

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	1.037	--	1.75	0.283	1.83	C	EL	14.5	0.574	1.04	C	EL	1.45	0.80	0.283	1.58	C	EL	14.5	
		HL-93(0pr)	N/A	--	1.344	--	1.35	0.283	2.38	C	EL	14.5	0.574	1.34	C	EL	1.45	N/A	--	--	--	--	--	
		HS-20(Inv)	36.000	⬡2	1.183	42.587	1.75	0.283	2.53	C	EL	11.6	0.574	1.18	C	EL	1.45	0.80	0.283	2.20	C	EL	11.6	
		HS-20(0pr)	36.000	--	1.533	55.205	1.35	0.283	3.28	C	EL	11.6	0.574	1.53	C	EL	1.45	N/A	--	--	--	--	--	
LEGAL LOAD RATING	SV	SNSH	13.500	--	2.895	39.081	1.4	0.283	5.18	C	EL	14.5	0.574	2.89	C	EL	1.45	0.80	0.283	3.56	C	EL	14.5	
		SNGARBS2	20.000	--	2.240	44.792	1.4	0.283	4.53	C	EL	11.6	0.574	2.24	C	EL	1.45	0.80	0.283	3.15	C	EL	11.6	
		SNAGRIS2	22.000	--	2.157	47.463	1.4	0.283	4.6	C	EL	11.6	0.574	2.16	C	EL	1.45	0.80	0.283	3.20	C	EL	11.6	
		SNCOTTS3	27.250	--	1.462	39.849	1.4	0.283	2.6	C	EL	14.5	0.574	1.46	C	EL	1.45	0.80	0.283	1.79	C	EL	14.5	
		SNAGGRS4	34.925	--	1.346	46.999	1.4	0.283	2.5	C	EL	14.5	0.574	1.35	C	EL	1.45	0.80	0.283	1.72	C	EL	14.5	
		SNS5A	35.550	--	1.427	50.733	1.4	0.283	2.42	C	EL	14.5	0.574	1.43	C	EL	1.45	0.80	0.283	1.67	C	EL	14.5	
		SNS6A	39.950	--	1.341	53.59	1.4	0.283	2.29	C	EL	14.5	0.574	1.34	C	EL	1.45	0.80	0.283	1.58	C	EL	14.5	
		SNS7B	42.000	--	1.369	57.505	1.4	0.283	2.23	C	EL	14.5	0.574	1.37	C	EL	1.45	0.80	0.283	1.53	C	EL	14.5	
	TTST	TNAGRIT3	33.000	--	1.593	52.58	1.4	0.283	2.97	C	EL	14.5	0.574	1.59	C	EL	1.45	0.80	0.283	2.04	C	EL	14.5	
		TNT4A	33.075	--	1.483	49.043	1.4	0.283	2.82	C	EL	14.5	0.574	1.48	C	EL	1.45	0.80	0.283	1.94	C	EL	14.5	
		TNT6A	41.600	--	1.433	59.622	1.4	0.283	2.56	C	EL	14.5	0.574	1.43	C	EL	1.45	0.80	0.283	1.76	C	EL	14.5	
		TNT7A	42.000	--	1.363	57.264	1.4	0.283	2.64	C	EL	14.5	0.574	1.36	C	EL	1.45	0.80	0.283	1.82	C	EL	14.5	
		TNT7B	42.000	--	1.331	55.915	1.4	0.283	2.49	C	EL	14.5	0.574	1.33	C	EL	1.45	0.80	0.283	1.72	C	EL	14.5	
		TNAGRIT4	43.000	--	1.287	55.356	1.4	0.283	2.58	C	EL	14.5	0.574	1.29	C	EL	1.45	0.80	0.283	1.78	C	EL	14.5	
		TNAGT5A	45.000	--	1.381	62.151	1.4	0.283	2.5	C	EL	14.5	0.574	1.38	C	EL	1.45	0.80	0.283	1.72	C	EL	14.5	
		TNAGT5B	45.000	⬡3	1.212	54.54	1.4	0.283	2.41	C	EL	11.6	0.574	1.21	C	EL	1.45	0.80	0.283	1.66	C	EL	11.6	

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:

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⬡# CONTROLLING LOAD RATING

⬡1 DESIGN LOAD RATING (HL-93)

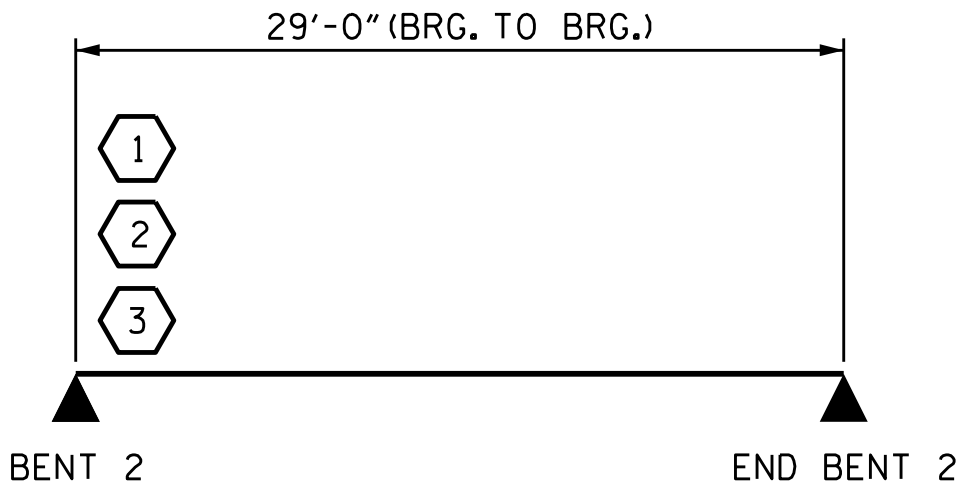
⬡2 DESIGN LOAD RATING (HS-20)

⬡3 LEGAL LOAD RATING **

** SEE CHART FOR VEHICLE TYPE

GIRDER LOCATION

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



LRFR SUMMARY
FOR SPAN C

PROJECT NO. B-4950
CUMBERLAND COUNTY
STATION: 13+98.00 -L-

SHEET 3 OF 3

ASSEMBLED BY : <u>J.M. KEPICH</u>	DATE : <u>10/16</u>
CHECKED BY : <u>L.M. SAMPLES</u>	DATE : <u>11/16</u>
DRAWN BY : <u>CVC 6/10</u>	
CHECKED BY : <u>DNS 6/10</u>	

*****SYTIME*****
*****DCN*****
*****USERNAME*****



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Raleigh, NC 27606
NC License Number : C-3239



DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH						
STANDARD						
LRFR SUMMARY FOR						
30' CORED SLAB UNIT						
90° SKEW						
(NON-INTERSTATE TRAFFIC)						
SPAN C						
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S1-6
1			3			TOTAL SHEETS 24
2			4			

STR. 1

STD. NO. 21LRFR1_90S_30L