

PLOT DRIVER: NCDOT_STRUCTURES_DEFAULT_PLOTTER.plt PENTABLE: NCDOT_STRUCTURES_DEFAULT_PEN.tbl
 USER: PPETERSO DATE: 1/25/2022 TIME: 8:25:07 AM
 FILE: ... \401_015_B5898B3186_SMU.GD_004_430168.dgn

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	1.09	--	1.75	0.87	1.39	A	E	63.97	0.94	1.25	A	E	25.17	0.80	0.87	1.09	A	E	63.97				
	HL-93 (OPERATING)	N/A		1.72	--	1.35	0.87	1.81	A	E	63.97	1.01	1.72	A	I	102.78	N/A	--	--	--	--	--				
	HS-20 (INVENTORY)	36.000	②	1.62	58.32	1.75	0.87	1.95	B	E	48.10	1.01	1.83	A	I	102.78	0.80	0.87	1.62	A	E	63.97				
	HS-20 (OPERATING)	36.000		2.43	87.48	1.35	0.87	2.53	B	E	48.10	1.01	2.43	A	I	102.78	N/A	--	--	--	--	--				
LEGAL LOAD RATING	SINGLE VEHICLE (SV)	SNSH	13.500		3.94	53.19	1.40	0.87	5.76	B	E	48.10	1.01	6.06	A	I	102.78	0.80	0.87	3.94	A	E	63.97			
		SNGARBS2	20.000		2.81	56.20	1.40	0.87	4.18	B	E	48.10	1.01	4.17	A	I	102.78	0.80	0.87	2.81	A	E	63.97			
		SNAGRIS2	22.000		2.61	57.42	1.40	0.87	3.91	B	E	48.10	1.01	3.82	A	I	102.78	0.80	0.87	2.61	A	E	63.97			
		SNCOTTS3	27.250		1.96	53.41	1.40	0.87	2.86	B	E	48.10	1.01	2.93	A	I	102.78	0.80	0.87	1.96	A	E	63.97			
		SNAGGRS4	34.925		1.59	55.53	1.40	0.87	2.35	B	E	48.10	1.01	2.34	A	I	102.78	0.80	0.87	1.59	A	E	63.97			
		SNS5A	35.550		1.55	55.10	1.40	0.87	2.30	B	E	48.10	1.01	2.34	A	I	102.78	0.80	0.87	1.55	A	E	63.97			
		SNS6A	39.950		1.41	56.33	1.40	0.87	2.09	B	E	48.10	1.01	2.10	A	I	102.78	0.80	0.87	1.41	A	E	63.97			
	SNS7B	42.000		1.34	56.28	1.40	0.87	1.99	B	E	48.10	1.01	2.03	A	I	102.78	0.80	0.87	1.34	A	E	63.97				
	TRUCK TRACTOR SEMI-TRAILER (TTST)	TNAGRIT3	33.000		1.71	56.43	1.40	0.87	2.55	B	E	48.10	1.01	2.55	A	I	102.78	0.80	0.87	1.71	A	E	63.97			
		TNT4A	33.075		1.71	56.56	1.40	0.87	2.55	B	E	48.10	1.01	2.50	A	I	102.78	0.80	0.87	1.71	A	E	63.97			
		TNT6A	41.600		1.38	57.41	1.40	0.87	2.07	B	E	48.10	1.01	2.12	A	I	102.78	0.80	0.87	1.38	A	E	63.97			
		TNT7A	42.000		1.38	57.96	1.40	0.87	2.07	B	E	48.10	1.01	2.09	A	I	102.78	0.80	0.87	1.38	A	E	63.97			
		TNT7B	42.000		1.40	58.80	1.40	0.87	2.12	B	E	48.10	1.01	2.00	A	I	102.78	0.80	0.87	1.40	A	E	63.97			
		TNAGRIT4	43.000		1.35	58.05	1.40	0.87	2.04	B	E	48.10	1.01	1.94	A	I	102.78	0.80	0.87	1.35	A	E	63.97			
TNAGT5A		45.000		1.28	57.60	1.40	0.87	1.93	B	E	48.10	1.01	1.89	A	I	102.78	0.80	0.87	1.28	A	E	63.97				
TNAGT5B	45.000	③	1.27	57.15	1.40	0.87	1.91	B	E	48.10	1.01	1.83	A	I	102.78	0.80	0.87	1.27	A	E	63.97					

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.

