 1.1 0.4	**9081** 1.2 0.4	**8271** 1.3 0.4
40IT52	**468-S**	**5.05** **5.05**																	**10869** 1.1 0.3	**9912** 1.2 0.3

SHORING: All precast members are assumed NOT shored — the precast section alone carries its own weight and the weight of any cast-in-place topping.

Calculated by PCI method at f'c = 6,000 psi (same sections, strand counts and span ranges as PCI Design Handbook tables; method reproduces the published 5,000 psi values within 1%). Strength by strain compatibility, 1.2D + 1.6L; bottom tension ≤ 12√f'c.
Service top-fiber compression reaches about 0.75 f'c at the tabulated loads (as in the published PCI tables) — exceeds the ACI 318 limit of 0.60 f'c; engineer of record to verify. Tan cells: release strength above 3,500 psi. Negative cambers (downward) shown in red. Shear and ledge design by engineer of record.

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SHEET TITLE
INVERTED TEE BEAMS
40IT SERIES — SECTION PROPERTIES & LOAD TABLE
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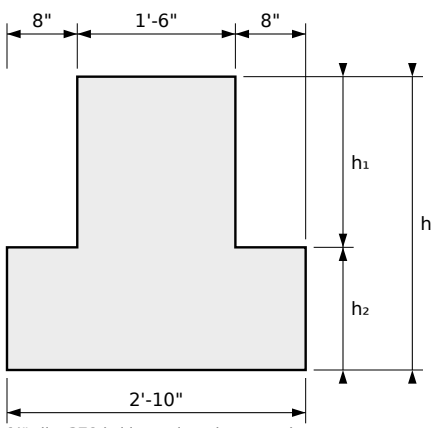
SCALE **NTS**
DATE **10/24/2026**

INVERTED TEE BEAMS

34IT Series · Normal Weight Concrete

f'c = 6,000 psi · f'ci = 3,500 psi

SECTION



½" dia. 270 ksi low-relaxation strand

KEY

8885	← Safe superimposed load, plf
0.4	← Camber at erection, in.
0.1	← Long-time camber, in.

SECTION PROPERTIES

Designation	h in.	h₁/h₂ in./in.	A in.²	I in.⁴	yb in.	Sb in.³	St in.³	wt plf
34IT20	20	12/8	488	16,082	8.43	1,908	1,390	508
34IT24	24	12/12	624	27,825	10.15	2,741	2,009	650
34IT28	28	16/12	696	44,130	11.79	3,743	2,722	725
34IT32	32	20/12	768	65,856	13.50	4,878	3,560	800
34IT36	36	24/12	840	93,616	15.26	6,135	4,514	875
34IT40	40	24/16	976	128,656	16.85	7,635	5,558	1,017
34IT44	44	28/16	1,048	171,157	18.58	9,212	6,733	1,092
34IT48	48	32/16	1,120	221,906	20.34	10,910	8,023	1,167
34IT52	52	36/16	1,192	281,504	22.13	12,721	9,424	1,242
34IT60	60	44/16	1,336	439,623	25.78	17,053	12,847	1,392

1. Check local area for availability of other sizes.
2. Safe loads shown include 50% superimposed dead load and 50% live load. 800 psi top tension has been allowed, therefore, additional top reinforcement is required.
3. Safe loads can be significantly increased by use of structural composite topping.

Table of safe superimposed service load (plf) and cambers (in.)

