

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	1.25	--	1.75	0.771	1.31	A	I	20.4	1.196	1.25	A	I	28.9	0.80	0.771	1.42	A	I	20.4	1:2	
	HL-93 (OPERATING)	N/A	+	1.70	--	1.35	0.771	1.70	A	I	20.4	1.196	2.46	A	I	28.9	N/A	--	--	--	--	+	1:2	
	HS-20 (INVENTORY)	36.000	②	1.61	57.960	1.75	0.771	1.61	A	I	20.4	1.196	1.67	A	I	28.9	0.80	0.771	1.74	A	I	20.4	1:2	
	HS-20 (OPERATING)	36.000	+	2.09	75.240	1.35	0.771	2.09	A	I	20.4	1.196	2.92	A	I	28.9	N/A	--	--	--	--	+	1:2	
LEGAL LOAD RATING	SINGLE VEHICLE (SV)	SNSH	13.500	+	3.44	46.440	1.40	0.771	3.97	A	I	20.4	1.196	6.64	A	I	12.0	0.80	0.771	3.44	A	I	20.4	1:2
		SNGRBS2	20.000	+	2.75	55.000	1.40	0.771	3.44	A	I	16.2	1.196	5.03	A	I	12.0	0.80	0.771	2.75	A	I	20.4	1:2
		SNAGRIS2	22.000	+	2.69	59.180	1.40	0.771	3.03	A	I	16.2	1.196	4.80	A	I	12.0	0.80	0.771	2.69	A	I	20.4	1:2
		SNCOTTS3	27.250	+	1.70	46.325	1.40	0.771	1.96	A	I	20.4	1.196	2.62	A	I	24.6	0.80	0.771	1.70	A	I	20.4	1:2
		SNAGGRS4	34.925	+	1.50	52.388	1.40	0.771	1.73	A	I	20.4	1.196	2.24	A	I	28.9	0.80	0.771	1.50	A	I	20.4	1:2
		SNS5A	35.550	+	1.46	51.903	1.40	0.771	1.69	A	I	20.4	1.196	2.52	A	I	24.6	0.80	0.771	1.46	A	I	20.4	1:2
		SNS6A	39.950	+	1.38	55.131	1.40	0.771	1.59	A	I	20.4	1.196	2.22	A	I	28.9	0.80	0.771	1.38	A	I	20.4	1:2
		SNS7B	42.000	③	1.31	55.020	1.40	0.771	1.52	A	I	20.4	1.196	2.32	A	I	24.6	0.80	0.771	1.31	A	I	20.4	1:2
	TRUCK TRACTOR SEMI-TRAILER (TTST)	TNAGRIT3	33.000	+	1.69	55.770	1.40	0.771	1.95	A	I	20.4	1.196	3.46	A	I	28.9	0.80	0.771	1.69	A	I	20.4	1:2
		TNT4A	33.075	+	1.70	56.228	1.40	0.771	1.97	A	I	20.4	1.196	2.74	A	I	28.9	0.80	0.771	1.70	A	I	20.4	1:2
		TNT6A	41.600	+	1.43	49.488	1.40	0.771	1.66	A	I	20.4	1.196	2.52	A	I	24.6	0.80	0.771	1.43	A	I	20.4	1:2
		TNT7A	42.000	+	1.46	61.320	1.40	0.771	1.68	A	I	20.4	1.196	2.25	A	I	28.9	0.80	0.771	1.46	A	I	20.4	1:2
		TNT7B	42.000	+	1.51	63.420	1.40	0.771	1.73	A	I	16.2	1.196	2.42	A	I	28.9	0.80	0.771	1.51	A	I	20.4	1:2
		TNAGRIT4	43.000	+	1.45	62.350	1.40	0.771	1.67	A	I	16.2	1.196	1.95	A	I	28.9	0.80	0.771	1.45	A	I	20.4	1:2
		TNAGT5A	45.000	+	1.35	60.750	1.40	0.771	1.56	A	I	20.4	1.196	2.23	A	I	28.9	0.80	0.771	1.35	A	I	20.4	1:2
TNAGT5B	45.000	+	1.31	58.950	1.40	0.771	1.52	A	I	20.4	1.196	1.72	A	I	28.9	0.80	0.771	1.31	A	I	20.4	1:2		

