



**ABUTMENTS**  
 Jacking Load per Beam:  
 1000 lbs. S. Abut.  
 1000 lbs. N. Abut.

**JACKING & CRIBBING**  
 Quantity = 10 Each  
 The cost of removal of existing bearings shall be incidental to elastomeric bearing assembly.

**PIERS**  
 Jacking Load per Beam:  
 5400 lbs. Pier 1  
 5400 lbs. Pier 2

$I_x$  &  $I_y$  ~ are the Moment of Inertia and Section Modulus of the steel section used in computing  $F_b$  total.  
 $I_c$  &  $I_y$  ~ are the Moment of Inertia and Section Modulus of the composite section used in computing  $F_b$  total.  
 $M_d$  ~ Moment due to dead loads on non composite sections.  
 $M_c$  ~ Moment due to dead loads on composite sections.  
 $M_l$  ~ Moments due to live loads on composite or non-composite sections.  
 $I$  ~ Live load Impact.  
 $V_e$  ~ is the maximum  $4 +$  Impact shear range in span.

**INTERIOR BEAM MOMENT TABLE**

	S. ABUT	PIER 1	PIER 2	PIER 2	N. ABUT
$I_x$	4,470	4,470	4,470	4,470	4,470
$I_y$	9,549	9,549	9,549	9,549	9,549
$I_c$	10,014	10,014	10,014	10,014	10,014
$I_y$	299	299	299	299	299
$M_d$	417	417	417	417	417
$M_c$	493	493	493	493	493
$M_l$	759	1,021	759	1,021	759
$M_d$	41	119	117	154	42
$M_c$	201	—	101	—	101
$M_l$	21	—	59	—	39
$M_d$	187	141	164	148	250
$M_c$	50	41	59	42	77
$F_b$	1.0	0.9	4.7	10.2	3.7
$F_b$	0.9	—	1.0	—	1.1
$F_b$	0.3	2.3	10.4	7.0	8.7
$F_b$	0.7	15.9	10.7	17.0	15.5
$V_e$	41.4	—	29.2	—	49.0

**PROPOSED TOP OF BEAM ELEVATIONS**

Dist.	S. Abut.	Pier 1	Splice 1	Splice 2	Pier 2	Org. N. Abut.
A	039.24	040.07	040.91	041.09	041.01	043.52
B	039.42	040.47	040.70	041.81	042.10	043.50
C	039.46	040.07	040.90	041.01	042.00	043.70
D	039.00	040.00	041.17	042.22	042.04	043.89
E	040.09	041.00	041.97	042.42	042.70	044.08
F	040.21	041.23	041.52	042.50	042.90	044.22

**INTERIOR BEAM REACTION TABLE**

	S. ABUT	PIER 1	PIER 2	N. ABUT
$R_v$	10.0	51.3	57.0	10.4
$R_h$	00.1	31.4	34.4	01.2
$R_{IMP}$	2.0	11.5	11.5	2.0
$R_{TOTAL}$	12.1	100.2	108.3	13.6

**JACKING & CRIBBING DETAILS**  
 FA 110 (US 51) OVER  
 LAKE SHORE DRIVE  
 SECTION 48 HBR  
 MACON COUNTY  
 STATION 100+ 10.22  
 COLLINS & RICE  
 CONSULTING ENGINEERS  
 DRAWN: F.S.  
 DATE: 1-5-09 - 2506

