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	1.02	--	1.75	0.277	1.04	A	EL	29.501	0.513	1.19	A	EL	5.9	0.80	0.277	1.02	A	EL	29.501	
		HL-93(Opr)	N/A	--	1.35	--	1.35	0.277	1.35	A	EL	29.501	0.513	1.54	A	EL	5.9	N/A	--	--	--	--	--	
		HS-20(Inv)	36.000	2	1.38	49.731	1.75	0.277	1.42	A	EL	29.501	0.513	1.48	A	EL	5.9	0.80	0.277	1.38	A	EL	29.501	
		HS-20(Opr)	36.000	--	1.84	66.175	1.35	0.277	1.84	A	EL	29.501	0.513	1.91	A	EL	5.9	N/A	--	--	--	--	--	
LEGAL LOAD RATING	SV	SNSH	13.500	--	2.97	40.148	1.4	0.277	3.82	A	EL	29.501	0.513	4.26	A	EL	5.9	0.80	0.277	2.97	A	EL	29.501	
		SNGARBS2	20.000	--	2.28	45.533	1.4	0.277	2.92	A	EL	29.501	0.513	3.07	A	EL	5.9	0.80	0.277	2.28	A	EL	29.501	
		SNAGRIS2	22.000	--	2.18	48.012	1.4	0.277	2.8	A	EL	29.501	0.513	2.87	A	EL	5.9	0.80	0.277	2.18	A	EL	29.501	
		SNCOTTS3	27.250	--	1.48	40.374	1.4	0.277	1.9	A	EL	29.501	0.513	2.13	A	EL	5.9	0.80	0.277	1.48	A	EL	29.501	
		SNAGGRS4	34.925	--	1.26	44.045	1.4	0.277	1.62	A	EL	29.501	0.513	1.8	A	EL	5.9	0.80	0.277	1.26	A	EL	29.501	
		SNS5A	35.550	--	1.23	43.786	1.4	0.277	1.58	A	EL	29.501	0.513	1.84	A	EL	5.9	0.80	0.277	1.23	A	EL	29.501	
		SNS6A	39.950	--	1.14	45.540	1.4	0.277	1.46	A	EL	29.501	0.513	1.69	A	EL	5.9	0.80	0.277	1.14	A	EL	29.501	
		SNS7B	42.000	--	1.09	45.609	1.4	0.277	1.39	A	EL	29.501	0.513	1.67	A	EL	5.9	0.80	0.277	1.09	A	EL	29.501	
	TTST	TNAGRIT3	33.000	--	1.39	45.969	1.4	0.277	1.79	A	EL	29.501	0.513	2	A	EL	5.9	0.80	0.277	1.39	A	EL	29.501	
		TNT4A	33.075	--	1.4	46.367	1.4	0.277	1.8	A	EL	29.501	0.513	1.93	A	EL	5.9	0.80	0.277	1.40	A	EL	29.501	
		TNT6A	41.600	--	1.16	48.084	1.4	0.277	1.48	A	EL	29.501	0.513	1.81	A	EL	5.9	0.80	0.277	1.16	A	EL	29.501	
		TNT7A	42.000	--	1.17	49.008	1.4	0.277	1.5	A	EL	29.501	0.513	1.73	A	EL	5.9	0.80	0.277	1.17	A	EL	29.501	
		TNT7B	42.000	--	1.22	51.190	1.4	0.277	1.56	A	EL	29.501	0.513	1.62	A	EL	5.9	0.80	0.277	1.22	A	EL	29.501	
		TNAGRIT4	43.000	--	1.15	49.496	1.4	0.277	1.48	A	EL	29.501	0.513	1.57	A	EL	5.9	0.80	0.277	1.15	A	EL	29.501	
		TNAGT5A	45.000	--	1.08	48.637	1.4	0.277	1.39	A	EL	29.501	0.513	1.57	A	EL	5.9	0.80	0.277	1.08	A	EL	29.501	
		TNAGT5B	45.000	3	1.06	47.870	1.4	0.277	1.36	A	EL	29.501	0.513	1.49	A	EL	5.9	0.80	0.277	1.06	A	EL	29.501	

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:

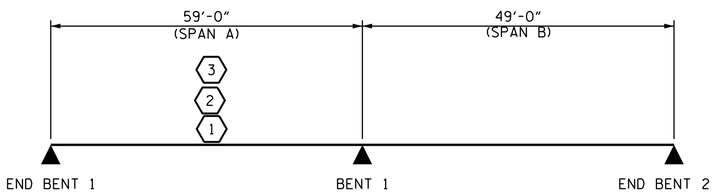
1.
2.
3.
4.

(#) 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-5129A
PAMLICO COUNTY
STATION: 13+68.50 -L-

NORTH CAROLINA PROFESSIONAL SEAL 22005 ENGINEER A. KEITH PASCHAL

DocuSigned by: A. Keith Paschal
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12/5/2014

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STANDARD

LRFR SUMMARY FOR CORED SLAB UNIT

(NON-INTERSTATE TRAFFIC)

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

STD. NO. LRFR1

ASSEMBLED BY : M.L. RORIE DATE : 6-17-14
CHECKED BY : A.K. PASCHAL DATE : 6-19-14
DRAWN BY : MAA 1/08
CHECKED BY : GM/DI 2/08
REV. 11/12/08RR MAA/GM
REV. 10/1/11 MAA/GM

REVISED

04-DEC-2014 15:08
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kpaschal