

LOAD AND RESISTANCE FACTOR RATING (LRFD) SUMMARY FOR PRESTRESSED CONCRETE GIRDERS

LOAD FACTORS:

DESIGN LOAD RATING FACTORS	LIMIT STATE	$\gamma_{DC}$	$\gamma_{DW}$
	STRENGTH I	1.25	1.50
	SERVICE III	1.00	1.00

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	1.146	--	1.75	0.246	1.4	B	EL	49.134	0.614	1.15	B	EL	9.827	0.80	0.246	<b>1.15</b>	B	EL	<b>49.134</b>		
	HL-93(0pr)	N/A	--	1.486	--	1.35	0.246	1.81	B	EL	49.134	0.614	1.49	B	EL	9.827	N/A	--	--	--	--	--		
	HS-20(Inv)	36.000	2	1.519	54.686	1.75	0.246	1.95	B	EL	49.134	0.614	<b>1.52</b>	B	EL	<b>9.827</b>	0.80	0.246	1.60	B	EL	49.134		
	HS-20(0pr)	36.000	--	1.969	70.889	1.35	0.246	2.52	B	EL	49.134	0.614	1.97	B	EL	9.827	N/A	--	--	--	--	--		
LEGAL LOAD RATING	SV	SNSH	13.500	--	3.795	51.239	1.4	0.246	5.76	B	EL	49.134	0.614	4.67	B	EL	9.827	0.80	0.246	3.80	B	EL	49.134	
		SNGARBS2	20.000	--	2.75	55	1.4	0.246	4.18	B	EL	49.134	0.614	3.27	B	EL	9.827	0.80	0.246	2.75	B	EL	49.134	
		SNAGRIS2	22.000	--	2.573	56.599	1.4	0.246	3.91	B	EL	49.134	0.614	3.02	B	EL	9.827	0.80	0.246	2.57	B	EL	49.134	
		SNCOTTS3	27.250	--	1.886	51.405	1.4	0.246	2.86	B	EL	49.134	0.614	2.32	B	EL	9.827	0.80	0.246	1.89	B	EL	49.134	
		SNAGGRS4	34.925	--	1.546	54.002	1.4	0.246	2.35	B	EL	49.134	0.614	1.9	B	EL	9.827	0.80	0.246	1.55	B	EL	49.134	
		SNS5A	35.550	--	1.514	53.825	1.4	0.246	2.3	B	EL	49.134	0.614	1.9	B	EL	9.827	0.80	0.246	1.51	B	EL	49.134	
		SNS6A	39.950	--	1.377	55.004	1.4	0.246	2.09	B	EL	49.134	0.614	1.72	B	EL	9.827	0.80	0.246	1.38	B	EL	49.134	
	SNS7B	42.000	--	1.311	55.05	1.4	0.246	1.99	B	EL	49.134	0.614	1.68	B	EL	9.827	0.80	0.246	1.31	B	EL	49.134		
	TTST	TNAGRIT3	33.000	--	1.675	55.287	1.4	0.246	2.54	B	EL	49.134	0.614	2.06	B	EL	9.827	0.80	0.246	1.68	B	EL	49.134	
		TNT4A	33.075	--	1.679	55.547	1.4	0.246	2.55	B	EL	49.134	0.614	2.02	B	EL	9.827	0.80	0.246	1.68	B	EL	49.134	
		TNT6A	41.600	--	1.362	56.644	1.4	0.246	2.07	B	EL	49.134	0.614	1.76	B	EL	9.827	0.80	0.246	1.36	B	EL	49.134	
		TNT7A	42.000	--	1.362	57.22	1.4	0.246	2.07	B	EL	49.134	0.614	1.73	B	EL	9.827	0.80	0.246	1.36	B	EL	49.134	
		TNT7B	42.000	--	1.395	58.575	1.4	0.246	2.12	B	EL	49.134	0.614	1.65	B	EL	9.827	0.80	0.246	1.39	B	EL	49.134	
		TNAGRIT4	43.000	--	1.338	57.52	1.4	0.246	2.03	B	EL	49.134	0.614	1.6	B	EL	9.827	0.80	0.246	1.34	B	EL	49.134	
TNAGT5A		45.000	--	1.266	56.99	1.4	0.246	1.92	B	EL	49.134	0.614	1.57	B	EL	9.827	0.80	0.246	1.27	B	EL	49.134		
TNAGT5B	45.000	3	1.256	56.51	1.4	0.246	1.91	B	EL	49.134	0.614	1.53	B	EL	9.827	0.80	0.246	<b>1.26</b>	B	EL	<b>49.134</b>			

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.

