

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	1.02	--	1.75	0.989	1.52	B	ER	54.927	1.009	1.1	A	ER	10.56	0.80	0.989	1.02	B	ER	54.927		
	HL-93(0pr)	N/A	--	1.42	--	1.35	0.989	1.97	B	ER	54.927	1.009	1.42	A	ER	10.56	N/A	--	--	--	--	--		
	HS-20(Inv)	36.000	2	1.45	52.200	1.75	0.989	2.17	B	ER	54.927	1.009	1.47	A	ER	10.56	0.80	0.989	1.45	B	ER	54.927		
	HS-20(0pr)	36.000	--	1.91	68.642	1.35	0.989	2.82	B	ER	54.927	1.009	1.91	A	ER	10.56	N/A	--	--	--	--	--		
LEGAL LOAD RATING	SV	SNSH	13.500	--	3.48	47.028	1.4	0.989	6.53	B	ER	54.927	1.009	4.55	A	ER	10.56	0.80	0.989	3.48	B	ER	54.927	
		SNGARBS2	20.000	--	2.5	50.073	1.4	0.989	4.69	B	ER	54.927	1.009	3.18	A	ER	10.56	0.80	0.989	2.50	B	ER	54.927	
		SNAGRIS2	22.000	--	2.33	51.353	1.4	0.989	4.37	B	ER	54.927	1.009	2.93	A	ER	10.56	0.80	0.989	2.33	B	ER	54.927	
		SNCOTTS3	27.250	--	1.73	47.164	1.4	0.989	3.24	B	ER	54.927	1.009	2.26	A	ER	10.56	0.80	0.989	1.73	B	ER	54.927	
		SNAGGRS4	34.925	--	1.41	49.270	1.4	0.989	2.64	B	ER	54.927	1.009	1.84	A	ER	10.56	0.80	0.989	1.41	B	ER	54.927	
		SNS5A	35.550	--	1.38	49.127	1.4	0.989	2.59	B	ER	54.927	1.009	1.85	A	ER	10.56	0.80	0.989	1.38	B	ER	54.927	
		SNS6A	39.950	--	1.25	50.077	1.4	0.989	2.35	B	ER	54.927	1.009	1.67	A	ER	10.56	0.80	0.989	1.25	B	ER	54.927	
	SNS7B	42.000	--	1.19	50.113	1.4	0.989	2.24	B	ER	54.927	1.009	1.62	A	ER	10.56	0.80	0.989	1.19	B	ER	54.927		
	TTST	TNAGRIT3	33.000	--	1.52	50.303	1.4	0.989	2.86	B	ER	54.927	1.009	2	A	ER	10.56	0.80	0.989	1.52	B	ER	54.927	
		TNT4A	33.075	--	1.53	50.512	1.4	0.989	2.86	B	ER	54.927	1.009	1.96	A	ER	10.56	0.80	0.989	1.53	B	ER	54.927	
		TNT6A	41.600	--	1.24	51.389	1.4	0.989	2.31	B	ER	54.927	1.009	1.69	A	ER	10.56	0.80	0.989	1.24	B	ER	54.927	
		TNT7A	42.000	--	1.23	51.848	1.4	0.989	2.31	B	ER	54.927	1.009	1.67	A	ER	10.56	0.80	0.989	1.23	B	ER	54.927	
		TNT7B	42.000	--	1.26	52.923	1.4	0.989	2.36	B	ER	54.927	1.009	1.6	A	ER	10.56	0.80	0.989	1.26	B	ER	54.927	
		TNAGRIT4	43.000	--	1.21	52.086	1.4	0.989	2.27	B	ER	54.927	1.009	1.55	A	ER	10.56	0.80	0.989	1.21	B	ER	54.927	
TNAGT5A		45.000	--	1.15	51.664	1.4	0.989	2.15	B	ER	54.927	1.009	1.52	A	ER	10.56	0.80	0.989	1.15	B	ER	54.927		
TNAGT5B	45.000	3	1.14	51.282	1.4	0.989	2.13	B	ER	54.927	1.009	1.48	A	ER	10.56	0.80	0.989	1.14	B	ER	54.927			

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.

