INPUT/ANALYSIS REPORT

Job: 11401- raft slab GB2

Title: 19-21 The Corso Manly
Raft slab edge beam lift to stair lobby
Type: Plane frame
Date: 27 Feb 2020
Time: 5:12 PM

Nodes	6
Members	5
Spring supports	0
Sections	1
Materials	1
Primary load cases	1
Combination load cases	0

Analysis: Linear elastic

LOAD CASES

Case	Type	Analysis Type	Flag	Title
1	P	L	-	Full working loads

Analysis Types:
S - Skipped (not analysed)
L - Linear
N - Non-linear

Analysis Flag:
CNV - Converged
XSD - Excessive displacements
DNC - Did not converge in iteration limit
UNS - Unstable or local instability

NODE COORDINATES

Node	X m	Y m	Z m	Restraint
1	0.000	0.000	0.000	000000
2	1.000	0.000	0.000	111000
3	8.500	0.000	0.000	010000
4	10.000	0.000	0.000	010000
5	11.500	0.000	0.000	010000
6	11.800	0.000	0.000	000000

MEMBER DEFINITION

Member	A	B	C	Prop	Matl	Rel-A	Rel-B	Length m
1	1	2	Y	1	1	000000	000000	1.000
2	2	3	Y	1	1	000000	000000	7.500
3	3	4	Y	1	1	000000	000000	1.500
4	4	5	Y	1	1	000000	000000	1.500
5	5	6	Y	1	1	000000	000000	0.300

STANDARD SHAPES

Section	Shape	Name	Comment	D1/D4	D2/D5	D3/D6
1	LRT	RCEdgebeam	800D x 600W	0.800	0.600	1.300
				0.200		

Dimension codes:
TEE/LL/LR - D1=D D2=Tw D3=Bf D4=Tf

SECTION PROPERTIES

Section	Ax m2	Ay m2	Az m2	J m4	Iy m4	Iz m4	fact
1	6.200E-01	0.000E+00	0.000E+00	3.251E-02	6.591E-02	3.582E-02	1.000

MATERIAL PROPERTIES

Material	E kN/m2	u	Density t/m3	Alpha /deg C	
1	3.230E+07	0.2000	2.450E+00	1.170E-05	CONC32

CONDITION NUMBER

Maximum condition number: 3.600E+01 at node: 6 DOFN: 1

APPLIED LOADING

CASE 1: Full working loads

Member Loads

Member	Form	T	A	S	F1	X1	F2	X2
1	CONC	FY	GL	LE	-334.000	0.100		
2	CONC	FY	GL	LE	-161.000	1.000		
2	CONC	FY	GL	LE	-48.000	3.000		
2	TRAP	FY	GL	LE	-114.200	3.000	-114.200	7.500
3	CONC	FY	GL	LE	-65.000	1.000		
3	TRAP	FY	GL	LE	-114.200	0.000	-114.200	1.000
3	TRAP	FY	GL	LE	-91.300	1.000	-91.300	1.500
4	UNIF	FY	GL		-91.300			
5	CONC	FY	GL	LE	-84.000	0.200		
5	UNIF	FY	GL		-91.300			

Sum of Applied Loads (Global Axes):

FX: 0.000 FY: -1530.090 FZ: 0.000

Moments about the global origin:

MX: 0.000 MY: 0.000 MZ: -8623.769

NODE DISPLACEMENTS

CASE 1: Full working loads

Node	X-Disp m	Y-Disp m	Z-Disp m	X-Rotn rad	Y-Rotn rad	Z-Rotn rad
1	0.0000	0.0002	0.0000	0.00000	0.00000	-0.00017
2	0.0000	0.0000	0.0000	0.00000	0.00000	-0.00029
3	0.0000	0.0000	0.0000	0.00000	0.00000	0.00017
4	0.0000	0.0000	0.0000	0.00000	0.00000	-0.00004
5	0.0000	0.0000	0.0000	0.00000	0.00000	0.00002
6	0.0000	0.0000	0.0000	0.00000	0.00000	0.00002

MEMBER FORCES

CASE 1: Full working loads

Member	Node	Axial kN	Shear-y kN	Shear-z kN	Torque kNm	Moment-y kNm	Moment-z kNm
1	1	0.00	0.00	0.00	0.00	0.00	0.00
	2	0.00	334.00	0.00	0.00	0.00	-300.60
2	2	0.00	-298.84	0.00	0.00	0.00	-300.60
	3	0.00	424.06	0.00	0.00	0.00	-478.04
3	3	0.00	-482.64	0.00	0.00	0.00	-478.04
	4	0.00	-257.79	0.00	0.00	0.00	87.80
4	4	0.00	4.00	0.00	0.00	0.00	87.80
	5	0.00	140.95	0.00	0.00	0.00	-20.91
5	5	0.00	-111.39	0.00	0.00	0.00	-20.91
	6	0.00	0.00	0.00	0.00	0.00	0.00

Positive Forces (Member Axes):

Axial - Tension Shear - End A sagging

Torque - Right-hand twist Moment - Sagging

SUPPORT REACTIONS

CASE 1: Full working loads

Node	Force-X kN	Force-Y kN	Force-Z kN	Moment-X kNm	Moment-Y kNm	Moment-Z kNm
2	0.00	632.84	0.00	0.00	0.00	0.00
3	0.00	906.69	0.00	0.00	0.00	0.00
4	0.00	-261.79	0.00	0.00	0.00	0.00
5	0.00	252.34	0.00	0.00	0.00	0.00
SUM:	0.00	1530.09	0.00 (all nodes)			

Max. residual: 3.979E-13 at DOFN: 2

(Reactions act on structure in positive global axis directions.)

INPUT/ANALYSIS REPORT

Job: 11401- raft slab GB2-spring

Title: 19-21 The Corso Manly
Raft slab edge beam lift to stair lobby
Type: Plane frame
Date: 27 Feb 2020
Time: 5:12 PM

Nodes	6
Members	5
Spring supports	4
Sections	1
Materials	1
Primary load cases	1
Combination load cases	0

Analysis: Linear elastic

LOAD CASES

Case	Type	Analysis Type	Flag	Title
1	P	L	-	Full working loads

Analysis Types:
S - Skipped (not analysed)
L - Linear
N - Non-linear

Analysis Flag:
CNV - Converged
XSD - Excessive displacements
DNC - Did not converge in iteration limit
UNS - Unstable or local instability

NODE COORDINATES

Node	X m	Y m	Z m	Restraint
1	0.000	0.000	0.000	000000
2	1.000	0.000	0.000	100000
3	8.500	0.000	0.000	000000
4	10.000	0.000	0.000	000000
5	11.500	0.000	0.000	000000
6	11.800	0.000	0.000	000000

SPRING SUPPORTS

Node	KX kN/m	KY kN/m	KZ kN/m	KRX kNm/r	KRY kNm/r	KRZ kNm/r
2	0.000E+00	1.000E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3	0.000E+00	6.250E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4	0.000E+00	6.250E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5	0.000E+00	6.250E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00

MEMBER DEFINITION

Member	A	B	C	Prop	Matl	Rel-A	Rel-B	Length m
1	1	2	Y	1	1	000000	000000	1.000
2	2	3	Y	1	1	000000	000000	7.500
3	3	4	Y	1	1	000000	000000	1.500
4	4	5	Y	1	1	000000	000000	1.500
5	5	6	Y	1	1	000000	000000	0.300

STANDARD SHAPES

Section	Shape	Name	Comment	D1/D4	D2/D5	D3/D6
1	LRT	RCEdgebeam	800D x 600W	0.800	0.600	1.300
				0.200		

Dimension codes:
TEE/LL/LR - D1=D D2=Tw D3=Bf D4=Tf

SECTION PROPERTIES

Section	Ax m2	Ay m2	Az m2	J m4	Iy m4	Iz m4	fact
1	6.200E-01	0.000E+00	0.000E+00	3.251E-02	6.591E-02	3.582E-02	1.000

