

LOAD FACTORS:

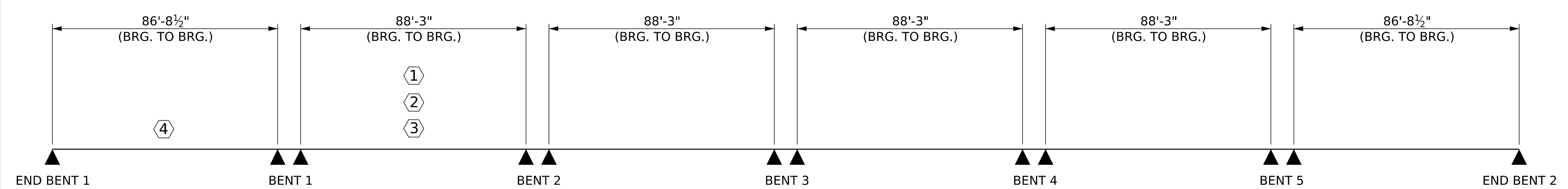
DESIGN LOAD RATING FACTORS	LIMIT STATE	γDC	γDW
	STRENGTH I	1.25	1.50
	SERVICE III	1.00	1.00

NOTES:

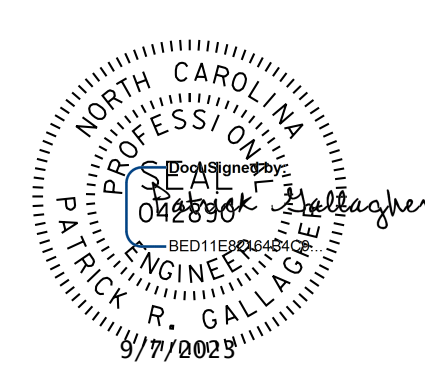
MINIMUM RATING FACTORS ARE BASED ON THE STRENGTH I AND SERVICE III LIMIT STATES.
ALLOWABLE STRESSES FOR SERVICE III LIMIT STATE ARE AS REQUIRED FOR DESIGN.

#	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	

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 (γ 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 (γ LL)	DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN	GIRDER LOCATION		DISTANCE FROM LEFT END OF SPAN (ft)	
DESIGN LOAD	HL-93 (INVENTORY)	N/A	①	1.16	--	1.75	0.703	1.18	B	I	44.13	0.802	1.32	A	EL	60.70	0.80	0.703	1.16	B	I	44.13		
	HL-93 (OPERATING)	N/A		1.52	--	1.35	0.703	1.52	B	I	44.13	0.802	2.25	A	EL	69.37	N/A	0.703	--	--	--	44.13		
	HS-20 (INVENTORY)	36.000	②	1.58	56.88	1.75	0.703	1.60	B	I	44.13	0.802	2.21	A	EL	69.37	0.80	0.703	1.58	B	I	44.13		
	HS-20 (OPERATING)	36.000		2.08	74.88	1.35	0.703	2.08	B	I	44.13	0.802	2.92	A	EL	69.37	N/A	0.703	--	--	--	44.13		
LEGAL LOAD	SINGLE VEHICLE (SV)	SNSH	13.500		3.71	50.09	1.40	0.703	4.69	B	I	44.13	0.802	7.01	A	EL	69.37	0.80	0.703	3.71	B	I	44.13	
		SNGARBS2	20.000		2.65	53.00	1.40	0.703	3.35	B	I	44.13	0.802	4.84	A	EL	69.37	0.80	0.703	2.65	B	I	44.13	
		SNAGRIS2	22.000		2.54	55.88	1.40	0.703	3.21	B	I	44.13	0.802	4.53	A	EL	69.37	0.80	0.703	2.54	B	I	44.13	
		SNCOTTS3	27.250		1.84	50.14	1.40	0.703	2.33	B	I	44.13	0.802	3.41	A	EL	69.37	0.80	0.703	1.84	B	I	44.13	
		SNAGGRS4	34.925		1.52	53.09	1.40	0.703	1.92	B	I	44.13	0.802	2.78	A	EL	69.37	0.80	0.703	1.52	B	I	44.13	
		SNS5A	35.550		1.49	52.97	1.40	0.703	1.88	B	I	44.13	0.802	2.81	A	EL	69.37	0.80	0.703	1.49	B	I	44.13	
		SNS6A	39.950		1.35	53.93	1.40	0.703	1.71	B	I	44.13	0.802	2.54	A	EL	69.37	0.80	0.703	1.35	B	I	44.13	
		SNS7B	42.000		1.24	52.08	1.40	0.703	1.57	B	I	44.13	0.802	2.39	A	EL	69.37	0.80	0.703	1.24	B	I	44.13	
	TRUCK TRACTOR SEMI-TRAILER (TST)	TNAGRIT3	33.000		1.64	54.12	1.40	0.703	2.08	B	I	44.13	0.802	3.06	A	EL	69.37	0.80	0.703	1.64	B	I	44.13	
		TNT4A	33.075		1.65	54.57	1.40	0.703	2.09	B	I	44.13	0.802	2.99	A	EL	69.37	0.80	0.703	1.65	B	I	44.13	
		TNT6A	41.600		1.34	55.74	1.40	0.703	1.70	B	I	44.13	0.802	2.64	A	EL	69.37	0.80	0.703	1.34	B	I	44.13	
		TNT7A	42.000		1.34	56.28	1.40	0.703	1.70	B	I	44.13	0.802	2.59	A	EL	69.37	0.80	0.703	1.34	B	I	44.13	
		TNT7B	42.000		1.38	57.96	1.40	0.703	1.75	B	I	44.13	0.802	2.43	A	EL	69.37	0.80	0.703	1.38	B	I	44.13	
		TNAGRIT4	43.000		1.32	56.76	1.40	0.703	1.67	B	I	44.13	0.802	2.35	A	EL	69.37	0.80	0.703	1.32	B	I	44.13	
		TNAGT5A	45.000		1.25	56.25	1.40	0.703	1.58	B	I	44.13	0.802	2.32	A	EL	69.37	0.80	0.703	1.25	B	I	44.13	
		TNAGT5B	45.000	③	1.24	55.80	1.40	0.703	1.57	B	I	44.13	0.802	2.23	A	EL	69.37	0.80	0.703	1.24	B	I	44.13	
EMERGENCY VEHICLE (EV)	EV2	28.750		1.94	55.78	1.30	0.703	2.66	A	EL	44.13	0.802	3.65	E	I	69.37	0.80	0.703	1.94	A	EL	44.13		
	EV3	43.000	④	1.28	55.04	1.30	0.703	1.75	A	EL	44.13	0.802	2.41	E	I	69.37	0.80	0.703	1.28	A	EL	44.13		



PROJECT NO. B-4926
LENOIR COUNTY
STATION: 25+45.00 -L-



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

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

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

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License No: C-3097

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S1-8
1			3			TOTAL SHEETS
2			4			49

W:\Projects\13\1303\Structures\0317-01 - B-4926 Lenoir 20 & 3A Structures\Lenoir 20\Drawings\05_Bridge\26_SML\LRFR_008.dgn
 Date: 05/13/23 10:33 AM on Wednesday, September 06, 2023

DWN. BY: WDC DATE: 03/2023
 CHKD. BY: PRG DATE: 03/2023
 DES. EGR. OF RECORD: PRG DATE: 03/2023
 DRAWN BY: MAA 1/08
 CHECKED BY: GM/DI 2/08
 REV. 11/2/08RR
 REV. 10/1/11
 REV. 04/23
 MAA/GM
 MAA/GM
 BNB/AAI