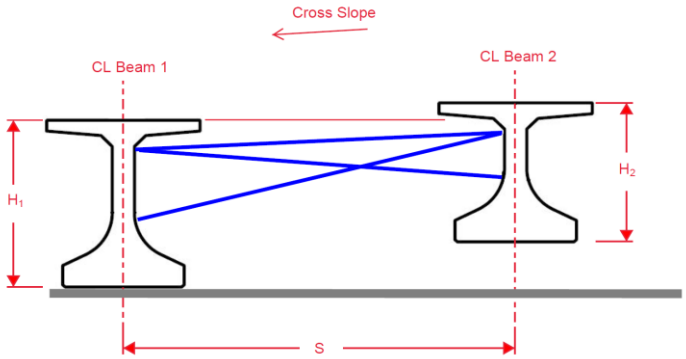
Analysis #1

B

A2B ENGINEERING, LLC CONSULTING ENGINEERS	Subject: Girder Bracing Design		
	Comp by: MLS	Date: 09/13/18	Sheet Number: of
	Check by: PRS	Job Number: 135-17-1	



Analysis No. =	1				
Description =	B				
Left Girder Height =	78	[in]	Overturning Moment =	98.7	[ft*kip]
Right Girder Height =	78	[in]	Horizontal Force =	17.8	[kip]
Girder Spacing =	10.73	[ft]			
Distance from top of left girder to bracing =	12.96	[in]	Brace E =	29000	[ksi]
Distance from bot. of left girder to bracing =	25.56	[in]	Brace A =	2	[in^2]
Distance from bot. of right girder to bracing =	12.96	[in]	Brace I =	2.85	[in^4]
Distance from bot. of right girder to bracing =	25.56	[in]			
Cross Slope =	0				

Brace Type =	MB 8'-14'
Lines of horizontal Bracing per brace line =	1
Lines of diagonal bracing per brace line =	1

	Member		
	1	2	3
Tensile Strength	14.371	14.371	14.371
Compressive Strenght	14.371	14.371	14.371
Member Force (Stage 2 H)	-3.297	-2.999	-12.206
Member Force (Stage 3 OM)	15.805	14.376	-30.946
Member Force Per Brace (Stage 2 H)	-3.297	-2.999	-12.206
Member Force Per Brace (Stage 3 OM)	15.805	14.376	-30.946
Bracing lines Multiplier (stage 2 H)	1	1	1
Bracing Lines Multiplier (Stage 3 OM)	2	2	3

Bracing Lines Multiplier Required =	3	
Stiffness =	35608	[kip-ft/rad]
Span Length =	163	[ft]
Bracing Point Type =	End Points only	
Empirical Scale Factor =	1	
Pu =	75	[psf]
Pavg =	37.5	[psf]
Beam Weight =	1146.44	[plf]
C0 =	1.806991999	
C =	0.14738438	>1
Check =	NG	