

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	1.032	--	1.75	0.28	1.36	A	EL	17	0.561	1.03	A	EL	1.7	0.80	0.28	1.05	A	EL	17	
		HL-93(0pr)	N/A	--	1.338	--	1.35	0.28	1.77	A	EL	17	0.561	1.34	A	EL	1.7	N/A	--	--	--	--	--	
		HS-20(Inv)	36.000	⬡2	1.189	42.810	1.75	0.28	1.79	A	EL	13.6	0.561	1.19	A	EL	1.7	0.80	0.28	1.39	A	EL	17	
		HS-20(0pr)	36.000	--	1.542	55.494	1.35	0.28	2.32	A	EL	13.6	0.561	1.54	A	EL	1.7	N/A	--	--	--	--	--	
LEGAL LOAD RATING	SV	SNSH	13.500	--	2.400	32.402	1.4	0.28	3.89	A	EL	17	0.561	3.06	A	EL	1.7	0.80	0.28	2.40	A	EL	17	
		SNGARBS2	20.000	--	2.052	41.044	1.4	0.28	3.29	A	EL	13.6	0.561	2.32	A	EL	1.7	0.80	0.28	2.05	A	EL	13.6	
		SNAGRIS2	22.000	--	2.053	45.174	1.4	0.28	3.26	A	EL	13.6	0.561	2.21	A	EL	1.7	0.80	0.28	2.05	A	EL	13.6	
		SNCOTTS3	27.250	--	1.202	32.744	1.4	0.28	1.95	A	EL	17	0.561	1.54	A	EL	1.7	0.80	0.28	1.20	A	EL	17	
		SNAGGRS4	34.925	--	1.111	38.816	1.4	0.28	1.8	A	EL	17	0.561	1.38	A	EL	1.7	0.80	0.28	1.11	A	EL	17	
		SNS5A	35.550	--	1.079	38.354	1.4	0.28	1.75	A	EL	17	0.561	1.46	A	EL	1.7	0.80	0.28	1.08	A	EL	17	
		SNS6A	39.950	--	1.041	41.601	1.4	0.28	1.69	A	EL	17	0.561	1.37	A	EL	1.7	0.80	0.28	1.04	A	EL	17	
		SNS7B	42.000	⬡3	1.000	41.734	1.4	0.28	1.61	A	EL	17	0.561	1.4	A	EL	1.7	0.80	0.28	1.00	A	EL	17	
	TTST	TNAGRIT3	33.000	--	1.286	42.439	1.4	0.28	2.08	A	EL	17	0.561	1.6	A	EL	1.7	0.80	0.28	1.29	A	EL	17	
		TNT4A	33.075	--	1.285	42.512	1.4	0.28	2.08	A	EL	17	0.561	1.51	A	EL	1.7	0.80	0.28	1.29	A	EL	17	
		TNT6A	41.600	--	1.126	46.84	1.4	0.28	1.82	A	EL	17	0.561	1.48	A	EL	1.7	0.80	0.28	1.13	A	EL	17	
		TNT7A	42.000	--	1.163	48.833	1.4	0.28	1.89	A	EL	17	0.561	1.37	A	EL	1.7	0.80	0.28	1.16	A	EL	17	
		TNT7B	42.000	--	1.144	48.061	1.4	0.28	1.85	A	EL	17	0.561	1.33	A	EL	1.7	0.80	0.28	1.14	A	EL	17	
		TNAGRIT4	43.000	--	1.158	49.810	1.4	0.28	1.86	A	EL	13.6	0.561	1.28	A	EL	1.7	0.80	0.28	1.16	A	EL	17	
		TNAGT5A	45.000	--	1.068	48.071	1.4	0.28	1.73	A	EL	17	0.561	1.35	A	EL	1.7	0.80	0.28	1.07	A	EL	17	
		TNAGT5B	45.000	--	1.031	46.373	1.4	0.28	1.67	A	EL	17	0.561	1.21	A	EL	1.7	0.80	0.28	1.03	A	EL	17	

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)

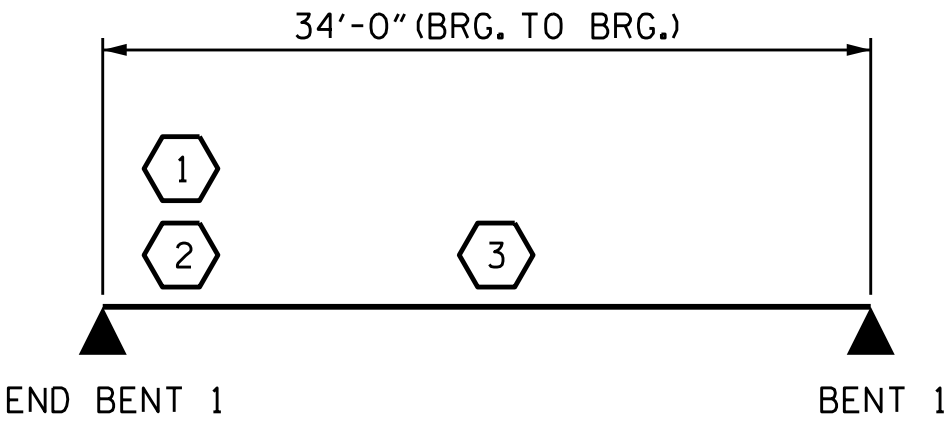
⬡2 DESIGN LOAD RATING (HS-20)

⬡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 A

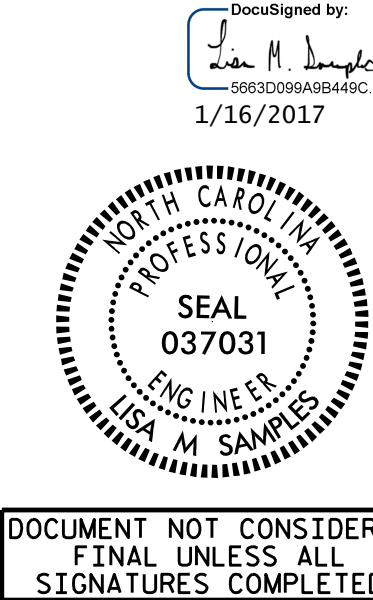
PROJECT NO. B-4950
CUMBERLAND/SAMPSON COUNTY
STATION: 18+27.50 -L-

SHEET 1 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</u>	6/10
CHECKED BY : <u>DNS</u>	6/10



ms consultants, inc.
920 Main Campus Drive
Suite 430
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 35' CORED SLAB UNIT 90° SKEW (NON-INTERSTATE TRAFFIC) SPAN A						
REVISIONS						SHEET NO. S2-4
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS 27
1			3			
2			4			