Producer statement design (PS1)

Auckland Council

TO BE COMPLETED BY THE DESIGN PROFESSIONAL WHO HAS BEEN ENGAGED TO PROVIDE A PS1

Author name: Lyall Green | Author number: 1274

Author company: Design Management Consultants Ltd

Building consent N°:

Site address: 52 Kauri Point Road Laingholm Waitakere

Legal description: Lot 402, DP 17523 CT NA899/143

Engaged by: B & C Morton-Jones (Owner)

To provide design services in respect of (describe work):

☒ part ☐ all — structural design of house extension foundation, floor framing and roof beams , subfloor bracing and deck extension balustrade

NZBC clauses (circle as applicable):

(B1)	B2	C1	C2	C3	C4	C5	C6	D1	D2	E1	E2	E3
F1	F2	F3	F4	F5	F6	F7	F8	G1	G2	G3	G4	G5
G6	G7	G8	G9	G10	G11	G12	G13	G14	G15	H1		

NB: all statements must include B2

The design has been prepared in accordance with:

☒ Documents issued by the Ministry of Business Innovation & Employment: B1 / VM1 (verification method / acceptable solution)

☐ Alternative solution (attach schedule if required):

The proposed building work covered by this producer statement design is described on the drawings referenced below together with the specifications and other documents set out in the schedule attached to this statement.

Drawing title: Proposed Alterations to 52 Kauri Point Road, Laingholm

Drawing numbers: A106 revA, A107 revA, A108 revA, A323revA

The producer statement is subject to:

(i) Site verification of the following design assumptions: ULS soil bearing capacity of 230kPa

(ii) All proprietary products meeting their performance specification requirements.

I believe on reasonable grounds that the proposed building work will comply with the relevant provisions of the Building Code if constructed in accordance with the drawings, specifications, and other documents provided or listed with this statement.

I understand that Auckland Council is reliant on this producer statement for the purposes of establishing compliance with the relevant provisions of the Building Act 2004, Building Regulations and Building Code. I confirm that I hold a current policy of professional indemnity insurance to the value required by Auckland Council.

Construction monitoring: ☐ Not required ☒ Required (if required please list below)

Verification of soil bearing strength and foundation construction

(Agreement must be attached)

Signed by: 

Date: 14/04/2015

☒ AGENZ ☒ IPENZ ☒ CPEng ☐ NZIA ☐ Other (specify)

46696

(Membership number)

Address: PO Box 5254 Hamilton Postcode: 3242

Phone: 07 850 5155

Fax:

Mobile:

Email: lyall.green@dmcnz.com

COMMENTS

All construction to be in accordance with NZS 3604 and the New Zealand Building Code

Important notes:

- Producer statements are accepted solely at Auckland Council's discretion; please refer to the Producer Statement Policy which can be found on Councils website for further details http://www.aucklandcouncil.govt.nz/EN/ratesbuildingproperty/consents/Consent%20documents/ac2301producerstatementpolicy.pdf

Producer statement design (PS1)

SUPERSEDED

Auckland Council

TO BE COMPLETED BY THE DESIGN PROFESSIONAL WHO HAS BEEN ENGAGED TO PROVIDE A PS1

Author name: Lyall Green — Author number: 1274

Author company: Design Management Consultants Ltd

Building consent N°:

Site address: 52 Kauri Point Road Laingholm Waitakere

Legal description: Lot 402, DP 17523 CT NA899/143

Engaged by: B & C Morton-Jones (Owner)

To provide design services in respect of (describe work): ☒ part ☐ all — structural design of house extension foundation, floor framing and roof beams

NZBC clauses (circle as applicable)

(B1)	B2	C1	C2	C3	C4	C5	C6	D1	D2	E1	E2	E3
F1	F2	F3	F4	F5	F6	F7	F8	G1	G2	G3	G4	G6
G6	G7	G8	G9	G10	G11	G12	G13	G14	G15	H1		

NB: all statements must include B2

The design has been prepared in accordance with:

☐ Documents issued by the Ministry of Business, Innovation & Employment — B1 / VM1 (verification method / acceptable solution)

☐ Alternative solution (attach schedule if required)

The proposed building work covered by this producer statement design is described on the drawings referenced below, together with the specifications and other documents set out in the schedule attached to this statement.

Drawing title: Proposed Alterations to 52 Kauri Point Road, Laingholm — Drawing numbers: A106 revA, A107 revA, A108 revA, A323revA

The producer statement is subject to:

(1) Site verification of the following design assumptions: ULS soil bearing capacity of 230kPa

(2) All proprietary products meeting their performance specification requirements.

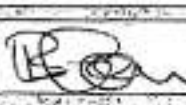
I believe on reasonable grounds that the proposed building work will comply with the relevant provisions of the Building Code if constructed in accordance with the drawings, specifications and other documents provided or listed with this statement.

I understand that Auckland Council is reliant on this producer statement for the purposes of establishing compliance with the relevant provisions of the Building Act 2004, Building Regulations and Building Code. I confirm that I hold a current policy of professional indemnity insurance to the value required by Auckland Council.

Construction monitoring is: ☐ Not required ☒ Required (If required please list below)

Verification of soil bearing strength and foundation construction

(Agreement must be attached)

Signed by: 

Date: 14/04/2015

☒ ACENZ ☒ IPENZ ☒ CPENG ☐ NZIA ☐ Other (specify)

46696 (Membership number)

Address: PO Box 5254 Hamilton Postcode: 3242

Phone: 07 850 5155 Fax:

Mobile: Email: lyall.green@dmcnz.com

COMMENTS

All construction to be in accordance with NZS 3604 and the New Zealand Building Code

Important notes:

- Producer statements are accepted solely at Auckland Council's discretion; please refer to the Producer Statement Policy which can be found on Councils website for further details http://www.aucklandcouncil.govt.nz/EN/ratesbuildingproperty/consents/Consent%20documents/ac2301producerstatementpolicy.pdf

Design Management Consultants Ltd

dmc

Job No: 9008 PAGE : 1
Project: B & C Morton-Jones House extensions DATE : 21-Jun-15
Deck Baluster - refer sheet A308 BY: LG

Loads

	Top edge and rail		Infill		
	Inwards Horizontal kN/m	Vertical kN/m	Inwards, outwards kN	Horizontal kPa	Any direction
Other residential (see also C)	0.75	0.75	0.60	1.00	0.50

Posts

Post size = ex 100*100 94 mm
Spacing = 1.00 m max
Rail height above centre of supp 1.20 m max

U = 1.5Q > M* = 0.90 kN-m
94*94 post > Zx = bd^2/6 = 138431 mm3
f* = 6.50 Mpa
Timber grade = H5 G8 I wet condition > Fb = 11.70 Mpa
phi = 0.80
k1 = 0.80
phi Fb = 7.49 Mpa > f* Ok
Use ex 100*100 G8 post at 1.0m max c/c

Top rail

Rail = 100*50*4.5 alloy channel UA 1146 T5 min yield = 110.00 Mpa
Ix = 1309377 mm4
Zx = 26188 mm3
Loading = 0.75 kN/m
Span = 1.00 m max
U = 1.5Q > M* = 0.14 kN-m
f* = 5.37 Mpa
T5 alloy phi = 0.90
k = 1.00
phi Fb = 99.00 Mpa > f* Ok
Use 100*50*4.5 T5 alloy rail for post centres at 1.0m max

In-fill rails

Rails = 20mm dia tube - UA 1225 6060 T5 min yield = 110 Mpa
t = 1.20 mm
Ix = 3143 mm4
Zx = 157 mm3

spacing = 110.00 mm max c/c
span = 1.05 m
Loading = 0.11 kN/m
U = 1.5Q > M* = 0.02 kN-m
f* = 96 Mpa
6060 T5 alloy phi = 0.90
k = 1.00
phi Fb = 99.00 Mpa > f* Ok
Use 20mm dia*1.2mm T5 6060 alloy tube infill rails @ 110mm max centres

Fasters to infill rails

Face loading = 1.00 kPa
U = 1.5Q > V* = 0.06 kN = potential screw pull out load
Screws = 75mm *4.88 (10g)
Withdrawal strength = 61.70 N/mm
Embedment = 45.00 mm
k (green/wet timber) = 0.8*0.8*1 = 0.64
phi = 0.70
phi Qs = 1243.87 N / screw Ok
Use 75mm * 4.88mm stainless steel screws at base of tubes

Post support

100*100 post @ 1m max c/c with applied load 1.0+0.1 = 1.1mm above top fastener bolt
Boundary joist are ex 200*50mm *2
Distance from applied load to base of post = 1.0+.04*.19 = 1.23 m
Max moment from applied load to post base = 0.92 kN-m
Distance from base to top bolt = 0.13 m
Max load on bolts = 7.10 kN
Use 2 M12 SS bolts complete with 50mm washers as drawn

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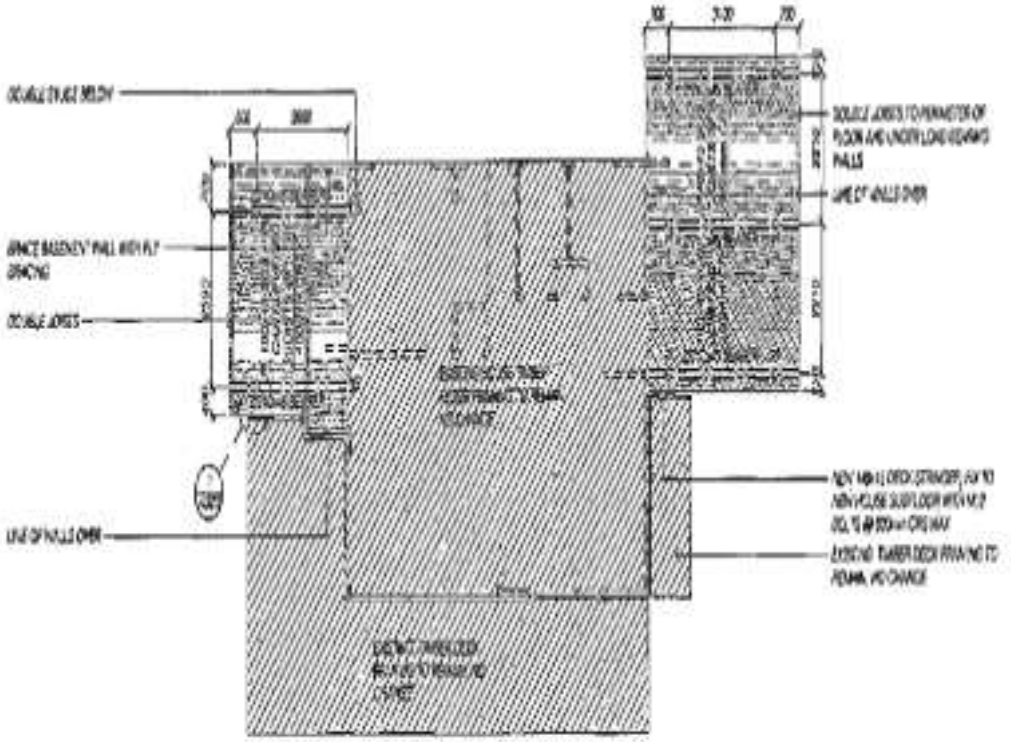
Structural Calculations

Project: B & C Morton-Jones
House Extensions

Project Ref: 9006



FLOOR/SUBFLOOR FRAMING NOTES:

- ALL WORKS TO COMPLY WITH RELEVANT CLAUSES OF THE NZBC AND THE NEW ZEALAND BUILDING ACT.
- ALL FLOOR AND SUBFLOOR FRAMING TO COMPLY WITH NZS 3604:2011 SECTIONS 6, 7 & 11. ALL WORKS OUTSIDE THE SCOPE TO ENGINEERS DESIGNED
- READ DRAWINGS IN CONJUNCTION WITH DESIGNER/ARCHITECTS SPECIFICATION
- READ DRAWINGS IN CONJUNCTION WITH ENGINEERS CALCS & DRAWINGS
- ALL WORKMANSHIP TO BE CARRIED OUT TO BEST TRADE PRACTICE WITH ALL MATERIALS USED BEING THE BEST OF THEIR RESPECTIVE KINDS

TIMBER TREATMENT:

ALL STANDARD FLOOR AND SUBFLOOR FRAMING TO BE OF THE FOLLOWING:
ALL FLOOR JOISTS, BEARERS, JACKS, JOISTS AND DIAGONAL BRACES AND ASSOCIATED FRAMING & INTERNAL FLOOR FRAMING TO BE TREATED H1.2
ALL EXTERNALLY EXPOSED POSTS & FRAMING ABOVE GROUND TO BE TREATED TO H3.2
ALL PILES, POSTS AND POLES EMBEDDED IN THE GROUND AND FLOOR/DECK FRAMING WITHIN 150mm OF GROUND TO BE TREATED H5
ALL TIMBER DURABILITY TO COMPLY WITH NZS3602.

TIMBER GRADING:

ALL STRUCTURAL TIMBER USED TO BE STRESS GRADED TO COMPLY WITH THE CURRENT EDITION NZS 3603 AND MARKED ACCORDINGLY TO COMPLY WITH THE CURRENT EDITION NZS 3602. ALL TIMBER SIZES ARE NOMINAL. FROM THE SG8 TABLES FROM NZS 3604:2011, (FOLLOW TABLES) THEREFORE ALL STRUCTURAL TIMBER SHOULD BE SG 8 UNLESS OTHERWISE SPECIFIED

STRUCTURAL FIXING LEGEND:

ALL STRUCTURAL FIXINGS IN ALL SHELTERED & EXPOSED ENVIRONMENTS (SEA SPRAY ZONE) AS DEFINED IN NZS 3604 ARE TO BE GRADE 304 SS. ALL STRUCTURAL FIXINGS IN ALL CLOSED ENVIRONMENTS TO BE HOT DIP GALV.

FLOOR FRAMING LEGEND:

J.JOISTS — NEW SG8 TIMBER JOISTS, SIZE AS SPECIFIED
— · — NEW H3.2 SG8 TIMBER BEARER, SIZE AS SPECIFIED
● POINT LOAD FROM ABOVE

FLOOR FRAMING LEGEND

▨ EXISTING HOUSE FLOOR FRAMING TO REMAIN
▩ NEW FLOOR FRAMING 20mm PLY FLOOR
▩ NEW FLOOR FRAMING WITH 20mm H3 PLY FLOORING

CONCRETE GRADES:

FOUNDATION 20mpa AT 28 DAYS
PILES 20mpa AT 28 DAYS

FOUNDATION LEGEND:

175mm Ø H5 POLES [illegible] @ GROUND LEVEL, 180mm Ø @ BOTTOM OF PILE, IN 400mm Ø x 1000mm D CONCRETE FOOTING INTO NATURAL GROUND. NOTE: 300-400mm FILL UNDER BEDROOM 2

14/4/15

CPEng #46696

the draughting MACHINE

[illegible]

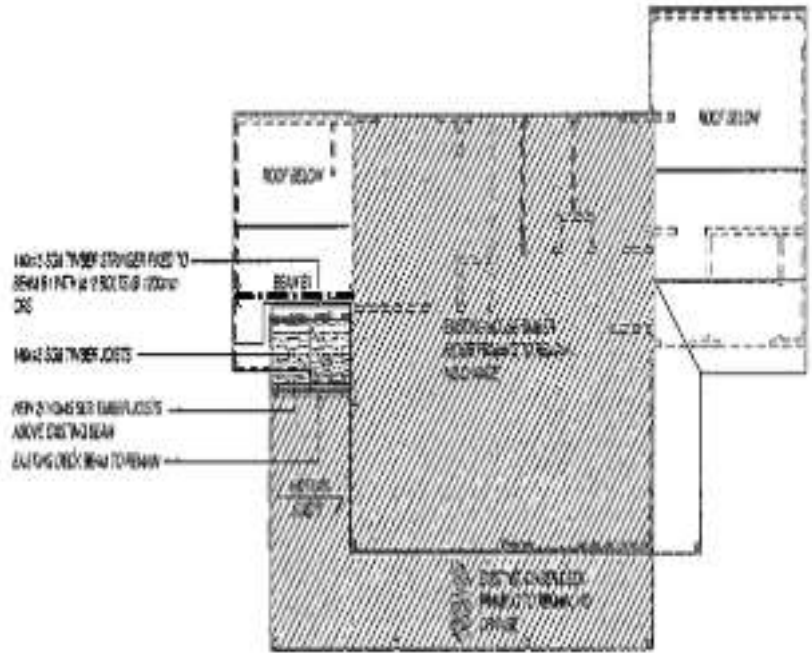
STRUCTURAL ENGINEERS DESIGN [illegible]

PROPOSED
ALTERATIONS/ADDITIONS TO
32 [illegible] POINT ROAD,
LANGHOLM
FOR [illegible] NORTON-JONES

GROUND FLOOR FRAMING PLAN

ISSUED FOR BUILDING CONSENT

JOB No	SHEET No	REV No
14-029	A100	A



FLOOR/SUBFLOOR FRAMING NOTES

- ALL WORKS TO COMPLY WITH RELEVANT CLAUSES OF THE NCC AND THE NEW ZEALAND BUILDING ACT.
- ALL FLOOR AND SUBFLOOR FRAMING TO COMPLY WITH NZS 3604:2011 SECTIONS 6, 7 & 14. ALL WORKS OUTSIDE THIS SCOPE TO BE ENGINEERS DESIGNED
- READ DRAWINGS IN CONJUNCTION WITH DESIGNER/ARCHITECTS SPECIFICATION
- READ DRAWINGS IN CONJUNCTION WITH ENGINEERS CALCS & DRAWINGS
- ALL WORK/WARRANTY TO BE CARRIED OUT TO BEST TRADE PRACTICE WITH ALL MATERIALS USED ADHERE TO THE BEST OF THEIR RESPECTIVE RANGE.

TIMBER TREATMENT

ALL STANDARD FLOOR AND SUBFLOOR FRAMING TO BE OF THE FOLLOWING

ALL FLOOR JOISTS, BEARERS, JAMB STUDS AND DIAGONAL BRACES AND ASSOCIATED FRAMING & WATERMEMBER FLOOR FRAMING TO BE TREATED H1.2

ALL EXTERNALLY EXPOSED POSTS & FRAMING ABOVE GROUND TO BE TREATED TO H3.2

ALL PILES, POSTS AND POLES EMBEDDED IN THE GROUND AND FLOOR/DECK FRAMING WITHIN 300mm OF GROUND TO BE TREATED H5

ALL TIMBER DURABILITY TO COMPLY WITH E2/AS1

TIMBER GRADING

ALL STRUCTURAL TIMBER USED TO BE STRESS GRADED TO COMPLY WITH THE CURRENT EDITION NZS 3603 AND MARKED ACCORDINGLY TO COMPLY WITH THE CURRENT EDITION NZS 3602. ALL TIMBER SIZES ARE PICKED FROM THE SIZE & TABLES FROM NZS 3604:2011. (REFER NOTES) THEREFORE ALL STRUCTURAL TIMBER SHOULD BE SG8 UNLESS OTHERWISE SPECIFIED

STRUCTURAL PLYING LEGEND

ALL STRUCTURAL PLYWOOD IN ALL SHEETED & EXPOSED DIAPHRAGMS/DECK SUBFLOOR AS DESIGNED AT NZS 3604 ARE TO BE GRADE AS1 ST 37 ALL STRUCTURAL PLYWOOD IN ALL CLOSED DIAPHRAGMS TO BE NOT D/P (SA).

FLOOR FRAMING LEGEND

JOISTS — NEW 90MM TIMBER JOISTS. SIZE AS SPECIFIED

— — — NEW 90MM TIMBER BEARER. SIZE AS SPECIFIED

@ POINT LOAD FROM ABOVE

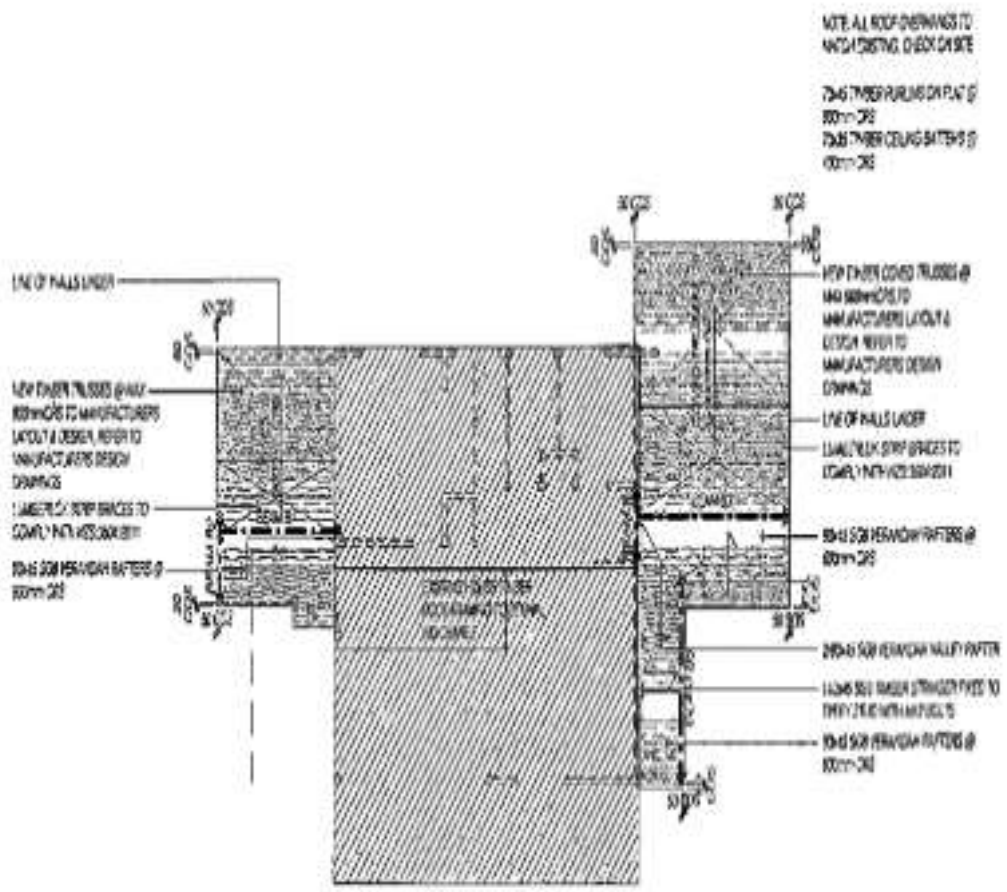
FLOOR FRAMING LEGEND

EXISTING HOUSE FLOOR/DECK FRAMING TO REMAIN

NEW DECK FRAMING WITH WIDTH DECKING TO MATCH EXISTING

#4415
cEng #46696

thedrughing MACHINE					JOB TITLE: PROPOSED ALTERATIONS/ADDITIONS TO 57 KAL W POINT ROAD, LAINE HOLM FOR MR&MRS HORTON-JOHNS	SHEET NAME: 1ST FLOOR FRAMING PLAN	DRAWN: H SCALE: 1:100@A3 DATE: OCT 24 PLOT DATE: 14/11/24 ISSUED FOR BUILDING CONSENT JOB NO: 14-025 SHEET NO: A107 REV NO: A



ROOF FRAMING NOTES:

- ALL WORKS TO COMPLY WITH THE RELEVANT CLAUSES OF THE NCC AND THE NEW SOUTH WALES BUILDING ACT.
- TIMBER FRAMED TRUSSES TO MANUFACTURERS DESIGN & LAYOUT. LAYOUTS SHOWN INDICATIVE FOR TRUSS MANUFACTURERS INFORMATION. TRUSS MANUFACTURER TO PROVIDE INFO/CERTIFICATE
- ALL ROOF FRAMING & BRACING TO COMPLY WITH AS1684.2010 + SECTION 8 & 10 ALL FRAMING & BRACING OUTSIDE DWG SCOPE TO ENGINEERS DESIGNED
- READ DRAWINGS IN CONJUNCTION WITH DESIGN/SPECIALISTS SPECIFICATION
- READ DRAWINGS IN CONJUNCTION WITH ENGINEERS CALCS & DRAWINGS
- ALL WORKMANSHIP TO BE CARRIED OUT TO BEST TRADE PRACTICE WITH ALL MATERIALS USED BEING THE BEST OF THEIR RESPECTIVE KINDS

TIMBER TREATMENT:

ALL ROOF FRAMING TO BE OF PINE ROOFING. ALL ROOF FRAMING TO BE MGP TREATED TIMBER UNLESS OTHERWISE SPECIFIED IN DRAWINGS. ALL TIMBER DURABILITY TO COMPLY WITH VERSUS.

TIMBER GRADING:

ALL STRUCTURAL TIMBER USED TO BE STRESS GRADED TO COMPLY WITH THE CURRENT EDITION AS1 2000 AND MARKED ACCORDINGLY TO COMPLY WITH THE CURRENT EDITION AS1 2000. ALL TIMBER SIZES ARE WORKED FROM THE SIZE VALUES FROM AS1 2000 PART 1, SECTION TABLES THEREFORE ALL STRUCTURAL TIMBER SHOULD BE SG8 UNLESS OTHERWISE SPECIFIED

BEAM/LINTEL LEGEND

B1 -

ROOF FRAMING LEGEND

EXISTING HOUSE ROOF FRAMING TO REMAIN

NEW ROOF FRAMING

STRUCTURAL STYLING LEGEND

ALL STRUCTURAL FRAMING WALL SHELVES & OPENINGS DIMENSIONS SUBJECT TO ENGINEERED PLANS AND TO BE CHECKED ON SITE

ALL STRUCTURAL FRAMING IN ALL CLOSURE DIMENSIONS TO BE VERIFIED ON SITE

ROOF FRAMING LEGEND

NEW DOOR EAVES RAFTERS, SIZE AS SPECIFIED

NEW TIMBER TRUSSES TO TRUSS MANUFACTURERS DESIGN

NEW DOOR RAFTER BEAM, SIZE AS SPECIFIED

RIDGE LINE FROM ABOVE

BEAM/LINTEL LEGEND

BEAM B1	2/190x45 SG8 & TIMBER BEAM
BEAM B2	2/140x45 SG8 & TIMBER BEAM
BEAM B3	2/240x45 SG8 & TIMBER BEAM
BEAM B4	2/190x45 SG8 & TIMBER BEAM
BEAM B5	190x45 SG8 & TIMBER BEAM

4/11/15

CEng # 46696

thedraughting MACHINE			PROPOSED ALTERATIONS/ADDITIONS TO 12 MAIR POINT ROAD, LAUNCESTON FOR WILLIAMS MORTON-JONES	ROOF FRAMING PLAN	JOB No. 14-008
					SHEET No. 4/08
					REV. No. A

Table 2.2 – Fixing type and capacity reference guide (see 2.4.4.7)

Fixing type	Description	Alternative fixing capacity (kN)	See table
A	2/90 x 3.15 end nails	0.7	
B	2/90 x 3.15 end nails + 2 wire dogs	4.7	8.18
C	2/90 x 3.15 end nails + strap fixing (see figure 8.13)	8.5	
D	4/90 x 3.15 end nails + 2 strap fixings (one each side of stud)	16.0	
E	2/90 x 3.15 skew nails + 2 wire dogs	4.7	10.1 A10.1 10.2 A10.2 10.11 A10.11 10.14
F	2/90 x 3.15 skew nails + strap fixing (see figure 10.8)	7.0	10.18 15.6 A15.6 15.10 A15.10
G	10/90 x 3.15 nails (5 each side)	4.7	
H	1/M12 bolt	8.5	10.2 A10.2 15.2 A15.2
I	2/M12 bolts	16.0	
J	2/M16 bolts	24.0	
K	6/90 x 3.15 nails	3.0	
L	2/M12 bolts	9.0	10.5 A10.5
M	2/M16 bolts	13.0	
N	6/100 x 4.0 HDG nails (hand driven)	4.7	
O	2/M12 bolts (see figure 9.3 (C))	6.6	10.8 A10.8 15.8 A15.8
P	2 HDG 'flat' straps (see figure 9.5 (B))	13.7	
Q	2 HDG 'flat' straps (see figure 9.5 (A))	35.5	
R	1/90 x 3.15 nail	0.24	
S	2/90 x 3.15 nails	0.8	10.10 A10.10 10.17
T	1/14g self-drilling screw, 80 mm long	2.4	15.9 A15.9
U	1/14g self-drilling Type 17 screw, 100 mm long	5.5	

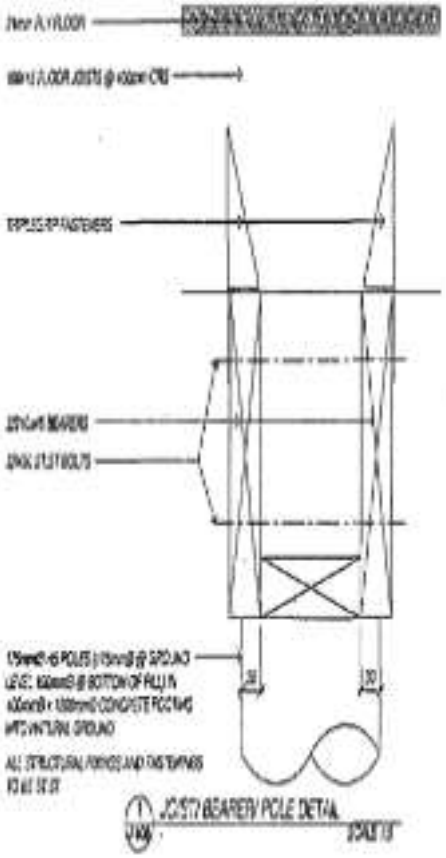
NOTE – Capacities are associated with fixing type, not fasteners. See individual selection tables for the appropriate fixing type for the application.

FRAMING FIXING REQUIREMENTS

- FIXING FOR TOP PLATES TO SUPPORTING MEMBERS SUCH AS STUDS AND LINTELS
- FIXING TYPE 'B' (TABLE 8.18 NZS 3604)

- FIXING FOR PURLINS
- FIXING TYPE 'F' (TABLE 10.10 NZS 3604)

- FIXING FOR RAFTERS
- FIXING TYPE 'F' (TABLE 10.11 NZS 3604)



1 / A006 JOIST/BEARER/POLE DETAIL SCALE 1:10

14/4/15

CPEng # 46696

thedraughting MACHINE

JOB TITLE
PROPOSED
ALTERATIONS/ADDITIONS TO
33 [illegible] POINT ROAD,
LAINGHOLM,
FOR [illegible] HORTON-JONES

SHEET NAME
TYPICAL FIXING DETAILS

JOB No.	SHEET No.	REV No.
14-039	A003	A

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Phone: 07 850 5156 Fax: 07 850 5156

Project Ref: 9086 – 2015
Project: Kauri Pt Rd Whitakere
Client: B&C Morton Jones
Date: 12/15 Page: 1

Author UCa.

House Extension
Add = Bedroom @ east side
= Bedroom + laundry @ west side.

Refer to DMC geotech report 3 dd 15.
⇒ ϕ_{ULS} = 230 kPa

Refer to The Drafting Machine drawings 14-029

Design Loads:

(1) Dead New light weight roof = 0.35 kPa.
Previous calcs have existing roof @ 0.35 kPa
+ Deck @ 0.3 kPa.

(2) Live 1.5 kPa.

(3) Wind From previous calcs - Wind cat 1 SED
Max directional wind speed = 42.1 m/s

(4) Seismic Cab bracing & Cantilever poles

Ductility = 1.25
T = 0.4
Class C soils
Z = 0.13
Cl(T1) = 2.26
Sp = 1.3 − 0.3 × 1.25 = 0.925
$k_{pi} = \frac{1.25 - 1.2}{0.7} + 1 = 1.14$

$Cd = \frac{0.13 \times 2.36 \times 0.925}{1.14} = 0.25$ **

$V = Cd\ Wt$ $Wt = G + \psi_e Q$

$Q = \psi_a \times 1.5$ $\psi_a = 0.3 + \frac{3}{\sqrt{A}}$

Existing floor area = 2 levels @ 52 m² = 104 m²
New area = 38 m²
Total area = 142 m²

$\psi_a = 0.55$

Total House with extensions

$Wt = G + (0.3 \times 0.55) Q$
G = 142 × (0.35 + 2 levels walls @ 0.3 kPa
Area walls = 3 × 5 / 4 × 0.2 + 8.5 × (3.8 + 5.4) / 2 × 3.4
= 270 m²

G = 142 × 0.35 + 270 × 0.3 = 131 kN
Wt = 131 + 0.55 × 1.5 × 0.3 × 142 = 166 kN.
Plus decks say 180 kN.

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PO Box 5254, Frankton, Hamilton 3242
Phone: 07 850 5155 Fax: 07 850 5156

Project Ref:
Project:
Client:
Date: / / Page: 2

Author

Total seismic lateral load
$V = V_t$
$V = C_d W_t$
$= 0.25 \times 180 = 45.0$ kN.
$= 900$ lbfs.

Wind lateral load – sheltered South & West.
$V_b = 42.1$ m/s
$q_b = 1.06$ kPa.
$q_b = > 0.3$
$C_{pnett} = +0.7 + 0.5 = 1.2$
North-East face area $= (3.5 \times 4) + 2.9 + 0.5 \times 5.7$
$= 72.0$ m²

$U = W_{transv}$
$= 1.06 \times 1.2 \times 72 = 91.6$ kN
$= 19312$ lbfs.
= transverse wind load.

South East face area $= 6.2 \times 5.4 + 1.6 \times 2.9$
$= 37$ m²

$U = W_{long}$
$= 1.06 \times 1.2 \times 37 = 47.1$ kN
$= 9432$ lbfs

Wind load governs lateral forces in design in both transverse & longitudinal directions.

dmc
Design Management Consultants Ltd
PO Box 5254, Frankton, Hamilton 3242
Phone: 07 850 5155 Fax: 07 850 5156

Project Ref:
Project:
Client:
Date: / / Page: 3

Author

Roof Beams B1 – B4

Q = 0.35kPa Roof & Deck

Q = 0.25kPa.

W_u = q = 1.06kPa.

(B1) Span = 3.4m.
Effective width = 2.0m Roof plus 0.5m deck
Roof pitch = 3° & 45° ∴ α

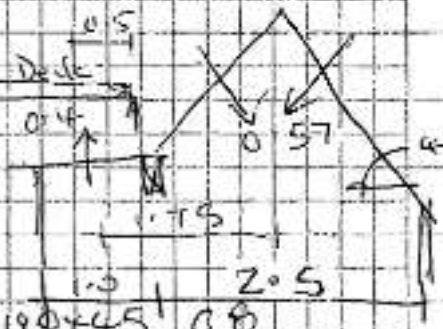
C_{pe} = 0.9 sin α = +0.57 α = 45°
C_{pe} = −0.9 or −0.4 for α = 3°.

Nett result on B1 is:

1.06(−0.4×0.5 + 0.57×1.25)
= ±0.55kN/m

U = Cat W_u
= (1.75+0.5)×0.35 + 0.55
= 1.4 kN/m

Refer Spreadsheet – Use 2/190×45 GS.



(B2) Supports end of B1 over window

Refer Spreadsheet – Use 2/140×45 GS.

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Roof beams (B3)

Span = 4400
DEAD w/m² = 2400

Wind Cpe.

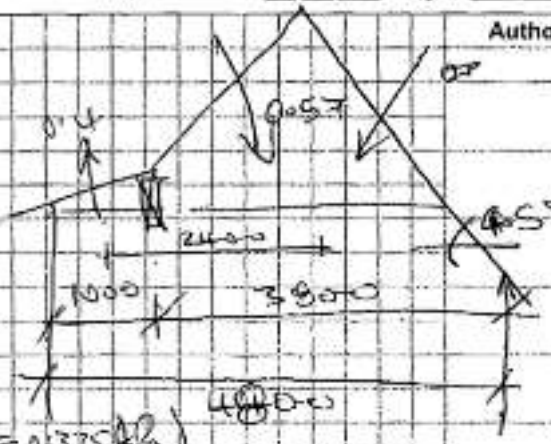
Nett w/load on B3 is

1.06(−0.4×0.5 + 0.37×1.9)

= + 0.9 kN/m² (1:2.4 = 0.375 kPa)

UDL $G_k + W_u$ = 2.4×0.4 + 0.9

= 1.85 kN/m².



Refer Spreadsheet calcs — Use 2/240x45. C8

Roof beam (B4) — Supports B3.

Span = 10000
DEAD w/m² = 0

Refer Spreadsheet calcs — Use 2/140x45 C8.

Floor Beams

Beam 2

Floor Joists — Span = 12.0 m
refer N25 300kg/m² → 140x45 @ 400 c/c
- Double up under walls and in line with window from B1 load

Beam A — Refer spreadsheet
Use 2/240x45
span = 7000 − 3000 = 4000

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Floor Beams cont.

Bed 3

Floor joists Span = 2.2m
Use 140 F5 @ 450 c/c.

Beam B2 (Central beam)
UDL Width = 2.2m.
Span = 3.0m
Refer to Microstran for results
U = 1.2G + 1.5Q ⇒ M* = 50.6 kN-m
Use 2/240 F5 GB

Beam C1 (Outer beams)
UDL width = 1.4m
Span = 3.0m
Refer to Microstran for results
U = 1.2G + 1.5Q ⇒ M* = 44.8
Use 2/240 F5 GB.

Portable Floor joists (double span)
M* max = 10.96 kN-m.
2/140 F5 ⇒ ΦMn = 2 × 1.32
= 2.64
> 1.96 OK.

Use double joists under external walls.

Roof Beam (5) – supports gable end exposed to wind.
Span = 3.0
Effective width = 0.6
M*wind = 0.4
Cp = +0.5 & −0.2
q = 1.06 kPa.
W1 = +0.53 kPa
W2 = −0.21 "
Refer spreadsheet
Use 190 F5 GB.

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Lateral Loads:

Existing house is full-braced for its own lateral loads

Provide lateral bracing to each portion of extensions (at each end of house)

Bed 2 - South east exposure (W3)

Wind load = 0.7 × (0.6 kPa × 0.9²)
= 0.680 kPa

Max exposed face = 3.0 × 4.0 = 12 m²

W = 7.22 kN

Seismic load Wt = (Ch) (W) (Q)

Previous calcs (Ch) = 0.25 (μ = 1.25)

Wt = 0.4 (3 + 2 + 3.0 × (4 + 2 + 3.5)
+ 12m² × 0.3 + 1.5 kPa.

= 28.2 kN

V = (Ch) Wt = 7.1 kN

Wind governs lateral bracing design.

W = 7.22 kN
OR 3.61 kN/pole

Utilise cast-in-steel timber poles

Height ground to floor = 2500

Geotech report indicates fill & foggo to 1.4m below ground.

Axial load on poles (U) = 1.2G + 1.5Q = 21.6kN

Qult = 2.3 × 10³ kPa

A = π × 21.6 / 2300 = 0.094 m²

Ø = 346 mm

Use 400 Ø concrete encasement.

Refer Bentham's embedment analysis for Class Cu = 70 kPa.

e = 2.5 × Ø = 3.9 m.

Embedment below fill = 1.2m + 400 Ø

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Pole design
Bed 2. $H_{ult\ max} = 3.61$ kN / pole (Wind)

$e = 2.5 \times 1.4 = 3.9$ m

$M^* = 3.61 \times 3.9 = 14.1$ kN-m ult.

For 'Normal' pole ($350\ kg/m^3$)

k

$\phi M_b = 0.8 \times 1.0 \times (38 \times 0.85^2)$

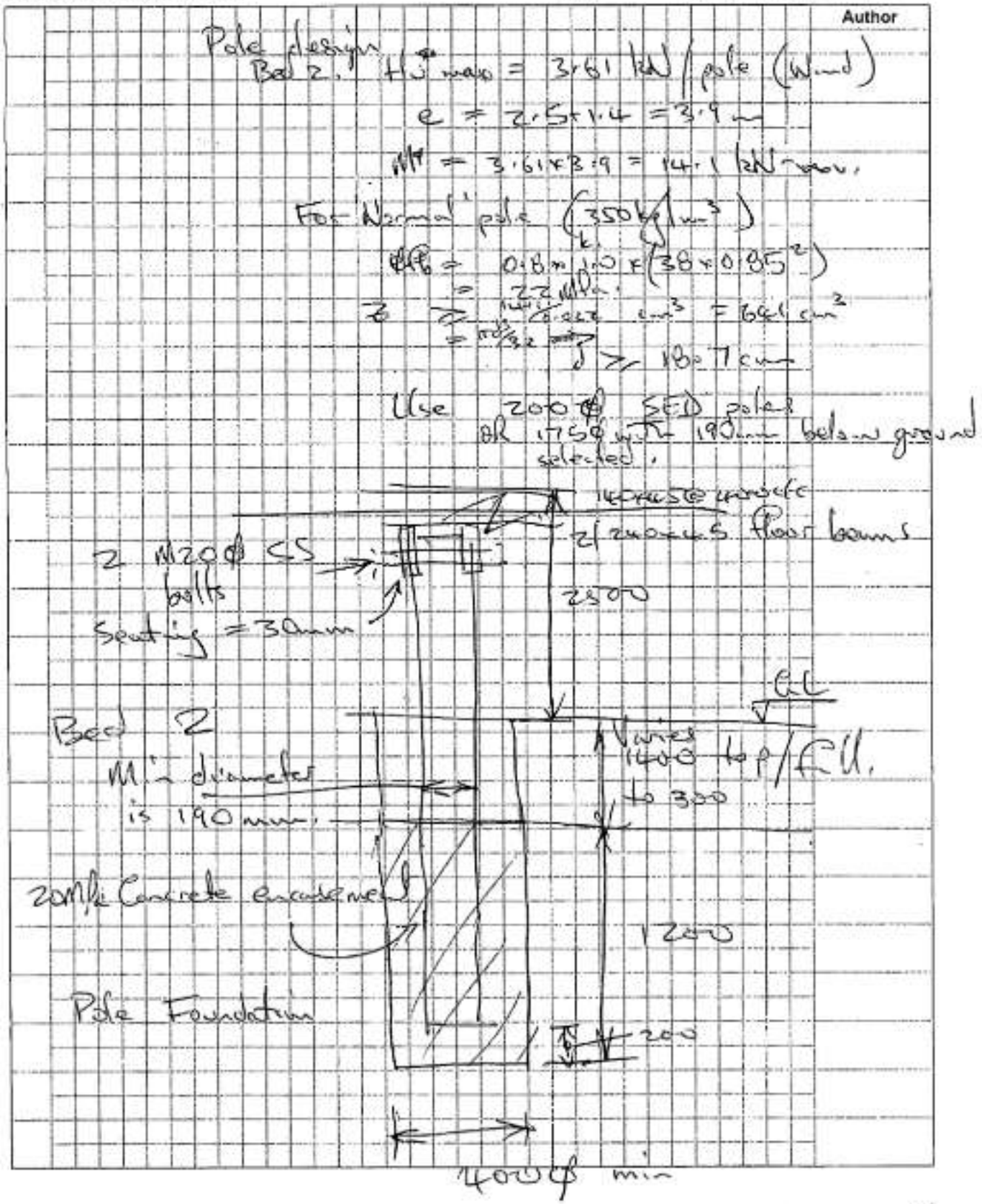
$= 22$ MPa

$Z = \frac{M^*}{\phi f_b} = \frac{14.1 \times 10^6}{22}$ mm^3 $= 641$ cm^3

$= \pi d^3/32$ mm^3

$d \geq 180.7$ mm

Use 200 ϕ SED poles
OR 175ϕ with 190 mm below ground selected.



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Bay 3

Wind — Sheltered Ranges all wind except open to North east wind

NE wind load = $0.7 \times (1.06 \times 0.9^2)$ kPa
= 0.6 kPa.

Max exposed face width = 4.92 + 3.1 m
= 15.3 m

∴ Lateral Wind = 15.3 × 0.6
= 9.2 kN

Earthquake — Post previous calcs $C_d = 0.125$ ($\mu = 1.25$)

$W_t = C_d \cdot W_e(D)$ $U_e = 0.3$ $D = 1.5$ kPa

$C = 0.4(2 \times 5.3 + 3.0 \times (4.9 + 3.7 + 4.4))$
= 34

$W_t = 34 + 0.3 \times 1.5 \times 15.3$
= 41 kN

$V = C_d W_t = 10.2$ kN > Wind governs

Lateral load is supported by 6 poles of varying heights above ground level
Height varies 0.5m to 3.1 m.

Refer Mycrostrum model for analysis of load distribution with Master Store floor diaphragm.

From Mycrostrum critical pole is 1.2m high
$M_{max} = 3.42$ kN
$M_{ult} = 4.9$ kN

Refer to Brahms spreadsheet for embedment

1.2 Pole $e = 1.2 + 0.2$ (top soil) $= 1.4$m
$V = 3.42$ kN $C_u = 70$ kPa
$\phi = 0.6$ m

L = Embedment ≥ 990mm × 400 Ø
+ top soil

0.5 Pole $e = 0.7$ L ≥ 990mm × 400 Ø

3.1 Pole $e = 3.3$ L ≥ 710 × 400 Ø
$V = 5.2$

Use 1200mm × 400 Ø embedment.

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Bent 3 poles
$M^* = 3 \cdot 4 \cdot 0 \cdot 5 = 5.1$ kNm
$Z \geq 232$ cm^3
$d \geq 130.3$ cm
Use 175 SED poles.
ϕ 1200 mm x 400 embedment

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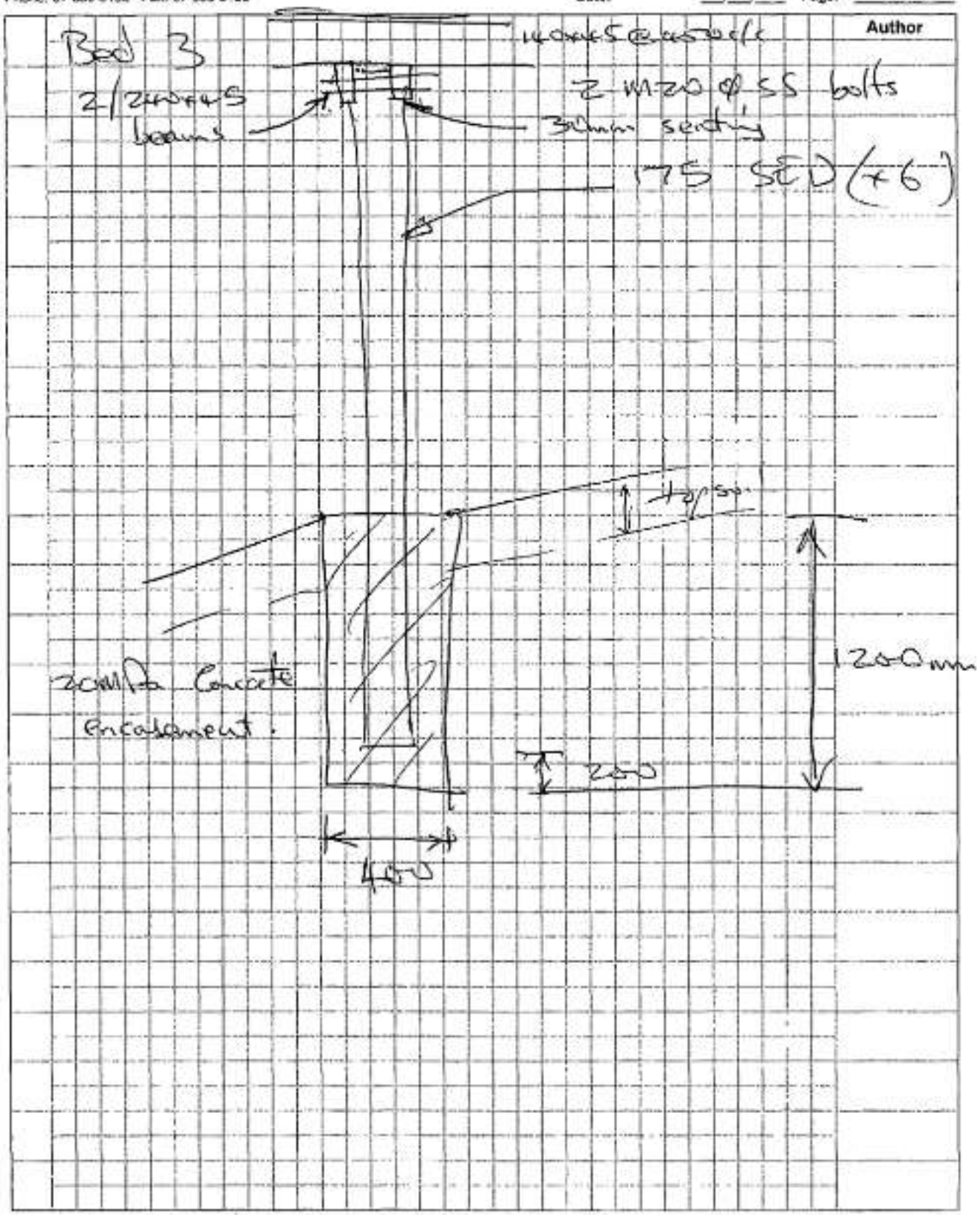


Design Management Consultants		Page No.:	1
JOB NAME:	B & C Morton-Jones House	Date	12/6/11
Job/File Number:	9000	Designer:	Lyall Green
Description:	Wind speed calcs	Checker:	1

Determination of Site Wind Speeds

Enter Return Period of Interest = 500

Determination of Site Wind Speed $V_{sit,\beta} = V_R * M_d * M_{(z,cat)} * M_s * M_t$ m/sec

Enter Wind Region ID = A7

Wind Regime with this region is Frontal

Regional Wind Speed = V_R = 45 Ajustment Factor = 1 = 45 m/sec V1.2

Directional (d) or Non-directional (n) wind speeds = y

Elements being considered C *(C = Complete building & Primary Structure; C= Other elements)*

Wind Directional Multiplier, Md, for Region A7

N	NE	E	SE	S	SW	W	NW
0.9	0.9	0.8	0.9	0.9	0.9	1	1

Terrain/Height Multiplier

Enter Building Height Z= 9 m

Enter Reference height of Interest 9 m *(can select several heights up the Building)*

Terrain Category Averaging Distance 1000 m *(As given in Table 4.2A)*

Enter the distance of each Terrain Category present over Averaging Distance Starting at base of building and Moving away in an upwind direction (Refer to Clause 4.2.3) — 1000 m of the site

TC	N	NE	E	SE	S	SW	W	NW
1	2/6000	2/6000	2/6000	2/6000	2/6000	2/6000	3/6000	3/6000
2								
3								
4								
5								
6								
7								
8								
Sum of averaging distances	1167	1167	1167	1167	1167	1167	1105	1105
check distance provided>Required	OK	OK	OK	OK	OK	OK	OK	OK
Weighted average terrain category	2.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00
M(z,cat)=	0.98	0.98	0.98	0.98	0.98	0.98	0.83	0.83

Shielding Effects *(Note Shielding Zone is arc radius 20h &+/- 45 degree perp to wall)*

Effective shielding length has been assessed as 180 m *(20 * Building Height)*

Effective shielding buildings are required to have Ht> 9 m *(Shielding Bldgs Ht >= Bldg Ht)*

(Note if Upwind Slope >0.2 then no shielding is present - Cl 4.3.1)

Enter

		N	NE	E	SE	S	SW	W	NW
No. Bldgs in shielding zone of ht>h	No.	0	0	0	0	0	0	0	0
Avg. Height of shielding bldgs	m								
Avg. Breadth of shielding bldgs	m								
	Ls=	0	0	0	0	0	0	0	0
	s=	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Design Management Consultants		Page No.:	2
JOB NAME:	B & C Morton-Jones House	Date	12/6/11
Job/File Number:	9000	Designer:	Lyall Green
Description:	Wind speed calcs	Checker:	1

Terrain Multiplier, Mt

(Max of Ml, Mo, Mh)

Hill Shape Multiplier									
Enter Upwind Hill Shape (E,H,R,F)		F H	F H	F H	F H	F H	F H	F E	F E
(E=Escarpment, H=Hill, R=Ridge, F=Flat)									
Ridge Elevation	m	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
Upwind Valley Elevation	m	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
H = Height of Terrain feature	m	10	10	10	10	10	10	10	10
Contour at midheight of feature	m								
Enter Lu		74	74	74	74	74	74	150	150
Crest Slope	Rad								
Distance from Site to Crest	m	30	30	30	30	30	30	30	30
Enter L if site is on Lee side of the slope									
Hill Shape Multiplier	Mh	1.058	1.06	1.06	1.06	1.06	1.06	1.00	1.00

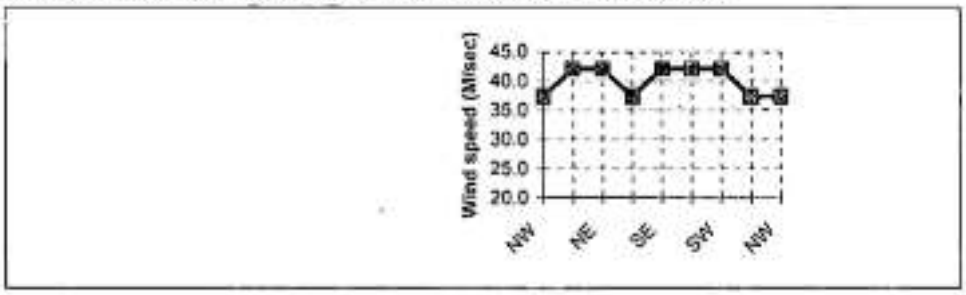
Lee Zone Multiplier		N	NE	E	N	S	SW	W	N
Site is within a Lee Zone? (Y or N)					N				N
Distance Site to Leeward Crest	km				0.03				0.03
	Ml	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Elevation Multiplier (Eqn 4.4(1))	(Note 1	50		
Enter approx. Elevation if >500 m	m	0	Then Me =	1

Topographic Multiplier	Mt	1.06	1.06	1.06	1.06	1.06	1.06	1.00	1.00

	NW	N	NE	E	SE	S	SW	W	NW
Product of Multipliers=		0.93	0.93	0.83	0.93	0.93	0.93	0.83	0.83
Directional Wind Speeds Arc	37.3	42.1	42.1	37.4	42.1	42.1	42.1	37.3	37.3

(Note Ultimate Wind Speed shall be greater than 30 m/sec for Ultimate conditions Cl 2.3)



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JOB No :	9006	PAGE :	1
PROJECT :	B & C Morton-Jones	DATE :	14-Feb-08
	House Extensions - Bed 2 Poles	BY:	LG

PILE FOUNDATION DESIGN USING 'BROHMS FOR CLAY' ANALYSES

Hu = 9*Cu*Ds* (Sqrt(2*((e+L)^2 + (e + fo)^2)) - (L + 2e + fo))

Soil parametres

b = Sqrt(2*((e+L)^2 + (e')^2)) - (L + e + e')

Hu = 3.6

undrained cohesion Cu= 70 kPa

Pile design actions

lateral force	Hu =	3.6 kN
eccentricity	e =	3.90 m
Trial pile diameter	Ds e =	400 mm

Pile embedment Calculation

	b=	0.014	Hu / (9*Cu*Ds)
	e' =	4.50 m	e + 1.5*Ds e + fo
	L' =	0.52 m	

Design Selection

Pile embedment length	L =	1.12 m
Pile diameter	o =	400 mm

OR Fixed Head Short Piles

L = 1.5D + P / (9*Cu*D)

0.61 m

M*pile= 2.19 kN-m

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JOB No :	9006	PAGE :	1
PROJECT :	B & C Morton-Jones	DATE :	14-Feb-08
	House Extensions - Bed 3 Poles	BY:	LG

PILE FOUNDATION DESIGN USING 'BROHMS FOR CLAY' ANALYSES

Hu = 9*Cu*Ds* (Sqrt(2*((e+L)^2 + (e + fo)^2)) - (L + 2e + fo))

Soil parametres

b = Sqrt(2*((e+L)^2 + (e')^2)) - (L + e + e')

Hu = 0.2

undrained cohesion Cu= 70 kPa

Pile design actions

lateral force	Hu =	0.2 kN
eccentricity	e =	3.30 m
Trial pile diameter	Ds e =	400 mm

Pile embedment Calculation

	b=	0.001	Hu / (9*Cu*Ds)
	e' =	3.90 m	e + 1.5*Ds e + fo
	L' =	0.11 m	

Design Selection

Pile embedment length	L =	0.71 m
Pile diameter	o =	400 mm

OR Fixed Head Short Piles

L = 1.5D + P / (9*Cu*D)

0.60 m

M*pile= 0.12 kN-m

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JOB No :	9006	PAGE :	1
PROJECT :	B & C Morton-Jones	DATE :	14-Feb-08
	House Extensions - Bed 3 Poles	BY:	LG

PILE FOUNDATION DESIGN USING 'BROHMS FOR CLAY' ANALYSES

Hu = 9*Cu*Ds* (Sqrt(2*((e+L)^2 + (e + fo)^2)) - (L + 2e + fo))

Soil parametres

b = Sqrt(2*((e+L)^2 + (e')^2)) - (L + e + e')

Hu = 6.4

undrained cohesion Cu= 70 kPa

Pile design actions

lateral force	Hu =	6.4 kN
eccentricity	e =	0.70 m
Trial pile diameter	Ds ø =	400 mm

Pile embedment Calculation

	b=	0.025	Hu / (9*Cu*Ds)
	e' =	1.30 m	e + 1.5*Ds e + fo
	L' =	0.39 m	

Design Selection

Pile embedment length	L =	0.99 m
Pile diameter	ø =	400 mm

OR Fixed Head Short Piles

L = 1.5D + P / (9*Cu*D)

0.63 m

M*pile= 3.92 kN-m

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Job No:	9006	PAGE :	1
Project:	B & C Morton-Jones House extensions	DATE :	14-Apr-15
	Roof beams	BY:	LG

Beam Identity: Beam B1
Beam Span: 3.4 m
Lay = 1 m
Lay_{load} = 1 m

UDL LOAD

G =	0.40 kPa			
Q =	0.25 kPa	2.6	Deck	
Wu =	0.32 kPa			
Roof Trib width	1.75 m			
Deck trib width =	0.5 m			

POINT LOAD

G =	kN
Q =	kN
Wu =	kN
dist x =	m

APPLIED ACTIONS

G =	0.99 kN/m			
Q =	1.44 kN/m			
Wu =	0.56 kN/m			
1.4G =	1.10 kN/m		1.4G =	0.00 kN
1.2G + 1.5Q =	3.34 kN/m		1.2G + 1.5Q =	0.00 kN
G + Wu =	1.55 kN/m	wind cowward	0.9G + Wu =	0.00 kN
$M_{(1.4G)}$ =	1.59 kNm		$M_{(1.4G)}$ =	0.00 kNm
$M_{(1.2G+1.5Q)}$ =	4.82 kNm		$M_{(1.2G+1.5Q)}$ =	0.00 kNm
$M_{(G+Wu)}$ =	2.23 kNm		$M_{(0.9G+Wu)}$ =	0.00 kNm
$V_{(1.4G)}$ =	1.87 kN			
$V_{(1.2G+1.5Q)}$ =	5.68 kN			
$V_{(0.9G+Wu)}$ =	2.63 kN			

TRIAL SIZE

Depth	190 mm	Grade =	MSG 8 - Dry Condition (m/c < 16%)
Width	90 mm	fb =	14.00 MPa
self weight =	0.09 kN/m	fs =	3.60 MPa
	11400 mm2	fp =	8.90 MPa
	51 E6 mm^4	E =	8.00 GPa
	542 E3 mm^3		

ULS FLEXURE DESIGN

ø =	0.8

1.2G + 1.5Q

k1 =	0.8
k4 =	1.14
k5 =	1
k8 =	1
M* =	4.82 kNm
D/B =	2.1
S = Le/B	11.11
øMn =	5.53 kNm

1.4G

k1	0.6
M*	1.59 kNm
øM	4.15 kNm

SHEAR DESIGN

SHEAR STRENGTH

1.4G	V* =	1.87 kN
1.2G+1.5Q	V* =	5.68 kN
0.9G + Wu	V* =	2.63 kN
	øVn =	21.07 kN
BEARING STRESS	Ap =	9100 mm2
	k3 =	1.06 Table 2.6
	øNnb =	48.91 kN

SLS DEFLECTION CHECK

G Deflection =		4.17 mm
Q Deflection =		6.06 mm
Wu Deflection =		2.37 mm
Short term G + Qs	y =	0.7
	k2 =	1
	D =	8.42 mm
Short term G + Ws	y =	1
	k2 =	1
	D =	5.71 mm
L/400 =		8.50 mm

Long term G + Qs	y =	0
	k2 =	2
	D =	8.33 mm
L/300 =		11.33 mm

Use 190 x 90 Timber Beam
Grade MSG 8 - Dry Condition (m/c < 16%)

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Job No:	9006	PAGE :	1
Project:	B & C Morton-Jones House extensions	DATE :	14-Apr-15
	Roof beams	BY:	LG

Beam Identity: Beam B2 : supports B1
Beam Span: 1.2 m
Lay = 1 m
$Lay_{(Ltrib)}$ = 1 m

UDL LOAD

G =	0.40	kPa	
Q =	0.25	kPa	
Wu =	0.35	kPa	
Trib width =	0.50	m	

POINT LOAD

G =	1.40	kN	
Q =	0.80	kN	
Wu =	1.00	kN	
dist x =	0.30	m	

APPLIED ACTIONS

G =	0.28	kN/m			
Q =	0.13	kN/m			
Wu =	0.18	kN/m			
1.4G =	0.37	kN/m	1.4G =	1.85	kN
1.2G + 1.5Q =	0.53	kN/m	1.2G + 1.5Q =	2.88	kN
G + Wu =	0.38	kN/m wind downward	0.9G + Wu =	2.28	kN
$M_{(1.4G)}$ =	0.51	kNm	$M_{(1.4G)}$ =	0.44	kNm
$M_{(1.2G+1.5Q)}$ =	0.74	kNm	$M_{(1.2G+1.5Q)}$ =	0.85	kNm
$M_{(0.9G+Wu)}$ =	0.58	kNm	$M_{(0.9G+Wu)}$ =	0.51	kNm
$V_{(1.4G)}$ =	1.69	kN			
$V_{(1.2G+1.5Q)}$ =	2.46	kN			
$V_{(0.9G+Wu)}$ =	1.92	kN			

TRIAL SIZE

Depth	140	mm	
Width	90	mm	
self weight :	0.06	kN/m	
	8400	mm2	
	21 E6	mm^4	
	294 E3	mm^3	

Grade = MSG 8 - Dry Condition (m/c < 16%)

fb =	14.00	MPa
fs =	3.60	MPa
fp =	8.00	MPa
E =	8.00	GPa

ULS FLEXURE DESIGN

ø =	0.8	

1.2G + 1.5Q

k1 =	0.8	
k4 =	1.14	
k5 =	1	
k6 =	1	
M* =	0.74	kNm
D/B =	1.8	
S = La/B	11.11	
øMn =	3.00	kNm

1.4G

k1	0.6	
M*	0.51	kNm
øM	2.25	kNm

SHEAR DESIGN

SHEAR STRENGTH

1.4G	V* =	1.69	kN
1.2G+1.5Q	V* =	2.46	kN
0.9G + Wu	V* =	1.92	kN
	øVn =	15.53	kN
BEARING STRESS	Ap =	8100	mm2
	k3 =	1.08	Table 2.6
	øNnb =	48.91	kN

SLS DEFLECTION CHECK

G Deflection =	0.35	mm				
Q Deflection =	0.20	mm				
Wu Deflection =	0.25	mm				
Short term G + Qs	y =	0.7	Long term G + Qs	y =	0	
	k2 =	1		k2 =	2	
	D =	0.49	mm	D =	0.70	mm
Short term G + Ws	y =	1		L/300 =	4.00	mm
	k2 =	1				
	D =	0.51	mm			
L/400 =	3.00	mm				

Use 140 x 90 Timber Beam
Grade MSG 8 - Dry Condition (m/c < 16%)

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Job No:	9006	PAGE :	1
Project:	B & C Morton Jones House extensions	DATE :	14-Apr-15
	Roof beams	BY	JG

Beam Identity: Beam B3
Beam Span: 4.4 m
Lay = 1 m
$Lay_{(quarter)}$ = 1 m

UDL LOAD

G =	0.45	kPa
Q =	0.25	kPa
Wu =	0.38	kPa
Tnb width =	2.40	m

POINT LOAD

G =		kN
Q =		kN
Wu =		kN
dist x =		m

APPLIED ACTIONS

G =	1.07	kN/m		
Q =	0.60	kN/m		
Wu =	0.90	kN/m		
1.4G =	1.50	kN/m	1.4G =	0.00 kN
1.2G + 1.5Q =	2.18	kN/m	1.2G + 1.5Q =	0.00 kN
G + Wu =	1.98	kN/m wind downward	0.9G + Wu =	0.00 kN
$M_{(1.4G)}$ =	3.62	kNm	$M_{(1.4G)}$ =	0.00 kNm
$M_{(1.2G+1.5Q)}$ =	5.28	kNm	$M_{(1.2G+1.5Q)}$ =	0.00 kNm
$M_{(G+Wu)}$ =	4.50	kNm	$M_{(0.9G+Wu)}$ =	0.00 kNm
$V_{(1.4G)}$ =	3.29	kN		
$V_{(1.2G+1.5Q)}$ =	4.80	kN		
$V_{(0.9G+Wu)}$ =	4.09	kN		

TRIAL SIZE

Depth	240	mm	Grade =	MSG 8 - Dry Condition (mic < 16%)
Width	90	mm	fb =	14.00 MPa
self weight =	0.11	kN/m	fs =	3.80 MPa
	14400	mm2	fp =	8.90 MPa
	104	E6 mm^4	E =	8.00 GPa
	864	E3 mm^3		

ULS FLEXURE DESIGN

ø =	0.8	
1.2G + 1.5Q		
k1 =	0.8	
k4 =	1.14	
k5 =	2	
k8 =	.8	
M* =	5.28	kNm
D/B =	2.7	
S = Le/B	11.11	
øMn =	8.83	kNm
1.4G		
k1	0.6	
M*	3.62	kNm
øMn	6.62	kNm

SHEAR DESIGN

SHEAR STRENGTH

1.4G	V* =	3.29	kN
1.2G+1.5Q	V* =	4.80	kN
0.9G + Wu	V* =	4.09	kN
	øVn =	26.82	kN
BEARING STRESS	Ap =	8100	mm2
	k3 =	1.00	Table 2.6
	øNnb =	48.91	kN

SLS DEFLECTION CHECK

	G Deflection =	6.28	mm			
	Q Deflection =	3.53	mm			
	Wu Deflection =	5.30	mm			
Short term G + Qs	y =	0.7		Long term G + Qs	y =	0
	k2 =	1			k2 =	2
	D =	8.76	mm		D =	12.57 mm
Short term G + Ws	y =	1			L/300 =	14.67 mm
	k2 =	1				
	D =	9.73	mm			
	L/400 =	11.00	mm			