MATERIAL PROPERTIES

Material	E	u	Density	Alpha	
	kN/m2		t/m3	/deg C	
1	3.230E+07	0.2000	2.450E+00	1.170E-05	CONC32

CONDITION NUMBER

Maximum condition number: 3.504E+03 at node: 6 DOFN: 2

APPLIED LOADING

CASE 1: Full working loads

Member Loads

Member	Form	T	A	S	F1	X1	F2	X2
1	CONC	FY	GL	LE	-334.000	0.100		
2	CONC	FY	GL	LE	-161.000	1.000		
2	CONC	FY	GL	LE	-48.000	3.000		
2	TRAP	FY	GL	LE	-114.200	3.000	-114.200	7.500
3	CONC	FY	GL	LE	-65.000	1.000		
3	TRAP	FY	GL	LE	-114.200	0.000	-114.200	1.000
3	TRAP	FY	GL	LE	-91.300	1.000	-91.300	1.500
4	UNIF	FY	GL		-91.300			
5	CONC	FY	GL	LE	-84.000	0.200		
5	UNIF	FY	GL		-91.300			

Sum of Applied Loads (Global Axes):

FX: 0.000 FY: -1530.090 FZ: 0.000

Moments about the global origin:

MX: 0.000 MY: 0.000 MZ: -8623.769

NODE DISPLACEMENTS

CASE 1: Full working loads

Node	X-Disp	Y-Disp	Z-Disp	X-Rotn	Y-Rotn	Z-Rotn
	m	m	m	rad	rad	rad
1	0.0000	-0.0063	0.0000	0.00000	0.00000	-0.00064
2	0.0000	-0.0070	0.0000	0.00000	0.00000	-0.00076
3	0.0000	-0.0064	0.0000	0.00000	0.00000	0.00133
4	0.0000	-0.0044	0.0000	0.00000	0.00000	0.00135
5	0.0000	-0.0024	0.0000	0.00000	0.00000	0.00132
6	0.0000	-0.0020	0.0000	0.00000	0.00000	0.00131

MEMBER FORCES

CASE 1: Full working loads

Member	Node	Axial	Shear-y	Shear-z	Torque	Moment-y	Moment-z
		kN	kN	kN	kNm	kNm	kNm
1	1	0.00	0.00	0.00	0.00	0.00	0.00
	2	0.00	334.00	0.00	0.00	0.00	-300.60
2	2	0.00	-366.07	0.00	0.00	0.00	-300.60
	3	0.00	356.83	0.00	0.00	0.00	26.17
3	3	0.00	-45.68	0.00	0.00	0.00	26.17
	4	0.00	179.17	0.00	0.00	0.00	-63.43
4	4	0.00	-96.82	0.00	0.00	0.00	-63.43
	5	0.00	40.13	0.00	0.00	0.00	-20.91
5	5	0.00	-111.39	0.00	0.00	0.00	-20.91
	6	0.00	0.00	0.00	0.00	0.00	0.00

Positive Forces (Member Axes):

Axial - Tension Shear - End A sagging

Torque - Right-hand twist Moment - Sagging

SUPPORT REACTIONS

CASE 1: Full working loads

Node	Force-X	Force-Y	Force-Z	Moment-X	Moment-Y	Moment-Z
	kN	kN	kN	kNm	kNm	kNm
2	0.00	700.07	0.00	0.00	0.00	0.00
3	0.00	402.50	0.00	0.00	0.00	0.00
4	0.00	275.99	0.00	0.00	0.00	0.00
5	0.00	151.52	0.00	0.00	0.00	0.00
SUM:	0.00	1530.09	0.00 (all nodes)			

Max. residual: 2.622E-10 at DOFN: 16

(Reactions act on structure in positive global axis directions.)

INPUT/ANALYSIS REPORT

Job: 11401- raft slab GB3

Title: 19-21 The Corso Manly
Raft slab edge beam lift to stair lobby
Type: Plane frame
Date: 27 Feb 2020
Time: 5:11 PM

Nodes	6
Members	5
Spring supports	0
Sections	1
Materials	1
Primary load cases	1
Combination load cases	0

Analysis: Linear elastic

LOAD CASES

Case	Type	Analysis Type	Flag	Title
1	P	L	-	Full working loads

Analysis Types:
S - Skipped (not analysed)
L - Linear
N - Non-linear

Analysis Flag:
CNV - Converged
XSD - Excessive displacements
DNC - Did not converge in iteration limit
UNS - Unstable or local instability

NODE COORDINATES

Node	X m	Y m	Z m	Restraint
1	0.000	0.000	0.000	000000
2	1.000	0.000	0.000	111000
3	8.500	0.000	0.000	010000
4	10.000	0.000	0.000	010000
5	11.500	0.000	0.000	010000
6	11.800	0.000	0.000	000000

MEMBER DEFINITION

Member	A	B	C	Prop	Matl	Rel-A	Rel-B	Length m
1	1	2	Y	1	1	000000	000000	1.000
2	2	3	Y	1	1	000000	000000	7.500
3	3	4	Y	1	1	000000	000000	1.500
4	4	5	Y	1	1	000000	000000	1.500
5	5	6	Y	1	1	000000	000000	0.300

STANDARD SHAPES

Section	Shape	Name	Comment	D1/D4	D2/D5	D3/D6
1	LRT	RCEdgebeam	800D x 600W	0.800	0.600	1.300
				0.200		

Dimension codes:
TEE/LL/LR - D1=D D2=Tw D3=Bf D4=Tf

SECTION PROPERTIES

Section	Ax m2	Ay m2	Az m2	J m4	Iy m4	Iz m4	fact
1	6.200E-01	0.000E+00	0.000E+00	3.251E-02	6.591E-02	3.582E-02	1.000

MATERIAL PROPERTIES

Material	E kN/m2	u	Density t/m3	Alpha /deg C	
1	3.230E+07	0.2000	2.450E+00	1.170E-05	CONC32

CONDITION NUMBER

Maximum condition number: 3.600E+01 at node: 6 DOFN: 1

APPLIED LOADING

CASE 1: Full working loads

Member Loads

Member	Form	T	A	S	F1	X1	F2	X2
1	CONC	FY	GL	LE	-343.000	0.100		
2	CONC	FY	GL	LE	-151.000	3.000		
2	CONC	FY	GL	LE	-90.700	6.000		
2	TRAP	FY	GL	LE	-64.400	3.000	-64.400	6.000
3	CONC	FY	GL	LE	-100.000	0.500		
3	TRAP	FY	GL	LE	-77.000	0.500	-77.000	1.500
4	UNIF	FY	GL		-77.000			
5	CONC	FY	GL	LE	-64.700	0.200		
5	UNIF	FY	GL		-77.000			

Sum of Applied Loads (Global Axes):

FX: 0.000 FY: -1158.200 FZ: 0.000

Moments about the global origin:

MX: 0.000 MY: 0.000 MZ: -6235.030

NODE DISPLACEMENTS

CASE 1: Full working loads

Node	X-Disp m	Y-Disp m	Z-Disp m	X-Rotn rad	Y-Rotn rad	Z-Rotn rad
1	0.0000	0.0000	0.0000	0.00000	0.00000	0.00004
2	0.0000	0.0000	0.0000	0.00000	0.00000	-0.00008
3	0.0000	0.0000	0.0000	0.00000	0.00000	0.00012
4	0.0000	0.0000	0.0000	0.00000	0.00000	-0.00003
5	0.0000	0.0000	0.0000	0.00000	0.00000	0.00001
6	0.0000	0.0000	0.0000	0.00000	0.00000	0.00001

