

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

LOAD FACTORS:

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

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			
						LIVELOAD FACTORS	MOMENT					SHEAR					LIVELOAD FACTORS	MOMENT						
							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)		DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN		GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (ft)	
DESIGN LOAD RATING	HL-93(Inv)	N/A	1	1.04	--	1.75	0.272	1.07	A	EL	50.625	0.487	1.33	A	EL	5.063	0.80	0.272	1.04	A	EL	50.625		
	HL-93(0pr)	N/A	--	1.39	--	1.35	0.272	1.39	A	EL	50.625	0.487	1.73	A	EL	5.063	N/A	--	--	--	--	--		
	HS-20(Inv)	36.000	2	1.45	52.339	1.75	0.272	1.5	A	EL	50.625	0.487	1.8	A	EL	5.063	0.80	0.272	1.45	A	EL	50.625		
	HS-20(0pr)	36.000	--	1.94	69.971	1.35	0.272	1.94	A	EL	50.625	0.487	2.33	A	EL	5.063	N/A	--	--	--	--	--		
LEGAL LOAD RATING	SV	SNSH	13.500	--	3.46	46.689	1.4	0.272	4.46	A	EL	50.625	0.487	5.56	A	EL	5.063	0.80	0.272	3.46	A	EL	50.625	
		SNGARBS2	20.000	--	2.5	50.002	1.4	0.272	3.22	A	EL	50.625	0.487	3.88	A	EL	5.063	0.80	0.272	2.50	A	EL	50.625	
		SNAGRIS2	22.000	--	2.34	51.406	1.4	0.272	3.01	A	EL	50.625	0.487	3.58	A	EL	5.063	0.80	0.272	2.34	A	EL	50.625	
		SNCOTTS3	27.250	--	1.72	46.836	1.4	0.272	2.22	A	EL	50.625	0.487	2.77	A	EL	5.063	0.80	0.272	1.72	A	EL	50.625	
		SNAGGRS4	34.925	--	1.41	49.124	1.4	0.272	1.81	A	EL	50.625	0.487	2.25	A	EL	5.063	0.80	0.272	1.41	A	EL	50.625	
		SNS5A	35.550	--	1.38	48.969	1.4	0.272	1.78	A	EL	50.625	0.487	2.25	A	EL	5.063	0.80	0.272	1.38	A	EL	50.625	
		SNS6A	39.950	--	1.25	50.006	1.4	0.272	1.61	A	EL	50.625	0.487	2.04	A	EL	5.063	0.80	0.272	1.25	A	EL	50.625	
	SNS7B	42.000	--	1.19	50.046	1.4	0.272	1.54	A	EL	50.625	0.487	1.98	A	EL	5.063	0.80	0.272	1.19	A	EL	50.625		
	TTST	TNAGRIT3	33.000	--	1.52	50.254	1.4	0.272	1.96	A	EL	50.625	0.487	2.44	A	EL	5.063	0.80	0.272	1.52	A	EL	50.625	
		TNT4A	33.075	--	1.53	50.483	1.4	0.272	1.97	A	EL	50.625	0.487	2.4	A	EL	5.063	0.80	0.272	1.53	A	EL	50.625	
		TNT6A	41.600	--	1.24	51.446	1.4	0.272	1.59	A	EL	50.625	0.487	2.07	A	EL	5.063	0.80	0.272	1.24	A	EL	50.625	
		TNT7A	42.000	--	1.24	51.951	1.4	0.272	1.59	A	EL	50.625	0.487	2.03	A	EL	5.063	0.80	0.272	1.24	A	EL	50.625	
		TNT7B	42.000	--	1.27	53.138	1.4	0.272	1.63	A	EL	50.625	0.487	1.95	A	EL	5.063	0.80	0.272	1.27	A	EL	50.625	
		TNAGRIT4	43.000	--	1.21	52.214	1.4	0.272	1.57	A	EL	50.625	0.487	1.89	A	EL	5.063	0.80	0.272	1.21	A	EL	50.625	
TNAGT5A		45.000	--	1.15	51.749	1.4	0.272	1.48	A	EL	50.625	0.487	1.85	A	EL	5.063	0.80	0.272	1.15	A	EL	50.625		
TNAGT5B	45.000	3	1.14	51.328	1.4	0.272	1.47	A	EL	50.625	0.487	1.8	A	EL	5.063	0.80	0.272	1.14	A	EL	50.625			

NOTES:

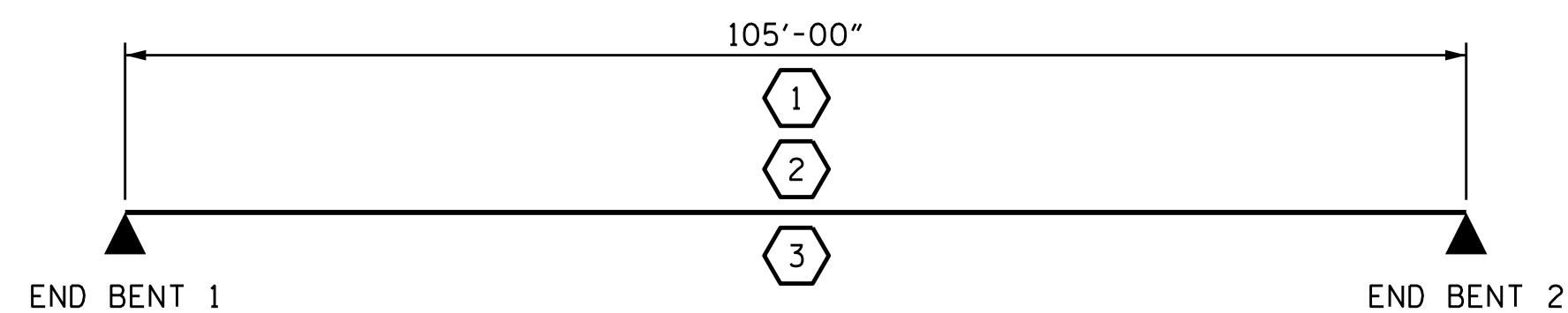
MINIMUM RATING FACTORS ARE BASED ON THE STRENGTH I AND SERVICE III LIMIT STATES.

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

COMMENTS:

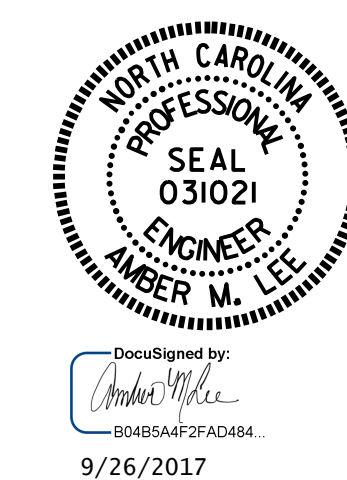
- 1.
- 2.
- 3.
- 4.

#	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

PROJECT NO. B-4978
WILKES COUNTY
 STATION: 12+36.12 -L-



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 STANDARD
 LRFR SUMMARY FOR
 PRESTRESSED
 CONCRETE GIRDERS
 (NON-INTERSTATE TRAFFIC)

ASSEMBLED BY : B. A. DUKE	DATE : 10-28-16
CHECKED BY : A. M. LEE	DATE : 8-2017
DRAWN BY : MAA 1/08	REV. 11/27/08RR MAA/GM
CHECKED BY : GM/DI 2/08	REV. 10/1/11 MAA/GM

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-4	
1			3			TOTAL SHEETS 19	
2			4				