Use 240 x 90 Timber Beam
Grade MSG 8 - Dry Condition (mic < 16%)

Design Management Consultants Ltd

dmc

Job No: S005 PAGE : 1
Project: B & C Morton-Jones House extensions DATE : 14-Apr-15
Roof beams BY: LGH

Beam Identity: Beam B4 - supports B3
Beam Span: 1 m
Lay = 1 m
$L_{ey_{(width)}}$ = 1 m

UDL LOAD

G =	0.40 kPa
Q =	0.25 kPa
Wu =	0.35 kPa
Trib width =	0.10 m

POINT LOAD

G =	2.35 kN
Q =	1.50 kN
Wu =	2.02 kN
dist x =	0.50 m

APPLIED ACTIONS

G =	0.10 kNm			
Q =	0.03 kNm			
Wu =	0.04 kNm			
1.4G =	0.14 kNm		1.4G =	3.29 kN
1.2G + 1.5Q =	0.16 kNm		1.2G + 1.5Q =	5.07 kN
G + Wu =	0.08 kNm	wind downward	0.9G + Wu =	4.12 kN
$M_{(1.4G)}$ =	0.71 kNm		$M_{(1.4G)}$ =	0.69 kNm
$M_{(1.2G+1.5Q)}$ =	1.06 kNm		$M_{(1.2G+1.5Q)}$ =	1.06 kNm
$M_{(G+Wu)}$ =	0.87 kNm		$M_{(0.9G+Wu)}$ =	0.86 kNm
$V_{(1.4G)}$ =	2.38 kN			
$V_{(1.2G+1.5Q)}$ =	3.63 kN			
$V_{(0.9G+Wu)}$ =	2.92 kN			

TRIAL SIZE

Depth	140 mm	Grade = MSG 8 - Dry Condition (m/c < 16%)	
Width	90 mm	fb =	14.00 MPa
self weight =	0.05 kN/m	fs =	3.80 MPa
	8400 mm2	fp =	8.90 MPa
	21 86 mm^4	E =	8.00 GPa
	294 E3 mm^3		

ULS FLEXURE DESIGN

ø	0.8

1.2G + 1.5Q

k1 =	0.6
k4 =	1.14
k5 =	1
k6 =	1
M* =	1.06 kNm
D/B =	1.5
S = Le/B	11.11
øMn =	3.00 kNm

1.4G

k1	0.6
M*	0.71 kNm
øV	2.25 kNm

SHEAR DESIGN

SHEAR STRENGTH

1.4G	V* =	2.38 kN
1.2G+1.5Q	V* =	3.63 kN
0.9G + Wu	V* =	2.92 kN
	øVs =	15.53 kN
BEARING STRESS	Ap =	8100 mm2
	k3 =	1.00 Table 2.6
	øbnb =	48.91 kN

SLS DEFLECTION CHECK

G Deflection =	0.31 mm				
Q Deflection =	0.19 mm				
Wu Deflection =	0.26 mm				
Short term G + Qs	y =	0.7	Long term G + Qs	y =	0
	k2 =	1		k2 =	2
	D =	0.44 mm		D =	0.61 mm
Short term G + Ws	y =	1		L/300 =	3.33 mm
	k2 =	1			
	D =	0.47 mm			
L/400 =		2.50 mm			

Use 140 x 90 Timber Beam
Grade MSG 8 - Dry Condition (m/c < 16%)

Design Management Consultants Ltd

dmc

Job No: 8005 PAGE : 1
Project: B & C Morton-Jones House extensions DATE : 14-Apr-15
Roof beams BY: LG

Beam Identity: Beam B5 - supports veranda
Beam Span: 3 m
Lay = 1 m
$L_{ay_{Wu}}$ = 1 m

UDL LOAD

G =	0.40 kPa		
Q =	0.25 kPa		
Wu =	0.53 kPa	wind downward	
Trib width =	0.60 m		

POINT LOAD

G =	0.00 kN		
Q =	0.00 kN		
Wu =	0.00 kN		
dist x =	0.00 m		

APPLIED ACTIONS

G =	0.28 kN/m			
Q =	0.15 kN/m			
Wu =	0.32 kN/m			
1.4G =	0.40 kN/m		1.4G =	0.00 kN
1.2G + 1.5Q =	0.56 kN/m		1.2G + 1.5Q =	0.00 kN
G + Wu =	0.56 kN/m	wind downward	0.9G + Wu =	0.00 kN
$M_{1.4G}$ =	0.45 kNm		$M_{1.4Q}$ =	0.00 kNm
$M_{(1.2G+1.5Q)}$ =	0.63 kNm		$M_{(1.2G+1.5Q)}$ =	0.00 kNm
$M_{(G+Wu)}$ =	0.63 kNm		$M_{(0.9G+Wu)}$ =	0.00 kNm
$V_{1.4G}$ =	0.59 kN			
$V_{(1.2G+1.5Q)}$ =	0.85 kN			
$V_{(0.9G+Wu)}$ =	0.84 kN			

TRIAL SIZE

Depth	190 mm	Grade =	MSG 8 - Dry Condition (m/c < 16%)
Width	45 mm	fb =	14.00 MPa
self weight =	0.04 kN/m	fs =	3.80 MPa
	5700 mm2	fp =	8.90 MPa
	26 I_x mm^4	E =	8.00 GPa
	271 Z_x mm^3		

ULS FLEXURE DESIGN

ϕ = 0.8

1.2G + 1.6Q

k1 =	0.6
k4 =	1
k5 =	1
k6 =	1
M* =	0.63 kNm
D/B =	4.2
S = Le/B	22.22
ϕMn =	2.43 kNm

1.4G

k1	0.6
M*	0.45 kNm
ϕM	1.82 kNm

SHEAR DESIGN

SHEAR STRENGTH

1.4G	V* =	0.59 kN
1.2G+1.5Q	V* =	0.85 kN
0.9G + Wu	V* =	0.84 kN
	ϕVn =	9.24 kN
BEARING STRESS	Ap =	4050 mm2
	k3 =	1.00 Table 2.6
	ϕNnb =	24.45 kN

SLS DEFLECTION CHECK

G Deflection =	1.45 mm				
Q Deflection =	0.77 mm				
Wu Deflection =	1.63 mm				
Short term G + Qs	ψ =	0.7	Long term G + Qs	ψ =	0
	k2 =	1		k2 =	2
	D =	1.98 mm		D =	2.90 mm
Short term G + Ws	ψ =	1		L/300 =	10.00 mm
	k2 =	1			
	D =	2.51 mm			
	L/400 =	7.50 mm			

Use 190 x 45 Timber Beam
Grade MSG 8 - Dry Condition (m/c < 16%)

Design Management Consultants Ltd

Job No:	9006	PAGE :	1
Project:	B & C Morton-Jones House extensions	DATE :	14-Apr-15
	Floor beam	BY:	LG

Beam Identity: Bed 2 floor beam A
Beam Span: 2.7 m
Lay = 1 m
$La_{(min)}$ = 1 m

UDL LOAD

G =	1.040 kPa		
Q =	1.50 kPa		
Wu =	0.00 kPa		
Trib width =	2.10 m		

POINT LOAD

G =	0.00 kN
Q =	0.00 kN
Wu =	0.00 kN
dist x =	0.00 m

APPLIED ACTIONS

G =	0.87 kN/m			
Q =	3.24 kN/m			
Wu =	0.00 kN/m			
1.4G =	1.36 kN/m		1.4G =	0.00 kN
1.2G + 1.5Q =	6.03 kN/m		1.2G + 1.5Q =	0.00 kN
G + Wu =	0.86 kN/m		0.9G + Wu =	0.00 kN
$M_{(1.4G)}$ =	1.24 kNm		$M_{(1.4G)}$ =	0.00 kNm
$M_{(1.2G+1.5Q)}$ =	5.49 kNm	of 4.87 in Microstrain	$M_{(1.2G+1.5Q)}$ =	0.00 kNm
$M_{(G+Wu)}$ =	0.78 kNm		$M_{(0.9G+Wu)}$ =	0.00 kNm
$V_{(1.4G)}$ =	1.84 kN			
$V_{(1.2G+1.5Q)}$ =	8.14 kN			
$V_{(0.9G+Wu)}$ =	1.17 kN			

TRIAL SIZE

Depth	240 mm	Grade =	MSG 8 - Dry Condition (m/c < 16%)
Width	90 mm	fb =	14.00 MPa
self weight =	0.11 kN/m	fs =	3.80 MPa
	16400 mm2	fp =	8.92 MPa
	104 E6 mm^4	E =	8.00 GPa
	864 E3 mm^3		

ULS FLEXURE DESIGN

ø = 0.8

1.2G + 1.5Q

k1 =	0.8
k4 =	1.14
k5 =	1
k6 =	1
M* =	5.49 kNm
D/B =	2.7
S = Le/B	11.11
øMn =	8.83 kNm

1.4G

k1	0.8
M*	1.24 kNm
øV	8.82 kNm

SHEAR DESIGN

SHEAR STRENGTH

1.4G	V* =	1.84 kN
1.2G+1.5Q	V* =	8.14 kN
0.9G + Wu	V* =	1.17 kN
	øVn =	26.82 kN
BEARING STRESS	Ap =	8100 mm2
	k3 =	1.05 Table 2.6
	øNnb =	46.91 kN

SLS DEFLECTION CHECK

G Deflection =	0.81 mm				
Q Deflection =	2.70 mm				
Wu Deflection =	0.00 mm				
Short term G + Qs	y =	0.7	Long term G + Qs	y =	0
	k2 =	1		k2 =	2
	D =	2.70 mm		D =	1.62 mm
Short term G + Wa	y =	1		L/300 =	9.00 mm
	k2 =	1			
	D =	0.81 mm			
	L/400 =	6.75 mm			

Use 240 x 90 Timber Beam
Grade MSG 8 - Dry Condition (m/c < 16%)

Design Management Consultants Ltd

Job No:	9006	PAGE :	1
Project:	B & C Morton-Jones House extensions	DATE :	14-Apr-15
	First beam	BY:	LG

Beam Identity: Bed 2 floor joists
Beam Span: 2.7 m
Lay = 1 m
$Lay_{(self)}$ = 1 m

UDL LOAD

G =	0.40	kPa	
Q =	1.50	kPa	
Wu =	0.00	kPa	
Trib width =	0.40	m	

POINT LOAD

G =	0.00	kN	
Q =	0.00	kN	
Wu =	0.00	kN	
dist x =	0.00	m	

APPLIED ACTIONS

G =	0.19	kN/m			
Q =	0.60	kN/m			
Wu =	0.00	kN/m			
1.4G =	0.27	kN/m		1.4G =	0.00 kN
1.2G + 1.5Q =	1.13	kN/m		1.2G + 1.5Q =	0.00 kN
G + Wu =	0.16	kN/m	wind downward	0.9G + Wu =	0.00 kN
$M_{(1.4G)}$ =	0.24	kNm		$M_{(1.4G)}$ =	0.00 kNm
$M_{(1.2G+1.5Q)}$ =	1.03	kNm		$M_{(1.2G+1.5Q)}$ =	0.00 kNm
$M_{(0.9G+Wu)}$ =	0.15	kNm		$M_{(0.9G+Wu)}$ =	0.00 kNm
$V_{(1.4G)}$ =	0.36	kN			
$V_{(1.2G+1.5Q)}$ =	1.53	kN			
$V_{(0.9G+Wu)}$ =	0.22	kN			

TRIAL SIZE

Depth	140	mm	
Width	45	mm	
self weight	0.03	kN/m	
	4200	mm2	
	10	E6 mm^4	
	147	E3 mm^3	

Grade = MSG 8 - Dry Condition (m/c < 16%)

fb =	14.00	MPa
fs =	3.80	MPa
fp =	8.50	MPa
E =	8.00	GPa

ULS FLEXURE DESIGN

ø = 0.8

1.2G + 1.6Q

k1 =	0.8	
k4 =	1	
k5 =	1	
k6 =	1	
M* =	1.03	kNm
D/B =	3.1	
S = Le/B	22.22	
øMn =	1.32	kNm

1.4G

k1	0.8	
M*	0.24	kNm
øM	0.59	kNm

SHEAR DESIGN

SHEAR STRENGTH

1.4G	V* =	0.36	kN
1.2G+1.5Q	V* =	1.53	kN
0.9G + Wu	V* =	0.22	kN
	øVn =	6.81	kN
BEARING STRESS	Ap =	4050	mm2
	k3 =	1.00	Table 2.6
	øNnb =	24.45	kN

SLS DEFLECTION CHECK

G Deflection =	1.61	mm				
Q Deflection =	5.04	mm				
Wu Deflection =	0.00	mm				
Short term G + Qs	y =	0.7	Long term G + Qs	y =	0	
	k2 =	1		k2 =	2	
	D =	5.14	mm	D =	3.22	mm
Short term G + Ws	y =	1		L/300 =	9.00	mm
	k2 =	1				
	D =	1.61	mm			
L/400 =	6.75	mm				

Use 140 x 45 Timber Beam
Grade MSG 8 - Dry Condition (m/c < 16%)

Design Management Consultants Ltd

Job No:	8008	PAGE :	1
Project:	B & C Morton-Jones House extensions	DATE :	14-Apr-15
	Floor beam	BY:	LG

Beam Identity: Bed 2 floor joists
Beam Span: 3.1 m
Lay = 1 m
$Lay_{(self)}$ = 1 m

UDL LOAD

G =	0.40 kPa		
Q =	1.50 kPa		
Wu =	0.00 kPa		
Trib width =	0.40 m		

POINT LOAD

G =	0.00 kN
Q =	0.00 kN
Wu =	0.00 kN
dist x =	0.00 m

APPLIED ACTIONS

G =	0.20 kN/m			
Q =	0.60 kN/m			
Wu =	0.00 kN/m			
1.4G =	0.28 kN/m		1.4G =	0.00 kN
1.2G + 1.5Q =	1.14 kN/m		1.2G + 1.5Q =	0.00 kN
G + Wu =	0.16 kN/m	wind downward	0.9G + Wu =	0.00 kN
$M_{(1.4G)}$ =	0.34 kNm		$M_{(1.4G)}$ =	0.00 kNm
$M_{(1.2G+1.5Q)}$ =	1.37 kNm		$M_{(1.2G+1.5Q)}$ =	0.00 kNm
$M_{(G+Wu)}$ =	0.19 kNm		$M_{(0.9G-Wu)}$ =	0.00 kNm
$V_{(1.4G)}$ =	0.44 kN			
$V_{(1.2G+1.5Q)}$ =	1.77 kN			
$V_{(0.9G-Wu)}$ =	0.25 kN			

TRIAL SIZE

Depth	190 mm	Grade =	MSG 8 - Dry Condition (m/c < 16%)
Width	45 mm	fb =	14.00 MPa
self weight	0.04 kN/m	fs =	3.80 MPa
	8700 mm2	fp =	8.90 MPa
	26 E6 mm^4	E =	8.00 GPa
	271 E3 mm^3		

ULS FLEXURE DESIGN

ø = 0.8

1.2G + 1.5Q

k1 =	0.8
k4 =	1
k5 =	1
k8 =	1
M* =	1.37 kNm
D/B =	4.2
S = Le/B	22.22
øMn =	2.43 kNm

1.4G

k1	0.8
M*	0.34 kNm
øMn	1.82 kNm

SHEAR DESIGN

SHEAR STRENGTH

1.4G	V* =	0.44 kN
1.2G+1.5Q	V* =	1.77 kN
0.9G + Wu	V* =	0.25 kN
	øVn =	9.24 kN
BEARING STRESS	Ap =	4050 mm2
	k3 =	1.05 Table 2.6
	øNnb =	24.45 kN

SLS DEFLECTION CHECK

G Deflection =	1.18 mm				
Q Deflection =	3.51 mm				
Wu Deflection =	0.00 mm				
Short term G + Qs	ψ =	0.7	Long term G + Qs	ψ =	0
	k2 =	1		k2 =	2
	D =	3.64 mm		D =	2.37 mm
Short term G + Wu	ψ =	1		L/300 =	10.33 mm
	k2 =	1			
	D =	1.18 mm			
L/400 =		7.75 mm			

Use 190 x 45 Timber Beam
Grade MSG 8 - Dry Condition (m/c < 16%)

Design Management Consultants Ltd

dmc

Job No:	9006	PAGE :	1
Project:	B & C Morton-Jones House extensions	DATE :	14-Apr-15
	Floor Beam	BY:	LC

Beam Identity: Bed 3 floor beam B
Beam Span: 3 m
Lay = 1 m
Lay_{width} = 1 m

UDL LOAD

G =	0.40 kPa		
Q =	1.50 kPa		
Wu =	0.00 kPa		
Trib width =	2.20 m		

POINT LOAD

G =	0.00 kN
Q =	0.00 kN
Ws =	0.00 kN
dist x =	0.00 m

APPLIED ACTIONS

G =	0.99 kN/m			
Q =	3.30 kN/m			
Wu =	0.00 kN/m			
1.4G =	1.38 kN/m		1.4G =	0.00 kN
1.2G + 1.5Q =	6.14 kN/m		1.2G + 1.5Q =	0.00 kN
G + Wu =	0.88 kN/m		0.9G + Wu =	0.00 kN
$M_{(1.4G)}$ =	1.66 kNm		$M_{(1.4G)}$ =	0.00 kNm
$M_{(1.2G+1.5Q)}$ =	6.90 kNm	cf 4.87 in Microstran	$M_{(1.2G+1.5Q)}$ =	0.00 kNm
$M_{(G+Wu)}$ =	0.99 kNm		$M_{(0.9G+Wu)}$ =	0.00 kNm
$V_{(1.4G)}$ =	2.07 kN			
$V_{(1.2G+1.5Q)}$ =	8.20 kN			
$V_{(0.9G+Wu)}$ =	1.32 kN			

TRIAL SIZE

Depth	240 mm	Grade =	MSG 8 - Dry Condition (m/c < 18%)
Width	90 mm	fb =	14.00 MPa
self weight :	0.11 kN/m	fs =	3.80 MPa
	14400 mm2	fp =	8.50 MPa
	104 E6 mm^4	E =	8.00 GPa
	864 E3 mm^3		

ULS FLEXURE DESIGN

ø = 0.8

1.2G + 1.5Q

k1 =	0.8	
k4 =	1.14	
k5 =	1	
k6 =	1	
M* =	6.90 kNm	cf Microstran = 5.6kN-m
D/B =	2.7	
S = Le/B	11.11	
øMn =	8.83 kNm	

1.4G

k1	0.6	
M*	1.38 kNm	
øV	6.62 kNm	

SHEAR DESIGN

SHEAR STRENGTH

1.4G	V* =	2.07 kN
1.2G+1.5Q	V* =	8.20 kN
0.9G + Wu	V* =	1.32 kN
	øVn =	26.62 kN
BEARING STRESS	Ap =	8100 mm2
	k3 =	1.05 Table 2.6
	øNnb =	48.91 kN

SLS DEFLECTION CHECK

G Deflection =	1.26 mm				
Q Deflection =	4.20 mm				
Wu Deflection =	0.00 mm				
Short term G + Qs	y =	0.7	Long term G + Qs	y =	0
	k2 =	1		k2 =	2
	D =	4.19 mm		D =	2.51 mm
Short term G + Ws	y =	1		L/300 =	10.00 mm
	k2 =	1			
	D =	1.26 mm			
L/400 =		7.50 mm			

Use 240 x 90 Timber Beam
Grade MSG 8 - Dry Condition (m/c < 18%)

Bed 2 Beam Supported on Double stud Posts within existing basement wall framing

Post height = 2.60 m

Loads from Microstran

1.2G + 1.5Q = 9.30 kN

Use 90*90 post in basement wall framing

phi =	0.80		
kI =	0.80		
k6 =	1.14		
L/D =	28.89	k8 =	0.32
fc =	15.00		

phiNc = 90*90 * [0.8*15*(k)

28.37 kN

> Nc* = 9.30 kN

90*90 double stud supported on existing

150mm concrete wall and strip footing Ok

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9006-2011

30 January 2015

Auckland Council
Private Bag 92 300
Auckland 1142

Attention: The Building Inspector

Dear Sir / Madam

RE: GEOTECHNICAL ASSESSMENT FOR HOUSE EXTENSIONS
B&C MORTON-JONES
52 KAURI POINT ROAD WAITAKERE

A. INTRODUCTION

Proposed alterations to the existing house are single storey extensions comprising a bedroom extension at the front of the house and a second bedroom at the seaward side of the house as shown on the drawings.

B. PURPOSE

A Limited Geotechnical Assessment of the above property was completed to determine the bearing strength of soils supporting existing and new foundations with consideration of other environmental effects.

C. SOIL TYPE

The soil type is noted on the GNS Auckland Geological Map as comprising mainly marine sedimentary and volcanic rock with areas noted as clay.

D. PREVIOUS INVESTIGATIONS

An earlier geotechnical investigation was carried out for house alterations in 2011. These results shown in our report 9006-2011 dated 16/6/2011 is attached to this report as it summarises the soil type and confirms the construction of the existing deck pole foundations.
The attached results in the reference report are consistent with the additional site geotechnical investigations carried out specifically for the current proposed house extensions.

E. RESULTS

The extent of further investigation work carried out on site for the current proposed bedroom extensions included hand auger boreholes, insitu shear vane tests within the clay bearing soils adjacent to each bore hole and measurement of ground profile slopes in the vicinity of the house.

The location of the 4 bore holes is shown for reference on the attached plan.

The soil profile adjacent at bore hole locations generally comprised 100 - 300mm of topsoil over motley orange light brown silt over firm grey clayey silt from 1.0m depth below ground level.
Insitu shear vane soil tests were carried out in the clay soils at varying depths. These shear vane tests included a minimum of three tests at each depth location in order to obtain the remoulded soil shear strength.

The insitu shear vane test results recorded initial shear strengths in the range of 130 to 190kPa which reduced to a minimum reliable remoulded soil shear strength of 70kPa throughout the clayey silts below 1.0m depth from the existing ground surface.

The Ultimate Limit State soil bearing strength within the clayey soils beneath the pole circular foundations is (Terzaghi) qus = 1.3*c*Nc + q0*Nq + 0.3B*γ*Nγ or conservatively for soils with zero degree angle of shearing resistance qus = 1.3*c*Nc where Nc = 5.14.

On this basis with ϕ = 0.5, a conservative Ultimate Limit State soil bearing strength within these clay soils for ULS design loading is ϕ qus (0.5 * 1.3 * 70 * 5.14) = 230 kPa

F. SLOPE STABILITY

The slopes found on this site are variable with measured slopes within the vicinity of the house varying up to 29 degrees with an average slope over the property of 1:12 (5 degrees). This is typical of slopes within the area.

The site is within the Natural area identified on council plans as Coastal. This area does not contain any sensitive ridge zones identified on council plans.

There are no signs of local instability of the slopes within the vicinity of the existing house

The proposed house alterations will be supported on poles at each borehole location with minimal ground disturbance limited to the immediate vicinity at each pole and thereby the new pole foundations will not reduce the stability of local soils around the house.

The existing storm water discharges through perforated drains distributed throughout the surrounding bush. This system needs to be extended in order to evenly distribute the increased collection of storm water from the additional 38m2 of bedroom roof area through the bush under growth. The length of the existing perforated drains are to be extended by an additional 60% of the existing comprising 100mm perforated drain located within the topsoil and run parallel to the ground contour at a maximum gradient of 1:200

The full storm water disposal should be constantly maintained to ensure even distribution is maintained and to avoid local scouring of the soils.

G. FOUNDATIONS

The proposed house alterations require additional poles to support the new bedroom extensions.

Due to upper soft soils and account for existing slopes the new poles need to be concrete encased to a minimum depth of 1.0m below the bottom of soft silts. In the case of poles located at boreholes 1 and 2 the pole foundation shall extend to a minimum of 2m (5m below floor level) and 1.5m (4m below floor level) respectively below ground level.

Poles and associated foundations must be specifically design by a CPEng qualified structural engineer.

Note:
The Civil Engineering and Geotechnical opinions and recommendations which are contained in this Report are based on Site conditions as they presently exist and further assume that the exploratory holes and soundings are representative of subsurface conditions throughout the site i.e. Inferences about the nature and continuity of the ground conditions away from the boreholes have been made in the preparation of this report. It is assumed that the subsurface conditions everywhere are not significantly different from those disclosed by the investigation.

Actual conditions may vary across the Site however and in some locations may differ from those described herein.

We should be notified of any subsurface conditions which appear to be different than those disclosed by this investigation so that these conditions may be reviewed and our recommendations reconsidered where necessary.

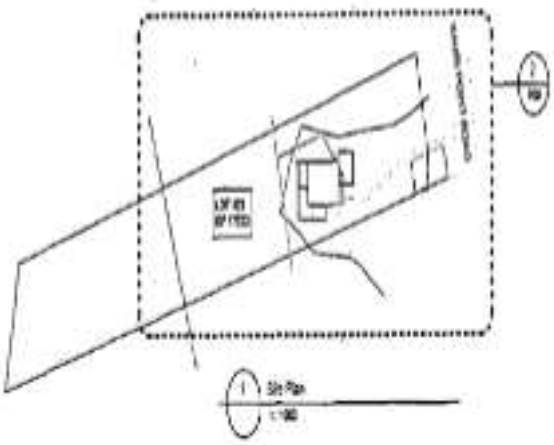
This Report is limited in nature to the comments contained within the report. The Report has been prepared for use by B & C Morton-Jones and the Auckland Council only. No responsibility will be accepted for its interpretation or use by any other person.

Yours faithfully
DESIGN MANAGEMENT CONSULTANTS LTD

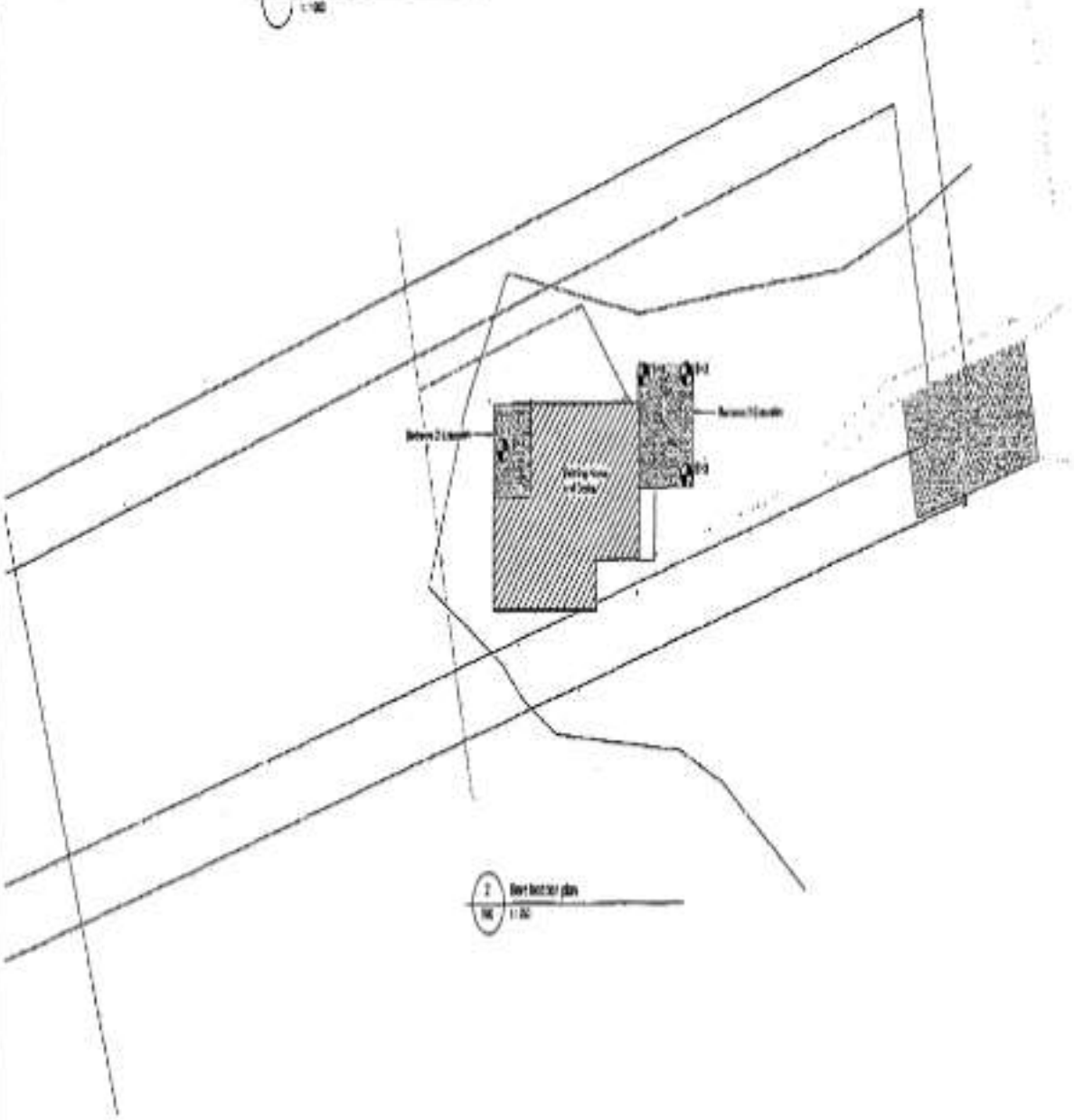
LYALL GREEN
BE (Hons) CPEng IntPE # 46696

Encl: Bore hole site plan
DMC letter dated 16/6/2011

File : 0806-2015 LT Geotech report.docx



1 Site Plan
1:500



2 Floor Location plan
1:250

				Issue weight on these sizes is (2) At A1 (Unlimited)	Contract 9008	Drawing R00
				Drawn M.J.	Date 27/7/18	

dmc
Design Management Consultants Limited
155 Te Rapa Road, Hamilton, New Zealand
PH 64-7-858-0158 Fax 64-7-858-0158
www.dmcnz.com info@dmcnz.com

Mr & Mrs Morton-Jones
House Extensions
52 Kauri Point Road,
Leingraden

Store Holes Location Plan

SOIL DESCRIPTION

BORE HOLE No: 1

3100mm below GFL

SURFACE ELEVATION

Topsoil

Soft Light Brown Silt

Blue Grey Silt becoming firm at 900mm

Very Firm Grey Silt

End of Bore

FIELD TEST DATA

Depth in metres		Shear Strength (kPa)	SCALA PENETROMETER (blows per 100mm drop) 1 2 3 4 5 6 7 8 9 10
0.5		150/35	
1.0		200/140	
1.5			
2.0			

The stratification lines shown represent the approximate boundary between soil types. The transition may in fact be gradual.

dmc

Design Management Consultants Limited

Mr & Mrs Morton-Jones
House Extensions
52 Kauri Point Road, Leighton

Bore Log

SCALE: 1 : 20	DRAWN: M.Z.	CONTRACT: 5006	
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NOTE: Contractor to check and verify dimensions, setout and levels prior to commencing work.

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SOIL DESCRIPTION

BORE HOLE No: 2 — 2500mm below GFL — SURFACE ELEVATION

Topsoil

Soft Mottled Light Brown Clay

Firm Mottled Orange Brown Clay

End of Bore

FIELD TEST DATA			
Depth in metres		Shear Strength (kPa)	SCALA PENETROMETER (blows per 100mm drop) 1 2 3 4 5 6 7 8 9 10
0.5		175/80	
1.0		150/80	
1.5			

The stratification lines shown represent the approximate boundary between soil types. The transition may in fact be gradual.

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Mr & Mrs Morton-Jones
House Extensions
53 Kauri Point Road, Laingholm

Bore Log

SCALE: 1 : 20	DRAWN: M.Z.	CONTRACT: 9306	
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NOTE: Contractor to check and verify all dimensions, setout and levels prior to commencing work.

SOIL DESCRIPTION

BORE HOLE No: 3 GFL + 300mm SURFACE ELEVATION

Topsoil

Soft Motley Orange Brown Silt

Light Brown Grey Silt

Light Grey Silt

End of Bore

FIELD TEST DATA

Depth in metres

Shear Strength (kPa)

SCALA PENETROMETER
(blows per 100mm drop)

1 2 3 4 5 6 7 8 9 10

0.5

1.0

170/80

240/120

1.5

2.0

The stratification lines shown represent the approximate boundary between soil types. The transition may in fact be gradual.

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Mr & Mrs Morton-Jones
House Extensions
52 Kauri Point Road, Leighotn

Bore Log

SCALE: 1 : 20	DRAWN: M.Z.	CONTRACT: 9035	
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NOTE: Contractor to check and verify all dimensions on site and levels prior to commencing any work.

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SOIL DESCRIPTION

BORE HOLE No: 4

2500mm below GFL

SURFACE ELEVATION

Topsoil

Fill - Clayey Silt

Light Brown Grey Clayey Silt

End of Bore

FIELD TEST DATA

Depth in metres		Shear Strength (kPa)	SCALA PENETROMETER (blows per 100mm drop) 1 2 3 4 5 6 7 8 9 10
0.5			
1.0			
1.5		17/050	
2.0			

The stratification lines shown represent the approximate boundary between soil types. The transition may in fact be gradual.

dmc

Design Management Consultants Limited

Mr & Mrs Morton-Jones
House Extensions
52 Kauri Point Road, Langholm

Bore Log

SCALE: 1 : 20	DRAWN: M.Z.	CONTRACT: 9006	
© Copyright: Design Management Consultants Ltd	DATE: Jan 2010	DRAWING: R04	REV.

NOTE: Dimensions are in millimetres unless otherwise stated. Contractor to check all dimensions on site before commencing work.

REMARKS: Ownership of the drawing is retained by Design Management Consultants Ltd until full and final payment for all consulting services for this project is received.

dmc
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Fax +64 7 850 5156

9006-2011

16 June 2011

Auckland Council
Private Bag 92 300
Auckland 1142

COPY

Attention: The Building Inspector

Dear Sir / Madam

RE: GEOTECHNICAL ASSESSMENT
HOUSE ALTERATIONS – B&C MORTON-JONES
52 KAURI POINT ROAD WAITAKERE

A. INTRODUCTION

Proposed alterations to the existing house will largely be confirmed to changes to internal partitions apart from an extension to the ground floor level decking as shown on the drawings.

B. PURPOSE

We have carried out a Limited Geotechnical Assessment of the above property to determine the bearing strength of soils supporting existing and new foundations with consideration of other environmental effects.

C. SOIL TYPE

The soil type is noted on the GNS Auckland Geological Map as comprising mainly marine sedimentary and volcanic rock with areas noted as clay.

D. RESULTS

The extent of investigation work carried out on site included excavations to verify the depth of existing concrete and pole foundations were as shown on existing house plans obtained from council records, as well as insitu shear vane tests within the clay bearing soils located at the bottom of the existing footings and pole foundations.

The soil profile adjacent to existing pole foundations comprised 100mm of topsoil over orange-brown pumiceous silty clay to 2.0m depth.
Insitu shear vane soil tests were carried out in the clay soils at varying depths. These shear vane tests included a minimum of three tests at each depth location in order to obtain the remoulded soil shear strength.
The Insitu shear vane test results recorded initial shear strength of 240kPa which reduced to a minimum reliable remoulded soil shear strength of 70kPa throughout the clays within 2m depth from the surface.

The Ultimate Limit State soil bearing strength within the clayey soils beneath the pole circular foundations is (Terzaghi) qus = 1.3*c*Nc + q*Nq + 0.3B*γ*Nγ or conservatively for soils with zero degree angle of shearing resistance qus = 1.3*c*Nc where Nc = 5.14.

On this basis with ϕ = 0.5, a conservative Ultimate Limit State soil bearing strength within these clayey soils for ULS design loading is ϕ cus (0.5 * 1.3 * 70 * 5.14) = 230 kPa

E. SLOPE STABILITY

The slopes found on this site are variable with measured slopes within the vicinity of the house varying up to 28 degrees with an average slope over the property of 1:12 (5 degrees). This is typical of slopes within the area.

The site is within the Natural area identified on council plans as Coastal. This area does not contain any sensitive ridge zones identified on council plans.

There are no signs of local instability of the slopes within the vicinity of the existing house

The proposed house alterations do not extend the foot print of the existing house foundations and therefore these house alterations will not influence the stability of local soils around the house.

As the house roof area will not increase, the stormwater run off will remain unchanged. The existing storm water disposal through perforated drains distributed throughout the surrounding bush should be constantly maintained to ensure even distribution occurs to avoid local scouring of the soils.

F. FOUNDATIONS

The proposed house alterations do not require alteration to the house foundations however decking may be extended at the ground floor level.

Foundations for any new deck extensions are to be installed to minimise any disturbance of the natural habitat by utilising pole piling foundations designed in accordance with NZS 3604 encased in concrete extended to 1m below ground level.

Note:
The Civil Engineering and Geotechnical opinions and recommendations which are contained in this Report are based on Site conditions as they presently exist and further assume that the exploratory holes and soundings are representative of subsurface conditions throughout the site i.e. inferences about the nature and continuity of the ground conditions away from the boreholes have been made in the preparation of this report. It is assumed that the subsurface conditions everywhere are not significantly different from those disclosed by the investigation.

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We should be notified of any subsurface conditions which appear to be different than those disclosed by this investigation so that these conditions may be reviewed and our recommendations reconsidered where necessary.

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Yours faithfully
DESIGN MANAGEMENT CONSULTANTS LTD

LYALL GREEN
BE (Hons) CPEng IntPE # 46696

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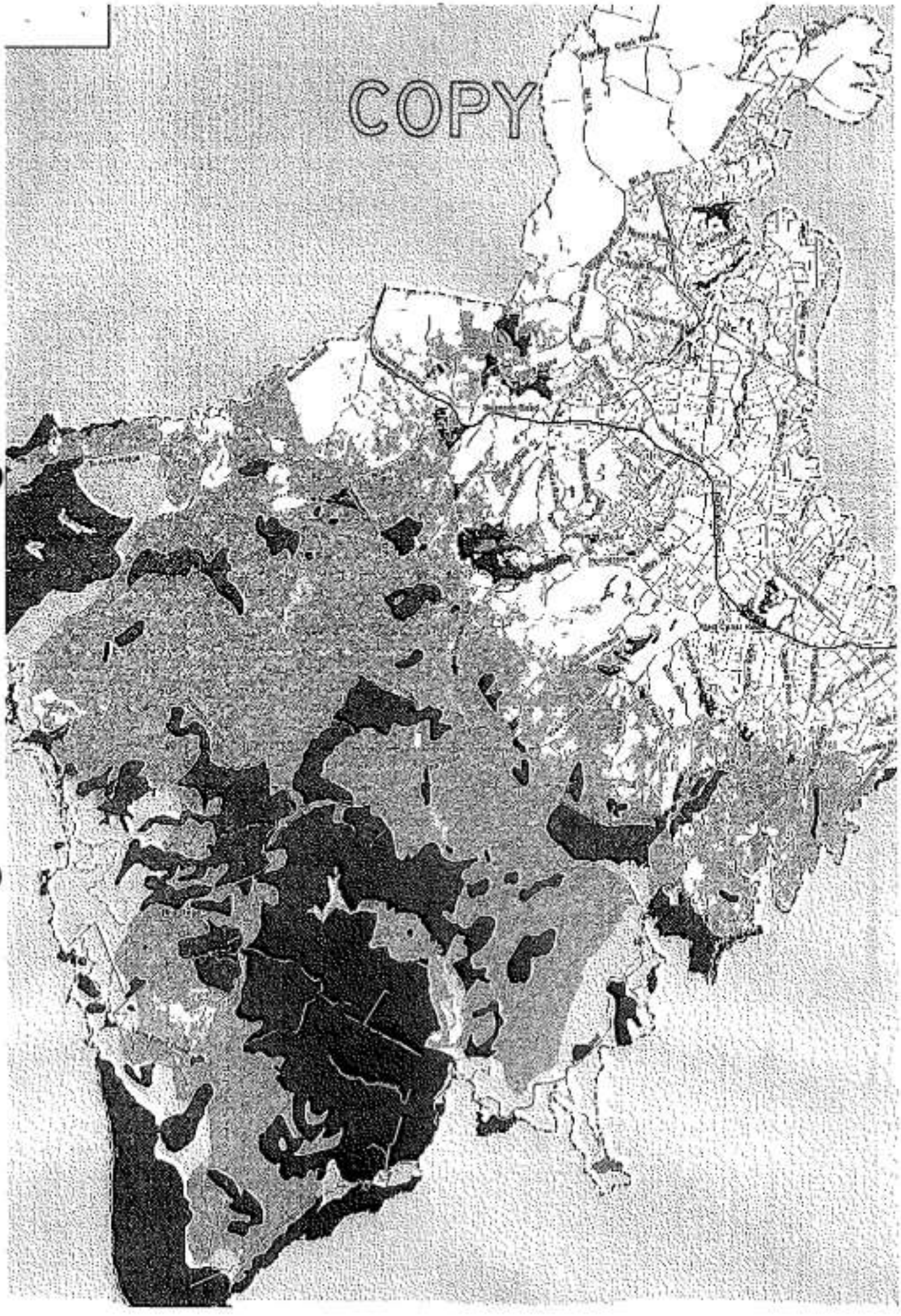
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District Plan Natural Area Maps

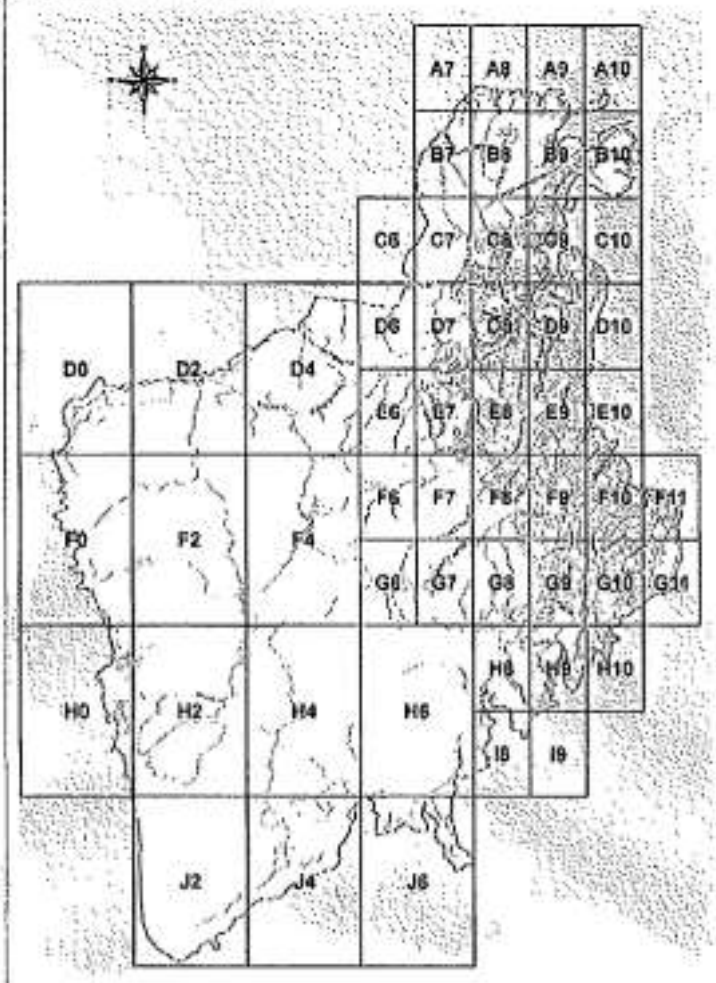
Note: You will need to have Adobe Acrobat Reader installed on your computer in order to view and print these documents. For help opening PDF files or tips on copying information see Helpful Tips.

Natural Area Map (Size 878K)

Road Name Index (Size 60K)
Locate the grid reference by using this alphabetical road listing.

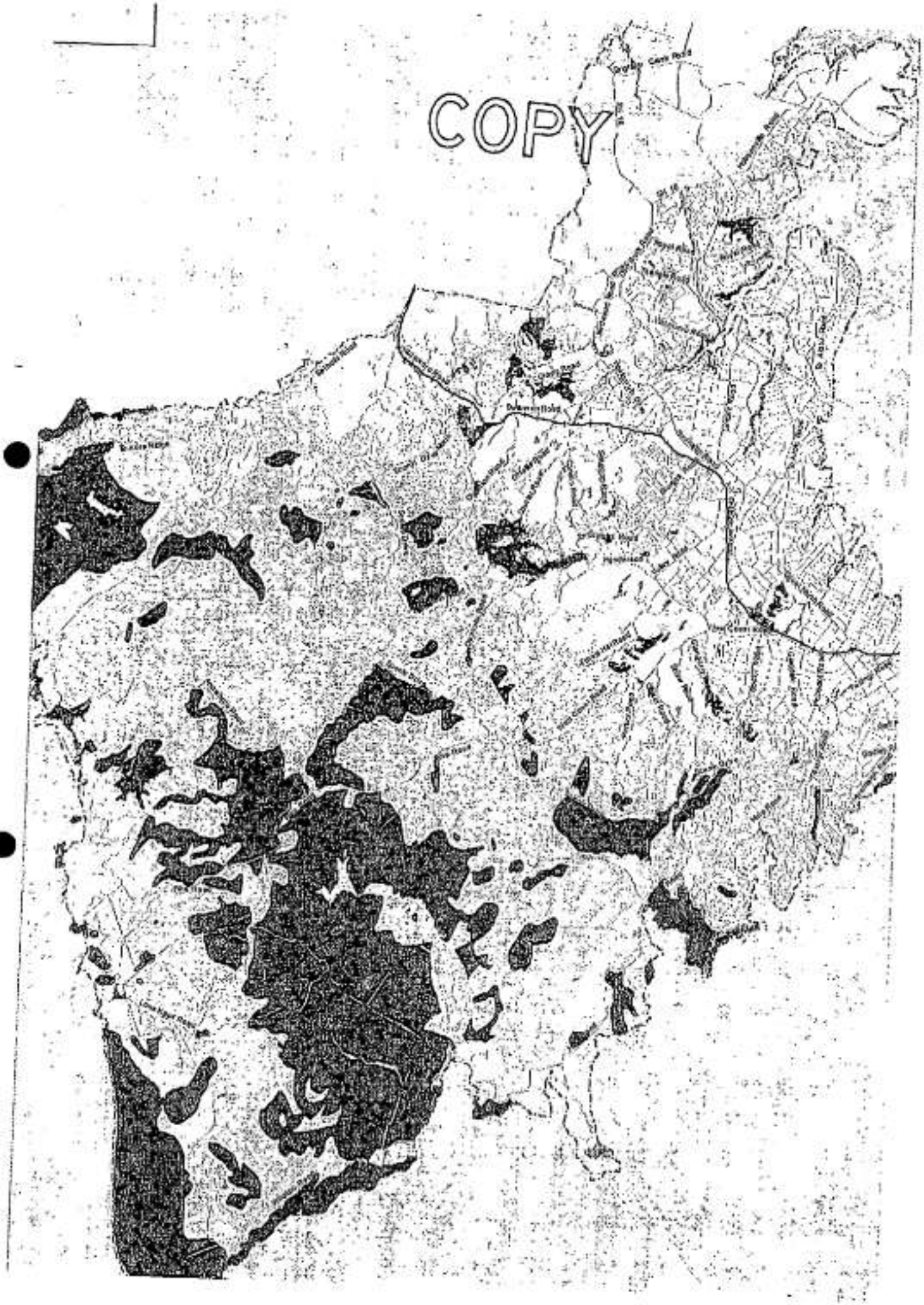
Click the appropriate grid reference area to view the Natural Area map.

Legend for Natural Area Maps (Size 39K)



Top ⇑

» Back to District Plan Index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Google maps New Zealand

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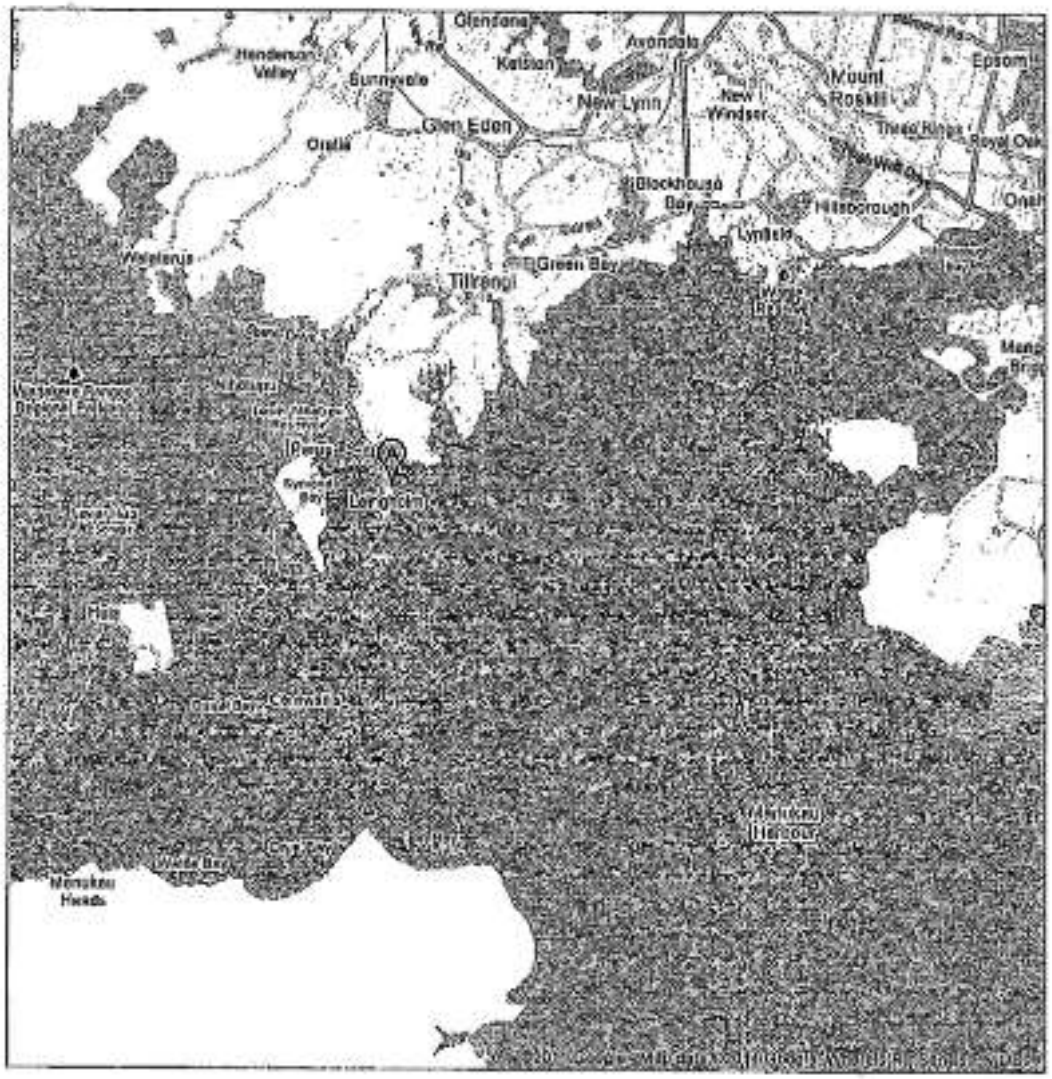

Microstran V9

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B & C Morton-Jones
Floor beams

14/04/15
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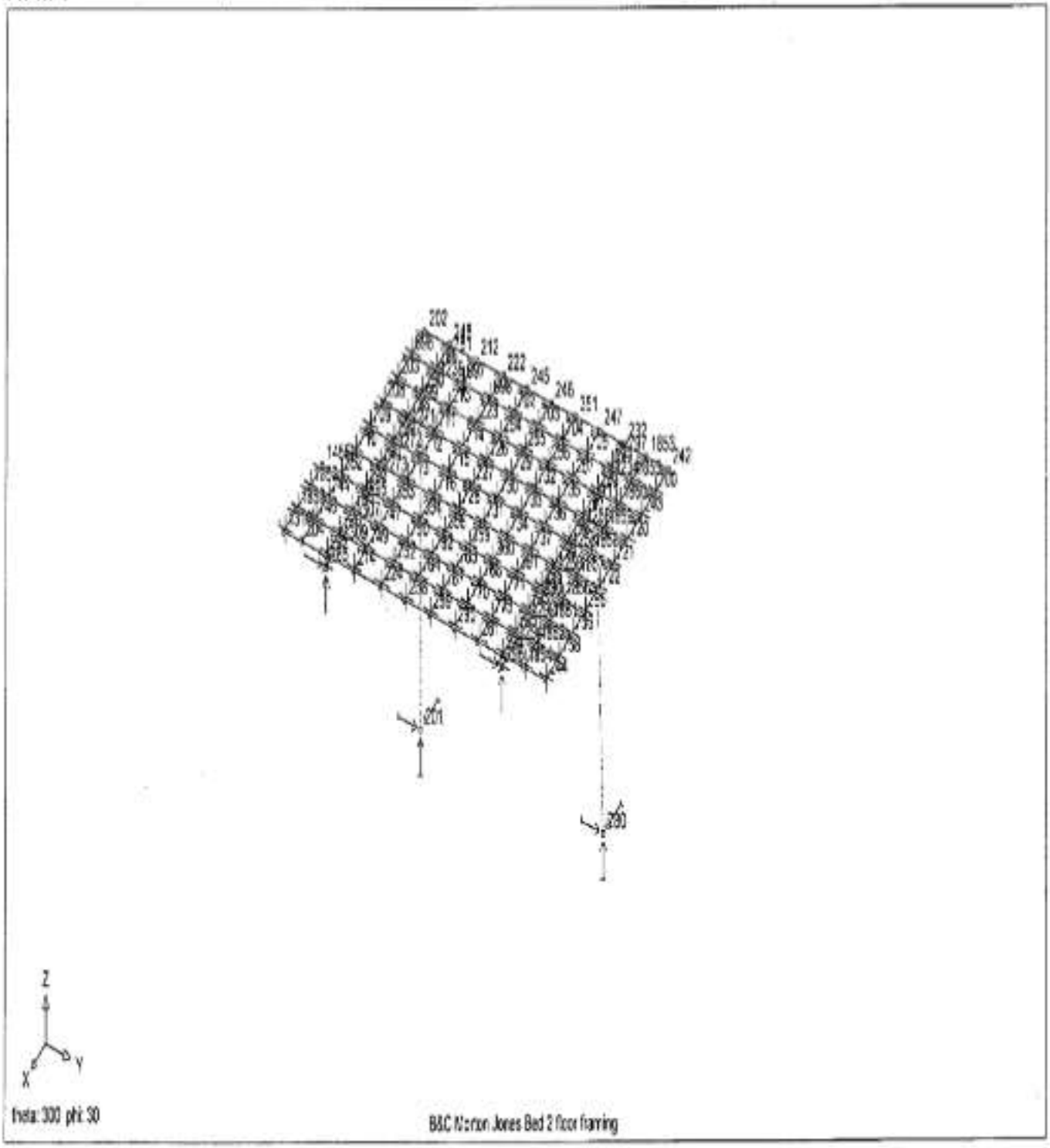

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B & C Morton-Jones
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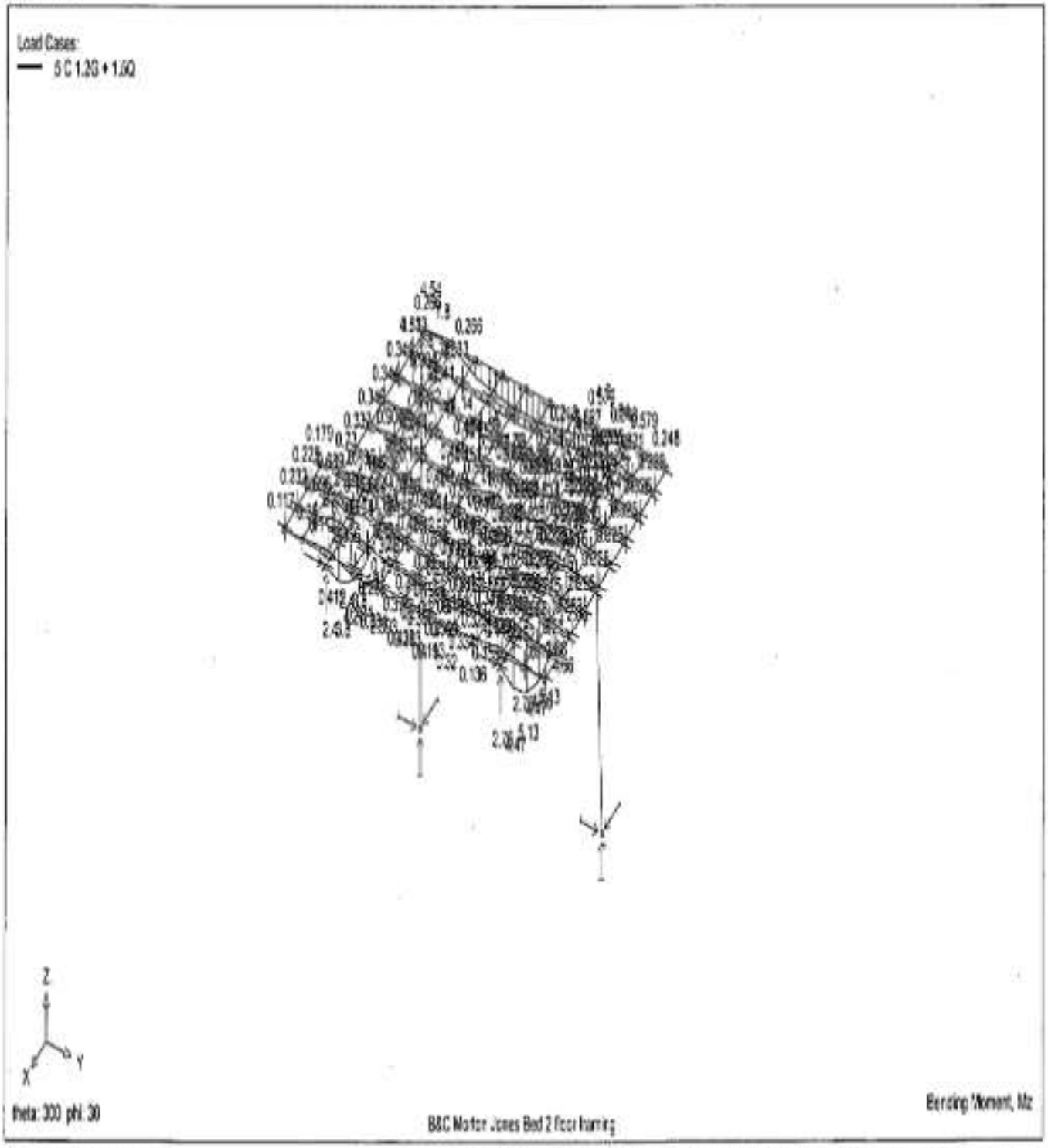

INPUT/ANALYSIS REPORT

Job: 9080 2015 Cathedrals Hou-- Floor Beams - Version 2

Title: B & C Morton-Jones
Floor beams
Type: Space Frame
Date: 15 Apr 2015
Time: 08:34 AM

Nodes	136
Members	248
Spring supports	0
Sections	8
Materials	2
Primary load cases	3
Combination load cases	5

Analysis: Linear elastic

LOAD CASES

Case	Analysis Type	Type Flag	Title
1	P	L	- Dead
2	P	L	- Live
3	C	L	- D + Q
4	C	L	- 1.4G + Q
5	C	L	- 1.2G + 1.6Q

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

Analysis Flag:
OMV - Converged
MSD - Excessive displacements
NAC - Did not converge in iteration limit
UNS - Unstable or local instability

NODE COORDINATES

Node	X m	Y m	Z m	Restraint
55	3.663	0.435	2.780	000000
111	0.663	3.251	2.780	000000
201	3.663	0.399	0.000	111111
202	0.663	0.000	2.880	000000
203	0.663	0.000	2.880	000000
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267	2.163	4.020	2.880	000000
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747	0.000	3.296	2.700	000000
748	0.000	3.296	2.700	000000
749	0.000	3.296	2.700	000000
750	0.000	3.296	2.700	000000
751	0.000	3.296	2.700	000000
752	0.000	3.296	2.700	000000
753	0.000	3.296	2.700	000000
754	0.000	3.296	2.700	000000
755	3.163	3.296	2.700	000000
756	2.764	4.020	2.880	000000
758	3.163	4.020	2.880	000000
762	3.764	3.896	2.880	000000
764	3.163	3.896	2.880	000000
765	2.764	3.896	2.880	000000
767	3.163	2.896	2.880	000000
768	2.764	2.696	2.880	000000
770	3.163	2.696	2.880	000000
771	2.764	2.896	2.880	000000
772	3.163	2.896	2.880	000000
774	2.764	0.396	2.880	000000
776	3.163	0.396	2.880	000000
780	0.000	3.020	0.000	111111
781	0.000	0.000	2.700	000000
785	3.500	0.000	2.700	111000
786	3.500	3.296	2.700	111000
787	0.000	3.296	2.700	000000
800	3.500	3.296	2.700	000000
805	2.500	0.396	2.700	000000
1234	0.500	3.296	2.700	000000
1235	0.500	0.396	2.700	000000
1250	1.000	3.296	2.700	000000
1257	1.000	3.296	2.700	000000
1258	2.000	3.296	2.700	000000
1271	1.000	0.396	2.700	000000
1272	1.000	0.396	2.700	000000
1273	2.000	0.396	2.700	000000
1292	2.700	3.296	2.700	000000
1294	3.100	3.296	2.700	000000
1297	2.700	0.396	2.700	000000
1299	3.100	0.396	2.700	000000
1300	3.900	-0.304	3.000	000000
1498	3.400	-0.300	3.000	000000
1850	3.700	-0.300	3.000	000000
1852	3.100	-0.300	3.000	000000
1853	0.800	3.696	2.400	000000
1854	1.500	3.696	2.400	000000
1855	0.600	3.696	2.400	000000
1856	3.400	3.696	2.400	000000
1857	2.000	3.696	2.400	000000
1858	1.800	3.696	2.400	000000
1859	1.200	3.696	2.400	000000
1860	0.800	3.696	2.400	000000
1861	2.765	3.696	2.400	000000
1862	3.163	3.696	2.400	000000

MEMBER DEFINITION

Member	A	B	C	Incp	Matl	Sel-A	Sel-B	Length m
1453	201	55	-0	70	2	000000	000111	2.700
3400	89	236	-0	50	1	000000	000111	0.150
3402	111	232	-0	50	1	000000	000111	0.150
6824	202	248	0	50	1	000000	000000	0.400
6825	248	213	0	50	1	000000	000000	0.446
6827	213	222	0	50	1	000000	000000	0.450
6828	222	249	0	50	1	000000	000000	0.400
6829	249	248	0	50	1	000000	000000	0.400
6830	249	241	0	50	1	000000	000000	0.450
6831	251	247	0	50	1	000000	000000	0.400
6832	247	232	0	50	1	000000	000000	0.400
6835	201	252	0	50	1	000000	000000	0.400
6837	252	214	0	50	1	000000	000000	0.446
6838	214	224	0	50	1	000000	000000	0.450
6839	224	250	0	50	1	000000	000000	0.400
6840	250	255	0	50	1	000000	000000	0.400
6841	250	240	0	50	1	000000	000000	0.400
6842	240	241	0	50	1	000000	000000	0.450
6843	241	234	0	50	1	000000	000000	0.400
6845	202	690	0	50	1	000000	000011	0.400
6847	690	203	0	50	1	000000	000011	0.400
6848	212	691	0	50	1	000000	000011	0.400
6849	691	211	0	50	1	000000	000011	0.400
6850	223	692	0	50	1	000000	000011	0.400
6851	692	221	0	50	1	000000	000011	0.400
6852	231	694	0	50	1	000000	000011	0.400
6853	693	231	0	50	1	000000	000011	0.100
6854	242	700	0	50	1	000000	000011	0.400
6855	700	243	0	50	1	000000	000011	0.400
6859	245	702	0	50	1	000000	000011	0.400
6860	702	254	0	50	1	000000	000011	0.400
6862	246	703	0	50	1	000000	000011	0.400
6863	703	255	0	50	1	000000	000011	0.400
6864	254	704	0	50	1	000000	000011	0.400
6865	704	256	0	50	1	000000	000011	0.400
6866	247	705	0	50	1	000000	000011	0.400
6867	705	257	0	50	1	000000	000011	0.400
6868	248	706	0	50	1	000000	000011	0.400
6869	706	258	0	50	1	000000	000011	0.400
6870	836	706	0	50	1	000000	000000	0.333
6871	706	697	0	50	1	000000	000000	0.667
6873	697	698	0	50	1	000000	000000	0.950
6874	698	702	0	50	1	000000	000000	0.400
6875	702	703	0	50	1	000000	000000	0.400
6876	703	704	0	50	1	000000	000000	0.400
6877	704	705	0	50	1	000000	000000	0.400
6878	705	699	0	50	1	000000	000000	0.400
6881	350	382	0	50	1	000000	000000	0.399
6883	382	353	0	50	1	000000	000000	0.667
6884	353	384	0	50	1	000000	000000	0.650
6885	354	358	0	50	1	000000	000000	0.650
6886	358	359	0	50	1	000000	000000	0.650
6887	359	389	0	50	1	000000	000000	0.650
6888	388	361	0	50	1	000000	000000	0.650
6889	361	355	0	50	1	000000	000000	0.650
6892	202	708	0	50	1	000001	000011	0.400
6893	708	708	0	50	1	000001	000011	0.400
6894	709	718	0	50	1	000001	000011	0.400
6895	710	352	0	50	1	000001	000011	0.400
6896	213	711	0	50	1	000001	000011	0.400
6897	711	712	0	50	1	000001	000011	0.400
6898	712	713	0	50	1	000001	000011	0.400
6899	713	353	0	50	1	000001	000011	0.400
6900	223	714	0	50	1	000001	000011	0.400
6901	714	715	0	50	1	000001	000011	0.400
6902	715	716	0	50	1	000001	000011	0.400
6903	716	354	0	50	1	000001	000011	0.400
6904	233	717	0	50	1	000001	000011	0.400
6905	717	719	0	50	1	000001	000011	0.400
6906	718	719	0	50	1	000001	000011	0.400
6907	719	355	0	50	1	000001	000011	0.400
6908	243	720	0	50	1	000001	000011	0.400
6909	720	721	0	50	1	000001	000011	0.400
6910	721	722	0	50	1	000001	000011	0.400
6911	722	356	0	50	1	000001	000011	0.400
6916	254	726	0	50	1	000001	000011	0.400
6917	726	727	0	50	1	000001	000011	0.400
6918	727	728	0	50	1	000001	000011	0.400
6919	728	358	0	50	1	000001	000011	0.400
6920	255	729	0	50	1	000001	000011	0.400
6921	729	730	0	50	1	000001	000011	0.400

