

LOAD FACTORS:

DESIGN LOAD RATING FACTORS

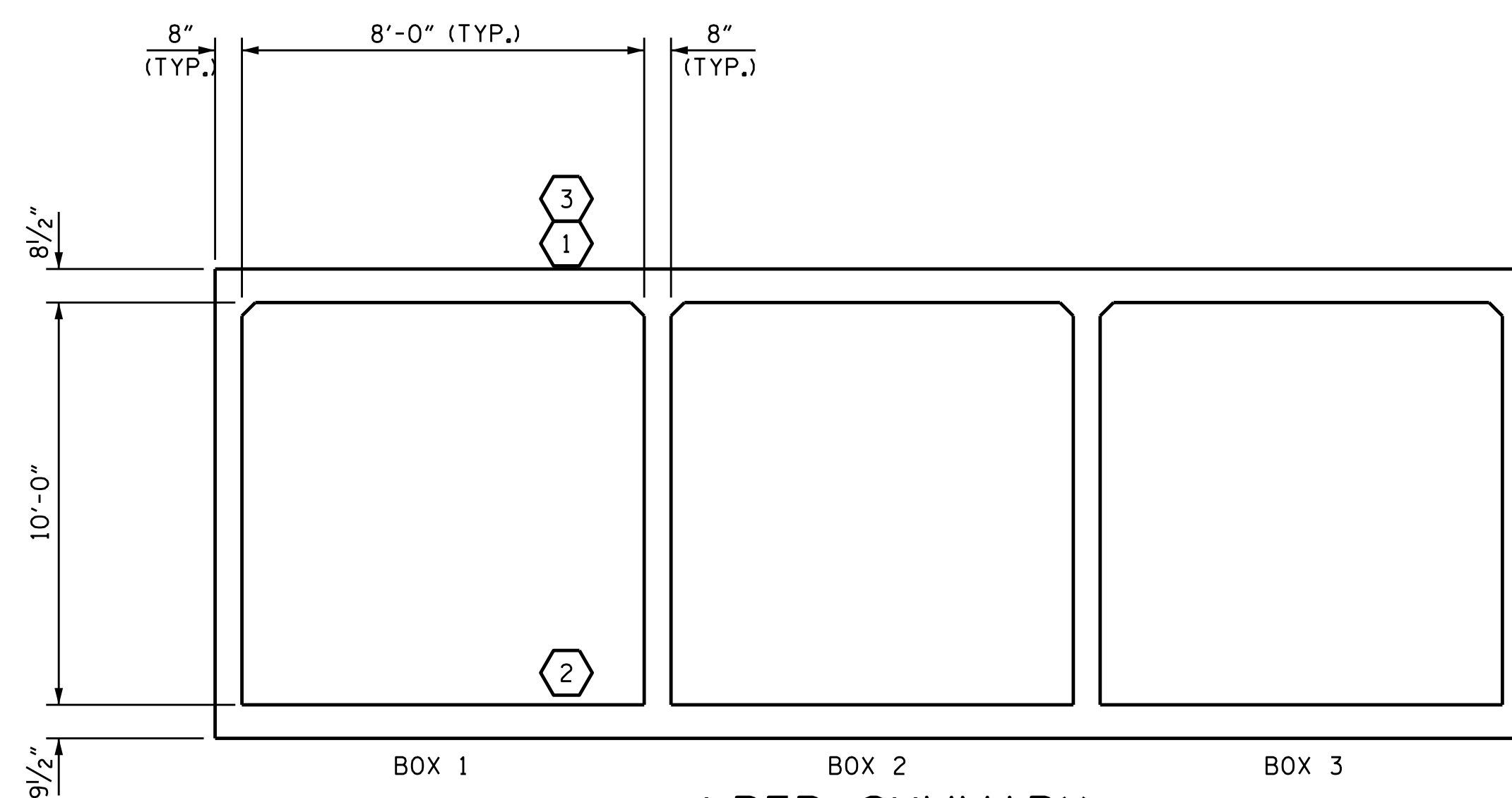
LOAD TYPE	MAX FACTOR	MIN FACTOR
DC	1.25	0.90
DW	1.50	0.65
EV	1.30	0.90
EH	1.35	0.90
ES	1.35	0.90
LS	1.75	--
WA	1.00	--

NOTE:

RATING FACTORS ARE BASED ON THE STRENGTH I LIMIT STATE.

