		KIP	KIP	IN -KIP	IN -KIP	IN
1	1	.0000E+00	-.1231E+01	.0000E+00	.0000E+00	.00
	2	.0000E+00	.2289E+01	-.3168E+02	-.3168E+02	18.00
2	2	.0000E+00	.8091E+01	-.3168E+02	.2676E+03	60.00
	3	.0000E+00	-.1635E+01	.2676E+03	-.3168E+02	.00
3	3	.0000E+00	-.1425E+01	.2676E+03	.2676E+03	.00
	4	.0000E+00	.5655E+01	.1267E+02	.1267E+02	72.00
4	4	.0000E+00	-.1751E+00	.1267E+02	.1267E+02	.00
	5	.0000E+00	.1233E+01	.0000E+00	.0000E+00	18.00

STRUCTURE REACTIONS

JOINT	FORCE X KIP	FORCE Y KIP	MOMENT IN -KIP
1	.0000E+00	-.1231E+01	.0000E+00
5	.0000E+00	.1233E+01	.0000E+00
TOTAL	.0000E+00	.1251E-02	

1 LOAD CASE 12

JOINT DISPLACEMENTS

JOINT	DX IN	DY IN	DR RAD
1	.0000E+00	.0000E+00	.1421E-03
2	.0000E+00	.2616E-02	.6546E-04
3	.0000E+00	.1922E-02	-.7960E-04
4	.0000E+00	-.3495E-02	.1348E-03
5	.0000E+00	.0000E+00	.1953E-03

MEMBER END FORCES

MEMBER	JOINT	AXIAL KIP	SHEAR KIP	MOMENT IN -KIP	MOMENT EXTREMA IN -KIP	LOCATION IN
1	1	.0000E+00	-.2113E+01	.0000E+00	.0000E+00	.00
	2	.0000E+00	.3099E+01	-.4712E+02	-.4712E+02	18.00
2	2	.0000E+00	.2701E+01	-.4712E+02	.9439E+01	31.20
	3	.0000E+00	.3304E+01	-.4854E+02	-.4854E+02	60.00
3	3	.0000E+00	.3256E+01	-.4854E+02	.3766E+02	57.60
	4	.0000E+00	.6138E+00	.3298E+02	-.4854E+02	.00
4	4	.0000E+00	-.1514E+01	.3298E+02	.3298E+02	.00
	5	.0000E+00	.2127E+01	.0000E+00	.0000E+00	18.00

STRUCTURE REACTIONS

JOINT	FORCE X KIP	FORCE Y KIP	MOMENT IN -KIP
1	.0000E+00	-.2113E+01	.0000E+00
5	.0000E+00	.2127E+01	.0000E+00

TOTAL .0000E+00 .1375E-01

1 LOAD CASE 13

JOINT DISPLACEMENTS

JOINT	DX IN	DY IN	DR RAD
1	.0000E+00	.0000E+00	.3186E-03
2	.0000E+00	.5781E-02	.2376E-03
3	.0000E+00	.1062E-01	-.9390E-04
4	.0000E+00	-.1487E-02	.1299E-04
5	.0000E+00	.0000E+00	.8333E-04

MEMBER END FORCES

MEMBER	JOINT	AXIAL KIP	SHEAR KIP	MOMENT IN -KIP	MOMENT EXTREMA IN -KIP	LOCATION IN
1	1	.0000E+00	-.2338E+01	.0000E+00	.0000E+00	.00
	2	.0000E+00	.3071E+01	-.4886E+02	-.4886E+02	18.00
2	2	.0000E+00	.1809E+01	-.4886E+02	-.1254E+02	30.00
	3	.0000E+00	.2708E+01	-.6109E+02	-.6109E+02	60.00
3	3	.0000E+00	.3112E+01	-.6109E+02	.3909E+02	72.00
	4	.0000E+00	.4271E-02	.3909E+02	-.6109E+02	.00
4	4	.0000E+00	-.1924E+01	.3909E+02	.3909E+02	.00
	5	.0000E+00	.2399E+01	.0000E+00	.0000E+00	18.00

STRUCTURE REACTIONS

JOINT	FORCE X KIP	FORCE Y KIP	MOMENT IN -KIP
1	.0000E+00	-.2338E+01	.0000E+00
5	.0000E+00	.2399E+01	.0000E+00

TOTAL .0000E+00 .6081E-01

Bayou Sorrel Lock Feasibility

TWall - Slab (Transverse Direction) Design

Determine Minimum Thickness

Mmax:	267.60	in-k	
Mu:	591.40	in-k	-- Apply Corps Factors 1.3 & 1.7

From EM-1110-2-2104, June 92, page D-2:

for 3000 psi concrete

d req'd = 14.00 in

Minimum Thickness: 18.00 in -- d req'd + 4" clear cover

Using Thickness of: 30.00 in **OK**

Determine Shear Capacity

Concrete Properties:

b:	12	in	f'c:	3	ksi
d:	26	in	fy	60	ksi
h:	30.00	in			

Vmax:	7.78	kips	
Vu:	17.19	kips	-- Apply Corps Factors 1.3 & 1.7

Shear Capacity of Concrete

Vc = 29.05 kips

Vc > Vu **OK**

Determine Punching Shear Capacity

From CPGA Results, Max Pile Reaction: 57.3 kips

Pu: 126.63 kips -- Apply Corps Factors 1.3 & 1.7

Pile Size: 12 in^2

Pc = Pu / A

where,

Perimeter = 148 in -- 2*(Pile Size + d/2 + d/2) + 2*(Pile Size + d/2 + edge distance)

A = 3848 in^2 -- Perimeter * d

Pc = 32.91 psi

Punching Shear Capacity

v = 139.67 psi

v > Pc **OK**