6821	736	731	1	50	1	000001	000011	0.400
6822	731	359	1	50	1	000001	000011	0.400
6824	358	733	1	50	1	000001	000011	0.400
6825	732	733	1	50	1	000001	000011	0.400
6826	733	734	1	50	1	000001	000011	0.400
6827	734	360	1	50	1	000001	000011	0.400
6828	257	735	1	50	1	000001	000011	0.400
6829	735	736	1	50	1	000001	000011	0.400
6830	736	737	1	50	1	000001	000011	0.400
6831	737	361	1	50	1	000001	000011	0.400
6832	260	738	1	50	1	000001	000011	0.400
6833	738	739	1	50	1	000001	000011	0.400
6834	739	740	1	50	1	000001	000011	0.400
6835	740	362	1	50	1	000001	000011	0.400
6842	742	743	1	50	1	000008	000000	0.399
6842	742	743	1	50	1	000008	000000	0.447
6843	745	746	1	50	1	000008	000000	0.498
6844	746	744	1	50	1	000008	000000	0.500
6845	748	731	1	50	1	000008	000000	0.400
6846	731	734	1	50	1	000008	000000	0.400
6847	734	737	1	50	1	000008	000000	0.400
6848	737	749	1	50	1	000008	000000	0.400
6849	748	749	1	50	1	000008	000000	0.399
7001	739	753	1	50	1	000008	000000	0.447
7002	753	755	1	50	1	000008	000000	0.450
7003	755	727	1	50	1	000008	000000	0.450
7004	727	728	1	50	1	000008	000000	0.450
7005	728	732	1	50	1	000008	000000	0.450
7006	732	726	1	50	1	000008	000000	0.450
7007	726	758	1	50	1	000008	000000	0.450
7008	758	726	1	50	1	000008	000000	0.399
7009	758	711	1	50	1	000008	000000	0.447
7011	711	714	1	50	1	000008	000000	0.498
7012	714	724	1	50	1	000008	000000	0.500
7013	726	728	1	50	1	000008	000000	0.400
7014	725	722	1	50	1	000008	000000	0.400
7015	722	708	1	50	1	000008	000000	0.400
7016	720	717	1	50	1	000008	000000	0.450
7017	232	236	1	50	1	000008	000000	0.450
7018	220	212	1	50	1	000008	000000	0.446
7019	212	223	1	50	1	000008	000000	0.450
7020	223	224	1	50	1	000008	000000	0.400
7021	224	218	1	50	1	000008	000000	0.400
7022	218	248	1	50	1	000008	000000	0.400
7023	248	247	1	50	1	000008	000000	0.399
7024	247	244	1	50	1	000008	000000	0.447
7025	244	240	1	50	1	000008	000000	0.498
7026	240	242	1	50	1	000008	000000	0.500
7027	242	246	1	50	1	000008	000000	0.400
7028	246	238	1	50	1	000008	000000	0.400
7029	238	234	1	50	1	000008	000000	0.400
7030	234	230	1	50	1	000008	000000	0.400
7031	228	182	1	50	1	000001	000011	0.366
7032	182	184	1	50	1	000001	000011	0.367
7033	184	358	1	50	1	000001	000011	0.367
7034	358	186	1	50	1	000001	000011	0.366
7035	186	187	1	50	1	000001	000011	0.367
7036	187	359	1	50	1	000001	000011	0.367
7037	360	188	1	50	1	000001	000011	0.398
7038	188	178	1	50	1	000001	000011	0.367
7039	178	268	1	50	1	000001	000011	0.367
7040	268	771	1	50	1	000001	000011	0.366
7041	771	773	1	50	1	000001	000011	0.367
7042	773	269	1	50	1	000001	000011	0.367
7043	775	774	1	50	1	000001	000011	0.366
7044	774	776	1	50	1	000001	000011	0.367
7045	776	252	1	50	1	000001	000011	0.367
7046	746	774	1	50	1	000008	000000	0.399
7047	774	747	1	50	1	000008	000000	0.447
7048	747	750	1	50	1	000008	000000	0.498
7049	750	752	1	50	1	000008	000000	0.500
7050	752	748	1	50	1	000008	000000	0.400
7051	748	749	1	50	1	000008	000000	0.400
7052	749	750	1	50	1	000008	000000	0.400
7053	750	751	1	50	1	000008	000000	0.400
7054	751	752	1	50	1	000008	000000	0.400
7055	754	767	1	50	1	000008	000000	0.399
7056	767	770	1	50	1	000008	000000	0.447
7057	770	772	1	50	1	000008	000000	0.498
7058	772	755	1	50	1	000008	000000	0.500
7059	788	101	-0	10	2	000000	000101	0.783
7060	787	1234	1	60	1	000000	000065	0.480
7061	1234	101	1	60	1	000000	000066	0.480
7062	101	1238	1	60	1	000000	000066	0.480
7063	1235	88	1	60	1	000000	000066	0.480
7064	111	1236	1	60	1	000000	000066	0.480
7065	1236	1237	1	60	1	000000	000066	0.480
7066	1237	1238	1	60	1	000000	000066	0.480
7067	1238	688	1	60	1	000000	000066	0.480
7068	99	1271	1	60	1	000000	000066	0.480
7069	1271	1272	1	60	1	000000	000066	0.480
7070	1272	1273	1	60	1	000000	000066	0.480
7071	1273	355	1	60	1	000000	000066	0.480
7072	890	1292	1	60	1	000000	000066	0.366
7073	1292	1294	1	60	1	000000	000066	0.367
7074	1294	786	1	60	1	000000	000066	0.367
7075	895	1307	1	60	1	000000	000066	0.366
7076	1307	1308	1	60	1	000000	000066	0.367
7077	1308	785	1	60	1	000000	000066	0.367
7078	260	782	1	50	1	000001	000011	0.366
7079	252	783	1	50	1	000001	000011	0.366
7080	334	784	1	50	1	000001	000011	0.366
7081	784	785	1	50	1	000001	000011	0.366
7082	785	786	1	50	1	000001	000011	0.366
7083	786	787	1	50	1	000001	000011	0.366
7084	787	788	1	50	1	000001	000011	0.366
7085	788	789	1	50	1	000001	000011	0.366
7086	789	790	1	50	1	000001	000011	0.366
7087	790	791	1	50	1	000001	000011	0.366
7088	791	792	1	50	1	000001	000011	0.366
7089	792	793	1	50	1	000001	000011	0.366
7090	793	794	1	50	1	000001	000011	0.366
7091	794	795	1	50	1	000001	000011	0.366
7092	795	796	1	50	1	000001	000011	0.366
7093	796	797	1	50	1	000001	000011	0.366
7094	797	798	1	50	1	000001	000011	0.366
7095	798	799	1	50	1	000001	000011	0.366
7096	799	800	1	50	1	000001	000011	0.366
7097	800	801	1	50	1	000001	000011	0.366
7098	801	802	1	50	1	000001	000011	0.366
7099	802	803	1	50	1	000001	000011	0.366
7100	803	804	1	50	1	000001	000011	0.366
7101	804	805	1	50	1	000001	000011	0.366
7102	805	806	1	50	1	000001	000011	0.366
7103	806	807	1	50	1	000001	000011	0.366
7104	807	808	1	50	1	000001	000011	0.366
7105	808	809	1	50	1	000001	000011	0.366
7106	809	810	1	50	1	000001	000011	0.366
7107	810	811	1	50	1	000001	000011	0.366
7108	811	812	1	50	1	000001	000011	0.366
7109	812	813	1	50	1	000001	000011	0.366
7110	813	814	1	50	1	000001	000011	0.366
7111	814	815	1	50	1	000001	000011	0.366
7112	815	816	1	50	1	000001	000011	0.366
7113	816	817	1	50	1	000001	000011	0.366
7114	817	818	1	50	1	000001	000011	0.366
7115	818	819	1	50	1	000001	000011	0.366
7116	819	820	1	50	1	000001	000011	0.366
7117	820	821	1	50	1	000001	000011	0.366
7118	821	822	1	50	1	000001	000011	0.366
7119	822	823	1	50	1	000001	000011	0.366
7120	823	824	1	50	1	000001	000011	0.366
7121	824	825	1	50	1	000001	000011	0.366
7122	825	826	1	50	1	000001	000011	0.366
7123	826	827	1	50	1	000001	000011	0.366
7124	827	828	1	50	1	000001	000011	0.366
7125	828	829	1	50	1	000001	000011	0.366
7126	829	830	1	50	1	000001	000011	0.366
7127	830	831	1	50	1	000001	000011	0.366
7128	831	832	1	50	1	000001	000011	0.366
7129	832	833	1	50	1	000001	000011	0.366
7130	833	834	1	50	1	000001	000011	0.366
7131	834	835	1	50	1	000001	000011	0.366
7132	835	836	1	50	1	000001	000011	0.366
7133	836	837	1	50	1	000001	000011	0.366
7134	837	838	1	50	1	000001	000011	0.366
7135	838	839	1	50	1	000001	000011	0.366
7136	839	840	1	50	1	000001	000011	0.366
7137	840	841	1	50	1	000001	000011	0.366
7138	841	842	1	50	1	000001	000011	0.366
7139	842	843	1	50	1	000001	000011	0.366
7140	843	844	1	50	1	000001	000011	0.366
7141	844	845	1	50	1	000001	000011	0.366
7142	845	846	1	50	1	000001	000011	0.366
7143	846	847	1	50	1	000001	000011	0.366
7144	847	848	1	50	1	000001	000011	0.366
7145	848	849	1	50	1	000001	000011	0.366
7146	849	850	1	50	1	000001	000011	0.366
7147	850	851	1	50	1	000001	000011	0.366
7148	851	852	1	50	1	000001	000011	0.366
7149	852	853	1	50	1	000001	000011	0.366
7150	853	854	1	50	1	000001	000011	0.366
7151	854	855	1	50	1	000001	000011	0.366
7152	855	856	1	50	1	000001	000011	0.366
7153	856	857	1	50	1	000001	000011	0.366
7154	857	858	1	50	1	000001	000011	0.366
7155	858	859	1	50	1	000001	000011	0.366
7156	859	860	1	50	1	000001	000011	0.366
7157	860	861	1	50	1	000001	000011	0.366
7158	861	862	1	50	1	000001	000011	0.366
7159	862	863	1	50	1	000001	000011	0.366
8436	204	1319	1	56	1	000000	000063	0.388
8437	251	1458	1	56	1	000000	000063	0.389
8438	744	1858	1	56	1	000000	000063	0.389
8439	744	1858	1	56	1	000000	000063	0.389
8440	252	1853	1	56	1	000000	000063	0.384
8441	1853	242	1	50	1	000000	000060	0.388
8442	234	1854	1	50	1	000000	000060	0.384
8443	1854	244	1	50	1	000000	000060	0.388
8444	699	1855	1	50	1	000000	000060	0.384
8445	1855	708	1	50	1	000000	000060	0.388
8446	255	1856	1	50	1	000000	000060	0.384
8447	1856	256	1	50	1	000000	000060	0.388
8448	709	1857	1	50	1	000000	000060	0.384
8449	1857	722	1	50	1	000000	000060	0.388
8450	728	1858	1	50	1	000000	000060	0.384
8451	1858	721	1	50	1	000000	000060	0.388
8452	717	1859	1	50	1	000000	000060	0.384
8453	1859	720	1	50	1	000000	000060	0.388
8454	253	1860	1	50	1	000000	000060	0.384
8455	1860	243	1	50	1	000000	000060	0.388
8456	752	1861	1	50	1	000000	000060	0.384
8457	1861	756	1	50	1	000000	000060	0.388
8458	758	1862	1	50	1	000000	000060	0.384
8459	1862	758	1	50	1	000000	000060	0.388
8460	1863	1855	1	50	1	000001	000011	0.402
8461	1855	1862	1	50	1	000001	000011	0.402
8516	1860	1858	1	50	1	000001	000011	0.402
8517	1859	1858	1	50	1	000001	000011	0.403
8518	1858	1857	1	50	1	000001	000011	0.403
8519	1861	1856	1	50	1	000001	000011	0.403
8104	1856	1863	1	50	1	000001	000011	0.366
8105	1863	1862	1	50	1	000001	000011	0.367
8107	1863	1854	1	50	1	000001	000011	0.367

STANDARD SHAPES

Section	Shape Name	Comment	D1/D4	D2/D5	D3/D6
60	RECT default	203*50	0.190	0.045	
65	RECT default	203*100	0.190	0.095	
80	RECT default	203*150	0.190	0.090	
70	CIRC default	17h pole	0.170	0.000	

Dimension codes:
CIRC - D1=D
RECT - D1=D D2=B

SECTION PROPERTIES

Section	Name	Comment
10	Nominal	X_beams
20	Nominal	Y_beams
30	Nominal	End_X_reinforce
31	Nominal	Other_reinforce

SECTION PROPERTIES

Section	Za mm3	Sy mm3	Zz mm3	J mm4	Iy mm4	Iz mm4	Sect
10	5.216E-05	0.000E+00	6.800E-06	6.371E-08	3.860E-08	2.368E-05	
20	3.216E-05	0.000E+00	6.800E-06	6.371E-08	3.860E-08	2.368E-05	
30	3.224E-05	0.000E+00	6.936E-06	6.371E-08	3.860E-08	2.368E-05	
31	3.224E-05	0.000E+00	6.936E-06	6.371E-08	3.860E-08	2.368E-05	
50	6.518E-05	0.000E+00	6.936E-06	4.584E-05	3.442E-05	2.572E-05	1.000
51	1.802E-01	0.000E+00	6.936E-06	3.730E-05	1.356E-05	5.436E-05	1.000
60	1.240E-02	0.000E+00	0.830E-05	4.426E-05	1.459E-05	1.937E-04	1.000
70	2.405E-02	0.000E+00	0.830E-05	0.000E-05	4.684E-05	4.684E-05	1.000

MATERIAL PROPERTIES

Material	E kN/m2	v	Density t/m3	Alpha /deg C	
1	1.500E+08	0.3300	5.500E-01	0.000E+00	ST
2	2.050E+08	0.3300	1.650E+00	0.000E+00	CU

CONDITION NUMBER

Maximum condition number: 4.195E+11 at node: 748 DOFN: 5

APPLIED LOADING

CASE 1: Dead

Node Loads

Node	X Force kN	Y Force kN	Z Force kN	X Moment kNm	Y Moment kNm	Z Moment kNm
202	0.000	0.000	+0.290	0.000	0.000	0.000
210	0.000	0.000	-1.450	0.000	0.000	0.000
214	0.000	0.000	-1.290	0.000	0.000	0.000
220	0.000	0.000	+0.490	0.000	0.000	0.000
232	0.000	0.000	-0.490	0.000	0.000	0.000
242	0.000	0.000	+0.290	0.000	0.000	0.000
245	0.000	0.000	-0.490	0.000	0.000	0.000
246	0.000	0.000	-0.490	0.000	0.000	0.000
247	0.000	0.000	-0.490	0.000	0.000	0.000
248	0.000	0.000	-0.490	0.000	0.000	0.000
251	0.000	0.000	-0.490	0.000	0.000	0.000

Member Loads

Member	Type	T	A	D	F1	F2	F3	F4
6845	UNIF	FX	GL	FR	-1.000			
6846	UNIF	FX	GL	FR	+0.490			
6847	UNIF	FX	GL	FR	-1.000			
6847	UNIF	FX	GL	FR	+0.490			
6848	UNIF	FX	GL	FR	-0.120			
6849	UNIF	FX	GL	FR	-0.120			
6850	UNIF	FX	GL	FR	-0.120			
6851	UNIF	FX	GL	FR	-0.120			
6852	UNIF	FX	GL	FR	-0.120			
6853	UNIF	FX	GL	FR	+0.120			
6854	UNIF	FX	GL	FR	-1.000			
6854	UNIF	FX	GL	FR	+0.500			
6855	UNIF	FX	GL	FR	-1.000			
6855	UNIF	FX	GL	FR	+0.500			
6858	UNIF	FX	GL	FR	-0.120			
6859	UNIF	FX	GL	FR	-0.120			
6860	UNIF	FX	GL	FR	-0.120			
6861	UNIF	FX	GL	FR	-0.120			
6862	UNIF	FX	GL	FR	-0.120			
6863	UNIF	FX	GL	FR	-0.120			
6864	UNIF	FX	GL	FR	-0.120			
6865	UNIF	FX	GL	FR	-0.120			
6866	UNIF	FX	GL	FR	-0.120			
6867	UNIF	FX	GL	FR	-0.120			
6892	UNIF	FX	GL	FR	-1.000			
6892	UNIF	FX	GL	FR	+0.500			
6893	UNIF	FX	GL	FR	-1.000			
6893	UNIF	FX	GL	FR	+0.500			
6894	UNIF	FX	GL	FR	-1.000			
6894	UNIF	FX	GL	FR	+0.500			
6895	UNIF	FX	GL	FR	-1.000			
6895	UNIF	FX	GL	FR	+0.490			
6896	UNIF	FX	GL	FR	-0.120			
6897	UNIF	FX	GL	FR	-0.120			
6898	UNIF	FX	GL	FR	-0.120			
6899	UNIF	FX	GL	FR	-0.120			

6583	ENEF	FZ GL FR	-0.130	
6581	ENEF	FZ GL FR	-0.130	
6582	ENEF	FZ GL FR	-0.130	
6583	ENEF	FZ GL FR	-0.130	
6584	ENEF	FZ GL FR	-0.130	
6585	ENEF	FZ GL FR	-0.130	
6586	ENEF	FZ GL FR	-0.130	
6587	ENEF	FZ GL FR	-0.130	
6588	ENEF	FZ GL FR	-1.000	
6589	ENEF	FZ GL FR	-0.500	
6589	ENEF	FZ GL FR	-1.000	
6590	ENEF	FZ GL FR	-0.500	
6591	ENEF	FZ GL FR	-1.000	
6592	ENEF	FZ GL FR	-0.500	
6593	ENEF	FZ GL FR	-0.130	
6594	ENEF	FZ GL FR	-0.130	
6595	ENEF	FZ GL FR	-0.130	
6596	ENEF	FZ GL FR	-0.130	
6597	ENEF	FZ GL FR	-0.130	
6598	ENEF	FZ GL FR	-0.130	
6599	ENEF	FZ GL FR	-0.130	
6600	ENEF	FZ GL FR	-0.130	
6601	ENEF	FZ GL FR	-0.130	
6602	ENEF	FZ GL FR	-0.130	
6603	ENEF	FZ GL FR	-0.130	
6604	ENEF	FZ GL FR	-0.130	
6605	ENEF	FZ GL FR	-0.130	
6606	ENEF	FZ GL FR	-0.130	
6607	ENEF	FZ GL FR	-0.130	
6608	ENEF	FZ GL FR	-0.130	
6609	ENEF	FZ GL FR	-0.130	
6610	ENEF	FZ GL FR	-0.130	
6611	ENEF	FZ GL FR	-0.130	
6612	ENEF	FZ GL FR	-0.130	
6613	ENEF	FZ GL FR	-0.130	
6614	ENEF	FZ GL FR	-0.130	
6615	ENEF	FZ GL FR	-0.130	
6616	ENEF	FZ GL FR	-0.130	
6617	ENEF	FZ GL FR	-0.130	
6618	ENEF	FZ GL FR	-0.130	
6619	ENEF	FZ GL FR	-0.130	
6620	ENEF	FZ GL FR	-0.130	
6621	ENEF	FZ GL FR	-0.130	
6622	ENEF	FZ GL FR	-0.130	
6623	ENEF	FZ GL FR	-0.130	
6624	ENEF	FZ GL FR	-0.130	
6625	ENEF	FZ GL FR	-0.130	
6626	ENEF	FZ GL FR	-0.130	
6627	ENEF	FZ GL FR	-0.130	
6628	ENEF	FZ GL FR	-0.130	
6629	ENEF	FZ GL FR	-0.130	
6630	ENEF	FZ GL FR	-0.130	
6631	ENEF	FZ GL FR	-0.130	
6632	ENEF	FZ GL FR	-0.130	
6633	ENEF	FZ GL FR	-0.130	
6634	ENEF	FZ GL FR	-0.130	
6635	ENEF	FZ GL FR	-0.130	
7080	ENEF	FZ GL	-0.130	
7082	ENEF	FZ GL	-0.130	
7083	ENEF	FZ GL	-0.130	
7084	ENEF	FZ GL FR	-0.130	
7085	ENEF	FZ GL FR	-0.130	
7086	ENEF	FZ GL FR	-0.130	
7087	ENEF	FZ GL FR	-0.130	
7088	ENEF	FZ GL FR	-0.130	
7089	ENEF	FZ GL FR	-0.130	
7090	ENEF	FZ GL FR	-0.130	
7091	ENEF	FZ GL FR	-0.130	
7092	ENEF	FZ GL FR	-0.130	
7093	ENEF	FZ GL FR	-0.130	
7094	ENEF	FZ GL FR	-0.130	
7095	ENEF	FZ GL FR	-0.130	
7096	ENEF	FZ GL FR	-0.130	
7097	ENEF	FZ GL FR	-1.000	
7098	ENEF	FZ GL FR	-0.500	
7098	ENEF	FZ GL FR	-1.000	
7099	ENEF	FZ GL FR	-0.500	
7099	ENEF	FZ GL FR	-1.000	
7100	ENEF	FZ GL FR	-0.500	
7101	ENEF	FZ GL FR	-0.130	
7102	ENEF	FZ GL FR	-0.130	
7103	ENEF	FZ GL FR	-0.130	
7104	ENEF	FZ GL FR	-0.130	
7105	ENEF	FZ GL FR	-0.130	
7106	ENEF	FZ GL FR	-0.130	
7107	ENEF	FZ GL FR	-0.130	
7108	ENEF	FZ GL FR	-0.130	
7109	ENEF	FZ GL FR	-0.130	
7110	ENEF	FZ GL FR	-0.130	
7111	ENEF	FZ GL FR	-0.130	
7112	ENEF	FZ GL FR	-0.130	
7113	ENEF	FZ GL FR	-0.130	
7114	ENEF	FZ GL FR	-0.130	
7115	ENEF	FZ GL FR	-0.130	
7116	ENEF	FZ GL FR	-0.130	
7117	ENEF	FZ GL FR	-0.130	
7118	ENEF	FZ GL FR	-0.130	
7119	ENEF	FZ GL FR	-0.130	
7120	ENEF	FZ GL FR	-0.130	
7121	ENEF	FZ GL FR	-0.130	
7122	ENEF	FZ GL FR	-0.130	
7123	ENEF	FZ GL FR	-0.130	
7156	ENEF	FZ GL FR	-1.000	
7156	ENEF	FZ GL FR	-0.480	
7158	ENEF	FZ GL FR	-1.000	
7158	ENEF	FZ GL FR	-0.480	
7159	ENEF	FZ GL FR	-1.000	
7159	ENEF	FZ GL FR	-0.480	
8437	ENEF	FZ GL	-1.000	
8440	ENEF	FZ GL FR	-0.120	
8441	ENEF	FZ GL FR	-0.120	
8536	ENEF	FZ GL FR	-0.120	
8537	ENEF	FZ GL FR	-0.120	
8538	ENEF	FZ GL FR	-0.120	
8539	ENEF	FZ GL FR	-0.120	
8784	ENEF	FZ GL FR	-0.120	
8786	ENEF	FZ GL FR	-0.120	
8787	ENEF	FZ GL FR	-0.120	

Sum of Applied Loads (Global Axes):

FX:	0.000	FY:	0.000	FZ:	-20.537

Moments about the global origin:

MX:	-17.654	MY:	29.983	MZ:	0.000

NODE DISPLACEMENTS

CASE 1: Dead

Node	X-Disp m	Y-Disp m	Z-Disp m	X-Rotn rad	Y-Rotn rad	Z-Rotn rad
99	0.0000	-0.0015	-0.0001	0.00014	-0.02128	0.00019
151	0.0000	-0.0018	-0.0002	-0.00240	-0.03901	0.00058
201	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
202	0.0001	-0.0019	0.0003	-0.00488	-2.4788E+04	0.00019
203	0.0001	-0.0015	-0.0001	0.00172	-2.4775E+04	0.00058
204	0.0001	0.0000	0.0000	0.00013	-0.00203	0.00006
222	-0.0001	-0.0015	-0.0001	-0.00041	-2.4788E+04	0.00023
223	-0.0001	-0.0015	0.0001	0.00106	-2.4775E+04	0.00026
224	-0.0001	0.0000	-0.0001	-0.00006	-0.00200	0.00003
242	-0.0001	-0.0015	0.0001	-0.00230	-2.4788E+04	0.00013
243	-0.0001	-0.0015	0.0001	0.00665	-2.4775E+04	0.00013
244	-0.0001	0.0000	0.0000	0.00020	-0.00250	0.00015
262	-0.0001	-0.0015	0.0001	0.00425	-2.4788E+04	-1.00033
263	-0.0001	-0.0015	-0.0001	-0.00210	-2.4775E+04	-1.00033
264	-0.0001	0.0000	0.0000	-0.00031	-0.00250	-1.00035
282	-0.0001	-0.0015	0.0001	0.00384	-2.4788E+04	-1.00050
283	-0.0001	-0.0015	-0.0001	-0.00200	-2.4775E+04	-1.00050
284	-0.0001	0.0000	-0.0001	-0.00150	-0.00293	-1.00052
302	-0.0001	-0.0015	0.0001	0.00647	-2.4775E+04	1.00013
324	-0.0001	-0.0015	0.0001	0.00825	-0.00250	1.00015
332	-0.0001	-0.0015	0.0001	0.00425	-2.4788E+04	-1.00038
333	-0.0001	-0.0015	-0.0001	-0.00210	-2.4775E+04	-1.00037
334	-0.0001	0.0000	0.0000	-0.00031	-0.00250	-1.00035
352	-0.0001	-0.0015	0.0001	0.00384	-2.4788E+04	-1.00050
353	-0.0001	-0.0015	-0.0001	-0.00200	-2.4775E+04	-1.00050
354	-0.0001	0.0000	-0.0001	-0.00150	-0.00293	-1.00052
372	-0.0001	-0.0015	0.0001	0.00647	-2.4775E+04	1.00013
394	-0.0001	-0.0015	0.0001	0.00825	-0.00250	1.00015
402	-0.0001	-0.0015	0.0001	-0.00425	-2.4788E+04	0.00019
403	-0.0001	-0.0015	-0.0001	0.00172	-2.4775E+04	0.00058
404	-0.0001	0.0000	0.0000	-0.00013	-0.00203	0.00006
422	-0.0001	-0.0015	0.0001	-0.00488	-2.4788E+04	0.00019
423	-0.0001	-0.0015	-0.0001	0.00106	-2.4775E+04	0.00026
424	-0.0001	0.0000	0.0000	-0.00006	-0.00200	0.00003
442	-0.0001	-0.0015	0.0001	-0.00230	-2.4788E+04	0.00013
443	-0.0001	-0.0015	-0.0001	0.00665	-2.4775E+04	0.00013
444	-0.0001	0.0000	0.0000	-0.00041	-0.00250	0.00015
462	-0.0001	-0.0015	0.0001	0.00425	-2.4788E+04	-1.00033
463	-0.0001	-0.0015	-0.0001	-0.00210	-2.4775E+04	-1.00033
464	-0.0001	0.0000	0.0000	-0.00031	-0.00250	-1.00035
482	-0.0001	-0.0015	0.0001	0.00384	-2.4788E+04	-1.00050
483	-0.0001	-0.0015	-0.0001	-0.00200	-2.4775E+04	-1.00050
484	-0.0001	0.0000	0.0000	-0.00150	-0.00293	-1.00052
502	-0.0001	-0.0015	0.0001	0.00647	-2.4775E+04	1.00013
524	-0.0001	-0.0015	0.0001	0.00825	-0.00250	1.00015
532	-0.0001	-0.0015	0.0001	0.00425	-2.4788E+04	0.00019
533	-0.0001	-0.0015	-0.0001	-0.00210	-2.4775E+04	0.00058
534	-0.0001	0.0000	0.0000	-0.00006	-0.00200	0.00003
552	-0.0001	-0.0015	0.0001	-0.00488	-2.4788E+04	0.00019
553	-0.0001	-0.0015	-0.0001	0.00106	-2.4775E+04	0.00026
554	-0.0001	0.0000	0.0000	-0.00013	-0.00203	0.00006
572	-0.0001	-0.0015	0.0001	-0.00230	-2.4788E+04	0.00013
573	-0.0001	-0.0015	-0.0001	0.00665	-2.4775E+04	0.00013
574	-0.0001	-0.0015	0.0001	-0.00041	-0.00250	0.00015
592	-0.0001	-0.0015	0.0001	0.00384	-2.4788E+04	-1.00050
593	-0.0001	-0.0015	-0.0001	-0.00200	-2.4775E+04	-1.00050
594	-0.0001	0.0000	0.0000	-0.00150	-0.00293	-1.00052
612	-0.0001	-0.0015	0.0001	0.00647	-2.4775E+04	1.00013
634	-0.0001	-0.0015	0.0001	0.00825	-0.00250	1.00015
642	-0.0001	-0.0015	0.0001	-0.00425	-2.4788E+04	0.00019
643	-0.0001	-0.0015	-0.0001	0.00172	-2.4775E+04	0.00058
644	-0.0001	0.0000	0.0000	-0.00013	-0.00203	0.00006
662	-0.0001	-0.0015	0.0001	-0.00488	-2.4788E+04	0.00019
663	-0.0001	-0.0015	-0.0001	0.00106	-2.4775E+04	0.00026
664	-0.0001	0.0000	0.0000	-0.00006	-0.00200	0.00003
682	-0.0001	-0.0015	0.0001	-0.00230	-2.4788E+04	0.00013
683	-0.0001	-0.0015	-0.0001	0.00665	-2.4775E+04	0.00013
684	-0.0001	0.0000	0.0000	-0.00041	-0.00250	0.00015
702	-0.0001	-0.0015	0.0001	0.00425	-2.4788E+04	-1.00033
703	-0.0001	-0.0015	-0.0001	-0.00210	-2.4775E+04	-1.00033
704	-0.0001	0.0000	0.0000	-0.00031	-0.00250	-1.00035
722	-0.0001	-0.0015	0.0001	0.00384	-2.4788E+04	-1.00050
723	-0.0001	-0.0015	-0.0001	-0.00200	-2.4775E+04	-1.00050
724	-0.0001	0.0000	0.0000	-0.00150	-0.00293	-1.00052
742	-0.0001	-0.0015	0.0001	0.00647	-2.4775E+04	1.00013
764	-0.0001	-0.0015	0.0001	0.00825	-0.00250	1.00015
772	-0.0001	-0.0015	0.0001	0.00425	-2.4788E+04	0.00019
773	-0.0001	-0.0015	-0.0001	-0.00210	-2.4775E+04	0.00058
774	-0.0001	0.0000	0.0000	-0.00006	-0.00200	0.00003
792	-0.0001	-0.0015	0.0001	0.00384	-2.4788E+04	-1.00050
793	-0.0001	-0.0015	-0.0001	-0.00200	-2.4775E+04	-1.00050
794	-0.0001	0.0000	0.0000	-0.00150	-0.00293	-1.00052
812	-0.0001	-0.0015	0.0001	0.00647	-2.4775E+04	1.00013
834	-0.0001	-0.0015	0.0001	0.00825	-0.00250	1.00015
842	-0.0001	-0.0015	0.0001	-0.00425	-2.4788E+04	0.00019
843	-0.0001	-0.0015	-0.0001	0.00172	-2.4775E+04	0.00058
844	-0.0001	0.0000	0.0000	-0.00013	-0.00203	0.00006
862	-0.0001	-0.0015	0.0001	-0.00488	-2.4788E+04	0.00019
863	-0.0001	-0.0015	-0.0001	0.00106	-2.4775E+04	0.00026
864	-0.0001	0.0000	0.0000	-0.00006	-0.00200	0.00003
882	-0.0001	-0.0015	0.0001	-0.00230	-2.4788E+04	0.00013
883	-0.0001	-0.0015	-0.0001	0.00665	-2.4775E+04	0.00013
884	-0.0001	0.0000	0.0000	-0.00041	-0.00250	0.00015
902	-0.0001	-0.0015	0.0001	0.00425	-2.4788E+04	-1.00033
903	-0.0001	-0.0015	-0.0001	-0.00210	-2.4775E+04	-1.00033
904	-0.0001	0.0000	0.0000	-0.00031	-0.00250	-1.00035
922	-0.0001	-0.0015	0.0001	0.00384	-2.4788E+04	-1.00050
923	-0.0001	-0.0015	-0.0001	-0.00200	-2.4775E+04	-1.00050
924	-0.0001	0.0000	0.0000	-0.00150	-0.00293	-1.00052
942	-0.0001	-0.0015	0.0001	0.00647	-2.4775E+04	1.00013
964	-0.0001	-0.0015	0.0001	0.00825	-0.00250	1.00015
972	-0.0001	-0.0015	0.0001	0.00425	-2.4788E+04	0.00019
973	-0.0001	-0.0015	-0.0001	-0.00210	-2.4775E+04	0.00058
974	-0.0001	0.0000	0.0000	-0.00006	-0.00200	0.00003
992	-0.0001	-0.0015	0.0001	0.00384	-2.4788E+04	-1.00050
993	-0.0001	-0.0015	-0.0001	-0.00200	-2.4775E+04	-1.00050
994	-0.0001	0.0000	0.0000	-0.00150	-0.00293	-1.00052
1012	-0.0001	-0.0015	0.0001	0.00647	-2.4775E+04	1.00013
1034	-0.0001	-0.0015	0.0001	0.00825	-0.00250	1.00015
1042	-0.0001	-0.0015	0.0001	0.00425	-2.4788E+04	0.00019
1043	-0.0001	-0.0015	-0.0001	-0.00210	-2.4775E+04	0.00058
1044	-0.0001	0.0000	0.0000	-0.00006	-0.00200	0.00003
1062	-0.0001	-0.0015	0.0001	0.00384	-2.4788E+04	-1.00050
1063	-0.0001	-0.0015	-0.0001	-0.00200	-2.4775E+04	-1.00050
1064	-0.0001	0.0000	0.0000	-0.00150	-0.00293	-1.00052
1082	-0.0001	-0.0015	0.0001	0.00647	-2.4775E+04	1.00013
1104	-0.0001	-0.0015	0.0001	0.00825	-0.00250	1.00015
1112	-0.0001	-0.0015	0.0001	0.00425	-2.4788E+04	0.00019
1113	-0.0001	-0.0015	-0.0001	-0.00210	-2.4775E+04	0.00058
1114	-0.0001	0.0000	0.0000	-0.00006	-0.00200	0.00003
1132	-0.0001	-0.0015	0.0001	0.00384	-2.4788E+04	-1.00050
1133	-0.0001	-0.0015	-0.0001	-0.00200	-2.4775E+04	-1.00050
1134	-0.0001	0.0000	0.0000	-0.00150	-0.00293	-1.00052
1152	-0.0001	-0.0015	0.0001	0.00647	-2.4775E+04	1.00013
1174	-0.0001	-0.0015	0.0001	0.00825	-0.00250	1.00015
1182	-0.0001	-0.0015	0.0001	0.00425	-2.4788E+04	0.00019
1183	-0.0001	-0.0015	-0.0001	-0.00210	-2.4775E+04	0.00058
1184	-0.0001	0.0000	0.0000	-0.00006	-0.00200	0.00003
1202	-0.0001	-0.0015	0.0001	0.00384	-2.4788E+04	-1.00050
1203	-0.0001	-0.0015	-0.0001	-0.00200	-2.4775E+04	-1.00050
1204	-0.0001	0.0000	0.0000	-0.00150	-0.00293	-1.00052
1222	-0.0001	-0.0015	0.0001	0.00647	-2.4775E+04	1.00013
1244	-0.0001	-0.0015	0.0001	0.00825	-0.00250	1.00015
1252	-0.0001	-0.0015	0.0001	0.00425	-2.4788E+04	0.00019
1253	-0.0001	-0.0015	-0.0001	-0.00210	-2.4775E+04	0.00058
1254	-0.0001	0.0000	0.0000	-0.00006	-0.00200	0.00003
1272	-0.0001	-0.0015	0.0001	0.00384	-2.4788E+04	-1.00050
1273	-0.0001	-0.0015	-0.0001	-0.00200	-2.4775E+04	-1.00050
1274	-0.0001	0.0000	0.0000	-0.00150	-0.00293	-1.00052
1292	-0.0001	-0.0015	0.0001	0.00647	-2.4775E+04	1.00013
1314	-0.0001	-0.0015	0.0001	0.00825	-0.00250	1.00015
1322	-0.0001	-0.0015	0.0001	0.00425	-2.4788E+04	0.00019
1323	-0.0001	-0.0015	-0.0001	-0.00210	-2.4775E+04	0.00058
1324	-0.0001	0.0000	0.0000	-0.00006	-0.00200	0.00003
1342	-0.0001	-0.0015	0.0001	0.00384	-2.4788E+04	-1.00050
1343	-0.0001	-0.0015	-0.0001	-0.00200	-2.4775E+04	-1.00050
1344	-0.0001	0.0000	0.0000	-0.00150	-0.00293	-1.00052
1362	-0.0001	-0.0015	0.0001	0.00647	-2.4775E+04	1.00013
1384	-0.0001	-0.0015	0.0001	0.00825	-0.00250	1.00015
1392	-0.0001	-0.0015	0.0001	0.00425	-2.4788E+04	0.00019
1393	-0.0001	-0.0015	-0.0001	-0.00210	-2.4775E+04	0.00058
1394	-0.0001	0.0000	0.0000	-0.00006	-0.00200	0.00003
1412	-0.0001	-0.0015	0.0001	0.00384	-2.4788E+04	-1.00050
1413	-0.0001	-0.0015	-0.0001	-0.00200	-2.4775E+04	-1.00050
1414	-0.0001	0.0000	0.0000	-0.00150	-0.00293	-1.00052
1432	-0.0001	-0.0015	0.0001	0.00647	-2.4775E+04	1.00013
1454	-0.0001	-0.0015	0.0001	0.00825	-0.00250	1.00015
1462	-0.0001	-0.0015	0.0001	0.00425	-2.4788E+04	0.00019
1463	-0.0001	-0.0015	-0.0001	-0.00210	-2.4775E+04	0.00058
1464	-0.0001	0.0000	0.0000	-0.00006	-0.00200	0.00003
1482	-0.0001	-0.0015	0.0001	0.00384	-2.4788E+04	-1.00050
1483	-0.0001	-0.0015	-0.0001	-0.00200	-2.4775E+04	-1.00050
1484	-0.0001	0.0000	0.0000	-0.00150	-0.00293	-1.00052
1502	-0.0001	-0.0015	0.0001	0.00647	-2.4775E+04	1.00013
1524	-0.0001	-0.0015	0.0001	0.00825	-0.00250	1.00015
1532	-0.0001	-0.0015	0.0001	0.00425	-2.4788E+04	0.00019
1533	-0.0001	-0.0015	-0.0001	-0.00210	-2.4775E+04	0.00058
1534	-0.0001	0.0000	0.0000	-0.00006	-0.00200	0.00003
1552	-0.0001	-0.0015	0.0001	0.00384	-2.4788E+04	-1.00050
1553	-0.0001	-0.0015	-0.0001	-0.00200	-2.4775E+04	-1.00050
1554	-0.0001	0.0000	0.0000	-0.00150	-0.00293	-1.00052
1572	-0.0001	-0.0015	0.0001	0.00647	-2.4775E+04	1.00013
1594	-0.0001	-0.0015	0.0001	0.00825	-0.00250	1.00015
1602	-0.0001	-0.0015	-0.0001	-0.00210	-2.4775E+04	0.00058
1603	-0.0001	0.0000	0.0000	-0.00006	-0.00200	0.00003
1622	-0.0001	-0.0015	0.0001	0.00384	-2.4788E+04	-1.00050
1623	-0.0001	-0.0015	-0.0001	-0.00200	-2.4775E+04	-1.00050
1624	-0.0001	0.0000	0.0000	-0.00150	-0.00293	-1.00052
1642	-0.0001	-0.0015	0.0001	0.00647	-2.4775E+04	1.00013
1664	-0.0001	-0.0015	0.0001	0.00825	-0.00250	1.00015
1672	-0.0001	-0.0015	0.0001	0.00425	-2.4788E+04	0.00019
1673	-0.0001	-0.0015	-0.0001	-0.00210	-2.4775E+04	0.00058
1674	-0.0001	0.0000	0.0000	-0.00006	-0.00200	0.00003
1692	-0.0001	-0.0015	0.0001	0.00384	-2.4788E+04	-1.00050
1693	-0.0001	-0.0015	-0.0001	-0.00200	-2.4775E+04	-1.00050
1694	-0.0001	0.0000	0.0000	-0.00150	-0.00293	-1.00052
1712	-0.0001	-0.0015	0.0001	0.00647	-2.4775E+04	1.00013
1734	-0.0001	-0.0015	0.0001	0.00825	-0.00250	1.00015
1742	-0.0001	-0.0015	0.0001	0.00425	-2.4788E+04	0.00019
1743	-0.0001	-0.0015	-0.0001	-0.00210	-2.4775E+04	0.00058
1744	-0.0001	0.0000	0.0000	-0.00006	-0.00200	0.00003
1762	-0.0001	-0.0015	0.0001	0.00384	-2.4788E+04	-1.00050
1763	-0.0001	-0.0015	-0.0001	-0.00200	-2.4775E+04	-1.00050
1764	-0.0001	0.0000	0.0000	-0.00150	-0.00293	-1.00052
1782	-0.0001	-0.0015	0.0001	0.00647	-2.4775E+04	1.00013
1804	-0.0001	-0.0015	0.0001	0.00825	-0.00250	1.00015
1812	-0.0001	-0.0015	0.0001	0.00425	-2.4788E+04	0.00019
1813	-0.0001	-0.0015	-0.0001	-0.00210	-2.4775E+04	0.00058
1814	-0.0001	0.0000	0.0000	-0.00006	-0.00200	0.00003
1832	-0.0001	-0.0015	0.0001	0.00384	-2.4788E+04	-1.00050
1833	-0.0001	-0.0015	-0.0001	-0.00200	-2.4775E+04	-1.00050
1834	-0.0001	0.0000	0.0000	-0.00150	-0.00293	-1.00052
1852	-0.0001	-0.0015	0.0001	0.00647	-2.4775E+04	1.00013
1874	-0.0001	-0.0015	0.0001	0.00825	-0.00250	1.00015
1882	-0.0001	-0.0015	0.0001	0.00425	-2.4788E+04	0.00019
1883	-0.0001	-0.0015	-0.0001	-0.00210	-2.4775E+04	0.00058
1884	-0.0001	0.0000	0.0000	-0.00006	-0.00200	0.00003
1902	-0.0001	-0.0015	0.0001	0.00384	-2.4788E+04	-1.00050
1903	-0.0001	-0.0015	-0.0001	-0.00200	-2.4775E+04	-1.00050
1904	-0.0001	0.0000	0.0000	-0.00150	-0.00293	-1.00052
1922	-0.0001	-0.0015	0.0001	0.00647	-2.4775E+04	1.00013
1944	-0.0001	-0.0015	0.0001	0.00825	-0.00250	1.00015
1952	-0.0001	-0.0015	0.0001	0.00425	-2.4788E+04	0.00019
1953	-0.0001	-0.0015	-0.0001	-0.00210	-2.4775E+04	0.00058
1954	-0.0001	0.0000	0.0000	-0.00006	-0.00200	0.00003
1972	-0.0001	-0.0015	0.0001	0.00384	-2.4788E+04	-1.00050
1973	-0.0001	-0.0015	-0.0001	-0.00200	-2.4775E+04	-1.00050
1974	-0.0001	0.0000	0.0000	-0.00150	-0.00293	-1.00052
1992	-0.0001	-0.0015	0.0001	0.00647	-2.4775E+04	1.00013
2014	-0.0001	-0.0015	0.0001	0.00825	-0.00250	1.00015
2022	-0.0001	-0.0015	0.0001	0.00425	-2.4788E+04	0.00019
2023	-0.0001	-0.0015	-0.0001	-0.00210	-2.4775E+04	0.00058
2024	-0.0001	0.0000	0.0000	-0.00006	-0.00200	0.00003
2042	-0.0001	-0.0015	0.0001	0.00384	-2.4788E+04	-1.00050
2043	-0.0001	-0.0015	-0.0001	-0.00200	-2.4775E+04	-1.00050
2044	-0.0001	0.0000	0.0000	-0.00150	-0.00293	-1.00052
2062	-0.0001	-0.0015	0.0001	0.00647	-2.4775E+04	1.00013
2084	-0.0001	-0.0015	0.0001	0.00825	-0.00250	1.00015
2092	-0.0001	-0.0015	0.0001	0.00425	-2.4788E+04	0.00019
2093	-0.0001	-0.0015	-0.0001	-0.00210	-2.4775E+04	0.00058
2094	-0.0001	0.0000	0.0000	-0.00006	-0.00200	0.00003
2112	-0.0001	-0.0015	0.0001	0.00384	-2.4788E+04	-1.00050
2113	-0.0001	-0.0015	-0.0001	-0.00200	-2.4775E+04	-1.00050
2114	-0.0001	0.0000	0.0000	-0.00150	-0.00293	-1.00052
2132	-0.0001	-0.0015	0.0001	0.00647	-2.4775E+04	1.00013
2154	-0.0001	-0.0015	0.0001	0.00825	-0.00250	1.00015
2162	-0.0001	-0.0015	0.0001	0.00425	-2.4788E+04	0.00019
2163	-0.0001	-0.0015	-0.0001	-0.00210	-2.4775E+04	0.00058
2164	-0.0001	0.0000	0.0000	-0.00006	-0.00200	0.00003
2182	-0.0001	-0.0015	0.0001	0.00384	-2.4788E+04	-1.00050
2183	-0.0001	-0.0015	-0.0001	-0.00200	-2.4775E+04	-1.00050
2184	-0.0001	0.0000	0.0000	-0.00150	-0.00293	-1.00052
2202	-0.0001	-0.0015	0.0001	0.00647	-2.4775E+04	1.00013
2224	-0.0001	-0.0015	0.0001	0.00825	-0.00250	1.00015
2232	-0.0001	-0.0015	0.0001	0.00425	-2.4788E+04	0.00019
2233	-0.0001	-0.0015	-0.0001	-0.00210	-2.4775E+04	0.00058
2234	-0.0001	0.0000	0.0000	-0.00006

6838	324	-0.32	0.31	0.00	0.00	0.00	0.00
	324	-0.32	0.31	0.00	0.00	0.00	0.11
6839	324	-0.32	0.24	0.00	0.00	0.00	0.00
	358	-0.32	0.24	0.00	0.00	0.00	0.00
6840	358	-0.31	0.26	0.00	0.00	0.00	0.01
	359	-0.31	0.26	0.00	0.00	0.00	-0.00
6841	359	0.00	0.26	0.00	0.00	0.00	-0.06
	360	0.00	0.26	0.00	0.00	0.00	-0.13
6842	360	0.00	0.31	0.00	0.00	0.00	-0.14
	360	0.00	0.31	0.00	0.00	0.00	-0.23
6843	361	0.01	0.33	0.00	0.00	0.00	-0.23
	334	0.01	0.33	0.00	0.00	0.00	-0.35
6844	302	0.02	-0.28	0.00	0.00	0.00	0.00
	656	0.02	-0.28	0.00	0.00	0.00	0.00
6845	656	0.01	-0.28	0.00	0.00	0.00	0.00
	303	0.01	0.28	0.00	0.00	0.00	0.00
6846	312	0.00	-0.02	0.00	0.00	0.00	0.00
	657	0.00	0.02	0.00	0.00	0.00	0.00
6849	657	0.00	-0.02	0.00	0.00	0.00	0.00
	313	0.00	0.02	0.00	0.00	0.00	0.00
6850	333	0.00	-0.03	0.00	0.00	0.00	0.00
	658	0.00	0.03	0.00	0.00	0.00	0.00
6851	658	0.00	-0.03	0.00	0.00	0.00	0.00
	337	0.00	0.03	0.00	0.00	0.00	0.00
6852	232	0.01	-0.02	0.00	0.00	0.00	0.00
	659	0.01	0.02	0.00	0.00	0.00	0.00
6853	659	0.02	-0.02	-0.01	0.00	0.00	0.00
	333	0.02	0.02	-0.01	0.00	0.00	0.00
6854	342	0.03	-0.02	-0.01	0.00	0.00	0.00
	700	0.03	0.02	-0.01	0.00	0.00	0.00
6855	700	0.01	-0.02	-0.01	0.00	0.00	0.00
	343	0.01	0.02	-0.01	0.00	0.00	0.00
6856	345	0.00	-0.03	0.00	0.00	0.00	0.00
	702	0.00	0.03	0.00	0.00	0.00	0.00
6859	702	0.00	-0.03	-0.01	0.00	0.00	0.00
	354	0.00	0.03	-0.01	0.00	0.00	0.00
6860	346	0.00	-0.03	-0.01	0.00	0.00	0.00
	703	0.00	0.03	-0.01	0.00	0.00	0.00
6861	703	0.00	-0.03	-0.01	0.00	0.00	0.00
	355	0.00	0.03	-0.01	0.00	0.00	0.00
6862	351	0.00	-0.03	-0.01	0.00	0.00	0.00
	704	0.00	0.03	-0.01	0.00	0.00	0.00
6863	704	0.00	-0.03	-0.01	0.00	0.00	0.00
	356	0.00	0.03	-0.01	0.00	0.00	0.00
6864	347	0.00	-0.03	-0.01	0.00	0.00	0.00
	705	0.00	0.03	-0.01	0.00	0.00	0.00
6865	705	-0.01	-0.03	-0.01	0.00	0.00	0.00
	357	-0.01	0.03	-0.01	0.00	0.00	0.00
6866	348	-0.02	-0.02	0.01	0.00	0.00	0.00
	706	-0.02	0.02	0.01	0.00	0.00	0.00
6867	706	-0.02	-0.02	0.01	0.00	0.00	0.00
	358	-0.02	0.02	0.01	0.00	0.00	0.00
6870	698	0.00	0.06	-0.02	0.00	0.00	0.00
	708	0.00	0.06	-0.02	0.00	0.01	-0.02
6872	708	-0.01	-0.06	0.02	0.00	0.00	-0.02
	697	-0.01	-0.06	0.02	0.00	0.00	-0.19
6873	697	-0.01	-0.01	0.00	0.00	0.00	-0.19
	698	-0.01	-0.01	0.00	0.00	0.00	-0.19
6874	699	-0.01	0.01	0.01	0.00	0.00	-0.19
	702	-0.01	0.01	0.01	0.00	0.00	-0.20
6875	702	-0.01	0.13	0.01	0.00	0.00	-0.19
	703	-0.01	0.13	0.01	0.00	0.00	-0.23
6876	703	-0.01	0.14	0.01	0.00	0.00	-0.22
	704	-0.01	0.19	0.01	0.00	0.00	-0.29
6877	704	-0.01	0.20	0.01	0.00	0.01	-0.20
	705	-0.01	0.20	0.01	0.00	0.00	-0.35
6878	705	-0.01	0.26	0.01	0.00	0.00	-0.35
	688	-0.01	0.26	0.01	0.00	0.00	-0.48
6881	352	-0.03	0.06	0.02	0.00	0.01	-0.10
	352	-0.03	0.06	-0.02	0.00	0.00	-0.45
6882	352	-0.07	-0.16	0.02	0.00	0.01	-0.41
	353	-0.07	-0.16	0.02	0.00	0.00	-0.36
6883	353	-0.05	-0.12	0.02	0.00	0.01	-0.38
	354	-0.05	-0.12	0.02	0.00	0.00	-0.28
6884	354	-0.05	-0.07	0.02	0.00	0.01	-0.27
	356	-0.05	-0.07	0.02	0.00	0.00	-0.26
6886	356	-0.00	-0.02	0.01	0.00	0.01	-0.27
	355	-0.00	-0.02	0.01	0.00	0.00	-0.26
6887	355	-0.00	0.03	0.01	0.00	0.01	-0.27
	360	-0.00	0.03	0.01	0.00	0.00	-0.23
6888	360	-0.00	0.08	0.01	0.00	0.00	-0.35
	361	-0.00	0.08	0.01	0.00	0.00	-0.33
6889	361	-0.07	0.13	0.00	0.00	0.00	-0.34
	355	-0.07	0.13	0.00	0.00	0.00	-0.40
6892	283	0.04	-0.28	0.00	0.00	0.00	0.00
	709	0.04	0.28	0.00	0.00	0.00	0.00
6893	709	0.00	-0.28	0.00	0.00	0.00	0.00
	709	0.00	0.28	0.00	0.00	0.00	0.00
6894	709	0.01	-0.28	-0.01	0.00	0.00	0.00
	710	0.01	0.28	-0.01	0.00	0.00	0.00
6895	710	0.04	-0.28	-0.02	0.00	-0.01	0.00
	352	0.04	0.28	-0.02	0.00	0.00	0.00
6896	353	0.00	-0.02	-0.01	0.00	0.00	0.00
	711	0.00	0.02	-0.01	0.00	0.00	0.00
6897	711	0.00	-0.02	-0.01	0.00	0.00	0.00
	712	0.00	0.02	-0.01	0.00	0.00	0.00
6898	712	0.00	-0.02	-0.02	0.00	-0.01	0.00
	713	0.00	0.02	-0.02	0.00	0.00	0.00
6899	713	0.00	-0.02	-0.01	0.00	0.00	0.00
	223	0.00	0.02	-0.01	0.00	0.00	0.00
6900	714	0.00	-0.03	-0.01	0.00	-0.01	0.00
	715	-0.01	0.03	-0.01	0.00	0.00	0.00
6901	715	-0.01	-0.03	-0.01	0.00	-0.01	0.00
	716	-0.01	0.03	-0.01	0.00	0.00	0.00
6902	716	0.00	-0.03	-0.02	0.00	-0.01	0.00
	354	0.00	0.03	-0.02	0.00	0.00	0.00
6904	233	-0.01	-0.02	-0.01	0.00	-0.01	0.00
	717	-0.01	0.02	-0.01	0.00	0.00	0.00
6905	717	-0.04	-0.02	-0.02	0.00	-0.01	0.00
	718	-0.04	0.02	-0.02	0.00	0.00	0.00
6906	718	-0.05	-0.03	0.00	0.00	0.00	0.00
	719	-0.05	0.02	0.00	0.00	0.00	0.00
6907	719	-0.04	-0.02	0.00	0.00	0.00	0.00
	355	-0.04	0.02	0.00	0.00	0.00	0.00
6908	343	0.02	-0.38	0.00	0.00	0.00	0.00
	720	0.02	0.38	0.00	0.00	0.00	0.00
6909	720	0.05	-0.38	-0.01	0.00	0.00	0.00
	721	0.05	0.38	-0.01	0.00	0.00	0.00
6910	721	0.04	-0.38	0.01	0.00	0.00	0.00
	722	0.04	0.38	0.01	0.00	0.00	0.00
6911	722	0.03	-0.38	0.01	0.00	0.00	0.00
	346	0.03	0.38	0.01	0.00	0.00	0.00
6916	261	-0.01	-0.03	-0.01	0.00	0.00	0.00
	724	-0.01	0.03	-0.01	0.00	0.00	0.00
6917	725	-0.01	-0.03	-0.02	0.00	-0.01	0.00
	727	-0.01	0.03	-0.02	0.00	0.00	0.00
6918	727	-0.01	-0.03	-0.01	0.00	-0.01	0.00
	728	-0.01	0.03	-0.01	0.00	0.00	0.00
6919	728	0.00	-0.03	-0.02	0.00	-0.01	0.00
	350	0.00	0.03	-0.02	0.00	0.00	0.00

6920	355	-0.00	-0.03	-0.01	0.00	-0.01	0.00
	729	-0.01	0.03	-0.01	0.00	0.00	0.00
6921	729	-0.01	-0.03	-0.02	0.00	-0.01	0.00
	730	-0.01	0.03	-0.02	0.00	0.00	0.00
6922	730	-0.01	-0.03	-0.01	0.00	-0.01	0.00
	731	-0.01	0.03	-0.01	0.00	0.00	0.00
6923	731	-0.01	-0.03	-0.01	-0.01	-0.01	0.00
	359	-0.01	0.03	-0.01	-0.01	0.00	0.00
6924	346	0.00	-0.03	-0.02	0.00	-0.01	0.00
	732	0.00	0.03	-0.02	0.00	0.00	0.00
6925	732	-0.01	-0.03	-0.02	0.00	-0.01	0.00
	733	-0.01	0.03	-0.02	0.00	0.00	0.00
6926	733	-0.01	-0.03	-0.01	0.00	0.00	0.00
	734	-0.01	0.03	-0.01	0.00	0.00	0.00
6927	734	0.00	-0.03	-0.01	-0.01	0.00	0.00
	360	0.00	0.03	-0.01	-0.01	0.00	0.00
6928	257	-0.01	-0.03	-0.02	0.00	-0.01	0.00
	735	-0.01	0.03	-0.02	0.00	0.00	0.00
6929	735	-0.01	-0.03	-0.02	0.00	-0.01	0.00
	736	-0.01	0.03	-0.02	0.00	0.00	0.00
6930	736	-0.01	-0.03	-0.01	0.00	0.00	0.00
	737	-0.01	0.03	-0.01	0.00	0.00	0.00
6931	737	-0.01	-0.03	-0.02	-0.01	0.00	0.00
	361	-0.01	0.03	-0.01	-0.01	0.00	0.00
6932	250	0.04	-0.02	0.00	0.00	0.00	0.00
	738	0.04	0.02	0.00	0.00	0.00	0.00
6933	738	0.00	-0.02	0.00	0.00	0.00	0.00
	739	0.00	0.02	0.00	0.00	0.00	0.00
6934	739	0.01	-0.02	-0.01	0.00	0.00	0.00
	740	0.01	0.02	-0.01	0.00	0.00	0.00
6935	740	0.01	-0.02	-0.02	0.00	-0.01	0.00
	363	0.01	0.02	-0.02	0.00	0.00	0.00
6940	710	-0.01	0.56	0.01	0.00	0.01	0.00
	740	-0.01	0.56	0.01	0.00	0.00	-0.22
6942	740	-0.01	-0.07	0.02	0.00	0.01	-0.22
	713	-0.01	-0.07	0.02	0.00	0.00	-0.19
6943	713	-0.01	-0.02	0.02	0.00	0.01	-0.21
	716	-0.01	-0.02	0.02	0.00	0.00	-0.20
6944	716	-0.01	0.05	0.01	0.00	0.01	-0.20
	738	-0.00	0.05	0.02	0.00	0.00	-0.21
6945	738	-0.02	0.08	0.01	0.00	0.01	-0.21
	751	-0.02	0.09	0.01	0.00	0.00	-0.24
6946	751	-0.02	0.14	0.01	0.00	0.01	-0.24
	754	-0.02	0.14	0.01	0.00	0.00	-0.28
6947	754	-0.02	0.19	0.01	0.00	0.01	-0.28
	757	-0.02	0.19	0.01	0.00	0.00	-0.38
6948	727	-0.02	0.24	0.01	0.00	0.00	-0.38
	759	-0.02	0.24	0.01	0.00	0.00	-0.45
6949	759	-0.01	-0.58	0.00	0.00	0.00	0.00
	739	-0.01	0.58	0.00	0.00	0.00	-0.23
7001	739	-0.03	-0.07	0.01	0.00	0.01	-0.23
	713	-0.03	-0.07	0.01	0.00	0.00	-0.19
7002	712	-0.03	-0.03	0.01	0.00	0.01	-0.23
	716	-0.03	-0.03	0.01	0.00	0.00	-0.18
7003	715	-0.04	0.03	0.01	0.00	0.01	-0.19
	727	-0.04	0.03	0.01	0.00	0.00	-0.33
7004	727	-0.03	0.09	0.01	0.00	0.01	-0.29
	760	-0.03	0.09	0.01	0.00	0.00	-0.37
7005	720	-0.03	0.14	0.01	0.00	0.01	-0.23
	761	-0.03	0.15	0.01	0.00	0.00	-0.29
7006	721	-0.03	0.19	0.01	0.00	0.01	-0.29
	726	-0.03	0.19	0.01	0.00	0.00	-0.36
7007	726	-0.03	0.25	0.01	0.00	0.00	-0.36
	718	-0.03	0.25	0.01	0.00	0.00	-0.45
7008	708	0.00	0.56	-0.01	0.00	0.00	0.00
	738	0.00	0.56	-0.01	0.00	0.00	-0.22
7009	738	-0.03	-0.07	0.01	0.00	0.01	-0.22
	711	-0.03	-0.07	0.01	0.00	0.00	-0.18
7010	711	-0.03	-0.03	0.01	0.00	0.01	-0.18
	714	-0.03	-0.03	0.01	0.00	0.00	-0.18
7011	714	-0.03	0.03	0.02	0.00	0.01	-0.18
	720	-0.03	0.03	0.02	0.00	0.00	-0.28
7012	720	-0.04	0.08	0.02	0.00	0.01	-0.28
	725	-0.04	0.08	0.02	0.00	0.00	-0.33
7013	725	-0.04	0.13	0.02	0.00	0.01	-0.33
	732	-0.04	0.13	0.02	0.00	0.00	-0.39
7014	732	-0.05	0.18	0.02	0.00	0.01	-0.39
	733	-0.05	0.18	0.02	0.00	0.00	-0.38
7015	733	-0.05	0.23	0.02	0.00	0.01	-0.38
	717	-0.05	0.23	0.02	0.00	0.00	-0.45
7016	283	0.00	0.56	-0.01	0.00	0.00	0.00
	360	0.00	0.56	-0.01	0.00	0.01	-0.22
7071	250	-0.08	-0.07	0.01	0.00	0.01	-0.22
	217	-0.08	-0.07	0.01	0.00	0.00	-0.19
7072	213	-0.09	-0.02	0.01	0.00	0.00	-0.19
	223	-0.09	-0.02	0.01	0.00	0.00	-0.19
7073	223	-0.09	0.03	0.01	0.00	0.01	-0.19
	254	-0.09	0.03	0.01	0.00	0.00	-0.20
7074	254	-0.10	0.08	0.01	0.00	0.01	-0.20
	255	-0.10	0.08	0.01	0.00	0.00	-0.23
7075	255	-0.10	0.13	0.01	0.00	0.01	-0.23
	256	-0.10	0.13	0.01	0.00	0.00	-0.28
7076	256	-0.11	0.19	0.00	0.00	0.01	-0.28
	257	-0.11	0.19	0.00	0.00	0.00	-0.36
7077	257	-0.11	0.29	0.00	0.00	0.01	-0.36
	233	-0.11	0.29	0.02	0.00	0.00	-0.45
7080	282	0.05	-0.02	-0.02	-0.01	-0.01	0.00
	744	0.09	0.52	-0.02	-0.01	0.00	0.00
7082	744	0.05	-0.02	-0.02	-0.01	-0.01	0.00
	745	0.05	0.02	-0.02	-0.01	0.00	0.00
7083	746	0.02	-0.02	0.01	0.00	0.00	0.00
	284	0.02	0.02	0.01	0.00	0.00	0.00
7084	353	0.00	-0.02	-0.02	0.00	-0.01	0.00
	747	0.00	0.02	-0.02	0.00	0.00	0.00
7086	747	0.00	-0.02	-0.03	-0.01	-0.01	0.00
	749	0.00	0.02	-0.03	-0.01	0.00	0.00
7087	749	0.00	-0.02	-0.03	-0.01	0.00	0.00
	214	0.00	0.02	-0.03	-0.01	0.00	0.00
7088	364	0.00	-0.02	-0.02	0.00	-0.01	0.00
	748	0.00	0.02	-0.02	0.00	0.00	0.00
7092	750	0.00	-0.02	-0.02	-0.01	-0.01	0.00
	703	0.00	0.02	-0.02	-0.01	0.00	0.00
7091	752	0.00	-0.02	-0.01	-0.01	0.00	0.00
	224	0.00	0.02	-0.01	-0.01	0.00	0.00
7092	364	-0.03	-0.02	0.01	0.01	0.00	0.00
	753	-0.03	0.02	0.01	0.01	0.00	0.00
7094	753	-0.02	-0.02	0.00	0.02	0.00	0.00
	755	-0.02	0.02	0.00	0.02	0.00	0.00
7095	755	-0.01	-0.02	0.00	0.01	0.00	0.00
	234	-0.01	0.02	0.00	0.01	0.00	0.00
7096	356	0.01	-0.27	0.02	0.01	0.01	0.00
	756	0.01	0.27	0.02	0.01	0.00	0.00
7098	756	0.00	-0.20	0.01	0.02	0.00	0.00
	758	0.00	0.20	0.01	0.02	0.00	0.00
7099	758	-0.01	-0.20	0.01	0.01	0.00	0.00
	244	-0.01	0.20	0.01	0.01	0.00	0.00
7104	356	0.00	-0.02	-0.02	0.00	-0.01	0.00
	702	0.00	0.02	-0.02	0.00	0.00	0.00
7106	702	0.00	-0.02	-0.02	0.00	-0.01	0.00
	704	0.00	0.02	-0.02	0.00	0.00	0.00
7107	704	0.00	-0.02	-0.01	0.01	0.00	0.00
	218	0.00	0.02	-0.01	0.01	0.00	0.00