MEMBER FORCES

CASE 1: Full working loads

Member	Node	Axial kN	Shear-y kN	Shear-z kN	Torque kNm	Moment-y kNm	Moment-z kNm
1	1	0.00	0.00	0.00	0.00	0.00	0.00
	2	0.00	343.00	0.00	0.00	0.00	-308.70
2	2	0.00	-181.72	0.00	0.00	0.00	-308.70
	3	0.00	253.18	0.00	0.00	0.00	-340.93
3	3	0.00	-358.85	0.00	0.00	0.00	-340.93
	4	0.00	-181.85	0.00	0.00	0.00	58.84
4	4	0.00	-7.59	0.00	0.00	0.00	58.84
	5	0.00	107.91	0.00	0.00	0.00	-16.41
5	5	0.00	-87.80	0.00	0.00	0.00	-16.41
	6	0.00	0.00	0.00	0.00	0.00	0.00

Positive Forces (Member Axes):

Axial - Tension Shear - End A sagging

Torque - Right-hand twist Moment - Sagging

SUPPORT REACTIONS

CASE 1: Full working loads

Node	Force-X kN	Force-Y kN	Force-Z kN	Moment-X kNm	Moment-Y kNm	Moment-Z kNm
2	0.00	524.72	0.00	0.00	0.00	0.00
3	0.00	612.03	0.00	0.00	0.00	0.00
4	0.00	-174.26	0.00	0.00	0.00	0.00
5	0.00	195.71	0.00	0.00	0.00	0.00
SUM:	0.00	1158.20	0.00 (all nodes)			

Max. residual: 5.684E-14 at DOFN: 12

(Reactions act on structure in positive global axis directions.)

INPUT/ANALYSIS REPORT

Job: 11401 - FTG BEAM - GB4-plus 1beam

Title: 19-21 The Corso Manly
Footing Beam GB4
Type: Plane frame
Date: 27 Feb 2020
Time: 8:23 PM

Nodes 14
Members 13
Spring supports 13
Sections 2
Materials 2
Primary load cases 1
Combination load cases 0

Analysis: Linear elastic

LOAD CASES

Case	Analysis Type	Analysis Type Flag	Title
1	P	L	- Full working Loads

Analysis Types:
S - Skipped (not analysed)
L - Linear
N - Non-linear

Analysis Flag:
CNV - Converged
XSD - Excessive displacements
DNC - Did not converge in iteration limit
UNS - Unstable or local instability

NODE COORDINATES

Node	X m	Y m	Z m	Restraint
1	0.000	0.000	0.000	000000
2	0.200	0.000	0.000	000000
3	13.400	0.000	0.000	000000
4	14.600	0.000	0.000	101110
5	1.400	0.000	0.000	000000
6	2.600	0.000	0.000	000000
7	3.800	0.000	0.000	000000
8	5.000	0.000	0.000	000000
9	6.200	0.000	0.000	000000
10	7.400	0.000	0.000	000000
11	8.600	0.000	0.000	000000
12	9.800	0.000	0.000	000000
13	11.000	0.000	0.000	000000
14	12.200	0.000	0.000	000000

SPRING SUPPORTS

Node	KX kN/m	KY kN/m	KZ kN/m	KRX kNm/r	KRY kNm/r	KRZ kNm/r
2	0.000E+00	2.500E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3	0.000E+00	2.500E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4	0.000E+00	2.500E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5	0.000E+00	2.500E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6	0.000E+00	2.500E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7	0.000E+00	2.500E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8	0.000E+00	2.500E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9	0.000E+00	2.500E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
10	0.000E+00	2.500E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
11	0.000E+00	2.500E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
12	0.000E+00	2.500E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
13	0.000E+00	2.500E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
14	0.000E+00	2.500E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00

MEMBER DEFINITION

Member	A	B	C	Prop	Matl	Rel-A	Rel-B	Length m
1	1	2	Y	1	1	000000	000000	0.200
3	3	4	Y	2	1	000000	000000	1.200
4	2	5	Y	1	1	000000	000000	1.200
5	5	6	Y	1	1	000000	000000	1.200
6	6	7	Y	1	1	000000	000000	1.200

7	7	8	Y	1	1	000000 000000	1.200
8	8	9	Y	1	1	000000 000000	1.200
-9	9	10	Y	1	1	000000 000000	1.200
-10	10	11	Y	1	1	000000 000000	1.200
-11	11	12	Y	1	1	000000 000000	1.200
-12	12	13	Y	1	1	000000 000000	1.200
13	13	14	Y	1	1	000000 000000	1.200
14	14	3	Y	1	1	000000 000000	1.200

STANDARD SHAPES

Section	Shape	Name	Comment	D1/D4	D2/D5	D3/D6
1	RECT	RCBlockwall	4m x 200 thick	4.000	0.200	
2	RECT	Stripfooting	1m x 800 deep	0.800	1.000	

Dimension codes:
RECT - D1=D D2=B

SECTION PROPERTIES

Section	Ax	Ay	Az	J	Iy	Iz	fact
	m2	m2	m2	m4	m4	m4	
1	8.000E-01	0.000E+00	0.000E+00	9.984E-03	2.667E-03	1.067E+00	1.000
2	8.000E-01	0.000E+00	0.000E+00	8.755E-02	6.667E-02	4.267E-02	1.000

MATERIAL PROPERTIES

Material	E	u	Density	Alpha	
	kN/m2		t/m3	/deg C	
1	2.550E+07	0.2000	2.450E+00	1.170E-05	CONC20
2	2.550E+07	0.2000	2.450E+00	1.170E-05	CONC20

CONDITION NUMBER

Maximum condition number: 2.170E+02 at node: 2 DOFN: 2

APPLIED LOADING

CASE 1: Full working Loads

Member Loads

Member	Form	T	A	S	F1	X1	F2	X2
1	UNIF	FY	GL		-33.000			
3	UNIF	FY	GL		-68.600			
4	UNIF	FY	GL		-33.000			
5	CONC	FY	GL	LE	-71.000	1.100		
5	UNIF	FY	GL		-33.000			
6	UNIF	FY	GL		-33.000			
7	UNIF	FY	GL		-33.000			
8	UNIF	FY	GL		-33.000			
9	UNIF	FY	GL		-280.000			
10	UNIF	FY	GL		-280.000			
11	UNIF	FY	GL		-68.600			
11	UNIF	FY	GL		-156.000			
12	UNIF	FY	GL		-68.600			
12	UNIF	FY	GL		-156.000			
13	UNIF	FY	GL		-68.600			
14	UNIF	FY	GL		-68.600			

Sum of Applied Loads (Global Axes):
FX: 0.000 FY: -1733.600 FZ: 0.000
Moments about the global origin:
MX: 0.000 MY: 0.000 MZ: -14228.241

NODE DISPLACEMENTS

CASE 1: Full working Loads

Node	X-Disp	Y-Disp	Z-Disp	X-Rotn	Y-Rotn	Z-Rotn
	m	m	m	rad	rad	rad
1	0.0000	-0.0033	0.0000	0.00000	0.00000	-0.00035
2	0.0000	-0.0034	0.0000	0.00000	0.00000	-0.00035
3	0.0000	-0.0064	0.0000	0.00000	0.00000	-0.00005
4	0.0000	-0.0064	0.0000	0.00000	0.00000	0.00003
5	0.0000	-0.0038	0.0000	0.00000	0.00000	-0.00035
6	0.0000	-0.0042	0.0000	0.00000	0.00000	-0.00034
7	0.0000	-0.0046	0.0000	0.00000	0.00000	-0.00033
8	0.0000	-0.0050	0.0000	0.00000	0.00000	-0.00031
9	0.0000	-0.0054	0.0000	0.00000	0.00000	-0.00028
10	0.0000	-0.0057	0.0000	0.00000	0.00000	-0.00023
11	0.0000	-0.0059	0.0000	0.00000	0.00000	-0.00018
12	0.0000	-0.0061	0.0000	0.00000	0.00000	-0.00013
13	0.0000	-0.0062	0.0000	0.00000	0.00000	-0.00009