③ CONTROLLING LOAD RATING

① DESIGN LOAD RATING (HL-93)

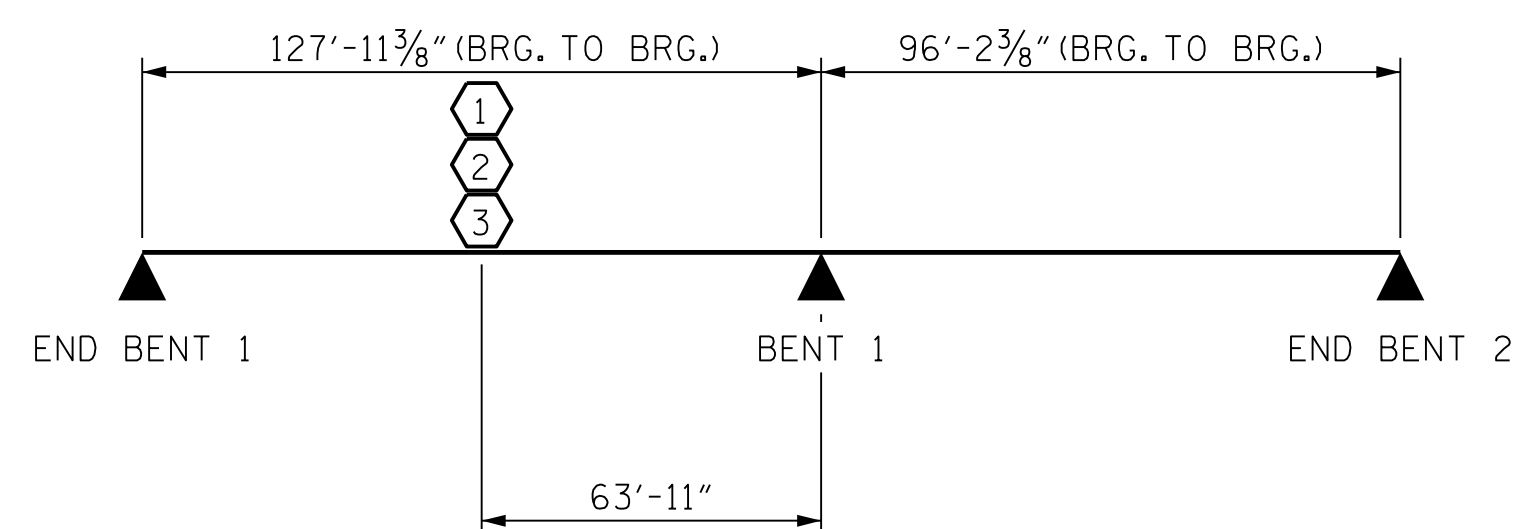
② DESIGN LOAD RATING (HS-20)

③ LEGAL LOAD RATING **

** SEE CHART FOR VEHICLE TYPE

GIRDER LOCATION

I - INTERIOR GIRDER
E - EXTERIOR GIRDER



LRFR SUMMARY

PROJECT NO. B-3186/B-5898
HAYWOOD COUNTY
 STATION: 42+71.13 -L-

SHEET 4 OF 4



Kent Dickens 1/25/2022

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING
CONCRETE GIRDERS
(NON-INTERSTATE TRAFFIC)

REVISIONS

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

SHEET
NO.
S01-04
TOTAL
SHEETS
59

DES BY: <u>K. DICKENS</u>	DATE: <u>03/21</u>	DWG BY: <u>D. CARTER</u>	DATE: <u>03/21</u>
DES CHK: <u>B. ROGERS</u>	DATE: <u>03/21</u>	CHK BY: <u>K. DICKENS</u>	DATE: <u>06/21</u>



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UNLESS ALL SIGNATURES COMPLETED