LOAD AND RESISTANCE FACTOR RATING (LRFR) SUMMARY FOR REINFORCED CONCRETE BOX CULVERTS																
LEVEL	VEHICLE	WEIGHT (W) (TONS)	CONTROLLING LOAD RATING #	MINIMUM RATING FACTORS (RF)	TONS = W x RF	STRENGTH I LIMIT STATE								COMMENT NUMBER		
						LIVE-LOAD FACTORS (LL)	MOMENT				SHEAR					
							RATING FACTOR	BOX NO.	ELEMENT TYPE	DISTANCE FROM LEFT END OF ELEMENT (ft)	RATING FACTOR	BOX NO.	ELEMENT TYPE		DISTANCE FROM LEFT END OF ELEMENT (ft)	
DESIGN LOAD RATING	HL-93 (INVENTORY)	N/A	1	1.24	--	1.75	1.64	1	BOT. CORNER WALL	10.48	1.24	1	TOP SLAB	7.82		
	HL-93 (OPERATING)	N/A		1.61	--	1.35	2.13	1	BOT. CORNER WALL	10.48	1.61	1	TOP SLAB	7.82		
	HS-20 (INVENTORY)	36.00	2	1.74	62.55	1.75	1.75	1	BOT. CORNER WALL	10.48	1.74	1	BOTTOM SLAB	7.76		
	HS-20 (OPERATING)	36.00		2.25	81.08	1.35	2.27	1	BOT. CORNER WALL	10.48	2.25	1	BOTTOM SLAB	7.76		
LEGAL LOAD RATING	SINGLE VEHICLE (SV)	SH		2.45	30.64	1.40	2.45	1	BOT. CORNER WALL	10.48	2.93	1	EXTERIOR WALL	9.87		
		S3C	21.50		2.03	43.66	1.40	2.23	1	BOT. CORNER WALL	10.48	2.03	1	TOP SLAB	7.82	
		S3A	22.75		2.03	46.21	1.40	2.27	1	BOT. CORNER WALL	10.48	2.03	1	TOP SLAB	7.82	
		S4A	26.75		2.01	53.71	1.40	2.18	1	BOT. CORNER WALL	10.48	2.01	1	TOP SLAB	7.82	
		S5A	30.50	3	1.82	55.50	1.40	2.13	1	BOT. CORNER WALL	10.48	1.82	1	TOP SLAB	7.82	
		S6A	34.50		1.83	63.07	1.40	2.14	1	BOT. CORNER WALL	10.48	1.83	1	TOP SLAB	7.82	
		S7B	38.50		1.82	70.24	1.40	2.10	1	BOT. CORNER WALL	10.48	1.82	1	TOP SLAB	7.82	
		S7A	40.00		1.85	73.92	1.40	2.06	1	BOT. CORNER WALL	10.48	1.85	1	TOP SLAB	7.82	
	TRUCK TRACTOR SEMI-TRAILER (TTST)	T4A	28.25		2.03	57.38	1.40	2.27	1	BOT. CORNER WALL	10.48	2.03	1	TOP SLAB	7.82	
		T5B	32.00		1.98	63.44	1.40	2.18	1	BOT. CORNER WALL	10.48	1.98	1	TOP SLAB	7.82	
		T6A	36.00		1.90	68.53	1.40	2.13	1	BOT. CORNER WALL	10.48	1.90	1	TOP SLAB	7.82	
		T7A	40.00		2.01	80.26	1.40	2.15	1	BOT. CORNER WALL	10.48	2.01	1	TOP SLAB	7.82	
	T7B	40.00		1.97	78.85	1.40	2.18	1	BOT. CORNER WALL	10.48	1.97	1	TOP SLAB	7.82		

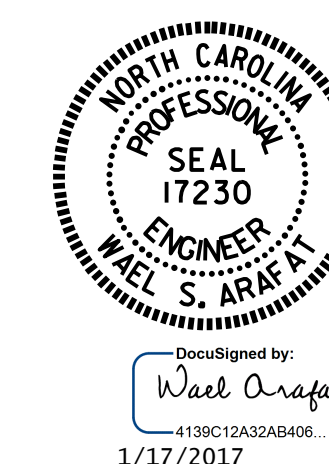
#	CONTROLLING LOAD RATING
1	DESIGN LOAD RATING (HL-93)
2	DESIGN LOAD RATING (HS-20)
3	LEGAL LOAD RATING **
** SEE CHART FOR VEHICLE TYPE	



LRFR SUMMARY
(LOOKING DOWNSTREAM)

PROJECT NO. I-5000
GASTON COUNTY
 STATION: 18+50.00 -RPD

SHEET 2 OF 7



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 STANDARD
 LRFR SUMMARY FOR
 REINFORCED CONCRETE
 BOX CULVERTS
 (NON-INTERSTATE TRAFFIC)

ASSEMBLED BY :	H. T. BARBOUR	DATE :	8-31-16
CHECKED BY :	A. M. LEE	DATE :	10-16
DRAWN BY :	WMC	7/11	REV. 10/1/11
CHECKED BY :	GM	7/11	MAA/GM

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	C-20
1			3			TOTAL SHEETS
2			4			26