7108	369	0.00	-0.07	-0.01	0.00	0.02	0.00	
	785	0.00	0.02	-0.01	0.00	0.00	0.00	
7110	765	0.00	-0.02	-0.07	0.01	-0.01	0.00	
	767	0.00	0.02	-0.02	0.01	0.00	0.00	
7111	767	0.00	-0.02	-0.01	0.02	0.00	0.00	
	358	0.00	0.00	-0.01	0.02	0.00	0.00	
7112	388	0.00	-0.02	-0.01	0.01	0.00	0.00	
	768	0.00	0.02	-0.01	0.01	0.00	0.00	
7114	768	0.00	-0.02	-0.02	0.01	-0.01	0.00	
	770	0.00	0.00	-0.02	0.01	0.00	0.00	
7115	770	0.00	-0.03	-0.01	0.01	0.00	0.00	
	388	0.00	0.02	-0.01	0.01	0.00	0.00	
7116	385	0.00	-0.02	0.00	0.01	0.00	0.00	
	773	0.00	0.02	0.00	0.01	0.00	0.00	
7118	773	0.00	-0.02	-0.01	0.02	0.00	0.00	
	773	0.00	0.02	-0.01	0.02	0.00	0.00	
7119	773	0.00	-0.02	-0.01	0.01	0.00	0.00	
	383	0.00	0.02	-0.01	0.01	0.00	0.00	
7120	382	0.01	-0.02	-0.02	-0.01	-0.01	0.00	
	774	0.01	0.02	-0.02	-0.01	0.00	0.00	
7122	774	0.01	-0.02	-0.02	-0.01	-0.01	0.00	
	776	0.01	0.02	-0.02	-0.01	0.00	0.00	
7123	776	0.01	-0.02	0.02	0.01	0.00	0.00	
	252	0.01	0.02	0.02	0.01	0.00	0.00	
7128	764	0.00	0.56	0.02	0.00	0.01	-0.16	
	424	0.00	0.36	0.02	0.00	0.00	-0.38	
7129	774	-0.00	-0.14	0.02	0.00	0.01	-0.38	
	767	-0.00	-0.14	0.02	0.00	0.00	-0.32	
7131	767	-0.00	-0.09	0.02	0.00	0.01	-0.31	
	750	-0.00	-0.05	0.02	0.00	0.00	-0.27	
7132	750	-0.07	-0.04	0.02	0.00	0.01	-0.26	
	762	-0.07	-0.04	0.02	0.00	0.00	-0.25	
7133	762	-0.07	0.00	0.02	0.00	0.01	-0.24	
	762	-0.07	0.00	0.02	0.00	0.00	-0.25	
7134	786	-0.08	0.05	0.02	0.00	0.01	-0.25	
	788	-0.08	0.05	0.02	0.00	0.00	-0.27	
7136	788	-0.08	0.10	0.01	0.00	-0.01	-0.27	
	771	0.08	0.20	0.02	0.00	0.00	0.71	
7138	771	-0.08	0.15	0.01	0.00	0.00	-0.52	
	753	0.08	0.15	0.01	0.00	0.00	0.58	
7158	746	0.05	0.56	0.00	0.00	-0.01	-0.17	
	776	0.05	0.56	0.00	0.00	0.00	-0.35	
7160	776	0.02	-0.23	0.00	0.00	0.00	-0.40	
	748	0.02	-0.23	0.00	0.00	0.00	-0.32	
7162	748	0.04	-0.13	0.01	0.00	-0.00	-0.39	
	752	0.04	-0.13	0.01	0.00	0.00	-0.32	
7164	752	0.06	-0.04	0.01	0.00	0.00	-0.01	
	764	0.06	-0.04	0.01	0.00	0.00	-0.10	
7166	764	0.07	-0.03	0.01	0.00	0.00	-0.00	
	767	0.07	-0.03	0.01	0.00	0.00	-0.10	
7168	767	0.00	0.01	0.01	0.00	0.00	-0.01	
	776	0.00	0.01	0.01	0.00	0.00	-0.01	
7217	776	0.09	0.04	0.01	0.00	0.00	-0.24	
	773	0.09	0.04	0.01	0.00	0.00	-0.25	
7218	773	0.09	0.04	0.01	0.00	0.00	-0.29	
	772	0.10	0.11	0.01	0.00	0.00	-0.29	
7220	772	0.10	0.11	0.01	0.00	0.00	-0.34	
	386	-1.89	0.00	0.13	0.00	0.26	0.00	
7288	777	-1.88	0.00	0.13	0.00	0.00	0.00	
	777	0.00	7.31	0.00	0.00	0.00	0.00	
7289	1274	0.00	2.01	0.00	0.00	0.00	-1.00	
	1274	0.00	7.46	0.04	0.00	0.00	-1.00	
7290	111	0.00	3.40	0.04	0.00	-0.00	-1.00	
	783	0.00	3.10	0.01	0.00	0.00	0.00	
7292	1290	0.00	3.10	0.01	0.00	-0.01	-1.34	
	1290	0.00	3.70	-0.01	0.00	0.01	-1.34	
7218	90	0.00	3.70	-0.04	0.00	0.00	-2.74	
	111	0.11	-3.69	-0.04	0.00	0.00	-2.48	
7219	1256	0.11	-2.69	-0.04	0.00	0.00	-1.08	
	1256	0.11	-2.56	0.02	0.00	0.00	-1.00	
7220	1257	0.11	-2.26	0.02	0.00	-0.01	0.04	
	1259	0.11	-1.03	-0.01	0.00	-0.01	0.00	
7221	1259	0.11	-1.03	-0.01	0.00	-0.01	0.00	
	1258	0.11	-0.70	0.00	0.00	-0.01	0.00	
7238	890	0.11	-0.70	0.00	0.00	-0.01	0.00	
	99	-0.11	-0.70	0.00	-0.00	0.00	-0.73	
7239	1271	-0.11	-0.59	0.00	-0.00	-0.01	-1.00	
	1271	-0.11	-0.51	0.01	-0.01	-0.01	-1.00	
7240	1272	-0.11	-0.51	0.01	-0.01	-0.01	-0.00	
	1272	-0.11	-1.03	-0.01	-0.01	-0.01	0.27	
7241	1273	-0.11	-1.15	-0.01	-0.01	-0.01	0.27	
	895	-0.11	-1.15	-0.01	-0.01	-0.01	0.73	
7486	890	0.11	0.59	0.01	0.03	-0.01	0.00	
	1282	0.11	0.10	0.01	0.03	-0.02	0.02	
7488	1282	0.11	0.08	0.17	0.04	-0.02	0.02	
	1266	0.11	0.08	0.17	0.04	-0.08	0.00	
7488	1266	0.11	1.63	-0.20	0.00	-0.08	0.00	
	788	0.11	1.63	-0.22	0.00	0.08	0.00	
7436	885	-0.11	-0.08	-0.09	-0.02	-0.01	0.75	
	1327	-0.11	-0.08	-0.05	-0.02	0.01	0.77	
7438	1327	-0.11	0.05	-0.11	-0.02	0.01	0.77	
	1329	-0.11	0.05	-0.11	-0.02	0.00	0.52	
7439	1329	-0.11	1.43	0.13	0.00	0.00	0.52	
	785	-0.11	1.43	0.13	0.00	0.00	0.00	
7538	348	-1.10	0.00	0.01	0.00	0.00	0.00	
	781	-1.10	0.00	0.01	0.00	0.00	0.00	
7538	852	-1.31	0.00	-0.02	0.00	0.00	0.00	
	785	-1.31	0.00	-0.02	0.00	0.00	0.00	
7540	321	-0.85	0.00	0.00	0.00	0.00	0.00	
	788	-0.85	0.00	0.00	0.00	0.00	0.00	
7542	322	-1.31	0.00	0.00	0.00	0.00	0.00	
	787	-1.31	0.00	0.00	0.00	0.00	0.00	
7542	355	-0.00	0.00	0.05	0.00	0.00	0.00	
	848	-0.00	0.00	0.05	0.00	0.00	0.00	
7544	368	-1.87	0.00	-0.04	0.00	0.00	0.00	
	668	-1.87	0.00	-0.04	0.00	0.00	0.00	
7544	669	-0.95	0.00	0.05	0.00	0.00	0.00	
	1234	-0.95	0.00	0.05	0.00	-0.01	0.00	
7545	706	-0.66	0.00	-0.03	0.00	0.00	0.00	
	1239	-0.66	0.00	-0.03	0.00	0.00	0.00	
7546	717	-0.53	0.00	0.03	0.00	0.00	0.00	
	1256	-0.53	0.00	0.03	0.00	-0.01	0.00	
7547	718	-0.53	0.00	-0.03	0.00	0.00	0.00	
	1257	-0.53	0.00	-0.03	0.00	0.00	0.00	
7548	719	-0.84	0.00	0.01	0.00	0.00	0.00	
	1258	-0.84	0.00	0.01	0.00	0.00	0.00	
7549	720	-0.68	0.00	-0.00	0.00	0.00	0.00	
	1273	-0.68	0.00	-0.00	0.00	0.00	0.00	
7550	720	-0.68	0.00	-0.00	0.00	0.00	0.00	
	1272	-0.68	0.00	-0.00	0.00	0.00	0.00	
7551	740	-0.67	0.00	0.00	0.00	0.00	0.00	
	1273	-0.67	0.00	0.00	0.00	0.00	0.00	
7552	752	-0.78	0.00	0.13	0.00	0.00	0.00	
	1292	-0.78	0.00	0.13	0.00	-0.01	0.00	
7553	755	-0.75	0.00	-0.36	0.00	0.00	0.00	
	1294	-0.75	0.00	-0.39	0.00	0.00	0.00	
7554	756	-0.74	0.00	-0.07	0.00	0.00	0.00	
	1297	-0.74	0.00	-0.07	0.00	0.01	0.00	
7555	776	-0.18	0.00	0.24	0.00	0.00	0.00	
	1299	-0.18	0.00	0.24	0.00	-0.02	0.00	
7556	1458	-0.02	-0.26	-0.02	-0.01	-0.01	0.00	
	3850	-0.02	0.26	-0.02	-0.01	0.00	0.00	
7558	1850	-0.01	-0.26	-0.02	-0.01	-0.01	0.00	
	1852	-0.01	0.26	-0.02	-0.01	0.00	0.00	
7559	1852	-0.02	-0.26	0.01	0.00	0.00	0.00	
	1339	-0.02	0.00	0.01	0.00	0.00	0.00	
8436	354	-0.01	-0.26	-0.02	0.00	-0.01	-0.00	
	1338	-0.01	-0.26	-0.02	0.00	0.00	0.00	
8437	352	-0.01	-0.26	0.00	0.00	0.00	-0.11	
	1438	-0.02	-0.26	0.02	0.00	-0.01	0.01	
8438	744	0.00	-0.51	0.02	0.00	0.00	-0.15	
	1056	0.00	-0.51	0.02	0.00	-0.01	0.00	
8439	746	0.01	-0.51	-0.02	0.00	-0.01	-0.16	
	1452	0.01	-0.51	-0.02	0.00	0.00	-0.01	
8440	732	0.01	-0.51	0.00	0.00	0.00	-0.17	
	1053	0.01	-0.51	0.00	0.00	0.00	-0.19	
8441	1053	0.01	-0.50	0.00	0.00	0.00	-0.19	
	342	0.00	-0.50	0.00	0.00	0.00	0.00	
8442	334	0.01	-0.50	0.00	0.00	0.00	-0.20	
	1834	0.01	-0.50	0.00	0.00	0.00	-0.19	
8443	1836	0.01	-0.28	0.01	0.00	0.00	-0.15	
	344	0.01	-0.28	0.01	0.00	0.00	-0.05	
8444	899	0.00	-0.65	0.00	0.00	0.00	-0.48	
	1855	0.00	-0.65	0.00	0.00	0.00	-0.22	
8445	1855	0.00	-0.00	0.01	0.00	0.00	-0.22	
	780	0.00	-0.00	0.01	0.00	0.00	0.00	
8446	355	-0.00	-0.62	-0.01	0.00	0.00	-0.41	
	1856	-0.00	-0.62	-0.01	0.00	0.00	-0.18	
8447	1856	-0.01	-0.57	-0.02	0.00	0.00	-0.38	
	364	-0.01	-0.57	-0.02	0.00	0.01	0.01	
8448	319	-0.01	-0.85	0.00	0.00	0.00	-0.45	
	1857	-0.01	-0.85	0.00	0.00	0.00	-0.21	
8449	1857	0.00	-0.68	-0.01	0.00	0.00	-0.21	
	722	0.00	-0.68	-0.01	0.00	0.00	0.00	
8450	318	-0.01	-0.65	0.00	0.00	0.00	-0.45	
	1858	-0.01	-0.65	0.00	0.00	0.00	-0.22	
8451	1858	-0.01	-0.68	0.00	0.00	0.00	-0.22	
	721	-0.01	-0.68	0.00	0.00	0.00	0.00	
8452	717	0.01	-0.65	0.01	0.00	0.00	-0.15	
	1859	0.01	-0.65	0.01	0.00	0.00	0.22	
8453	1859	0.00	-0.68	0.02	0.00	0.01	-0.22	
	720	0.00	-0.68	0.02	0.00	0.00	0.00	
8454	533	0.01	-0.65	0.01	0.00	0.00	-0.45	
	1760	0.01	-0.25	0.01	0.00	0.00	-0.22	
8455	1860	0.01	-0.68	0.02	0.00	0.00	-0.22	
	243	0.01	-0.00	0.02	0.00	0.00	0.00	
8456	768	0.02	-0.59	0.00	0.00	0.00	-0.39	
	1861	0.02	-0.59	0.00	0.00	0.00	-0.17	
8457	1861	0.01	-0.55	-0.01	0.00	0.00	-0.15	
	776	0.01	-0.55	-0.01	0.00	0.00	0.01	
8458	758	0.01	-0.55	0.00	0.00	0.00	-0.36	
	1862	0.01	-0.55	0.00	0.00	0.00	-0.15	
8459	1862	0.00	0.55	0.00	0.00	0.00	0.17	
	756	0.00	-0.55	0.00	0.00	0.00	0.02	
8460	1862	0.00	-0.02	0.00	0.00	0.00	0.00	
	1863	0.00	-0.02	0.00	0.00	0.00	0.00	
8701	1862	0.01	-0.02	0.00	0.00	0.00	0.00	
	1861	0.01	0.02	0.00	0.00	0.00	0.00	

Positive forces (N/mm) Axial:
Axial - Tension — Steel - End A sagging
Torque - Right-hand twist — Moment - Sagging

REACTIONS

CASE 1: Dead

Node	Force-X kN	Force-Y kN	Force-Z kN	Moment-X kNm	Moment-Y kNm	Moment-Z kNm
201	0.00	0.11	7.83	-0.38	0.00	0.00
780	0.00	0.29	7.68	-0.38	0.00	0.00
785	-0.11	0.11	2.74	0.00	0.00	0.00
786	0.11	0.29	2.38	0.00	0.00	0.00

Sum 0.00 0.80 20.64 (all nodes)

Max. residual: 1.367E+00 at (DOF): 222

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

CASE 2: Live

Member Loads

Member	Case	T	A	B	F1	D1	F2	D2
6846	UNIF	FZ	GL	FR	-0.300			
6847	UNIF	FZ	GL	FR	-0.300			
6848	UNIF	FZ	GL	FR	-0.600			
6849	UNIF	FZ	GL	FR	-0.900			
6850	UNIF	FZ	GL	FR	-0.630			
6851	UNIF	FZ	GL	FR	-0.630			
6852	UNIF	FZ	GL	FR	-0.630			
6853	UNIF	FZ	GL	FR	-0.630			
6854	UNIF	FZ	GL	FR	-0.300			
6855	UNIF	FZ	GL	FR	-0.300			
6856	UNIF	FZ	GL	FR	-0.630			
6858	UNIF	FZ	GL	FR	-0.630			
6858	UNIF	FZ	GL	FR	-0.630			
6861	UNIF	FZ	GL	FR	-0.630			
6862	UNIF	FZ	GL	FR	-0.630			
6863	UNIF	FZ	GL	FR	-0.630			
6864	UNIF	FZ	GL	FR	-0.630			
6865	UNIF	FZ	GL	FR	-0.630			
6866	UNIF	FZ	GL	FR	-0.660			
6867	UNIF	FZ	GL	FR	-0.660			
6868	UNIF	FZ	GL	FR	-0.300			
6893	UNIF	FZ	GL	FR	-0.300			
6894	UNIF	FZ	GL	FR	-0.300			
6895	UNIF	FZ	GL	FR	-0.300			
6896	UNIF	FZ	GL	FR	-0.660			
6897	UNIF	FZ	GL	FR	-0.660			
6898	UNIF	FZ	GL	FR	-0.660			
6899	UNIF	FZ	GL	FR	-0.660			
6900	UNIF	FZ	GL	FR	-0.630			
6901	UNIF	FZ	GL	FR	-0.630			
6902	UNIF	FZ	GL	FR	-0.630			
6903	UNIF	FZ	GL	FR	-0.630			
6904	UNIF	FZ	GL	FR	-0.630			
6905	UNIF	FZ	GL	FR	-0.630			
6906	UNIF	FZ	GL	FR	-0.630			
6907	UNIF	FZ	GL	FR	-0.630			
6908	UNIF	FZ	GL	FR	-0.300			
6909	UNIF	FZ	GL	FR	-0.300			
6910	UNIF	FZ	GL	FR	-0.300			

6821	201F	FZ	GL	FR	-6.300
6816	201F	FZ	GL	FR	-6.630
6817	201F	FZ	GL	FR	-6.630
6818	201F	FZ	GL	FR	-6.630
6819	201F	FZ	GL	FR	-6.630
6820	201F	FZ	GL	FR	-6.630
6821	201F	FZ	GL	FR	-6.630
6822	201F	FZ	GL	FR	-6.630
6823	201F	FZ	GL	FR	-6.630
6824	201F	FZ	GL	FR	-6.630
6825	201F	FZ	GL	FR	-6.630
6826	201F	FZ	GL	FR	-6.630
6827	201F	FZ	GL	FR	-6.630
6828	201F	FZ	GL	FR	-6.630
6829	201F	FZ	GL	FR	-6.630
6830	201F	FZ	GL	FR	-6.630
6831	201F	FZ	GL	FR	-6.630
6832	201F	FZ	GL	FR	-6.300
6833	201F	FZ	GL	FR	-6.300
6834	201F	FZ	GL	FR	-6.630
6835	201F	FZ	GL	FR	-6.630
7680	201F	FZ	GL		-6.630
7681	201F	FZ	GL		-6.630
7682	201F	FZ	GL		-6.630
7683	201F	FZ	GL		-6.630
7684	201F	FZ	GL	FR	-6.630
7685	201F	FZ	GL	FR	-6.630
7686	201F	FZ	GL	FR	-6.630
7687	201F	FZ	GL	FR	-6.630
7688	201F	FZ	GL	FR	-6.630
7689	201F	FZ	GL	FR	-6.630
7690	201F	FZ	GL	FR	-6.630
7691	201F	FZ	GL	FR	-6.630
7692	201F	FZ	GL	FR	-6.630
7693	201F	FZ	GL	FR	-6.630
7694	201F	FZ	GL	FR	-6.630
7695	201F	FZ	GL	FR	-6.630
7696	201F	FZ	GL	FR	-6.630
7697	201F	FZ	GL	FR	-6.630
7698	201F	FZ	GL	FR	-6.630
7699	201F	FZ	GL	FR	-6.630
7700	201F	FZ	GL	FR	-6.630
7701	201F	FZ	GL	FR	-6.630
7702	201F	FZ	GL	FR	-6.630
7703	201F	FZ	GL	FR	-6.630
7704	201F	FZ	GL	FR	-6.630
7705	201F	FZ	GL	FR	-6.630
7706	201F	FZ	GL	FR	-6.630
7707	201F	FZ	GL	FR	-6.630

Sum of Applied Loads (Global Axes):

FX:	0.000	FY:	0.000	FZ:	-22.350

Moments about the global origin:

MX:	-45.184	MY:	39.983	MZ:	0.000

NODE DISPLACEMENTS

CASE 2: Live

Node	X-Disp m	Y-Disp m	Z-Disp m	X-Rota rad	Y-Rota rad	Z-Rota rad
FX	0.0000	-0.0010	+0.0001	-0.00051	0.00186	3.03031
111	0.0000	-0.0019	+0.0002	-0.00109	0.00215	3.03052
201	0.0000	0.0000	0.0000	0.00000	0.00053	3.03000
202	0.0004	-0.0019	0.0017	-0.00113	-3.5908+04	3.03051
203	0.0004	-0.0015	0.0009	-0.00110	-3.5908+04	3.03033
204	0.0004	0.0001	0.0004	-0.00090	-0.00179	0.03057
212	0.0008	-0.0019	0.0027	-0.00102	-3.5908+04	0.03027
213	0.0008	-0.0015	-0.0011	-0.00113	-3.5908+04	0.03026
214	0.0008	0.0001	-0.0005	-0.00103	-0.00179	0.03027
222	-0.0001	-0.0019	0.0004	-0.00063	-2.5908+04	0.03014
223	-0.0001	-0.0015	-0.0019	-0.00133	-2.5908+04	0.03015
224	-0.0001	0.0001	+0.0005	-0.00076	-0.00179	0.03014
232	0.0002	-0.0019	0.0013	0.00104	-2.5908+04	+0.03028
233	0.0002	-0.0015	+0.0002	0.00109	-2.5908+04	+0.03027
234	0.0002	0.0001	0.0006	0.00111	-0.00179	+0.03026
242	0.0005	-0.0019	0.0010	0.00063	-2.5908+04	+0.03032
243	0.0005	-0.0015	0.0011	0.00179	-2.5908+04	+0.03058
244	0.0005	0.0001	0.0008	0.00164	-0.00179	+0.03051
245	-0.0001	-0.0019	0.0007	-0.00014	-2.5908+04	0.03003
246	-0.0001	-0.0019	0.0001	0.00037	-2.5908+04	+0.03008
247	0.0001	-0.0019	0.0009	0.00166	-2.5908+04	+0.03029
248	0.0002	-0.0015	0.0013	0.00113	-2.5908+04	0.03042
250	0.0002	-0.0015	+0.0001	+0.00034	-2.5908+04	0.03043
252	0.0002	0.0001	0.0000	0.00101	-0.00179	0.03043
254	-0.0001	-0.0015	+0.0021	+0.00037	-2.5908+04	0.03004
255	-0.0001	-0.0015	-0.0021	0.00065	-2.5908+04	0.03007
256	0.0000	-0.0015	-0.0017	0.00150	-2.5908+04	0.03018
257	0.0001	-0.0015	-0.0010	0.00202	-2.5908+04	0.03008
258	-0.0001	0.0001	-0.0011	-0.00003	-0.00179	0.03003
259	-0.0001	0.0001	-0.0010	0.00038	-0.00179	0.03008
260	0.0000	0.0001	-0.0008	0.00111	-0.00179	0.03015
261	0.0000	0.0001	-0.0004	0.00167	-0.00179	0.03038
262	0.0000	-0.0019	0.0003	0.00048	-1.5908+04	0.03019
263	0.0004	-0.0015	+0.0013	+0.00177	-3.3258+04	0.03058
264	0.0000	-0.0015	+0.0020	+0.00191	-3.3258+04	0.03038
265	-0.0001	-0.0015	+0.0018	0.00131	-3.3258+04	0.03017
266	0.0000	-0.0015	+0.0023	0.00162	-3.3258+04	0.03028
267	0.0005	-0.0015	+0.0013	0.00148	-3.3258+04	0.03057
268	-0.0001	-0.0015	+0.0019	+0.00048	-3.3258+04	0.03005
269	-0.0001	-0.0015	+0.0015	0.00041	-3.3258+04	-0.03001
270	0.0000	-0.0015	+0.0016	0.00139	-3.3258+04	-0.03018
271	0.0001	-0.0015	+0.0016	0.00183	-3.3258+04	-0.03028
272	0.0002	-0.0015	+0.0019	+0.00194	-3.3258+04	0.03045
496	0.0004	-0.0017	0.0015	-0.00226	-3.5908+04	0.03002
497	0.0000	-0.0017	-0.0004	-0.00088	-3.5908+04	0.03027
498	-0.0001	-0.0017	-0.0013	-0.00138	-3.5908+04	0.03015
499	0.0002	-0.0017	0.0006	0.00262	-3.5908+04	-0.03018
700	0.0005	-0.0017	0.0019	0.00178	-3.5908+04	-0.03052
701	-0.0001	-0.0017	-0.0015	-0.00033	-3.5908+04	0.03009
702	-0.0001	-0.0017	-0.0014	0.00068	-3.5908+04	-0.03007
704	0.0003	-0.0017	-0.0016	0.00154	-3.5908+04	-0.03018
705	0.0001	-0.0017	-0.0002	0.00098	-3.5908+04	-0.03009
706	0.0002	-0.0017	0.0006	-0.00231	-3.5908+04	0.03042
708	0.0004	-0.0013	0.0000	-0.00134	-3.5908+04	0.03044
709	0.0004	-0.0011	-0.0006	-0.00236	-3.5948+04	0.03058
710	0.0004	-0.0009	-0.0018	-0.00236	-3.5938+04	0.03058
711	0.0003	-0.0013	-0.0019	-0.00226	-3.5908+04	0.03029
712	0.0000	-0.0011	-0.0026	-0.00219	-3.5948+04	0.03019
713	0.0000	-0.0009	-0.0029	-0.00214	-3.5918+04	0.03030
714	-0.0001	-0.0013	-0.0027	-0.00138	-2.5938+04	0.03016
715	-0.0001	-0.0011	-0.0026	-0.00141	-2.5958+04	0.03016
716	-0.0001	-0.0009	-0.0028	-0.00140	-2.5918+04	0.03016
717	0.0002	-0.0013	-0.0011	0.00194	-2.5938+04	-0.03036
718	0.0002	-0.0013	-0.0019	0.00167	-2.5968+04	-0.03030
719	0.0002	-0.0009	-0.0026	0.00179	-2.5918+04	-0.03038
720	0.0005	-0.0013	0.0002	0.00170	-2.5938+04	-0.03050
721	0.0005	-0.0011	-0.0007	0.00163	-2.5968+04	-0.03041
722	0.0005	-0.0009	-0.0012	0.00154	-2.5918+04	-0.03035
726	-0.0001	-0.0013	-0.0031	-0.00081	-2.5928+04	0.03005
727	-0.0001	-0.0011	-0.0028	-0.00046	-2.5948+04	0.03005
728	-0.0001	-0.0009	-0.0041	-0.00047	-2.5918+04	0.03005
729	-0.0001	-0.0013	-0.0039	0.00009	-2.5938+04	-0.03009
730	-0.0001	-0.0011	-0.0038	0.00055	-2.5968+04	-0.03007
731	-0.0001	-0.0009	-0.0041	0.00051	-2.5918+04	-0.03007
732	0.0000	-0.0013	-0.0038	0.00146	-2.5938+04	-0.03017
733	0.0000	-0.0011	-0.0036	0.00140	-2.5948+04	-0.03010
734	0.0000	-0.0009	-0.0037	0.00139	-2.5918+04	-0.03013
735	0.0001	-0.0013	-0.0035	0.00197	-2.5938+04	-0.03035
736	0.0001	-0.0011	-0.0037	0.00191	-2.5948+04	-0.03029
737	0.0001	-0.0009	-0.0031	0.00184	-2.5918+04	-0.03029
738	0.0002	-0.0013	-0.0038	-0.00209	-2.5938+04	0.03045
739	0.0002	-0.0011	-0.0035	-0.00201	-2.5948+04	0.03041
740	0.0002	-0.0009	-0.0039	-0.00239	-2.5918+04	0.03045
741	0.0004	-0.0013	-0.0035	-0.00154	-3.3258+04	0.03059
742	0.0004	-0.0011	-0.0033	-0.00139	-2.5948+04	0.03050
743	0.0004	-0.0009	-0.0025	-0.00173	-3.3258+04	0.03030
744	-0.0001	-0.0013	-0.0028	-0.00119	-3.3258+04	0.03017
745	-0.0001	-0.0011	-0.0027	-0.00109	-2.5948+04	0.03015
746	-0.0001	-0.0009	-0.0033	-0.00143	-3.3258+04	0.03029
747	0.0002	-0.0013	-0.0028	0.00140	-3.3258+04	-0.03030
748	0.0002	-0.0011	-0.0028	0.00148	-2.5948+04	-0.03039
749	0.0002	-0.0009	-0.0025	0.00179	-3.3258+04	-0.03055
750	0.0005	-0.0013	-0.0021	0.00117	-2.5948+04	-0.03051
751	0.0005	-0.0011	-0.0023	-0.00043	-3.3258+04	0.03035
752	0.0005	-0.0009	-0.0023	-0.00032	-2.5948+04	0.03045
753	0.0000	-0.0013	-0.0023	0.00139	-3.3258+04	-0.03036
754	0.0000	-0.0011	-0.0020	0.00141	-2.5948+04	-0.03037
755	0.0000	-0.0009	-0.0019	0.00111	-3.3258+04	-0.03018
756	0.0000	-0.0013	-0.0018	0.00107	-2.5948+04	-0.03019
757	0.0001	-0.0013	-0.0015	0.00154	-3.3258+04	-0.03029
758	0.0001	-0.0011	-0.0018	0.00168	-2.5948+04	-0.03029
759	0.0001	-0.0009	-0.0018	-0.00173	-3.3258+04	0.03045
760	0.0002	-0.0011	-0.0009	-0.00196	-2.5948+04	0.03042
761	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
762	0.0000	-0.0010	0.0017	-0.00061	0.00154	0.03049
763	0.0000	0.0000	0.0000	-0.00001	-0.00203	0.03049
764	0.0000	0.0000	0.0000	-0.00202	-0.00203	0.03031
765	0.0000	-0.0023	0.0013	-0.00209	0.00113	0.03058
892	0.0000	-0.0009	-0.0023	-0.00207	-0.00013	0.03047
893	0.0000	-0.0007	-0.0019	-0.00073	-0.00004	0.03047
1254	0.0000	-0.0021	0.0006	-0.00209	0.00198	0.03046
1255	0.0000	-0.0010	0.0008	-0.00081	0.00199	0.03050
1256	0.0000	-0.0017	-0.0001	-0.00033	-0.00728	0.03057
1257	0.0000	-0.0014	-0.0019	-0.00517	0.00165	0.03050
1258	0.0000	-0.0012	-0.0023	-0.00312	0.00056	0.03064
1271	0.0000	-0.0014	-0.0008	-0.00063	0.00151	0.03044
1272	0.0000	-0.0012	-0.0015	-0.00096	0.00139	0.03038
1273	0.0000	-0.0009	-0.0029	-0.00099	0.00061	0.03045
1252	0.0000	-0.0001	-0.0015	-0.00203	-0.00168	0.03072
1254	0.0000	-0.0004	-0.0020	-0.00292	-0.00201	0.03050
1267	0.0000	-0.0004	-0.0015	-0.00278	-0.00146	0.03067
1269	0.0000	-0.0002	-0.0018	-0.00092	-0.00218	0.03067
1268	0.0000	0.0001	0.0006	-0.00090	-0.00179	0.03065
1420	0.0000	-0.0006	-0.0008	-0.00174	-3.3258+04	0.03070
1058	0.0000	-0.0003	-0.0008	-0.00153	-3.3258+04	0.03069
1052	0.0000	-0.0001	0.0001	-0.00158	-2.5848+04	0.03064
1053	0.0000	-0.0019	0.0017	0.00054	-2.5858+04	-0.03045
1054	0.0000	0.0001	0.0008	0.00100	-0.00119	-0.03040
1055	0.0000	-0.0017	0.0013	0.00182	-2.5928+04	-0.03015
1026	0.0000	-0.0006	-0.0018	0.00143	-3.3258+04	-0.03047
1057	0.0000	-0.0009	-0.0017	0.00130	-3.3918+04	-0.03016
1058	0.0000	-0.0011	-0.0013	0.00167	-2.5548+04	-0.03010
1059	0.0000	-0.0015	-0.0004	0.00174	-2.5588+04	-0.03011
1060	0.0000	-0.0019	0.0005	0.00179	-2.5588+04	-0.03015
1061	0.0000	-0.0005	-0.0013	0.00120	-3.3958+04	-0.03016
1062	0.0000	-0.0001	-0.0006	0.00121	-2.5868+04	-0.03013

MEMBER FORCES

CASE 2: Live

Member	Node	Axial kN	Shear-y kN	Shear-z kN	Torque kNm	Moment-y kNm	Moment-z kNm
1003	201	-8.00	0.30	0.12	0.00	0.32	0.00
	99	-8.00	0.30	0.12	0.00	0.00	0.00
2008	99	-1.04	-0.11	0.00	0.00	0.01	-0.01
	250	-1.04	-0.11	0.00	0.00	0.00	0.00
3019	111	-1.45	0.11	-0.14	0.00	-0.01	0.01
	252	-1.45	0.11	-0.14	0.00	0.00	0.00
4024	252	0.06	0.36	-0.02	0.00	0.01	0.00
	248	0.06	0.36	-0.02	0.00	0.00	-0.02
4026	248	0.03	-0.36	0.00	0.00	0.00	-0.02
	213	0.03	-0.36	0.00	0.00	0.00	0.13
4027	213	0.03	-0.22	0.00	0.00	0.00	0.13
	222	0.03	-0.22	0.00	0.00	0.00	0.23
4028	222	0.03	-0.38	0.00	0.00	0.00	0.23
	249	0.03	-0.38	0.00	0.00	0.00	0.38
4029	249	0.02	0.62	0.00	0.00	0.00	0.38
	246	0.02	0.62	0.00	0.00	0.00	0.25
4030	246	0.01	0.15	0.01	0.00	0.00	0.25
	351	0.01	0.15	0.01	0.00	0.00	0.19
4031	351	0.01	0.39	0.01	0.00	0.00	0.19
	247	0.01	0.39	0.01	0.00	0.00	0.07
4032	247	0.00	0.41	0.01	0.00	0.00	0.07
	230	0.00	0.41	0.01	0.00	0.00	-0.08
4035	204	-0.01	0.17	0.00	0.00	0.00	-0.02
	252	-0.01	0.17	0.00	0.00	0.00	-0.08
4037	252	-0.03	-0.34	0.00	0.00	0.00	-0.04
	214	-0.03	-0.34	0.00	0.00	0.00	0.07
4038	214	-0.03	-0.23	0.00	0.00	0.00	0.08
	224	-0.03	-0.23	0.00	0.00	0.00	0.23
4039	224	-0.02	-0.13	0.00	0.00	0.00	0.23
	238	-0.02	-0.13	0.00	0.00	0.00	0.28
4040	238	-0.01	0.00	0.00	0.00	0.00	0.27
	258	-0.01	0.00	0.00	0.00	0.00	0.27
4041	255	0.00	0.12	0.00	0.00	0.00	0.28
	260	0.00	0.12	0.00	0.00	0.00	0.22
4042	260	0.01	0.23	0.00	0.00	0.00	0.23
	251	0.01	0.23	0.00	0.00	0.00	0.11
4043	251	0.01	0.13	0.00	0.00	0.00	0.08
	234	0.01	0.13	0.00	0.00	0.00	-0.05
4046	202	0.02	-0.06	0.00	0.00	0.00	0.03
	896	0.02	0.06	0.00	0.00	0.00	0.03
4047	896	0.04	-0.06	0.00	0.00	0.00	0.03
	203	0.04	0.06	0.00	0.00	0.00	0.03
4048	212	0.06	-0.02	0.00	0.00	0.00	0.03
	897	0.06	0.02	0.00	0.00	0.00	0.03
4049	897	0.08	-0.02	0.00	0.00	0.00	0.03
	213	0.08	0.02	0.00	0.00	0.00	0.03
4050	232	0.08	-0.10	0.00	0.00	0.00	0.03
	898	0.08	0.10	0.00	0.00	0.00	0.03

6851	690	5.00	-0.13	5.00	0.00	0.00	0.00
	223	0.00	0.13	5.00	0.00	0.00	0.00
6852	223	0.01	-0.13	0.00	0.00	0.00	0.00
	699	0.01	0.13	0.00	0.00	0.00	0.00
6853	699	0.02	-0.13	-0.01	0.00	0.00	0.00
	233	0.02	0.13	-0.01	0.00	0.00	0.00
6854	233	0.00	-0.06	0.00	0.00	0.00	0.00
	700	0.00	0.06	0.00	0.00	0.00	0.00
6855	700	0.01	-0.06	0.00	0.00	0.00	0.00
	215	0.01	0.06	0.00	0.00	0.00	0.00
6856	245	0.00	-0.13	0.00	0.00	0.00	0.00
	702	0.00	0.13	0.00	0.00	0.00	0.00
6857	702	0.00	-0.13	-0.01	0.00	0.00	0.00
	251	0.00	0.13	-0.01	0.00	0.00	0.00
6860	248	0.00	-0.13	-0.01	0.00	0.00	0.00
	703	0.00	0.13	-0.01	0.00	0.00	0.00
6861	703	0.00	-0.13	-0.01	0.00	0.00	0.00
	255	0.00	0.13	-0.01	0.00	0.00	0.00
6862	251	0.00	-0.13	-0.01	0.00	0.00	0.00
	704	0.00	0.13	-0.01	0.00	0.00	0.00
6863	704	0.00	-0.13	-0.01	0.00	0.00	0.00
	259	0.00	0.13	-0.01	0.00	0.00	0.00
6864	247	0.00	-0.13	-0.01	0.00	0.00	0.00
	705	0.00	0.13	-0.01	0.00	0.00	0.00
6865	705	-0.01	-0.13	-0.01	0.00	0.00	0.00
	257	-0.01	0.13	-0.01	0.00	0.00	0.00
6866	248	-0.02	-0.12	0.01	0.00	0.00	0.00
	706	-0.02	0.12	-0.01	0.00	0.00	0.00
6867	706	-0.05	-0.12	0.00	0.00	0.00	0.00
	255	-0.05	0.13	0.00	0.00	0.00	0.00
6870	656	0.00	0.12	-0.02	0.00	0.00	0.00
	708	0.05	0.13	-0.02	0.00	0.01	-0.01
6871	708	-0.03	-0.07	0.00	0.00	0.00	-0.01
	657	-0.03	-0.07	0.00	0.00	0.00	0.00
6875	657	-0.03	-0.07	0.00	0.00	0.00	0.00
	658	-0.03	-0.07	0.00	0.00	0.00	0.00
6876	658	-0.04	-0.10	0.01	0.00	0.00	0.00
	709	-0.04	-0.10	0.01	0.00	0.00	0.00
6875	709	-0.04	0.07	0.01	0.00	0.00	0.00
	708	-0.04	0.07	0.01	0.00	0.00	0.00
6876	708	-0.04	0.12	0.01	0.00	0.00	0.00
	704	-0.04	0.12	0.01	0.00	0.00	0.00
6877	704	-0.04	0.17	0.01	0.00	0.01	0.00
	705	-0.04	0.17	0.01	0.00	0.00	0.00
6878	705	-0.04	0.22	0.01	0.00	0.01	0.00
	695	-0.04	0.22	0.01	0.00	0.01	0.00
6881	710	-0.01	0.22	0.02	0.00	0.01	-0.04
	362	-0.03	0.22	0.02	0.00	0.01	-0.13
6882	362	-0.06	-0.09	0.02	0.00	0.01	-0.14
	353	-0.06	-0.09	0.02	0.00	0.00	0.17
6884	353	-0.06	-0.16	0.02	0.00	0.01	0.17
	354	-0.08	-0.16	0.02	0.00	0.02	0.38
6885	354	-0.08	-0.22	0.02	0.00	0.01	0.37
	355	-0.08	-0.22	0.02	0.00	0.00	0.48
6886	356	-0.08	0.02	0.01	0.00	0.01	0.48
	355	-0.08	0.02	0.01	0.00	0.00	0.49
6887	355	-0.09	0.08	0.01	0.00	0.01	0.49
	360	-0.09	0.08	0.01	0.00	0.00	0.34
6888	360	-0.08	0.08	0.01	0.00	0.00	0.34
	361	0.00	0.08	0.01	0.00	0.00	0.44
6889	361	-0.08	0.15	0.00	0.00	0.00	0.13
	333	-0.08	0.15	0.00	0.00	0.00	0.17
6892	333	0.06	-0.08	0.00	0.00	0.00	0.00
	735	0.06	0.08	0.00	0.00	0.00	0.00
6893	735	0.06	-0.08	0.00	0.00	0.00	0.00
	736	0.06	0.08	0.00	0.00	0.00	0.00
6894	736	0.06	-0.08	-0.01	0.00	0.00	0.00
	738	0.06	0.08	-0.01	0.00	0.00	0.00
6895	738	0.05	-0.02	-0.02	0.00	-0.01	0.00
	382	0.05	0.08	-0.02	0.00	0.00	0.00
6900	222	0.00	-0.13	-0.01	0.00	0.00	0.00
	711	0.00	0.13	-0.01	0.00	0.00	0.00
6901	711	0.00	-0.13	-0.01	0.00	0.00	0.00
	712	0.00	0.13	-0.01	0.00	0.00	0.00
6902	712	0.00	-0.13	-0.01	0.00	-0.01	0.00
	713	0.00	0.13	-0.01	0.00	0.00	0.00
6903	713	0.00	-0.13	-0.02	0.00	-0.01	0.00
	714	0.00	0.13	-0.01	0.00	0.00	0.00
6904	714	-0.01	-0.13	-0.01	0.00	-0.01	0.00
	715	-0.01	0.13	-0.01	0.00	0.00	0.00
6905	715	-0.01	-0.13	-0.02	0.00	-0.01	0.00
	716	-0.01	0.13	-0.02	0.00	0.00	0.00
6906	716	-0.01	-0.13	-0.02	0.00	-0.01	0.00
	354	-0.01	0.13	-0.02	0.00	0.00	0.00
6907	233	-0.00	-0.13	-0.01	0.00	-0.01	0.00
	717	-0.00	0.13	-0.01	0.00	0.00	0.00
6908	717	-0.07	-0.13	-0.02	0.00	-0.01	0.00
	718	-0.07	0.13	-0.02	0.00	0.00	0.00
6909	718	-0.05	-0.13	0.02	0.00	0.00	0.00
	719	-0.05	0.13	0.02	0.00	0.00	0.00
6910	719	-0.04	-0.13	0.00	-0.01	0.00	0.00
	355	-0.04	0.13	0.00	-0.01	0.00	0.00
6911	243	0.02	-0.06	0.00	0.00	0.00	0.00
	720	0.02	0.06	0.00	0.00	0.00	0.00
6920	720	0.05	-0.06	-0.01	0.00	0.00	0.00
	721	0.05	0.06	-0.01	0.00	0.00	0.00
6910	721	0.04	-0.06	0.01	0.00	0.00	0.00
	722	0.04	0.06	0.01	0.00	0.00	0.00
6911	722	0.03	-0.06	0.01	-0.01	0.00	0.00
	354	0.03	0.06	0.01	-0.01	0.00	0.00
6916	354	-0.03	-0.13	-0.01	0.00	0.00	0.00
	725	-0.05	0.13	-0.01	0.00	0.00	0.00
6917	724	-0.01	-0.13	-0.02	0.00	-0.01	0.00
	727	-0.01	0.13	-0.02	0.00	0.00	0.00
6918	727	-0.01	-0.13	-0.01	0.00	-0.01	0.00
	726	-0.01	0.13	-0.01	0.00	0.00	0.00
6919	726	-0.01	-0.13	-0.02	0.00	-0.01	0.00
	359	-0.01	0.13	-0.02	0.00	0.00	0.00
6920	255	-0.01	-0.13	-0.01	0.00	-0.01	0.00
	725	-0.01	0.13	-0.01	0.00	0.00	0.00
6921	725	-0.01	-0.13	-0.02	0.00	-0.01	0.00
	726	-0.01	0.13	-0.02	0.00	0.00	0.00
6922	726	-0.01	-0.13	-0.01	0.00	-0.01	0.00
	731	-0.01	0.13	-0.01	0.00	0.00	0.00
6923	731	-0.01	-0.13	-0.01	0.00	-0.01	0.00
	359	-0.01	0.13	-0.01	0.00	0.00	0.00
6924	356	-0.01	-0.13	-0.02	0.00	-0.01	0.00
	732	-0.01	0.13	-0.02	0.00	0.00	0.00
6925	732	-0.01	-0.13	-0.02	0.00	-0.01	0.00
	733	-0.01	0.13	-0.02	0.00	0.00	0.00
6926	733	-0.01	-0.13	-0.01	0.00	0.00	0.00
	734	-0.01	0.13	-0.01	0.00	0.00	0.00
6927	734	0.00	-0.13	-0.01	-0.01	0.00	0.00
	360	0.00	0.13	-0.01	-0.01	0.00	0.00
6928	357	-0.01	-0.13	-0.02	0.00	-0.01	0.00
	735	-0.01	0.13	-0.02	0.00	0.00	0.00
6929	735	-0.01	-0.13	-0.02	0.00	-0.01	0.00
	736	-0.01	0.13	-0.02	0.00	0.00	0.00
6930	736	-0.01	-0.13	-0.01	0.00	0.00	0.00
	737	-0.01	0.13	-0.01	0.00	0.00	0.00
6931	737	-0.01	-0.13	-0.01	-0.01	0.00	0.00
	361	-0.01	0.13	-0.01	-0.01	0.00	0.00
6932	358	0.04	-0.12	0.00	0.00	0.00	0.00
	738	0.04	0.12	0.00	0.00	0.00	0.00
6933	738	0.03	-0.12	-0.01	0.00	0.00	0.00
	739	0.02	0.12	-0.01	0.00	0.00	0.00
6934	739	0.01	-0.12	-0.01	0.00	0.00	0.00
	740	0.01	0.12	-0.01	0.00	0.00	0.00
6935	740	0.01	-0.12	-0.02	0.00	-0.01	0.00
	362	0.01	0.12	-0.02	0.00	0.00	0.00
6940	710	-0.01	0.12	0.01	0.00	0.01	0.00
	740	-0.01	0.12	0.01	0.00	0.00	-0.05
6942	740	-0.01	-0.08	0.02	0.00	0.01	-0.05
	713	-0.01	-0.08	0.02	0.00	0.00	0.26
6943	713	-0.01	-0.44	0.02	0.00	0.01	0.26
	716	-0.01	-0.44	0.02	0.00	0.00	0.46
6944	716	-0.02	-0.18	0.02	0.00	0.01	0.49
	720	-0.02	-0.18	0.02	0.00	0.00	0.31
6945	378	-0.02	0.01	0.02	0.00	0.01	0.31
	721	-0.02	0.01	0.02	0.00	0.00	0.68
6950	721	-0.02	0.13	0.01	0.00	0.01	0.68
	724	-0.02	0.12	0.01	0.00	0.00	0.36
6947	724	-0.02	0.57	0.01	0.00	0.01	0.36
	727	-0.02	0.57	0.01	0.00	0.00	0.14
6948	727	-0.02	0.32	0.01	0.00	0.00	0.14
	719	-0.02	0.32	0.01	0.00	0.00	-0.19
6955	384	-0.01	0.12	0.00	0.00	0.00	0.08
	728	-0.01	0.12	0.00	0.00	0.00	-0.05
7001	728	-0.01	-0.14	0.02	0.00	0.01	-0.05
	713	-0.01	-0.14	0.02	0.00	0.00	0.25
7002	713	-0.04	-0.11	0.01	0.00	0.01	0.25
	726	-0.04	-0.11	0.01	0.00	0.00	0.48
7001	715	-0.04	0.13	0.01	0.00	0.01	0.48
	727	-0.04	-0.13	0.01	0.00	0.00	0.52
7004	727	-0.04	0.08	0.01	0.00	0.01	0.52
	730	-0.03	0.08	0.01	0.00	0.00	0.36
7005	730	-0.03	0.31	0.02	0.00	0.01	0.36
	732	-0.03	0.31	0.01	0.00	0.00	0.37
7006	732	-0.02	0.47	0.01	0.00	0.01	0.37
	738	-0.02	0.47	0.01	0.00	0.00	0.14
7007	738	-0.01	0.47	0.01	0.00	0.02	0.14
	739	-0.01	0.42	0.01	0.00	0.00	-0.08
7008	739	0.00	0.12	-0.01	0.00	0.00	0.08
	738	0.00	0.12	-0.01	0.00	0.00	-0.00
7009	738	0.00	0.08	0.01	0.00	0.01	0.00
	732	0.00	0.08	0.01	0.00	0.00	0.45
7010	732	-0.01	-0.08	0.01	0.00	0.01	0.45
	734	-0.01	-0.08	0.01	0.00	0.00	0.13
7011	734	-0.01	-0.13	0.01	0.00	0.01	0.13
	735	-0.01	-0.13	0.01	0.00	0.00	0.38
7012	735	-0.01	-0.17	0.01	0.00	0.01	0.38
	736	-0.01	-0.17	0.01	0.00	0.00	0.37
7013	736	-0.01	-0.22	0.01	0.00	0.01	0.37
	737	-0.01	-0.22	0.01	0.00	0.00	0.15
7014	737	-0.01	0.02	0.01	0.00	0.01	0.15
	738	-0.01	0.02	0.01	0.00	0.00	-0.19
7015	738	-0.01	0.07	0.01	0.00	0.01	-0.19
	739	-0.01	0.07	0.01	0.00	0.00	0.08
7016	739	-0.01	0.12	0.01	0.00	0.01	0.08
	740	-0.01	0.12	0.01	0.00	0.00	-0.05
7017	740	-0.01	0.12	0.01	0.00	0.01	-0.05
	741	-0.01	0.12	0.01	0.00	0.00	0.08
7060	352	0.05	-0.11	-0.02	0.00	0.01	-0.01	0.08
	744	0.05	0.11	-0.02	0.00	0.01	0.00	0.08
7062	744	0.03	-0.11	-0.02	0.00	0.01	-0.01	0.08
	745	0.03	0.11	-0.02	0.00	0.01	0.00	0.08
7063	746	0.02	-0.11	0.01	0.00	0.00	0.00	0.08
	201	0.02	0.11	0.01	0.00	0.00	0.00	0.08
7064	383	0.08	-0.11	-0.03	0.00	0.01	-0.01	0.08
	747	0.08	0.11	-0.03	0.00	0.01	0.00	-0.08
7064	747	0.06	-0.11	-0.03	0.00	0.01	-0.01	0.04
	749	0.06	0.11	-0.03	0.00	0.01	0.00	0.08
7067	749	0.06	-0.11	-0.03	0.00	0.03	0.00	0.08
	214	0.06	0.11	-0.03	0.00	0.03	0.00	0.08
7068	354	0.06	-0.12	-0.02	0.00	0.01	-0.01	0.04
	750	0.06	0.12	-0.03	0.00	0.01	0.00	0.08
7068	750	0.06	-0.12	-0.03	0.00	0.01	-0.01	0.08
	752	0.06	0.12	-0.03	0.00	0.01	0.00	0.08
7091	752	0.06	-0.12	-0.03	0.00	0.02	0.00	0.08
	221	0.06	0.12	-0.03	0.00	0.02	0.00	0.08
7092	355	-0.03	-0.12	0.01	-0.01	0.03	0.00	0.08
	753	-0.03	0.12	0.01	-0.01	0.03	0.00	0.08
7094	753	-0.02	-0.12	-0.01	-0.01	0.03	0.00	0.08
	755	-0.03	0.12	-0.03	-0.01	0.03	0.00	0.08
7095	756	-0.01	-0.12	0.00	-0.02	0.03	0.00	0.08
	224	-0.01	0.12	0.00	-0.02	0.03	0.00	0.08
7098	356	0.01	-0.05	0.02	-0.01	0.01	0.00	0.08
	758	0.01	0.05	0.02	-0.01	0.00	0.00	0.08
7098	758	0.00	-0.06	0.01	-0.01	0.03	0.00	0.08
	759	0.00	0.06	0.01	-0.01	0.03	0.00	0.08
7099	759	-0.01	-0.06	0.01	-0.01	0.03	0.00	0.08
	244	-0.01	0.06	0.01	-0.01	0.03	0.00	0.08
7104	358	0.00	-0.12	-0.03	0.00	0.00	-0.01	0.08
	760	0.00	0.12	-0.03	0.00	0.00	0.00	0.08
7105	762	0.00	-0.12	-0.02	0.00	0.00	-0.01	0.08
	764	0.00	0.12	-0.02	0.00	0.00	0.00	0.08
7107	764	0.00	-0.12	-0.01	0.01	0.03	0.00	0.08
	358	0.00	0.12	-0.01	0.01	0.03	0.00	0.08
7108	358	0.00	-0.12	-0.01	0.00	0.03	0.00	0.08
	765	0.00	0.12	-0.01	0.00	0.03	0.00	0.08
7110	765	0.00	-0.12	-0.02	0.00	0.03	-0.01	0.08
	767	0.00	0.12	-0.02	0.00	0.03	0.00	0.08
7111	767	0.00	-0.12	-0.01	-0.01	0.03	0.00	0.08
	359	0.00	0.12	-0.01	-0.01	0.03	0.00	0.08
7112	360	0.00	-0.12	-0.01	0.00	0.03	0.00	0.08
	768	0.00	0.12	-0.01	0.00	0.03	0.00	0.08
7114	768	0.00	-0.12	-0.02	0.00	0.03	-0.01	0.08
	770	0.00	0.12	-0.02	0.00	0.03	0.00	0.08
7115	770	0.00	-0.12	-0.01	-0.01	0.03	0.00	0.08
	360	0.00	0.12	-0.01	-0.01	0.03	0.00	0.08
7118	361	0.00	-0.12	0.00	-0.01	0.03	0.00	0.08
	771	0.00	0.12	0.00	-0.01	0.03	0.00	0.08
7119	771	0.00	-0.12	-0.01	0.00	0.03	0.00	0.08
	773	0.00	0.12	-0.01	0.00	0.03	0.00	0.08
7119	773	0.00	-0.12	-0.01	-0.02	0.03	0.00	0.08
	361	0.00	0.12	-0.01	-0.02	0.03	0.00	0.08
7120	362	0.01	-0.11	-0.02	0.01	0.03	-0.01	0.03
	774	0.01	0.11	-0.02	0.01	0.03	0.00	0.03
7122	774	0.00	-0.11	-0.02	0.01	0.03	-0.01	0.03
	776	0.00	0.11	-0.02	0.01	0.03	0.00	0.03

7123	774	0.89	-8.11	0.89	0.00	0.89	0.00
	252	0.89	8.11	0.89	0.00	0.89	0.00
7128	744	0.89	8.33	0.89	0.00	0.81	-0.02
	774	0.89	8.33	0.89	0.00	0.89	-0.16
7130	774	-0.87	-8.66	0.89	0.00	0.81	-0.15
	747	-0.87	-8.66	0.89	0.00	0.89	0.14
7131	747	-0.87	-8.44	0.89	0.00	0.81	0.14
	756	-0.87	-8.44	0.89	0.00	0.89	0.34
7132	756	-0.87	-8.21	0.89	0.00	0.81	0.34
	763	-0.87	-8.21	0.89	0.00	0.89	0.43
7133	763	-0.87	8.02	0.89	0.00	0.81	0.43
	765	-0.87	8.02	0.89	0.00	0.89	0.42
7134	765	-0.88	8.25	0.89	0.00	0.81	0.42
	750	-0.88	8.25	0.89	0.00	0.89	0.32
7135	750	-0.89	8.48	0.81	0.00	0.81	0.31
	721	-0.89	8.48	0.81	0.00	0.89	0.12
7136	721	-0.38	8.71	0.81	0.00	0.89	0.12
	715	-0.38	8.71	0.81	0.00	0.89	-0.18
7138	716	0.89	8.93	0.89	0.00	0.81	-0.00
	776	0.89	8.93	0.89	0.00	0.89	-0.19
7152	776	0.34	-8.65	0.81	0.00	0.89	-0.14
	749	0.34	-8.65	0.81	0.00	0.89	0.15
7153	749	0.35	-8.43	0.81	0.00	0.81	0.13
	752	0.35	-8.43	0.81	0.00	0.89	0.33
7154	752	0.37	-8.20	0.81	0.00	0.89	0.32
	781	0.37	-8.20	0.81	0.00	0.89	0.38
7155	781	0.38	8.03	0.81	0.00	0.89	0.38
	787	0.38	8.03	0.81	0.00	0.89	0.38
7156	787	0.39	8.26	0.81	0.00	0.89	0.39
	778	0.39	8.26	0.81	0.00	0.89	0.20
7157	778	0.40	8.49	0.81	0.00	0.89	0.20
	772	0.40	8.49	0.81	0.00	0.89	0.10
7158	772	0.41	8.73	0.81	0.00	0.89	0.11
	766	0.41	8.73	0.81	0.00	0.89	-0.10
7161	788	-0.15	8.60	0.34	0.00	0.37	0.00
	111	-0.15	8.00	0.34	0.00	0.68	0.00
7162	157	0.00	8.72	0.00	0.00	0.68	0.00
	1224	0.00	8.72	0.00	0.00	0.68	-0.29
7163	1224	0.00	2.17	0.00	0.01	0.68	-0.29
	111	0.00	2.17	0.00	0.01	-0.00	-1.16
7170	181	0.00	8.58	0.01	0.00	0.00	0.00
	1239	0.00	8.58	0.01	0.00	-0.01	-0.21
7171	1239	0.00	3.55	-0.01	0.00	-0.01	-0.21
	99	0.00	3.55	-0.01	0.00	0.00	-0.83
7210	111	0.11	-4.53	-3.08	0.02	-0.02	-1.17
	1248	0.11	-4.55	-3.09	0.02	0.00	0.85
7211	1256	0.11	-3.11	0.02	0.05	0.06	0.85
	1257	0.11	-3.11	0.02	0.05	-0.01	1.90
7228	1257	0.11	-1.67	-0.01	0.02	-0.01	1.90
	1256	0.11	-1.67	-0.01	0.02	-0.01	2.96
7231	1256	0.11	-0.22	0.00	0.02	-0.01	2.96
	990	0.11	-0.22	0.00	0.02	-0.01	2.65
7238	99	-0.11	-3.68	0.03	-0.01	0.00	-0.82
	1271	-0.11	-3.68	0.03	-0.01	-0.01	0.56
7239	1271	-0.11	-3.42	0.01	-0.01	-0.01	0.56
	1272	-0.11	-3.42	0.01	-0.01	-0.02	1.53
7240	1272	-0.11	-1.98	-0.01	-0.01	-0.02	1.53
	1273	-0.11	-1.98	-0.01	-0.01	-0.01	2.08
7241	1273	-0.11	-0.54	-0.01	-0.01	-0.01	2.08
	995	-0.11	-0.54	-0.01	-0.01	-0.01	2.22
7406	990	0.11	1.12	0.04	0.03	-0.01	2.65
	1292	0.11	1.12	0.04	0.03	-0.02	2.24
7408	1292	0.11	2.41	0.17	0.04	-0.02	2.24
	1284	0.11	2.41	0.17	0.04	-0.03	1.36
7409	1284	0.11	2.78	-0.24	0.06	-0.03	1.36
	746	0.11	2.78	-0.24	0.06	-0.03	0.00
7136	885	-0.11	0.81	-0.05	-0.03	-0.01	2.23
	1287	-0.11	0.81	-0.06	-0.03	0.01	1.93
7138	1287	-0.11	3.02	-0.12	-0.03	0.01	1.93
	1288	-0.11	3.02	-0.12	-0.03	0.05	1.18
7139	1288	-0.11	5.22	0.14	0.06	0.05	1.18
	788	-0.11	5.22	0.14	0.06	0.05	0.00
7150	749	-0.52	0.00	0.01	0.00	0.05	0.00
	781	-0.52	0.00	0.01	0.00	0.00	0.00
7238	252	-0.52	0.00	-0.03	0.00	0.00	0.00
	785	-0.52	0.00	-0.03	0.00	0.00	0.00
7240	234	-0.69	0.00	0.00	0.00	0.00	0.00
	758	-0.67	0.00	0.00	0.00	0.00	0.00
7241	232	-0.72	0.00	0.00	0.00	0.00	0.00
	787	-0.72	0.00	0.00	0.00	0.00	0.00
7242	255	-1.34	0.00	0.05	0.00	0.00	0.00
	692	-1.34	0.00	0.05	0.00	0.00	0.00
7243	302	-1.14	0.00	-0.04	0.00	0.00	0.00
	655	-1.14	0.00	-0.04	0.00	0.00	0.00
7244	659	-1.45	0.00	0.05	0.00	0.00	0.00
	1225	-1.45	0.00	0.05	0.00	-0.01	0.00
7245	706	-1.03	0.00	-0.03	0.00	0.00	0.00
	1228	-1.03	0.00	-0.03	0.00	0.00	0.00
7246	717	-1.45	0.00	0.07	0.00	0.00	0.00
	1226	-1.45	0.00	0.07	0.00	-0.01	0.00
7247	738	-1.44	0.00	-0.04	0.00	0.00	0.00
	1227	-1.44	0.00	-0.04	0.00	0.00	0.00
7248	719	-1.45	0.00	0.04	0.00	0.00	0.00
	1228	-1.45	0.00	0.04	0.00	0.00	0.00
7249	736	-1.84	0.00	-0.05	0.00	0.00	0.00
	1271	-1.84	0.00	-0.05	0.00	0.00	0.00
7250	739	-1.84	0.00	-0.03	0.00	0.00	0.00
	1272	-1.84	0.00	-0.03	0.00	0.00	0.00
7251	700	-1.84	0.00	0.00	0.00	0.00	0.00
	1273	-1.84	0.00	0.00	0.00	0.00	0.00
7252	753	-1.28	0.00	0.13	0.00	0.00	0.00
	1293	-1.28	0.00	0.13	0.00	-0.01	0.00
7253	796	-1.28	0.00	-0.11	0.00	0.00	0.00
	1294	-1.28	0.00	-0.11	0.00	0.00	0.00
7254	774	-1.23	0.00	-0.07	0.00	0.00	0.00
	1287	-1.23	0.00	-0.07	0.00	0.01	0.00
7255	776	-1.28	0.00	0.27	0.00	0.00	0.00
	1289	-1.28	0.00	0.27	0.00	-0.02	0.00
7256	1450	-0.02	-0.05	-0.02	0.01	-0.01	0.00
	1850	-0.02	0.05	-0.02	0.01	0.00	0.00
7258	1850	-0.05	-0.06	-0.02	0.01	-0.01	0.00
	1852	-0.05	0.06	-0.02	0.01	0.00	0.00
7259	1852	-0.02	-0.06	0.00	0.00	0.00	0.00
	1310	-0.02	0.06	0.00	0.00	0.00	0.00
8136	284	0.00	-0.06	-0.02	0.00	-0.01	-0.02
	1310	0.00	-0.06	-0.02	0.00	0.00	0.00
8137	352	-0.02	-0.05	0.02	0.00	0.00	-0.02
	1458	-0.02	-0.05	0.02	0.00	-0.01	-0.01
8138	746	0.00	-0.11	0.02	0.00	0.00	-0.02
	1859	0.00	-0.11	0.02	0.00	-0.01	0.00
8139	748	0.02	-0.11	-0.02	0.00	-0.01	-0.02
	1852	0.02	-0.11	-0.02	0.00	0.00	0.01
8140	232	0.00	-0.18	0.02	0.00	0.00	-0.02
	1855	0.00	-0.18	0.02	0.00	0.00	-0.01
8141	1853	0.00	-0.06	0.00	0.00	0.00	-0.02
	242	0.00	-0.06	0.00	0.00	0.00	0.00
8142	224	0.01	-0.17	0.00	0.00	0.00	-0.02
	1224	0.01	-0.17	0.00	0.00	0.00	0.00
8143	1834	0.01	-0.08	0.01	0.00	0.00	-0.01
	244	0.01	-0.08	0.01	0.00	0.00	0.01
8144	664	0.00	-0.17	0.00	0.00	0.00	-0.10
	1858	0.00	-0.17	0.00	0.00	0.00	-0.01
8145	1855	0.00	-0.12	0.01	0.00	0.00	-0.01
	708	0.00	-0.11	0.01	0.00	0.00	0.00
8146	255	-0.01	-0.16	-0.01	0.00	0.00	-0.17
	1856	-0.02	-0.16	-0.01	0.00	0.00	-0.01
8147	1858	-0.01	-0.11	-0.01	0.00	0.00	-0.04
	256	-0.01	-0.11	-0.01	0.00	0.01	0.00
8149	715	-0.01	-0.17	0.00	0.00	0.00	-0.18
	1857	-0.01	-0.17	0.00	0.00	0.00	-0.05
8149	1857	0.00	-0.12	-0.01	0.00	0.00	-0.05
	722	0.00	-0.12	-0.01	0.00	0.00	0.00
8150	718	-0.03	-0.17	0.00	0.00	0.00	-0.19
	1858	-0.03	-0.17	0.00	0.00	0.00	-0.05
8151	1858	-0.01	-0.12	0.00	0.00	0.00	-0.04
	721	-0.01	-0.12	0.00	0.00	0.00	0.00
8152	317	0.01	-0.17	0.01	0.00	0.00	-0.19
	1859	0.01	-0.17	0.01	0.00	0.00	-0.04
8153	1859	0.00	-0.13	0.00	0.00	0.01	-0.04
	720	0.00	-0.13	0.00	0.00	0.00	0.00
8154	255	0.01	-0.17	0.01	0.00	0.00	-0.18
	1860	0.01	-0.17	0.01	0.00	0.00	-0.05
8155	1860	0.01	-0.12	0.02	0.00	0.00	-0.04
	243	0.01	-0.12	0.02	0.00	0.00	0.00
8156	753	0.02	-0.34	0.00	0.00	0.00	-0.16
	1861	0.02	-0.34	0.00	0.00	0.00	-0.04
8157	1861	0.01	-0.11	-0.01	0.00	0.00	-0.04
	744	0.01	-0.11	-0.01	0.00	0.00	0.00
8158	735	0.00	-0.34	0.00	0.00	0.00	-0.17
	1862	0.00	-0.34	0.00	0.00	0.00	-0.04
8159	1862	0.00	-0.11	-0.01	0.00	0.00	-0.04
	736	0.00	-0.11	-0.01	0.00	0.00	0.00
8160	1053	0.00	-0.13	0.00	0.00	0.00	0.00
	1855	0.00	0.13	0.00	0.00	0.00	0.00
8161	1855	-0.01	-0.13	0.00	0.00	0.00	0.00
	1848	-0.01	0.13	0.00	0.00	0.00	0.00
8516	1848	-0.01	-0.13	-0.01	0.00	0.00	0.00
	1855	-0.01	0.13	-0.01	0.00	0.00	0.00
8517	1856	-0.02	-0.12	-0.01	0.00	-0.01	0.00
	1856	-0.02	0.12	-0.01	0.00	0.00	0.00
8518	1858	-0.02	-0.13	0.00	0.00	0.00	0.00
	1857	-0.02	0.12	0.00	0.00	0.00	0.00
8519	1857	-0.01	-0.12	0.01	-0.01	0.00	0.00
	1858	-0.01	0.13	0.01	-0.01	0.00	0.00
8704	1858	0.00	-0.13	0.00	-0.01	0.01	0.00
	1861	0.00	0.13	0.00	-0.01	0.00	0.00
8705	1861	0.01	-0.12	0.00	-0.01	0.00	0.00
	1862	0.01	0.12	0.00	-0.01	0.00	0.00
8707	1862	0.00	-0.12	0.00	-0.01	0.00	0.00
	1854	0.00	0.12	0.00	-0.01	0.00	0.00

Position Forces (Member Axes):
Axial - Tension Shear - Red A sagging
Torque - Right-hand (+ve) Moment - Sagging

SUPPORT REACTIONS

CASE 3: Live

Node	Force-X kN	Force-Y kN	Force-Z kN	Moment-X kNm	Moment-Y kNm	Moment-Z kNm
201	0.00	0.13	0.05	-0.32	0.00	0.00
780	0.00	-0.24	0.17	-0.32	0.00	0.00
785	-0.11	-0.17	0.86	0.00	0.00	0.00
790	0.11	0.24	0.94	0.00	0.00	0.00
Sum:	0.00	0.00	22.40 (all nodes)			

Max. residual: 1.420E-08 at Node: 881

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

CASE 3: G + Q

Load combinations

Case	Factor
1	1.000 Dead
2	1.000 Live

Sum of Applied Loads (Global Axes):
FX: 0.000 FY: 0.000 FZ: -42.432
Moments about the global origin:
MX: -62.830 MY: 69.078 MZ: 0.000

