

LOAD FACTORS:

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

LOAD AND RESISTANCE FACTOR RATING (LRFR) 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									
						LIVE-LOAD FACTORS (γ_{LL})	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)	LIVE-LOAD FACTORS (γ_{LL})	DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN	GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (FT)			
DESIGN LOAD RATING	HL-93 (INVENTORY)	N/A	①	1.02	--	1.75	0.811	1.45	A	EL	54.3	0.953	1.26	A	I	10.3	0.80	0.811	1.02	A	EL	54.3			
	HL-93 (OPERATING)	N/A		1.88	--	1.35	0.811	1.88	A	EL	54.3	0.953	1.67	A	I	10.3	N/A	---	---	---	---	---			
	HS-20 (INVENTORY)	36.000	②	1.45	52	1.75	0.811	2.06	A	EL	54.3	0.953	1.76	A	I	10.3	0.80	0.811	1.45	A	EL	54.3			
	HS-20 (OPERATING)	36.000		2.67	96	1.35	0.811	2.67	A	EL	54.3	0.953	2.32	A	I	10.3	N/A	---	---	---	---	---			
LEGAL LOAD RATING	SINGLE VEHICLE (SV)	SNSH	13.500		3.48	47	1.40	0.811	6.19	A	EL	54.3	0.953	5.72	A	I	10.3	0.80	0.811	3.48	A	EL	54.3		
		SNGARBS2	20.000		2.50	50	1.40	0.811	4.45	A	EL	54.3	0.953	3.95	A	I	10.3	0.80	0.811	2.5	A	EL	54.3		
		SNAGRIS2	22.000		2.34	51	1.40	0.811	4.15	A	EL	54.3	0.953	3.63	A	I	10.3	0.80	0.811	2.34	A	EL	54.3		
		SNCOTTS3	27.250		1.73	47	1.40	0.811	3.07	A	EL	54.3	0.953	2.78	A	I	10.3	0.80	0.811	1.73	A	EL	54.3		
		SNAGGRS4	34.925		1.41	49	1.40	0.811	2.51	A	EL	54.3	0.953	2.23	A	I	10.3	0.80	0.811	1.41	A	EL	54.3		
		SNS5A	35.550		1.38	49	1.40	0.811	2.46	A	EL	54.3	0.953	2.24	A	I	10.3	0.80	0.811	1.38	A	EL	54.3		
		SNS6A	39.950		1.25	50	1.40	0.811	2.23	A	EL	54.3	0.953	2.01	A	I	10.3	0.80	0.811	1.25	A	EL	54.3		
		SNS7B	42.000		1.19	50	1.40	0.811	2.12	A	EL	54.3	0.953	1.95	A	I	10.3	0.80	0.811	1.19	A	EL	54.3		
	TRUCK TRACTOR SEMI-TRAILER (TTST)	TNAGRIT3	33.000		1.52	50	1.40	0.811	2.71	A	EL	54.3	0.953	2.43	A	I	10.3	0.80	0.811	1.52	A	EL	54.3		
		TNT4A	33.075		1.53	51	1.40	0.811	2.72	A	EL	54.3	0.953	2.38	A	I	10.3	0.80	0.811	1.53	A	EL	54.3		
		TNT6A	41.600		1.24	52	1.40	0.811	2.20	A	EL	54.3	0.953	2.04	A	I	10.3	0.80	0.811	1.24	A	EL	54.3		
		TNT7A	42.000		1.24	52	1.40	0.811	2.20	A	EL	54.3	0.953	2.00	A	I	10.3	0.80	0.811	1.24	A	EL	54.3		
		TNT7B	42.000		1.26	53	1.40	0.811	2.24	A	EL	54.3	0.953	1.92	A	I	10.3	0.80	0.811	1.26	A	EL	54.3		
		TNAGRIT4	43.000		1.21	52	1.40	0.811	2.15	A	EL	54.3	0.953	1.85	A	I	10.3	0.80	0.811	1.21	A	EL	54.3		
TNAGT5A	45.000		1.15	52	1.40	0.811	2.04	A	EL	54.3	0.953	1.81	A	I	10.3	0.80	0.811	1.15	A	EL	54.3				
TNAGT5B	45.000		③	1.14	51	1.40	0.811	2.03	A	EL	54.3	0.953	1.76	A	I	10.3	0.80	0.811	1.14	A	EL	54.3			

NOTES:

