

Project: federal street

Location: JST1 Floor Joists

Floor Joist

[2012 International Building Code(2012 NDS)]

SERIES AJS 25 / 11.875 - Boise Cascade x 18.0 FT @ 16 O.C.

Section Adequate By: 44.7%

Controlling Factor: End Reaction


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DEFLECTIONS		Center
Live Load	0.27	IN L/789
Dead Load	0.10	in
Total Load	0.38	IN L/574
Live Load Deflection Criteria: L/480 Total Load Deflection Criteria: L/360		

REACTIONS		A	B
Live Load	480 lb	480 lb	
Dead Load	180 lb	180 lb	
Total Load	660 lb	660 lb	
Bearing Length	1.75 in	1.75 in	
Web Stiffeners	No	No	

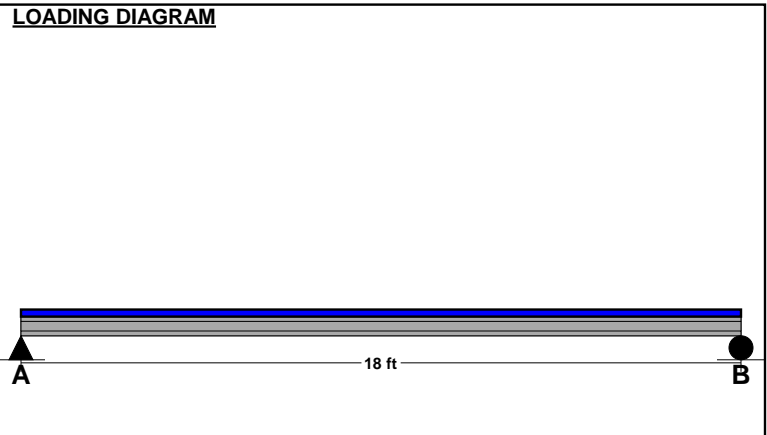
SUPPORT LOADS		A	B
Live Load	360 plf	360 plf	
Dead Load	135 plf	135 plf	
Total Load	495 plf	495 plf	

I-JOIST PROPERTIES			
SERIES AJS 25 / 11.875 - Boise Cascade			
	Base Values		Adjusted
Moment Cap:	Mcap =	6960 ft-lb	Mcap' = 6960 ft-lb
		<i>Cd = 1.00</i>	
Shear Stress:	Vcap =	1490 lb	Vcap' = 1490 lb
		<i>Cd = 1.00</i>	
End Reaction:	Rcap =	955 lb	Rcap' = 955 lb
		<i>Cd = 1.00</i>	
w/ web stiffeners:	RcapWS =	1335 lb	RcapWS' = 1335 lb
		<i>Cd = 1.00</i>	
Interior Reaction:	IRcap =	2690 lb	IRcap' = 2690 lb
		<i>Cd = 1.00</i>	
w/ web stiffeners:	IRcapWS =	3190 lb	IRcapWS' = 3190 lb
		<i>Cd = 1.00</i>	
E.I.:	EI =	519 lb-in ²	EI' = 519 lb-in ²

Controlling Moment 2970 ft-lb
 9.0 Ft from left support of span 3 (Right Span)
 Created by combining all dead and live loads.

Controlling Shear: -660 lb
 At right support of span 2 (Center Span)
 Created by combining all dead and live loads.

Comparisons with required sections:	Req'd	Provided
E.I.:	325 in ² -lb E6	519 in ² -lb xE6
Moment:	2970 ft-lb	6960 ft-lb
Shear:	-660 lb	1490 lb



JOIST DATA		Center
Span Length	18	ft
Unbraced Length-Top	0	ft
Unbraced Length-Bottom	0	ft
Floor sheathing applied to top of joists-top of joists fully braced.		
Sheathing/sheetrock applied to bottom of joists-bottom of joists fully braced.		
Floor Duration Factor	1.00	

JOIST LOADING		Center
Uniform Floor Loading		
Live Load	LL =	40 psf
Dead Load	DL =	15 psf
Total Load	TL =	55 psf
TL Adj. For Joist Spacing	wT =	73.3 plf

NOTES