NODE DISPLACEMENTS

CASE 3: G + Q

Node	X-Disp m	Y-Disp m	Z-Disp m	X-Rotn rad	Y-Rotn rad	Z-Rotn rad
99	0.0000	-0.0001	-0.0001	-0.00047	0.00016	0.00100
111	0.0000	-0.0037	-0.0035	-0.00168	0.00164	0.00103
201	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
202	0.0001	-0.0038	-0.0035	-0.00169	-5.0288E+04	0.00100
203	0.0001	-0.0037	0.0001	-0.00167	-5.0278E+04	0.00103
204	0.0001	0.0001	0.0001	-0.00083	-0.00462	0.00111
212	-0.0002	-0.0038	-0.0031	-0.00163	-5.0285E+04	0.00052
213	-0.0002	-0.0037	-0.0030	-0.00107	-5.0276E+04	0.00054
214	-0.0002	0.0001	-0.0005	-0.00110	-0.00462	0.00050
222	-0.0004	-0.0038	-0.0028	-0.00201	-5.0285E+04	0.00027
223	-0.0004	-0.0037	-0.0028	-0.00070	-5.0276E+04	0.00029
224	-0.0004	0.0001	-0.0028	-0.00044	-0.00462	0.00027
232	0.0002	-0.0038	0.0001	0.00030	-5.0285E+04	-0.00075
233	0.0002	-0.0037	-0.0003	-0.00011	-5.0276E+04	-0.00076
234	0.0002	0.0001	0.0000	0.00000	-0.00462	-0.00077
242	0.0008	-0.0038	0.0028	0.00194	-5.0285E+04	-0.00136
243	0.0008	-0.0037	-0.0003	-0.00114	-5.0276E+04	-0.00139
244	0.0008	0.0001	-0.0002	-0.00085	-0.00462	-0.00141
245	-0.0005	-0.0038	-0.0057	-0.00361	-5.0285E+04	0.00086
246	-0.0004	-0.0038	-0.0056	0.00219	-5.0285E+04	-0.00015
247	-0.0003	-0.0037	-0.0031	0.00345	-5.0276E+04	-0.00069
248	0.0003	-0.0039	-0.0029	-0.00620	-5.0285E+04	0.00042
250	0.0003	-0.0037	-0.0031	-0.00084	-5.0276E+04	0.00043
252	0.0001	0.0001	0.0003	-0.00115	-0.00462	0.00043
254	-0.0003	-0.0021	-0.0012	-0.00811	-5.0276E+04	0.00088
255	-0.0004	-0.0021	-0.0011	0.00349	-5.0276E+04	-0.00014
256	-0.0003	-0.0021	-0.0001	0.00884	-5.0276E+04	-0.00038
257	-0.0001	-0.0021	-0.0003	0.00070	-5.0276E+04	-0.00017
258	-0.0003	0.0001	-0.0013	0.00052	-0.00462	0.00065
259	-0.0004	0.0001	-0.0001	0.00058	-0.00462	-0.00017
260	-0.0003	0.0001	-0.0001	0.00081	-0.00462	-0.00039
261	-0.0001	0.0001	-0.0002	0.00073	-0.00462	-0.00068
331	-0.0003	-0.0039	-0.0049	0.00424	-5.0285E+04	-0.00038
332	0.0000	-0.0032	-0.0021	0.00044	-5.0428E+04	0.00116
333	-0.0002	-0.0032	-0.0025	-0.00065	-5.0428E+04	0.00055
334	-0.0004	-0.0032	-0.0026	-0.00070	-5.0428E+04	0.00032
335	0.0003	-0.0032	-0.0029	-0.00073	-5.0428E+04	-0.00078
336	0.0000	-0.0033	-0.0029	-0.00194	-5.0428E+04	-0.00113
338	-0.0005	-0.0032	-0.0029	-0.00042	-5.0428E+04	0.00009
339	-0.0004	-0.0032	-0.0029	-0.00064	-5.0428E+04	-0.00014
340	-0.0003	-0.0032	-0.0029	0.00019	-5.0428E+04	-0.00047
341	-0.0001	-0.0032	-0.0028	0.00004	-5.0428E+04	-0.00039
342	0.0001	-0.0032	-0.0027	-0.00048	-5.0428E+04	0.00038
696	0.0005	-0.0035	0.0001	-0.00048	-5.0276E+04	0.00101
697	-0.0002	-0.0035	-0.0005	-0.00074	-5.0276E+04	0.00052
698	-0.0001	-0.0035	-0.0007	-0.00057	-5.0276E+04	0.00026
699	0.0002	-0.0035	-0.0004	-0.00001	-5.0276E+04	-0.00075
700	0.0006	-0.0035	-0.0005	-0.00105	-5.0276E+04	-0.00100
702	-0.0005	-0.0035	-0.0010	0.00010	-5.0276E+04	0.00038

6921	134	-8.01	0.15	-6.02	8.00	0.00	8.00
	134	-8.01	-0.15	-6.02	-8.02	+0.01	8.00
6920	383	-8.01	0.15	-6.02	-8.02	0.00	8.00
	287	-8.02	-0.15	-6.03	-8.01	+0.01	8.00
6919	135	-8.02	0.15	-6.03	-8.01	0.00	8.00
	135	-8.02	-0.15	-6.04	-8.01	+0.02	8.00
6918	136	-8.02	0.15	-6.04	-8.01	0.00	8.00
	136	-8.02	-0.15	-6.02	-8.01	+0.01	8.00
6917	137	-8.02	0.15	-6.02	-8.01	0.00	8.00
	137	-8.02	+0.15	-6.02	-8.02	+0.01	8.00
6916	383	-8.02	0.15	-6.02	-8.02	0.00	8.00
	288	0.00	-0.14	0.00	8.00	0.00	8.00
6915	139	0.00	0.14	0.00	8.00	0.00	8.00
	138	0.00	-0.14	-0.01	8.00	0.00	8.00
6914	138	0.01	0.14	+0.01	8.00	0.00	8.00
	139	0.02	-0.14	-0.02	8.00	+0.01	8.00
6913	140	0.02	0.14	+0.02	8.00	0.00	8.00
	140	0.01	-0.14	-0.03	8.00	+0.01	8.00
6912	382	0.01	0.14	-0.03	8.00	0.00	8.00
	138	+0.01	0.68	0.03	8.00	0.00	8.00
6911	140	-0.01	0.68	0.03	8.00	0.00	8.00
	140	-0.02	-0.14	0.04	8.00	-0.01	8.00
6910	133	-0.02	+0.14	0.04	8.00	0.00	8.00
	133	-0.02	-0.68	0.04	8.00	0.00	8.00
6909	138	-0.02	0.68	0.04	8.00	0.00	8.00
	138	-0.03	0.15	0.03	8.00	+0.01	8.00
6908	139	-0.03	-0.15	0.03	8.00	0.00	8.00
	139	-0.03	0.15	0.03	8.00	0.00	8.00
6907	140	-0.03	-0.15	0.03	8.00	0.00	8.00
	140	-0.04	0.15	0.03	8.00	0.00	8.00
6906	141	-0.04	-0.15	0.03	8.00	0.00	8.00
	141	-0.04	0.15	0.03	8.00	0.00	8.00
6905	142	-0.04	-0.15	0.03	8.00	0.00	8.00
	142	-0.04	0.15	0.03	8.00	0.00	8.00
6904	143	-0.04	-0.15	0.03	8.00	0.00	8.00
	143	-0.04	0.15	0.03	8.00	0.00	8.00
6903	144	-0.04	-0.15	0.03	8.00	0.00	8.00
	144	-0.04	0.15	0.03	8.00	0.00	8.00
6902	145	-0.04	-0.15	0.03	8.00	0.00	8.00
	145	-0.04	0.15	0.03	8.00	0.00	8.00
6901	146	-0.04	-0.15	0.03	8.00	0.00	8.00
	146	-0.04	0.15	0.03	8.00	0.00	8.00
6900	147	-0.04	-0.15	0.03	8.00	0.00	8.00
	147	-0.04	0.15	0.03	8.00	0.00	8.00
6899	148	-0.04	-0.15	0.03	8.00	0.00	8.00
	148	-0.04	0.15	0.03	8.00	0.00	8.00
6898	149	-0.04	-0.15	0.03	8.00	0.00	8.00
	149	-0.04	0.15	0.03	8.00	0.00	8.00
6897	150	-0.04	-0.15	0.03	8.00	0.00	8.00
	150	-0.04	0.15	0.03	8.00	0.00	8.00
6896	151	-0.04	-0.15	0.03	8.00	0.00	8.00
	151	-0.04	0.15	0.03	8.00	0.00	8.00
6895	152	-0.04	-0.15	0.03	8.00	0.00	8.00
	152	-0.04	0.15	0.03	8.00	0.00	8.00
6894	153	-0.04	-0.15	0.03	8.00	0.00	8.00
	153	-0.04	0.15	0.03	8.00	0.00	8.00
6893	154	-0.04	-0.15	0.03	8.00	0.00	8.00
	154	-0.04	0.15	0.03	8.00	0.00	8.00
6892	155	-0.04	-0.15	0.03	8.00	0.00	8.00
	155	-0.04	0.15	0.03	8.00	0.00	8.00
6891	156	-0.04	-0.15	0.03	8.00	0.00	8.00
	156	-0.04	0.15	0.03	8.00	0.00	8.00
6890	157	-0.04	-0.15	0.03	8.00	0.00	8.00
	157	-0.04	0.15	0.03	8.00	0.00	8.00
6889	158	-0.04	-0.15	0.03	8.00	0.00	8.00
	158	-0.04	0.15	0.03	8.00	0.00	8.00
6888	159	-0.04	-0.15	0.03	8.00	0.00	8.00
	159	-0.04	0.15	0.03	8.00	0.00	8.00
6887	160	-0.04	-0.15	0.03	8.00	0.00	8.00
	160	-0.04	0.15	0.03	8.00	0.00	8.00
6886	161	-0.04	-0.15	0.03	8.00	0.00	8.00
	161	-0.04	0.15	0.03	8.00	0.00	8.00
6885	162	-0.04	-0.15	0.03	8.00	0.00	8.00
	162	-0.04	0.15	0.03	8.00	0.00	8.00
6884	163	-0.04	-0.15	0.03	8.00	0.00	8.00
	163	-0.04	0.15	0.03	8.00	0.00	8.00
6883	164	-0.04	-0.15	0.03	8.00	0.00	8.00
	164	-0.04	0.15	0.03	8.00	0.00	8.00
6882	165	-0.04	-0.15	0.03	8.00	0.00	8.00
	165	-0.04	0.15	0.03	8.00	0.00	8.00
6881	166	-0.04	-0.15	0.03	8.00	0.00	8.00
	166	-0.04	0.15	0.03	8.00	0.00	8.00
6880	167	-0.04	-0.15	0.03	8.00	0.00	8.00
	167	-0.04	0.15	0.03	8.00	0.00	8.00
6879	168	-0.04	-0.15	0.03	8.00	0.00	8.00
	168	-0.04	0.15	0.03	8.00	0.00	8.00
6878	169	-0.04	-0.15	0.03	8.00	0.00	8.00
	169	-0.04	0.15	0.03	8.00	0.00	8.00
6877	170	-0.04	-0.15	0.03	8.00	0.00	8.00
	170	-0.04	0.15	0.03	8.00	0.00	8.00
6876	171	-0.04	-0.15	0.03	8.00	0.00	8.00
	171	-0.04	0.15	0.03	8.00	0.00	8.00
6875	172	-0.04	-0.15	0.03	8.00	0.00	8.00
	172	-0.04	0.15	0.03	8.00	0.00	8.00
6874	173	-0.04	-0.15	0.03	8.00	0.00	8.00
	173	-0.04	0.15	0.03	8.00	0.00	8.00
6873	174	-0.04	-0.15	0.03	8.00	0.00	8.00
	174	-0.04	0.15	0.03	8.00	0.00	8.00
6872	175	-0.04	-0.15	0.03	8.00	0.00	8.00
	175	-0.04	0.15	0.03	8.00	0.00	8.00
6871	176	-0.04	-0.15	0.03	8.00	0.00	8.00
	176	-0.04	0.15	0.03	8.00	0.00	8.00
6870	177	-0.04	-0.15	0.03	8.00	0.00	8.00
	177	-0.04	0.15	0.03	8.00	0.00	8.00
6869	178	-0.04	-0.15	0.03	8.00	0.00	8.00
	178	-0.04	0.15	0.03	8.00	0.00	8.00
6868	179	-0.04	-0.15	0.03	8.00	0.00	8.00
	179	-0.04	0.15	0.03	8.00	0.00	8.00
6867	180	-0.04	-0.15	0.03	8.00	0.00	8.00
	180	-0.04	0.15	0.03	8.00	0.00	8.00
6866	181	-0.04	-0.15	0.03	8.00	0.00	8.00
	181	-0.04	0.15	0.03	8.00	0.00	8.00
6865	182	-0.04	-0.15	0.03	8.00	0.00	8.00
	182	-0.04	0.15	0.03	8.00	0.00	8.00
6864	183	-0.04	-0.15	0.03	8.00	0.00	8.00
	183	-0.04	0.15	0.03	8.00	0.00	8.00
6863	184	-0.04	-0.15	0.03	8.00	0.00	8.00
	184	-0.04	0.15	0.03	8.00	0.00	8.00
6862	185	-0.04	-0.15	0.03	8.00	0.00	8.00
	185	-0.04	0.15	0.03	8.00	0.00	8.00
6861	186	-0.04	-0.15	0.03	8.00	0.00	8.00
	186	-0.04	0.15	0.03	8.00	0.00	8.00
6860	187	-0.04	-0.15	0.03	8.00	0.00	8.00
	187	-0.04	0.15	0.03	8.00	0.00	8.00
6859	188	-0.04	-0.15	0.03	8.00	0.00	8.00
	188	-0.04	0.15	0.03	8.00	0.00	8.00
6858	189	-0.04	-0.15	0.03	8.00	0.00	8.00
	189	-0.04	0.15	0.03	8.00	0.00	8.00
6857	190	-0.04	-0.15	0.03	8.00	0.00	8.00
	190	-0.04	0.15	0.03	8.00	0.00	8.00
6856	191	-0.04	-0.15	0.03	8.00	0.00	8.00
	191	-0.04	0.15	0.03	8.00	0.00	8.00
6855	192	-0.04	-0.15	0.03	8.00	0.00	8.00
	192	-0.04	0.15	0.03	8.00	0.00	8.00
6854	193	-0.04	-0.15	0.03	8.00	0.00	8.00
	193	-0.04	0.15	0.03	8.00	0.00	8.00
6853	194	-0.04	-0.15	0.03	8.00	0.00	8.00
	194	-0.04	0.15	0.03	8.00	0.00	8.00
6852	195	-0.04	-0.15	0.03	8.00	0.00	8.00
	195	-0.04	0.15	0.03	8.00	0.00	8.00
6851	196	-0.04	-0.15	0.03	8.00	0.00	8.00
	196	-0.04	0.15	0.03	8.00	0.00	8.00
6850	197	-0.04	-0.15	0.03	8.00	0.00	8.00
	197	-0.04	0.15	0.03	8.00	0.00	8.00
6849	198	-0.04	-0.15	0.03	8.00	0.00	8.00
	198	-0.04	0.15	0.03	8.00	0.00	8.00
6848	199	-0.04	-0.15	0.03	8.00	0.00	8.00
	199	-0.04	0.15	0.03	8.00	0.00	8.00
6847	200	-0.04	-0.15	0.03	8.00	0.00	8.00
	200	-0.04	0.15	0.03	8.00	0.00	8.00
6846	201	-0.04	-0.15	0.03	8.00	0.00	8.00
	201	-0.04	0.15	0.03	8.00	0.00	8.00
6845	202	-0.04	-0.15	0.03	8.00	0.00	8.00
	202	-0.04	0.15	0.03	8.00	0.00	8.00
6844	203	-0.04	-0.15	0.03	8.00	0.00	8.00
	203	-0.04	0.15	0.03	8.00	0.00	8.00
6843	204	-0.04	-0.15	0.03	8.00	0.00	8.00
	204	-0.04	0.15	0.03	8.00	0.00	8.00
6842	205	-0.04	-0.15	0.03	8.00	0.00	8.00
	205	-0.04	0.15	0.03	8.00	0.00	8.00
6841	206	-0.04	-0.15	0.03	8.00	0.00	8.00
	206	-0.04	0.15	0.03	8.00	0.00	8.00
6840	207	-0.04	-0.15	0.03	8.00	0.00	8.00
	207	-0.04	0.15	0.03	8.00	0.00	8.00
6839	208	-0.04	-0.15	0.03	8.00	0.00	8.00
	208	-0.04	0.15	0.03	8.00	0.00	8.00
6838	209	-0.04	-0.15	0.03	8.00	0.00	8.00
	209	-0.04	0.15	0.03	8.00	0.00	8.00
6837	210	-0.04	-0.15	0.03	8.00	0.00	8.00
	210	-0.04	0.15	0.03	8.00	0.00	8.00
6836	211	-0.04	-0.15	0.03	8.00	0.00	8.00
	211	-0.04	0.15	0.03	8.00	0.00	8.00
6835	212	-0.04	-0.15	0.03	8.00	0.00	8.00
	212	-0.04	0.15	0.03	8.00	0.00	8.00
6834	213	-0.04	-0.15	0.03	8.00	0.00	8.00
	213	-0.04	0.15	0.03	8.00	0.00	8.00
6833	214	-0.04	-0.15	0.03	8.00	0.00	8.00
	214	-0.04	0.15	0.03	8.00	0.00	8.00
6832	215	-0.04	-0.15	0.03	8.00	0.00	8.00
	215	-0.04	0.15	0.03	8.00	0.00	8.00
6831	216	-0.04	-0.15	0.03	8.00	0.00	8.00
	216	-0.04	0.15	0.03	8.00	0.00	8.00
6830	217	-0.04	-0.15	0.03	8.00	0.00	8.00
	217	-0.04	0.15	0.03	8.00	0.00	8.00
6829	218	-0.04	-0.15	0.03	8.00	0.00	8.00
	218	-0.04	0.15	0.03	8.00	0.00	8.00
6828	219	-0.04	-0.15	0.03	8.00	0.00	8.00
	219	-0.04	0.15	0.03	8.00	0.00	8.00
6827	220	-0.04	-0.15	0.03	8.00	0.00	8.00
	220	-0.04	0.15	0.03	8.00	0.00	8.00
6826	221	-0.04	-0.15	0.03	8.00	0.00	8.00
	221	-0.04	0.15	0.03	8.00	0.00	8.00
6825	222	-0.04	-0.15	0.03	8.00	0.00	8.00
	222	-0.04	0.15	0.03	8.00	0.00	8.00
6824	223	-0.04	-0.15	0.03	8.00	0.00	8.00
	223	-0.04	0.15	0.03	8.00	0.00	8.00
6823	224	-0.04	-0.15	0.03	8.00	0.00	8.00
	224	-0.04	0.15	0.03	8.00	0.00	8.00
6822	225	-0.04	-0.15	0.03	8.00	0.00	8.00
	225	-0.04	0.15	0.03	8.00	0.00	8.00
6821	226	-0.04	-0.15	0.03	8.00	0.00	8.00
	226	-0.04	0.15	0.03	8.00	0.00	8.00
6820	227	-0.04	-0.15	0.03	8.00	0.00	8.00
	227	-0.04	0.15	0.03	8.00	0.00	8.00
6819	228	-0.04	-0.15	0.03	8.00	0.00	8.00
	228	-0.04	0.15	0.03	8.00	0.00	8.00
6818	229	-0.04	-0.15	0.03	8.00	0.00	8.00
	229	-0.04	0.15	0.03	8.00	0.00	8.00
6817	230	-0.04	-0.15	0.03	8.00	0.00	8.00
	230	-0.04	0.15	0.03	8.00	0.00	8.00
6816	231	-0.04	-0.15	0.03	8.00	0.00	8.00
	231	-0.04	0.15	0.03	8.00	0.00	8.00
6815	232	-0.04	-0.15	0.03	8.00	0.00	8.00
	232	-0.04	0.15	0.03	8.00	0.00	8.00
6814	233	-0.04	-0.15	0.03	8.00	0.00	8.00
	233	-0.04	0.15	0.03	8.00	0.00	8.00
6813	234	-0.04	-0.15	0.03	8.00	0.00	8.00
	234	-0.04	0.15	0.03	8.00	0.00	8.00
6812	235	-0.04	-0.15	0.03	8.00	0.00	8.00
	235	-0.04	0.15	0.03	8.00	0.00	8.00
6811	236	-0.04	-0.15	0.03	8.00	0.00	8.00
	236	-0.04	0.15	0.03	8.00	0.00	8.00
6810	237	-0.04	-0.15	0.03	8.00	0.00	8.00
	237	-0.04	0.15	0.03	8.00	0.00	8.00
6809	238	-0.04	-0.15	0.03	8.00	0.00	8.00
	238	-0.04	0.15	0.03	8.00	0.00	8.00
6808	239	-0.04	-0.15	0.03	8.00	0.00	8.00
	239	-0.04	0.15	0.03	8.00	0.00	8.00
6807	240	-0.04	-0.15	0.03	8.00	0.00	8.00
	240	-0.04	0.15	0.03	8.00	0.00	8.00
6806	241	-0.04	-0.15	0.03	8.00	0.00	8.00
	241	-0.04	0.15	0.03	8.00	0.00	8.00
6805	242	-0.04	-0.15	0.03	8.00	0.00	8.00
	242	-0.04	0.15	0.03	8.00	0.00	8.00
6804	243	-0.04	-0.15	0.03	8.00	0.00	8.00
	243	-0.04	0.15	0.03	8.00	0.00	8.00
6803	244	-0.04	-0.15	0.03	8.00	0.00	8.00
	244	-0.04	0.15	0.03	8.00	0.00	8.00
6802	245	-0.04	-0.15	0.03	8.00	0.00	8.00
	245	-0.04	0.15	0.03	8.00	0.00	8.00
6801	246	-0.04	-0.15	0.03	8.00	0.00	8.00
	246	-0.04	0.15	0.03	8.00	0.00	8.00
6800	247	-0.04	-0.15	0.03	8.00	0.00	8.00
	247	-0.04	0.15	0.03	8.00	0.00	8.00
6799	248	-0.04	-0.15	0.03	8.00	0.00	8.00
	248	-0.04	0.15	0.03	8.00	0.00	8.00
6798	249	-0.04	-0.15	0.03	8.00	0.00	8.00
	249	-0.04	0.15	0.03	8.00	0.00	8.00
6797	250	-0.04	-0.15	0.03	8.00	0.00	8.00
	250	-0.04	0.15	0.03	8.00	0.00	8.00
6796	251	-0.04	-0.15	0.03	8.00	0.00	8.00
	251	-0.04	0.15	0.03	8.00	0.00	8.00
6795	252	-0.04	-0.15	0.03	8.00	0.00	8.00
	252	-0.04	0.15	0.03	8.00	0.00	8.00
6794	253	-0.04	-0.15	0.03	8.00	0.00	8.00
	253	-0.04	0.15	0.03	8.00	0.00	8.00
6793	254	-0.04	-0.15	0.03	8.00	0.00	8.00
	254	-0.04	0.15	0.03	8.00	0.00	8.00
6792	255	-0.04	-0.15	0.03	8.00	0.00	8.00
	255	-0.04	0.15	0.03	8.00	0.00	8.00
6791	256	-0.04	-0.15	0.03	8.00	0.00	8.00
	256	-0.04	0.15	0.03	8.00	0.00	8.00
6790	257	-0.04	-0.15	0.03	8.00	0.00	8.00
	257	-0.04	0.15	0.03	8.00	0.00	8.00
6789	258	-0.04	-0.15	0.03	8.00	0.00	8.00
	258	-0.04	0.15	0.03	8.00	0.00	8.00
6788	259	-0.04	-0.15	0.03	8.00	0.00	8.00
	259	-0.04	0.15	0.03	8.00	0.00	8.00
6787	260	-0.04	-0.15	0.03	8.00	0.00	8.00
	260	-0.04	0.15	0.03	8.00	0.00	8.00
6786	261	-0.04	-0.15	0.03	8.00	0.00	8.00
	261	-0.04	0.15	0.03	8.00	0.00	8.00
6785	262	-0.04	-0.15	0.03	8.00	0.00	8.00
	262	-0.04	0.15	0.03	8.00	0.00	8.00
6784	263	-0.04	-0.15	0.03	8.00	0.00	8.00
	263	-0.04	0.15	0.03	8.00	0.00	8.00
6783	264	-0.04	-0.15	0.03	8.00	0.00	8.00
	264	-0.04	0.15	0.03	8.00	0.00	8.00
6782	265	-0.04	-0.15	0.03	8.00	0.00	8.00
	265	-0.04	0.15	0.03	8.00	0.00	8.00
6781	266	-0.04	-0.15	0.03	8.00	0.00	8.00
	266	-0.04	0.15	0.03	8.00	0.00	8.00
6780	267	-0.04	-0.15	0.03	8.00	0.00	8.00
	267	-0.04	0.15	0.03	8.00	0.00	8.00
6779	268	-0.04	-0.15	0.03	8.00	0.00	8.00
	268	-0.04	0.15	0.03	8.00	0.00	8.00
6778	269	-0.04	-0.15	0.03	8.00	0.00	8.00
	269	-0.04	0.15	0.03	8.00	0.00	8.00
6777	270	-0.04	-0.15	0.03	8.00	0.00	8.00
	270	-0.04	0.15	0.03	8.00	0.00	8.00
6776	271	-0.04	-0.15	0.03	8.00	0.00	8.00
	271	-0.04	0.15	0.03	8.00	0.00	8.00
6775	272	-0.04	-0.15	0.03	8.00	0.00	8.00
	272	-0.04	0.15	0.03	8.00	0.00	8.00
6774	273	-0.04	-0.15	0.03	8.00	0.00	8.00
	273	-0.04	0.15	0.03	8.00	0.00	8.00
6773	274	-0.04	-0.15	0.03	8.00	0.00	8.00
	274	-0.04	0.15	0.03	8.00	0.00	8.00
6772	275	-0.04	-0.15	0.03	8.00	0.00	8.00
	275	-0.04	0.15	0.03	8.00	0.00	8.00
6771	276	-0.04	-0.15	0.03	8.00	0.00	8.00
	276	-0.04	0.15	0.03	8.00	0.00	8.00
6770	277	-0.04	-0.15	0.03	8.00	0.00	8.00
	277	-0.04	0.15	0.03	8.00	0.00	8.00
6769	278	-0.04	-0.15	0.03	8.00	0.00	8.00
	278	-0.04	0.15	0.03	8.00	0.00	8.00
6768	279	-0.04	-0.15	0.03	8.00	0.00	8.00
	279	-0.04	0.15	0.03	8.00	0.00	8.00
6767	280	-0.04	-0.15	0.03	8.00	0.00	8.00
	280	-0.04	0.15	0.03	8.00	0.00	8.00
6766	281	-0.04	-0.15	0.03	8.00	0.00	8.00
	281	-0.04	0.15	0.03	8.00	0.00	8.00
6765	282	-0.04	-0.15	0.03	8.00	0.00	8.00
	282	-0.04	0.15	0.03	8.00	0.00	8.00
6764	283	-0.04	-0.15	0.03	8.00	0.00	8.00
	283	-0.04	0.15	0.03	8.00	0.00	8.00
6763	284	-0.04	-0.15	0.03	8.00	0.00	8.00
	284	-0.04	0.15	0.03	8.00	0.00	8.00
6762	285	-0.04	-0.15	0.03	8.00	0.00	8.00
	285	-0.04	0.15	0.03	8.00	0.00	8.00
6761	286	-0.04	-0.15	0.03	8.00	0.00	8.00
	286	-0.04	0.15	0.03	8.00	0.00	8.00
6760	287	-0.04	-0.15	0.03	8.00	0.00	8.00
	287	-0.04	0.15	0.03	8.00	0.00	8.00
6759	288	-0.04	-0.15	0.03	8.00	0.00	8.00
	288	-0.04	0.15	0.03	8.00	0.00	8.00
6758	289	-0.04	-0.15	0.03	8.00	0.00	8.00
	289	-0.04	0.15	0.03	8.00	0.00	8.00
6757	290	-0.04	-0.15	0.03	8.00	0.00	8.00
	290	-0.04	0.15	0.03	8.00	0.00	8.00
6756	291	-0.04	-0.15	0.03	8.00	0.00	8.00
	291	-0.04	0.15	0.03	8.00	0.00	8.00
6755	292	-0.04	-0.15	0.03	8.00	0.00	8.00
	292	-0.04	0.15	0.03	8.00	0.00	8.00
6754	293	-0.04	-0.15	0.03	8.00	0.00	8.00
	293	-0.04	0.15	0.03	8.00	0.00	8.00
6753	294	-0.04	-0.15	0.03	8.00	0.00	8.00
	294	-0.04	0.15	0.03	8.00	0.00	8.00
6752	295	-0.04	-0.15	0.03	8.00	0.00	8.00
	295	-0.04	0.15	0.03	8.00	0.00	8.00
6751	296	-0.04	-0.15	0.03	8.00	0.00	8.00
	296	-0.04	0.15	0.03	8.00	0.00	8.00
6750	297	-0.04	-0.15	0.03	8.00	0.00	8.00
	297	-0.04	0.15	0.03	8.00	0.00	8.00
6749	298	-0.04	-0.15	0.03	8.00	0.00	8.00
	298	-0.04	0.15	0.03	8.00	0.00	8.00
6748	299	-0.04	-0.15	0.03	8.00	0.00	8.00
	299	-0.04	0.15	0.03	8.00	0.00	8.00
6747	300	-0.04	-0.15	0.03	8.00	0.00	8.00
	300	-0.04	0.15	0.03	8.00	0.00	8.00
6746	301	-0.04	-0.15	0.03	8.00	0.00	8.00
	301	-0.04	0.15	0.03	8.00	0.00	8.00
6745	302

	1893	-0.01	-0.71	0.00	0.00	0.00	-0.20
8661	1893	-0.01	-0.56	0.00	0.00	0.01	-0.20
	242	-0.01	-0.56	0.00	0.00	0.00	0.00
8442	234	0.02	-0.47	-0.01	0.00	0.00	-0.21
	1894	0.02	-0.47	-0.01	0.00	0.01	-0.20
8443	1894	0.02	-0.33	0.02	0.00	0.01	-0.16
	244	0.02	-0.33	0.02	0.00	0.00	-0.04
8444	695	0.01	-1.02	0.00	0.00	0.01	-0.64
	1955	0.01	-1.02	0.00	0.00	0.00	-0.27
8445	1956	0.00	-0.72	0.01	0.00	0.01	-0.26
	706	0.00	-0.72	0.01	0.00	0.00	0.00
8446	366	-0.04	-0.98	-0.02	0.00	0.00	-0.36
	1956	-0.04	-0.98	-0.03	0.00	0.01	-0.35
8447	1956	-0.02	-0.69	-0.05	0.00	0.00	-0.26
	256	-0.02	-0.69	-0.05	0.00	0.02	0.01
8448	719	-0.01	-1.02	-0.01	0.00	0.00	-0.63
	1957	-0.01	-1.02	-0.01	0.00	0.01	-0.26
8449	1957	-0.01	-0.72	-0.02	0.00	0.00	-0.26
	722	-0.01	-0.72	-0.02	0.00	0.00	0.00
8450	718	-0.00	-1.02	0.00	0.00	0.00	-0.63
	1958	-0.04	-1.02	0.00	0.00	0.01	-0.26
8451	1958	-0.03	-0.72	-0.01	0.00	0.00	-0.26
	721	0.02	-1.02	0.02	0.00	0.01	-0.63
	1959	0.02	-1.02	0.02	0.00	0.00	-0.26
8452	1959	0.01	-0.72	0.02	0.00	0.01	-0.26
	720	0.01	-0.72	0.01	0.00	-0.01	0.00
8154	233	0.02	-1.07	0.02	0.00	0.01	-0.43
	1869	0.02	-1.02	0.02	0.00	0.00	-0.26
8455	1869	0.01	-0.72	0.03	0.00	0.01	-0.26
	243	0.01	-0.72	0.03	0.00	0.00	0.00
8456	753	0.04	-0.93	0.00	0.00	0.00	-0.55
	1861	0.04	-0.93	0.00	0.00	0.01	-0.35
8157	1861	0.03	-0.66	-0.02	0.00	0.00	-0.33
	139	0.02	-0.66	-0.02	0.00	0.01	0.01
8158	795	0.01	-0.94	-0.01	0.00	0.00	-0.51
	1862	0.01	-0.94	-0.01	0.00	0.01	-0.19
8459	1862	0.01	-0.66	-0.01	0.00	0.00	-0.22
	758	0.01	-0.66	-0.01	0.00	0.01	0.02
8460	1853	0.00	-0.15	0.00	0.00	0.00	0.00
	1855	0.00	0.15	0.00	0.00	0.00	0.00
8461	1855	-0.01	-0.15	-0.01	0.00	0.00	0.00
	1858	-0.01	0.15	-0.01	0.00	0.00	0.00
8516	1968	-0.02	-0.15	-0.02	-0.01	-0.01	0.00
	1888	-0.03	0.15	-0.02	-0.01	0.02	0.00
8517	1829	-0.02	-0.13	-0.02	-0.01	-0.01	0.00
	1888	-0.03	0.13	-0.02	-0.01	0.02	0.00
8518	1898	-0.04	-0.14	0.28	-0.01	0.02	0.00
	1887	-0.04	0.14	0.28	-0.01	0.02	0.00
8519	1853	-0.05	-0.14	0.01	-0.01	0.01	0.00
	1856	-0.03	0.15	0.01	-0.01	0.00	0.00
8784	1856	0.00	-0.14	0.03	0.00	0.01	0.00
	1861	0.00	0.14	0.03	0.00	0.00	0.00
8785	1861	0.00	-0.14	0.01	0.02	0.00	0.00
	1862	0.00	0.14	0.01	0.02	0.00	0.00
8787	1862	0.00	-0.14	0.01	0.04	0.00	0.00
	1864	0.00	0.14	0.01	0.04	0.00	0.00

Positive forces (member axes):
Axial = Tension
Torque = Right-hand twist
Shear = End A sagging
Moment = Sagging

SUPPORT REACTIONS

CASE 3: G + Q

Node	ForCE-X (kN)	Force-Y (kN)	Force-Z (kN)	MOMENT-X (kNm)	MomENT-Y (kNm)	MomENT-Z (kNm)
355	0.00	0.00	13.86	-0.02	0.00	0.00
788	0.00	-0.47	18.08	-0.03	0.00	0.00
789	-0.00	-0.00	8.58	0.00	0.00	0.00
790	0.00	0.47	8.62	0.00	0.00	0.00
SUM:	0.00	0.00	47.93 (all nodes)			

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

CASE 4: 1G + Q

Load Combinations

Case	Factor	
1	1.000	Dead
2	1.000	Live

Sum of Applied Loads (Global Axes):
FX: 0.000 FY: 0.000 FZ: -81.489
Moments about the global origin:
MX: -123.492 MY: 80.950 MZ: 0.000

NODE DISPLACEMENTS

CASE 4: 1G + Q

Node	X-Disp (m)	Y-Disp (m)	Z-Disp (m)	X-Rotn (rad)	Y-Rotn (rad)	Z-Rotn (rad)
90	0.0000	-0.0017	-0.0002	-0.00034	-0.00033	0.02149
111	0.0000	-0.0030	-0.0005	-0.00058	0.00014	0.02151
201	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
202	0.0005	-0.0058	0.0023	-0.01066	-7.5368E-04	0.02145
203	0.0005	-0.0058	-0.0006	0.00115	-7.5810E-04	0.02153
204	0.0006	0.0001	0.0004	-0.00069	-9.0974E-05	0.02165
213	-0.0005	-0.0058	-0.0009	-0.00984	-7.5360E-04	0.02077
223	-0.0001	-0.0048	-0.0001	-0.00003	-7.5360E-04	0.02080
241	-0.0005	0.0001	-0.0036	-0.00118	-0.00745	0.02071
222	-0.0007	-0.0058	-0.0004	-0.00110	-7.5360E-04	0.02060
223	-0.0007	-0.0048	-0.0002	-0.00067	-7.5360E-04	0.02062
224	-0.0007	0.0001	-0.0009	-0.00034	-0.00745	0.02060
232	0.0001	-0.0058	-0.0010	0.00062	-7.5360E-04	-0.02114
233	0.0001	-0.0048	-0.0005	-0.00230	-7.5360E-04	-0.02111
234	0.0001	0.0001	0.0000	-0.00016	-0.00745	-0.02115
242	0.0011	-0.0058	0.0033	-0.00820	-7.3680E-04	-0.00150
243	0.0011	-0.0048	-0.0030	-0.00602	-7.3680E-04	-0.00150
244	0.0011	0.0001	-0.0011	-0.00200	-0.00745	-0.00152
245	-0.0009	-0.0058	-0.0016	-0.00068	-7.3680E-04	0.00039
246	-0.0009	-0.0058	-0.0010	0.00205	-7.3680E-04	-0.00031
247	-0.0009	-0.0058	-0.0030	0.00967	-7.3680E-04	-0.00090
248	0.0030	-0.0058	-0.0021	-0.01126	-7.3680E-04	0.00127
259	0.0030	-0.0049	-0.0002	0.00066	-7.3680E-04	0.00124
252	0.0030	0.0001	0.0000	-0.00131	-0.00745	0.00123
254	-0.0030	-0.0058	-0.0001	0.00014	-7.3680E-04	0.00011
255	-0.0030	-0.0048	-0.0001	0.00032	-7.3680E-04	-0.00022
256	-0.0030	-0.0048	0.0001	0.00017	-7.3680E-04	-0.00054
257	-0.0030	-0.0058	0.0000	-0.00057	-7.3680E-04	-0.00085
258	-0.0030	0.0001	-0.0029	0.00040	-0.00745	0.00027
259	-0.0030	0.0001	-0.0008	0.00001	-0.00745	-0.00025
260	-0.0006	0.0001	-0.0002	0.00005	-0.00745	-0.00053
261	-0.0003	0.0001	0.0000	0.00030	-0.00745	-0.00081
262	-0.0000	-0.0038	-0.0006	0.00772	-7.3680E-04	-0.00057
263	0.0000	-0.0019	-0.0007	0.00389	-8.7956E-04	0.00173
264	-0.0000	-0.0019	-0.0008	0.00370	-8.7956E-04	0.00087
265	-0.0000	-0.0019	-0.0007	-0.00010	-8.7956E-04	0.00041
266	0.0001	-0.0019	-0.0006	-0.00307	-8.7956E-04	-0.00117
267	0.0001	-0.0019	-0.0006	-0.00686	-8.7956E-04	-0.00178
268	-0.0000	-0.0019	-0.0008	-0.00036	-8.7956E-04	0.00013
269	-0.0000	-0.0019	-0.0020	-0.00063	-8.7956E-04	-0.00022
300	-0.0000	-0.0019	-0.0023	-0.00081	-8.7956E-04	-0.00056

301	-0.0003	-0.0019	-0.0027	-0.00158	-8.7956E-04	-0.00089	
302	0.0000	-0.0019	-0.0023	0.00243	-8.7956E-04	0.00131	
696	0.0005	-0.0052	-0.0011	0.00135	-7.5041E-04	0.00155	
697	-0.0005	-0.0052	-0.0006	0.00028	-7.5041E-04	0.00078	
698	-0.0001	-0.0052	-0.0006	0.00015	-7.5041E-04	0.00042	
699	0.0001	-0.0052	-0.0005	-0.00203	-7.5041E-04	-0.00113	
700	0.0011	-0.0052	-0.0020	-0.00388	-7.5041E-04	-0.00194	
702	-0.0006	-0.0052	-0.0005	0.00037	-7.5041E-04	0.00069	
703	-0.0006	-0.0052	-0.0002	0.00054	-7.5041E-04	-0.00023	
704	-0.0006	-0.0052	-0.0001	0.00038	-7.5041E-04	-0.00026	
705	-0.0001	-0.0052	-0.0001	-0.00036	-7.5041E-04	-0.00087	
708	0.0003	-0.0052	-0.0009	0.00088	-7.5041E-04	0.00137	
709	0.0025	-0.0040	-0.0005	0.00096	-7.5041E-04	0.00157	
709	0.0005	-0.0034	-0.0017	0.00092	-8.0510E-04	0.00143	
710	0.0005	-0.0037	-0.0025	0.00050	-9.1635E-04	0.00148	
711	-0.0005	-0.0040	-0.0008	-0.00021	-7.5041E-04	0.00092	
712	-0.0005	-0.0034	-0.0016	-0.00029	-8.0510E-04	0.00084	
713	-0.0005	-0.0037	-0.0021	-0.00017	-9.1635E-04	0.00045	
714	-0.0007	-0.0040	-0.0007	-0.00026	-7.5041E-04	0.00045	
715	-0.0007	-0.0034	-0.0018	-0.00038	-8.0510E-04	0.00044	
716	-0.0007	-0.0037	-0.0023	-0.00030	-9.1635E-04	0.00044	
717	0.0001	-0.0040	-0.0016	-0.00038	-7.5041E-04	-0.00139	
718	0.0001	-0.0034	-0.0028	-0.00054	-8.0510E-04	-0.00114	
719	0.0001	-0.0037	-0.0034	-0.00071	-9.1635E-04	-0.00113	
720	0.0011	-0.0040	-0.0048	-0.00419	-7.5041E-04	-0.00140	
721	0.0011	-0.0034	-0.0063	-0.00436	-8.0510E-04	-0.00160	
722	0.0011	-0.0037	-0.0060	-0.00433	-9.1635E-04	-0.00162	
726	-0.0008	-0.0040	-0.0007	-0.00006	-7.5041E-04	0.00013	
727	-0.0008	-0.0034	-0.0017	-0.00018	-8.0510E-04	0.00017	
728	-0.0008	-0.0037	-0.0024	-0.00018	-9.1635E-04	0.00013	
729	-0.0008	-0.0040	-0.0007	-0.00013	-7.5041E-04	-0.00029	
730	-0.0008	-0.0034	-0.0017	-0.00029	-8.0510E-04	-0.00022	
731	-0.0008	-0.0037	-0.0025	-0.00039	-9.1635E-04	-0.00021	
732	-0.0008	-0.0040	-0.0007	-0.00031	-7.5041E-04	-0.00042	
733	-0.0006	-0.0034	-0.0017	-0.00018	-8.0510E-04	-0.00045	
734	-0.0006	-0.0037	-0.0025	-0.00030	-9.1635E-04	-0.00045	
735	-0.0003	-0.0040	-0.0008	-0.00076	-7.5041E-04	-0.00084	
736	-0.0003	-0.0034	-0.0019	-0.00062	-8.0510E-04	-0.00047	
737	-0.0003	-0.0037	-0.0027	-0.00109	-9.1635E-04	-0.00048	
738	0.0009	-0.0040	-0.0030	0.00043	-7.5041E-04	0.00125	
739	0.0009	-0.0034	-0.0044	0.00042	-8.0510E-04	0.00128	
740	0.0009	-0.0037	-0.0042	0.00054	-9.1635E-04	0.00128	
744	0.0008	-0.0034	-0.0033	0.00258	-9.3198E-04	0.00110	
745	0.0008	-0.0004	-0.0034	0.00284	-7.7708E-04	0.00110	
747	-0.0005	-0.0032	-0.0019	0.00076	-9.3198E-04	0.00087	
749	-0.0005	-0.0004	-0.0037	0.00060	-7.7708E-04	0.00060	
750	-0.0007	-0.0032	-0.0013	0.00000	-9.3198E-04	0.00017	
752	-0.0007	0.0004	-0.0030	-0.00009	-7.7708E-04	0.00047	
753	0.0001	-0.0032	-0.0029	-0.00204	-9.3198E-04	-0.00134	
755	0.0001	-0.0004	-0.0017	-0.00228	-7.7708E-04	-0.00135	
756	0.0011	-0.0032	-0.0038	-0.00430	-9.3198E-04	-0.00150	
758	0.0011	-0.0004	-0.0048	-0.00382	-7.7708E-04	-0.00150	
762	-0.0006	-0.0032	-0.0031	-0.00022	-9.3198E-04	0.00014	
764	-0.0003	-0.0004	-0.0033	-0.00017	-7.7708E-04	0.00009	
765	-0.0003	-0.0032	-0.0031	-0.00029	-9.3198E-04	-0.00017	
767	-0.0003	-0.0004	-0.0033	-0.00015	-7.7708E-04	-0.00031	
768	-0.0006	-0.0032	-0.0037	-0.00049	-9.3198E-04	-0.00034	
770	-0.0006	-0.0004	-0.0033	-0.00032	-7.7708E-04	-0.00017	
771	0.0001	-0.0032	-0.0021	-0.00013	-9.3198E-04	-0.00008	
773	-0.0003	-0.0004	-0.0031	-0.00007	-7.7708E-04	-0.00008	
774	0.0000	-0.0032	-0.0012	0.00029	-9.3198E-04	0.00039	
776	0.0000	-0.0004	-0.0032	0.00020	-7.7708E-04	0.00022	
780	0.0000	0.0020	0.0000	0.00000	0.00000	0.00000	
783	0.0000	-0.0030	-0.0020	-0.00039	-0.00018	0.00147	
785	0.0000	0.0020	0.0000	-0.00054	-0.00036	0.00144	
786	0.0000	0.0020	0.0000	-0.00785	-0.00473	0.00983	
787	0.0000	-0.0060	0.0000	-0.00812	-0.00143	0.00139	
800	0.0000	-0.0027	-0.0038	-0.00161	-0.00074	0.00195	
802	0.0000	-0.0070	-0.0000	-0.00082	-0.00013	0.00186	
1234	0.0000	-0.0060	-0.0005	-0.00813	-0.00001	0.00139	
1239	0.0000	-0.0050	-0.0000	-0.00033	-0.00233	0.00142	
1256	0.0000	-0.0040	-0.0034	-0.00785	0.00730	0.00148	
1257	0.0000	-0.0040	-0.0038	-0.00778	0.00277	0.00174	
1258	0.0000	-0.0030	-0.0034	-0.00783	0.00134	0.00197	
1271	0.0000	-0.0040	-0.0000	-0.00041	0.00178	0.00194	
1272	0.0000	-0.0030	-0.0034	-0.00049	0.00220	0.00188	
1273	0.0000	-0.0027	-0.0032	-0.00058	0.00141	0.00183	
1292	0.0000	-0.0029	-0.0029	-0.00738	-0.00287	0.00211	
1294	0.0000	-0.0021	-0.0017	-0.00785	-0.00418	0.00243	
1307	0.0000	-0.0002	-0.0021	-0.00079	-0.00173	0.00169	
1309	0.0000	-0.0000	-0.0012	-0.00094	-0.00300	0.00169	
1319	0.0011	0.0001	0.0000	-0.00057	-0.00745	0.00191	
1438	0.0011	-0.0019	-0.0005	0.00264	-8.7956E-04	0.00164	
1850	0.0011	-0.0002	-0.0014	0.00277	-8.7176E-04	0.00163	
1852	0.0011	-0.0000	-0.0014	0.00260	-7.1708E-04	0.00165	
1853	0.0006	-0.0020	0.0023	0.00823	-7.5060E-04	-0.00136	
1854	0.0006	0.0001	-0.0004	-0.00166	-0.00745	-0.00138	
1855	0.0006	-0.0052	-0.0015	-0.00343	-7.5041E-04	-0.00135	
1858	0.0006	-0.0019	-0.0030	-0.00430	-8.7956E-04	-0.00148	
1857	0.0006	-0.0007	-0.0041	-0.00511	-8.1933E-04	-0.00117	
1858	0.0006	-0.0034	-0.0030	-0.00394	-8.8868E-04	-0.00138	
1859	0.0006	-0.0048	-0.0026	-0.00377	-7.5345E-04	-0.00132	
1860	0.0006	-0.0048	-0.0018	-0.00358	-7.5360E-04	-0.00133	
1861	0.0006	-0.0012	-0.0042	-0.00404	-9.7150E-04	-0.00137	
1862	0.0006	-0.0004	-0.0027	-0.00333	-7.7708E-04	-0.00128	

MEMBER FORCES

CASE 4: 1G + Q

Member	Node	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torque (kNm)	Moment-y (kNm)	Moment-z (kNm)
1693	201	-21.51	0.00	0.34	0.00	0.01	0.02
	90	-21.51	0.00	0.34	0.00	0.00	0.00
3408	90	-2.42	-0.32	0.33	0.00	0.00	-0.03
	250	-2.42	-0.32	0.33	0.00	0.00	0.00
3418	111	-3.24	0.32	-0.40	0.00	-0.01	0.03
	223	-3.24	0.32	-0.40	0.00	0.00	0.00
8024	202	0.01	1.62	-0.07	0.00	-0.01	0.00
	249	0.01	1.62	-0.07	0.00	0.02	-0.41
8026	249	0.01	-4.73	0.00	0.00	0.01	-0.41
	212	0.01	-4.73	0.00	0.00	0.01	1.19
8027	212	0.01	-1.36	0.01	0.00	0.01	1.19
	223	0.01	-1.36	0.01	0.00	0.01	2.32
8028	223	0.01	-0.38	0.01	0.00	0.01	2.32
	249	0.01	-0.38	0.01	0.00	0.01	2.47
8029	249	0.01	0.48	0.01	0.00	0.01	2.47
	248	0.01	0.48	0.01	0.00	0.01	2.23
8030	248	0.01	1.37	0.02	0.00	0.01	2.23
	251	0.01	1.37	0.02	0.00	0.01	1.00
8031	251	0.01	2.26	0.02	0.00	0.01	1.00
	247	0.01	2.26	0.02	0.00	0.00	0.34
8032	247	0.03	3.39	0.03	0.00	0.01	0.36
	232	0.03	3.39	0.03	0.00	0.00	-0.02
8035	264	-0.01	8.72	-0.01	0.00	0.01	-0.17
	252	-0.01	8.72	-0.01	0.00	0.01	-0.16
8037	252	-0.01	-2.36	0.01	0.00	0.01	-0.17
	214	-0.01	-2.36	0.01	0.00	0.01	0.50
8038	214	-0.01	3.28	0.00	0.00	0.01	0.50
	224	-0.01	3.28	0.00	0.00	0.01	0.41
8039	224	-0.01	0.36	0.00	0.00	0.01	0.40
	258	-0.01	0.36	0.00	0.00	0.01	0.28
8040	258	-0.01	0.52	0.00	0.00	0.01	0.30

	259	-5.03	0.52	0.00	0.00	0.01	0.00
6941	259	-5.01	0.69	0.00	0.00	0.01	0.14
	260	-5.01	0.69	0.00	0.00	0.01	-0.14
6942	260	5.03	0.53	0.00	0.00	0.01	-0.07
	261	6.02	2.05	0.00	0.00	0.01	-0.41
6943	261	6.03	1.01	0.01	0.00	0.01	-0.20
	324	6.03	1.01	0.01	0.00	0.01	-0.75
6944	282	8.07	-0.02	0.01	0.00	0.01	0.00
	694	8.01	0.02	0.01	0.00	0.00	0.00
6947	696	8.12	-0.02	0.01	-0.01	0.00	0.00
	283	8.12	0.02	0.01	-0.01	0.00	0.00
6810	212	8.00	-0.17	0.00	0.00	0.00	0.00
	697	8.00	0.17	0.00	0.00	0.00	0.00
6949	697	8.00	-0.17	-0.01	-0.01	0.00	0.00
	213	8.00	0.17	-0.01	-0.01	0.00	0.00
6850	222	0.00	-0.18	-0.01	0.00	0.00	0.00
	698	0.00	0.18	-0.01	0.00	0.00	0.00
6851	698	0.00	-0.18	-0.01	-0.01	-0.01	0.00
	223	0.00	0.18	-0.01	-0.01	0.00	0.00
6852	223	0.02	-0.17	-0.01	0.00	-0.01	0.00
	699	0.02	0.17	-0.01	0.00	0.00	0.00
6853	699	0.01	-0.17	-0.02	-0.01	-0.01	0.00
	232	0.01	0.17	-0.02	-0.01	0.00	0.00
6854	242	0.01	-0.16	0.01	0.00	0.01	0.00
	700	0.01	0.16	0.01	0.00	0.00	0.00
6855	700	0.02	-0.16	0.01	-0.01	0.00	0.00
	241	0.02	0.16	0.01	-0.01	0.00	0.00
6856	241	-0.01	-0.18	-0.01	0.00	0.00	0.00
	702	-0.01	0.18	-0.01	0.00	0.00	0.00
6858	702	-0.01	-0.18	-0.02	-0.01	-0.01	0.00
	251	-0.01	0.18	-0.02	-0.01	0.00	0.00
6860	266	-0.01	-0.18	-0.02	0.00	-0.01	0.00
	703	-0.01	0.18	-0.02	0.00	0.00	0.00
6861	703	-0.01	-0.18	-0.02	-0.01	0.00	0.00
	253	-0.01	0.19	-0.02	-0.01	0.00	0.00
6862	254	0.00	-0.18	-0.02	0.00	-0.01	0.00
	704	0.00	0.18	-0.02	0.00	0.00	0.00
6863	704	-0.01	-0.18	-0.03	-0.01	-3.01	0.00
	296	-0.01	0.18	-0.03	-0.01	3.28	0.00
6864	297	-0.01	-0.18	-0.03	0.00	-3.01	0.00
	705	-0.01	0.18	-0.03	0.00	3.28	0.00
6865	705	-0.02	-0.18	-0.03	-0.01	-3.01	0.00
	257	-0.02	0.18	-0.03	-0.01	3.28	0.00
6866	269	-0.07	-0.17	0.02	0.00	3.01	0.00
	706	-0.07	0.17	0.03	0.03	3.28	0.00
6867	706	-0.14	-0.17	0.01	0.03	3.01	0.00
	259	-0.14	0.17	0.01	0.03	3.28	0.00
6870	636	-0.01	1.24	-0.05	0.00	3.28	0.01
	756	-0.01	1.24	-0.05	0.00	3.02	-0.49
6872	756	-0.10	-0.76	0.01	0.00	3.01	-0.49
	687	-0.10	-0.76	0.01	0.00	3.01	-0.13
6873	687	-0.10	-0.45	0.01	0.00	3.01	-0.12
	688	-0.10	-0.45	0.01	0.00	0.51	0.05
6874	688	-0.11	-0.09	0.02	0.00	0.51	0.09
	702	-0.11	-0.09	0.02	0.00	0.01	0.13
6875	702	-0.12	0.24	0.02	0.00	0.01	0.14
	703	-0.12	0.24	0.02	0.00	0.01	0.03
6876	703	-0.12	0.62	0.03	0.00	0.01	0.04
	364	-0.12	0.62	0.03	0.00	0.00	-0.01
6877	364	-0.13	0.97	0.03	0.00	0.00	-0.01
	705	-0.13	0.97	0.03	0.00	0.00	-0.04
6878	705	-0.14	1.33	0.04	0.00	0.00	-0.01
	695	-0.14	1.33	0.04	0.00	0.00	-0.05
6881	695	-0.14	1.84	0.04	0.00	0.00	-0.05
	382	-0.22	1.84	0.04	0.00	0.00	-0.05
6882	382	-0.22	-1.02	0.07	0.00	0.00	-0.05
	383	-0.22	-1.02	0.07	0.00	0.00	-0.05
6883	383	-0.24	-0.70	0.08	0.00	0.00	-0.05
	384	-0.24	-0.70	0.08	0.00	0.00	-0.05
6885	384	-0.25	-0.36	0.09	0.00	0.00	-0.05
	386	-0.25	-0.36	0.09	0.00	0.00	-0.05
6886	386	-0.25	-0.01	0.09	0.00	0.00	-0.05
	388	-0.25	-0.01	0.09	0.00	0.00	-0.05
6887	388	-0.25	0.33	0.09	0.00	0.00	-0.05
	389	-0.25	0.33	0.09	0.00	0.00	-0.05
6888	389	-0.25	0.67	0.09	0.00	0.00	-0.05
	390	-0.24	0.67	0.09	0.00	0.00	-0.05
6889	391	-0.23	1.01	0.09	0.00	0.00	-0.05
	393	-0.23	1.01	0.09	0.00	0.00	-0.05
6892	393	0.17	-0.62	0.00	-0.01	0.00	0.00
	708	0.17	0.62	0.00	-0.01	0.00	0.00
6893	708	0.18	-0.62	-0.01	0.00	0.00	0.00
	709	0.18	0.62	-0.01	0.00	0.00	0.00
6894	709	0.17	-0.62	-0.01	0.00	-0.01	0.00
	710	0.17	0.62	-0.01	0.00	0.00	0.00
6895	710	0.15	-0.62	-0.02	0.00	-0.02	0.00
	352	0.13	0.62	-0.02	0.00	0.00	0.00
6896	413	-0.01	-0.17	-0.02	-0.01	-0.01	0.00
	711	-0.01	0.17	-0.02	-0.01	0.00	0.00
6897	711	-0.01	-0.17	-0.04	0.00	-0.01	0.00
	712	-0.01	0.17	-0.04	0.00	0.00	0.00
6898	712	-0.01	-0.17	-0.05	0.01	-0.02	0.00
	713	-0.01	0.17	-0.05	0.01	0.00	0.00
6899	713	-0.01	-0.17	-0.05	0.01	-0.02	0.00
	383	-0.01	0.17	-0.06	0.01	0.00	0.00
6900	223	-0.01	-0.18	-0.03	-0.01	-0.01	0.00
	714	-0.01	0.18	-0.03	-0.01	0.00	0.00
6901	714	-0.02	-0.18	-0.04	0.00	-0.02	0.00
	715	-0.02	0.18	-0.04	0.00	0.00	0.00
6902	715	-0.02	-0.18	-0.04	0.00	-0.02	0.00
	716	-0.02	0.18	-0.04	0.00	0.00	0.00
6903	716	-0.02	-0.18	-0.05	0.01	-0.02	0.00
	354	-0.02	0.18	-0.05	0.01	0.00	0.00
6904	333	-0.23	-0.17	-0.04	-0.01	-0.02	0.00
	717	-0.23	0.17	-0.04	-0.01	0.00	0.00
6905	717	-0.00	-0.17	-0.05	-0.01	-0.02	0.00
	718	-0.00	0.17	-0.05	-0.01	0.00	0.00
6906	718	-0.10	-0.17	-0.01	-0.01	-0.01	0.00
	719	-0.10	0.17	-0.01	-0.01	0.00	0.00
6907	719	-0.11	-0.17	-0.01	-0.01	0.00	0.00
	355	-0.11	0.17	-0.01	-0.01	0.00	0.00
6908	243	0.07	-0.66	-0.01	-0.01	0.00	0.00
	720	0.07	0.66	-0.01	-0.01	0.00	0.00
6909	720	0.14	-0.66	-0.02	-0.01	-0.01	0.00
	721	0.14	0.66	-0.02	-0.01	0.00	0.00
6910	721	0.13	-0.66	0.02	-0.01	0.01	0.00
	722	0.13	0.66	0.02	-0.01	0.00	0.00
6911	722	0.10	-0.66	0.03	-0.01	0.01	0.00
	356	0.10	0.66	0.01	-0.01	0.00	0.00
6816	254	-0.02	-0.18	-0.03	-0.01	-0.01	0.00
	724	-0.02	0.18	-0.03	-0.01	0.00	0.00
6817	724	-0.02	-0.18	-0.03	-0.01	-0.02	0.00
	727	-0.02	0.18	-0.03	-0.01	0.00	0.00
6818	727	-0.02	-0.18	-0.04	0.00	-0.02	0.00
	728	-0.02	0.18	-0.04	0.00	0.00	0.00
6819	728	-0.01	-0.18	-0.04	-0.01	-0.02	0.00
	358	-0.01	0.18	-0.05	-0.01	0.00	0.00
6820	255	-0.02	-0.18	-0.04	-0.01	-0.02	0.00
	729	-0.02	0.18	-0.04	-0.01	0.00	0.00
6821	729	-0.02	-0.18	-0.05	-0.01	-0.02	0.00
	730	-0.02	0.18	-0.05	-0.01	0.00	0.00
6822	730	-0.02	-0.18	-0.04	0.00	-0.02	0.00

	731	-0.02	0.18	-0.04	0.00	0.00	0.00
6823	731	-0.02	-0.18	-0.04	-0.00	-0.00	0.00
	368	-0.02	0.18	-0.04	-0.00	0.00	0.00
6824	264	-0.01	-0.18	-0.05	-0.01	-0.02	0.00
	732	-0.01	0.18	-0.05	-0.01	0.00	0.00
6825	732	-0.00	-0.18	-0.04	-0.01	-0.00	0.00
	733	-0.00	0.18	-0.04	-0.01	0.00	0.00
6826	733	-0.00	-0.18	-0.04	-0.01	-0.01	0.00
	734	-0.00	0.18	-0.04	-0.01	0.00	0.00
6827	734	-0.01	-0.18	-0.04	-0.02	-0.01	0.00
	360	-0.01	0.18	-0.04	-0.02	0.00	0.00
6828	257	-0.03	-0.18	-0.05	-0.01	-0.02	0.00
	735	-0.03	0.18	-0.05	-0.01	0.00	0.00
6829	735	-0.02	-0.18	-0.06	-0.01	-0.02	0.00
	736	-0.03	0.18	-0.06	-0.01	0.00	0.00
6830	736	-0.03	-0.18	-0.05	-0.01	-0.01	0.00
	737	-0.03	0.18	-0.05	-0.01	0.00	0.00
6831	737	-0.02	-0.18	-0.03	-0.02	-0.01	0.00
	361	-0.02	0.18	-0.03	-0.02	0.00	0.00
6832	260	0.12	-0.17	0.00	0.00	0.00	0.00
	738	0.12	0.17	0.00	0.00	0.00	0.00
6833	738	0.07	-0.17	-0.01	0.00	-0.01	0.00
	739	0.07	0.17	-0.01	0.00	0.00	0.00
6834	739	0.04	-0.17	-0.03	0.00	-0.01	0.00
	740	0.04	0.17	-0.03	0.00	0.00	0.00
6835	740	0.02	-0.17	-0.05	0.00	-0.02	0.00
	262	0.02	0.17	-0.05	0.00	0.00	0.00
6840	310	-0.01	1.24	0.01	0.00	0.02	0.00
	705	-0.01	1.24	0.04	0.00	0.02	-0.69
6842	705	-0.02	1.24	0.04	0.00	0.02	-0.69
	713	-0.04	-0.47	0.03	0.00	0.02	-0.13
6843	713	-0.04	-0.47	0.03	0.00	0.02	-0.17
	716	-0.04	-0.47	0.03	0.00	0.02	0.05
6844	716	-0.05	-0.12	0.03	0.00	0.02	0.04
	728	-0.05	-0.12	0.03	0.00	0.02	0.09
6845	728	-0.06	0.24	0.04	0.00	0.02	0.09
	731	-0.06	0.24	0.04	0.00	0.02	0.03
6846	731	-0.06	0.59	0.04	0.00	0.02	0.01
	734	-0.06	0.59	0.04	0.00	0.02	-0.03
6847	734	-0.06	0.93	0.03	0.00	0.02	-0.01
	737	-0.06	0.93	0.03	0.00	0.02	-0.59
6848	737	-0.06	1.31	0.03	0.00	0.01	-0.57
	719	-0.06	1.31	0.03	0.00	0.00	-1.95
6599	709	-0.02	1.24	0.01	0.00	0.01	-0.91
	720	-0.02	1.24	0.01	0.00	0.01	-0.58
7001	720	-0.10	-0.83	0.04	0.00	0.02	-0.58
	712	-0.10	-0.83	0.04	0.00	0.00	-0.33
7002	712	-0.10	-0.49	0.04	0.00	0.02	-0.34
	713	-0.10	-0.49	0.04	0.00	0.00	0.08
7003	713	-0.11	-0.11	0.04	0.00	0.02	0.07
	727	-0.11	-0.11	0.04	0.00	0.00	0.33
7004	727	-0.10	0.22	0.04	0.00	0.02	0.32
	729	-0.10	0.22	0.04	0.00	0.00	0.04
7005	729	-0.08	0.57	0.04	0.00	0.02	0.03
	733	-0.08	0.57	0.04	0.00	0.00	-0.00
7006	733	-0.06	0.93	0.04	0.00	0.02	-0.00
	736	-0.06	0.93	0.04	0.00	0.00	-0.01
7007	736	-0.02	1.29	0.03	0.00	0.01	-0.01
	738	-0.01	1.29	0.03	0.00	0.00	-0.01
7008	738	-0.01	1.24	-0.02	0.00	0.00	-0.01
	738	-0.01	1.24	-0.03	0.00	0.01	-0.00
7040	738	-0.08	-0.83	0.05	0.00	0.02	-0.00
	731	-0.08	-0.83	0.05	0.00	0.00	-0.11
7041	731	-0.09	-0.49	0.04	0.00	0.02	-0.11
	734	-0.09	-0.49	0.04	0.00	0.00	0.09
7042	734	-0.11	-0.13	0.05	0.00	0.02	0.08
	736	-0.11	-0.13	0.05	0.00	0.00	0.11
7043	736	-0.12	0.22	0.05	0.00	0.02	0.11
	739	-0.12	0.22	0.05	0.00	0.00	0.04
7044	739	-0.13	0.58	0.06	0.00	0.02	0.04
	732	-0.13	0.58	0.06	0.00	0.00	-0.19
7045	732	-0.13	0.93	0.06	0.00	0.02	-0.19
	735	-0.13	0.93	0.06	0.00	0.00	-0.36
7046	735	-0.16	1.29	0.07	0.00	0.02	-0.37
	737	-0.16	1.29	0.07	0.00	-0.01	-1.00
7009	283	-0.01	1.24	-0.04	0.00	0.02	0.00
	739	-0.01	1.24	-0.04	0.00	0.02	-0.00
7071	298	-0.25	-0.63	0.02	0.00	0.02	-0.00
	217	-0.25	-0.02	0.02	0.00	0.02	-0.13
7072	213	-0.26	-0.49	0.02	0.00	0.02	-0.13
	303	-0.26	-0.49	0.02	0.00	0.00	0.09
7073	303	-0.28	-0.13	0.03	0.00	0.02	0.09
	334	-0.28	-0.13	0.03	0.00	0.00	0.14
7074	334	-0.29	0.23	0.04	0.00	0.02	0.13
	335	-0.29	0.23	0.04	0.00	0.00	0.01
7075	335	-0.31	0.58	0.04	0.00	0.02	0.01
	336	-0.31	0.58	0.04	0.00	0.00	-0.19
7076	336	-0.33	0.94	0.05	0.00	0.02	-0.19
	337	-0.33	0.94	0.05	0.00	0.00	-0.37
7077	337	-0.34	1.29	0.06	0.00	0.02	-0.37
	339	-0.34	1.29	0.06	0.00	0.00	-1.00
7080	352	0.14	-0.18	-0.07	-0.01	-0.02	0.00
	744	0.14	0.18	-0.06	-0.01	0.00	0.00
7082	744	0.13	-0.18	-0.06	-0.01	-0.02	0.00
	746	0.13	0.18	-0.06	-0.01	0.00	0.00
7083	746	0.06	-0.13	0.02	0.00	0.00	0.00
	308	0.06	0.13	0.02	0.00	-0.01	0.00
7084	353	0.08	-0.13	-0.01	0.00	-0.02	0.00
	747	0.08	0.13	-0.01	0.00	0.00	0.00
7085	747	0.08	-0.13	-0.06	-0.01	-0.01	0.00
	749	0.08	0.13	-0.06	-0.01	0.00	0.00
7087	749	0.08	-0.04	-0.02	-0.00	-0.01	0.00
	214	0.08	0.04	-0.02	-0.00	0.00	0.00
7088	284	-0.01	-0.14	-0.06	0.01	-0.02	0.00
	750	-0.01	0.14	-0.06	0.01	0.00	0.00
7089	750	-0.01	-0.14	-0.07	0.00	-0.01	0.00
	752	-0.01	0.14	-0.07	0.00	0.00	0.00
7091	752	0.06	-0.14	-0.02	0.00	-0.01	0.00
	224	0.06	0.14	-0.02	0.00	0.00	0.00
7092	255	-0.08	-0.14	0.00	0.01	0.01	0.00
	753	-0.08	0.14	0.00	0.01	0.00	0.00
7094	753	-0.05	-0.14	-0.02	0.02	-0.01	0.00
	733	-0.05	0.14	-0.02	0.02	0.00	0.00
7095	755	-0.02	-0.14	0.00	0.00	0.00	0.00
	226	-0.02	0.14	0.00	0.00	0.00	0.04
7096	256	0.02	-0.02	0.00	0.02	0.02	0.00
	756	0.02	0.02	0.00	0.02	0.00	0.00
7098	746	-0.01	-0.01	0.04	0.04	0.01	0.00
	758	-0.01	0.01	0.04	0.04	0.00	0.00
7099	758	-0.02	-0.01	0.03	0.05	0.01	0.00
	244	-0.01	0.01	0.03	0.05	0.00	0.00
7104	258	0.00	-0.14	-0.03	0.01	-0.02	0.00
	762	0.00	0.14	-0.03	0.01	0.00	0.00
7106	762	0.00	-0.14	-0.04	0.02	-0.02	0.00
	764	0.00	0.14	-0.04	0.02	0.00	0.00
7107	764	0.00	-0.14	-0.03	0.03	-0.01	0.00
	258	0.00	0.14	-0.03	0.03	0.00	0.00
7108	258	0.00	-0.14	-0.04	0.03	-0.01	0.00
	765	0.00	0.14	-0.04	0.03	0.00	0.00
7110	765	0.00	-0.14	-0.04	0.01	-0.02	0.00
	767	0.00	0.14	-0.04	0.01	0.00	0.00
7111	767	0.00	-0.14	-0.02	0.05	-0.01	0.00

