

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

LOAD TYPE	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 (Y 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 (Y LL)	DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN		GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (ft)						
DESIGN LOAD	HL-93 (INVENTORY)	N/A	①		--	1.75													0.80										
	HL-93 (OPERATING)	N/A			--	1.35													N/A	--	--	--	--	--					
	HS-20 (INVENTORY)	36.000	②			1.75													0.80	--	--	--	--	--					
	HS-20 (OPERATING)	36.000				1.35													N/A										
LEGAL LOAD	SINGLE VEHICLE (SV)	SH	12.500			1.40													0.80										
		S3C	21.500			1.40														0.80									
		S3A	22.750			1.40														0.80									
		S4A	26.750			1.40														0.80									
		S5A	30.500			1.40														0.80									
		S6A	34.500			1.40														0.80									
		S7B	38.500			1.40														0.80									
	S7A	40.000			1.40														0.80										
	TRUCK TRACTOR SEMI-TRAILER (TTST)	T4A	28.250				1.40													0.80									
		T5B	32.000				1.40													0.80									
T6A		36.000				1.40													0.80										
EMERGENCY VEHICLE (EV)	T7A	40.000				1.40													0.80										
	T7B	40.000				1.40													0.80										
EMERGENCY VEHICLE (EV)	EV2	28.750				1.30													0.80										
	EV3	43.000				1.30													0.80										

LOAD FACTORS:

DESIGN LOAD RATING FACTORS	LIMIT STATE	YDC	YDW
	STRENGTH I	1.25	1.50
	SERVICE III	1.00	1.00

NOTES:

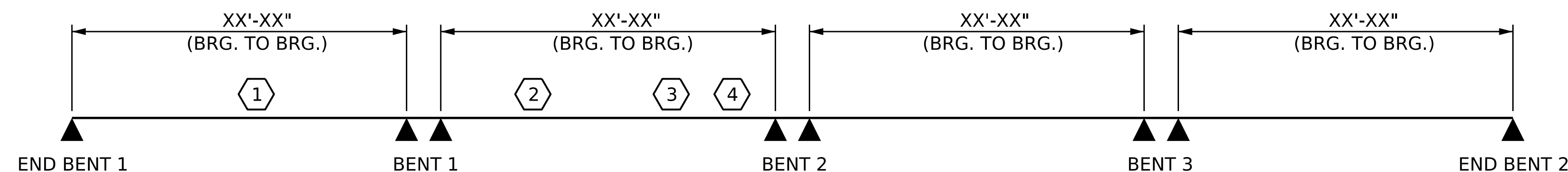
MINIMUM RATING FACTORS ARE BASED ON THE STRENGTH I AND SERVICE III LIMIT STATES.

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 **
④	EMERGENCY VEHICLE LOAD RATING **
** SEE CHART FOR VEHICLE TYPE	
GIRDER LOCATION	
I - INTERIOR GIRDER	
EL - EXTERIOR LEFT GIRDER	
ER - EXTERIOR RIGHT GIRDER	



LRFR SUMMARY

PROJECT NO. _____

_____ COUNTY

STATION: _____

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

ASSEMBLED BY:	DATE :
CHECKED BY :	DATE :
DRAWN BY : MAA 1/08	REV. 11/12/08RR MAA/GM
CHECKED BY : GM/DI 2/08	REV. 10/1/11 MAA/GM
	REV. 04/23 BNB/AAI

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

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