14	0.0000	-0.0063	0.0000	0.00000	0.00000	-0.00007

MEMBER FORCES

CASE 1: Full working Loads

Member	Node	Axial kN	Shear-y kN	Shear-z kN	Torque kNm	Moment-y kNm	Moment-z kNm
1	1	0.00	0.00	0.00	0.00	0.00	0.00
	2	0.00	6.60	0.00	0.00	0.00	-0.66
3	3	0.00	77.16	0.00	0.00	0.00	141.98
	4	0.00	159.48	0.00	0.00	0.00	0.00
4	2	0.00	-78.23	0.00	0.00	0.00	-0.66
	5	0.00	-38.63	0.00	0.00	0.00	69.46
5	5	0.00	-133.86	0.00	0.00	0.00	69.46
	6	0.00	-23.26	0.00	0.00	0.00	199.23
6	6	0.00	-128.77	0.00	0.00	0.00	199.23
	7	0.00	-89.17	0.00	0.00	0.00	330.00
7	7	0.00	-204.70	0.00	0.00	0.00	330.00
	8	0.00	-165.10	0.00	0.00	0.00	551.88
8	8	0.00	-290.17	0.00	0.00	0.00	551.88
	9	0.00	-250.57	0.00	0.00	0.00	876.33
-9	9	0.00	-384.44	0.00	0.00	0.00	876.33
	10	0.00	-48.44	0.00	0.00	0.00	1136.05
-10	10	0.00	-189.93	0.00	0.00	0.00	1136.05
	11	0.00	146.07	0.00	0.00	0.00	1162.36
-11	11	0.00	-1.54	0.00	0.00	0.00	1162.36
	12	0.00	267.98	0.00	0.00	0.00	1002.50
-12	12	0.00	115.78	0.00	0.00	0.00	1002.50
	13	0.00	385.30	0.00	0.00	0.00	701.85
13	13	0.00	229.84	0.00	0.00	0.00	701.85
	14	0.00	312.16	0.00	0.00	0.00	376.65
14	14	0.00	154.39	0.00	0.00	0.00	376.65
	3	0.00	236.71	0.00	0.00	0.00	141.98

Positive Forces (Member Axes):
Axial - Tension
Shear - End A sagging
Torque - Right-hand twist
Moment - Sagging

SUPPORT REACTIONS

CASE 1: Full working Loads

Node	Force-X kN	Force-Y kN	Force-Z kN	Moment-X kNm	Moment-Y kNm	Moment-Z kNm
2	0.00	84.83	0.00	0.00	0.00	0.00
3	0.00	159.55	0.00	0.00	0.00	0.00
4	0.00	159.48	0.00	0.00	0.00	0.00
5	0.00	95.23	0.00	0.00	0.00	0.00
6	0.00	105.51	0.00	0.00	0.00	0.00
7	0.00	115.52	0.00	0.00	0.00	0.00
8	0.00	125.07	0.00	0.00	0.00	0.00
9	0.00	133.87	0.00	0.00	0.00	0.00
10	0.00	141.49	0.00	0.00	0.00	0.00
11	0.00	147.61	0.00	0.00	0.00	0.00
12	0.00	152.20	0.00	0.00	0.00	0.00
13	0.00	155.46	0.00	0.00	0.00	0.00
14	0.00	157.77	0.00	0.00	0.00	0.00
SUM:	0.00	1733.60	0.00 (all nodes)			

Max. residual: 4.191E-09 at DOFN: 2

(Reactions act on structure in positive global axis directions.)

INPUT/ANALYSIS REPORT

Job: 11401 - FTG BEAM - GB4-1B3 LOADS

Title: 19-21 The Corso Manly
Footing Beam GB4
Type: Plane frame
Date: 28 Feb 2020
Time: 11:12 AM

Nodes 16
Members 15
Spring supports 15
Sections 2
Materials 2
Primary load cases 1
Combination load cases 0

Analysis: Linear elastic

LOAD CASES

Case	Type	Analysis Type	Flag	Title
1	P	L	-	Full working Loads

Analysis Types:
S - Skipped (not analysed)
L - Linear
N - Non-linear

Analysis Flag:
CNV - Converged
XSD - Excessive displacements
DNC - Did not converge in iteration limit
UNS - Unstable or local instability

NODE COORDINATES

Node	X m	Y m	Z m	Restraint
1	0.000	0.000	0.000	000000
2	0.200	0.000	0.000	000000
3	13.400	0.000	0.000	000000
4	14.600	0.000	0.000	101110
5	1.400	0.000	0.000	000000
6	2.600	0.000	0.000	000000
7	3.800	0.000	0.000	000000
8	5.000	0.000	0.000	000000
9	6.200	0.000	0.000	000000
10	7.400	0.000	0.000	000000
11	8.600	0.000	0.000	000000
12	9.800	0.000	0.000	000000
-13	11.000	0.000	0.000	000000
14	12.200	0.000	0.000	000000
16	15.800	0.000	0.000	101110
29	17.000	0.000	0.000	101110

SPRING SUPPORTS

Node	KX kN/m	KY kN/m	KZ kN/m	KRX kNm/r	KRY kNm/r	KRZ kNm/r
2	0.000E+00	2.500E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3	0.000E+00	2.500E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4	0.000E+00	2.500E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5	0.000E+00	2.500E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6	0.000E+00	2.500E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7	0.000E+00	2.500E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8	0.000E+00	2.500E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9	0.000E+00	2.500E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
10	0.000E+00	2.500E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
11	0.000E+00	2.500E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
12	0.000E+00	2.500E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
-13	0.000E+00	2.500E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
14	0.000E+00	2.500E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
16	0.000E+00	2.500E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
29	0.000E+00	2.500E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00

MEMBER DEFINITION

Member	A	B	C	Prop	Matl	Rel-A	Rel-B	Length
								m
1	1	2	Y	1	1	000000	000000	0.200
3	3	4	Y	2	1	000000	000000	1.200
4	2	5	Y	1	1	000000	000000	1.200
5	5	6	Y	1	1	000000	000000	1.200
6	6	7	Y	1	1	000000	000000	1.200
7	7	8	Y	1	1	000000	000000	1.200
8	8	9	Y	1	1	000000	000000	1.200
9	9	10	Y	1	1	000000	000000	1.200
10	10	11	Y	1	1	000000	000000	1.200
11	11	12	Y	1	1	000000	000000	1.200
12	12	-13	Y	1	1	000000	000000	1.200
13	-13	14	Y	1	1	000000	000000	1.200
14	14	3	Y	1	1	000000	000000	1.200
15	4	16	Y	2	1	000000	000000	1.200
16	16	29	Y	2	1	000000	000000	1.200

STANDARD SHAPES

Section	Shape	Name	Comment	D1/D4	D2/D5	D3/D6
1	RECT	RCblockwall	4m x 0.2	4.000	0.200	
2	RECT	Stripfooting	1m x 800 deep	0.800	1.000	

Dimension codes:
RECT - D1=D D2=B

SECTION PROPERTIES

Section	Ax	Ay	Az	J	Iy	Iz	fact
	m2	m2	m2	m4	m4	m4	
1	8.000E-01	0.000E+00	0.000E+00	9.984E-03	2.667E-03	1.067E+00	1.000
2	8.000E-01	0.000E+00	0.000E+00	8.755E-02	6.667E-02	4.267E-02	1.000

MATERIAL PROPERTIES

Material	E	u	Density	Alpha	
	kN/m2		t/m3	/deg C	
1	2.550E+07	0.2000	2.450E+00	1.170E-05	CONC20
2	2.550E+07	0.2000	2.450E+00	1.170E-05	CONC20

CONDITION NUMBER

Maximum condition number: 2.170E+02 at node: 2 DOFN: 2

APPLIED LOADING

CASE 1: Full working Loads

Node Loads

Node	X Force	Y Force	Z Force	X Moment	Y Moment	Z Moment
	kN	kN	kN	kNm	kNm	kNm
14	0.000	-192.000	0.000	0.000	0.000	0.000