	338	0.03	0.16	-0.03	0.05	0.00	0.00
7153	340	0.03	-0.16	-0.03	0.01	-0.01	0.00
	768	0.03	0.16	-0.03	0.01	0.00	0.00
7154	768	0.04	-0.16	-0.05	0.02	-0.02	0.00
	770	0.04	0.16	-0.05	0.02	0.00	0.00
7155	770	0.05	-0.15	-0.02	0.06	-0.01	0.00
	280	0.00	0.16	-0.00	0.00	0.00	0.00
7156	341	-0.01	-0.16	-0.01	0.01	0.00	0.00
	771	-0.01	0.16	-0.01	0.01	0.00	0.00
7157	771	0.00	-0.16	-0.04	0.03	-0.01	0.00
	773	0.00	0.16	-0.04	0.03	0.00	0.00
7158	773	0.01	-0.15	-0.02	0.07	-0.01	0.00
	281	0.01	0.15	-0.02	0.07	0.00	0.00
7159	385	0.02	-0.15	-0.01	-0.01	-0.03	0.00
	771	0.02	0.15	-0.07	-0.01	0.00	0.00
7160	774	0.01	-0.15	-0.07	-0.01	-0.05	0.00
	776	0.01	0.15	-0.07	-0.01	0.00	0.00
7123	776	0.01	-0.15	-0.01	0.08	0.00	0.00
	282	0.01	0.15	-0.01	0.08	0.00	0.00
7124	784	0.01	1.44	0.06	0.06	0.02	-0.34
	771	0.01	1.44	0.06	0.06	0.00	-0.01
7125	771	-0.19	-0.93	0.07	0.06	0.01	-0.01
	747	-0.19	-0.93	0.07	0.06	0.00	-0.00
7152	747	-0.20	-0.43	-0.06	0.06	0.02	-0.08
	750	-0.20	-0.43	0.06	0.06	0.00	-0.00
7127	750	-0.20	-0.38	0.06	0.06	0.02	-0.10
	752	-0.20	-0.38	0.06	0.06	0.00	-0.00
7128	782	-0.21	0.03	0.05	0.06	0.02	-0.06
	784	-0.21	0.03	0.05	0.06	0.00	-0.00
7129	784	-0.23	0.35	0.05	0.06	0.02	-0.09
	786	-0.23	0.35	0.05	0.06	0.00	-0.00
7130	768	-0.25	0.88	0.04	0.00	0.02	-0.23
	771	-0.25	0.88	0.04	0.00	0.00	-0.01
7131	771	-0.28	1.00	0.03	0.00	0.01	-0.32
	753	-0.28	1.00	0.03	0.00	0.00	-0.01
7160	748	0.16	1.45	0.01	0.00	0.02	-0.36
	778	0.16	1.45	0.01	0.00	0.00	-0.01
7161	778	0.98	-1.00	0.01	0.00	0.01	-0.03
	749	0.98	-1.00	0.01	0.00	0.01	-0.40
7162	749	1.03	-0.99	0.02	0.00	0.01	-0.42
	751	1.03	-0.98	0.02	0.00	0.00	-0.01
7163	751	1.08	-0.36	0.02	0.00	0.01	-0.11
	754	1.08	-0.36	0.02	0.00	0.01	0.01
7164	754	1.12	-0.34	0.02	0.00	0.01	0.06
	757	1.12	-0.34	0.02	0.00	0.01	0.02
7165	757	1.16	0.29	0.02	0.00	0.01	-0.02
	776	1.16	0.29	0.02	0.00	0.01	-0.14
7167	776	1.18	0.62	0.02	0.00	0.01	-0.18
	779	1.18	0.62	0.02	0.00	0.00	-0.03
7168	779	1.18	0.95	0.02	0.00	0.01	-0.41
	780	1.18	0.96	0.02	0.00	0.00	-0.05
7181	780	-23.84	0.92	0.60	0.00	0.09	0.00
	111	-23.84	0.92	0.60	0.00	0.00	0.00
7182	787	0.00	9.71	0.00	0.00	0.00	-2.39
	1234	0.00	9.71	0.00	0.00	0.00	-2.39
7183	1234	0.00	9.88	0.10	0.00	0.00	-2.28
	111	0.00	9.88	0.10	0.00	0.00	-5.45
7172	781	0.00	0.72	0.01	0.00	0.00	0.00
	1239	0.00	0.72	0.01	0.00	-0.00	-2.60
7173	1239	0.00	0.88	-0.04	0.00	-0.02	-2.09
	89	0.00	0.88	-0.04	0.00	0.00	-6.32
7238	111	0.32	-11.54	-0.13	0.00	-0.07	-5.96
	1256	0.32	-11.34	-0.12	0.04	-0.01	-1.24
7239	1256	0.32	-8.24	0.07	0.08	-0.01	-1.24
	1257	0.32	-8.24	0.07	0.08	-0.01	1.85
7240	1261	0.32	-4.94	-0.06	0.07	-0.05	1.98
	1258	0.32	-4.94	-0.06	0.07	-0.03	3.83
7241	1258	0.32	-1.64	-0.01	0.07	-0.03	3.55
	853	0.32	-1.61	-0.01	0.07	-0.02	4.57
7258	53	0.32	-5.87	0.68	-0.03	0.05	6.29
	1271	-0.32	-5.83	0.68	-0.03	-0.03	-2.35
7259	1271	-0.32	-3.43	0.62	-0.04	-0.03	2.35
	1272	-0.32	-3.43	0.62	-0.04	-0.05	6.62
7260	1272	-0.32	-5.03	-0.02	-0.04	-0.05	6.62
	1273	-0.32	-5.03	-0.02	-0.04	-0.04	3.53
7261	1273	-0.32	-2.64	-0.02	-0.04	-0.04	3.53
	895	-0.32	-2.64	-0.02	-0.04	-0.03	3.59
7406	888	0.32	1.32	0.13	0.06	-0.02	4.57
	1282	0.32	1.32	0.13	0.06	-0.07	4.09
7108	1282	0.32	4.17	0.52	0.13	-0.07	4.09
	1286	0.32	4.17	0.52	0.13	-0.38	2.56
7109	1286	0.32	6.97	-0.78	0.00	-0.26	2.36
	796	0.32	6.97	-0.78	0.00	0.00	0.00
7126	895	-0.32	2.64	-0.14	-0.04	-3.03	3.69
	1267	-0.32	2.64	-0.14	-0.04	3.03	3.45
7127	1267	-0.32	3.33	-0.35	-0.07	3.03	3.45
	1268	-0.32	3.33	-0.35	-0.07	3.19	2.23
7128	1268	-0.32	6.08	0.41	0.00	3.19	3.23
	785	-0.32	6.08	0.41	0.00	0.00	0.00
7230	348	-0.72	0.00	0.04	0.00	0.00	0.00
	783	-0.72	0.00	0.04	0.00	0.00	0.00
7231	353	-5.23	0.00	-0.06	0.00	-0.01	0.00
	783	-2.23	0.00	-0.06	0.00	0.00	0.00
7160	334	-1.96	0.00	0.00	0.00	0.00	0.00
	778	-1.96	0.00	0.00	0.00	0.00	0.00
7161	332	-3.76	0.00	0.00	0.00	0.00	0.00
	781	-3.76	0.00	0.00	0.00	0.00	0.00
7162	355	-2.96	0.00	0.14	0.00	0.00	0.00
	990	-2.96	0.00	0.14	0.00	-0.01	0.00
7163	360	-3.25	0.00	-0.12	0.00	0.00	0.00
	995	-3.28	0.00	-0.12	0.00	0.01	0.00
7164	995	-3.35	0.00	0.16	0.00	0.00	0.00
	1234	-3.35	0.00	0.16	0.00	-0.02	0.00
7165	786	-2.38	0.00	-0.08	0.00	0.00	0.00
	1237	-2.38	0.00	-0.08	0.00	0.01	0.00
7166	717	-3.33	0.00	0.10	0.00	0.00	0.00
	1256	-3.33	0.00	0.10	0.00	-0.00	0.00
7167	718	-3.38	0.00	-0.10	0.00	0.00	0.00
	1261	-3.38	0.00	-0.10	0.00	0.01	0.00
7168	719	-3.33	0.00	0.03	0.00	0.00	0.00
	1258	-3.33	0.00	0.03	0.00	0.00	0.00
7169	720	-3.40	0.00	-0.05	0.00	0.00	0.00
	1271	-3.40	0.00	-0.05	0.00	0.00	0.00
7130	720	-3.41	0.00	-0.06	0.00	0.00	0.00
	1273	-3.41	0.00	-0.06	0.00	0.01	0.00
7151	740	-3.39	0.00	0.00	0.00	0.00	0.00
	1273	-3.39	0.00	0.00	0.00	0.00	0.00
7152	755	-2.65	0.00	0.37	0.00	0.00	0.00
	1282	-2.65	0.00	0.37	0.00	-0.01	0.00
7153	755	-2.79	0.00	-1.20	0.00	0.00	0.00
	1281	-2.79	0.00	-1.20	0.00	0.12	0.00
7154	776	-2.69	0.00	-0.20	0.00	0.00	0.00
	1287	-2.69	0.00	-0.20	0.00	0.02	0.00
7155	776	-2.73	0.00	0.76	0.00	0.00	0.00
	1288	-2.73	0.00	0.76	0.00	-0.09	0.00
7156	1458	-0.07	-0.57	-0.06	0.00	-0.02	0.00
	1458	-0.07	0.57	-0.06	0.00	0.00	0.00
7158	1458	-0.11	-0.57	-0.06	-0.01	-0.02	0.00
	1652	-0.11	0.57	-0.06	-0.01	0.00	0.00
7159	1652	-0.07	-0.57	0.01	0.00	0.01	0.00
	1238	-0.07	0.57	0.01	0.00	0.00	0.00
8438	284	-0.01	-0.57	-0.07	0.00	-0.02	-0.17
	1310	-0.01	+0.57	-0.07	0.00	0.00	0.00
8437	352	-0.00	-1.17	0.07	0.00	0.00	-0.26
	1450	-0.00	-0.57	0.07	0.00	-0.02	0.00
8438	704	0.00	-1.16	0.07	0.00	0.00	-0.34
	1450	0.00	-1.16	0.07	0.00	+0.02	0.00
8439	748	0.01	-1.16	-0.07	0.00	-0.02	-0.35
	1882	0.01	-1.16	+0.07	0.00	0.01	-0.01
8440	332	-0.01	-1.33	0.00	0.00	0.01	-0.02
	1853	-0.01	-1.33	0.00	0.00	0.01	-0.38
8441	1853	-0.01	-1.86	0.01	0.00	0.01	-0.38
	242	-0.01	-1.86	0.01	0.00	0.01	0.00
8442	224	0.01	-0.97	-0.01	0.00	0.01	-0.67
	1854	0.01	-0.97	-0.01	0.00	0.01	-0.35
8443	1854	0.03	-0.60	0.02	0.00	0.01	-0.30
	244	0.03	-0.61	0.02	0.00	0.01	-0.09
8444	699	0.01	-1.07	0.01	0.00	0.01	-1.10
	1855	0.01	-1.07	0.01	0.00	0.01	-0.49
8445	1855	0.01	-1.32	0.02	0.00	0.01	-0.49
	708	0.01	-1.32	0.02	0.00	0.00	-0.01
8446	350	-0.07	-1.66	-0.04	0.00	0.00	-0.95
	1856	-0.07	-1.66	-0.04	0.00	0.00	-0.41
8447	1856	-0.03	-1.36	-0.09	0.00	0.03	-0.62
	356	-0.03	-1.36	-0.09	0.00	0.02	0.02
8448	719	-0.02	-1.67	-0.01	0.00	0.01	-1.88
	1857	-0.02	-1.67	-0.01	0.00	0.01	-0.48
8449	1857	-0.01	-1.32	-0.03	0.00	0.00	-0.47
	722	-0.01	-1.32	-0.03	0.00	0.01	0.00
8450	718	-0.00	-1.67	0.00	0.00	0.01	-1.88
	1858	-0.00	-1.67	0.00	0.00	0.01	-0.48
8451	1858	-0.04	-1.32	-0.01	0.00	0.01	-0.48
	721	-0.04	-1.32	-0.01	0.00	0.01	0.00
8452	717	0.03	-1.67	0.04	0.00	0.01	-1.88
	1859	0.03	-1.67	0.04	0.00	0.00	0.47
8453	1859	0.01	-1.32	0.07	0.00	0.02	-0.48
	720	0.01	-1.32	0.07	0.00	-0.01	0.00
8454	233	0.04	-1.67	0.03	0.00	0.01	-1.88
	1860	0.04	-1.67	0.03	0.00	0.00	-0.48
8455	1860	0.02	-1.32	0.05	0.00	0.01	-0.48
	241	0.02	-1.32	0.05	0.00	0.00	0.00
8456	753	0.00	-1.63	0.00	0.00	0.01	-0.95
	1861	0.00	-1.63	0.00	0.00	0.01	-0.39
8457	1861	0.00	-1.21	-0.00	0.00	0.00	-0.41
	759	0.00	-1.21	-0.00	0.00	0.01	0.07
8458	755	0.02	-1.63	-0.01	0.00	0.01	-0.90
	1862	0.02	-1.63	-0.01	0.00	0.01	-0.34
8459	1862	0.01	-1.21	-0.01	0.00	0.00	+0.00
	758	0.01	-1.21	0.01	0.00	0.01	0.05
8460	1852	-0.01	-0.77	0.00	0.00	0.00	0.00
	1855	-0.01	0.17	0.00	0.00	0.00	0.00
8461	1855	-0.01	-0.17	-0.01	-0.01	0.00	0.00
	1863	-0.01	0.17	-0.01	-0.01	0.00	0.00
8416	1863	-0.01	-0.17	-0.01	-0.01	-0.01	0.00
	1939	-0.01	0.17	-0.01	-0.01	0.00	0.00
8417	1939	0.07	-0.17	-0.01	-0.01	-0.02	0.00
	1956	-0.07	0.17	-0.01	-0.01	0.00	0.00
8418	1956	0.05	-0.17	0.01	-0.01	0.00	0.00
	1957	-0.05	0.17	0.01	-0.01	0.00	0.00
8519	1957	-0.01	-0.17	0.02	-0.01	0.00	0.00
	1936	-0.01	0.17	0.02	-0.01	0.00	0.00
6786	1958	0.02	-0.16	0.05	0.01	0.00	0.00
	1960	0.02	0.16	0.05	0.01	0.00	0.00
6786	1961	0.03	-0.16	0.02	0.01	0.00	0.00
	1962	0.03	0.16	0.02	0.01	0.00	0.00
8787	1962	0.03	-0.18	0.01	0.00	0.00	0.00
	1894	0.03	0.16	0.01	0.00	0.00	0.00

Positive forces (Member Axes):
Axial - Tension Shear - ENG R sagging
Torque - Right-hand rule Moment - Sagging

Support reactions

CASE 4: DV + D

Node	Force-X kN	Force-Y kN	Force-Z kN	Moment-X kNm	Moment-Y kNm	Moment-Z kNm
201	0.00	0.38	21.38	-0.93	0.00	0.00
788	0.00	-0.78	23.52	-1.09	0.00	0.00
789	-0.32	-0.38	9.38	0.00	0.00	0.00
795	0.32	0.78	8.38	0.00	0.00	0.00
SUM:	0.00	0.00	63.67 (all nodes)			

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

CASE 5: 1.20 + 1.50

Load Combinations

Case	Factor	
1	1.200	Dead
2	1.500	Live

Sum of Applied Loads (Global Axes):
FX: 0.000 FY: 0.000 FZ: -18.237
Moments about the global origin:
MX: -112.568 MY: 95.567 MZ: 0.000

NODE DISPLACEMENTS

CASE 5: 1.20 + 1.50

Node	X-Disp m	Y-Disp m	Z-Disp m	X-Rotn rad	Y-Rotn rad	Z-Rotn rad
99	0.0000	-0.0043	-0.0002	-0.00073	0.00146	0.00135
111	0.0000	-0.0090	-0.0005	-0.00160	0.00263	0.00138
201	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
202	0.0007	-0.0052	0.0009	-0.00151	-6.7995E-04	0.00135
203	0.0007	-0.0042	0.0004	-0.00137	-6.7995E-04	0.00148
204	0.0007	0.0032	0.0006	-0.00123	-0.00000	0.00158
210	-0.0003	-0.0052	-0.0015	+0.00068	-6.7995E-04	0.00071
211	-0.0003	-0.0042	-0.0010	-0.00182	-6.7995E-04	0.00073
214	-0.0003	0.0032	-0.0006	-0.00163	-0.00000	0.00071
221	-0.0006	-0.0052	-0.0019	-0.00389	-6.7995E+04	0.00037
223	-0.0005	-0.0042	-0.0019	-0.00124	-6.7995E+04	0.00040
224	-0.0005	0.0062	-0.0013	-0.00076	-0.00000	0.00016
232	0.0003	-0.0052	0.0006	0.00071	-6.7995E+04	-0.00103
233	0.0003	-0.0042	-0.0000	0.00047	-6.7995E+04	-0.00108
236	0.0003	0.0062	0.0000	0.00058	-0.00000	-0.00104
242	0.0011	-0.0052	0.0019	0.00175	-6.7995E+04	-0.00140
243	0.0011	-0.0042	0.0006	-0.00086	-6.7995E+04	-0.00136
244	0.0011	0.0062	0.0000	-0.00028	-0.00000	-0.00127
245	-0.0006	-0.0052	-0.0006	-0.00056	-6.7995E+04	0.00068
249	-0.0003	-0.0052	-0.0004	-0.00278	-6.7995E+04	-0.00001
247	-0.0003	-0.0042	+0.0003	0.00067	-6.7995E+04	-0.00075
248	0.0002	-0.0052	-0.0001	-0.00778	-6.7995E+04	0.00111
250	0.0002	-0.0042	-0.0002	-0.00171	-6.7995E+04	0.00113
252	0.0002	0.0002	0.0000	-0.00168	-0.00000	0.00112
254	-0.0006	-0.0042	-0.0021	-0.00034	-6.7995E+04	0.00011
255	-0.0005	-0.0042	-0.0020	0.00077	-6.7995E+04	-0.00019
256	-0.0004	-0.0042	-0.0015	0.00146	-6.7995E+04	-0.00048
257	-0.0003	-0.0042	-0.0009	0.00148	-6.7995E+04	-0.00077
258	-0.0006	0.0002	-0.0015	0.00008	-0.00000	0.00007
259	-0.0005	0.0002	-0.0013	0.00078	-0.00000	-0.00023
260	-0.0004	0.0002	-0.0009	0.00131	-0.00000	-0.00053
261	-0.0003	0.0002	-0.0004	0.00119	-0.00000	-0.00081
262	-0.0004	-0.0032	-0.0007	0.00533	-6.7995E+04	-0.00031

350	0.0067	-0.0017	-0.0033	0.00692	-8.072E+04	0.00157	
350	-0.0063	-0.0017	-0.0036	-0.00139	-8.072E+04	0.00079	
354	-0.0063	-0.0017	-0.0043	-0.00220	-8.072E+04	0.00043	
355	0.0063	-0.0017	-0.0043	-0.00038	-8.072E+04	-0.00188	
356	0.0011	-0.0017	-0.0051	-0.00139	-8.072E+04	-0.00153	
358	-0.0064	-0.0017	-0.0046	-0.00045	-8.072E+04	0.00032	
359	-0.0065	-0.0017	-0.0041	0.00087	-8.072E+04	-0.00018	
360	-0.0064	-0.0017	-0.0043	0.00058	-8.072E+04	-0.00098	
361	-0.0063	-0.0017	-0.0043	0.00098	-8.072E+04	-0.00088	
362	0.0063	-0.0017	-0.0053	-0.00026	-8.072E+04	0.00119	
696	0.0067	-0.0047	0.0006	-0.00123	-6.798E+04	0.00137	
697	-0.0063	-0.0047	-0.0007	-0.00175	-6.798E+04	0.00072	
699	-0.0065	-0.0047	-0.0014	-0.00107	-6.798E+04	0.00038	
699	0.0065	-0.0047	0.0002	0.00046	-6.798E+04	-0.00100	
700	0.0011	-0.0047	0.0009	-0.00073	-6.798E+04	-0.00139	
702	-0.0065	-0.0047	-0.0016	0.00058	-6.798E+04	0.00025	
703	-0.0065	-0.0047	-0.0015	0.00094	-6.798E+04	-0.00021	
704	-0.0064	-0.0047	-0.0009	0.00102	-6.798E+04	-0.00050	
705	-0.0061	-0.0047	-0.0003	0.00102	-6.798E+04	-0.00079	
706	0.0062	-0.0047	0.0000	-0.00155	-6.798E+04	0.00113	
708	0.0067	-0.0026	-0.0005	-0.00150	-6.798E+04	0.00152	
709	0.0067	-0.0026	-0.0015	-0.00153	-7.875E+04	0.00150	
710	0.0067	-0.0024	-0.0024	-0.00134	-9.216E+04	0.00139	
711	0.0061	-0.0026	-0.0029	-0.00207	-6.798E+04	0.00078	
712	-0.0061	-0.0026	-0.0032	-0.00214	-7.875E+04	0.00076	
713	-0.0063	-0.0024	-0.0026	-0.00206	-9.216E+04	0.00078	
714	-0.0065	-0.0026	-0.0029	-0.00139	-6.798E+04	0.00041	
715	-0.0065	-0.0026	-0.0040	-0.00148	-7.875E+04	0.00041	
716	-0.0065	-0.0024	-0.0047	-0.00144	-9.216E+04	0.00042	
717	0.0063	-0.0026	-0.0038	0.00032	-6.798E+04	-0.00090	
718	0.0063	-0.0026	-0.0033	0.00016	-7.875E+04	-0.00102	
719	0.0063	-0.0024	-0.0042	-0.00002	-9.216E+04	-0.00103	
720	0.0011	-0.0026	-0.0022	0.00096	-6.798E+04	-0.00133	
721	0.0011	-0.0026	-0.0038	-0.00115	-7.875E+04	-0.00144	
722	0.0011	-0.0024	-0.0048	-0.00133	-9.216E+04	-0.00147	
726	-0.0065	-0.0026	-0.0022	-0.00040	-6.798E+04	0.00010	
727	-0.0065	-0.0026	-0.0044	-0.00051	-7.875E+04	0.00011	
728	-0.0065	-0.0024	-0.0051	-0.00053	-9.216E+04	0.00010	
729	-0.0063	-0.0026	-0.0031	0.00062	-6.798E+04	-0.00017	
730	-0.0063	-0.0026	-0.0044	0.00049	-7.875E+04	-0.00018	
731	-0.0063	-0.0024	-0.0052	0.00041	-9.216E+04	-0.00018	
732	-0.0064	-0.0026	-0.0027	0.00031	-6.798E+04	-0.00047	
733	-0.0064	-0.0026	-0.0049	0.00018	-7.875E+04	-0.00049	
734	-0.0064	-0.0024	-0.0049	0.00019	-9.216E+04	-0.00049	
735	-0.0061	-0.0026	-0.0022	0.00032	-6.798E+04	0.00075	
736	-0.0061	-0.0026	-0.0036	0.00017	-7.875E+04	-0.00078	
737	-0.0061	-0.0024	-0.0044	0.00016	-9.216E+04	-0.00078	
738	0.0062	-0.0026	-0.0011	-0.00186	-6.798E+04	0.00116	
739	0.0062	-0.0026	-0.0022	-0.00152	-7.875E+04	0.00116	
740	0.0062	-0.0024	-0.0029	-0.00169	-9.216E+04	0.00118	
744	0.0067	-0.0010	-0.0009	0.00092	-6.798E+04	0.00137	
745	0.0067	-0.0004	-0.0017	0.00094	-7.875E+04	0.00139	
747	-0.0063	-0.0010	-0.0030	-0.00131	-6.798E+04	0.00079	
748	0.0063	-0.0010	-0.0018	-0.00138	-7.875E+04	0.00074	
750	-0.0063	-0.0010	-0.0035	-0.00107	-6.798E+04	0.00044	
752	0.0068	-0.0007	-0.0025	0.00109	-7.875E+04	0.00035	
753	0.0063	-0.0010	-0.0034	-0.00028	-6.798E+04	-0.00107	
755	0.0067	-0.0007	0.0019	0.00084	-7.875E+04	-0.00104	
756	0.0013	-0.0010	-0.0043	-0.00147	-6.798E+04	-0.00147	
758	0.0011	0.0003	0.0025	-0.00132	-7.875E+04	-0.00144	
760	-0.0064	-0.0010	-0.0036	-0.00084	-6.798E+04	0.00013	
764	-0.0064	-0.0010	0.0026	0.00047	-7.875E+04	0.00005	
765	-0.0063	-0.0010	-0.0035	0.00012	-6.798E+04	-0.00018	
767	-0.0067	-0.0047	0.0027	0.00018	-7.875E+04	0.00821	
768	-0.0061	-0.0010	-0.0036	0.00055	-6.797E+04	-0.00060	
770	-0.0064	0.0003	0.0024	0.00073	-7.875E+04	-0.00051	
771	-0.0061	-0.0010	-0.0035	0.00054	-6.797E+04	-0.00078	
772	-0.0061	-0.0010	-0.0021	0.00016	-7.875E+04	-0.00078	
774	0.0060	-0.0010	-0.0006	-0.00017	-6.797E+04	0.00119	
776	0.0060	-0.0010	-0.0013	-0.00015	-7.875E+04	0.00111	
780	0.0060	0.0005	0.0009	0.00000	0.00000	0.00000	
781	0.0060	-0.0003	-0.0001	-0.00016	0.00000	0.00129	
785	0.0060	0.0005	0.0009	-0.00130	-0.00028	0.00130	
787	0.0060	0.0005	0.0009	-0.00086	-0.00028	0.00295	
788	0.0060	-0.0024	-0.0042	0.00724	-0.00169	0.00170	
805	0.0060	-0.0010	-0.0032	-0.00106	-0.00056	0.00171	
1334	0.0060	-0.0055	0.0002	-0.00703	0.00119	0.00121	
1335	0.0060	-0.0048	0.0003	-0.00675	-0.00009	0.00133	
1336	0.0060	-0.0044	-0.0038	-0.00700	0.00108	0.00131	
1337	0.0060	-0.0038	-0.0033	-0.00710	0.00304	0.00158	
1258	0.0060	-0.0031	-0.0042	-0.00709	0.00131	0.00170	
1271	0.0060	-0.0037	-0.0001	-0.00687	0.00278	0.00160	
1272	0.0060	-0.0031	-0.0023	-0.00699	0.00158	0.00159	
1273	0.0060	-0.0026	-0.0038	-0.00697	0.00172	0.00168	
1282	0.0060	-0.0017	-0.0034	-0.00709	-0.00323	0.00191	
1284	0.0060	-0.0010	-0.0019	-0.00686	-0.00485	0.00230	
1367	0.0060	-0.0031	-0.0034	-0.00116	-0.00315	0.00172	
1368	0.0060	-0.0026	-0.0015	-0.00130	0.00274	0.00152	
1328	0.0012	0.0002	0.0003	-0.00413	-0.00408	0.00174	
1458	0.0012	-0.0017	-0.0035	0.00874	-8.072E+04	0.00185	
1458	0.0012	-0.0010	-0.0038	0.00899	-8.737E+04	0.00184	
1652	0.0012	-0.0004	-0.0019	0.00903	-7.008E+04	0.00169	
1653	0.0067	-0.0052	0.0028	0.00597	-6.798E+04	-0.00122	
1654	0.0067	0.0002	0.0001	-0.00895	-0.00068	-0.00124	
1655	0.0067	-0.0047	0.0002	-0.00861	-6.798E+04	-0.00122	
1656	0.0067	-0.0017	-0.0046	-0.00139	-8.072E+04	-0.00126	
1657	0.0067	-0.0024	-0.0044	-0.00181	-9.216E+04	-0.00124	
1658	0.0067	-0.0038	-0.0034	-0.00098	-7.875E+04	-0.00123	
1659	0.0067	-0.0036	-0.0019	-0.00073	-6.798E+04	-0.00119	
1660	0.0067	-0.0042	-0.0000	-0.00059	-6.798E+04	-0.00128	
1661	0.0067	-0.0010	-0.0036	-0.00123	-8.737E+04	-0.00124	
1662	0.0067	-0.0003	-0.0021	-0.00091	-7.008E+04	-0.00124	

MEMBER FORCES

CASE 3: 1.2D + 1.5Q

Member	Node	Axial kN	Shear-y kN	Shear-z kN	Torque kNm	Moment-y kNm	Moment-z kNm
1400	391	-18.33	0.00	0.31	0.00	0.84	0.00
	99	-15.33	0.00	0.31	0.00	0.83	0.00
3106	99	-2.37	-0.39	0.21	0.00	0.62	0.00
	243	-2.37	-0.39	0.21	0.00	0.88	0.00
3418	111	-3.29	0.39	-0.38	0.00	-0.04	0.00
	333	-3.29	0.39	-0.38	0.00	0.00	0.00
6824	362	0.01	0.67	-0.68	0.00	-0.01	0.00
	348	0.01	0.67	-0.68	0.00	0.02	-0.01
6826	348	0.01	-3.14	0.68	0.00	0.03	-0.01
	312	0.01	-3.14	0.68	0.00	0.03	1.14
6827	312	0.01	-1.01	0.61	0.00	0.03	1.14
	322	0.01	-1.01	0.61	0.00	0.03	1.39
6828	322	0.01	-0.31	0.61	0.00	0.03	1.39
	345	0.01	-0.31	0.61	0.00	0.03	1.73
6829	345	0.01	0.29	0.61	0.00	0.04	1.73
	346	0.01	0.29	0.61	0.00	0.03	1.56
6830	346	0.01	1.09	0.63	0.00	0.04	1.56
	351	0.01	1.09	0.62	0.00	0.04	1.13
6831	351	0.01	1.79	0.62	0.00	0.03	1.13
	347	0.01	1.79	0.62	0.00	0.04	0.42
6832	347	0.00	2.49	0.63	0.00	0.01	0.42
	352	0.01	2.49	0.63	0.00	0.00	-0.58
6835	204	-0.01	0.58	0.00	0.00	0.01	-0.12

	353	-0.01	0.58	0.00	0.00	0.01	-0.35
6837	352	-0.00	-1.72	0.01	0.00	0.01	-0.58
	314	-0.00	-1.72	0.01	0.00	0.01	0.41
6838	314	-0.97	-0.68	0.00	0.00	0.01	0.34
	324	-0.97	-0.68	0.00	0.00	0.01	0.42
6839	324	-0.95	0.11	0.00	0.00	0.01	0.44
	358	-0.95	0.11	0.00	0.00	0.01	0.26
6840	358	-0.93	0.11	0.00	0.00	0.01	0.42
	359	-0.95	0.11	0.00	0.00	0.01	0.29
6841	359	-0.91	0.52	0.00	0.00	0.01	0.32
	360	-0.91	0.52	0.00	0.00	0.01	0.11
6842	360	0.91	0.73	0.00	0.00	0.01	0.14
	361	0.91	0.73	0.00	0.00	0.01	-0.15
6843	361	0.93	0.92	0.01	0.00	0.01	-0.15
	334	0.93	0.92	0.01	0.00	0.00	-0.59
6845	202	0.98	-0.43	0.01	0.00	0.01	0.03
	698	0.98	0.43	0.01	0.00	0.00	0.00
6847	698	0.01	-0.43	0.01	-0.01	0.00	0.00
	203	0.01	0.43	0.01	-0.01	0.00	0.03
6848	213	0.98	-0.21	0.00	0.00	0.00	0.03
	697	0.98	0.21	0.00	0.00	0.00	0.03
6849	697	0.98	-0.21	-0.01	-0.01	0.00	0.03
	213	0.98	0.21	-0.01	-0.01	0.00	0.03
6850	221	0.98	-0.22	-0.01	0.00	0.00	0.03
	696	0.98	0.22	-0.01	0.00	0.00	0.03
6851	696	0.98	-0.22	-0.01	-0.01	-0.01	0.03
	221	0.98	0.22	-0.01	-0.01	0.00	0.04
6852	232	0.03	-0.22	-0.01	0.00	-0.01	0.03
	699	0.03	0.22	-0.01	0.00	0.00	0.03
6853	699	0.06	-0.22	-0.02	-0.01	-0.01	0.03
	233	0.06	0.22	-0.02	-0.01	0.00	0.03
6854	242	0.01	-0.48	0.01	0.00	0.00	0.03
	700	0.01	0.45	0.01	0.00	0.00	0.03
6855	700	0.02	-0.45	0.01	-0.01	0.00	0.03
	242	0.02	0.45	0.01	-0.01	0.00	0.03
6856	245	-0.01	-0.22	-0.01	0.00	0.00	0.03
	787	-0.01	0.22	-0.01	0.00	0.00	0.03
6857	787	-0.01	-0.22	-0.02	-0.01	-0.01	0.03
	246	-0.01	0.22	-0.02	-0.01	0.00	0.03
6860	246	0.00	-0.22	-0.01	0.00	-0.01	0.03
	785	0.00	0.22	-0.01	0.00	0.00	0.03
6861	785	-0.01	-0.22	-0.02	-0.01	-0.01	0.03
	255	-0.01	0.22	-0.02	0.01	0.00	0.03
6862	255	0.00	-0.22	-0.02	0.00	-0.01	0.03
	784	0.00	0.22	-0.02	0.00	0.00	0.03
6863	784	-0.01	-0.22	-0.02	-0.01	-0.01	0.03
	256	-0.01	0.22	-0.02	0.00	0.00	0.03
6864	247	-0.01	-0.22	-0.02	0.00	-0.01	0.03
	705	-0.01	0.22	-0.02	0.00	0.00	0.03
6865	705	-0.01	-0.22	-0.02	-0.01	-0.01	0.03
	247	-0.01	0.22	-0.02	-0.01	0.00	0.03
6866	248	-0.01	0.21	0.02	0.00	0.01	0.03
	706	-0.00	0.21	0.02	0.00	0.00	0.03
6867	706	-0.00	0.21	0.01	0.00	0.01	0.03
	250	-0.01	0.21	0.01	0.00	0.00	0.03
6870	696	0.00	0.25	-0.05	0.00	0.00	0.01
	708	0.00	0.03	-0.05	0.00	0.00	-0.03
6872	708	-0.00	-0.00	0.01	0.00	0.01	-0.03
	697	-0.00	-0.00	0.01	0.00	0.01	0.05
6873	697	-0.00	-0.00	0.01	0.00	0.01	0.05
	698	-0.00	-0.22	0.01	0.00	0.01	0.05
6874	698	-0.00	-0.22	0.01	0.00	0.01	0.04
	709	-0.00	-0.22	0.01	0.00	0.01	0.05
6875	709	-0.00	-0.22	0.01	0.00	0.01	0.05
	710	-0.00	-0.22	0.01	0.00	0.01	0.05
6876	710	-0.00	-0.22	0.01	0.00	0.01	0.05
	711	-0.00	-0.22	0.01	0.00	0.01	0.05
6877	711	-0.00	-0.22	0.01	0.00	0.01	0.05
	712	-0.00	-0.22	0.01	0.00	0.01	0.05
6878	712	-0.00	-0.22	0.01	0.00	0.01	0.05
	699	-0.00	-0.22	0.01	0.00	0.01	0.05
6881	252	-0.07	1.37	0.06	0.00	0.02	-0.18
	362	-0.07	1.37	0.06	0.00	0.02	-0.13
6882	362	-0.26	-1.23	0.06	0.00	0.02	-0.14
	353	-0.26	-1.23	0.06	0.00	0.03	-0.14
6884	352	-0.32	-0.83	0.05	0.00	0.03	0.33
	354	-0.32	-0.83	0.05	0.00	0.03	0.27
6885	354	-0.33	-0.41	0.05	0.00	0.03	0.27
	358	-0.33	-0.41	0.05	0.00	0.03	0.28
6886	358	-0.33	0.01	0.04	0.00	0.03	0.31
	359	-0.33	0.01	0.04	0.00	0.03	0.26
6887	359	-0.33	0.43	0.03	0.00	0.01	0.25
	360	-0.33	0.43	0.03	0.00	0.03	0.11
6888	360	-0.32	0.85	0.02	0.00	0.01	0.12
	361	-0.33	0.85	0.02	0.00	0.03	-0.19
6889	361	-0.31	1.28	0.01	0.00	0.01	-0.21
	355	-0.31	1.28	0.01	0.00	0.01	-0.73
6892	203	0.15	-0.43	0.00	-0.01	0.03	0.00
	198	0.15	0.43	0.00	-0.01	0.03	0.00
6893	198	0.17	-0.43	-0.01	0.00	0.03	0.00
	199	0.17	0.43	-0.01	0.00	0.02	0.00
6894	199	0.16	-0.43	-0.02	0.00	-0.01	0.00
	200	0.16	0.43	-0.02	0.00	0.03	0.00
6895	200	0.13	-0.43	-0.02	0.00	-0.02	0.00
	202	0.13	0.43	-0.02	0.00	0.02	0.00
6896	213	-0.01	-0.21	-0.02	-0.01	-0.01	0.00
	711	-0.01	0.21	-0.02	-0.01	0.01	0.00
6897	711	-0.01	-0.21	-0.02	0.00	-0.01	0.00
	712	-0.01	0.21	-0.02	0.00	0.00	0.00
6898	712	-0.01	-0.21	-0.04	0.00	-0.02	0.00
	713	-0.01	0.21	-0.04	0.00	0.00	0.00
6899	713	0.00	-0.21	-0.05	0.01	-0.02	0.00
	203	0.00	0.21	-0.05	0.01	0.00	0.00
6900	203	-0.01	-0.22	-0.03	-0.01	-0.01	0.00
	714	-0.01	0.22	-0.03	-0.01	0.00	0.00
6901	714	-0.02	-0.22	-0.04	0.00	-0.02	0.00
	715	-0.02	0.22	-0.04	0.00	0.00	0.00
6902	715	-0.02	-0.22	-0.04	0.00	-0.02	0.00
	716	-0.02	0.22	-0.04	0.00	0.00	0.00
6903	716	-0.01	-0.22	-0.05	0.01	-0.02	0.00
	204	-0.01	0.22	-0.05	0.01	0.00	0.00
6904	252	-0.29	-0.22	-0.04	-0.01	-0.01	0.00
	717	-0.29	0.22	-0.04	-0.01	0.00	0.00
6905	717	-0.28	-0.22	-0.05	-0.01	-0.01	0.00
	718	-0.28	0.22	-0.05	-0.01	0.00	0.00
6906	718	-0.25	-0.22	-0.05	-0.01	0.00	0.00
	719	-0.25	0.22	-0.05	-0.01	0.00	0.00
6907	719	-0.21	-0.22	-0.05	-0.02	0.00	0.00
	356	-0.21	0.22	-0.05	-0.02	0.00	0.00
6909	253	0.07	-0.15	-0.03	-0.01	0.00	0.00
	720	0.07	0.15	-0.03	-0.01	0.00	0.00
6909	720	0.13	-0.15	-0.02	-0.01	-0.01	0.00
	721	0.13	0.15	-0.02	-0.01	0.00	0.00
6910	721	0.12	-0.15	0.02	-0.01	0.01	0.00
	722	0.12	0.15	0.02	-0.01	0.00	0.00
6911	722	0.08	-0.15	0.03	-0.01	0.01	0.00
	356	0.09	0.15	0.03	-0.01	0.00	0.00
6914	254	-0.02	-0.22	-0.03	-0.01	-0.01	0.00
	719	-0.02	0.22	-0.03	-0.01	0.00	0.00
6917	726	-0.02	-0.22	-0.04	-0.01	-0.02	0.00
	727	-0.02	0.22	-0.04	-0.01	0.00	0.00
6918	727	-0.02	-0.22	-0.04	0.00	-0.02	0.00

	128	-8.03	0.22	-8.04	0.66	0.00	0.00
6819	129	-8.01	-0.22	-8.04	-0.01	-0.02	0.00
	358	-8.01	0.22	-8.04	-0.01	0.00	0.00
6820	255	-8.02	-0.22	-8.04	-0.01	-0.01	0.00
	129	-8.02	0.22	-8.04	-0.01	0.00	0.00
6821	128	-8.02	-0.22	-8.04	-0.01	-0.02	0.00
	128	-8.02	0.22	-8.04	-0.01	0.00	0.00
6822	128	-8.02	-0.22	-8.04	0.00	-0.01	0.00
	131	-8.02	0.22	-8.04	0.00	0.00	0.00
6823	130	-8.01	-0.22	-8.04	-0.01	-0.02	0.00
	358	-8.01	0.22	-8.04	-0.01	0.00	0.00
6824	256	-8.01	-0.22	-8.04	-0.01	-0.02	0.00
	132	-8.01	0.22	-8.04	-0.01	0.00	0.00
6825	132	-8.00	-0.22	-8.04	-0.01	-0.02	0.00
	133	-8.00	0.22	-8.04	-0.01	0.00	0.00
6826	133	-8.00	-0.22	-8.03	-0.01	-0.01	0.00
	134	-8.00	0.22	-8.03	-0.01	0.00	0.00
6827	134	-8.01	-0.22	-8.03	-0.02	-0.01	0.00
	268	-8.01	0.22	-8.03	-0.02	0.00	0.00
6828	267	-8.02	-0.22	-8.01	-0.01	-0.01	0.00
	135	-8.02	0.22	-8.01	-0.01	0.00	0.00
6829	135	-8.03	-0.22	-8.00	-0.01	-0.01	0.00
	136	-8.03	0.22	-8.00	-0.01	0.00	0.00
6830	136	-8.03	-0.22	-8.00	-0.01	-0.01	0.00
	137	-8.03	0.22	-8.00	-0.01	0.00	0.00
6831	137	-8.02	-0.22	-8.00	-0.02	-0.01	0.00
	268	-8.02	0.22	-8.00	-0.02	0.00	0.00
6832	250	0.11	-0.21	8.00	0.03	0.00	0.00
	138	0.11	0.21	8.00	0.03	0.00	0.00
6833	138	0.04	-0.21	-8.00	0.03	-0.01	0.00
	139	0.04	0.21	-8.01	0.03	0.00	0.00
6834	139	0.03	-0.21	-8.02	0.04	-0.01	0.00
	140	0.03	0.21	-8.03	0.05	0.00	0.00
6835	140	0.02	-0.21	-8.05	0.06	-0.02	0.00
	282	0.02	0.21	-8.06	0.06	0.00	0.00
6848	710	-8.01	0.85	8.04	0.08	0.02	0.00
	140	-8.01	0.85	8.04	0.08	0.00	0.34
6842	140	-8.03	-1.89	8.05	0.08	0.02	0.34
	713	-8.03	-1.83	8.05	0.08	0.00	0.15
6843	713	-8.04	-0.05	8.05	0.08	0.02	0.13
	715	-8.04	-0.68	8.05	0.08	0.03	0.12
6844	716	-8.05	-0.24	8.05	0.08	0.02	0.42
	728	-8.05	-0.24	8.05	0.08	0.03	0.51
6845	728	-8.05	0.38	8.06	0.08	0.02	0.52
	731	-8.05	0.38	8.06	0.08	0.03	0.43
6846	731	-8.06	0.66	8.06	0.08	0.02	0.43
	734	-8.06	0.64	8.06	0.08	0.03	0.39
6847	734	-8.06	1.08	8.06	0.08	0.02	0.20
	737	-8.06	1.08	8.06	0.08	0.03	-0.23
6848	737	-8.06	1.50	8.06	0.08	0.02	-0.21
	738	-8.06	1.52	8.06	0.08	0.03	-0.82
6849	739	-8.07	1.95	8.06	0.08	0.02	-0.81
	739	-8.07	1.95	8.06	0.08	0.03	-0.35
7001	735	-8.05	-1.71	8.04	0.08	0.02	+0.35
	742	-8.09	-1.71	8.04	0.08	0.03	0.15
7002	742	-8.09	-8.68	8.04	0.08	0.02	0.14
	743	-8.09	-8.68	8.04	0.08	0.03	0.42
7003	745	-8.10	-8.25	8.04	0.08	0.02	0.43
	747	-8.10	-8.25	8.04	0.08	0.03	0.39
7004	747	-8.08	8.19	8.04	0.08	0.02	0.44
	750	-8.08	8.19	8.04	0.08	0.03	0.47
7005	750	-8.06	8.68	8.03	0.08	0.02	0.47
	753	-8.06	8.68	8.03	0.08	0.03	0.22
7006	753	-8.05	9.07	8.03	0.08	0.01	0.22
	756	-8.05	9.07	8.03	0.08	0.03	-0.21
7007	756	-8.03	9.51	8.03	0.08	0.01	-0.11
	759	-8.03	9.51	8.03	0.08	0.03	-0.81
7008	760	-8.01	9.95	8.03	0.08	0.01	0.00
	760	-8.02	9.95	8.03	0.08	0.03	-0.34
7009	761	-8.01	-1.11	8.03	0.08	0.01	0.15
	761	-8.01	-1.11	8.03	0.08	0.03	0.14
7010	761	-8.00	-8.68	8.03	0.08	0.01	0.18
	764	-8.00	-8.68	8.03	0.08	0.03	0.16
7011	764	-8.18	-8.25	8.04	0.08	0.02	0.16
	766	-8.18	-8.25	8.04	0.08	0.03	0.48
7012	766	-8.13	0.19	8.05	0.08	0.02	0.48
	769	-8.13	0.19	8.05	0.08	0.03	0.48
7013	769	-8.13	0.63	8.05	0.08	0.02	0.48
	772	-8.13	0.63	8.05	0.08	0.03	0.22
7014	772	-8.13	1.07	8.06	0.08	0.02	0.22
	775	-8.13	1.07	8.06	0.08	0.03	-0.21
7015	775	-8.13	1.51	8.06	0.08	0.02	-0.21
	778	-8.13	1.51	8.06	0.08	0.03	-0.81
7016	778	-8.13	1.95	8.06	0.08	0.02	-0.81
	781	-8.13	1.95	8.06	0.08	0.03	-0.35
7017	781	-8.13	2.39	8.06	0.08	0.02	+0.35
	784	-8.13	2.39	8.06	0.08	0.03	0.15
7018	784	-8.13	2.83	8.06	0.08	0.02	0.14
	787	-8.13	2.83	8.06	0.08	0.03	0.42
7019	787	-8.13	3.27	8.06	0.08	0.02	0.43
	790	-8.13	3.27	8.06	0.08	0.03	0.39
7020	790	-8.13	3.71	8.06	0.08	0.02	0.44
	793	-8.13	3.71	8.06	0.08	0.03	0.47
7021	793	-8.13	4.15	8.06	0.08	0.02	0.47
	796	-8.13	4.15	8.06	0.08	0.03	0.22
7022	796	-8.13	4.59	8.06	0.08	0.02	0.22
	799	-8.13	4.59	8.06	0.08	0.03	-0.21
7023	799	-8.13	5.03	8.06	0.08	0.02	-0.21
	802	-8.13	5.03	8.06	0.08	0.03	-0.81
7024	802	-8.13	5.47	8.06	0.08	0.02	-0.81
	805	-8.13	5.47	8.06	0.08	0.03	-0.35
7025	805	-8.13	5.91	8.06	0.08	0.02	+0.35
	808	-8.13	5.91	8.06	0.08	0.03	0.15
7026	808	-8.13	6.35	8.06	0.08	0.02	0.14
	811	-8.13	6.35	8.06	0.08	0.03	0.42
7027	811	-8.13	6.79	8.06	0.08	0.02	0.43
	814	-8.13	6.79	8.06	0.08	0.03	0.39
7028	814	-8.13	7.23	8.06	0.08	0.02	0.44
	817	-8.13	7.23	8.06	0.08	0.03	0.47
7029	817	-8.13	7.67	8.06	0.08	0.02	0.47
	820	-8.13	7.67	8.06	0.08	0.03	0.22
7030	820	-8.13	8.11	8.06	0.08	0.02	0.22
	823	-8.13	8.11	8.06	0.08	0.03	-0.21
7031	823	-8.13	8.55	8.06	0.08	0.02	-0.21
	826	-8.13	8.55	8.06	0.08	0.03	-0.81
7032	826	-8.13	8.99	8.06	0.08	0.02	-0.81
	829	-8.13	8.99	8.06	0.08	0.03	-0.35
7033	829	-8.13	9.43	8.06	0.08	0.02	+0.35
	832	-8.13	9.43	8.06	0.08	0.03	0.15
7034	832	-8.13	9.87	8.06	0.08	0.02	0.14
	835	-8.13	9.87	8.06	0.08	0.03	0.42
7035	835	-8.13	10.31	8.06	0.08	0.02	0.43
	838	-8.13	10.31	8.06	0.08	0.03	0.39
7036	838	-8.13	10.75	8.06	0.08	0.02	0.44
	841	-8.13	10.75	8.06	0.08	0.03	0.47
7037	841	-8.13	11.19	8.06	0.08	0.02	0.47
	844	-8.13	11.19	8.06	0.08	0.03	0.22
7038	844	-8.13	11.63	8.06	0.08	0.02	0.22
	847	-8.13	11.63	8.06	0.08	0.03	-0.21
7039	847	-8.13	12.07	8.06	0.08	0.02	-0.21
	850	-8.13	12.07	8.06	0.08	0.03	-0.81
7040	850	-8.13	12.51	8.06	0.08	0.02	-0.81
	853	-8.13	12.51	8.06	0.08	0.03	-0.35
7041	853	-8.13	12.95	8.06	0.08	0.02	+0.35
	856	-8.13	12.95	8.06	0.08	0.03	0.15
7042	856	-8.13	13.39	8.06	0.08	0.02	0.14
	859	-8.13	13.39	8.06	0.08	0.03	0.42
7043	859	-8.13	13.83	8.06	0.08	0.02	0.43
	862	-8.13	13.83	8.06	0.08	0.03	0.39
7044	862	-8.13	14.27	8.06	0.08	0.02	0.44
	865	-8.13	14.27	8.06	0.08	0.03	0.47
7045	865	-8.13	14.71	8.06	0.08	0.02	0.47
	868	-8.13	14.71	8.06	0.08	0.03	0.22
7046	868	-8.13	15.15	8.06	0.08	0.02	0.22
	871	-8.13	15.15	8.06	0.08	0.03	-0.21
7047	871	-8.13	15.59	8.06	0.08	0.02	-0.21
	874	-8.13	15.59	8.06	0.08	0.03	-0.81
7048	874	-8.13	16.03	8.06	0.08	0.02	-0.81
	877	-8.13	16.03	8.06	0.08	0.03	-0.35
7049	877	-8.13	16.47	8.06	0.08	0.02	+0.35
	880	-8.13	16.47	8.06	0.08	0.03	0.15
7050	880	-8.13	16.91	8.06	0.08	0.02	0.14
	883	-8.13	16.91	8.06	0.08	0.03	0.42
7051	883	-8.13	17.35	8.06	0.08	0.02	0.43
	886	-8.13	17.35	8.06	0.08	0.03	0.39
7052	886	-8.13	17.79	8.06	0.08	0.02	0.44
	889	-8.13	17.79	8.06	0.08	0.03	0.47
7053	889	-8.13	18.23	8.06	0.08	0.02	0.47
	892	-8.13	18.23	8.06	0.08	0.03	0.22
7054	892	-8.13	18.67	8.06	0.08	0.02	0.22
	895	-8.13	18.67	8.06	0.08	0.03	-0.21
7055	895	-8.13	19.11	8.06	0.08	0.02	-0.21
	898	-8.13	19.11	8.06	0.08	0.03	-0.81
7056	898	-8.13	19.55	8.06	0.08	0.02	-0.81
	901	-8.13	19.55	8.06	0.08	0.03	-0.35
7057	901	-8.13	19.99	8.06	0.08	0.02	+0.35
	904	-8.13	19.99	8.06	0.08	0.03	0.15
7058	904	-8.13	20.43	8.06	0.08	0.02	0.14
	907	-8.13	20.43	8.06	0.08	0.03	0.42
7059	907	-8.13	20.87	8.06	0.08	0.02	0.43
	910	-8.13	20.87	8.06	0.08	0.03	0.39
7060	910	-8.13	21.31	8.06	0.08	0.02	0.44
	913	-8.13	21.31	8.06	0.08	0.03	0.47
7061	913	-8.13	21.75	8.06	0.08	0.02	0.47
	916	-8.13	21.75	8.06	0.08	0.03	0.22
7062	916	-8.13	22.19	8.06	0.08	0.02	0.22
	919	-8.13	22.19	8.06	0.08	0.03	-0.21
7063	919	-8.13	22.63	8.06	0.08	0.02	-0.21
	922	-8.13	22.63	8.06	0.08	0.03	-0.81
7064	922	-8.13	23.07	8.06	0.08	0.02	-0.81
	925	-8.13	23.07	8.06	0.08	0.03	-0.35
7065	925	-8.13	23.51	8.06	0.08	0.02	+0.35
	928	-8.13	23.51	8.06	0.08	0.03	0.15
7066	928	-8.13	23.95	8.06	0.08	0.02	0.14
	931	-8.13	23.95	8.06	0.08	0.03	0.42
7067	931	-8.13	24.39	8.06	0.08	0.02	0.43
	934	-8.13	24.39	8.06	0.08	0.03	0.39
7068	934	-8.13	24.83	8.06	0.08	0.02	0.44
	937	-8.13	24.83	8.06	0.08	0.03	0.47
7069	937	-8.13	25.27	8.06	0.08	0.02	0.47
	940	-8.13	25.27	8.06	0.08	0.03	0.22
7070	940	-8.13	25.71	8.06	0.08	0.02	0.22
	943	-8.13	25.71	8.06	0.08	0.03	-0.21
7071	943	-8.13	26.15	8.06	0.08	0.02	-0.21
	946	-8.13	26.15	8.06	0.08	0.03	-0.81
7072	946	-8.13	26.59	8.06	0.08	0.02	-0.81
	949	-8.13	26.59	8.06	0.08	0.03	-0.35
7073	949	-8.13	27.03	8.06	0.08	0.02	+0.35
	952	-8.13	27.03	8.06	0.08	0.03	0.15
7074	952	-8.13	27.47	8.06	0.08	0.02	0.14
	955	-8.13	27.47	8.06	0.08	0.03	0.42
7075	955	-8.13	27.91	8.06	0.08	0.02	0.43
	958	-8.13	27.91	8.06	0.08	0.03	0.39
7076	958	-8.13	28.35	8.06	0.08	0.02	0.44
	961	-8.13	28.35	8.06	0.08	0.03	0.47
7077	961	-8.13	28.79	8.06	0.08	0.02	0.47
	964	-8.13	28.79	8.06	0.08	0.03	0.22
7078	964	-8.13	29.23	8.06	0.08	0.02	0.22
	967	-8.13	29.23	8.06	0.08	0.03	-0.21
7079	967	-8.13	29.67	8.06	0.08	0.02	-0.21
	970	-8.13	29.67	8.06	0.08	0.03	-0.81
7080	970	-8.13	30.11	8.06	0.08	0.02	-0.81
	973	-8.13	30.11	8.06	0.08	0.03	-0.35
7081	973	-8.13	30.55	8.06	0.08	0.02	+0.35
	976	-8.13	30.55	8.06	0.08	0.03	0.15
7082	976	-8.13	30.99	8.06	0.08	0.02	0.14
	979	-8.13	30.99	8.06	0.08	0.03	0.42
7083	979	-8.13	31.43	8.06	0.08	0.02	0.43
	982	-8.13	31.43	8.06	0.08	0.03	0.39
7084	982	-8.13	31.87	8.06	0.08	0.02	0.44
	985	-8.13	31.87	8.06	0.08	0.03	0.47
7085	985	-8.13	32.31	8.06	0.08	0.02	0.47
	988	-8.13	32.31	8.06	0.08	0.03	0.22
7086	988	-8.13	32.75	8.06	0.08	0.02	0.22
	991	-8.13	32.75	8.06	0.08	0.03	-0.21
7087	991	-8.13	33.19	8.06	0.08	0.02	-0.21
	994	-8.13	33.19	8.06	0.08	0.03	-0.81
7088	994	-8.13	33.63	8.06	0.08	0.02	-0.81
	997	-8.13	33.63	8.06	0.08	0.03	-0.35
7089	997	-8.13	34.07	8.06	0.08	0.02	+0.35
	1000	-8.13	34.07	8.06	0.08	0.03	0.15
7090	1000	-8.13	34.51	8.06	0.08	0.02	0.14
	1003	-8.13	34.51	8.06	0.08	0.03	0.42
7091	1003	-8.13	34.95	8.06	0.08	0.02	0.43
	1006	-8.13	34.95	8.06	0.08	0.03	0.39
7092	1006	-8.13	35.39	8.06	0.08	0.02	0.44
	1009	-8.13	35.39	8.06	0.08	0.03	0.47
7093	1009	-8.13	35.83	8.06	0.08	0.02	0.47
	1012	-8.13	35.83	8.06	0.08	0.03	0.22
7094	1012	-8.13	36.27	8.06	0.08	0.02	0.22
	1015	-8.13	36.27	8.06	0.08	0.03	-0.21
7095	1015	-8.13	36.71	8.06	0.08	0.02	-0.21
	1018	-8.13	36.71	8.06	0.08	0.03	-0.81
7096	1018	-8.13	37.15	8.06	0.08	0.02	-0.81
	1021	-8.13	37.15	8.06	0.08	0.03	-0.35
7097	1021	-8.13	37.59	8.06	0.08	0.02	+0.35
	1024	-8.13	37.59	8.06	0.08	0.03	0.15
7098	1024	-8.13	38.03	8.06	0.08	0.02	0.14
	1027	-8.13	38.03	8.06	0.08	0.03	0.42
7099	1027	-8.13	38.47	8.06	0.08	0.02	0.43
	1030	-8.13	38.47	8.06	0.08	0.03	0.39
7100	1030	-8.13	38.91	8.06	0.08	0.02	0.44
	1033	-8.13	38.91	8.06	0.08	0.03	0.47
7101	1033	-8.13	39.35	8.06	0.08	0.02	0.47
	1036	-8.13	39.35	8.06	0.08	0.03	0.22
7102	1036	-8.13	39.79	8.06	0.08	0.02	0.22
	1039	-8.13	39.79	8.06	0.08	0.03	-0.21
7103	1039	-8.13	40.23	8.06	0.08	0.02	-0.21
	1042	-8.13	40.23	8.06	0.08	0.03	-0.81
7104	1042	-8.13	40.67	8.06	0.08	0.02	-0.81
	1045	-8.13	40.67	8.06	0.08	0.03	-0.35
7105	1045	-8.13	41.11	8.06	0.08	0.02	+0.35
	1048	-8.13	41.11	8.06	0.08	0.03	0.15
7106	1048	-8.13	41.55	8.06	0.08	0.02	0.14
	1051	-8.13	41.55	8.06	0.08	0.03	0.42
7107	1051	-8.13	41.99	8.06	0.08	0.02	0.43
	1054	-8.13	41.99	8.06	0.08	0.03	0.39
7108	1054	-8.13	42.43	8.06	0.08	0.02	0.44
	1057	-8.13	42.43	8.06	0.08	0.03	0.47
7109	1057	-8.13	42.87	8.06	0.08	0.02	0.47
	1060	-8.13	42.87	8.06	0.08	0.03	0.22
7110	1060	-8.13	43.31	8.06	0.08	0.02	0.22
	1063	-8.13	43.31	8.06	0.08	0.03	-0.21
7111	1063	-8.13	43.75	8.06	0.08	0.02	-0.21
	1066	-8.13	43.75	8.06	0.08	0.03	-0.81
7112	1066	-8.13	44.19	8.06	0.08	0.02	-0.81
	1069	-8.13	44.19	8.06	0.08	0.03	-0.35
7113	1069	-8.13	44.63	8.06	0.08	0.02	+0.35
	1072	-8.13	44.63	8.06	0.08	0.03	0.15
7114	1072	-8.13	45.07	8.06	0.08	0.02	0.14
	1075	-8.13	45.07	8.06	0.08	0.03	0.42
7115	1075	-8.13	45.51	8.06	0.08	0.02	0.43
	1078	-8.13	45.51	8.06	0.08	0.03	0.39
7116	1078	-8.13	45.95	8.06	0.08	0.02	0.44
	1081	-8.13	45.95	8.06	0.08	0.03	0.47
7117	1081	-8.13	46.39	8.06	0.08	0.02	0.47
	1084	-8.13	46.39	8.06	0.08	0.03	0.22
7118	1084	-8.13	46.83	8.06	0.08	0.02	0.22
	1087	-8.13	46.83	8.06	0.08	0.03	-0.21
7119	1087	-8.13	47.27	8.06	0.08	0.02	-0.21
	1090	-8.13	47.27	8.06	0.08	0.03	-0.81
7120	1090	-8.13	47.71	8.06	0.08	0.02	-0.81
	1093	-8.13	47.71	8.06	0.08	0.03	-0.35
7121	1093	-8.13	48.15	8.06	0.08	0.02	+0.35
	1096	-8.13	48.15	8.06	0.08	0.03	0.15
7122	1096	-8.13	48.59	8.06	0.08	0.02	0.14
	1099	-8.13	48.59	8.06	0.08	0.03	0.42
7123	1099	-8.13	49.03	8.06	0.08	0.02	0.43
	1102	-8.13	49.03	8.06	0.08	0.03	0.39
7124	1102	-8.13	49.47	8.06	0.08	0.02	0.44
	1105	-8.13	49.47	8.06	0.08	0.03	0.47
7125	1105	-8.13	49.91	8.06	0.08	0.02	0.47
	1108	-8.13	49.91	8.06	0.08	0.03	0.22
7126	1108	-8.13	50.35	8.06	0.08	0.02	0.22
	1111	-8.13	50.35	8.06	0.08	0.03	-0.21
7127	1111	-8.13	50.79	8.06	0.08	0.02	-0.21
	1114	-8.13	50.79	8.06	0.08	0.03	-0.81
7128	1114	-8.13	51.23	8.06	0.08	0.02	-0.81
	1117	-8.13	51.23	8.06	0.08	0.03	-0.35
7129	1117	-8.13	51.67	8.06	0.08	0.02	+0.35
	1120	-8.13	51.67	8.06	0.08	0.03	0.15
7130	1120	-8.13	52.11	8.06	0.08	0.02	0.14
	1123	-8.13	52.11	8.06	0.08	0.03	0.42
7131	1123	-8.13	52.55	8.06	0.08	0.02	0.43
	1126	-8.13	52.55	8.06	0.08	0.03	0.39
7132	1126	-8.13	52.99	8.06	0.08	0.02	0.44
	1129	-8.13	52.99	8.06	0.08	0.03	0.47
7133	1129	-8.13	53.43	8.06	0.08	0.02	0.47
	1132	-8.13	53.43	8.06	0.08	0.03	0.22
7134	1132	-8.13	53.87	8.06	0.08	0.02	0.22
	1135	-8.13	53.87	8.06	0.08	0.03	-0.21
7135	1135	-8.13	54.31	8.06	0.08	0.02	-0.21
	1138	-8.13	54.31	8.06	0.08	0.03	-0.81
7136	1138	-8.13	54.75	8.06	0.08	0.02	-0.81
	1141	-8.13	54.75	8.06	0.08	0.03	-0.35
7137	1141	-8.13	55.19	8.06	0.08	0.02	+0.35
	1144	-8.13	55.19	8.06	0.08	0.03	0.15
7138	1144	-8.13	55.63	8.06	0.08	0.02	0.14
	1147	-8.13	55.63	8.06	0.08	0.03	0.42
7139	1147	-8.13	56.07	8.06	0.08	0.02	0.43
	1150	-8.13	56.07	8.06	0.08	0.03	0.39
7140	1150	-8.13	56.51	8.06	0.08	0.02	0.44
	1153	-8.13	56.51	8.06	0.08	0.03	0.47
7141	1153	-8.13	56.95	8.06	0.08	0.02	0.47
	1156	-8.13	56.95	8.06	0.08	0.03	0.22
7142	1156	-8.13	57.39	8.06	0.08	0.02	0.22
	1159	-8.13	57.39	8.06	0.08	0.03	-0.21
7143	1159	-8.13	57.83	8.06	0.08	0.02	-0.21
	1162	-8.13	57.83	8.06	0.08	0.03	-0.81
7144	1162	-8.13	58.27	8.06	0.08	0.02	-0.81
	1165	-8.13	58.27	8.06	0.08	0.03	-0.35
7145	1165	-8.13	58.71	8.06	0.08	0.02	+0.35
	1168	-8.13	58.71	8.06	0.08	0.03	0.15
7146	1168	-8.13	59.15	8.06	0.08	0.02	0.14
	1171	-8.13	59.15	8.06	0.08	0.03	0.42
7147	1171	-8.13	59.59	8.06	0.08	0.02	0.43
	1174	-8.13	59.59	8.06	0.08	0.03	0.39
7148	1174	-8.13	60.03	8.06	0.08	0.02	0.44
	1177	-8.13	60.03	8.06	0.08	0.03	0.47
7149	1177	-8.13	60.47

	1306	-2.73	0.00	0.69	0.00	-3.07	0.00
7758	1436	-0.06	-0.19	-0.06	0.01	-0.02	0.00
	1830	-0.06	0.19	-0.06	0.01	0.06	0.00
7759	1830	-0.12	-0.39	-0.05	0.00	-0.06	0.00
	1852	-0.12	0.39	-0.05	0.00	0.06	0.00
7759	1852	-0.06	-0.39	0.01	0.00	0.06	0.00
	1316	-0.06	0.39	0.01	0.00	0.06	0.00
8436	204	-0.01	-0.28	-0.06	0.00	-0.02	-0.12
	1316	-0.01	-0.39	-0.06	0.00	0.06	0.00
8437	202	-0.01	-0.75	0.06	0.00	0.06	-0.18
	1438	-0.05	-0.26	0.06	0.00	-0.02	-0.01
8438	744	0.00	-0.18	0.06	0.00	0.06	-0.23
	1056	0.00	-0.18	0.06	0.00	-0.02	0.01
8439	746	0.07	-0.78	-0.07	0.00	-0.02	-0.23
	1850	0.07	-0.78	-0.07	0.00	0.06	0.00
8440	252	-0.01	-0.01	0.05	0.00	0.01	-0.18
	1853	-0.01	-0.01	0.05	0.00	0.01	-0.25
8441	1853	-0.01	-0.69	0.01	0.00	0.01	-0.21
	242	-0.01	-0.69	0.01	0.00	0.06	0.00
8442	234	0.03	-0.61	-0.01	0.00	0.06	-0.46
	1854	0.02	-0.61	-0.01	0.00	0.01	-0.24
8443	1854	0.02	-0.41	0.02	0.00	0.01	-0.19
	244	0.02	-0.41	0.02	0.00	0.06	-0.05
8444	488	0.01	-1.34	0.01	0.00	0.01	-0.02
	1855	0.01	-1.34	0.00	0.00	0.01	-0.33
8445	1855	0.01	-0.66	0.02	0.00	0.01	-0.33
	700	0.01	-0.66	0.02	0.00	0.06	-0.05
8446	358	-0.06	-1.28	-0.03	0.00	0.06	-0.34
	1856	-0.06	-1.28	-0.03	0.00	0.01	-0.28
8447	1856	-0.03	-0.86	-0.07	0.00	0.06	-0.39
	254	-0.02	-0.86	-0.07	0.00	0.02	0.01
8448	716	-0.02	-1.34	-0.01	0.00	0.06	-0.02
	1857	-0.02	1.34	0.00	0.00	0.01	-0.33
8449	1857	-0.01	-0.66	-0.03	0.00	0.06	-0.33
	712	0.01	-0.66	-0.03	0.00	0.01	0.00
8450	718	-0.00	-1.34	0.00	0.00	0.01	-0.01
	1858	-0.00	-1.34	0.00	0.00	0.01	0.33
8451	1858	-0.01	-0.66	-0.01	0.00	0.01	-0.33
	721	-0.01	-0.66	-0.01	0.00	0.01	0.00
8452	723	0.00	-1.34	0.04	0.00	0.01	-0.01
	1859	0.02	-1.34	0.04	0.00	0.00	-0.33
8453	1859	0.01	-0.66	0.00	0.00	0.00	-0.32
	726	0.01	-0.66	0.00	0.00	-0.01	0.00
8454	733	0.03	-1.34	0.02	0.00	0.01	-0.01
	1860	0.03	-1.34	0.03	0.00	0.00	-0.33
8455	1860	0.01	-0.66	0.04	0.00	0.01	-0.33
	743	0.01	-0.66	0.04	0.00	0.00	0.00
8456	753	0.04	-1.37	0.00	0.00	0.01	-0.31
	1861	0.04	-1.33	0.00	0.00	0.01	-0.27
8457	1861	0.02	-0.67	-0.01	0.00	0.00	-0.26
	756	0.02	-0.67	-0.01	0.00	0.01	0.01
8458	765	0.01	-1.23	-0.01	0.00	0.00	-0.68
	1862	0.01	-1.23	-0.01	0.00	0.01	-0.24
8459	1862	0.01	-0.83	-0.01	0.00	0.00	-0.27
	768	0.01	-0.83	-0.01	0.00	0.01	0.00
8460	1863	-0.01	-0.22	0.00	0.00	0.00	0.00
	1835	-0.01	0.22	0.00	0.00	0.00	0.00
8461	1835	-0.02	-0.22	-0.01	-0.01	0.00	0.00
	1840	-0.02	0.22	-0.01	-0.01	0.00	0.00
8414	1840	-0.04	-0.22	-0.03	-0.01	-0.01	0.00
	1839	-0.04	0.22	-0.02	-0.01	0.00	0.00
8417	1839	0.05	-0.22	-0.04	-0.01	-0.02	0.00
	1838	-0.05	0.22	-0.04	-0.01	0.00	0.00
8518	1838	-0.06	-0.22	0.01	-0.01	0.00	0.00
	1837	-0.06	0.22	0.00	-0.01	0.00	0.00
8519	1837	-0.01	-0.22	0.01	-0.01	0.01	0.00
	1836	-0.01	0.22	0.02	-0.01	0.00	0.00
8724	1836	0.00	-0.70	0.04	0.00	0.02	0.00
	1861	0.00	0.20	0.05	0.00	0.00	0.00
8725	1861	0.00	-0.20	0.01	0.02	0.00	0.00
	1863	0.01	0.20	0.01	0.02	0.00	0.00
8727	1863	0.01	-0.20	0.01	0.01	0.00	0.00
	1834	0.01	0.20	0.01	0.01	0.00	0.00

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

REACTIONS

CASE 5: 1.20 + 1.5Q

Node	Force-X kN	Force-Y kN	Force-Z kN	Moment-X kNm	Moment-Y kNm	Moment-Z kNm
781	0.00	0.32	18.23	-0.64	0.00	0.00
783	0.00	-0.63	31.73	-0.59	0.00	0.00
785	-0.39	-0.32	9.04	0.00	0.00	0.00
786	0.39	0.63	8.24	0.00	0.00	0.00
Sum:	0.00	0.00	58.24 (all nodes)			

(Reactions are in structure (+ positive global) axis directions.)

