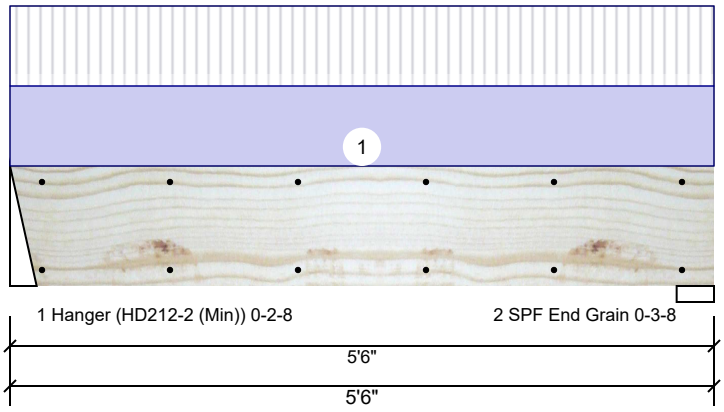
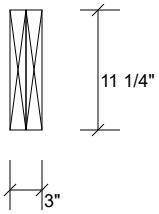
Client:	Cash	Date:	8/4/2024
Project:	Charles Moore	Input by:	
Address:		Job Name:	J0724-4282 Beams
		Project #:	J0724-4282 Beams

2-2X12 FL SP #2 2.000" X 12.000" 2-Ply - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II	Ceiling:	Gypsum 1/2"
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	891	891	0	0	0
2	Vertical	918	918	0	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.500"	Vert	42%	891 / 891	1782	L	D+L
2 - SPF End Grain	3.500"	Vert	31%	918 / 918	1837	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2160 ft-lb	2'8 1/2"	3955 ft-lb	0.546 (55%)	D+L	L
Unbraced	2160 ft-lb	2'8 1/2"	3746 ft-lb	0.577 (58%)	D+L	L
Shear	1028 lb	1'1 3/4"	3938 lb	0.261 (26%)	D+L	L
LL Defl inch	0.010 (L/6001)	2'8 1/2"	0.128 (L/480)	0.080 (8%)	L	L
TL Defl inch	0.020 (L/3001)	2'8 1/2"	0.171 (L/360)	0.120 (12%)	D+L	L

Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2. Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
3. Refer to last page of calculations for fasteners required for specified loads.
4. Fill all hanger nailing holes.
5. Left Header: SPF, Thickness: 3 1/2"
6. Girders are designed to be supported on the bottom edge only.
7. Top loads must be supported equally by all plies.
8. Top must be laterally braced at end bearings.
9. Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	329 PLF	329 PLF	0 PLF	0 PLF	0 PLF	

Manufacturer Info

This design is valid until 6/28/2026

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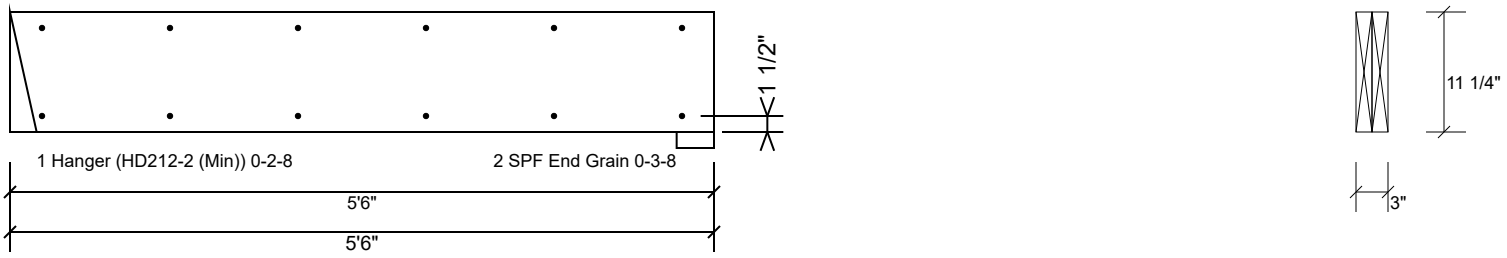

Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	202.6 PLF
Yield Limit per Fastener	101.3 lb.
C_M	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Manufacturer Info

This design is valid until 6/28/2026