Member Loads

Member	Form	T	A	S	F1	X1	F2	X2
1	UNIF	FY	GL		-33.000			
3	UNIF	FY	GL		-68.600			
4	UNIF	FY	GL		-33.000			
5	CONC	FY	GL	LE	-71.000	1.100		
5	UNIF	FY	GL		-33.000			
6	UNIF	FY	GL		-33.000			
7	UNIF	FY	GL		-33.000			
8	UNIF	FY	GL		-33.000			
9	UNIF	FY	GL		-280.000			
10	UNIF	FY	GL		-280.000			
11	UNIF	FY	GL		-68.600			
11	UNIF	FY	GL		-156.000			
12	UNIF	FY	GL		-68.600			
12	UNIF	FY	GL		-156.000			
13	UNIF	FY	GL		-68.600			
14	UNIF	FY	GL		-68.600			

Sum of Applied Loads (Global Axes):
FX: 0.000 FY: -1925.600 FZ: 0.000
Moments about the global origin:
MX: 0.000 MY: 0.000 MZ: -16570.641

NODE DISPLACEMENTS

CASE 1: Full working Loads

Node	X-Disp m	Y-Disp m	Z-Disp m	X-Rotn rad	Y-Rotn rad	Z-Rotn rad
1	0.0000	-0.0040	0.0000	0.00000	0.00000	-0.00029
2	0.0000	-0.0040	0.0000	0.00000	0.00000	-0.00029
3	0.0000	-0.0057	0.0000	0.00000	0.00000	0.00015
4	0.0000	-0.0052	0.0000	0.00000	0.00000	0.00068
5	0.0000	-0.0044	0.0000	0.00000	0.00000	-0.00029
6	0.0000	-0.0047	0.0000	0.00000	0.00000	-0.00028
7	0.0000	-0.0050	0.0000	0.00000	0.00000	-0.00027
8	0.0000	-0.0054	0.0000	0.00000	0.00000	-0.00024
9	0.0000	-0.0056	0.0000	0.00000	0.00000	-0.00020
10	0.0000	-0.0058	0.0000	0.00000	0.00000	-0.00014
11	0.0000	-0.0060	0.0000	0.00000	0.00000	-0.00008
12	0.0000	-0.0060	0.0000	0.00000	0.00000	-0.00001
-13	0.0000	-0.0060	0.0000	0.00000	0.00000	0.00006
14	0.0000	-0.0059	0.0000	0.00000	0.00000	0.00011
16	0.0000	-0.0042	0.0000	0.00000	0.00000	0.00090
29	0.0000	-0.0031	0.0000	0.00000	0.00000	0.00095

MEMBER FORCES

CASE 1: Full working Loads

Member	Node	Axial kN	Shear-y kN	Shear-z kN	Torque kNm	Moment-y kNm	Moment-z kNm
1	1	0.00	0.00	0.00	0.00	0.00	0.00
	2	0.00	6.60	0.00	0.00	0.00	-0.66
3	3	0.00	230.68	0.00	0.00	0.00	638.88
	4	0.00	313.00	0.00	0.00	0.00	312.68
4	2	0.00	-93.80	0.00	0.00	0.00	-0.66
	5	0.00	-54.20	0.00	0.00	0.00	88.14
5	5	0.00	-163.39	0.00	0.00	0.00	88.14
	6	0.00	-52.79	0.00	0.00	0.00	253.35
6	6	0.00	-170.61	0.00	0.00	0.00	253.35
	7	0.00	-131.01	0.00	0.00	0.00	434.32
7	7	0.00	-257.14	0.00	0.00	0.00	434.32
	8	0.00	-217.54	0.00	0.00	0.00	719.13
8	8	0.00	-351.35	0.00	0.00	0.00	719.13
	9	0.00	-311.75	0.00	0.00	0.00	1116.99
9	9	0.00	-452.28	0.00	0.00	0.00	1116.99
	10	0.00	-116.28	0.00	0.00	0.00	1458.12
10	10	0.00	-262.02	0.00	0.00	0.00	1458.12
	11	0.00	73.98	0.00	0.00	0.00	1570.94
11	11	0.00	-75.06	0.00	0.00	0.00	1570.94
	12	0.00	194.46	0.00	0.00	0.00	1499.31
12	12	0.00	44.19	0.00	0.00	0.00	1499.31
	-13	0.00	313.71	0.00	0.00	0.00	1284.57
13	-13	0.00	164.22	0.00	0.00	0.00	1284.57
	14	0.00	246.54	0.00	0.00	0.00	1038.11
14	14	0.00	291.53	0.00	0.00	0.00	1038.11
	3	0.00	373.85	0.00	0.00	0.00	638.88
15	4	0.00	183.08	0.00	0.00	0.00	312.68
	16	0.00	183.08	0.00	0.00	0.00	92.99
16	16	0.00	77.49	0.00	0.00	0.00	92.99
	29	0.00	77.49	0.00	0.00	0.00	0.00

Positive Forces (Member Axes):
Axial - Tension
Shear - End A sagging
Torque - Right-hand twist
Moment - Sagging

SUPPORT REACTIONS

CASE 1: Full working Loads

Node	Force-X kN	Force-Y kN	Force-Z kN	Moment-X kNm	Moment-Y kNm	Moment-Z kNm
2	0.00	100.40	0.00	0.00	0.00	0.00
3	0.00	143.17	0.00	0.00	0.00	0.00
4	0.00	129.92	0.00	0.00	0.00	0.00
5	0.00	109.18	0.00	0.00	0.00	0.00
6	0.00	117.83	0.00	0.00	0.00	0.00
7	0.00	126.12	0.00	0.00	0.00	0.00
8	0.00	133.81	0.00	0.00	0.00	0.00
9	0.00	140.53	0.00	0.00	0.00	0.00
10	0.00	145.75	0.00	0.00	0.00	0.00
11	0.00	149.04	0.00	0.00	0.00	0.00
12	0.00	150.26	0.00	0.00	0.00	0.00
13	0.00	149.49	0.00	0.00	0.00	0.00

14	0.00	147.01	0.00	0.00	0.00	0.00
16	0.00	105.59	0.00	0.00	0.00	0.00
29	0.00	77.49	0.00	0.00	0.00	0.00
SUM:	0.00	1925.60	0.00	(all nodes)		

Max. residual: 7.175E-09 at DOFN: 5

(Reactions act on structure in positive global axis directions.)

INPUT/ANALYSIS REPORT

Job: 11401- raft slab GB3-spring

Title: 19-21 The Corso Manly
Raft slab edge beam lift to stair lobby
Type: Plane frame
Date: 27 Feb 2020
Time: 5:13 PM

Nodes	6
Members	5
Spring supports	4
Sections	1
Materials	1
Primary load cases	1
Combination load cases	0

Analysis: Linear elastic

LOAD CASES

Case	Analysis Type	Analysis Type	Flag	Title
1	P	L	-	Full working loads

Analysis Types:
S - Skipped (not analysed)
L - Linear
N - Non-linear

Analysis Flag:
CNV - Converged
XSD - Excessive displacements
DNC - Did not converge in iteration limit
UNS - Unstable or local instability

NODE COORDINATES

Node	X	Y	Z	Restraint
	m	m	m	
1	0.000	0.000	0.000	000000
2	1.000	0.000	0.000	100000
3	8.500	0.000	0.000	000000
4	10.000	0.000	0.000	000000
5	11.500	0.000	0.000	000000
6	11.800	0.000	0.000	000000

SPRING SUPPORTS

Node	KX	KY	KZ	KRX	KRY	KRZ
	kN/m	kN/m	kN/m	kNm/r	kNm/r	kNm/r
2	0.000E+00	1.000E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3	0.000E+00	3.750E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4	0.000E+00	3.750E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5	0.000E+00	3.750E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00

MEMBER DEFINITION

Member	A	B	C	Prop	Matl	Rel-A	Rel-B	Length
								m
1	1	2	Y	1	1	000000	000000	1.000
2	2	3	Y	1	1	000000	000000	7.500
3	3	4	Y	1	1	000000	000000	1.500
4	4	5	Y	1	1	000000	000000	1.500
5	5	6	Y	1	1	000000	000000	0.300