Microstran V9

LyallLG
Job: 9006 2015 Catherines House bedroom 3 floor beams
B & C Morton-Jones
Floor beams

14/04/15
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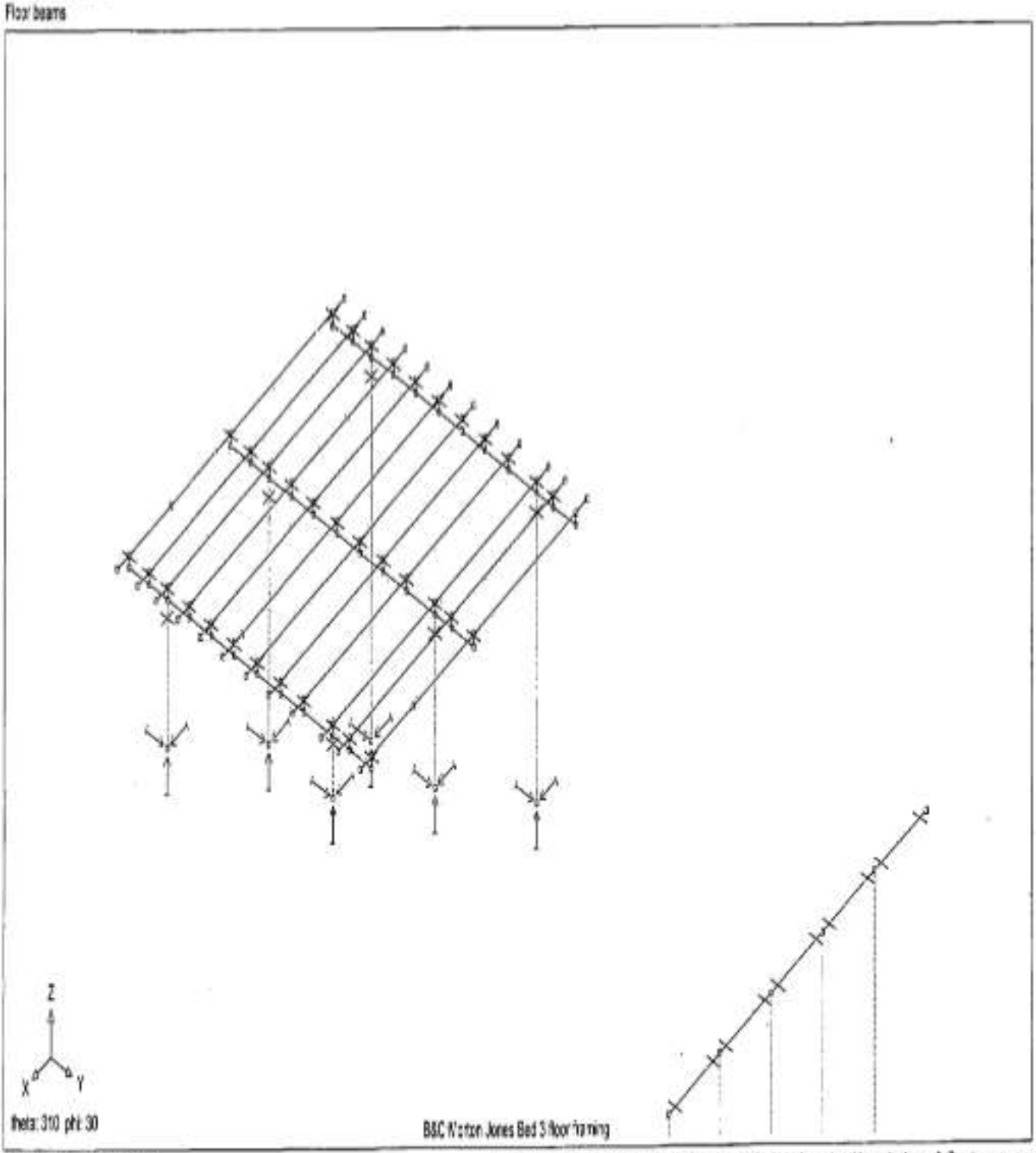
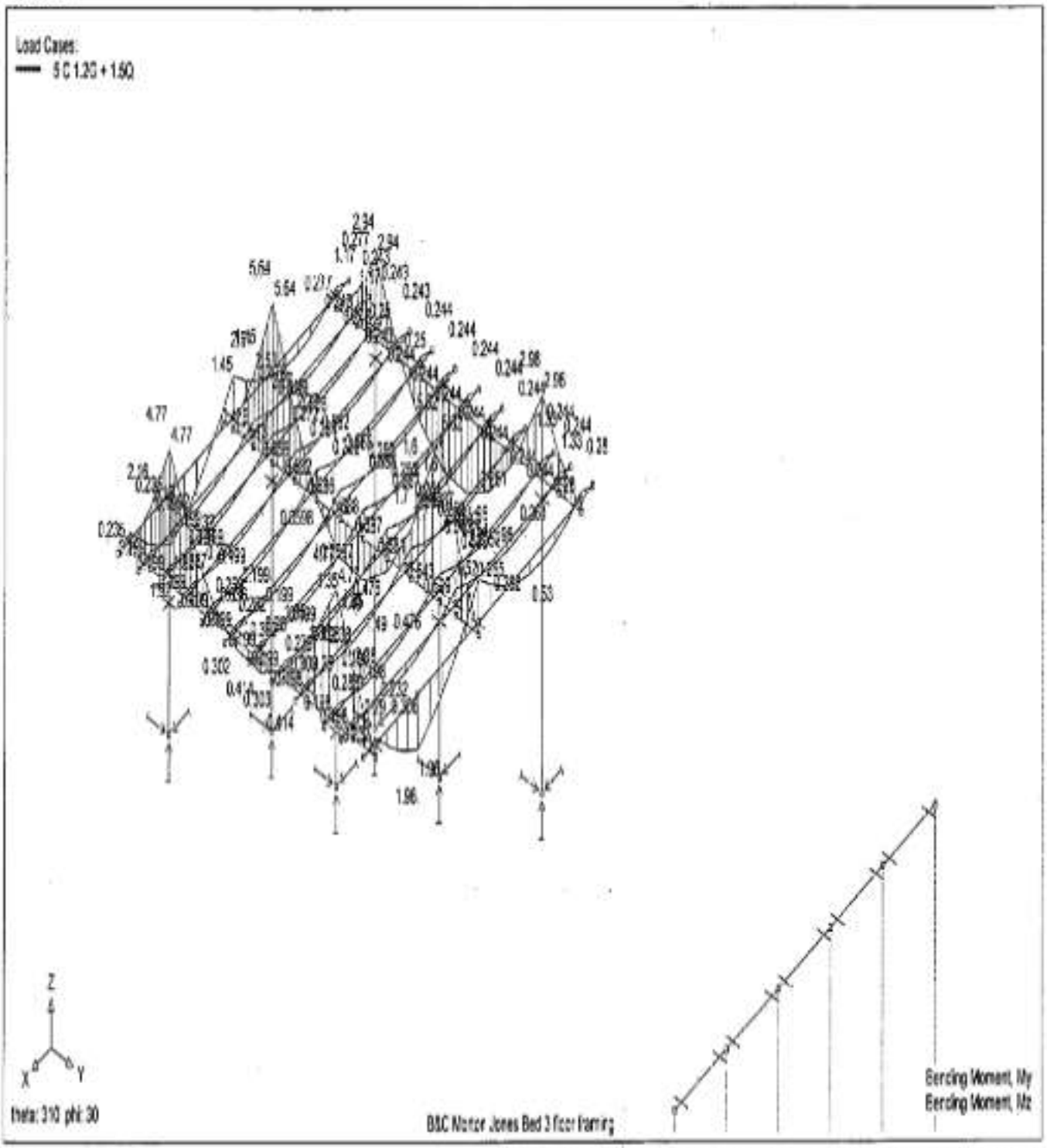


Microstran V9

Lyall.G
Job: 9006 2015 Catherines House bedroom 3 floor beams
B & C Morton-Jones
Floor beams

14/04/15
07:47:59p



Microstran V9

Lyall.G
Job: 9006 2015 Catherines House bedroom 3 floor beams
B & C Morton-Jones
Floor beams

14/04/15
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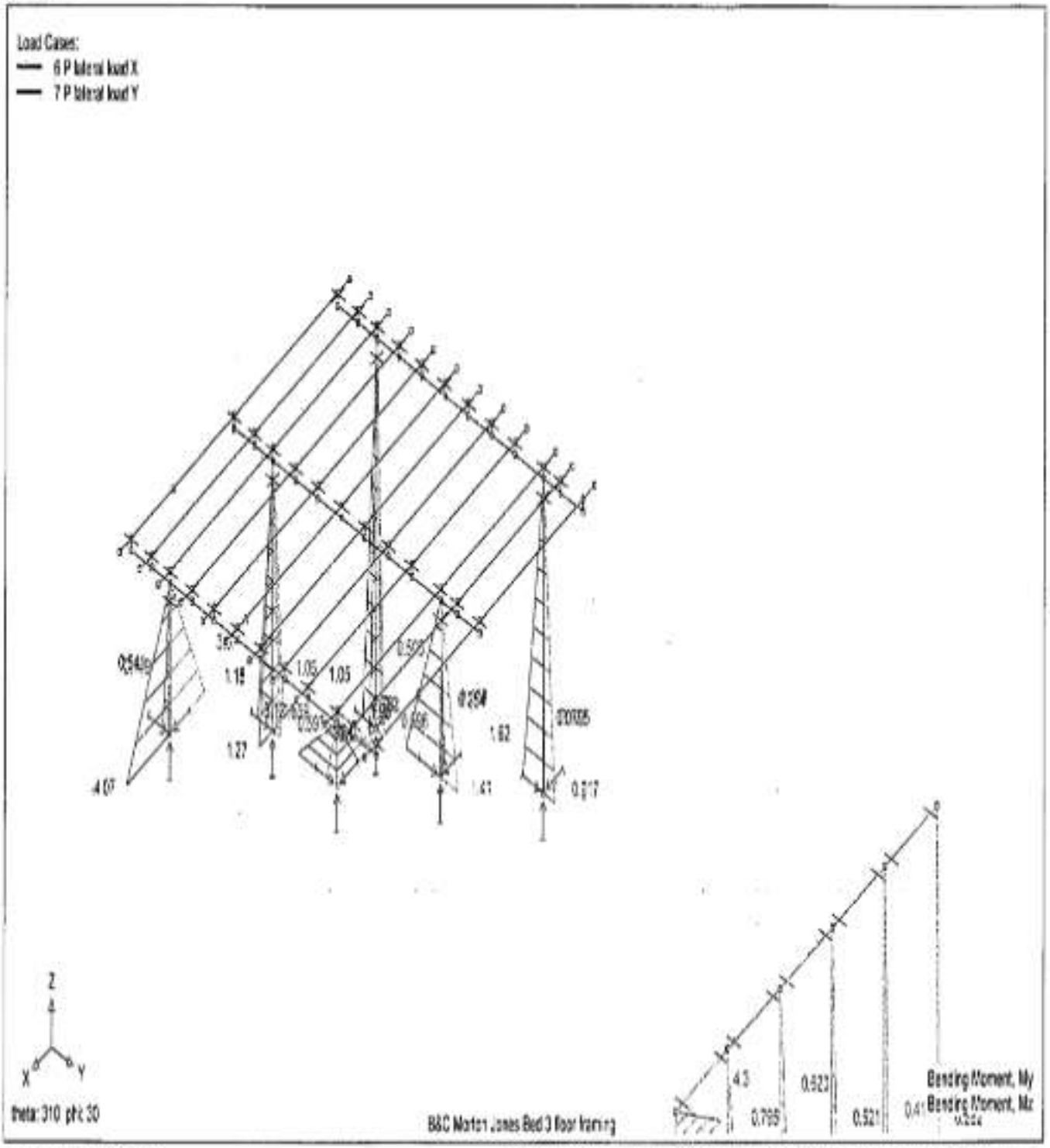

INPUT/ANALYSIS REPORT

Job: 9006 2015 Catherines House bedroom 3 floor beams
Title: B & C Morton-Jones
Floor beams
Type: Space Frame
Date: 10 Apr 2015
Time: 09:23 AM

Nodes	116
Members	134
Spring supports	9
Sections	11
Materials	2
Primary load cases	4
Combination load cases	3

Analysis: Linear elastic

LOAD CASES

Case	Type	Analysis Type	Flag	Title
1	P	L	-	Dead
2	P	L	-	Live
6	P	L	-	Lateral Load X
7	P	L	-	Lateral Load Y
3	C	L	-	G + Q
4	C	L	-	1G + Q
5	C	L	-	1.25 + 1.5Q

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	4.450	0.000	2.700	000000
2	4.500	0.000	0.000	000000
3	0.000	0.000	0.000	000000
4	0.250	0.000	2.700	000000
5	0.250	0.000	2.400	000000
6	2.450	0.000	2.700	000000
7	2.450	0.000	2.400	000000
8	4.650	0.000	2.700	000000
9	0.000	0.367	2.600	000000
10	0.250	0.367	2.700	000000
11	0.250	0.367	2.600	000000
12	2.450	0.367	2.700	000000
13	2.450	0.367	2.600	000000
14	4.650	0.367	2.600	000000
15	4.650	0.367	2.700	000000
16	4.920	0.367	2.600	000000
17	4.650	0.700	1.500	111111
18	4.650	0.700	2.700	000000
19	4.900	0.700	2.600	000000
20	0.250	0.700	-2.400	111111
21	2.450	0.700	0.500	111111
22	0.000	0.700	2.600	000000
23	0.250	0.700	2.700	000000
24	0.250	0.700	2.600	000000
25	2.450	0.700	2.700	000000
26	2.450	0.700	2.600	000000
27	4.650	0.700	2.600	000000
28	4.650	1.100	2.700	000000
29	4.900	1.100	2.600	000000
30	0.000	1.100	2.600	000000
31	0.250	1.100	2.700	000000
32	0.250	1.100	2.600	000000
33	2.450	1.100	2.700	000000
34	2.450	1.100	2.600	000000
35	4.650	1.100	2.600	000000
36	4.650	1.500	2.700	000000
37	4.900	1.500	2.600	000000
38	0.000	1.500	2.600	000000
39	0.250	1.500	2.700	000000
40	0.250	1.500	2.600	000000
41	2.450	1.500	2.700	000000
42	2.450	1.500	2.600	000000
43	4.650	1.500	2.600	000000
44	4.650	1.920	2.700	000000
45	4.900	1.920	2.600	000000
46	0.000	1.920	2.600	000000
47	0.250	1.920	2.700	000000
48	0.250	1.920	2.600	000000
49	2.450	1.920	2.700	000000
50	2.450	1.920	2.600	000000
51	4.650	1.920	2.600	000000
52	4.650	2.340	2.700	000000
53	4.900	2.340	2.600	000000
54	0.000	2.340	2.600	000000
55	0.250	2.340	2.700	000000
56	0.250	2.340	2.600	000000
57	2.450	2.340	2.700	000000
58	2.450	2.340	2.600	000000
59	4.650	2.340	2.600	000000
60	4.650	2.760	2.700	000000
61	4.900	2.760	2.600	000000
62	0.000	2.760	2.600	000000
63	0.250	2.760	2.700	000000
64	0.250	2.760	2.600	000000
65	2.450	2.760	2.700	000000
66	2.450	2.760	2.600	000000
67	4.650	2.760	2.600	000000
68	4.650	3.180	2.700	000000
69	4.900	3.180	2.600	000000
70	0.000	3.180	2.600	000000
71	0.250	3.180	2.700	000000
72	0.250	3.180	2.600	000000
73	2.450	3.180	2.700	000000
74	2.450	3.180	2.600	000000
75	4.650	3.180	2.600	000000
76	4.650	3.699	2.700	000000
77	4.900	3.699	2.600	000000
78	4.650	3.700	2.200	111111
79	0.000	3.700	2.600	000000
80	0.250	3.700	0.200	111111
81	0.250	3.700	2.700	000000
82	0.250	3.700	2.600	000000
83	2.450	3.700	1.300	111111
84	2.450	3.700	2.700	000000
85	2.450	3.700	2.600	000000
86	4.650	3.700	2.600	000000
87	0.000	4.000	2.900	000000
88	0.250	4.000	2.700	000000
89	0.250	4.000	2.900	000000
90	2.450	4.000	2.700	000000
91	2.450	4.000	2.900	000000
92	4.650	4.000	2.700	000000
93	4.650	4.000	2.900	000000
94	4.900	4.000	2.900	000000
95	4.650	4.400	2.700	000000
96	4.900	4.400	2.600	000000
97	0.000	4.400	2.900	000000
98	0.250	4.400	2.700	000000
99	0.250	4.400	2.900	000000
100	2.450	4.400	2.700	000000
101	2.450	4.400	2.900	000000
102	4.650	4.400	2.900	000000
103	2.750	0.000	2.900	000000
104	2.750	4.400	2.900	000000
105	4.650	10.700	1.900	111111
106	4.650	10.700	2.700	000000
108	0.250	10.700	-0.400	111111
109	2.450	10.700	0.550	111111
111	0.250	10.700	2.700	000000
112	2.450	10.700	2.700	000000
114	2.750	10.700	2.700	000000
115	2.750	10.700	2.200	111111
169	1.350	10.700	0.200	111111
170	1.350	10.700	2.700	000000
171	2.550	10.700	1.300	111111
172	2.550	10.700	2.700	000000

MASTER/SLAVE CONSTRAINTS

Slave Node	Slaved Nodes X	Y	Z	RX	RY	RZ
1	58	59	0	0	0	59
4	59	60	0	0	0	60
6	59	60	0	0	0	60
10	60	61	0	0	0	61
12	60	62	0	0	0	62
15	60	62	0	0	0	62
18	62	63	0	0	0	63
23	62	63	0	0	0	63
25	62	63	0	0	0	63
28	64	65	0	0	0	65
31	64	65	0	0	0	65
33	65	65	0	0	0	65
34	64	65	0	0	0	65
39	66	66	0	0	0	66
41	66	66	0	0	0	66
44	66	66	0	0	0	66
47	66	66	0	0	0	66
49	66	66	0	0	0	66
52	66	66	0	0	0	66
54	66	66	0	0	0	66
57	66	66	0	0	0	66
60	66	66	0	0	0	66
63	66	66	0	0	0	66
66	66	66	0	0	0	66
71	66	66	0	0	0	66
73	66	66	0	0	0	66
76	66	66	0	0	0	66
81	66	66	0	0	0	66
84	66	66	0	0	0	66
69	66	66	0	0	0	66
90	66	66	0	0	0	66
92	66	66	0	0	0	66
95	66	66	0	0	0	66
100	66	66	0	0	0	66

MEMBER DEFINITIONS

Member	A	B	C	Prop	Matl	Rel-A	Rel-B	Length m
1	1	8	-8	50	1	000000	000111	0.100
2	2	4	4	51	1	000000	000000	0.250
3	3	5	5	51	1	000000	000000	0.250
4	4	5	-4	50	1	000000	000111	0.100
5	5	7	8	51	1	000000	000000	2.200
6	6	7	-8	50	1	000000	000111	0.100
8	1	15	8	69	1	000000	000000	0.367
9	4	10	8	69	1	000000	000000	0.367
10	6	12	8	85	1	000000	000000	0.367
11	9	11	8	53	1	000000	000000	0.250
12	10	11	-8	50	1	000000	000111	0.100
13	11	13	8	53	1	000000	000000	2.200
14	12	13	-8	50	1	000000	000111	0.100
15	13	14	8	53	1	000000	000000	2.200
16	14	15	-8	50	1	000111	000000	0.100
17	14	16	8	53	1	000000	000000	0.250
18	15	16	8	69	1	000000	000000	0.333
19	16	23	8	69	1	000000	000000	0.334
20	16	25	8	69	1	000000	000000	0.334
21	17	18	-8	75	3	000000	000111	1.200
22	18	27	-8	52	1	000000	000111	0.100
23	19	27	8	53	1	000000	000000	0.250
24	20	23	-8	75	3	000000	000111	1.100
25	21	25	-8	75	3	000000	000111	2.150
26	22	29	8	53	1	000000	000000	0.250
27	23	24	-8	53	1	000000	000111	0.100
28	24	29	8	53	1	000000	000000	2.200
29	25	26	-8	53	1	000000	000111	0.100
30	26	27	8	53	1	000000	000000	2.200
31	18	28	8	69	1	000000	000000	0.400
32	23	31	8	69	1	000000	000000	0.400
33	25	33	8	69	1	000000	000000	0.400
34	29	35	-8	53	1	000000	000111	0.100
35	29	30	8	53	1	000000	000000	0.250
36	30	32	8	51	1	000000	000000	0.250
37	31	32	-8	50	1	000000	000111	0.100
38	32	34	8	51	1	000000	000000	2.200
39	33	34	-8	50	1	000000	000111	0.100
40	34	35	8	51	1	000000	000000	2.200
41	28	36	8	69	1	000000	000000	0.400
42	31	38	8	69	1	000000	000000	0.400
43	33	41	8	69	1	000000	000000	0.400
44	35	43	-8	53	1	000000	000111	0.100
45	37	43	8	53	1	000000	000000	0.250
46	39	40	8	53	1	000000	000000	0.250
47	39	40	-8	53	1	000000	000111	0.100
48	40	42	8	53	1	000000	000000	2.200
49	41	42	-8	53	1	000000	000111	0.100
50	42	43	8	53	1	000000	000000	2.200
51	36	44	8	69	1	000000	000000	0.400
52	38	47	8	69	1	000000	000000	0.400
53	41	49	8	69	1	000000	000000	0.400
54	45	51	-8	53	1	000000	000111	0.100
55	45	51	8	53	1	000000	000000	0.250
56	48	48	8	53	1	000000	000000	0.250
57	47	48	-8	53	1	000000	000111	0.100
58	48	50	8	53	1	000000	000000	2.200
59	49	50	-8	53	1	000000	000111	0.100
60	50	52	8	53	1	000000	000000	2.200
61	44	52	8	69	1	000000	000000	0.400

42	47	56	I	88	1	000000	000000	0.420
43	48	57	I	88	1	000000	000000	0.420
54	52	59	-X	50	1	000000	000111	0.180
45	53	59	I	50	1	000000	000000	0.250
46	54	56	I	50	1	000000	000000	0.250
47	55	56	-X	50	1	000000	000111	0.180
48	56	58	I	50	1	000000	000000	2.250
49	57	58	-X	50	1	000000	000111	0.180
70	58	59	I	50	1	000000	000000	2.306
71	59	60	I	60	1	000000	000000	0.420
72	60	63	I	60	1	000000	000000	0.420
73	61	65	I	60	1	000000	000000	0.420
74	60	67	-X	50	1	000000	000111	0.180
75	61	67	I	50	1	000000	000000	0.250
76	62	66	I	50	1	000000	000000	0.250
77	62	64	-Y	55	1	000000	000111	0.180
78	61	68	I	50	1	000000	000000	2.306
79	65	69	-X	50	1	000000	000111	0.180
80	65	67	I	50	1	000000	000000	2.250
81	67	68	I	60	1	000000	000000	0.420
82	63	71	I	60	1	000000	000000	0.420
83	65	73	I	60	1	000000	000000	0.420
84	69	75	-Y	55	1	000000	000111	0.180
85	68	75	I	51	1	000000	000000	0.250
86	70	72	I	50	1	000000	000000	0.250
87	71	72	-X	50	1	000000	000111	0.180
88	72	74	I	50	1	000000	000000	2.250
89	73	74	-X	50	1	000000	000111	0.180
90	74	76	I	50	1	000000	000000	2.250
91	68	76	6	68	1	000000	000000	0.420
92	76	81	I	60	1	000000	000000	0.420
93	73	84	I	60	1	000000	000000	0.420
94	78	68	-X	50	2	000111	000000	0.180
95	78	66	-X	50	1	000000	000111	0.180
96	77	66	I	50	1	000000	000000	0.250
97	75	82	I	50	1	000000	000000	0.250
98	66	81	-X	70	2	000000	000111	2.960
99	81	82	-X	50	1	000000	000111	0.180
100	83	85	I	50	1	000000	000000	2.306
101	83	84	-X	70	2	000000	000111	1.480
102	84	83	-X	50	1	000000	000111	0.180
103	79	86	I	60	1	000000	000000	0.300
104	81	88	I	60	1	000000	000000	0.300
105	81	90	I	60	1	000000	000000	0.300
106	87	89	I	50	1	000000	000000	0.250
107	86	89	-X	50	1	000000	000111	0.180
108	89	91	I	50	1	000000	000000	2.306
109	90	91	-X	50	1	000000	000111	0.180
110	90	93	I	50	1	000000	000000	2.306
111	92	93	-X	50	1	000000	000111	0.180
112	93	94	I	55	1	000000	000000	0.250
113	92	95	I	60	1	000000	000000	0.490
114	88	96	I	60	1	000000	000000	0.490
115	89	100	I	60	1	000000	000000	0.490
116	96	100	-X	50	1	000000	000111	0.180
117	96	102	I	51	1	000000	000000	0.250
118	97	98	I	51	1	000000	000000	0.250
119	98	99	-X	50	1	000000	000000	0.180
120	99	101	I	51	1	000000	000000	2.250
121	100	101	-X	50	1	000000	000111	0.180
122	7	103	I	51	1	000000	000000	1.180
123	103	6	I	51	1	000000	000000	0.960
124	101	104	I	51	1	000000	000000	1.180
125	104	102	I	51	1	000000	000000	0.960
126	105	108	-X	72	2	000000	000000	1.280
127	106	111	-X	70	2	000000	000000	2.160
128	109	113	-X	70	2	000000	000000	2.160
129	104	105	-X	72	2	000000	000000	0.560
130	108	109	-X	70	2	000000	000000	2.160
131	111	110	-X	70	2	000000	000000	1.480
132	111	107	I	60	1	000001	000001	1.180
133	108	112	I	60	1	000001	000001	1.180
134	113	112	I	60	1	000001	000001	1.156
135	112	106	I	60	1	000001	000001	1.180
136	106	104	I	60	1	000001	000001	1.180

STANDARD SHAPES

Section	Shape Name	Comment	D1/D4	D2/D5	D3/D6
50	RECT default	200*50	0.196	0.045	
51	RECT default	200*100	0.196	0.096	
60	RECT default	300*90	0.296	0.090	
70	CIRC default	175 pole	0.175	0.093	
72	CIRC default	150 RHS	0.150	0.093	
74	CIRC default	200 RHS	0.200	0.093	
80	RECT default	default	0.100	0.100	

Dimension symbols:
CIRC - D1=D2
RECT - D1=B D2=H

SECTIONS INPUT BY PROPERTY VALUES

Section	Name	Comment
10	Decimal	X_beams
30	Decimal	Y_beams
50	Decimal	Odd_X_columns
51	Decimal	Other_columns

SECTION PROPERTIES

Section	Ax mm2	Ay mm2	Az mm2	J mm4	Iy mm4	Iz mm4	Text
10	3.328E-03	0.000E+00	0.000E+00	6.278E-08	1.040E-06	2.368E-05	
20	3.328E-03	0.000E+00	0.000E+00	6.278E-08	1.040E-06	2.368E-05	
30	3.328E-03	0.000E+00	0.000E+00	6.278E-08	1.040E-06	2.368E-05	
31	3.328E-03	0.000E+00	0.000E+00	6.278E-08	1.040E-06	2.368E-05	
50	8.568E-03	0.000E+00	0.000E+00	4.984E-06	1.447E-05	2.572E-05	1.000
51	1.685E-02	0.000E+00	0.000E+00	3.735E-05	1.350E-05	5.136E-05	1.000
60	2.619E-02	0.000E+00	0.000E+00	5.645E-05	1.782E-05	1.025E-04	1.000
70	2.465E-02	0.000E+00	0.000E+00	9.288E-05	4.604E-05	9.004E-05	1.000
72	1.767E-02	0.000E+00	0.000E+00	4.971E-05	2.485E-05	2.485E-05	1.000
74	3.142E-02	0.000E+00	0.000E+00	1.571E-04	7.854E-05	7.854E-05	1.000
80	1.000E-02	0.000E+00	0.000E+00	1.416E-05	8.333E-06	8.333E-06	1.000

MATERIAL PROPERTIES

Material	E kN/m2	v	Density kN/m3	Alpha /deg C	
1	7.900E+06	0.3000	5.589E-01	0.000E+00	ST
2	7.900E+06	0.3000	5.589E-01	0.000E+00	ST

CONDITION NUMBER

Maximum condition number: 5.773E+13 at node: 3 DOF: 1

APPLIED LOADING

CASE 1: Dead

Node Loads

Node	X Force kN	Y Force kN	Z Force kN	X Moment kNm	Y Moment kNm	Z Moment kNm
1	0.000	0.000	-0.338	0.000	0.000	0.000
2	0.000	0.000	-0.788	0.000	0.000	0.000
3	0.000	0.000	-0.688	0.000	0.000	0.000
4	0.000	0.000	-0.788	0.000	0.000	0.000
5	0.000	0.000	-0.338	0.000	0.000	0.000
16	0.000	0.000	-0.338	0.000	0.000	0.000
17	0.000	0.000	-0.550	0.000	0.000	0.000
18	0.000	0.000	-0.700	0.000	0.000	0.000
19	0.000	0.000	-0.550	0.000	0.000	0.000
20	0.000	0.000	-0.338	0.000	0.000	0.000
37	0.000	0.000	-0.550	0.000	0.000	0.000
38	0.000	0.000	-0.700	0.000	0.000	0.000
45	0.000	0.000	-0.550	0.000	0.000	0.000
46	0.000	0.000	-0.700	0.000	0.000	0.000
53	0.000	0.000	-0.550	0.000	0.000	0.000
54	0.000	0.000	-0.338	0.000	0.000	0.000
61	0.000	0.000	-0.550	0.000	0.000	0.000
62	0.000	0.000	-0.700	0.000	0.000	0.000
69	0.000	0.000	-0.550	0.000	0.000	0.000
70	0.000	0.000	-0.700	0.000	0.000	0.000
71	0.000	0.000	-0.550	0.000	0.000	0.000
78	0.000	0.000	-0.188	0.000	0.000	0.000
87	0.000	0.000	-0.188	0.000	0.000	0.000
94	0.000	0.000	-0.594	0.000	0.000	0.000
95	0.000	0.000	-0.144	0.000	0.000	0.000
97	0.000	0.000	-0.788	0.000	0.000	0.000
102	0.000	0.000	-0.689	0.000	0.000	0.000
103	0.000	0.000	-1.288	0.000	0.000	0.000
104	0.000	0.000	-1.300	0.000	0.000	0.000

Member Loads

Member	Type	T	A	S	T1	X1	T2	X2
2	UNIF	FZ	GL		-1.895			
2	UNIF	FZ	GL		-0.530			
3	UNIF	FZ	GL		-1.689			
3	UNIF	FZ	GL		-0.459			
5	UNIF	FZ	GL	PK	-1.689			
5	UNIF	FZ	GL	PK	-0.459			
13	UNIF	FZ	GL		-0.188			
13	UNIF	FZ	GL	PK	-0.188			
19	UNIF	FZ	GL	PK	-0.188			
17	UNIF	FZ	GL		-0.188			
23	UNIF	FZ	GL		-0.188			
24	UNIF	FZ	GL		-0.188			
30	UNIF	FZ	GL	PK	-0.188			
30	UNIF	FZ	GL	PK	-0.188			
32	UNIF	FZ	GL		-0.138			
36	UNIF	FZ	GL		-0.188			
38	UNIF	FZ	GL	PK	-0.188			
60	UNIF	FZ	GL	PK	-0.188			
61	UNIF	FZ	GL		-0.188			
66	UNIF	FZ	GL	PK	-0.188			
67	UNIF	FZ	GL		-0.188			
54	UNIF	FZ	GL		-0.130			
55	UNIF	FZ	GL		-0.130			
56	UNIF	FZ	GL		-0.130			
58	UNIF	FZ	GL	PK	-0.130			
60	UNIF	FZ	GL	PK	-0.130			
65	UNIF	FZ	GL		-0.130			
66	UNIF	FZ	GL		-0.130			
68	UNIF	FZ	GL	PK	-0.130			
72	UNIF	FZ	GL	PK	-0.130			
75	UNIF	FZ	GL		-0.130			
76	UNIF	FZ	GL		-0.130			
78	UNIF	FZ	GL	PK	-0.130			
83	UNIF	FZ	GL	PK	-0.130			
85	UNIF	FZ	GL		-0.130			
86	UNIF	FZ	GL		-0.130			
88	UNIF	FZ	GL	PK	-0.130			
90	UNIF	FZ	GL	PK	-0.130			
94	UNIF	FZ	GL		-0.130			
97	UNIF	FZ	GL		-0.129			
100	UNIF	FZ	GL	PK	-0.129			
103	UNIF	FZ	GL	PK	-0.129			
107	UNIF	FZ	GL		-0.129			
109	UNIF	FZ	GL	PK	-0.129			
111	UNIF	FZ	GL	PK	-0.129			
113	UNIF	FZ	GL		-0.129			
117	UNIF	FZ	GL		-1.008			
118	UNIF	FZ	GL		-0.456			
119	UNIF	FZ	GL		-1.008			
119	UNIF	FZ	GL		-0.308			
121	UNIF	FZ	GL	PK	-1.008			
121	UNIF	FZ	GL	PK	-0.308			
124	UNIF	FZ	GL	PK	-1.008			
124	UNIF	FZ	GL	PK	-0.400			
125	UNIF	FZ	GL	PK	-1.008			
125	UNIF	FZ	GL	PK	-0.400			
126	UNIF	FZ	GL	PK	-1.008			
126	UNIF	FZ	GL	PK	-0.308			
127	UNIF	FZ	GL	PK	-1.008			
127	UNIF	FZ	GL	PK	-0.308			

Sum of Applied Loads (Global Axes):
FX: 0.000 FY: 0.000 FZ: -38.915
Moments about the global origin:
MX: -85.856 MY: 98.743 MZ: 0.000

NODE DISPLACEMENTS

CASE 1: Dead

Node	X-Disp m	Y-Disp m	Z-Disp m	X-Rotn rad	Y-Rotn rad	Z-Rotn rad
1	0.0000	0.0000	-8.0619	0.00219	0.00124	0.00000
2	0.0001	-0.0002	-7.2978E+05	2.1428E+05	-0.00169	0.00000
3	0.0001	-0.0001	-8.0884	2.1828E+05	0.00116	-0.00014
4	0.0000	0.0000	-8.0687	0.00000	0.00124	0.00000
5	0.0001	-0.0001	-8.0687	2.1828E+05	0.00116	-0.00014
6	0.0000	0.0000	-8.0021	0.00319	0.00124	0.00000
7	0.0001	-0.0003	-8.0021	2.1828E+05	0.00008	-0.00009
8	0.0001	-0.0003	-8.0014	2.1828E+05	-0.00113	0.00009
9	0.0001	0.0000	-8.0003	0.00199	-0.00007	-0.00014
10	0.0000	0.0000	-8.0003	0.00081	0.00124	0.00000
11	0.0001	-0.0001	-8.0003	0.00199	0.00004	-0.00014
12	0.0000	0.0000	-8.0018	0.00581	0.00124	0.00000
13	0.0001	-0.0003	-8.0018	0.00198	0.00011	-0.00003
14	0.0001	-0.0002	-8.0007	0.00198	-0.00003	0.00009
15	0.0000	0.0000	-8.0007	0.00283	0.00124	0.00009
16	0.0001	-0.0002	-8.0007	0.00198	0.00006	0.00009
17	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
18	0.0000	0.0000	0.0000	0.00198	0.00124	0.00009
19	0.0001	-0.0001	-1.9636+06	2.8428+09	0.00012	0.00009
20	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
21	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
22	0.0001	0.0000	-0.0002	2.8428+09	-0.00051	-0.00013
23	0.0000	0.0000	-0.0001	0.00049	0.00124	0.00009
24	0.0001	0.0000	-0.0001	2.8428+09	-0.00040	-0.00013
25	0.0000	0.0000	-0.0001	0.00251	0.00124	0.00009
26	0.0001	-0.0001	-0.0001	2.8428+09	0.00002	-0.00013
27	0.0001	-0.0002	0.0000	2.8428+09	0.00004	0.00008

28	0.8890	0.0000	0.0000	0.00000	0.00134	0.00000
29	0.8901	-0.0003	-5.423E+05	1.644E+09	0.00043	0.00097
30	0.8901	0.0000	-0.0002	1.644E+09	-0.00012	-0.00011
31	0.8890	0.0000	0.0000	0.00000	0.00134	0.00000
32	0.8901	0.0000	0.0000	1.644E+09	-0.00048	-0.00011
33	0.8890	0.0000	0.0000	0.00177	0.00134	0.00000
34	0.8901	-0.0003	0.0000	1.644E+09	-0.00006	-0.00092
35	0.8901	-0.0001	0.0004	1.644E+09	0.00041	0.00097
36	0.8890	0.0000	0.0001	0.00053	0.00134	0.00000
37	0.8901	0.0000	-3.337E+05	1.811E+09	0.00004	0.00001
38	0.8901	0.0000	-0.0003	1.811E+09	-0.00133	-0.00087
39	0.8893	0.0000	0.0000	-0.00068	0.00124	0.00068
40	0.8901	0.0000	0.0000	1.811E+09	-0.00132	-0.00087
41	0.8893	0.0000	0.0014	0.00111	0.00124	0.00098
42	0.8901	-0.0001	0.0014	1.811E+09	-0.00011	-0.00051
43	0.8891	0.0000	0.0007	1.811E+09	0.00075	0.00065
44	0.8893	0.0000	0.0005	0.00053	0.00124	0.00068
45	0.8881	0.0003	0.0006	0.00068	0.00095	0.00093
46	0.8881	0.0003	-0.0004	0.00068	-0.00195	-0.00003
47	0.8869	0.0005	0.0000	-0.00064	0.00124	0.00098
48	0.8881	0.0003	0.0000	0.00068	-0.00141	-0.00003
49	0.8869	0.0003	0.0017	0.00045	0.00124	0.00068
50	0.8881	0.0003	0.0017	0.00068	-0.00617	-0.00001
51	0.8871	0.0003	0.0009	0.00068	0.00093	0.00062
52	0.8883	0.0003	0.0009	-0.00067	0.00121	0.00068
53	0.8881	0.0003	-3.337E+05	1.811E+09	0.00181	-0.00001
54	0.8871	0.0003	-0.0004	1.811E+09	-0.00159	0.00001
55	0.8883	0.0003	0.0000	0.00005	0.00124	0.00068
56	0.8871	0.0003	0.0000	1.811E+09	-0.00143	0.00001
57	0.8869	0.0003	0.0016	-0.00015	0.00124	0.00068
58	0.8871	0.0003	0.0016	1.811E+09	-0.00012	0.00001
59	0.8871	0.0003	0.0009	1.811E+09	0.00092	-0.00001
60	0.8869	0.0003	0.0005	-0.00056	0.00124	0.00068
61	0.8861	0.0004	-3.337E+05	1.811E+09	0.00091	-0.00004
62	0.8871	0.0003	0.0004	1.811E+09	-0.00143	0.00001
63	0.8858	0.0003	0.0000	0.00010	0.00124	0.00068
64	0.8871	0.0003	0.0003	1.811E+09	-0.00132	0.00001
65	0.8858	0.0004	0.0015	-0.00005	0.00124	0.00068
66	0.8871	0.0004	0.0015	1.811E+09	-0.00015	0.00001
67	0.8861	0.0004	0.0008	1.811E+09	0.00082	-0.00004
68	0.8858	0.0004	0.0004	-0.00076	0.00124	0.00068
69	0.8850	0.0004	-1.560E+05	5.166E+09	0.00044	-0.00038
70	0.8861	0.0004	-0.0003	5.166E+09	-0.00113	0.00010
71	0.8848	0.0004	0.0000	0.00030	0.00124	0.00068
72	0.8861	0.0004	0.0003	5.166E+09	-0.00049	0.00010
73	0.8848	0.0004	0.0010	-0.00157	0.00124	0.00068
74	0.8861	0.0004	0.0010	5.166E+09	-0.00009	0.00010
75	0.8851	0.0004	0.0006	5.166E+09	0.00068	-0.00036
76	0.8839	0.0004	0.0004	0.00155	0.00124	0.00068
77	0.8851	0.0004	-1.560E+05	5.321E+09	0.00010	-0.00039
78	0.8839	0.0004	0.0004	0.00030	0.00106	0.00068
79	0.8851	0.0004	-0.0002	5.321E+09	-0.00021	0.00010
80	0.8839	0.0004	0.0003	0.00030	0.00106	0.00068
81	0.8848	0.0004	-0.0001	-0.00060	0.00124	0.00068
82	0.8851	0.0004	-0.0001	5.321E+09	-0.00048	0.00010
83	0.8839	0.0004	0.0003	0.00095	0.00106	0.00068
84	0.8839	0.0004	0.0004	-0.00037	0.00124	0.00068
85	0.8851	0.0004	0.0004	5.327E+09	0.00002	0.00007
86	0.8839	0.0004	0.0004	0.00037	0.00124	0.00068
87	0.8851	0.0004	0.0004	5.327E+09	0.00022	-0.00035
88	0.8851	0.0004	0.0004	0.00215	-0.00010	0.00014
89	0.8839	0.0004	-0.0003	-0.00061	0.00124	0.00068
90	0.8851	0.0004	-0.0003	-0.00015	0.00001	0.00014
91	0.8839	0.0004	-0.0003	-0.00086	0.00124	0.00068
92	0.8851	0.0004	-0.0003	0.00215	0.00001	0.00013
93	0.8851	0.0004	-0.0003	-0.00093	0.00121	0.00068
94	0.8851	0.0004	-0.0003	-0.00015	-0.00001	0.00013
95	0.8851	0.0004	-0.0003	-0.00015	0.00001	0.00013
96	0.8851	0.0004	-0.0003	-0.00015	0.00001	0.00013
97	0.8851	0.0004	-0.0003	-0.00015	0.00001	0.00013
98	0.8851	0.0004	-0.0003	-0.00015	0.00001	0.00013
99	0.8851	0.0004	-0.0003	-0.00015	0.00001	0.00013
100	0.8851	0.0004	-0.0003	-0.00015	0.00001	0.00013
101	0.8851	0.0004	-0.0003	-0.00015	0.00001	0.00013
102	0.8851	0.0004	-0.0003	-0.00015	0.00001	0.00013
103	0.8851	0.0004	-0.0003	-0.00015	0.00001	0.00013
104	0.8851	0.0004	-0.0003	-0.00015	0.00001	0.00013
105	0.8851	0.0004	-0.0003	-0.00015	0.00001	0.00013
106	0.8851	0.0004	-0.0003	-0.00015	0.00001	0.00013
107	0.8851	0.0004	-0.0003	-0.00015	0.00001	0.00013
108	0.8851	0.0004	-0.0003	-0.00015	0.00001	0.00013
109	0.8851	0.0004	-0.0003	-0.00015	0.00001	0.00013
110	0.8851	0.0004	-0.0003	-0.00015	0.00001	0.00013
111	0.8851	0.0004	-0.0003	-0.00015	0.00001	0.00013
112	0.8851	0.0004	-0.0003	-0.00015	0.00001	0.00013

MEMBER FORCES

CASE 1: Load

Member	Node	Axial kN	Shear-y kN	Shear-z kN	Torque kNm	Moment-y kNm	Moment-z kNm
1	1	-3.35	0.00	-0.01	0.00	0.00	0.00
	8	-3.35	0.00	-0.01	0.00	0.00	0.00
2	2	0.00	0.95	0.00	0.00	0.00	0.00
	9	0.00	0.93	0.00	0.00	0.00	-0.10
3	3	0.00	0.78	0.00	0.00	0.00	0.00
	5	0.00	1.05	0.00	0.00	0.00	-0.22
4	4	-2.78	0.00	0.00	0.00	0.00	0.00
	5	-2.58	0.00	0.00	0.00	0.00	0.00
5	5	0.00	-1.33	0.00	0.00	0.00	-0.22
	7	0.00	1.75	0.00	0.00	-1.01	-0.00
6	6	-4.01	0.00	-0.01	0.00	0.00	0.00
	7	-4.01	0.00	-0.01	0.00	0.00	0.00
8	1	0.00	3.55	0.00	0.00	0.00	0.00
	15	0.00	3.35	0.00	0.00	0.00	-1.30
9	4	0.00	2.36	0.00	0.00	0.00	-0.00
	16	0.00	2.20	0.00	0.00	0.00	-0.87
10	6	0.00	4.01	0.00	0.00	0.00	0.00
	17	0.00	4.01	0.00	0.00	0.00	-1.47
11	8	0.00	0.70	0.00	0.00	0.00	0.00
	11	0.00	0.73	0.00	0.00	0.00	-0.00
12	10	-6.97	0.00	0.00	0.00	0.00	0.00
	11	-6.97	0.00	0.00	0.00	0.00	0.00
13	11	0.00	-6.24	0.00	0.00	0.00	-0.18
	13	0.00	6.02	0.00	0.00	0.00	0.67
14	12	-6.95	0.00	0.00	0.00	0.00	0.00
	13	-6.96	0.00	0.00	0.00	0.00	0.00
15	13	0.00	-6.04	0.00	0.00	0.00	0.07
	14	0.00	6.22	0.00	0.00	0.00	-0.24
16	14	-6.01	0.00	0.00	0.00	0.00	0.00
	15	-6.91	0.00	0.00	0.00	0.00	0.00
17	14	0.00	-6.36	0.00	0.00	0.00	-0.14
	16	0.00	-6.53	0.00	0.00	0.00	0.06
18	15	0.00	4.38	0.00	0.00	0.00	-1.30
	18	0.00	4.54	0.00	0.00	0.00	-2.75
19	16	0.00	3.35	0.00	0.00	0.00	-0.87
	23	0.00	3.35	0.00	0.00	0.00	-1.55
20	12	0.00	0.06	0.00	0.00	0.00	-1.47
	23	0.00	4.06	0.00	0.00	0.00	-2.82
21	17	-1.30	0.00	0.00	0.00	0.00	0.00
	18	-1.30	0.00	0.00	0.00	0.00	0.00
22	19	-0.70	0.00	0.00	0.00	0.00	0.00
	27	-0.70	0.00	0.00	0.00	0.00	0.00
23	19	0.00	0.55	0.00	0.00	0.00	0.00
	27	0.00	0.38	0.00	0.00	0.00	-0.14
24	20	-1.86	0.00	0.00	0.00	0.00	0.00
	23	-1.86	0.00	0.00	0.00	0.00	0.00
25	21	-1.95	0.00	0.00	0.00	0.00	0.00
	25	-1.95	0.00	0.00	0.00	0.00	0.00
26	22	0.00	0.10	0.00	0.00	0.00	0.00
	24	0.00	0.13	0.00	0.00	0.00	-0.04
27	23	-0.95	0.00	0.00	0.00	0.00	0.00
	24	-0.85	0.00	0.00	0.00	0.00	0.00
28	24	0.00	-0.33	0.00	0.00	0.00	-0.13
	26	0.00	0.00	0.00	0.00	0.00	0.00
29	25	-0.11	0.00	0.00	0.00	0.00	0.00
	26	-0.11	0.00	0.00	0.00	0.00	0.00
30	26	0.00	-0.07	0.00	0.00	0.00	0.00
	27	0.00	0.00	0.00	0.00	0.00	-0.04
31	28	0.00	-2.26	0.00	0.00	0.00	-2.75
	30	0.00	-2.26	0.00	0.00	0.00	-1.85
32	29	0.00	-2.27	0.00	0.00	0.00	-1.89
	31	0.00	-2.27	0.00	0.00	0.00	-0.88
33	25	0.00	-0.77	0.00	0.00	0.00	-2.82
	33	0.00	-0.77	0.00	0.00	0.00	-2.10
34	26	-0.12	0.00	0.00	0.00	0.00	0.00
	33	-0.11	0.00	0.00	0.00	0.00	0.00
35	29	0.00	0.55	0.00	0.00	0.00	0.00
	34	0.00	0.55	0.00	0.00	0.00	0.14
36	30	0.00	0.70	0.00	0.00	0.00	0.00
	32	0.00	0.72	0.00	0.00	0.00	-0.18
37	31	-2.00	0.00	0.00	0.00	0.00	0.00
	32	-2.00	0.00	0.00	0.00	0.00	0.00
38	33	0.00	-0.15	0.00	0.00	0.00	-0.18
	34	0.00	0.13	0.00	0.00	0.01	0.15
39	35	-0.25	0.00	0.00	0.00	0.00	0.00
	36	0.25	0.00	0.00	0.00	0.00	0.00
40	34	0.00	-0.13	0.00	0.00	-0.01	-0.15
	36	0.00	0.13	0.00	0.00	0.00	-0.14
41	28	0.00	-1.26	0.00	0.00	0.00	-1.05
	29	0.00	-1.26	0.00	0.00	0.00	-1.02
42	31	0.00	-1.88	0.00	0.00	0.00	-0.09
	29	0.00	-1.88	0.00	0.00	0.00	-0.13
43	33	0.00	-0.56	0.00	0.00	0.00	-2.00
	31	0.00	-0.52	0.00	0.00	0.00	-2.21
44	34	-0.73	0.00	0.00	0.00	0.00	0.00
	33	-0.73	0.00	0.00	0.00	0.00	0.00
45	37	0.00	0.55	0.00	0.00	0.00	0.00
	43	0.00	0.58	0.00	0.00	0.00	-0.11
46	38	0.00	0.78	0.00	0.00	0.00	0.00
	40	0.00	0.73	0.00	0.00	0.00	-0.10
47	39	-0.00	-0.13	0.00	0.00	0.00	-0.15
	40	0.00	0.13	0.00	0.00	0.00	-0.14
48	41	-0.25	0.00	0.00	0.00	0.00	0.00
	42	-0.25	0.00	0.00	0.00	0.00	0.00
50	42	0.00	-0.14	0.00	0.00	0.00	-0.15
	43	0.00	0.15	0.00	0.00	0.00	-0.11
51	36	0.00	-0.85	0.00	0.00	0.00	-1.35
	41	0.00	-0.85	0.00	0.00	0.00	-0.90
52	38	0.00	-0.98	0.00	0.00	0.00	-0.17
	47	0.00	-0.98	0.00	0.00	0.00	0.29
53	41	0.00	-0.26	0.00	0.00	0.00	2.31
	49	0.00	-0.56	0.00	0.00	0.00	-2.23
54	44	0.00	0.00	0.00	0.00	0.00	0.00
	52	-0.72	0.00	0.00	0.00	0.00	0.00
55	45	0.00	0.55	0.00	0.00	0.00	0.00
	51	0.00	0.58	0.00	0.00	0.00	-0.11
56	46	0.00	0.78	0.00	0.00	0.00	0.00
	48	0.00	0.73	0.00	0.00	0.00	-0.10
57	47	-0.00	0.00	0.00	0.00	0.00	0.00
	48	-0.00	0.00	0.00	0.00	0.00	0.00
58	46	0.00	-0.13	0.00	0.00	0.00	-0.15
	48	0.00	0.13	0.00	0.00	0.00	-0.14
59	49	-0.25	0.00	0.00	0.00	0.00	0.00
	50	-0.25	0.00	0.00	0.00	0.00	0.00
60	50	0.00	-0.13	0.00	0.00	0.00	-0.15
	51	0.00	0.13	0.00	0.00	0.00	-0.11
61	44	0.00	-0.85	0.00	0.00	0.00	-1.35
	49	0.00	-0.85	0.00	0.00	0.00	-0.90
62	46	0.00	-0.98	0.00	0.00	0.00	-0.17
	53	0.00	-0.98	0.00	0.00	0.00	0.29
63	49	0.00	-0.26	0.00	0.00	0.00	2.31
	55	0.00	-0.56	0.00	0.00	0.00	-2.23
64	52	-0.72	0.00	0.00	0.00	0.00	0.00
	54	0.00	0.00	0.00	0.00	0.00	0.00
65	53	0.00	0.55	0.00	0.00	0.00	0.00
	57	0.00	0.58	0.00	0.00	0.00	-0.11
66	54	0.00	0.78	0.00	0.00	0.00	0.00
	56	0.00	0.73	0.00	0.00	0.00	-0.10
67	55	-0.00	0.00	0.00	0.00	0.00	0.00
	56	-0.00	0.00	0.00	0.00	0.00	0.00
68	54	0.00	-0.13	0.00	0.00	0.00	-0.15
	56	0.00	0.13	0.00	0.00	0.00	-0.14
69	57	-0.25	0.00	0.00	0.00	0.00	0.00
	58	-0.25	0.00	0.00	0.00	0.00	0.00
70	58	0.00	-0.13	0.00	0.00	0.00	-0.15
	59	0.00	0.13	0.00	0.00	0.00	-0.14
71	52	0.00	0.00	0.00	0.00	0.00	-0.00
	60	0.00	0.82	0.00	0.00	0.00	-1.12
72	55	0.00	0.77	0.00	0.00	0.00	0.23
	62	0.00	0.77	0.00	0.00	0.00	0.00
73	57	0.00	0.31	0.00	0.00	0.00	-0.21
	63	0.00	0.31	0.00	0.00	0.00	-0.34
74	60	-0.73	0.00	0.00	0.00	0.00	0.00
	67	-0.73	0.00	0.00	0.00	0.00	0.00
75	61	0.00	0.55	0.00	0.00	0.00	0.00
	67	0.00	0.58	0.00	0.00	0.00	-0.14
76	62	0.00	0.78	0.00	0.00	0.00	0.00
	64	0.00	0.73	0.00	0.00	0.00	-0.18
77	63	-0.00	0.00	0.00	0.00	0.00	0.00
	64	-0.00	0.00	0.00	0.00	0.00	0.00
78	64	0.00	-0.16	0.00	0.00	0.00	-0.18
	66	0.00	0.13	0.00	0.00	0.00	-0.14
79	65	-0.27	0.00	0.00	0.00	0.00	0.00
	66	-0.27	0.00	0.00	0.00	0.00	0.00
80	66	0.00	-0.14	0.00	0.00	0.00	-0.14
	67	0.00	0.14	0.00	0.00	0.00	-0.14
81	69	0.00	1.35	0.00	0.00	0.00	-1.13
	68	0.00	1.35	0.00	0.00	0.00	-1.65
82	61	0.00	1.67	0.00	0.00	0.00	0.00
	71	0.00	1.67	0.00	0.00	0.00	-0.76
83	65	0.00	0.58	0.00	0.00	0.00	-2.14
	73	0.00	0.58	0.00	0.00	0.00	-2.14
84	69	-0.73	0.00	0.00	0.00	0.00	0.00
	75	-0.73	0.00	0.00	0.00	0.00	0.00
85	69	0.00	0.55	0.00	0.00	0.00	0.00
	75	0.00	0.58	0.00	0.00	0.00	-0.14
86	70	0.00	0.78	0.00	0.00	0.00	0.00

	72	0.00	0.73	0.00	0.00	0.39	-0.16
97	71	-0.92	0.00	0.00	0.00	0.39	0.00
	72	-0.92	0.00	0.00	0.00	0.39	0.00
98	72	0.00	-0.10	0.00	0.00	0.39	-0.16
	74	0.00	0.10	0.00	0.00	0.39	-0.09
99	73	-0.22	0.00	0.00	0.00	0.00	0.00
	74	-0.22	0.00	0.00	0.00	0.00	0.00
90	74	0.00	-0.12	0.00	0.00	0.00	-0.09
	75	0.00	0.17	0.00	0.00	0.00	-0.14
91	68	0.00	2.09	0.00	0.00	0.00	-1.59
	76	0.00	2.09	0.00	0.00	0.00	-4.77
92	71	0.00	2.58	0.00	0.00	0.00	-1.70
	81	0.00	2.58	0.00	0.00	0.00	-3.84
93	73	0.00	3.01	0.00	0.00	0.00	-2.58
	84	0.00	3.01	0.00	0.00	0.00	-3.00
94	78	-7.20	0.00	0.00	0.00	0.00	0.00
	78	-7.20	0.00	0.00	0.00	0.00	0.00
95	78	-8.76	0.00	-0.01	0.00	0.00	0.00
	86	-8.76	0.00	-0.01	0.00	0.00	0.00
96	77	0.00	9.55	0.00	0.00	0.00	0.00
	86	0.00	8.56	0.00	0.00	0.00	-0.14
97	79	0.00	8.70	0.00	0.00	0.00	0.00
	82	0.00	8.72	0.00	0.00	0.00	-0.14
98	89	-1.00	0.00	0.00	0.00	0.00	0.00
	81	-1.00	0.00	0.00	0.00	0.00	0.00
99	81	-8.96	0.00	0.00	0.00	0.00	0.00
	82	-8.96	0.00	0.00	0.00	0.00	0.00
100	87	0.00	-9.32	0.00	0.00	0.00	-0.18
	85	0.00	0.00	0.00	0.00	0.00	0.01
101	83	-5.25	0.00	0.00	0.00	0.00	0.00
	84	-5.25	0.00	0.00	0.00	0.00	0.00
102	84	-8.11	0.00	0.00	0.00	0.00	0.00
	85	-8.11	0.00	0.00	0.00	0.00	0.00
103	85	0.00	-9.07	0.00	0.00	0.00	0.01
	86	0.00	0.20	0.00	0.00	0.00	-0.14
104	76	0.00	-6.42	0.00	0.00	0.00	-3.77
	92	0.00	-6.42	0.00	0.00	0.00	-7.84
105	91	0.00	-3.41	0.00	0.00	0.00	-2.04
	95	0.00	-3.41	0.00	0.00	0.00	-1.00
106	94	0.00	-4.33	0.00	0.00	0.00	-3.00
	93	0.00	-4.33	0.00	0.00	0.00	-1.71
107	97	0.00	0.72	0.00	0.00	0.00	0.00
	96	0.00	0.73	0.00	0.00	0.00	-0.16
108	98	-0.97	0.00	0.00	0.00	0.00	0.00
	88	-0.97	0.00	0.00	0.00	0.00	0.00
109	95	0.00	-0.24	0.00	0.00	0.00	-0.18
	91	0.00	0.02	0.00	0.00	0.00	0.01
110	90	0.00	0.00	0.00	0.00	0.00	0.00
	91	0.00	0.00	0.00	0.00	0.00	0.00
111	91	0.00	-0.04	0.00	0.00	0.00	0.01
	93	0.00	0.23	0.00	0.00	0.00	-0.14
112	92	-0.81	0.00	0.00	0.00	0.00	0.00
	92	-0.81	0.00	0.00	0.00	0.00	0.00
113	93	0.00	-0.58	0.00	0.00	0.00	-0.14
	94	0.00	-0.34	0.00	0.00	0.00	0.00
114	92	0.00	-5.60	0.00	0.00	0.00	-3.84
	96	0.00	-5.60	0.00	0.00	0.00	0.00
115	98	0.00	-2.98	0.00	0.00	0.00	-2.00
	96	0.00	-2.98	0.00	0.00	0.00	0.00
116	90	0.00	-4.27	0.00	0.00	0.00	-1.71
	100	0.00	-4.27	0.00	0.00	0.00	0.00
117	99	-1.61	0.00	-0.02	0.00	0.00	0.00
	102	-1.61	0.00	-0.02	0.00	0.00	0.00
118	96	0.00	0.55	0.00	0.00	0.00	0.00
	102	0.00	0.00	0.00	0.00	0.00	-0.16
119	97	0.00	0.71	0.00	0.00	0.00	0.00
	99	0.00	1.38	0.00	0.00	0.00	-0.22
120	98	-2.56	0.00	-0.01	0.01	0.00	0.00
	99	-2.56	0.00	-0.01	0.01	0.00	0.00
121	99	0.00	-1.42	-0.01	0.00	0.01	-0.22
	101	0.00	1.88	-0.01	0.00	0.02	-0.73
122	100	-4.27	0.00	0.02	0.01	0.00	0.00
	101	-4.27	0.00	0.02	0.01	0.00	0.00
124	7	0.00	-2.25	0.00	0.00	-1.01	-0.48
	103	0.00	-0.44	0.00	0.00	0.00	1.07
125	101	0.00	0.76	0.00	0.00	0.00	1.07
	8	0.00	2.02	0.00	0.00	0.00	-3.18
126	103	0.00	-2.26	0.01	0.00	0.01	-3.73
	104	0.00	-0.44	0.01	0.00	0.00	1.13
127	104	0.00	0.76	0.01	0.00	0.00	1.13
	102	0.00	3.11	0.01	0.00	0.00	-3.18
128	105	0.00	0.00	0.00	0.00	0.00	0.00
	106	0.00	0.00	0.00	0.00	0.00	0.00
131	108	0.00	0.00	0.00	0.00	0.00	0.00
	111	0.00	0.00	0.00	0.00	0.00	0.00
132	109	0.00	0.00	0.00	0.00	0.00	0.00
	112	0.00	0.00	0.00	0.00	0.00	0.00
301	164	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00
304	168	0.00	0.00	0.00	0.00	0.00	0.00
	169	0.00	0.00	0.00	0.00	0.00	0.00
308	172	0.00	0.00	0.00	0.00	0.00	0.00
	172	0.00	0.00	0.00	0.00	0.00	0.00
309	171	0.00	0.00	0.00	0.00	0.00	0.00
	169	0.00	0.00	0.00	0.00	0.00	0.00
310	175	0.00	0.00	0.00	0.00	0.00	0.00
	133	0.00	0.00	0.00	0.00	0.00	0.00
311	133	0.00	0.00	0.00	0.00	0.00	0.00
	172	0.00	0.00	0.00	0.00	0.00	0.00
312	132	0.00	0.00	0.00	0.00	0.00	0.00
	106	0.00	0.00	0.00	0.00	0.00	0.00
313	106	0.00	0.00	0.00	0.00	0.00	0.00
	169	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

REACTIONS

CASE 1: Dead

Node	Force-X	Force-Y	Force-Z	Moment-X	Moment-Y	Moment-Z
	kN	kN	kN	kNm	kNm	kNm
17	0.00	0.00	7.39	0.00	0.00	0.00
20	0.00	0.00	7.96	0.00	0.00	0.00
21	0.00	0.00	4.85	0.00	0.00	0.00
65	0.00	0.00	0.00	0.00	0.00	0.00
78	0.00	0.00	7.39	0.00	0.00	0.00
80	0.00	0.00	7.93	0.00	0.00	0.00
83	0.00	0.00	5.25	0.00	0.00	0.00
125	0.00	0.00	0.00	0.00	0.00	0.00
129	0.00	0.00	0.00	0.00	0.00	0.00
130	0.00	0.00	0.00	0.00	0.00	0.00
166	0.00	0.00	0.00	0.00	0.00	0.00
169	0.00	0.00	0.00	0.00	0.00	0.00
171	0.00	0.00	0.00	0.00	0.00	0.00
SUM:	0.00	0.00	56.94	(all nodes)		

Max. residual: +1.17E-02 at node: 467

Reactions are in structure (+ positive global) axis directions.

