

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 (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			
						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 (INVENTORY)	N/A	①	1.01	--	1.75	0.821	1.66	A	EL	35.833	0.919	2.43	A	I	35.833	0.80	0.919	1.01	A	I	35.833		
	HL-93 (OPERATING)	N/A	--	2.16	--	1.35	0.821	2.16	A	EL	35.833	0.919	3.15	A	I	35.833	N/A	--	--	--	--	--		
	HS-20 (INVENTORY)	36.000	②	1.32	47.660	1.75	0.821	2.17	A	EL	35.833	0.919	2.87	A	I	35.833	0.80	0.769	1.32	A	I	35.833		
	HS-20 (OPERATING)	36.000	--	2.82	101.460	1.35	0.821	2.82	A	EL	35.833	0.919	3.72	A	I	35.833	N/A	--	--	--	--	--		
LEGAL LOAD RATING	SV	SNSH	13.500	--	2.98	40.226	1.40	0.821	6.12	A	EL	35.833	0.919	7.63	A	I	35.833	0.80	0.769	2.98	A	I	35.833	
		SNGARBS2	20.000	--	2.22	44.484	1.40	0.821	4.57	A	EL	35.833	0.919	5.70	A	I	35.833	0.80	0.769	2.22	A	I	35.833	
		SNAGRIS2	22.000	--	2.11	46.374	1.40	0.821	4.33	A	EL	35.833	0.919	5.40	A	I	35.833	0.80	0.769	2.11	A	I	35.833	
		SNCOTTS3	27.250	--	1.48	40.409	1.40	0.821	3.04	A	EL	35.833	0.919	3.84	A	I	35.833	0.80	0.769	1.48	A	I	35.833	
		SNAGGRS4	34.925	--	1.24	43.329	1.40	0.821	2.55	A	EL	35.833	0.919	3.38	A	I	35.833	0.80	0.769	1.24	A	I	35.833	
		SNS5A	35.550	--	1.21	43.126	1.40	0.821	2.49	A	EL	35.833	0.919	3.53	A	I	35.833	0.80	0.769	1.21	A	I	35.833	
		SNS6A	39.950	--	1.11	44.489	1.40	0.821	2.29	A	EL	35.833	0.919	3.31	A	I	35.833	0.80	0.769	1.11	A	I	35.833	
	SNS7B	42.000	--	1.06	44.543	1.40	0.821	2.18	A	EL	35.833	0.919	3.38	A	I	35.833	0.80	0.769	1.06	A	I	35.833		
	TTST	TNAGRIT3	33.000	--	1.36	44.820	1.40	0.821	2.79	A	EL	35.833	0.919	3.87	A	I	35.833	0.80	0.769	1.36	A	I	35.833	
		TNT4A	33.075	--	1.36	45.125	1.40	0.821	2.80	A	EL	35.833	0.919	3.68	A	I	35.833	0.80	0.769	1.36	A	I	35.833	
		TNT6A	41.600	--	1.12	46.428	1.40	0.821	2.29	A	EL	35.833	0.919	3.86	A	I	35.833	0.80	0.769	1.12	A	I	35.833	
		TNT7A	42.000	--	1.12	47.121	1.40	0.821	2.30	A	EL	35.833	0.919	3.73	A	I	35.833	0.80	0.769	1.12	A	I	35.833	
		TNT7B	42.000	--	1.16	48.779	1.40	0.821	2.38	A	EL	35.833	0.919	3.21	A	I	35.833	0.80	0.769	1.16	A	I	35.833	
		TNAGRIT4	43.000	--	1.10	47.485	1.40	0.821	2.27	A	EL	35.833	0.919	3.08	A	I	35.833	0.80	0.769	1.10	A	I	35.833	
TNAGT5A		45.000	--	1.04	46.844	1.40	0.821	2.14	A	EL	35.833	0.919	3.20	A	I	35.833	0.80	0.769	1.04	A	I	35.833		
TNAGT5B	45.000	③	1.03	46.267	1.40	0.821	2.11	A	EL	35.833	0.919	2.91	A	I	35.833	0.80	0.769	1.03	A	I	35.833			

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)