STANDARD SHAPES

Section	Shape	Name	Comment	D1/D4	D2/D5	D3/D6
1	LRT	RCEdgebeam	800D x 600W	0.800	0.600	1.300
				0.200		

Dimension codes:
TEE/LL/LR - D1=D D2=Tw D3=Bf D4=Tf

SECTION PROPERTIES

Section	Ax	Ay	Az	J	Iy	Iz	fact
	m2	m2	m2	m4	m4	m4	
1	6.200E-01	0.000E+00	0.000E+00	3.251E-02	6.591E-02	3.582E-02	1.000

MATERIAL PROPERTIES

Material	E	u	Density	Alpha	
	kN/m2		t/m3	/deg C	
1	3.230E+07	0.2000	2.450E+00	1.170E-05	CONC32

CONDITION NUMBER

Maximum condition number: 5.475E+03 at node: 6 DOFN: 2

APPLIED LOADING

CASE 1: Full working loads

Member Loads

Member	Form	T	A	S	F1	X1	F2	X2
1	CONC	FY	GL	LE	-343.000	0.100		
2	CONC	FY	GL	LE	-151.000	3.000		
2	CONC	FY	GL	LE	-90.700	6.000		
2	TRAP	FY	GL	LE	-64.400	3.000	-64.400	6.000
3	CONC	FY	GL	LE	-100.000	0.500		
3	TRAP	FY	GL	LE	-77.000	0.500	-77.000	1.500
4	UNIF	FY	GL		-77.000			
5	CONC	FY	GL	LE	-64.700	0.200		
5	UNIF	FY	GL		-77.000			

Sum of Applied Loads (Global Axes):

FX: 0.000 FY: -1158.200 FZ: 0.000

Moments about the global origin:

MX: 0.000 MY: 0.000 MZ: -6235.030

NODE DISPLACEMENTS

CASE 1: Full working loads

Node	X-Disp	Y-Disp	Z-Disp	X-Rotn	Y-Rotn	Z-Rotn
	m	m	m	rad	rad	rad
1	0.0000	-0.0053	0.0000	0.00000	0.00000	-0.00048
2	0.0000	-0.0058	0.0000	0.00000	0.00000	-0.00060
3	0.0000	-0.0065	0.0000	0.00000	0.00000	0.00086
4	0.0000	-0.0052	0.0000	0.00000	0.00000	0.00092
5	0.0000	-0.0038	0.0000	0.00000	0.00000	0.00091
6	0.0000	-0.0035	0.0000	0.00000	0.00000	0.00091

MEMBER FORCES

CASE 1: Full working loads

Member	Node	Axial	Shear-y	Shear-z	Torque	Moment-y	Moment-z
		kN	kN	kN	kNm	kNm	kNm
1	1	0.00	0.00	0.00	0.00	0.00	0.00
	2	0.00	343.00	0.00	0.00	0.00	-308.70
2	2	0.00	-234.08	0.00	0.00	0.00	-308.70
	3	0.00	200.82	0.00	0.00	0.00	51.72
3	3	0.00	-43.83	0.00	0.00	0.00	51.72
	4	0.00	133.17	0.00	0.00	0.00	-21.03
4	4	0.00	-60.83	0.00	0.00	0.00	-21.03
	5	0.00	54.67	0.00	0.00	0.00	-16.41
5	5	0.00	-87.80	0.00	0.00	0.00	-16.41
	6	0.00	0.00	0.00	0.00	0.00	0.00

Positive Forces (Member Axes):

Axial - Tension Shear - End A sagging

Torque - Right-hand twist Moment - Sagging

SUPPORT REACTIONS

CASE 1: Full working loads

Node	Force-X	Force-Y	Force-Z	Moment-X	Moment-Y	Moment-Z
	kN	kN	kN	kNm	kNm	kNm
2	0.00	577.08	0.00	0.00	0.00	0.00
3	0.00	244.65	0.00	0.00	0.00	0.00
4	0.00	194.00	0.00	0.00	0.00	0.00
5	0.00	142.47	0.00	0.00	0.00	0.00
SUM:	0.00	1158.20	0.00 (all nodes)			

Max. residual: 7.841E-11 at DOFN: 17

(Reactions act on structure in positive global axis directions.)

INPUT/ANALYSIS REPORT

Job: 11401-EXFTG-1

Title: 19-21 The Corso Manly
Existing Footing Beam on soil
Type: Plane frame
Date: 26 Feb 2020
Time: 12:27 PM

Nodes 15
Members 14
Spring supports 15
Sections 1
Materials 1
Primary load cases 2
Combination load cases 0

Analysis: Linear elastic

LOAD CASES

Case	Analysis Type	Analysis Type	Flag	Title
1	P	L	-	Existing working loads

Analysis Types:
S - Skipped (not analysed)
L - Linear
N - Non-linear

Analysis Flag:
CNV - Converged
XSD - Excessive displacements
DNC - Did not converge in iteration limit
UNS - Unstable or local instability

NODE COORDINATES

Node	X m	Y m	Z m	Restraint
1	0.000	0.000	0.000	100000
2	5.600	0.000	0.000	000000
3	0.400	0.000	0.000	000000
4	0.800	0.000	0.000	000000
5	1.200	0.000	0.000	000000
6	1.600	0.000	0.000	000000
7	2.000	0.000	0.000	000000
8	2.400	0.000	0.000	000000
9	2.800	0.000	0.000	000000
10	3.200	0.000	0.000	000000
11	3.600	0.000	0.000	000000
12	4.000	0.000	0.000	000000
13	4.400	0.000	0.000	000000
14	4.800	0.000	0.000	000000
15	5.200	0.000	0.000	000000

SPRING SUPPORTS

Node	KX kN/m	KY kN/m	KZ kN/m	KRX kNm/r	KRY kNm/r	KRZ kNm/r
1	0.000E+00	7.500E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2	0.000E+00	7.500E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3	0.000E+00	7.500E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4	0.000E+00	7.500E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5	0.000E+00	7.500E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6	0.000E+00	7.500E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7	0.000E+00	7.500E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8	0.000E+00	7.500E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9	0.000E+00	7.500E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
10	0.000E+00	7.500E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
11	0.000E+00	7.500E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
12	0.000E+00	7.500E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
13	0.000E+00	7.500E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
14	0.000E+00	7.500E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
15	0.000E+00	7.500E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00

MEMBER DEFINITION

Member	A	B	C	Prop	Matl	Rel-A	Rel-B	Length
								m
2	1	3	Y	1	1	000000	000000	0.400
3	3	4	Y	1	1	000000	000000	0.400
4	4	5	Y	1	1	000000	000000	0.400
5	5	6	Y	1	1	000000	000000	0.400
6	6	7	Y	1	1	000000	000000	0.400
7	7	8	Y	1	1	000000	000000	0.400
8	8	9	Y	1	1	000000	000000	0.400
9	9	10	Y	1	1	000000	000000	0.400
10	10	11	Y	1	1	000000	000000	0.400
11	11	12	Y	1	1	000000	000000	0.400
12	12	13	Y	1	1	000000	000000	0.400
13	13	14	Y	1	1	000000	000000	0.400
14	14	15	Y	1	1	000000	000000	0.400
15	15	2	Y	1	1	000000	000000	0.400

STANDARD SHAPES

Section	Shape	Name	Comment	D1/D4	D2/D5	D3/D6
1	RECT	StripFooting	400x400 RC	0.400	0.400	

Dimension codes:
RECT - D1=D D2=B

SECTION PROPERTIES

Section	Ax	Ay	Az	J	Iy	Iz	fact
	m2	m2	m2	m4	m4	m4	
1	1.600E-01	0.000E+00	0.000E+00	3.610E-03	2.133E-03	2.133E-03	1.000

MATERIAL PROPERTIES

Material	E	u	Density	Alpha	
	kN/m2		t/m3	/deg C	
1	2.860E+07	0.2000	2.450E+00	1.170E-05	CONC25

