

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	1.10	--	1.75	0.248	1.11	A	EL	23,509	0.667	1.10	A	EL	4,702	0.80	0.248	1.12	A	EL	23,509		
	HL-93(0pr)	N/A	--	1.43	--	1.35	0.248	1.44	A	EL	23,509	0.667	1.43	A	EL	4,702	N/A	--	--	--	--	--		
	HS-20(Inv)	36,000	2	1.31	47,255	1.75	0.248	1.37	A	EL	23,509	0.667	1.31	A	EL	4,702	0.80	0.248	1.38	A	EL	23,509		
	HS-20(0pr)	36,000	--	1.70	61,257	1.35	0.248	1.78	A	EL	23,509	0.667	1.70	A	EL	4,702	N/A	--	--	--	--	--		
LEGAL LOAD RATING	SV	SNSH	13,500	--	2.77	37,325	1.4	0.248	3.44	A	EL	23,509	0.667	3.63	A	EL	4,702	0.80	0.248	2.76	A	EL	23,509	
		SNGARBS2	20,000	--	2.20	44,023	1.4	0.248	2.74	A	EL	23,509	0.667	2.67	A	EL	4,702	0.80	0.248	2.20	A	EL	23,509	
		SNAGRIS2	22,000	--	2.15	47,202	1.4	0.248	2.67	A	EL	18,807	0.667	2.51	A	EL	4,702	0.80	0.248	2.15	A	EL	23,509	
		SNCOTTS3	27,250	--	1.38	37,595	1.4	0.248	1.72	A	EL	23,509	0.667	1.82	A	EL	4,702	0.80	0.248	1.38	A	EL	23,509	
		SNAGGRS4	34,925	--	1.21	42,119	1.4	0.248	1.50	A	EL	23,509	0.667	1.57	A	EL	4,702	0.80	0.248	1.21	A	EL	23,509	
		SNS5A	35,550	--	1.18	41,792	1.4	0.248	1.46	A	EL	23,509	0.667	1.62	A	EL	4,702	0.80	0.248	1.18	A	EL	23,509	
		SNS6A	39,950	--	1.10	44,031	1.4	0.248	1.37	A	EL	23,509	0.667	1.51	A	EL	4,702	0.80	0.248	1.10	A	EL	23,509	
	SNS7B	42,000	--	1.05	44,121	1.4	0.248	1.31	A	EL	23,509	0.667	1.52	A	EL	4,702	0.80	0.248	1.05	A	EL	23,509		
	TTST	TNAGRIT3	33,000	--	1.35	44,589	1.4	0.248	1.68	A	EL	23,509	0.667	1.77	A	EL	4,702	0.80	0.248	1.35	A	EL	23,509	
		TNT4A	33,075	--	1.36	45,109	1.4	0.248	1.70	A	EL	23,509	0.667	1.70	A	EL	4,702	0.80	0.248	1.36	A	EL	23,509	
		TNT6A	41,600	--	1.14	47,386	1.4	0.248	1.42	A	EL	23,509	0.667	1.65	A	EL	4,702	0.80	0.248	1.14	A	EL	23,509	
		TNT7A	42,000	--	1.16	48,636	1.4	0.248	1.44	A	EL	23,509	0.667	1.53	A	EL	4,702	0.80	0.248	1.16	A	EL	23,509	
		TNT7B	42,000	--	1.21	50,680	1.4	0.248	1.50	A	EL	23,509	0.667	1.45	A	EL	4,702	0.80	0.248	1.21	A	EL	23,509	
		TNAGRIT4	43,000	--	1.15	49,304	1.4	0.248	1.43	A	EL	23,509	0.667	1.40	A	EL	4,702	0.80	0.248	1.15	A	EL	23,509	
TNAGT5A		45,000	--	1.07	48,132	1.4	0.248	1.33	A	EL	23,509	0.667	1.43	A	EL	4,702	0.80	0.248	1.07	A	EL	23,509		
TNAGT5B	45,000	3	1.05	47,099	1.4	0.248	1.30	A	EL	23,509	0.667	1.33	A	EL	4,702	0.80	0.248	1.05	A	EL	23,509			

NOTES:

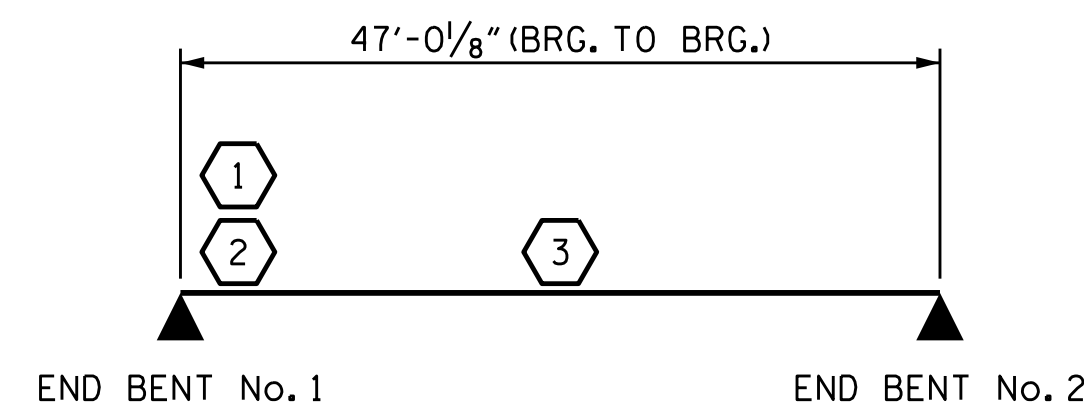
MINIMUM RATING FACTORS ARE BASED ON THE STRENGTH I AND SERVICE III LIMIT STATES.

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

COMMENTS:

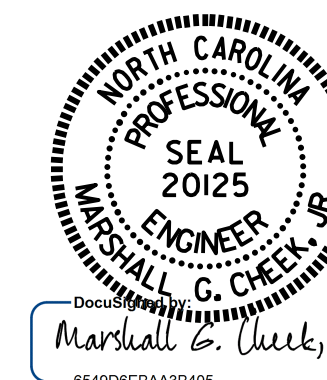
- 1.
- 2.
- 3.
- 4.

#	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-5244
BUNCOMBE COUNTY
 STATION: 14+02.00 -L-



12/21/2015

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
LRFR SUMMARY FOR PRESTRESSED CONCRETE GIRDERS (NON-INTERSTATE TRAFFIC)					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
SHEET NO. S-4					TOTAL SHEETS 18

DRAWN BY : B.N. GRADY DATE : 11/15
 CHECKED BY : D. HODGE DATE : 11/15

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED