

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	1.142	--	1.75	0.254	1.5	35'	EL	16.923	0.653	1.14	35'	EL	1.692	0.80	0.254	1.16	35'	EL	16.923		
	HL-93(0pr)	N/A	--	1.48	--	1.35	0.254	1.95	35'	EL	16.923	0.653	1.48	35'	EL	1.692	N/A	--	--	--	--	--		
	HS-20(InV)	36.000	2	1.318	47.43	1.75	0.254	1.99	35'	EL	13.538	0.653	1.32	35'	EL	1.692	0.80	0.254	1.54	35'	EL	16.923		
	HS-20(0pr)	36.000	--	1.708	61.484	1.35	0.254	2.57	35'	EL	13.538	0.653	1.71	35'	EL	1.692	N/A	--	--	--	--	--		
LEGAL LOAD RATING	SV	SNSH	13.500	--	2.649	35.758	1.4	0.254	4.3	35'	EL	16.923	0.653	3.39	35'	EL	1.692	0.80	0.254	2.65	35'	EL	16.923	
		SNGARBS2	20.000	--	2.276	45.521	1.4	0.254	3.64	35'	EL	13.538	0.653	2.56	35'	EL	1.692	0.80	0.254	2.28	35'	EL	13.538	
		SNAGRIS2	22.000	--	2.27	49.949	1.4	0.254	3.61	35'	EL	13.538	0.653	2.44	35'	EL	1.692	0.80	0.254	2.27	35'	EL	13.538	
		SNCOTTS3	27.250	--	1.326	36.138	1.4	0.254	2.15	35'	EL	16.923	0.653	1.71	35'	EL	1.692	0.80	0.254	1.33	35'	EL	16.923	
		SNAGGRS4	34.925	--	1.228	42.883	1.4	0.254	1.99	35'	EL	16.923	0.653	1.53	35'	EL	1.692	0.80	0.254	1.23	35'	EL	16.923	
		SNS5A	35.550	--	1.192	42.369	1.4	0.254	1.93	35'	EL	16.923	0.653	1.61	35'	EL	1.692	0.80	0.254	1.19	35'	EL	16.923	
		SNS6A	39.950	--	1.15	45.932	1.4	0.254	1.87	35'	EL	16.923	0.653	1.52	35'	EL	1.692	0.80	0.254	1.15	35'	EL	16.923	
	TTST	SNS7B	42.000	3	1.098	46.1	1.4	0.254	1.78	35'	EL	16.923	0.653	1.55	35'	EL	1.692	0.80	0.254	1.10	35'	EL	16.923	
		TNAGRIT3	33.000	--	1.422	46.913	1.4	0.254	2.31	35'	EL	16.923	0.653	1.77	35'	EL	1.692	0.80	0.254	1.42	35'	EL	16.923	
		TNT4A	33.075	--	1.419	46.934	1.4	0.254	2.3	35'	EL	16.923	0.653	1.67	35'	EL	1.692	0.80	0.254	1.42	35'	EL	16.923	
		TNT6A	41.600	--	1.244	51.758	1.4	0.254	2.02	35'	EL	16.923	0.653	1.64	35'	EL	1.692	0.80	0.254	1.24	35'	EL	16.923	
		TNT7A	42.000	--	1.286	54.015	1.4	0.254	2.09	35'	EL	16.923	0.653	1.52	35'	EL	1.692	0.80	0.254	1.29	35'	EL	16.923	
		TNT7B	42.000	--	1.263	53.051	1.4	0.254	2.05	35'	EL	16.923	0.653	1.48	35'	EL	1.692	0.80	0.254	1.26	35'	EL	16.923	
		TNAGRIT4	43.000	--	1.279	55.012	1.4	0.254	2.06	35'	EL	13.538	0.653	1.42	35'	EL	1.692	0.80	0.254	1.28	35'	EL	16.923	
TNAGT5A	45.000	--	1.182	53.19	1.4	0.254	1.92	35'	EL	16.923	0.653	1.5	35'	EL	1.692	0.80	0.254	1.18	35'	EL	16.923			
TNAGT5B	45.000	--	1.14	51.296	1.4	0.254	1.85	35'	EL	16.923	0.653	1.34	35'	EL	1.692	0.80	0.254	1.14	35'	EL	16.923			

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)

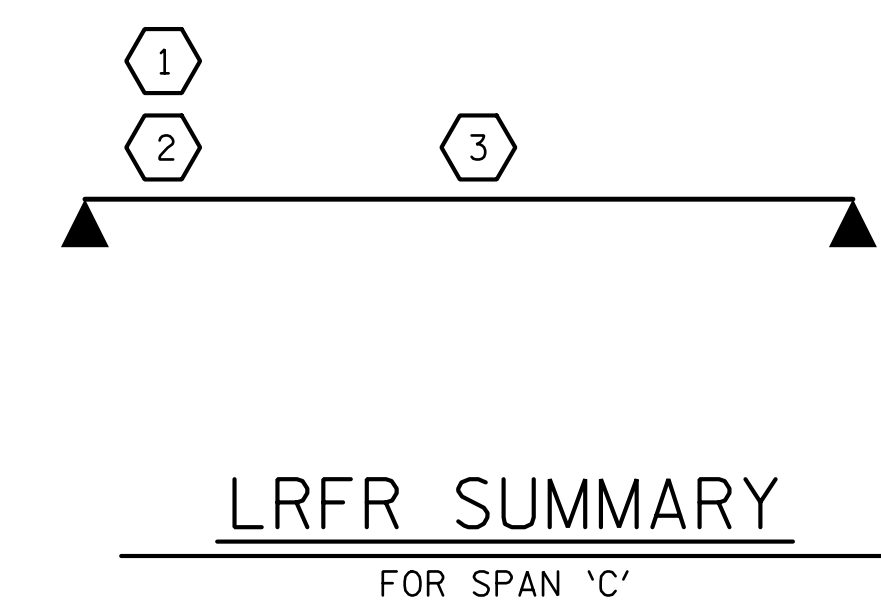
② DESIGN LOAD RATING (HS-20)

③ LEGAL LOAD RATING **

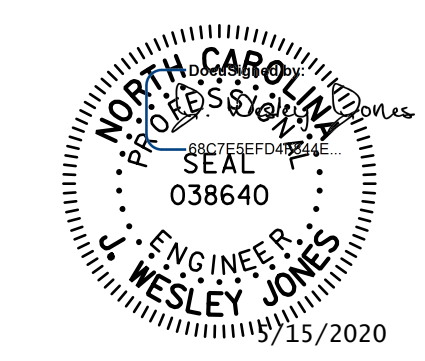
** SEE CHART FOR VEHICLE TYPE

GIRDER LOCATION

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



PROJECT NO. BR-0115
IREDELL COUNTY
STATION: 15+74.00 -L-



STV 100 YEARS
STV ENGINEERS, INC.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STANDARD
LRFR SUMMARY FOR
35' CORED SLAB UNIT
60° SKEW
(NON-INTERSTATE TRAFFIC)

REVISIONS				SHEET NO.		
NO.	BY:	DATE:	NO.	BY:	DATE:	S-5
1			3			TOTAL SHEETS
2			4			23

R:\Structures\ustation\Finals\40L_009_BR-0115_SMU_LRFR3_005_480166.dgn 3/11/2020 5:08:58 PM Jones

DRAWN BY : WAW DATE : 10-19
CHECKED BY : JWJ DATE : 12-19
DESIGN ENGINEER OF RECORD : JWJ DATE : 3-20

DRAWN BY : CVC 6/10
CHECKED BY : DNS 6/10