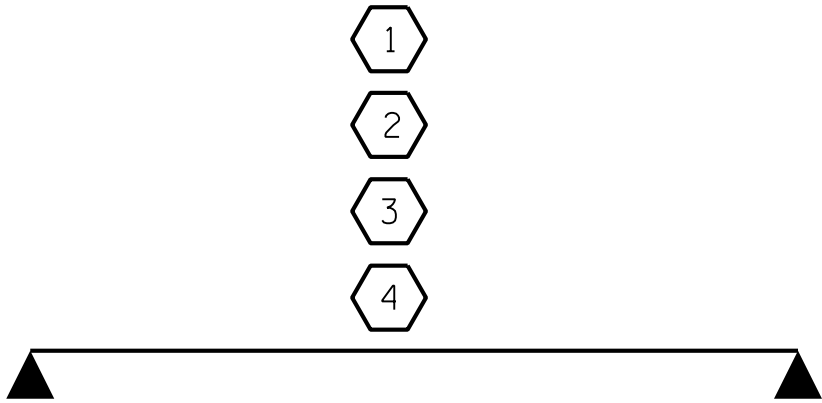


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LOAD AND RESISTANCE FACTOR RATING (LRFR) SUMMARY FOR PRESTRESSED CONCRETE GIRDERS																								
LOAD TYPE		VEHICLE	WEIGHT (W) (TONS)	CONTROLLING LOAD RATING	MINIMUM RATING FACTORS (RF)	TONS = W x RF	STRENGTH I LIMIT STATE										SERVICE III LIMIT STATE						COMMENT NUMBER	
							LIVE-LOAD FACTORS (γ LL)	MOMENT				SHEAR				LIVE-LOAD FACTORS (γ LL)	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		HL-93 (INVENTORY)	N/A	Ⓐ	1.065	--	1.75	0.270	1.25	55'	EL	26.982	0.616	1.12	55'	EL	5.396	0.80	0.270	1.07	55'	EL	26.982	
		HL-93 (OPERATING)	N/A		1.452	--	1.35	0.270	1.61	55'	EL	26.982	0.616	1.45	55'	EL	5.396	N/A	--	--	--	--	--	
		HS-20 (INVENTORY)	36.000	Ⓑ	1.335	48.043	1.75	0.270	1.56	55'	EL	26.982	0.616	1.34	55'	EL	5.396	0.80	0.270	1.33	55'	EL	26.982	
		HS-20 (OPERATING)	36.000		1.734	62.425	1.35	0.270	2.02	55'	EL	26.982	0.616	1.73	55'	EL	5.396	N/A	--	--	--	--	--	
LEGAL LOAD	SINGLE VEHICLE (SV)	SNSH	13.500		2.802	37.830	1.4	0.270	4.09	55'	EL	26.982	0.616	3.81	55'	EL	5.396	0.80	0.270	2.80	55'	EL	26.982	
		SNGARBS2	20.000		2.175	43.506	1.4	0.270	3.18	55'	EL	26.982	0.616	2.76	55'	EL	5.396	0.80	0.270	2.18	55'	EL	26.982	
		SNAGRIS2	22.000		2.099	46.173	1.4	0.270	3.07	55'	EL	26.982	0.616	2.58	55'	EL	5.396	0.80	0.270	2.10	55'	EL	26.982	
		SNCOTTS3	27.250		1.397	38.065	1.4	0.270	2.04	55'	EL	26.982	0.616	1.91	55'	EL	5.396	0.80	0.270	1.40	55'	EL	26.982	
		SNAGGRS4	34.925		1.200	41.922	1.4	0.270	1.75	55'	EL	26.982	0.616	1.62	55'	EL	5.396	0.80	0.270	1.20	55'	EL	26.982	
		SNS5A	35.550		1.172	41.648	1.4	0.270	1.71	55'	EL	26.982	0.616	1.66	55'	EL	5.396	0.80	0.270	1.17	55'	EL	26.982	
		SNS6A	39.950		1.089	43.514	1.4	0.270	1.59	55'	EL	26.982	0.616	1.53	55'	EL	5.396	0.80	0.270	1.09	55'	EL	26.982	
		SNS7B	42.000		1.038	43.587	1.4	0.270	1.52	55'	EL	26.982	0.616	1.53	55'	EL	5.396	0.80	0.270	1.04	55'	EL	26.982	
	TRUCK TRACTOR SEMI-TRAILER (TTST)	TNAGRIT3	33.000		1.333	43.973	1.4	0.270	1.95	55'	EL	26.982	0.616	1.81	55'	EL	5.396	0.80	0.270	1.33	55'	EL	26.982	