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. SPAN A, B AND C LENGTHS AND RATING FACTORS ARE EQUAL.
 2. THE REDUCTION OF LOAD DISTRIBUTION FACTOR FOR MOMENT IN LONGITUDINAL BEAMS ON SKEWED SUPPORTS (AASHTO TABLE 4.6.2.2.2E-1) WAS NOT APPLIED.

CONTROLLING LOAD RATING

① DESIGN LOAD RATING (HL-93)

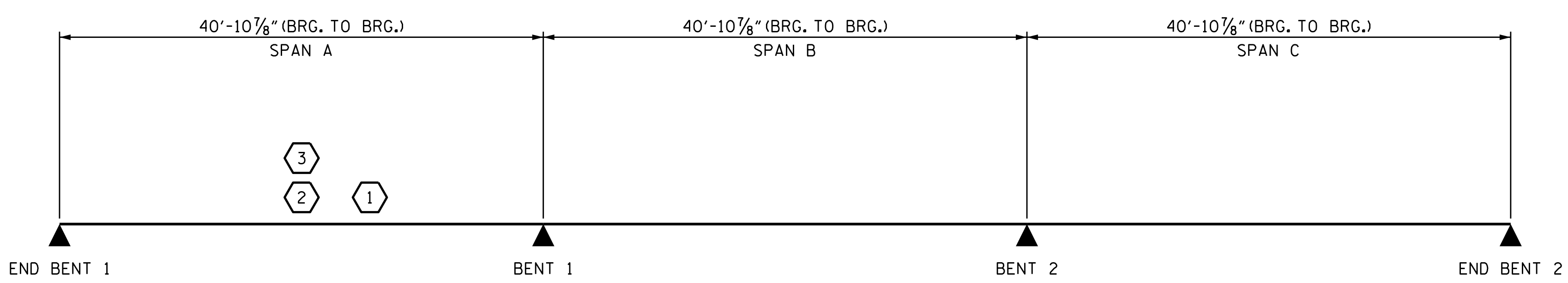
② DESIGN LOAD RATING (HS-20)

③ LEGAL LOAD RATING **

** SEE CHART FOR VEHICLE TYPE

GIRDER LOCATION

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



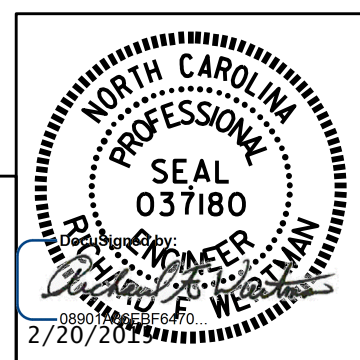
PROJECT NO. R-2915B
ASHE COUNTY
 STATION: 234+19.20 -L-

LRFR SUMMARY

ASSEMBLED BY : T.J. KIRSCHBAUM DATE : 4/17/14
 CHECKED BY : R.F. WERTMAN DATE : 7/24/14
 DRAWN BY : MAA 1/08 REV. 11/2/08RR MAA/GM
 CHECKED BY : GM/DI 2/08 REV. 10/1/11 MAA/GM

PLANS PREPARED BY:
Gannett Fleming
 Excellence Delivered As Promised
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 Raleigh NC 27606-4279
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 NC Lic. No. F-0270

THESE PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH EXISTING NORTH CAROLINA CODES, AND HAVE BEEN PROPERLY ADAPTED FOR USE IN THIS AREA.



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

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S03-4
1			3			TOTAL SHEETS
2			4			30