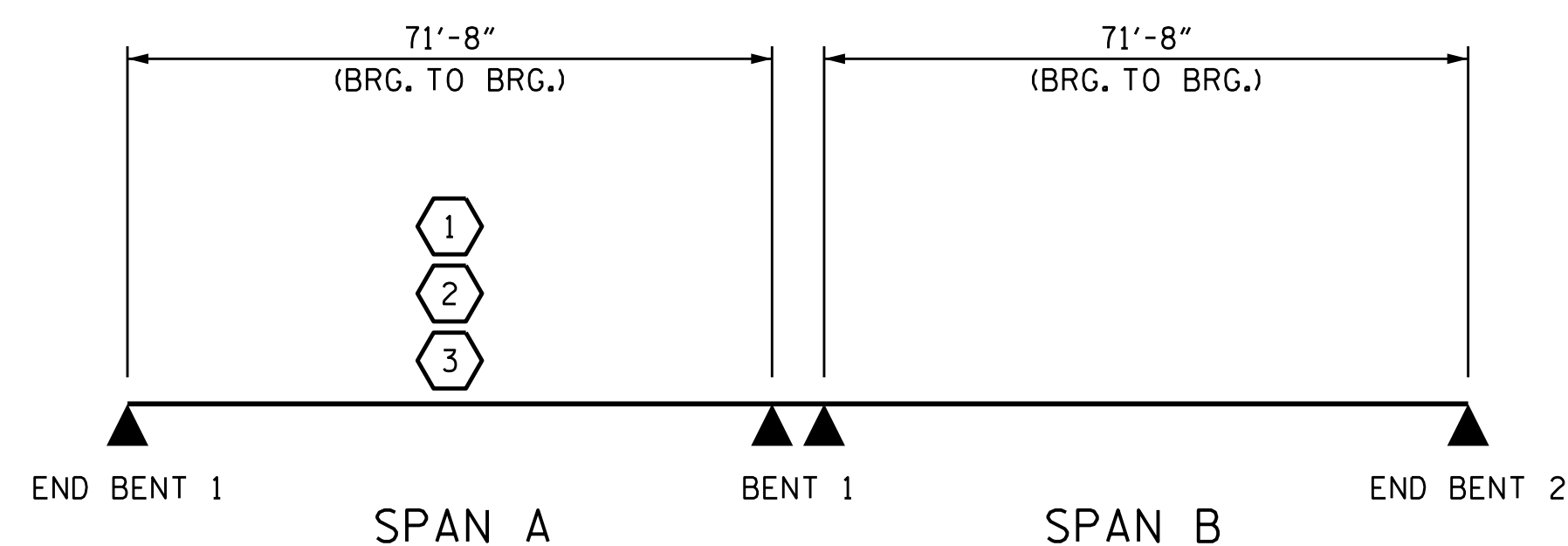
② DESIGN LOAD RATING (HS-20)

③ LEGAL LOAD RATING **

** SEE CHART FOR VEHICLE TYPE

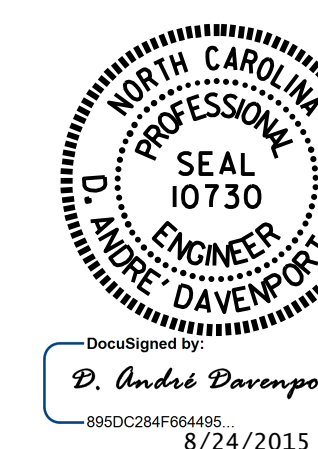
GIRDER LOCATION

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



LRFR SUMMARY

PROJECT NO. B-3159
DAVIDSON COUNTY
 STATION: 13+41.72 -L-



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

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-4
1			3			TOTAL SHEETS 43
2			4			

ASSEMBLED BY : H.A. LOCKLEAR DATE : 7/13/2015
 CHECKED BY : T.R. PETERSON DATE : 7/13/2015
 DRAWN BY : MAA 1/08
 CHECKED BY : GM/DI 2/08
 REV. 11/2/08RR MAA/GM
 REV. 10/1/11 MAA/GM
 DESIGN ENGINEER OF RECORD:
 H.A. LOCKLEAR DATE : 7/14/15