CONTROLLING LOAD RATING

1 DESIGN LOAD RATING (HL-93)

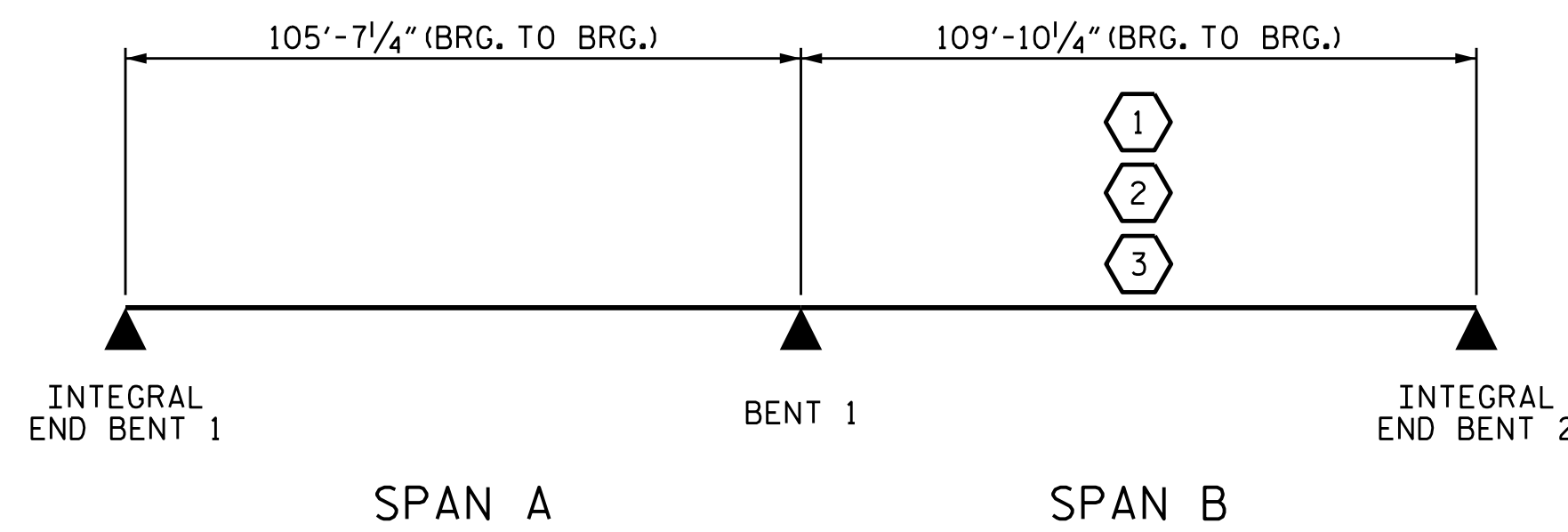
2 DESIGN LOAD RATING (HS-20)

3 LEGAL LOAD RATING **

** SEE CHART FOR VEHICLE TYPE

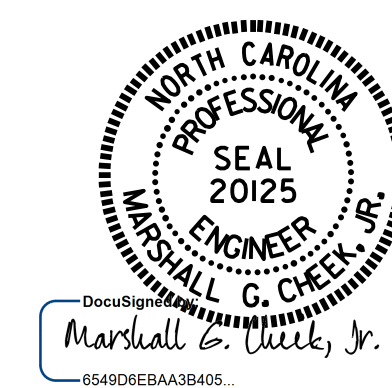
GIRDER LOCATION

I - INTERIOR GIRDER
EL - EXTERIOR LEFT GIRDER
ER - EXTERIOR RIGHT GIRDER



LRFR SUMMARY

PROJECT NO. U-2579C
FORSYTH COUNTY
 STATION: 21+27.27 -Y2-



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

STANDARD
 LRFR SUMMARY FOR
 PRESTRESSED
 CONCRETE GIRDERS
 (NON-INTERSTATE TRAFFIC)

ASSEMBLED BY : J. K. BOWLES	DATE : 1/14/16
CHECKED BY : J. P. MCCARTHA	DATE : 1/14/16
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:	S2-4
1			3			TOTAL SHEETS 30
2			4			