

# LOAD AND RESISTANCE FACTOR RATING (LRFD) SUMMARY FOR PRESTRESSED CONCRETE CORED SLAB UNITS

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	1.060	--	1.75	0.275	1.38	35'	EL	16.982	0.623	1.20	35'	EL	1.698	0.80	0.275	<b>1.06</b>	35'	EL	<b>16.982</b>		
	HL-93(0pr)	N/A	--	1.549	--	1.35	0.275	1.79	35'	EL	16.982	0.623	1.55	35'	EL	1.698	N/A	--	--	--	--	--		
	HS-20(Inv)	36.000	2	1.377	49.573	1.75	0.275	1.82	35'	EL	13.586	0.623	<b>1.38</b>	35'	EL	<b>1.698</b>	0.80	0.275	1.41	35'	EL	16.982		
	HS-20(0pr)	36.000	--	1.785	64.262	1.35	0.275	2.36	35'	EL	13.586	0.623	1.79	35'	EL	1.698	N/A	--	--	--	--	--		
LEGAL LOAD RATING	SV	SNSH	13.500	--	2.424	32.72	1.40	0.275	3.95	35'	EL	16.982	0.623	3.55	35'	EL	1.698	0.80	0.275	2.42	35'	EL	16.982	
		SNGARBS2	20.000	--	2.082	41.635	1.40	0.275	3.34	35'	EL	13.586	0.623	2.68	35'	EL	1.698	0.80	0.275	2.08	35'	EL	13.586	
		SNAGRIS2	22.000	--	2.076	45.668	1.40	0.275	3.31	35'	EL	13.586	0.623	2.56	35'	EL	1.698	0.80	0.275	2.08	35'	EL	13.586	
		SNCOTTS3	27.250	--	1.213	33.066	1.40	0.275	1.98	35'	EL	16.982	0.623	1.79	35'	EL	1.698	0.80	0.275	1.21	35'	EL	16.982	
		SNAGGRS4	34.925	--	1.123	39.207	1.40	0.275	1.83	35'	EL	16.982	0.623	1.60	35'	EL	1.698	0.80	0.275	1.12	35'	EL	16.982	
		SNS5A	35.550	--	1.090	38.739	1.40	0.275	1.77	35'	EL	16.982	0.623	1.69	35'	EL	1.698	0.80	0.275	1.09	35'	EL	16.982	
		SNS6A	39.950	--	1.052	42.014	1.40	0.275	1.71	35'	EL	16.982	0.623	1.58	35'	EL	1.698	0.80	0.275	1.05	35'	EL	16.982	
	SNS7B	42.000	3	1.004	42.153	1.40	0.275	1.63	35'	EL	16.982	0.623	1.62	35'	EL	1.698	0.80	0.275	<b>1.00</b>	35'	EL	<b>16.982</b>		
	TTST	TNAGRIT3	33.000	--	1.299	42.872	1.40	0.275	2.11	35'	EL	16.982	0.623	1.85	35'	EL	1.698	0.80	0.275	1.30	35'	EL	16.982	
		TNT4A	33.075	--	1.298	42.933	1.40	0.275	2.11	35'	EL	16.982	0.623	1.75	35'	EL	1.698	0.80	0.275	1.30	35'	EL	16.982	
		TNT6A	41.600	--	1.137	47.314	1.40	0.275	1.85	35'	EL	16.982	0.623	1.71	35'	EL	1.698	0.80	0.275	1.14	35'	EL	16.982	
		TNT7A	42.000	--	1.175	49.358	1.40	0.275	1.92	35'	EL	16.982	0.623	1.59	35'	EL	1.698	0.80	0.275	1.18	35'	EL	16.982	
		TNT7B	42.000	--	1.156	48.536	1.40	0.275	1.88	35'	EL	16.982	0.623	1.54	35'	EL	1.698	0.80	0.275	1.16	35'	EL	16.982	
		TNAGRIT4	43.000	--	1.170	50.308	1.40	0.275	1.89	35'	EL	13.586	0.623	1.48	35'	EL	1.698	0.80	0.275	1.17	35'	EL	16.982	
TNAGT5A		45.000	--	1.079	48.572	1.40	0.275	1.76	35'	EL	16.982	0.623	1.56	35'	EL	1.698	0.80	0.275	1.08	35'	EL	16.982		
TNAGT5B	45.000	--	1.041	46.853	1.40	0.275	1.69	35'	EL	16.982	0.623	1.40	35'	EL	1.698	0.80	0.275	1.04	35'	EL	16.982			

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)

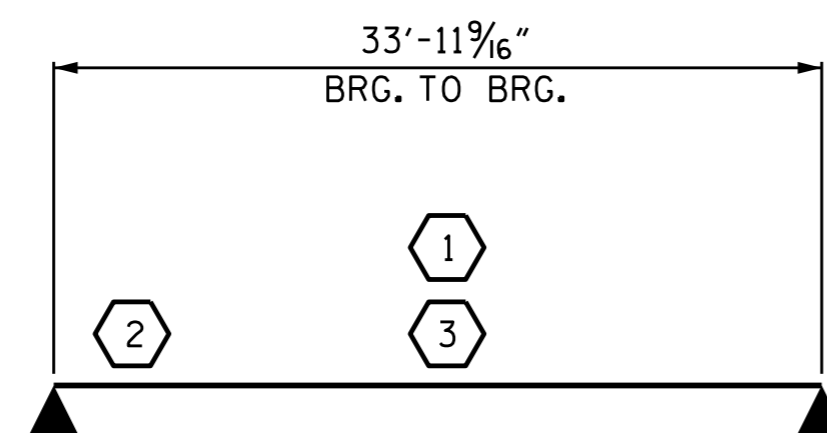
3 LEGAL LOAD RATING \*\*

\*\* SEE CHART FOR VEHICLE TYPE

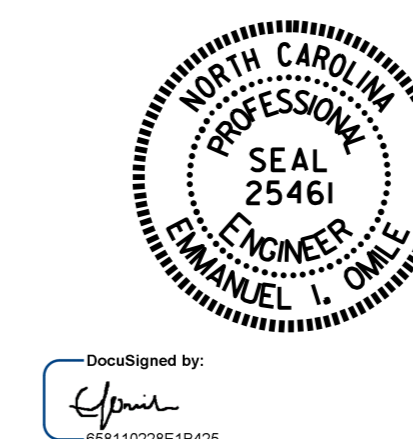
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GIRDER LOCATION

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



**LRFR SUMMARY**  
FOR SPANS A AND C



DocuSigned by:  
*Emanuel L. Omlie*  
9/3/2015

PROJECT NO. B-4959  
GUILFORD COUNTY  
STATION: 14+70.50 -L-

SHEET 1 OF 2

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
STANDARD  
LRFR SUMMARY FOR  
35' CORED SLAB UNIT  
75° SKEW  
(NON-INTERSTATE TRAFFIC)  
SPANS A & C

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-4
1			3			TOTAL SHEETS
2			4			25

ASSEMBLED BY : C. YOKEYLEY DATE : 2/10/14  
CHECKED BY : T. KIRSCHBAUM DATE : 3/3/14  
DRAWN BY : CVC 6/10  
CHECKED BY : DNS 6/10