

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	1.046	--	1.75	0.283	1.36	A	EL	17.000	0.561	1.05	A	EL	1.700	0.80	0.283	1.07	A	EL	17.000		
	HL-93(0pr)	N/A	--	1.356	--	1.35	0.283	1.77	A	EL	17.000	0.561	1.36	A	EL	1.700	N/A	--	--	--	--	--		
	HS-20(Inv)	36.000	2	1.205	42.810	1.75	0.283	1.79	A	EL	13.600	0.561	1.20	A	EL	1.700	0.80	0.283	1.41	A	EL	17.000		
	HS-20(0pr)	36.000	--	1.562	55.494	1.35	0.283	2.32	A	EL	13.600	0.561	1.56	A	EL	1.700	N/A	--	--	--	--	--		
LEGAL LOAD RATING	SV	SNSH	13.500	--	2.437	32.402	1.4	0.283	3.89	A	EL	17.000	0.561	3.10	A	EL	1.700	0.80	0.283	2.44	A	EL	17.000	
		SNGARBS2	20.000	--	2.080	41.044	1.4	0.283	3.29	A	EL	13.600	0.561	2.35	A	EL	1.700	0.80	0.283	2.08	A	EL	13.600	
		SNAGRIS2	22.000	--	2.081	45.174	1.4	0.283	3.26	A	EL	13.600	0.561	2.24	A	EL	1.700	0.80	0.283	2.08	A	EL	13.600	
		SNCOTTS3	27.250	--	1.220	32.744	1.4	0.283	1.95	A	EL	17.000	0.561	1.56	A	EL	1.700	0.80	0.283	1.22	A	EL	17.000	
		SNAGGRS4	34.925	--	1.128	38.816	1.4	0.283	1.80	A	EL	17.000	0.561	1.40	A	EL	1.700	0.80	0.283	1.13	A	EL	17.000	
		SNS5A	35.550	--	1.095	38.354	1.4	0.283	1.75	A	EL	17.000	0.561	1.47	A	EL	1.700	0.80	0.283	1.10	A	EL	17.000	
		SNS6A	39.950	--	1.057	41.601	1.4	0.283	1.69	A	EL	17.000	0.561	1.39	A	EL	1.700	0.80	0.283	1.06	A	EL	17.000	
	SNS7B	42.000	3	1.009	41.734	1.4	0.283	1.61	A	EL	17.000	0.561	1.42	A	EL	1.700	0.80	0.283	1.01	A	EL	17.000		
	TTST	TNAGRIT3	33.000	--	1.306	42.439	1.4	0.283	2.08	A	EL	17.000	0.561	1.62	A	EL	1.700	0.80	0.283	1.31	A	EL	17.000	
		TNT4A	33.075	--	1.305	42.512	1.4	0.283	2.08	A	EL	17.000	0.561	1.53	A	EL	1.700	0.80	0.283	1.30	A	EL	17.000	
		TNT6A	41.600	--	1.143	46.84	1.4	0.283	1.83	A	EL	17.000	0.561	1.50	A	EL	1.700	0.80	0.283	1.14	A	EL	17.000	
		TNT7A	42.000	--	1.179	48.833	1.4	0.283	1.89	A	EL	17.000	0.561	1.39	A	EL	1.700	0.80	0.283	1.18	A	EL	17.000	
		TNT7B	42.000	--	1.162	48.061	1.4	0.283	1.85	A	EL	17.000	0.561	1.35	A	EL	1.700	0.80	0.283	1.16	A	EL	17.000	
		TNAGRIT4	43.000	--	1.176	49.810	1.4	0.283	1.86	A	EL	13.600	0.561	1.29	A	EL	1.700	0.80	0.283	1.18	A	EL	17.000	
TNAGT5A		45.000	--	1.084	48.071	1.4	0.283	1.73	A	EL	17.000	0.561	1.37	A	EL	1.700	0.80	0.283	1.08	A	EL	17.000		
TNAGT5B	45.000	--	1.046	46.373	1.4	0.283	1.67	A	EL	17.000	0.561	1.22	A	EL	1.700	0.80	0.283	1.05	A	EL	17.000			

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)

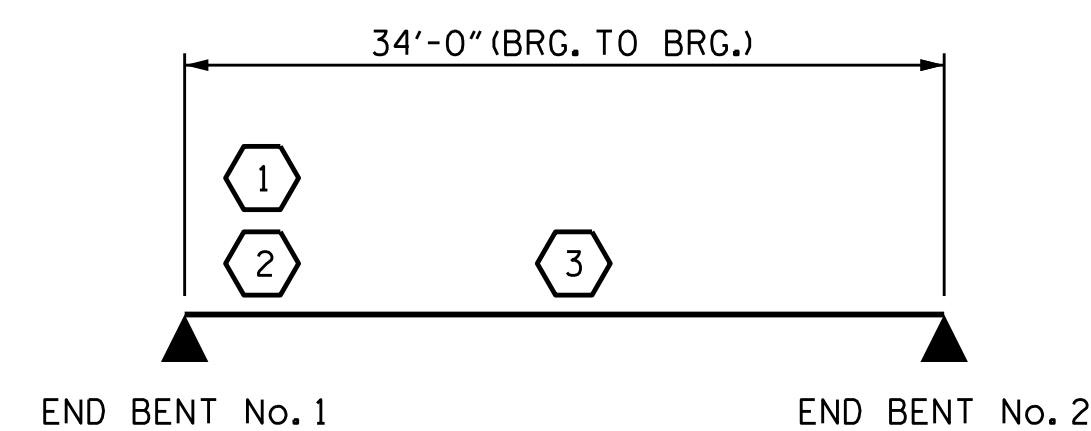
2 DESIGN LOAD RATING (HS-20)

3 LEGAL LOAD RATING **

** SEE CHART FOR VEHICLE TYPE

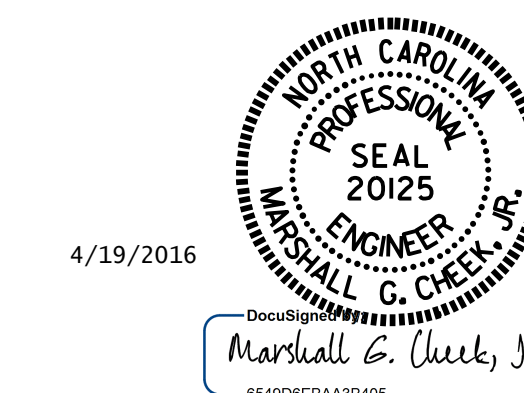
GIRDER LOCATION

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



LRFR SUMMARY
FOR SPAN 'A'

PROJECT NO. B-5118
WATAUGA COUNTY
STATION: 11+91.00 -L-



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STANDARD
LRFR SUMMARY FOR
35' CORED SLAB UNIT
90° SKEW
(NON-INTERSTATE TRAFFIC)

ASSEMBLED BY : W.J.HARRIS	DATE : 2/9/16
CHECKED BY : M.G.CHEEK	DATE : 3/11/16
DRAWN BY : CVC	6/10
CHECKED BY : DNS	6/10

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-3
1			3			TOTAL SHEETS 20
2			4			