No Topping **34IT**

DESIG-nation	NO. Strand	ys, in. end / center	SPAN, FT 16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50
34IT20	**148-S**	**2.29** **2.29**		**8885** 0.4 0.1	**7115** 0.5 0.2	**5804** 0.6 0.2	**4808** 0.7 0.2	**4032** 0.8 0.2	**3417** 0.9 0.2	**2920** 1.0 0.2	**2514** 1.1 0.2	**2177** 1.1 0.2	**1895** 1.2 0.2	**1656** 1.3 0.1	**1453** 1.3 0.1	**1277** 1.4 0.0				
34IT24	**178-S**	**2.59** **2.59**			**10481** 0.4 0.2	**8566** 0.5 0.2	**7109** 0.6 0.2	**5975** 0.7 0.2	**5075** 0.8 0.2	**4350** 0.9 0.3	**3756** 1.0 0.3	**3263** 1.0 0.3	**2851** 1.1 0.3	**2502** 1.2 0.2	**2203** 1.3 0.2	**1947** 1.3 0.2	**1725** 1.4 0.1	**1531** 1.4 0.0	**1360** 1.4 –0.1	**1210** 1.4 –0.2
34IT28	**208-S**	**3.00** **3.00**					**9836** 0.5 0.2	**8289** 0.6 0.2	**7062** 0.7 0.2	**6072** 0.8 0.3	**5262** 0.9 0.3	**4590** 1.0 0.3	**4027** 1.0 0.3	**3551** 1.1 0.3	**3144** 1.2 0.3	**2794** 1.3 0.2	**2491** 1.3 0.2	**2226** 1.4 0.2	**1994** 1.4 0.1	**1789** 1.5 0.1
34IT32	**238-S**	**3.48** **3.48**						**10917** 0.6 0.2	**9319** 0.6 0.2	**8030** 0.7 0.2	**6975** 0.8 0.3	**6100** 0.9 0.3	**5367** 1.0 0.3	**4747** 1.0 0.3	**4218** 1.1 0.3	**3762** 1.2 0.3	**3367** 1.3 0.3	**3022** 1.3 0.3	**2720** 1.4 0.2	**2453** 1.4 0.2
34IT36	**248-S**	**3.50** **3.50**								**10490** 0.6 0.2	**9129** 0.7 0.2	**8001** 0.8 0.2	**7056** 0.8 0.2	**6256** 0.9 0.2	**5573** 1.0 0.2	**4986** 1.1 0.2	**4476** 1.1 0.2	**4032** 1.2 0.2	**3642** 1.3 0.2	**3297** 1.3 0.1
34IT40	**308-S**	**4.40** **4.40**									**11103** 0.7 0.3	**9736** 0.8 0.3	**8590** 0.8 0.3	**7621** 0.9 0.3	**6793** 1.0 0.3	**6081** 1.1 0.4	**5463** 1.1 0.4	**4925** 1.2 0.4	**4452** 1.3 0.4	**4035** 1.3 0.4
34IT44	**308-S**	**4.40** **4.40**											**10678** 0.7 0.2	**9488** 0.8 0.2	**8472** 0.9 0.2	**7597** 0.9 0.2	**6839** 1.0 0.2	**6178** 1.1 0.2	**5598** 1.1 0.2	**5086** 1.2 0.2
34IT48	**338-S**	**4.73** **4.73**													**10237** 0.8 0.2	**9192** 0.9 0.3	**8287** 1.0 0.3	**7497** 1.0 0.3	**6804** 1.1 0.3	**6192** 1.1 0.3
34IT52	**368-S**	**5.22** **5.22**														**10856** 0.8 0.3	**9798** 0.9 0.3	**8874** 1.0 0.3	**8063** 1.0 0.3	**7348** 1.1 0.3
34IT56	**398-S**	**5.59** **5.59**																	**9474** 1.0 0.3	**8643** 1.1 0.3
34IT60	**408-S**	**6.00** **6.00**																	**10932** 0.9 0.3	**9982** 1.0 0.3

SHORING: All precast members are assumed NOT shored — the precast section alone carries its own weight and the weight of any cast-in-place topping.

Calculated by PCI method at f'c = 6,000 psi (same sections, strand counts and span ranges as PCI Design Handbook tables; method reproduces the published 5,000 psi values within 1%). Strength by strain compatibility, 1.2D + 1.6L; bottom tension ≤ 12√f'c.
Service top-fiber compression reaches about 0.75 f'c at the tabulated loads (as in the published PCI tables) — exceeds the ACI 318 limit of 0.60 f'c; engineer of record to verify. Tan cells: release strength above 3,500 psi. Negative cambers (downward) shown in red. Shear and ledge design by engineer of record.