CONDITION NUMBER

Maximum condition number: 1.849E+03 at node: 2 DOFN: 2

APPLIED LOADING

CASE 1: Existing working loads

Member Loads

Member	Form	T	A	S	F1	X1	F2	X2
2	CONC	FY	GL	LE	-95.500	0.350		
5	TRAP	FY	GL	LE	-93.600	0.350	-93.600	0.400
6	UNIF	FY	GL		-93.600			
7	UNIF	FY	GL		-93.600			
8	UNIF	FY	GL		-93.600			
9	UNIF	FY	GL		-93.600			
10	UNIF	FY	GL		-93.600			
11	UNIF	FY	GL		-93.600			
12	TRAP	FY	GL	LE	-93.600	0.000	-93.600	0.050
15	CONC	FY	GL	LE	-95.500	0.050		

Sum of Applied Loads (Global Axes):
FX: 0.000 FY: -425.000 FZ: 0.000
Moments about the global origin:
MX: 0.000 MY: 0.000 MZ: -1190.000

NODE DISPLACEMENTS

CASE 1: Existing working loads

Node	X-Disp	Y-Disp	Z-Disp	X-Rotn	Y-Rotn	Z-Rotn
	m	m	m	rad	rad	rad
1	0.0000	-0.0378	0.0000	0.00000	0.00000	0.00000
2	0.0000	-0.0378	0.0000	0.00000	0.00000	0.00000
3	0.0000	-0.0377	0.0000	0.00000	0.00000	0.00004
4	0.0000	-0.0377	0.0000	0.00000	0.00000	0.00003
5	0.0000	-0.0377	0.0000	0.00000	0.00000	-0.00005
6	0.0000	-0.0378	0.0000	0.00000	0.00000	-0.00011
7	0.0000	-0.0378	0.0000	0.00000	0.00000	-0.00011
8	0.0000	-0.0379	0.0000	0.00000	0.00000	-0.00007
9	0.0000	-0.0379	0.0000	0.00000	0.00000	0.00000
10	0.0000	-0.0379	0.0000	0.00000	0.00000	0.00007
11	0.0000	-0.0378	0.0000	0.00000	0.00000	0.00011
12	0.0000	-0.0378	0.0000	0.00000	0.00000	0.00011
13	0.0000	-0.0377	0.0000	0.00000	0.00000	0.00005

14	0.0000	-0.0377	0.0000	0.00000	0.00000	-0.00003
15	0.0000	-0.0377	0.0000	0.00000	0.00000	-0.00004

MEMBER FORCES

CASE 1: Existing working loads

Member	Node	Axial kN	Shear-y kN	Shear-z kN	Torque kNm	Moment-y kNm	Moment-z kNm
2	1	0.00	-28.31	0.00	0.00	0.00	0.00
	3	0.00	67.19	0.00	0.00	0.00	6.55
3	3	0.00	38.87	0.00	0.00	0.00	6.55
	4	0.00	38.87	0.00	0.00	0.00	-9.00
4	4	0.00	10.58	0.00	0.00	0.00	-9.00
	5	0.00	10.58	0.00	0.00	0.00	-13.23
5	5	0.00	-17.73	0.00	0.00	0.00	-13.23
	6	0.00	-13.05	0.00	0.00	0.00	-6.26
6	6	0.00	-41.37	0.00	0.00	0.00	-6.26
	7	0.00	-3.93	0.00	0.00	0.00	2.81
7	7	0.00	-32.29	0.00	0.00	0.00	2.81
	8	0.00	5.15	0.00	0.00	0.00	8.23
8	8	0.00	-23.24	0.00	0.00	0.00	8.23
	9	0.00	14.20	0.00	0.00	0.00	10.04
9	9	0.00	-14.20	0.00	0.00	0.00	10.04
	10	0.00	23.24	0.00	0.00	0.00	8.23
10	10	0.00	-5.15	0.00	0.00	0.00	8.23
	11	0.00	32.29	0.00	0.00	0.00	2.81
11	11	0.00	3.93	0.00	0.00	0.00	2.81
	12	0.00	41.37	0.00	0.00	0.00	-6.26
12	12	0.00	13.05	0.00	0.00	0.00	-6.26
	13	0.00	17.73	0.00	0.00	0.00	-13.23
13	13	0.00	-10.58	0.00	0.00	0.00	-13.23
	14	0.00	-10.58	0.00	0.00	0.00	-9.00
14	14	0.00	-38.87	0.00	0.00	0.00	-9.00
	15	0.00	-38.87	0.00	0.00	0.00	6.55
15	15	0.00	-67.19	0.00	0.00	0.00	6.55
	2	0.00	28.31	0.00	0.00	0.00	0.00

Positive Forces (Member Axes):
Axial - Tension Shear - End A sagging
Torque - Right-hand twist Moment - Sagging

SUPPORT REACTIONS

CASE 1: Existing working loads

Node	Force-X kN	Force-Y kN	Force-Z kN	Moment-X kNm	Moment-Y kNm	Moment-Z kNm
1	0.00	28.31	0.00	0.00	0.00	0.00
2	0.00	28.31	0.00	0.00	0.00	0.00
3	0.00	28.31	0.00	0.00	0.00	0.00
4	0.00	28.30	0.00	0.00	0.00	0.00
5	0.00	28.30	0.00	0.00	0.00	0.00
6	0.00	28.33	0.00	0.00	0.00	0.00
7	0.00	28.36	0.00	0.00	0.00	0.00
8	0.00	28.39	0.00	0.00	0.00	0.00
9	0.00	28.40	0.00	0.00	0.00	0.00
10	0.00	28.39	0.00	0.00	0.00	0.00
11	0.00	28.36	0.00	0.00	0.00	0.00
12	0.00	28.33	0.00	0.00	0.00	0.00
13	0.00	28.30	0.00	0.00	0.00	0.00
14	0.00	28.30	0.00	0.00	0.00	0.00
15	0.00	28.31	0.00	0.00	0.00	0.00
SUM:	0.00	425.00	0.00 (all nodes)			

Max. residual: 1.741E-10 at DOFN: 40

(Reactions act on structure in positive global axis directions.)

INPUT/ANALYSIS REPORT

Job: 11401-EXFTG-1

Title: 19-21 The Corso Manly
Existing Footing Beam on soil
Type: Plane frame
Date: 26 Feb 2020
Time: 1:34 PM

Nodes 15
Members 14
Spring supports 15
Sections 1
Materials 1
Primary load cases 2
Combination load cases 0

Analysis: Linear elastic

LOAD CASES

Case	Type	Analysis Type	Flag	Title
1	P	L	-	Existing working loads

Analysis Types:
S - Skipped (not analysed)
L - Linear
N - Non-linear

Analysis Flag:
CNV - Converged
XSD - Excessive displacements
DNC - Did not converge in iteration limit
UNS - Unstable or local instability

NODE COORDINATES

Node	X m	Y m	Z m	Restraint
1	0.000	0.000	0.000	100000
2	5.600	0.000	0.000	000000
3	0.400	0.000	0.000	000000
4	0.800	0.000	0.000	000000
5	1.200	0.000	0.000	000000
6	1.600	0.000	0.000	000000
7	2.000	0.000	0.000	000000
8	2.400	0.000	0.000	000000
9	2.800	0.000	0.000	000000
10	3.200	0.000	0.000	000000
11	3.600	0.000	0.000	000000
12	4.000	0.000	0.000	000000
13	4.400	0.000	0.000	000000
14	4.800	0.000	0.000	000000
15	5.200	0.000	0.000	000000

SPRING SUPPORTS

Node	KX kN/m	KY kN/m	KZ kN/m	KRX kNm/r	KRY kNm/r	KRZ kNm/r
1	0.000E+00	2.500E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2	0.000E+00	2.500E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3	0.000E+00	2.500E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4	0.000E+00	2.500E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5	0.000E+00	2.500E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
6	0.000E+00	2.500E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
7	0.000E+00	2.500E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
8	0.000E+00	2.500E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
9	0.000E+00	2.500E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
10	0.000E+00	2.500E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
11	0.000E+00	2.500E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
12	0.000E+00	2.500E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
13	0.000E+00	2.500E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
14	0.000E+00	2.500E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
15	0.000E+00	2.500E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00

