

LOAD FACTORS:

DESIGN LOAD RATING FACTORS	LIMIT STATE	$\gamma_{DC}$	$\gamma_{DW}$
	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(Inv)	N/A	1	1.01	--	1.75	0.781	1.49	A	ER	51.938	0.822	1.39	A	ER	72.713	0.80	0.781	1.01	B	ER	54.938		
	HL-93(0pr)	N/A	--	1.81	--	1.35	0.781	1.93	A	ER	51.938	0.822	1.81	A	ER	72.713	N/A	--	--	--	--	--		
	HS-20(Inv)	36.000	2	1.44	51.931	1.75	0.781	2.10	A	ER	51.938	0.822	1.78	A	ER	72.713	0.80	0.781	1.44	B	ER	54.938		
	HS-20(0pr)	36.000	--	2.3	82.949	1.35	0.781	2.72	A	ER	51.938	0.822	2.30	A	ER	72.713	N/A	--	--	--	--	--		
LEGAL LOAD RATING	SV	SNSH	13.500	--	3.47	46.786	1.40	0.781	6.26	A	ER	51.938	0.822	5.36	A	ER	72.713	0.80	0.781	3.47	B	ER	54.938	
		SNGARBS2	20.000	--	2.49	49.815	1.40	0.781	4.52	A	ER	51.938	0.822	3.79	A	ER	72.713	0.80	0.781	2.49	B	ER	54.938	
		SNAGRIS2	22.000	--	2.32	51.088	1.40	0.781	4.22	A	ER	51.938	0.822	3.51	A	ER	72.713	0.80	0.781	2.32	B	ER	54.938	
		SNCOTTS3	27.250	--	1.72	46.921	1.40	0.781	3.11	A	ER	51.938	0.822	2.67	A	ER	72.713	0.80	0.781	1.72	B	ER	54.938	
		SNAGGRS4	34.925	--	1.4	49.016	1.40	0.781	2.54	A	ER	51.938	0.822	2.20	A	ER	72.713	0.80	0.781	1.40	B	ER	54.938	
		SNS5A	35.550	--	1.38	48.874	1.40	0.781	2.49	A	ER	51.938	0.822	2.22	A	ER	72.713	0.80	0.781	1.37	B	ER	54.938	
		SNS6A	39.950	--	1.25	49.819	1.40	0.781	2.26	A	ER	51.938	0.822	2.02	A	ER	72.713	0.80	0.781	1.25	B	ER	54.938	
	SNS7B	42.000	--	1.19	49.855	1.40	0.781	2.15	A	ER	51.938	0.822	1.98	A	ER	72.713	0.80	0.781	1.19	B	ER	54.938		
	TTST	TNAGRIT3	33.000	--	1.52	50.044	1.40	0.781	2.75	A	ER	51.938	0.822	2.41	A	ER	72.713	0.80	0.781	1.52	B	ER	54.938	
		TNT4A	33.075	--	1.52	50.251	1.40	0.781	2.76	A	ER	51.938	0.822	2.36	A	ER	72.713	0.80	0.781	1.52	B	ER	54.938	
		TNT6A	41.600	--	1.23	51.124	1.40	0.781	2.23	A	ER	51.938	0.822	2.09	A	ER	31.163	0.80	0.781	1.23	B	ER	54.938	
		TNT7A	42.000	--	1.23	51.580	1.40	0.781	2.23	A	ER	51.938	0.822	2.05	A	ER	72.713	0.80	0.781	1.23	B	ER	54.938	
		TNT7B	42.000	--	1.25	52.649	1.40	0.781	2.28	A	ER	51.938	0.822	1.94	A	ER	72.713	0.80	0.781	1.25	B	ER	54.938	
		TNAGRIT4	43.000	--	1.21	51.817	1.40	0.781	2.19	A	ER	51.938	0.822	1.88	A	ER	72.713	0.80	0.781	1.21	B	ER	54.938	
TNAGT5A		45.000	--	1.14	51.398	1.40	0.781	2.08	A	ER	51.938	0.822	1.86	A	ER	72.713	0.80	0.781	1.14	B	ER	54.938		
TNAGT5B	45.000	3	1.13	51.017	1.40	0.781	2.06	A	ER	51.938	0.822	1.79	A	ER	72.713	0.80	0.781	1.13	B	ER	54.938			