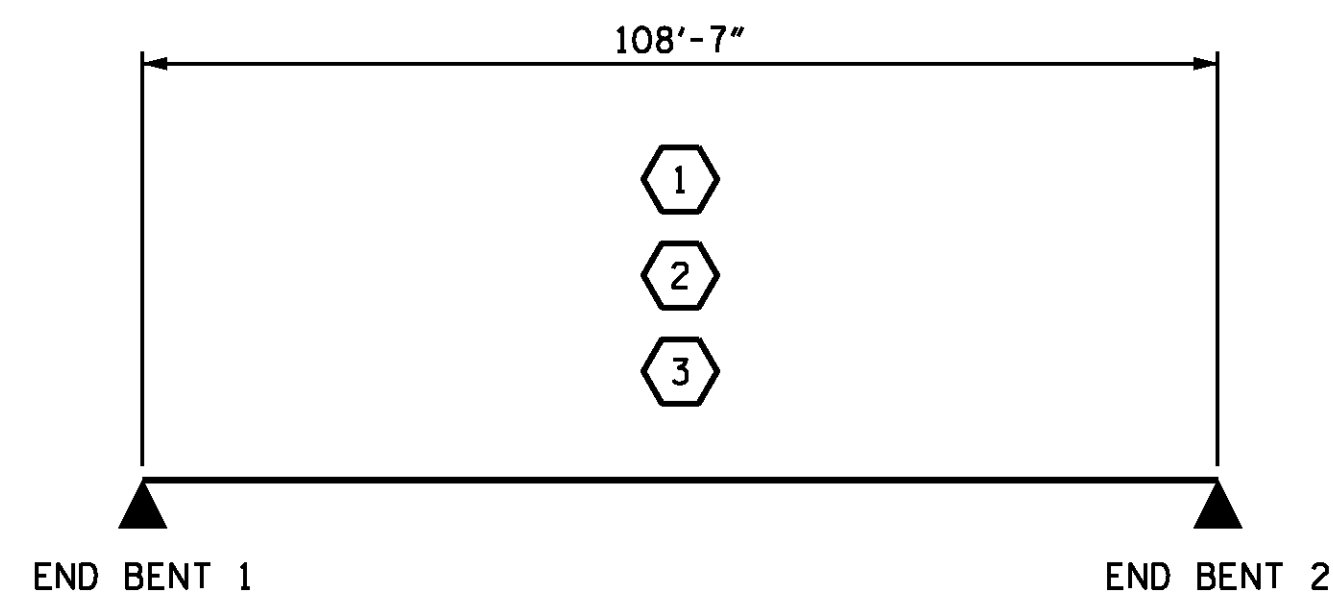
MINIMUM RATING FACTORS ARE BASED ON THE STRENGTH I AND SERVICE III LIMIT STATES.

ALLOWABLE STRESSES FOR SERVICE III LIMIT STATE ARE AS REQUIRED FOR DESIGN.

COMMENTS:

- 1.
- 2.
- 3.
- 4.

⊛ 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



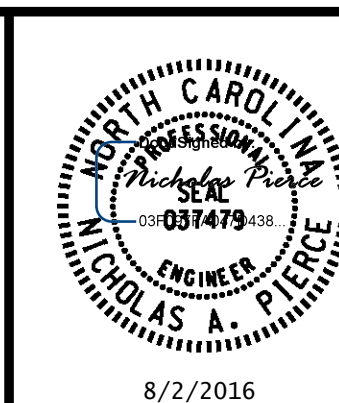
LRFR SUMMARY

PROJECT NO. B-4616
ROBESON COUNTY
 STATION: 31+55.47 -L-

DESIGNED BY: C.J. HOWARD DATE: 04/2016
 DRAWN BY: M.J. OSTRISHKO DATE: 04/2016
 CHECKED BY: Z. VAN BRUNT DATE: 05/2016
 DESIGN ENGINEER OF RECORD: N.A. PIERCE DATE: 06/2016

DRAWN BY: MAA 1/08
 CHECKED BY: GM/DI 2/08
 REV. 11/2/08RR MAA/GM
 REV. 10/1/11 MAA/GM

WSP
PARSONS BRINCKERHOFF
 434 FAYETTEVILLE STREET
 SUITE 1500
 RALEIGH, NC 27601
 LICENSE NO. F-0165



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 STANDARD
 LRFR SUMMARY FOR
 PRESTRESSED
 CONCRETE GIRDERS
 (NON-INTERSTATE TRAFFIC)

REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

SHEET NO. S1-5
 TOTAL SHEETS 25