

LOAD FACTORS:

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

LOAD AND RESISTANCE FACTOR RATING (LRFD) 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
						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	1.01	--	1.75	0.776	1.02	A	ER	30.988	0.882	1.45	A	I	12.395	0.80	0.776	1.01	B	ER	46.375		
	HL-93(0pr)	N/A	--	1.32	--	1.35	0.776	1.33	A	ER	30.988	0.882	1.88	A	I	12.395	N/A	--	--	--	--	--		
	HS-20(Inv)	36.000	②	1.30	46.860	1.75	0.776	1.31	A	ER	30.988	0.882	1.76	A	I	12.395	0.80	0.776	1.31	A	ER	30.988		
	HS-20(0pr)	36.000	--	1.69	60.745	1.35	0.776	1.69	A	ER	30.988	0.882	2.28	A	I	12.395	N/A	--	--	--	--	--		
LEGAL LOAD RATING	SV	SH	12.500	--	3.13	39.167	1.40	0.776	3.87	A	ER	30.988	0.882	5.45	A	I	12.395	0.80	0.776	3.11	A	ER	30.988	
		S3C	21.500	--	1.84	39.512	1.40	0.776	2.27	A	ER	30.988	0.882	3.22	A	I	12.395	0.80	0.776	1.83	A	ER	30.988	
		S3A	22.750	--	1.74	39.665	1.40	0.776	2.15	A	ER	30.988	0.882	3.06	A	I	12.395	0.80	0.776	1.73	A	ER	30.988	
		S4A	26.750	--	1.56	41.702	1.40	0.776	1.92	A	ER	30.988	0.882	2.72	A	I	12.395	0.80	0.776	1.55	A	ER	30.988	
		S5A	30.500	--	1.38	42.110	1.40	0.776	1.70	A	ER	30.988	0.882	2.56	A	I	12.395	0.80	0.776	1.37	A	ER	30.988	
		S6A	34.500	--	1.27	43.734	1.40	0.776	1.57	A	ER	30.988	0.882	2.34	A	I	12.395	0.80	0.776	1.26	A	ER	30.988	
	TTST	S7B	38.500	③	1.16	44.764	1.40	0.776	1.44	A	ER	30.988	0.882	2.25	A	I	12.395	0.80	0.776	1.16	A	ER	30.988	
		S7A	40.000	--	1.17	46.590	1.40	0.776	1.44	A	ER	30.988	0.882	2.37	A	I	12.395	0.80	0.776	1.16	A	ER	30.988	
		T4A	28.250	--	1.57	44.261	1.40	0.776	1.93	A	ER	30.988	0.882	2.67	A	I	12.395	0.80	0.776	1.56	A	ER	30.988	
		T5B	32.000	--	1.37	43.935	1.40	0.776	1.70	A	ER	30.988	0.882	2.59	A	I	12.395	0.80	0.776	1.36	A	ER	30.988	
		T6A	36.000	--	1.28	46.024	1.40	0.776	1.58	A	ER	30.988	0.882	2.50	A	I	12.395	0.80	0.776	1.27	A	ER	30.988	
		T7A	40.000	--	1.21	48.183	1.40	0.776	1.49	A	ER	30.988	0.882	2.40	A	I	12.395	0.80	0.776	1.20	A	ER	30.988	
	T7B	40.000	--	1.33	53.333	1.40	0.776	1.65	A	ER	30.988	0.882	2.16	A	I	12.395	0.80	0.776	1.32	A	ER	30.988		

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.

③ CONTROLLING LOAD RATING

① DESIGN LOAD RATING (HL-93)

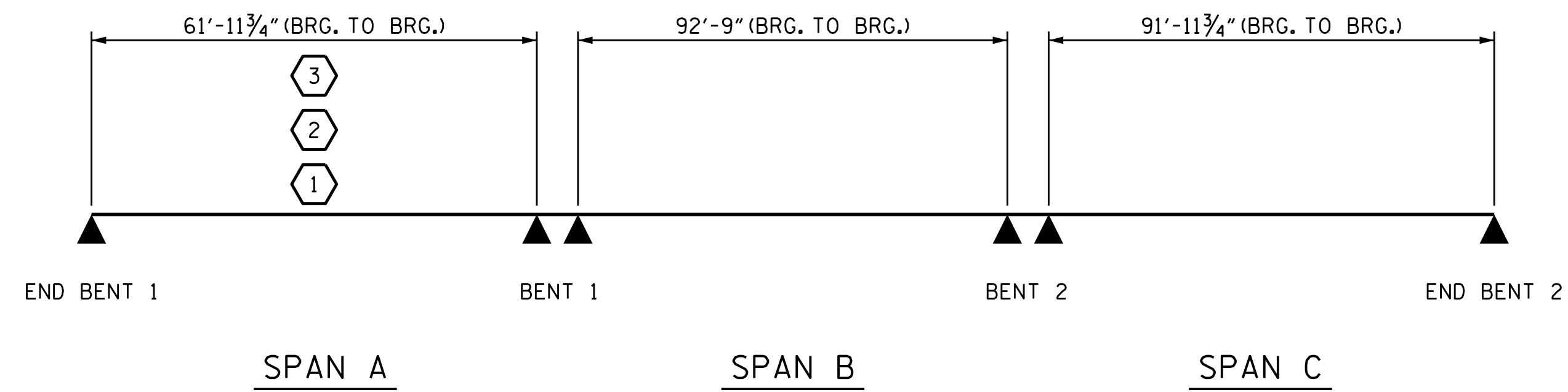
② DESIGN LOAD RATING (HS-20)

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. U-2579C
FORSYTH COUNTY
STATION: 473+70.00 -L-



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

ASSEMBLED BY : T. L. AVERETTE	DATE : 3/13/17
CHECKED BY : H. T. BARBOUR	DATE : 3/14/17
DRAWN BY : MAA	1/08
CHECKED BY : GM/DI	2/08
REV. 11/12/08RR	MAA/GM
REV. 10/1/11	MAA/GM

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S4-4
1			3			TOTAL SHEETS
2			4			33