		TNT4A	33.075		1.342	44.400	1.4	0.270	1.96	55'	EL	26.982	0.616	1.75	55'	EL	5.396	0.80	0.270	1.34	55'	EL	26.982	
		TNT6A	41.600		1.112	46.252	1.4	0.270	1.62	55'	EL	26.982	0.616	1.67	55'	EL	5.396	0.80	0.270	1.11	55'	EL	26.982	
		TNT7A	42.000		1.125	47.255	1.4	0.270	1.64	55'	EL	26.982	0.616	1.56	55'	EL	5.396	0.80	0.270	1.13	55'	EL	26.982	
		TNT7B	42.000		1.174	49.318	1.4	0.270	1.72	55'	EL	26.982	0.616	1.47	55'	EL	5.396	0.80	0.270	1.17	55'	EL	26.982	
		TNAGRIT4	43.000		1.111	47.786	1.4	0.270	1.62	55'	EL	26.982	0.616	1.42	55'	EL	5.396	0.80	0.270	1.11	55'	EL	26.982	
		TNAGT5A	45.000		1.041	46.851	1.4	0.270	1.52	55'	EL	26.982	0.616	1.44	55'	EL	5.396	0.80	0.270	1.04	55'	EL	26.982	
		TNAGT5B	45.000	Ⓒ	1.023	46.020	1.4	0.270	1.49	55'	EL	26.982	0.616	1.35	55'	EL	5.396	0.80	0.270	1.02	55'	EL	26.982	
EMERGENCY VEHICLE (EV)	EV2	28.750		1.631	46.889	1.3	0.270	2.40	55'	EL	26.982	0.616	2.07	55'	EL	5.396	0.80	0.270	1.63	55'	EL	26.982		
	EV3	43.000	Ⓓ	1.058	45.500	1.3	0.270	1.56	55'	EL	26.982	0.616	1.40	55'	EL	5.396	0.80	0.270	1.06	55'	EL	26.982		



LRFR SUMMARY
FOR SPAN " A "

LOAD FACTORS:

DESIGN LOAD RATING FACTORS	LIMIT STATE	γ DC	γ DW
	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

PROJECT NO. BP1.R021.1
MARTIN COUNTY
STATION: 13+33.50 -L-

SHEET 4 OF 4

ASSEMBLED BY: B. H. GONFA		DATE: MAR 2026	
CHECKED BY: M. SHARMA		DATE: MAR 2026	
DESIGN ENGINEER OF RECORD: M. SHARMA		DATE: MAR 2026	
DRAWN BY: MAA	1/08	REV. 11/12/08RR	MAA/GM
CHECKED BY: GM/DI	2/08	REV. 10/11/11	MAA/GM
		REV. 04/23	BNB/AAI

RK&K
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7/6/2026

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UNLESS ALL SIGNATURES COMPLETED

BRIDGE NO. 570025

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH						SHEET NO.	
STANDARD LRFR SUMMARY FOR 55' CORED SLAB UNIT 105° SKEW (NON-INTERSTATE TRAFFIC)						S-4	
REVISIONS						TOTAL SHEETS	
NO.	BY:	DATE:	NO.	BY:	DATE:	16	
1			3				
2			4				