

LOAD FACTORS:

DESIGN LOAD RATING FACTORS	LIMIT STATE	$\gamma_{DC}$	$\gamma_{DW}$
	STRENGTH I	1.25	1.50
	SERVICE III	1.00	1.00

LOAD AND RESISTANCE FACTOR RATING (LRFR) SUMMARY FOR PRESTRESSED CONCRETE GIRDERS

LEVEL	VEHICLE	WEIGHT (W) (TONS)	CONTROLLING LOAD RATING #	MINIMUM RATING FACTORS (RF)	TONS = W x RF	STRENGTH I LIMIT STATE										SERVICE III LIMIT STATE										COMMENT NUMBER
						MOMENT					SHEAR					MOMENT										
						LIVE-LOAD FACTORS ( $\gamma_{LL}$ )	DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN	GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (FT)	DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN	GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (FT)	LIVE-LOAD FACTORS ( $\gamma_{LL}$ )	DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN	GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (FT)				
DESIGN LOAD RATING	HL-93 (INVENTORY)	N/A	①	1.08	--	1.75	0.893	1.40	A	I	37.79	1.077	1.13	A	I	14.69	0.80	0.893	1.08	A	I	37.79				
	HL-93 (OPERATING)	N/A		1.68	--	1.35	0.893	1.81	A	I	37.79	1.077	1.68	A	I	68.59	N/A	--	--	--	--	--				
	HS-20 (INVENTORY)	36.000	②	1.44	51.840	1.75	0.893	1.85	A	I	37.79	1.077	1.71	A	I	68.59	0.80	0.893	1.44	A	I	37.79				
	HS-20 (OPERATING)	36.000		2.24	80.640	1.35	0.893	2.40	A	I	37.79	1.077	2.24	A	I	68.59	N/A	--	--	--	--	--				
LEGAL LOAD RATING	SINGLE VEHICLE (SV)	SNSH	13.500		3.29	44.415	1.40	0.893	5.29	A	I	37.79	1.077	5.39	A	I	68.59	0.80	0.893	3.29	A	I	37.79			
		SNGARBS2	20.000		2.43	48.600	1.40	0.893	3.91	A	I	37.79	1.077	3.75	A	I	68.59	0.80	0.893	2.43	A	I	37.79			
		SNAGRIS2	22.000		2.29	50.380	1.40	0.893	3.68	A	I	37.79	1.077	3.45	A	I	68.59	0.80	0.893	2.29	A	I	37.79			
		SNCOTTS3	27.250		1.63	44.418	1.40	0.893	2.62	A	I	37.79	1.077	2.62	A	I	68.59	0.80	0.893	1.63	A	I	37.79			
		SNAGGRS4	34.925		1.36	47.498	1.40	0.893	2.18	A	I	37.79	1.077	2.20	A	I	68.59	0.80	0.893	1.36	A	I	37.79			
		SNS5A	35.550		1.32	46.926	1.40	0.893	2.13	A	I	37.79	1.077	2.17	A	I	68.59	0.80	0.893	1.32	A	I	37.79			
		SNS6A	39.950		1.21	48.340	1.40	0.893	1.95	A	I	37.79	1.077	2.00	A	I	68.59	0.80	0.893	1.21	A	I	37.79			
		SNS7B	42.000		1.15	48.300	1.40	0.893	1.86	A	I	37.79	1.077	1.90	A	I	68.59	0.80	0.893	1.15	A	I	37.79			
	TRUCK TRACTOR SEMI-TRAILER (TTST)	TNAGRIT3	33.000		1.48	48.840	1.40	0.893	2.38	A	I	37.79	1.077	2.46	A	I	68.59	0.80	0.893	1.48	A	I	37.79			
		TNT4A	33.075		1.49	49.282	1.40	0.893	2.39	A	I	37.79	1.077	2.29	A	I	68.59	0.80	0.893	1.49	A	I	37.79			
		TNT6A	41.600		1.21	50.336	1.40	0.893	1.95	A	I	37.79	1.077	1.98	A	I	68.59	0.80	0.893	1.21	A	I	37.79			
		TNT7A	42.000		1.22	51.240	1.40	0.893	1.96	A	I	37.79	1.077	1.98	A	I	68.59	0.80	0.893	1.22	A	I	37.79			
		TNT7B	42.000		1.25	52.500	1.40	0.893	2.01	A	I	37.79	1.077	1.89	A	I	68.59	0.80	0.893	1.25	A	I	37.79			
		TNAGRIT4	43.000		1.20	51.600	1.40	0.893	1.92	A	I	37.79	1.077	1.80	A	I	68.59	0.80	0.893	1.20	A	I	37.79			
		TNAGT5A	45.000		1.13	50.850	1.40	0.893	1.82	A	I	37.79	1.077	1.77	A	I	68.59	0.80	0.893	1.13	A	I	37.79			
TNAGT5B	45.000	③	1.12	50.400	1.40	0.893	1.80	A	I	37.79	1.077	1.74	A	I	68.59	0.80	0.893	1.12	A	I	37.79					