**# CONTROLLING LOAD RATING**

1 DESIGN LOAD RATING (HL-93)

2 DESIGN LOAD RATING (HS-20)

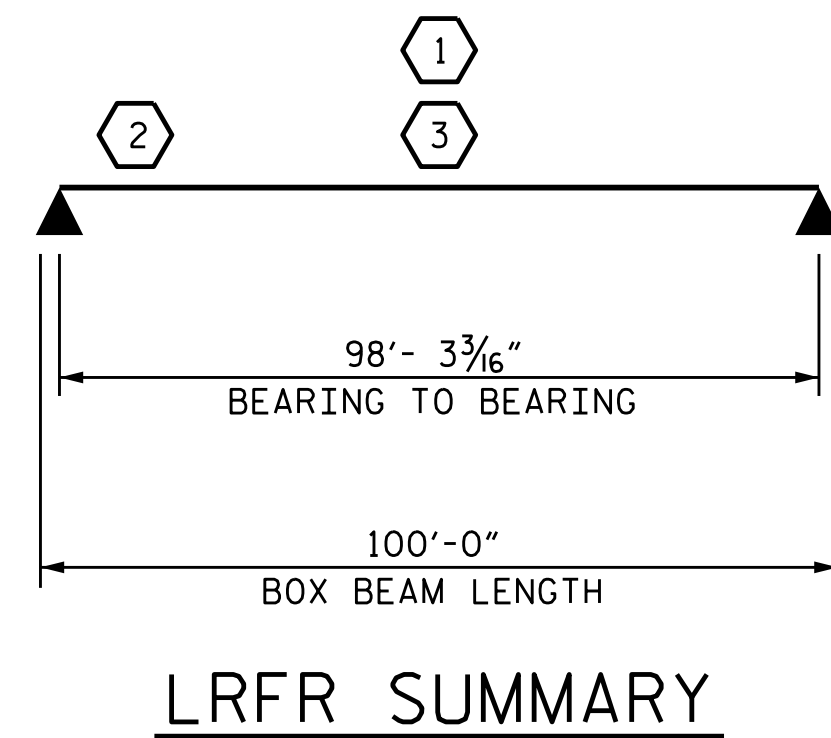
3 LEGAL LOAD RATING \*\*

\*\* SEE CHART FOR VEHICLE TYPE

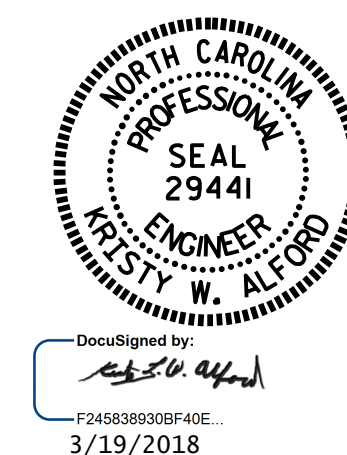
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**GIRDER LOCATION**

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



PROJECT NO. B-5320  
GRANVILLE COUNTY  
 STATION: 15+98.00 -L-



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
**STANDARD  
 LRFR SUMMARY FOR  
 100' BOX BEAM UNIT  
 120° SKEW  
 (NON-INTERSTATE TRAFFIC)**

ASSEMBLED BY : R.L. CHESSON	DATE : 1/18
CHECKED BY : K. W. ALFORD	DATE : 2/18
DRAWN BY : TMG II/II	
CHECKED BY : AAC II/II	

DOCUMENT NOT CONSIDERED  
 FINAL UNLESS ALL  
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-5
1			3			TOTAL SHEETS
2			4			26