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)

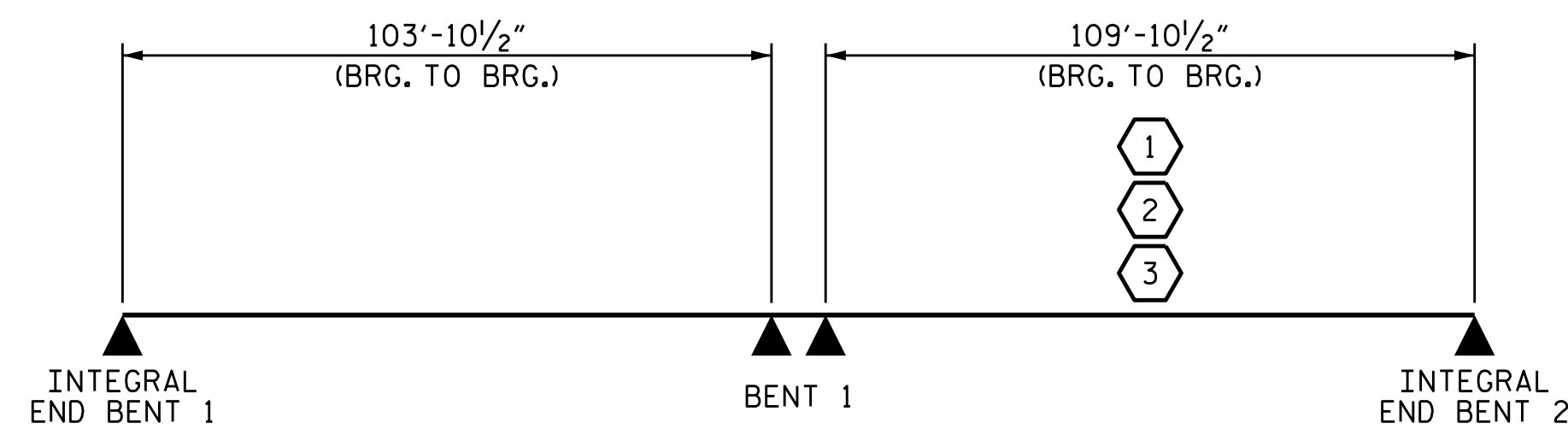
2 DESIGN LOAD RATING (HS-20)

3 LEGAL LOAD RATING \*\*

\*\* SEE CHART FOR VEHICLE TYPE

GIRDER LOCATION

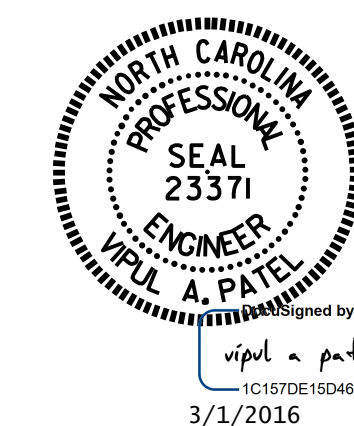
I - INTERIOR GIRDER  
EL - EXTERIOR LEFT GIRDER  
ER - EXTERIOR RIGHT GIRDER



LRFR SUMMARY

PROJECT NO. B-5123  
CABARRUS COUNTY  
 STATION: 21+44.10 -L-

SHEET OF



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

NO.	BY:		DATE:		NO.	BY:		DATE:		SHEET NO.
	1	2	1	2		1	2	1	2	
1					3					S3-4
2					4					TOTAL SHEETS 74

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STR. #1 STD. NO. LRFR1

ASSEMBLED BY: H. A. LOCKLEAR DATE: 2/22/16  
 CHECKED BY: T. H. CARROLL DATE: 2/29/16  
 DRAWN BY: MAA DATE: 1/20/16  
 DESIGN ENGINEER OF RECORD: DATE: 2/29/16  
 DESIGN ENGINEER: DATE: 2/29/16