

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			
						MOMENT					SHEAR					MOMENT								
						LIVELOAD FACTORS	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)	LIVELOAD FACTORS	DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN		GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (ft)	
DESIGN LOAD RATING	HL-93(Inv)	N/A	1	1.234	--	1.75	0.268	1.77	A	EL	41.724	0.584	<b>1.23</b>	A	EL	<b>8.345</b>	0.80	0.268	1.43	A	EL	41.724		
	HL-93(0pr)	N/A	--	1.6	--	1.35	0.268	2.29	A	EL	41.724	0.584	1.6	A	EL	8.345	N/A	--	--	--	--	--		
	HS-20(Inv)	36.000	2	1.6	57.589	1.75	0.268	2.38	A	EL	41.724	0.584	<b>1.6</b>	A	EL	<b>8.345</b>	0.80	0.268	1.92	A	EL	41.724		
	HS-20(0pr)	36.000	--	2.074	74.652	1.35	0.268	3.08	A	EL	41.724	0.584	2.07	A	EL	8.345	N/A	--	--	--	--	--		
LEGAL LOAD RATING	SV	SNSH	13.500	--	4.442	59.964	1.4	0.268	6.87	A	EL	41.724	0.584	4.84	A	EL	8.345	0.80	0.268	4.44	A	EL	41.724	
		SNGARBS2	20.000	--	3.264	65.272	1.4	0.268	5.05	A	EL	41.724	0.584	3.41	A	EL	8.345	0.80	0.268	3.26	A	EL	41.724	
		SNAGRIS2	22.000	--	3.072	67.575	1.4	0.268	4.75	A	EL	41.724	0.584	3.16	A	EL	8.345	0.80	0.268	3.07	A	EL	41.724	
		SNCOTTS3	27.250	--	2.209	60.195	1.4	0.268	3.42	A	EL	41.724	0.584	2.41	A	EL	8.345	0.80	0.268	2.21	A	EL	41.724	
		SNAGGRS4	34.925	--	1.828	63.848	1.4	0.268	2.83	A	EL	41.724	0.584	1.98	A	EL	8.345	0.80	0.268	1.83	A	EL	41.724	
		SNS5A	35.550	--	1.789	63.597	1.4	0.268	2.77	A	EL	41.724	0.584	2	A	EL	8.345	0.80	0.268	1.79	A	EL	41.724	
		SNS6A	39.950	--	1.634	65.278	1.4	0.268	2.53	A	EL	41.724	0.584	1.82	A	EL	8.345	0.80	0.268	1.63	A	EL	41.724	
	SNS7B	42.000	--	1.556	65.343	1.4	0.268	2.41	A	EL	41.724	0.584	1.78	A	EL	8.345	0.80	0.268	1.56	A	EL	41.724		
	TTST	TNAGRIT3	33.000	--	1.99	65.683	1.4	0.268	3.08	A	EL	41.724	0.584	2.17	A	EL	8.345	0.80	0.268	1.99	A	EL	41.724	
		TNT4A	33.075	--	1.997	66.056	1.4	0.268	3.09	A	EL	41.724	0.584	2.12	A	EL	8.345	0.80	0.268	2.00	A	EL	41.724	
		TNT6A	41.600	--	1.626	67.64	1.4	0.268	2.51	A	EL	41.724	0.584	1.88	A	EL	8.345	0.80	0.268	1.63	A	EL	41.724	
		TNT7A	42.000	--	1.63	68.476	1.4	0.268	2.52	A	EL	41.724	0.584	1.84	A	EL	8.345	0.80	0.268	1.63	A	EL	41.724	
		TNT7B	42.000	--	1.678	70.459	1.4	0.268	2.59	A	EL	41.724	0.584	1.74	A	EL	8.345	0.80	0.268	1.68	A	EL	41.724	
		TNAGRIT4	43.000	--	1.603	68.913	1.4	0.268	2.48	A	EL	41.724	0.584	1.69	A	EL	8.345	0.80	0.268	1.60	A	EL	41.724	
TNAGT5A		45.000	--	1.514	68.142	1.4	0.268	2.34	A	EL	41.724	0.584	1.67	A	EL	8.345	0.80	0.268	1.51	A	EL	41.724		
TNAGT5B	45.000	3	1.499	67.445	1.4	0.268	2.32	A	EL	41.724	0.584	1.61	A	EL	8.345	0.80	0.268	<b>1.50</b>	A	EL	<b>41.724</b>			

LOAD FACTORS:

DESIGN LOAD RATING FACTORS	LIMIT STATE	$\gamma_{DC}$	$\gamma_{DW}$
	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.

# CONTROLLING LOAD RATING

1 DESIGN LOAD RATING (HL-93)

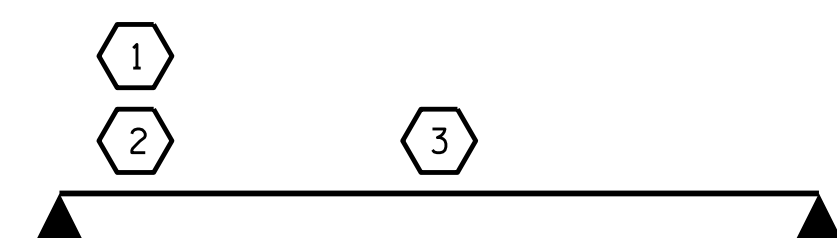
2 DESIGN LOAD RATING (HS-20)

3 LEGAL LOAD RATING \*\*

\*\* SEE CHART FOR VEHICLE TYPE

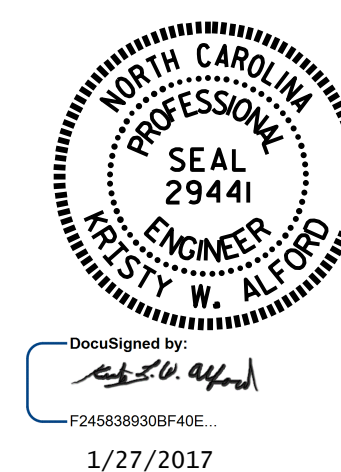
GIRDER LOCATION

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



LRFR SUMMARY  
FOR SPAN 'A'

PROJECT NO. B-4655  
WAKE COUNTY  
 STATION: 18+35.50 -L-



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
 STANDARD  
 LRFR SUMMARY FOR  
 85' BOX BEAM UNIT  
 105° SKEW  
 (NON-INTERSTATE TRAFFIC)

ASSEMBLED BY :	M.M. AHMED	DATE :	9-26-16
CHECKED BY :	J.P. ADAMS	DATE :	10-20-16
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-3
1			3			TOTAL SHEETS
2			4			18