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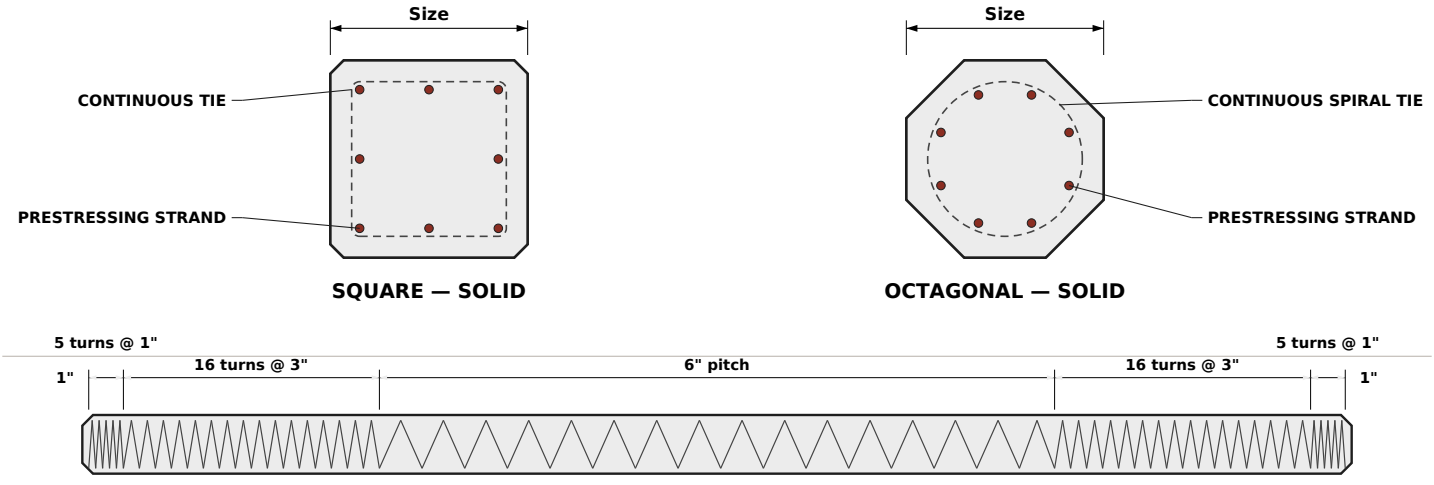
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SCALE **NTS**
DATE **10/24/2026**

PRECAST PILES Square & Octagonal · Solid · Prestressed

ART standard f'c = 6,000 psi · fpc = 700 psi

PILE SECTIONS & TYPICAL ELEVATION



TYPICAL ELEVATION — CONTINUOUS SPIRAL TIE

SECTION PROPERTIES							ALLOWABLE CONCENTRIC SERVICE LOAD, tons [b]			
SIZE (in.)	AREA (in.²)	WEIGHT (plf)	MOMENT OF INERTIA (in.⁴)	SECTION MODULUS (in.³)	RADIUS OF GYRATION (in.)	PERIMETER (ft)	f'c (psi) 5,000	6,000	8,000	10,000
SQUARE PILES — SOLID										
10	100	104	833	167	2.89	3.33	**73**	**89**	**122**	**156**
12	144	150	1,728	288	3.46	4.00	**105**	**129**	**176**	**224**
14	196	204	3,201	457	4.04	4.67	**143**	**175**	**240**	**305**
16	256	267	5,461	683	4.62	5.33	**187**	**229**	**314**	**398**
18	324	338	8,748	972	5.20	6.00	**236**	**290**	**397**	**504**
20	400	417	13,333	1,333	5.77	6.67	**292**	**358**	**490**	**622**
24	576	600	27,648	2,304	6.93	8.00	**420**	**515**	**705**	**896**
OCTAGONAL PILES — SOLID										
10	83	85	555	111	2.59	2.76	**60**	**74**	**101**	**129**
12	119	125	1,134	189	3.09	3.31	**86**	**106**	**145**	**185**
14	162	169	2,105	301	3.60	3.87	**118**	**145**	**198**	**252**
16	212	220	3,592	449	4.12	4.42	**154**	**189**	**259**	**330**
18	268	280	5,705	639	4.61	4.97	**195**	**240**	**328**	**417**
20	331	345	8,770	877	5.15	5.52	**241**	**296**	**405**	**515**
22	401	420	12,837	1,167	5.66	6.08	**292**	**359**	**491**	**624**
24	477	495	18,180	1,515	6.17	6.63	**348**	**427**	**584**	**742**

a. Form dimensions may vary with producers, with corresponding variations in section properties.
b. Allowable loads based on N = Ag (0.33 f'c – 0.27 fpc); fpc = 700 psi. ART Constructors standard pile concrete is f'c = 6,000 psi (shaded column); other strengths shown for comparison — confirm availability with ART Constructors.
c. Allowable loads are for concentric axial service load on the pile section only; geotechnical capacity, driving stresses, handling, buckling/unbraced length, splices and lateral load to be checked by the engineer of record.
d. Section properties and loads per PCI Design Handbook Table 2.8.1 (loads verified with the formula above, within 1 ton).

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