

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	1.319	--	1.75	0.278	1.76	D	EL	19.5	0.549	1.32	D	EL	1.95	0.80	0.278	1.55	D	EL	19.5	
		HL-93(0pr)	N/A	--	1.709	--	1.35	0.278	2.28	D	EL	19.5	0.549	1.71	D	EL	1.95	N/A	--	--	--	--	--	
		HS-20(Inv)	36.000	2	1.540	55.449	1.75	0.278	2.21	D	EL	19.5	0.549	1.54	D	EL	1.95	0.80	0.278	1.94	D	EL	19.5	
		HS-20(0pr)	36.000	--	1.997	71.878	1.35	0.278	2.86	D	EL	19.5	0.549	2	D	EL	1.95	N/A	--	--	--	--	--	
LEGAL LOAD RATING	SV	SNSH	13.500	--	3.606	48.687	1.4	0.278	5.1	D	EL	19.5	0.549	4.13	D	EL	1.95	0.80	0.278	3.61	D	EL	19.5	
		SNGARBS2	20.000	--	2.964	59.289	1.4	0.278	4.19	D	EL	15.6	0.549	3.07	D	EL	1.95	0.80	0.278	2.96	D	EL	19.5	
		SNAGRIS2	22.000	--	2.906	63.929	1.4	0.278	4.09	D	EL	15.6	0.549	2.91	D	EL	1.95	0.80	0.278	2.92	D	EL	15.6	
		SNCOTTS3	27.250	--	1.803	49.125	1.4	0.278	2.55	D	EL	19.5	0.549	2.07	D	EL	1.95	0.80	0.278	1.80	D	EL	19.5	
		SNAGGRS4	34.925	--	1.623	56.667	1.4	0.278	2.29	D	EL	19.5	0.549	1.82	D	EL	1.95	0.80	0.278	1.62	D	EL	19.5	
		SNS5A	35.550	--	1.578	56.107	1.4	0.278	2.23	D	EL	19.5	0.549	1.9	D	EL	1.95	0.80	0.278	1.58	D	EL	19.5	
		SNS6A	39.950	--	1.502	59.992	1.4	0.278	2.12	D	EL	19.5	0.549	1.77	D	EL	1.95	0.80	0.278	1.50	D	EL	19.5	
		SNS7B	42.000	3	1.432	60.149	1.4	0.278	2.02	D	EL	19.5	0.549	1.81	D	EL	1.95	0.80	0.278	1.43	D	EL	19.5	
	TTST	TNAGRIT3	33.000	--	1.848	60.976	1.4	0.278	2.61	D	EL	19.5	0.549	2.08	D	EL	1.95	0.80	0.278	1.85	D	EL	19.5	
		TNT4A	33.075	--	1.872	61.901	1.4	0.278	2.65	D	EL	19.5	0.549	1.98	D	EL	1.95	0.80	0.278	1.87	D	EL	19.5	
		TNT6A	41.600	--	1.587	66.032	1.4	0.278	2.24	D	EL	19.5	0.549	1.94	D	EL	1.95	0.80	0.278	1.59	D	EL	19.5	
		TNT7A	42.000	--	1.627	68.354	1.4	0.278	2.3	D	EL	19.5	0.549	1.79	D	EL	1.95	0.80	0.278	1.63	D	EL	19.5	
		TNT7B	42.000	--	1.664	69.888	1.4	0.278	2.35	D	EL	19.5	0.549	1.72	D	EL	1.95	0.80	0.278	1.66	D	EL	19.5	
		TNAGRIT4	43.000	--	1.619	69.61	1.4	0.278	2.28	D	EL	15.6	0.549	1.65	D	EL	1.95	0.80	0.278	1.62	D	EL	19.5	
TNAGT5A		45.000	--	1.498	67.412	1.4	0.278	2.12	D	EL	19.5	0.549	1.71	D	EL	1.95	0.80	0.278	1.50	D	EL	19.5		
	TNAGT5B	45.000	--	1.455	65.486	1.4	0.278	2.06	D	EL	19.5	0.549	1.56	D	EL	1.95	0.80	0.278	1.46	D	EL	19.5		

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)

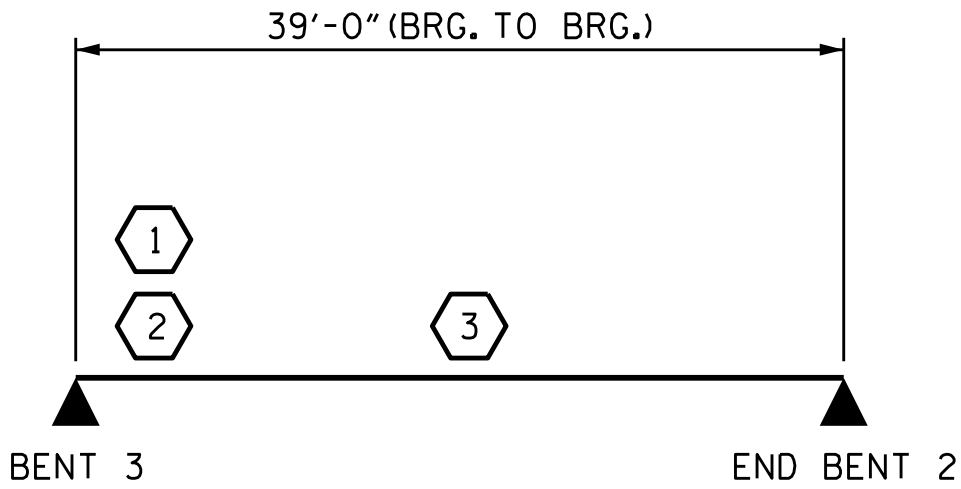
⬡2 DESIGN LOAD RATING (HS-20)

⬡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 D

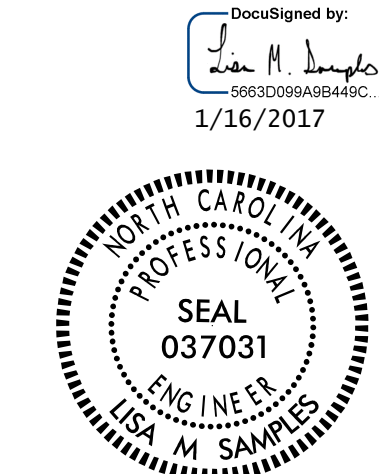
PROJECT NO. B-4950
CUMBERLAND/SAMPSON COUNTY
STATION: 18+27.50 -L-

SHEET 3 OF 3

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



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DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH STANDARD LRFR SUMMARY FOR 40' CORED SLAB UNIT 90° SKEW (NON-INTERSTATE TRAFFIC) SPAN D					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
TOTAL SHEETS 27					S2-6