NOTES:

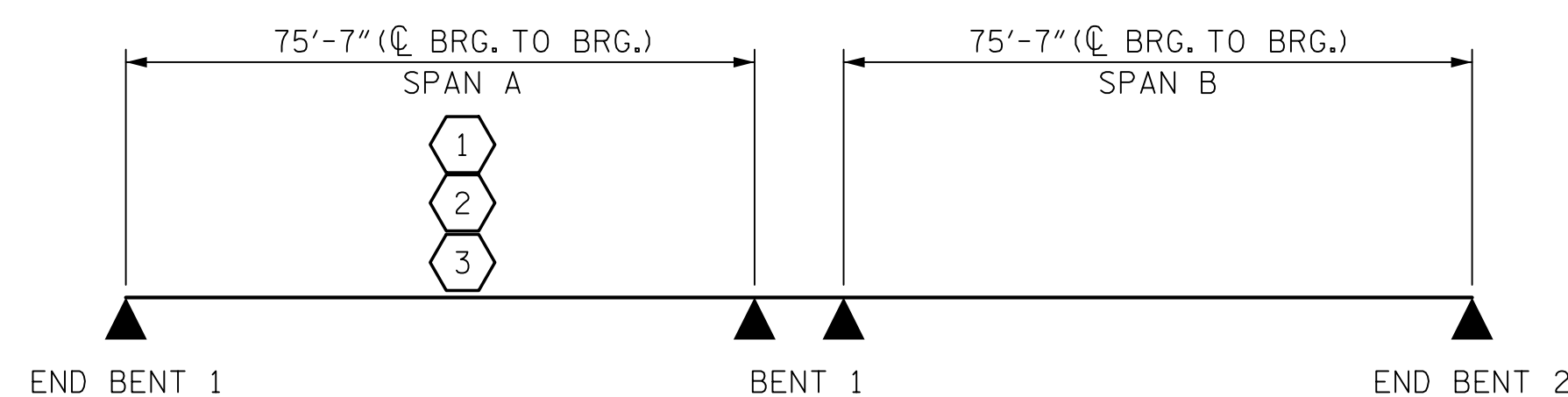
MINIMUM RATING FACTORS ARE BASED ON THE STRENGTH I AND SERVICE III LIMIT STATES.

ALLOWABLE STRESSES FOR SERVICE III LIMIT STATE ARE AS REQUIRED FOR DESIGN.

COMMENTS:

- 1.
- 2.
- 3.
- 4.

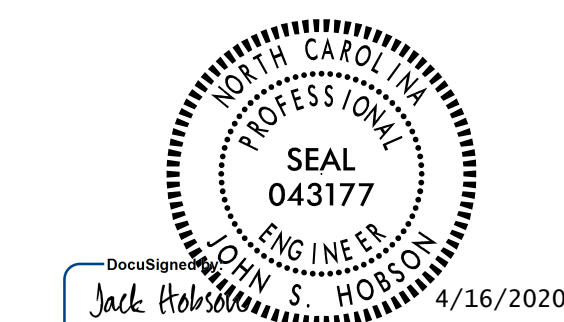
#	CONTROLLING LOAD RATING
①	DESIGN LOAD RATING (HL-93)
②	DESIGN LOAD RATING (HS-20)
③	LEGAL LOAD RATING **
**	SEE CHART FOR VEHICLE TYPE
GIRDER LOCATION	
I - INTERIOR GIRDER EL - EXTERIOR LEFT GIRDER ER - EXTERIOR RIGHT GIRDER	



LRFR SUMMARY



111 E. Hargett Street  
Suite 300  
Raleigh, NC 27601  
919-714-8670  
meadhunt.com  
NC License No. F-1235



DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

PROJECT NO. R-4707  
GUILFORD COUNTY  
STATION: 41+39.51 -Y-

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH STANDARD					
LRFR SUMMARY FOR PRESTRESSED CONCRETE GIRDERS (NON-INTERSTATE TRAFFIC)					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
①			③		
②			④		
					TOTAL SHEETS 39

ASSEMBLED BY : J.S. HOBSON DATE :10/09/18  
CHECKED BY : A.J. FORFA DATE :10/17/18  
DRAWN BY : MAA 1/08 REV. 11/12/08RR MAA/GM  
CHECKED BY : GM/DI 2/08 REV. 10/1/11 MAA/GM  
REV. 12/17 MAA/THC