MEMBER DEFINITION

Member	A	B	C	Prop	Matl	Rel-A	Rel-B	Length
								m
2	1	3	Y	1	1	000000	000000	0.400
3	3	4	Y	1	1	000000	000000	0.400
4	4	5	Y	1	1	000000	000000	0.400
5	5	6	Y	1	1	000000	000000	0.400
6	6	7	Y	1	1	000000	000000	0.400
7	7	8	Y	1	1	000000	000000	0.400
8	8	9	Y	1	1	000000	000000	0.400
9	9	10	Y	1	1	000000	000000	0.400
10	10	11	Y	1	1	000000	000000	0.400
11	11	12	Y	1	1	000000	000000	0.400
12	12	13	Y	1	1	000000	000000	0.400
13	13	14	Y	1	1	000000	000000	0.400
14	14	15	Y	1	1	000000	000000	0.400
15	15	2	Y	1	1	000000	000000	0.400

STANDARD SHAPES

Section	Shape	Name	Comment	D1/D4	D2/D5	D3/D6
1	RECT	StripFooting	400x400 RC	0.400	0.400	

Dimension codes:
RECT - D1=D D2=B

SECTION PROPERTIES

Section	Ax	Ay	Az	J	Iy	Iz	fact
	m2	m2	m2	m4	m4	m4	
1	1.600E-01	0.000E+00	0.000E+00	3.610E-03	2.133E-03	2.133E-03	1.000

MATERIAL PROPERTIES

Material	E	u	Density	Alpha	
	kN/m2		t/m3	/deg C	
1	2.860E+07	0.2000	2.450E+00	1.170E-05	CONC25

CONDITION NUMBER

Maximum condition number: 7.144E+02 at node: 2 DOFN: 2

APPLIED LOADING

CASE 1: Existing working loads

Member Loads

Member	Form	T	A	S	F1	X1	F2	X2
2	CONC	FY	GL	LE	-95.500	0.350		
5	TRAP	FY	GL	LE	-93.600	0.350	-93.600	0.400
6	UNIF	FY	GL		-93.600			
7	UNIF	FY	GL		-93.600			
8	UNIF	FY	GL		-93.600			
9	UNIF	FY	GL		-93.600			
10	UNIF	FY	GL		-93.600			
11	UNIF	FY	GL		-93.600			
12	TRAP	FY	GL	LE	-93.600	0.000	-93.600	0.050
15	CONC	FY	GL	LE	-95.500	0.050		

Sum of Applied Loads (Global Axes):
FX: 0.000 FY: -425.000 FZ: 0.000
Moments about the global origin:
MX: 0.000 MY: 0.000 MZ: -1190.000

NODE DISPLACEMENTS

CASE 1: Existing working loads

Node	X-Disp	Y-Disp	Z-Disp	X-Rotn	Y-Rotn	Z-Rotn
	m	m	m	rad	rad	rad
1	0.0000	-0.0113	0.0000	0.00000	0.00000	0.00001
2	0.0000	-0.0113	0.0000	0.00000	0.00000	-0.00001
3	0.0000	-0.0113	0.0000	0.00000	0.00000	0.00004
4	0.0000	-0.0113	0.0000	0.00000	0.00000	0.00003
5	0.0000	-0.0113	0.0000	0.00000	0.00000	-0.00004
6	0.0000	-0.0113	0.0000	0.00000	0.00000	-0.00010
7	0.0000	-0.0114	0.0000	0.00000	0.00000	-0.00011
8	0.0000	-0.0114	0.0000	0.00000	0.00000	-0.00007
9	0.0000	-0.0114	0.0000	0.00000	0.00000	0.00000
10	0.0000	-0.0114	0.0000	0.00000	0.00000	0.00007
11	0.0000	-0.0114	0.0000	0.00000	0.00000	0.00011
12	0.0000	-0.0113	0.0000	0.00000	0.00000	0.00010
13	0.0000	-0.0113	0.0000	0.00000	0.00000	0.00004

14	0.0000	-0.0113	0.0000	0.00000	0.00000	-0.00003
15	0.0000	-0.0113	0.0000	0.00000	0.00000	-0.00004

MEMBER FORCES

CASE 1: Existing working loads

Member	Node	Axial kN	Shear-y kN	Shear-z kN	Torque kNm	Moment-y kNm	Moment-z kNm
2	1	0.00	-28.29	0.00	0.00	0.00	0.00
	3	0.00	67.21	0.00	0.00	0.00	6.54
3	3	0.00	38.94	0.00	0.00	0.00	6.54
	4	0.00	38.94	0.00	0.00	0.00	-9.03
4	4	0.00	10.71	0.00	0.00	0.00	-9.03
	5	0.00	10.71	0.00	0.00	0.00	-13.32
5	5	0.00	-17.52	0.00	0.00	0.00	-13.32
	6	0.00	-12.84	0.00	0.00	0.00	-6.43
6	6	0.00	-41.14	0.00	0.00	0.00	-6.43
	7	0.00	-3.70	0.00	0.00	0.00	2.54
7	7	0.00	-32.11	0.00	0.00	0.00	2.54
	8	0.00	5.33	0.00	0.00	0.00	7.90
8	8	0.00	-23.17	0.00	0.00	0.00	7.90
	9	0.00	14.27	0.00	0.00	0.00	9.68
9	9	0.00	-14.27	0.00	0.00	0.00	9.68
	10	0.00	23.17	0.00	0.00	0.00	7.90
10	10	0.00	-5.33	0.00	0.00	0.00	7.90
	11	0.00	32.11	0.00	0.00	0.00	2.54
11	11	0.00	3.70	0.00	0.00	0.00	2.54
	12	0.00	41.14	0.00	0.00	0.00	-6.43
12	12	0.00	12.84	0.00	0.00	0.00	-6.43
	13	0.00	17.52	0.00	0.00	0.00	-13.32
13	13	0.00	-10.71	0.00	0.00	0.00	-13.32
	14	0.00	-10.71	0.00	0.00	0.00	-9.03
14	14	0.00	-38.94	0.00	0.00	0.00	-9.03
	15	0.00	-38.94	0.00	0.00	0.00	6.54
15	15	0.00	-67.21	0.00	0.00	0.00	6.54
	2	0.00	28.29	0.00	0.00	0.00	0.00

Positive Forces (Member Axes):
Axial - Tension Shear - End A sagging
Torque - Right-hand twist Moment - Sagging

SUPPORT REACTIONS

CASE 1: Existing working loads

Node	Force-X kN	Force-Y kN	Force-Z kN	Moment-X kNm	Moment-Y kNm	Moment-Z kNm
1	0.00	28.29	0.00	0.00	0.00	0.00
2	0.00	28.29	0.00	0.00	0.00	0.00
3	0.00	28.27	0.00	0.00	0.00	0.00
4	0.00	28.23	0.00	0.00	0.00	0.00
5	0.00	28.23	0.00	0.00	0.00	0.00
6	0.00	28.30	0.00	0.00	0.00	0.00
7	0.00	28.41	0.00	0.00	0.00	0.00
8	0.00	28.50	0.00	0.00	0.00	0.00
9	0.00	28.54	0.00	0.00	0.00	0.00
10	0.00	28.50	0.00	0.00	0.00	0.00
11	0.00	28.41	0.00	0.00	0.00	0.00
12	0.00	28.30	0.00	0.00	0.00	0.00
13	0.00	28.23	0.00	0.00	0.00	0.00
14	0.00	28.23	0.00	0.00	0.00	0.00
15	0.00	28.27	0.00	0.00	0.00	0.00
SUM:	0.00	425.00	0.00 (all nodes)			

Max. residual: 3.912E-11 at DOFN: 22

(Reactions act on structure in positive global axis directions.)