CASE 2: Live

Node Loads

Node	X Force	Y Force	Z Force	X Moment	Y Moment	Z Moment
	kN	kN	kN	kNm	kNm	kNm
5	0.000	0.000	-9.488	0.000	0.000	0.000
100	0.000	0.000	-9.488	0.000	0.000	0.000
103	0.000	0.000	-9.488	0.000	0.000	0.000
104	0.000	0.000	-9.488	0.000	0.000	0.000

Member Loads

Member	Type	T	A	S	V1	V2	P2	M2
2	UNIF	FX	GL		-0.340			
3	UNIF	FX	GL		-0.300			
4	UNIF	FX	GL	EX	-0.300			
11	UNIF	FX	GL		-0.600			
13	UNIF	FX	GL	FX	-0.600			
15	UNIF	FX	GL	FX	-0.630			
17	UNIF	FX	GL		-0.630			
23	UNIF	FX	GL		-0.630			
26	UNIF	FX	GL		-0.630			
28	UNIF	FX	GL	FX	-0.900			
30	UNIF	FX	GL	FX	-0.630			
35	UNIF	FX	GL		-0.630			
36	UNIF	FX	GL		-0.600			
38	UNIF	FX	GL	FX	-0.600			
40	UNIF	FX	GL	EX	-0.600			
45	UNIF	FX	GL		-0.630			
46	UNIF	FX	GL		-0.630			
48	UNIF	FX	GL	FX	-0.630			
50	UNIF	FX	GL	FX	-0.630			
55	UNIF	FX	GL		-0.630			
56	UNIF	FX	GL		-0.630			
58	UNIF	FX	GL	EX	-0.630			
60	UNIF	FX	GL	EX	-0.630			
65	UNIF	FX	GL		-0.630			
66	UNIF	FX	GL		-0.630			
68	UNIF	FX	GL	FX	-0.630			
70	UNIF	FX	GL	FX	-0.630			
75	UNIF	FX	GL		-0.630			
76	UNIF	FX	GL		-0.630			
78	UNIF	FX	GL	FX	-0.630			
80	UNIF	FX	GL	FX	-0.630			
85	UNIF	FX	GL		-0.600			
86	UNIF	FX	GL		-0.630			
88	UNIF	FX	GL	FX	-0.630			
90	UNIF	FX	GL	FX	-0.630			
95	UNIF	FX	GL		-0.630			
96	UNIF	FX	GL		-0.630			
98	UNIF	FX	GL	FX	-0.630			
100	UNIF	FX	GL	FX	-0.630			
105	UNIF	FX	GL		-0.600			
106	UNIF	FX	GL		-0.630			
108	UNIF	FX	GL	FX	-0.630			
110	UNIF	FX	GL	FX	-0.630			
115	UNIF	FX	GL		-0.600			
116	UNIF	FX	GL		-0.630			
118	UNIF	FX	GL	FX	-0.630			
120	UNIF	FX	GL	FX	-0.630			
123	UNIF	FX	GL		-0.600			
126	UNIF	FX	GL		-0.630			
128	UNIF	FX	GL	FX	-0.630			
130	UNIF	FX	GL	FX	-0.630			
135	UNIF	FX	GL		-0.600			
136	UNIF	FX	GL		-0.630			
138	UNIF	FX	GL	FX	-0.630			
140	UNIF	FX	GL	FX	-0.630			
145	UNIF	FX	GL		-0.600			
146	UNIF	FX	GL		-0.630			
148	UNIF	FX	GL	FX	-0.630			
150	UNIF	FX	GL	FX	-0.630			
155	UNIF	FX	GL		-0.600			
156	UNIF	FX	GL		-0.630			
158	UNIF	FX	GL	FX	-0.630			
160	UNIF	FX	GL	FX	-0.630			
165	UNIF	FX	GL		-0.600			
166	UNIF	FX	GL		-0.630			
168	UNIF	FX	GL	FX	-0.630			
170	UNIF	FX	GL	FX	-0.630			
175	UNIF	FX	GL		-0.600			
176	UNIF	FX	GL		-0.630			
178	UNIF	FX	GL	FX	-0.630			
180	UNIF	FX	GL	FX	-0.630			
185	UNIF	FX	GL		-0.600			
186	UNIF	FX	GL		-0.630			
188	UNIF	FX	GL	FX	-0.630			
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195	UNIF	FX	GL		-0.600			
196	UNIF	FX	GL		-0.630			
198	UNIF	FX	GL	FX	-0.630			
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205	UNIF	FX	GL		-0.600			
206	UNIF	FX	GL		-0.630			
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215	UNIF	FX	GL		-0.600			
216	UNIF	FX	GL		-0.630			
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225	UNIF	FX	GL		-0.600			
226	UNIF	FX	GL		-0.630			
228	UNIF	FX	GL	FX	-0.630			
230	UNIF	FX	GL	FX	-0.630			
235	UNIF	FX	GL		-0.600			
236	UNIF	FX	GL		-0.630			
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240	UNIF	FX	GL	FX	-0.630			
245	UNIF	FX	GL		-0.600			
246	UNIF	FX	GL		-0.630			
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255	UNIF	FX	GL		-0.600			
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908	UNIF	FX	GL	FX	-0.630			
910	UNIF	FX	GL	FX	-0.630			
915	UNIF	FX

42	0.0000	0.0000	-0.0006	1.4878+08	0.00102	-0.00003	
43	0.0000	0.0000	-0.0006	0.00000	-0.00015	0.00000	
44	0.0000	-0.0001	-0.0006	1.4878+08	0.00104	-0.00003	
45	0.0000	0.0000	-0.0014	0.00000	-0.00019	0.00000	
46	0.0000	-0.0001	-0.0014	1.4878+08	-0.00018	0.00000	
47	0.0000	0.0000	-0.0004	1.4878+08	-0.00134	0.00004	
48	0.0000	0.0000	-0.0002	0.00000	-0.00017	0.00000	
49	0.0000	0.0000	-23943.2227	7.3568+07	-0.00100	0.00000	
50	0.0000	-0.0001	-0.0001	7.3568+07	0.00067	-0.00004	
51	0.0000	0.0000	-0.0001	0.00000	-0.00010	0.00000	
52	0.0000	+0.0001	-0.0005	7.3568+07	0.00068	-0.00004	
53	0.0000	0.0000	-0.0001	0.00144	-0.00012	0.00000	
54	0.0000	-0.0001	-0.0001	7.3568+07	-0.00007	0.00001	
55	0.0000	0.0000	-0.0003	7.3568+07	-0.00102	0.00006	
56	0.0000	0.0000	0.0000	0.00831	-0.00015	0.00000	
57	0.0000	0.0000	+4.728E+05	7.0728+08	-0.00067	0.00004	
58	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
59	0.0000	-0.0001	0.0001	7.0728+08	0.00065	-0.00004	
60	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
61	0.0000	0.0000	0.0000	0.00000	-0.00015	0.00000	
62	0.0000	+0.0001	0.0000	7.0728+08	0.00065	-0.00004	
63	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
64	0.0000	0.0000	-0.0001	0.00136	-0.00015	0.00000	
65	0.0000	-0.0001	+0.0001	7.0728+08	-0.00061	0.00003	
66	0.0000	0.0000	0.0000	7.3728+08	+0.00067	0.00004	
67	0.0000	-0.0001	0.0004	0.00001	0.00056	-0.00003	
68	0.0000	0.0000	0.0002	0.00000	-0.00015	0.00000	
69	0.0000	-0.0001	0.0002	0.00001	0.00056	-0.00003	
70	0.0000	0.0000	0.0003	0.00015	0.00000	0.00000	
71	0.0000	-0.0001	0.0003	0.00001	0.00001	0.00002	
72	0.0000	0.0000	0.0001	0.00000	-0.00014	0.00004	
73	0.0000	0.0000	0.0001	0.00001	-0.00049	0.00004	
74	0.0000	0.0000	0.0002	0.00001	+0.00048	0.00004	
75	0.0000	0.0000	0.0001	0.00001	-0.00015	0.00000	
76	0.0000	0.0000	0.0000	0.00000	-0.00001	0.00000	
77	0.0000	-0.0001	0.0000	0.00000	-0.00015	-0.00001	
78	0.0000	0.0000	0.0000	0.00000	-0.00015	0.00000	
79	0.0000	0.0000	0.0000	0.00000	-0.00015	-0.00001	
80	0.0000	0.0000	0.0000	0.00107	-0.00015	0.00000	
81	0.0000	-0.0001	0.0000	0.00000	0.00000	0.00000	
82	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
83	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
84	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
85	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
86	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
87	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
88	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
89	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
90	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
91	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
92	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
93	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
94	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
95	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
96	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
97	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
98	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
99	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
100	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
101	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
102	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
103	0.0000	0.0000	0.0000	1.0858+08	0.00024	+0.00001	
104	0.0000	0.0001	0.0001	0.00000	0.00000	0.00000	
105	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
106	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
107	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
108	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
109	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
110	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
111	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
112	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
113	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
114	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
115	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
116	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
117	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
118	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
119	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
120	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
121	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
122	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
123	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
124	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
125	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
126	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
127	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
128	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
129	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
130	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
131	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
132	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
133	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
134	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
135	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
136	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
137	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
138	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
139	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
140	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
141	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
142	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
143	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
144	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
145	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
146	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
147	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
148	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
149	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
150	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
151	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
152	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
153	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
154	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
155	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
156	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
157	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
158	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
159	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
160	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
161	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
162	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
163	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
164	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
165	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
166	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
167	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
168	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
169	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
170	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
171	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	
172	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000	

MEMBER FORCES

CASE 2: Live

Member	Node	Axial kN	Shear-y kN	Shear-z kN	Torque kNm	Moment-y kNm	Moment-z kNm
1	1	-1.09	0.00	-0.01	0.00	0.00	0.00
	6	-1.09	0.00	-0.01	0.00	0.00	0.00
2	6	0.00	0.00	0.00	0.00	0.00	0.00
	3	0.00	0.07	0.00	0.00	0.00	-0.01
3	3	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	-0.01
4	4	+0.37	0.00	0.00	0.00	0.00	0.00
	2	-0.22	0.00	0.00	0.00	0.00	0.00
5	5	0.00	-0.14	0.00	0.00	0.00	-0.01
	7	0.00	0.52	0.00	0.00	0.00	-0.12
6	6	+1.36	0.00	0.00	0.00	0.00	0.00
	4	-1.36	0.00	0.00	0.00	0.00	0.00
7	1	0.00	1.09	0.00	0.00	0.00	0.00
	15	0.00	1.09	0.00	0.00	0.00	-0.40
8	8	0.00	0.22	0.00	0.00	0.00	0.00
	14	0.00	0.22	0.00	0.00	0.00	-0.08
10	2	0.00	1.36	0.00	0.00	0.00	0.00
	12	0.00	1.36	0.00	0.00	0.00	-0.50
11	9	0.00	0.00	0.00	0.00	0.00	0.00
	11	0.00	0.35	0.00	0.00	0.00	-0.02
12	10	-0.45	0.00	0.00	0.00	0.00	0.00
	11	+0.45	0.00	0.00	0.00	0.00	0.00
13	11	0.00	-0.50	0.00	0.00	0.00	+0.02
	13	0.00	0.02	0.00	0.00	0.00	-0.37
14	12	-1.64	0.00	0.00	0.00	0.00	0.00
	13	+1.64	0.00	0.00	0.00	0.00	0.00
15	13	0.00	-0.02	0.00	0.00	0.00	-0.37
	16	0.00	0.50	0.00	0.00	0.00	-0.02
16	14	-0.48	0.00	0.00	0.00	0.00	0.00
	15	-0.48	0.00	0.00	0.00	0.00	0.00
17	14	0.00	-0.16	0.00	0.00	0.00	-0.02
	16	0.00	0.00	0.00	0.00	0.00	0.00
18	15	0.00	1.75	0.00	0.00	0.00	-0.40
	18	0.00	1.75	0.00	0.00	0.00	+0.00
19	16	0.00	3.87	0.00	0.00	0.00	-0.00
	33	0.00	3.87	0.00	0.00	0.00	-0.77
20	17	0.00	3.01	0.00	0.00	0.00	-0.50
	35	0.00	3.01	0.00	0.00	0.00	-1.99
21	17	+1.70	0.00	0.00	0.00	0.00	0.00
	18	-1.70	0.00	0.00	0.00	0.00	0.00
22	18	-3.87	0.00	0.00	0.00	0.00	0.00
	37	+3.87	0.00	0.00	0.00	0.00	0.00
23	19	0.00	0.00	0.00	0.00	0.00	0.00
	37	0.00	0.15	0.00	0.00	0.00	+0.02
24	20	-3.01	0.00	0.00	0.00	0.00	0.00
	23	-3.01	0.00	0.00	0.00	0.00	0.00
25	21	+9.53	0.00	0.00	0.00	0.00	0.00
	25	-9.43	0.00	0.00	0.00	0.00	0.00
26	22	0.00	0.00	0.00	0.00	0.00	0.00
	24	0.00	0.15	0.00	0.00	0.00	+0.02
27	23	+8.66	0.00	0.00	0.00	0.00	0.00
	24	+8.66	0.00	0.00	0.00	0.00	0.00
28	24	0.00	-6.51	0.00	0.00	0.00	+0.02
	26	0.00	0.01	0.00	0.00	0.00	+0.25
29	25	-1.62	0.00	0.00	0.00	0.00	0.00
	26	-1.62	0.00	0.00	0.00	0.00	0.00
30	26	0.00	-0.01	0.00	0.00	0.00	-0.25
	27	0.00	0.01	0.00	0.00	0.00	-0.02
31	18	0.00	-2.28	0.00	0.00	0.00	-0.08
	28	0.00	-2.28	0.00	0.00	0.00	+0.07
32	33	0.00	+2.28	0.00	0.00	0.00	+0.37
	31	0.00	+2.28	0.00	0.00	0.00	0.54
33	35	0.00	-5.01	0.00	0.00	0.00	-1.36
	33	0.00	-5.01	0.00	0.00	0.00	0.36
34	28	-6.71	0.00	0.00	0.00	0.00	0.00
	35	-6.71	0.00	0.00	0.00	0.00	0.00
35	29	0.00	0.00	0.00	0.00	0.00	0.00
	33	0.00	0.15	0.00	0.00	0.00	-0.03
36	30	0.00	0.00	0.00	0.00	0.00	0.00
	32	0.00	0.15	0.00	0.00	0.00	-0.03
37	31	-0.38	0.00	0.00	0.00	0.00	0.00
	32	-0.76	0.00	0.00	0.00	0.00	0.00
38	32	0.00	0.00	0.00	0.00	0.00	0.00
	34	0.00	0.00	0.00	0.00	0.00	-0.02
39	32	0.00	-0.05	0.00	0.00	0.00	-0.02
	34	0.00	0.17	0.00	0.00	0.01	-0.25
40	33	-1.53	0.00	0.00	0.00	0.00	0.00
	34	-1.53	0.00	0.00	0.00	0.00	0.00
41	34	0.00	-0.77	0.00	0.00	0.01	-0.25
	36	0.00	0.55	0.00	0.00	0.00	-0.02
42	36	0.00	-1.17	0.00	0.00	0.00	-0.07
	38	0.00	-1.17	0.00	0.00	0.00	0.56
43	37	0.00	-1.58	0.00	0.00	0.00	0.31
	39	0.00	-1.58	0.00	0.00	0.00	1.17
44	39	0.00	-3.47	0.00	0.00	0.00	0.50
	41	0.00	-3.47	0.00	0.00	0.00	1.88
45	40	-0.72	0.00	0.00	0.00	0.00	0.00
	42	-0.72	0.00	0.00	0.00	0.00	0.00
46	37	0.00	0.00	0.00	0.00	0.00	0.00
	43	0.00	0.26	0.00	0.00	0.00	-0.02
47	39	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.56	0.00	0.00	0.00	-0.02
48	41	-0.72	0.00	0.00	0.00	0.00	0.00
	44	-0.72	0.00	0.00	0.00	0.00	0.00
49	43	0.00	-0.37	0.00	0.00	0.00	-0.02
	42	0.00	0.81	0.00	0.00	0.00	+0.29
50	41	-1.83	0.00	0.00	0.00	0.00	0.00
	42	-1.83	0.00	0.00	0.00	0.00	0.00
51	42	0.00	-0.01	0.00	0.00	0.00	-0.29
	44	0.00	0.57	0.00	0.00	0.00	+0.02
52	38	0.00	-0.04	0.00	0.00	0.00	0.50
	44	0.00	-0.84	0.00	0.00	0.00	0.02
53	39	0.00	-0.02	0.00	0.00	0.00	1.17
	47	0.00	-0.25	0.00	0.00	0.00	1.33
54	41	0.00	-1.05	0.00	0.00	0.00	1.99
	49	0.00	-1.05	0.00	0.00	0.00	2.85
55	44	-8.74	0.00	0.00	0.00	0.00	0.00
	51	-8.74	0.00	0.00	0.00	0.00	0.00
56	45	0.00	0.00	0.00	0.00	0.00	0.00
	53	0.00	0.16	0.00	0.00	0.00	-0.02
58	46	0.00	0.00	0.00	0.00	0.00	0.00
	54	0.00	0.00	0.00	0.00	0.00	-0.02
59	47	-8.74	0.00	0.00	0.00	0.00	0.00
	48	-8.74	0.00	0.00	0.00	0.00	0.00
60	48	0.00	-8.58	0.00	0.00	0.00	-0.02
	50	0.00	0.00	0.00	0.00	0.00	-0.04
61	49	-1.60	0.00	0.00	0.00	0.00	0.00
	50	-1.60	0.00	0.00	0.00	0.00	0.00
62	50	0.00	-0.00	0.00	0.00	0.00	-0.04
	52	0.00	0.00	0.00	0.00	0.00	-0.02
63	51	0.00	0.00	0.00	0.00	0.00	0.00
	52	0.00	0.00	0.00	0.00	0.00	0.00
64	52	0.00	0.00	0.00	0.00	0.00	0.00
	54	0.00	0.00	0.00	0.00	0.00	0.00
65	53	0.00	0.00	0.00	0.00	0.00	0.00
	54	0.00	0.00	0.00	0.00	0.00	0.00
66	54	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00
67	55	-9.74	0.00	0.00	0.00	0.00	0.00
	56	-8.74	0.00	0.00	0.00	0.00	0.00
68	56	0.00	-8.58	0.00	0.00	0.00	-0.02
	58	0.00	0.00	0.00	0.00	0.00	-0.04
69	57	-1.60	0.00	0.00	0.00	0.00	0.00
	58	-1.60	0.00	0.00	0.00	0.00	0.00
70	58	0.00	-0.00	0.00	0.00	0.00	-0.04
	60	0.00	0.00	0.00	0.00	0.00	-0.02
71	59	0.00	0.00	0.00	0.00	0.00	0.00
	60	0.00	0.00	0.00	0.00	0.00	0.00
72	60	0.00	0.00	0.00	0.00	0.00	0.00
	62	0.00	0.00	0.00	0.00	0.00	0.00
73	61	0.00	0.00	0.00	0.00	0.00	0.00
	62	0.00	0.00	0.00	0.00	0.00	0.00
74	62	0.00	0.00	0.00	0.00	0.00	0.00
	64	0.00	0.00	0.00	0.00	0.00	0.00
75	63	0.00	0.00	0.00	0.00	0.00	0.00
	64	0.00	0.00	0.00	0.00	0.00	0.00
76	64	0.00	0.00	0.00	0.00	0.00	0.00
	66	0.00	0.00	0.00	0.00	0.00	0.00
77	65	0.00	0.00	0.00	0.00	0.00	0.00
	66	0.00	0.00	0.00	0.00	0.00	0.00
78	66	0.00	0.00	0.00	0.00	0.00	0.00
	68	0.00	0.00	0.00	0.00	0.00	0.00
79	67	0.00	0.00	0.00	0.00	0.00	0.00
	68	0.00	0.00	0.00	0.00	0.00	0.00
80	68	0.00	0.00	0.00	0.00	0.00	0.00
	70	0.00	0.00	0.00	0.00	0.00	0.00
81	69	0.00	0.00	0.00	0.00	0.00	0.00
	70	0.00	0.00	0.00	0.00	0.00	0.00
82	71	0.00	0.00	0.00	0.00	0.00	0.00
	72	0.00	0.00	0.00	0.00	0.00	0.00
83	72	0.00	0.00	0.00	0.00	0.00	0.00
	74	0.00	0.00	0.00	0.00	0.00	0.00
84	73	0.00	0.00	0.00	0.00	0.00	0.00
	74	0.00	0.00	0.00	0.00	0.00	0.00
85	75	0.00	0.00	0.00	0.00	0.00	0.00
	76	0.00	0.00	0.00	0.00	0.00	0.00
86	76	0.00	0.00	0.00	0.00	0.00	0.00
	78	0.00	0.00	0.00	0.00	0.00	0.00
87	77	-9.74	0.00	0.00	0.00	0.00	0.00
	78	-9.74	0.00	0.00	0.00	0.00	0.00
88	78	0.00	-8.58	0.00	0.00	0.00	-0.02
	80	0.00	0.00	0.00	0.00	0.00	-0.04
89	79	-1.60	0.00	0.00	0.00	0.00	0.00
	80	-1.60	0.00	0.00	0.00	0.00	0.00
90	80	0.00	-0.00	0.00	0.00	0.00	-0.04
	82	0.00	0.00	0.00	0.00	0.00	-0.02
91	81	0.00	0.00	0.00	0.00	0.00	0.00
	82	0.00	0.00	0.00	0.00	0.00	0.00
92	83	0.00	0.00	0.00	0.00	0.00	0.00
	84	0.00	0.00	0.00	0.00	0.00	0.00
93	85	0.00	0.00	0.00	0.00	0.00	0.00
	86	0.00	0.00	0.00	0.00	0.00	0.00
94	87	0.00	0.00	0.00	0.00	0.00	0.00
	88	0.00	0.00	0.00	0.00	0.00	0.00
95	89	0.00	0.00	0.00	0.00	0.00	0.00
	90	0.00	0.00	0.00	0.00	0.00	0.00
96	91	0.00	0.00	0.00	0.00	0.00	0.00
	92	0.00	0.00	0.00	0.00	0.00	0.00
97	93	0.00	0.00	0.00	0.00	0.00	0.00
	94	0.00	0.00	0.00	0.00	0.00	0.00
98	95	0.00	0.00	0.00	0.00	0.00	0.00
	96	0.00	0.00	0.00	0.00	0.00	0.00
99	97	0.00	0.00	0.00	0.00	0.00	0.00
	98	0.00	0.00	0.00	0.00	0.00	0.00
100	99	0.00	0.00	0.00	0.00	0.00	0.00
	100	0.00	0.00	0.00	0.00	0.00	0.00
101	101	0.00	0.00	0.00	0.00	0.00	0.00
	102	0.00	0.00	0.00	0.00	0.00	0.00
102	103	0.00	0.00	0.00	0.00	0.00	0.00
	104	0.00	0.00	0.00	0.00	0.00	0.00
103	105	0.00	0.00	0.00	0.00	0.00	0.00
	106	0.00	0.00	0.00	0.00	0.00	0.00

	86	0.00	0.92	0.00	0.00	0.00	-0.02
104	76	0.00	-1.78	0.00	0.00	0.00	-0.96
	82	0.00	-1.78	0.00	0.00	0.00	-0.42
105	81	0.00	-0.88	0.00	0.00	0.00	-0.35
	88	0.00	-0.88	0.00	0.00	0.00	-0.08
106	84	0.00	-2.58	0.00	0.00	0.00	-1.48
	90	0.00	-2.58	0.00	0.00	0.00	-0.55
107	87	0.00	0.00	0.00	0.00	0.00	0.00
	98	0.00	0.18	0.00	0.00	0.00	-0.02
108	88	-0.00	0.00	0.00	0.00	0.00	0.00
	95	-0.00	0.00	0.00	0.00	0.00	0.00
109	89	0.00	-0.58	0.00	0.00	0.00	-0.02
	91	0.00	0.86	0.00	0.00	0.00	-0.30
110	92	-1.73	0.00	0.00	0.00	0.00	0.00
	81	+1.72	0.00	0.00	0.00	0.00	0.00
111	91	0.00	-0.86	0.00	0.00	0.00	-0.39
	93	0.00	0.58	0.00	0.00	0.00	-1.07
112	92	-0.67	0.00	0.00	0.00	0.00	0.00
	93	-0.67	0.00	0.00	0.00	0.00	0.00
113	92	0.00	-0.15	0.00	0.00	0.00	-0.03
	94	0.00	0.00	0.00	0.00	0.00	0.00
114	92	0.00	-1.09	0.00	0.00	0.00	-0.42
	95	0.00	-1.09	0.00	0.00	0.00	0.00
115	95	0.00	-0.21	0.00	0.00	0.00	-0.08
	99	0.00	-0.21	0.00	0.00	0.00	0.00
116	90	0.00	-1.37	0.00	0.00	0.00	-0.58
	100	0.00	-1.37	0.00	0.00	0.00	0.00
117	95	-1.09	0.00	0.00	0.00	0.00	0.00
	101	-1.09	0.00	0.00	0.00	0.00	0.00
118	96	0.00	0.00	0.00	0.00	0.00	0.00
	102	0.00	0.00	0.00	0.00	0.00	-0.01
119	97	0.00	0.00	0.00	0.00	0.00	0.00
	99	0.00	0.00	0.00	0.00	0.00	+0.01
120	98	-0.11	0.00	0.00	0.00	0.00	0.00
	99	-0.11	0.00	0.00	0.00	0.00	0.00
121	98	0.00	-0.14	0.00	0.00	0.00	-0.01
	101	0.00	0.32	0.00	0.00	0.00	-0.03
122	102	-1.37	0.00	0.00	0.00	0.00	0.00
	101	-1.37	0.00	0.00	0.00	0.00	0.00
124	7	0.00	0.84	0.00	0.00	0.00	-0.02
	103	0.00	-0.45	0.00	0.00	0.00	0.02
125	105	0.00	0.34	0.00	0.00	0.00	0.02
	3	0.00	0.01	0.00	0.00	0.00	-0.01
126	101	0.00	-0.85	0.00	0.00	-0.01	-0.03
	104	0.00	-0.45	0.00	0.00	0.00	0.02
127	106	0.00	0.28	0.00	0.00	0.00	0.02
	102	0.00	0.81	0.00	0.00	0.00	-0.01
128	105	0.00	0.00	0.00	0.00	0.00	0.00
	106	0.00	0.00	0.00	0.00	0.00	0.00
221	108	0.00	0.00	0.00	0.00	0.00	0.00
	111	0.00	0.00	0.00	0.00	0.00	0.00
122	108	0.00	0.00	0.00	0.00	0.00	0.00
	113	0.00	0.00	0.00	0.00	0.00	0.00
201	104	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00
205	109	0.00	0.00	0.00	0.00	0.00	0.00
	109	0.00	0.00	0.00	0.00	0.00	0.00
208	171	0.00	0.00	0.00	0.00	0.00	0.00
	172	0.00	0.00	0.00	0.00	0.00	0.00
209	111	0.00	0.00	0.00	0.00	0.00	0.00
	169	0.00	0.00	0.00	0.00	0.00	0.00
210	169	0.00	0.00	0.00	0.00	0.00	0.00
	113	0.00	0.00	0.00	0.00	0.00	0.00
211	112	0.00	0.00	0.00	0.00	0.00	0.00
	172	0.00	0.00	0.00	0.00	0.00	0.00
212	170	0.00	0.00	0.00	0.00	0.00	0.00
	106	0.00	0.00	0.00	0.00	0.00	0.00
213	103	0.00	0.00	0.00	0.00	0.00	0.00
	161	0.00	0.00	0.00	0.00	0.00	0.00

Positive forces (Member axes):
Axial - Tension
Torque - Right-hand value
Shear - End A sagging
Moment - Sagging

REACTIONS

CASE 2: Live

Node	Force-X	Force-Y	Force-Z	Moment-X	Moment-Y	Moment-Z
	kN	kN	kN	kNm	kNm	kNm
17	0.00	0.00	4.76	0.00	0.00	0.00
29	0.00	0.00	3.81	0.00	0.00	0.00
21	0.00	0.00	5.63	0.00	0.00	0.00
45	0.00	0.00	0.00	0.00	0.00	0.00
78	0.00	0.00	4.52	0.00	0.00	0.00
80	0.00	0.00	5.67	0.00	0.00	0.00
83	0.00	0.00	5.44	0.00	0.00	0.00
203	0.00	0.00	0.00	0.00	0.00	0.00
208	0.00	0.00	0.00	0.00	0.00	0.00
159	0.00	0.00	0.00	0.00	0.00	0.00
166	0.00	0.00	0.00	0.00	0.00	0.00
188	0.00	0.00	0.00	0.00	0.00	0.00
171	0.00	0.00	0.00	0.00	0.00	0.00
SUM:	0.00	0.00	38.77	(all nodes)		

Max residual: +1.861E-02 at node: 467
(Reactions act on structure in positive global axis directions.)

CASE 8: Lateral load X

NODE LOADS

Node	X Force	Y Force	Z Force	X Moment	Y Moment	Z Moment
	kN	kN	kN	kNm	kNm	kNm
1	0.850	0.000	0.000	0.000	0.000	0.000
13	0.850	0.000	0.000	0.000	0.000	0.000
25	0.850	0.000	0.000	0.000	0.000	0.000
33	0.850	0.000	0.000	0.000	0.000	0.000
41	0.850	0.000	0.000	0.000	0.000	0.000
49	0.850	0.000	0.000	0.000	0.000	0.000
57	0.850	0.000	0.000	0.000	0.000	0.000
65	0.850	0.000	0.000	0.000	0.000	0.000
73	0.850	0.000	0.000	0.000	0.000	0.000
81	0.850	0.000	0.000	0.000	0.000	0.000
89	0.850	0.000	0.000	0.000	0.000	0.000
100	0.850	0.000	0.000	0.000	0.000	0.000
111	10.200	0.000	0.000	0.000	0.000	0.000

Sum of Applied Loads (Global Axes)
FX: 20.400 FY: 0.000 FZ: 0.000
Reactions about the global origin:
MX: 0.000 MY: 15.000 MZ: -153.215

NODE DISPLACEMENTS

CASE 8: Lateral load X

Node	X-Disp	Y-Disp	Z-Disp	X-Rotn	Y-Rotn	Z-Rotn
	m	m	m	rad	rad	rad
1	0.0053	0.0002	0.0000	0.00000	0.00000	0.00124
2	0.0053	0.0005	0.0000	0.00000	0.00000	0.00124
3	0.0053	-0.0006	0.0000	0.00000	0.00000	0.00124
4	0.0053	-0.0053	0.0000	0.00000	0.00000	0.00124
5	0.0053	-0.0053	0.0000	0.00000	0.00000	0.00124
6	0.0053	-0.0025	0.0000	0.00000	0.00000	0.00124
7	0.0053	-0.0025	0.0000	0.00000	0.00000	0.00124
8	0.0053	0.0002	0.0000	0.00000	0.00000	0.00124
9	0.0053	-0.0056	0.0000	0.00000	0.00000	0.00124
10	0.0049	-0.0053	0.0000	0.00000	0.00000	0.00124
11	0.0049	-0.0053	0.0000	0.00000	0.00000	0.00124
12	0.0049	-0.0025	0.0000	0.00000	0.00000	0.00124
13	0.0049	-0.0025	0.0000	0.00000	0.00000	0.00124
14	0.0049	0.0002	0.0000	0.00000	0.00000	0.00124
15	0.0049	0.0002	0.0000	0.00000	0.00000	0.00124
16	0.0049	0.0005	0.0000	0.00000	0.00000	0.00124
17	0.0046	0.0000	0.0000	0.00000	0.00000	0.00062
18	0.0044	0.0002	0.0000	0.00000	0.00000	0.00124
19	0.0044	0.0005	0.0000	0.00140	0.00000	0.00124
20	0.0000	0.0000	0.0000	0.00000	0.00000	0.00062
21	0.0000	0.0000	0.0000	0.00000	0.00000	0.00062
22	0.0044	-0.0056	0.0000	0.00140	0.00000	0.00124
23	0.0044	-0.0053	0.0000	0.00000	0.00000	0.00124
24	0.0044	-0.0053	0.0000	0.00140	0.00000	0.00124
25	0.0044	-0.0025	0.0000	0.00000	0.00000	0.00124
26	0.0044	-0.0025	0.0000	0.00140	0.00000	0.00124
27	0.0044	0.0002	0.0000	0.00140	0.00000	0.00124
28	0.0000	0.0002	0.0000	0.00000	0.00000	0.00124
29	0.0044	0.0005	0.0000	0.00000	0.00000	0.00124
30	0.0040	-0.0056	0.0000	0.00000	0.00000	0.00124
31	0.0040	-0.0053	0.0000	0.00000	0.00000	0.00124
32	0.0040	-0.0053	0.0000	0.00000	0.00000	0.00124
33	0.0040	-0.0025	0.0000	0.00000	0.00000	0.00124
34	0.0040	-0.0025	0.0000	0.00000	0.00000	0.00124
35	0.0040	0.0002	0.0000	0.00000	0.00000	0.00124
36	0.0035	0.0007	0.0000	0.00000	0.00000	0.00124
37	0.0035	0.0005	0.0000	0.00000	0.00000	0.00124
38	0.0035	-0.0056	0.0000	0.00000	0.00000	0.00124
39	0.0035	-0.0053	0.0000	0.00000	0.00000	0.00124
40	0.0035	-0.0053	0.0000	0.00000	0.00000	0.00124
41	0.0035	-0.0053	0.0000	0.00000	0.00000	0.00124
42	0.0035	-0.0025	0.0000	0.00000	0.00000	0.00124
43	0.0035	0.0007	0.0000	0.00000	0.00000	0.00124
44	0.0031	0.0007	0.0000	0.00000	0.00000	0.00124
45	0.0031	0.0005	0.0000	0.00000	0.00000	0.00124
46	0.0031	-0.0056	0.0000	0.00000	0.00000	0.00124
47	0.0031	-0.0053	0.0000	0.00000	0.00000	0.00124
48	0.0031	-0.0053	0.0000	0.00000	0.00000	0.00124
49	0.0031	-0.0025	0.0000	0.00000	0.00000	0.00124
50	0.0031	-0.0025	0.0000	0.00000	0.00000	0.00124
51	0.0031	0.0002	0.0000	0.00000	0.00000	0.00124
52	0.0031	0.0002	0.0000	0.00000	0.00000	0.00124
53	0.0031	0.0005	0.0000	0.00000	0.00000	0.00124
54	0.0031	-0.0056	0.0000	0.00000	0.00000	0.00124
55	0.0031	-0.0053	0.0000	0.00000	0.00000	0.00124
56	0.0031	-0.0053	0.0000	0.00000	0.00000	0.00124
57	0.0031	-0.0025	0.0000	0.00000	0.00000	0.00124
58	0.0031	-0.0025	0.0000	0.00000	0.00000	0.00124
59	0.0031	0.0002	0.0000	0.00000	0.00000	0.00124
60	0.0031	0.0002	0.0000	0.00000	0.00000	0.00124
61	0.0031	0.0005	0.0000	0.00000	0.00000	0.00124
62	0.0031	-0.0056	0.0000	0.00000	0.00000	0.00124
63	0.0031	-0.0053	0.0000	0.00000	0.00000	0.00124
64	0.0031	-0.0053	0.0000	0.00000	0.00000	0.00124
65	0.0031	-0.0025	0.0000	0.00000	0.00000	0.00124
66	0.0031	-0.0025	0.0000	0.00000	0.00000	0.00124
67	0.0031	0.0002	0.0000	0.00000	0.00000	0.00124
68	0.0031	0.0007	0.0000	0.00000	0.00000	0.00124
69	0.0031	0.0005	0.0000	0.00000	0.00000	0.00124
70	0.0031	-0.0056	0.0000	0.00000	0.00000	0.00124
71	0.0031	-0.0053	0.0000	0.00000	0.00000	0.00124
72	0.0031	-0.0053	0.0000	0.00000	0.00000	0.00124
73	0.0031	-0.0025	0.0000	0.00000	0.00000	0.00124
74	0.0031	-0.0025	0.0000	0.00000	0.00000	0.00124
75	0.0031	0.0002	0.0000	0.00000	0.00000	0.00124
76	0.0031	0.0002	0.0000	0.00000	0.00000	0.00124
77	0.0031	0.0005	0.0000	0.00000	0.00000	0.00124
78	0.0026	0.0007	0.0000	0.00000	0.00000	0.00062
79	0.0031	-0.0056	0.0000	0.00000	0.00000	0.00124
80	0.0026	0.0005	0.0000	0.00000	0.00000	0.00062
81	0.0027	-0.0053	0.0000	0.00000	0.00000	0.00124
82	0.0027	-0.0053	0.0000	0.00000	0.00000	0.00124
83	0.0026	0.0003	0.0000	0.00000	0.00000	0.00062
84	0.0027	-0.0025	0.0000	0.00000	0.00000	0.00124
85	0.0027	-0.0025	0.0000	0.00000	0.00000	0.00124
86	0.0027	0.0002	0.0000	0.00000	0.00000	0.00124
87	0.0026	-0.0056	0.0000	0.00000	0.00000	0.00124
88	0.0026	-0.0053	0.0000	0.00000	0.00000	0.00124
89	0.0026	-0.0053	0.0000	0.00000	0.00000	0.00124
90	0.0026	-0.0025	0.0000	0.00000	0.00000	0.00124
91	0.0026	-0.0025	0.0000	0.00000	0.00000	0.00124
92	0.0026	0.0002	0.0000	0.00000	0.00000	0.00124
93	0.0026	0.0002	0.0000	0.00000	0.00000	0.00124
94	0.0026	0.0005	0.0000	0.00000	0.00000	0.00124
95	-0.0001	0.0007	0.0000	0.00000	0.00000	0.00124
96	-0.0001	0.0005	0.0000	0.00000	0.00000	0.00124
97	-0.0001	-0.0056	0.0000	0.00000	0.00000	0.00124
98	-0.0001	-0.0053	0.0000	0.00000	0.00000	0.00124
99	-0.0001	-0.0053	0.0000	0.00000	0.00000	0.00124
100	-0.0001	-0.0025	0.0000	0.00000	0.00000	0.00124
101	-0.0001	-0.0025	0.0000	0.00000	0.00000	0.00124
102	-0.0001	0.0002	0.0000	0.00000	0.00000	0.00124
103	0.0013	-0.0053	0.0000	0.00000	0.00000	0.00124
104	-0.0001	-0.0053	0.0000	0.00000	0.00000	0.00124
105	0.0000	0.0003	0.0000	0.00000	0.00000	0.00062
106	0.0013	0.0003	0.0000	0.00000	0.00243	0.00062
107	0.0000	0.0003	0.0000	0.00000	0.00000	0.00062
108	0.0000	0.0003	0.0000	0.00000	0.00000	0.00062
109	0.0000	0.0003	0.0000	0.00000	0.00000	0.00062
111	0.0027	0.0003	0.0000	0.00000	0.00122	-0.00061
112	0.0027	0.0003	0.0000	0.00000	0.00157	0.00062
164	0.0018	0.0003	0.0000	0.00000	0.00547	0.00062
166	0.0000	0.0003	0.0000	0.00000	0.00000	0.00062
168	0.0000	0.0003	0.0000	0.00000	0.00000	0.00062
171	0.0009	0.0003	0.0000	0.00000	0.00000	0.00062
172	0.0013	0.0003	0.0000	0.00000	0.00122	0.00062

MEMBER FORCES

CASE 8: Lateral load X

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
	8	0.00	0.00	0.00	0.00	0.00	0.00
2	2	0.00	0.00	0.00	0.00	0.00	0.00
	9	0.00	0.00	0.00	0.00	0.00	0.00
3	3	0.00	0.00	0.00	0.00	0.00	0.00
	10	0.00	0.00	0.00	0.00	0.00	0.00
4	4	0.00	0.00	0.00	0.00	0.00	0.00
	11	0.00	0.00	0.00	0.00	0.00	0.00
5	5	0.00	0.00	0.00	0.00	0.00	0.00
	12	0.00	0.00	0.00	0.00	0.00	0.00
6	6	0.00	0.00	0.00	0.00	0.00	0.00
	13	0.00	0.00	0.00	0.00	0.00	0.00
8	1	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00
9	8	0.00	0.00	0.00	0.00	0.00	0.00
	16	0.00	0.00	0.00	0.00	0.00	0.00
10	9	0.00	0.00	0.00	0.00	0.00	0.00

	12	0.00	0.00	0.00	0.00	0.00	0.00
11	9	0.00	0.00	0.00	0.00	0.00	0.00
	11	0.00	0.00	0.00	0.00	0.00	0.00
12	13	0.00	0.00	0.00	0.00	0.00	0.00
	11	0.00	0.00	0.00	0.00	0.00	0.00
13	31	0.00	0.00	0.00	0.00	0.00	0.00
	33	0.00	0.00	0.00	0.00	0.00	0.00
14	32	0.00	0.00	0.00	0.00	0.00	0.00
	33	0.00	0.00	0.00	0.00	0.00	0.00
15	33	0.00	0.00	0.00	0.00	0.00	0.00
	14	0.00	0.00	0.00	0.00	0.00	0.00
16	14	0.00	0.00	0.00	0.00	0.00	0.00
	15	0.00	0.00	0.00	0.00	0.00	0.00
17	14	0.00	0.00	0.00	0.00	0.00	0.00
	16	0.00	0.00	0.00	0.00	0.00	0.00
18	35	0.00	0.00	0.00	0.00	0.00	0.00
	16	0.00	0.00	0.00	0.00	0.00	0.00
19	16	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00
20	12	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00
21	17	0.00	-2.01	-0.12	0.00	-2.37	-2.37
	18	0.00	-2.01	-0.12	0.00	0.00	0.00
22	18	0.00	0.00	0.00	0.00	0.00	0.00
	21	0.00	0.00	0.00	0.00	0.00	0.00
23	19	0.00	0.00	0.00	0.00	0.00	0.00
	27	0.00	0.00	0.00	0.00	0.00	0.00
24	26	0.00	-0.18	0.19	0.00	-0.59	0.00
	23	0.00	-0.18	0.19	0.00	0.00	0.00
25	21	0.00	-0.45	0.28	0.00	-1.05	0.00
	25	0.00	-0.45	0.28	0.00	0.00	0.00
26	22	0.00	0.00	0.00	0.00	0.00	0.00
	24	0.00	0.00	0.00	0.00	0.00	0.00
27	23	0.00	0.00	0.00	0.00	0.00	0.00
	24	0.00	0.00	0.00	0.00	0.00	0.00
28	24	0.00	0.00	0.00	0.00	0.00	0.00
	26	0.00	0.00	0.00	0.00	0.00	0.00
29	25	0.00	0.00	0.00	0.00	0.00	0.00
	26	0.00	0.00	0.00	0.00	0.00	0.00
30	26	0.00	0.00	0.00	0.00	0.00	0.00
	27	0.00	0.00	0.00	0.00	0.00	0.00
31	10	0.00	0.00	0.00	0.00	0.00	0.00
	20	0.00	0.00	0.00	0.00	0.00	0.00
32	28	0.00	0.00	0.00	0.00	0.00	0.00
	31	0.00	0.00	0.00	0.00	0.00	0.00
33	29	0.00	0.00	0.00	0.00	0.00	0.00
	32	0.00	0.00	0.00	0.00	0.00	0.00
34	30	0.00	0.00	0.00	0.00	0.00	0.00
	33	0.00	0.00	0.00	0.00	0.00	0.00
35	29	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00
36	30	0.00	0.00	0.00	0.00	0.00	0.00
	32	0.00	0.00	0.00	0.00	0.00	0.00
37	31	0.00	0.00	0.00	0.00	0.00	0.00
	33	0.00	0.00	0.00	0.00	0.00	0.00
38	32	0.00	0.00	0.00	0.00	0.00	0.00
	34	0.00	0.00	0.00	0.00	0.00	0.00
39	33	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00
40	34	0.00	0.00	0.00	0.00	0.00	0.00
	36	0.00	0.00	0.00	0.00	0.00	0.00
41	35	0.00	0.00	0.00	0.00	0.00	0.00
	37	0.00	0.00	0.00	0.00	0.00	0.00
42	36	0.00	0.00	0.00	0.00	0.00	0.00
	38	0.00	0.00	0.00	0.00	0.00	0.00
43	37	0.00	0.00	0.00	0.00	0.00	0.00
	39	0.00	0.00	0.00	0.00	0.00	0.00
44	38	0.00	0.00	0.00	0.00	0.00	0.00
	40	0.00	0.00	0.00	0.00	0.00	0.00
45	39	0.00	0.00	0.00	0.00	0.00	0.00
	41	0.00	0.00	0.00	0.00	0.00	0.00
46	40	0.00	0.00	0.00	0.00	0.00	0.00
	42	0.00	0.00	0.00	0.00	0.00	0.00
47	41	0.00	0.00	0.00	0.00	0.00	0.00
	43	0.00	0.00	0.00	0.00	0.00	0.00
48	42	0.00	0.00	0.00	0.00	0.00	0.00
	44	0.00	0.00	0.00	0.00	0.00	0.00
49	43	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00
50	44	0.00	0.00	0.00	0.00	0.00	0.00
	46	0.00	0.00	0.00	0.00	0.00	0.00
51	45	0.00	0.00	0.00	0.00	0.00	0.00
	47	0.00	0.00	0.00	0.00	0.00	0.00
52	46	0.00	0.00	0.00	0.00	0.00	0.00
	48	0.00	0.00	0.00	0.00	0.00	0.00
53	47	0.00	0.00	0.00	0.00	0.00	0.00
	49	0.00	0.00	0.00	0.00	0.00	0.00
54	44	0.00	0.00	0.00	0.00	0.00	0.00
	51	0.00	0.00	0.00	0.00	0.00	0.00
55	48	0.00	0.00	0.00	0.00	0.00	0.00
	50	0.00	0.00	0.00	0.00	0.00	0.00
56	49	0.00	0.00	0.00	0.00	0.00	0.00
	52	0.00	0.00	0.00	0.00	0.00	0.00
57	48	0.00	0.00	0.00	0.00	0.00	0.00
	50	0.00	0.00	0.00	0.00	0.00	0.00
58	49	0.00	0.00	0.00	0.00	0.00	0.00
	52	0.00	0.00	0.00	0.00	0.00	0.00
59	50	0.00	0.00	0.00	0.00	0.00	0.00
	53	0.00	0.00	0.00	0.00	0.00	0.00
60	52	0.00	0.00	0.00	0.00	0.00	0.00
	54	0.00	0.00	0.00	0.00	0.00	0.00
61	44	0.00	0.00	0.00	0.00	0.00	0.00
	52	0.00	0.00	0.00	0.00	0.00	0.00
62	47	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00
63	49	0.00	0.00	0.00	0.00	0.00	0.00
	57	0.00	0.00	0.00	0.00	0.00	0.00
64	50	0.00	0.00	0.00	0.00	0.00	0.00
	59	0.00	0.00	0.00	0.00	0.00	0.00
65	53	0.00	0.00	0.00	0.00	0.00	0.00
	59	0.00	0.00	0.00	0.00	0.00	0.00
66	54	0.00	0.00	0.00	0.00	0.00	0.00
	56	0.00	0.00	0.00	0.00	0.00	0.00
67	55	0.00	0.00	0.00	0.00	0.00	0.00
	58	0.00	0.00	0.00	0.00	0.00	0.00
68	56	0.00	0.00	0.00	0.00	0.00	0.00
	58	0.00	0.00	0.00	0.00	0.00	0.00
69	57	0.00	0.00	0.00	0.00	0.00	0.00
	59	0.00	0.00	0.00	0.00	0.00	0.00
70	59	0.00	0.00	0.00	0.00	0.00	0.00
	61	0.00	0.00	0.00	0.00	0.00	0.00
71	57	0.00	0.00	0.00	0.00	0.00	0.00
	60	0.00	0.00	0.00	0.00	0.00	0.00
72	60	0.00	0.00	0.00	0.00	0.00	0.00
	63	0.00	0.00	0.00	0.00	0.00	0.00
73	57	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00
74	63	0.00	0.00	0.00	0.00	0.00	0.00
	67	0.00	0.00	0.00	0.00	0.00	0.00
75	61	0.00	0.00	0.00	0.00	0.00	0.00
	67	0.00	0.00	0.00	0.00	0.00	0.00
76	62	0.00	0.00	0.00	0.00	0.00	0.00
	64	0.00	0.00	0.00	0.00	0.00	0.00
77	63	0.00	0.00	0.00	0.00	0.00	0.00
	66	0.00	0.00	0.00	0.00	0.00	0.00
78	64	0.00	0.00	0.00	0.00	0.00	0.00
	68	0.00	0.00	0.00	0.00	0.00	0.00
79	65	0.00	0.00	0.00	0.00	0.00	0.00
	66	0.00	0.00	0.00	0.00	0.00	0.00
80	66	0.00	0.00	0.00	0.00	0.00	0.00
	67	0.00	0.00	0.00	0.00	0.00	0.00
81	68	0.00	0.00	0.00	0.00	0.00	0.00
	69	0.00	0.00	0.00	0.00	0.00	0.00
82	63	0.00	0.00	0.00	0.00	0.00	0.00
	71	0.00	0.00	0.00	0.00	0.00	0.00
83	65	0.00	0.00	0.00	0.00	0.00	0.00
	73	0.00	0.00	0.00	0.00	0.00	0.00
84	68	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00
85	68	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00
86	70	0.00	0.00	0.00	0.00	0.00	0.00
	72	0.00	0.00	0.00	0.00	0.00	0.00
87	71	0.00	0.00	0.00	0.00	0.00	0.00
	73	0.00	0.00	0.00	0.00	0.00	0.00
88	73	0.00	0.00	0.00	0.00	0.00	0.00
	74	0.00	0.00	0.00	0.00	0.00	0.00
89	75	0.00	0.00	0.00	0.00	0.00	0.00
	74	0.00	0.00	0.00	0.00	0.00	0.00
90	74	0.00	0.00	0.00	0.00	0.00	0.00
	76	0.00	0.00	0.00	0.00	0.00	0.00
91	90	0.00	0.00	0.00	0.00	0.00	0.00
	76	0.00	0.00	0.00	0.00	0.00	0.00
92	71	0.00	0.00	0.00	0.00	0.00	0.00
	81	0.00	0.00	0.00	0.00	0.00	0.00
93	73	0.00	0.00	0.00	0.00	0.00	0.00
	84	0.00	0.00	0.00	0.00	0.00	0.00
94	75	0.00	0.00	-1.72	0.00	0.00	0.00
	70	0.00	0.00	-1.72	0.00	0.00	-2.22
95	76	0.00	0.00	0.00	0.00	0.00	0.00
	86	0.00	0.00	0.00	0.00	0.00	0.00
96	77	0.00	0.00	0.00	0.00	0.00	0.00
	86	0.00	0.00	0.00	0.00	0.00	0.00
97	78	0.00	0.00	0.00	0.00	0.00	0.00
	83	0.00	0.00	0.00	0.00	0.00	0.00
98	80	0.00	-0.09	0.37	0.00	0.00	-0.13
	81	0.00	-0.09	0.37	0.00	0.00	0.00
99	81	0.00	0.04	0.00	0.00	0.00	0.00
	82	0.00	0.04	0.00	0.00	0.00	0.00
100	82	0.00	0.08	0.00	0.00	0.00	0.00
	85	0.00	0.08	0.00	0.00	0.00	0.00
101	83	0.00	-0.25	1.01	0.00	1.41	-6.11
	84	0.00	-0.25	1.01	0.00	0.00	0.00
102	84	0.00	0.08	0.00	0.00	0.00	0.00
	85	0.00	0.08	0.00	0.00	0.00	0.00
103	85	0.00	0.08	0.00	0.00	0.00	0.00
	86	0.00	0.08	0.00	0.00	0.00	0.00
104	78	0.00	0.08	0.00	0.00	0.00	0.00
	92	0.00	0.08	0.00	0.00	0.00	0.00
105	87	0.00	0.00	0.00	0.00	0.00	0.00
	88	0.00	0.00	0.00	0.00	0.00	0.00
106	84	0.00	0.00	0.00	0.00	0.00	0.00
	96	0.00	0.00	0.00	0.00	0.00	0.00
107	87	0.00	0.00	0.00	0.00	0.00	0.00
	88	0.00	0.00	0.00	0.00	0.00	0.00
108	89	0.00	0.00	0.00	0.00	0.00	0.00
	89	0.00	0.00	0.00	0.00	0.00	0.00
109	89	0.00	0.00	0.00	0.00	0.00	0.00
	91	0.00	0.00	0.00	0.00	0.00	0.00
110	90	0.00	0.00	0.00	0.00	0.00	0.00
	91	0.00	0.00	0.00	0.00	0.00	0.00
111	91	0.00	0.00	0.00	0.00	0.00	0.00
	93	0.00	0.00	0.00	0.00	0.00	0.00
112	92	0.00	0.00	0.00	0.00	0.00	0.00
	93	0.00	0.00	0.00	0.00	0.00	0.00
113	93	0.00	0.00	0.00	0.00	0.00	0.00
	94	0.00	0.00	0.00	0.00	0.00	0.00
114	92	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00
115	96	0.00	0.00	0.00	0.00	0.00	0.00
	98	0.00	0.00	0.00	0.00	0.00	0.00
116	98	0.00	0.00	0.00	0.00	0.00	0.00
	100	0.00	0.00	0.00	0.00	0.00	0.00
117	95	0.00	0.00	0.00	0.00	0.00	0.00
	102	0.00	0.00	0.00	0.00	0.00	0.00
118	96	0.00	0.00	0.00	0.00	0.00	0.00
	102	0.00	0.00	0.00	0.00	0.00	0.00
119	97	0.00	0.00	0.00	0.00	0.00	0.00
	99	0.00	0.00	0.00	0.00	0.00	0.00
120	99	0.00	0.00	0.00	0.00	0.00	0.00
	99	0.00	0.00	0.00	0.00	0.00	0.00
121	99	0.00	0.00	0.00	0.00	0.00	0.00
	101	0.00	0.00	0.00	0.00	0.00	0.00
122	100	0.00	0.00	0.00	0.00	0.00	0.00
	101	0.00	0.00	0.00	0.00	0.00	0.00
124	1	0.00	0.00	0.00	0.00	0.00	0.00
	103	0.00	0.00	0.00	0.00	0.00	0.00
125	104	0.00	0.00	0.00	0.00	0.00	0.00
	8	0.00	0.00	0.00	0.00	0.00	0.00
126	101	0.00	0.00	0.00	0.00	0.00	0.00
	101	0.00	0.00	0.00	0.00	0.00	0.00
127	103	0.00	0.00	0.00	0.00	0.00	0.00
	103	0.00	0.00	0.00	0.00	0.00	0.00
128	105	0.00	-0.66	0.00	0.00	0.00	-0.89
	104	0.00	-0.66	0.00	0.00	0.00	0.00
133	108	0.00	-0.69	0.00	0.00	0.00	-0.28
	111	0.00	-0.69	0.00	0.00	0.00	0.00
130	109	0.00	-0.24	0.00	0.00	0.00	-0.32
	113	0.00	-0.24	0.00	0.00	0.00	0.00
201	164	0.00	0.48	0.00	0.00	0.00	0.00
	165	0.00	0.48	0.00	0.00	0.00	-0.16
205	168	0.00	-0.16	0.00	0.00	0.00	-0.11
	169	0.00	-0.16	0.00	0.00	0.00	0.00
200	171	0.00	-0.44	0.00	0.00	0.00	-0.62
	172	0.00	-0.44	0.00	0.00	0.00	0.00
209	111	-10.11	0.00	0.00	0.00	0.00	0.00
	169	-10.11	0.00	0.00	0.00	0.00	0.00
210	169	-9.95	0.00	0.00	0.00	0.00	0.00
	113	-9.95	0.00	0.00	0.00	0.00	0.00
211	113	-9.70	0.00	0.00	0.00	0.00	0.00
	172	-9.70	0.00	0.00	0.00	0.00	0.00
212	172	-9.26	0.00	0.00	0.00	0.00	0.00
	106	-9.26	0.00	0.00	0.00	0.00	0.00
213	106	-8.80	0.00	0.00	0.00	0.00	0.00
	104	-8.80	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 = Hogging

SUPPORT REACTIONS

CASE 6: Lateral load X

Node	Force-X kN	Force-Y kN	Force-Z kN	Moment-X kNm	Moment-Y kNm	Moment-Z kNm
17	-0.81	-0.22	0.00	0.13	-1.37	0.00
20	-0.16	0.19	0.00	-0.68	-0.53	0.00
21	-0.45	0.28	0.00	-0.66	-1.05	0.00
15	0.83	0.83	0.00	0.00	0.00	0.00
75	-0.42	-1.72	0.00	0.00	-1.29	0.00
30	-0.65	0.37	0.00	-0.52	-0.13	0.00
33	-0.35	1.81	0.00	-1.41	-0.41	0.00
135	-0.60	0.58	0.00	0.00	-0.89	0.00
139	-0.69	0.00	0.00	0.00	-0.20	0.00
138	-0.34	0.00	0.00	0.00	-0.52	0.00
188	-0.46	0.00	0.00	0.00	-1.38	0.00
189	-0.16	0.00	0.00	0.00	-0.41	0.00
191	-0.44	0.00	0.00	0.00	-0.42	0.00
Sum:	-20.46	0.00	0.00	(all nodes)		

Max. residual: 7.1054E-11 at DOF: 487

(Reactions are in structure in positive global axis directions.)

CASE 7: Lateral load Y

Node Loads

Node	X Force kN	Y Force kN	Z Force kN	X Moment kNm	Y Moment kNm	Z Moment kNm
19	0.000	0.625	0.000	0.000	0.000	0.469
23	0.000	0.625	0.000	0.000	0.000	0.469
25	0.000	0.625	0.000	0.000	0.000	0.469
28	0.000	0.625	0.000	0.000	0.000	0.469
31	0.000	0.625	0.000	0.000	0.000	0.469
33	0.000	0.625	0.000	0.000	0.000	0.469
36	0.000	0.625	0.000	0.000	0.000	0.469
39	0.000	0.625	0.000	0.000	0.000	0.469
41	0.000	0.625	0.000	0.000	0.000	0.469
44	0.000	0.625	0.000	0.000	0.000	0.469
47	0.000	0.625	0.000	0.000	0.000	0.469
49	0.000	0.625	0.000	0.000	0.000	0.469
52	0.000	0.625	0.000	0.000	0.000	0.469
55	0.000	0.625	0.000	0.000	0.000	0.469
57	0.000	0.625	0.000	0.000	0.000	0.469
60	0.000	0.625	0.000	0.000	0.000	0.469
63	0.000	0.625	0.000	0.000	0.000	0.469
65	0.000	0.625	0.000	0.000	0.000	0.469
68	0.000	0.625	0.000	0.000	0.000	0.469
71	0.000	0.625	0.000	0.000	0.000	0.469
73	0.000	0.625	0.000	0.000	0.000	0.469
76	0.000	0.625	0.000	0.000	0.000	0.469
81	0.000	0.625	0.000	0.000	0.000	0.469
84	0.000	0.625	0.000	0.000	0.000	0.469

Sum of Applied Loads (Global Axes):
FX: 0.000 FY: 10.200 FZ: 0.000
Moments about the global origin:
MX: -27.540 MY: 0.000 MZ: 24.990

NODE DISPLACEMENTS

CASE 7: Lateral load Y

Node	X-Disp m	Y-Disp m	Z-Disp m	X-Rotn rad	Y-Rotn rad	Z-Rotn rad
1	-0.0067	0.0087	0.0000	0.00000	0.00000	-0.00194
2	-0.0067	0.0082	0.0000	0.00000	0.00000	-0.00194
3	-0.0067	0.0077	0.0000	0.00000	0.00000	-0.00194
4	-0.0067	0.0072	0.0000	0.00000	0.00000	-0.00194
5	-0.0067	0.0067	0.0000	0.00000	0.00000	-0.00194
6	-0.0067	0.0062	0.0000	0.00000	0.00000	-0.00194
7	-0.0067	0.0057	0.0000	0.00000	0.00000	-0.00194
8	-0.0067	0.0052	0.0000	0.00000	0.00000	-0.00194
9	-0.0067	0.0047	0.0000	0.00000	0.00000	-0.00194
10	-0.0067	0.0042	0.0000	0.00000	0.00000	-0.00194
11	-0.0067	0.0037	0.0000	0.00000	0.00000	-0.00194
12	-0.0067	0.0032	0.0000	0.00000	0.00000	-0.00194
13	-0.0067	0.0027	0.0000	0.00000	0.00000	-0.00194
14	-0.0067	0.0022	0.0000	0.00000	0.00000	-0.00194
15	-0.0067	0.0017	0.0000	0.00000	0.00000	-0.00194
16	-0.0067	0.0012	0.0000	0.00000	0.00000	-0.00194
17	-0.0067	0.0007	0.0000	0.00000	0.00000	0.00000
18	-0.0054	0.0087	0.0000	0.00000	0.00000	-0.00194
19	-0.0054	0.0082	0.0000	0.00168	0.00000	-0.00194
20	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
21	0.0000	0.0000	0.0000	0.00168	0.00000	0.00000
22	-0.0054	0.0087	0.0000	0.00168	0.00000	-0.00194
23	-0.0054	0.0082	0.0000	0.00000	0.00000	-0.00194
24	-0.0054	0.0077	0.0000	0.00000	0.00000	-0.00194
25	-0.0054	0.0072	0.0000	0.00000	0.00000	-0.00194
26	-0.0054	0.0067	0.0000	0.00000	0.00000	-0.00194
27	-0.0054	0.0062	0.0000	0.00000	0.00000	-0.00194
28	-0.0054	0.0057	0.0000	0.00000	0.00000	-0.00194
29	-0.0054	0.0052	0.0000	0.00000	0.00000	-0.00194
30	-0.0054	0.0047	0.0000	0.00000	0.00000	-0.00194
31	-0.0054	0.0042	0.0000	0.00000	0.00000	-0.00194
32	-0.0054	0.0037	0.0000	0.00000	0.00000	-0.00194
33	-0.0054	0.0032	0.0000	0.00000	0.00000	-0.00194
34	-0.0054	0.0027	0.0000	0.00000	0.00000	-0.00194
35	-0.0054	0.0022	0.0000	0.00000	0.00000	-0.00194
36	-0.0054	0.0017	0.0000	0.00000	0.00000	-0.00194
37	-0.0054	0.0012	0.0000	0.00000	0.00000	-0.00194
38	-0.0054	0.0007	0.0000	0.00000	0.00000	-0.00194
39	-0.0054	0.0002	0.0000	0.00000	0.00000	-0.00194
40	-0.0054	0.0093	0.0000	0.00000	0.00000	-0.00194
41	-0.0054	0.0088	0.0000	0.00000	0.00000	-0.00194
42	-0.0054	0.0083	0.0000	0.00000	0.00000	-0.00194
43	-0.0054	0.0078	0.0000	0.00000	0.00000	-0.00194
44	-0.0054	0.0073	0.0000	0.00000	0.00000	-0.00194
45	-0.0054	0.0068	0.0000	0.00000	0.00000	-0.00194
46	-0.0054	0.0063	0.0000	0.00000	0.00000	-0.00194
47	-0.0054	0.0058	0.0000	0.00000	0.00000	-0.00194
48	-0.0054	0.0053	0.0000	0.00000	0.00000	-0.00194
49	-0.0054	0.0048	0.0000	0.00000	0.00000	-0.00194
50	-0.0054	0.0043	0.0000	0.00000	0.00000	-0.00194
51	-0.0054	0.0038	0.0000	0.00000	0.00000	-0.00194
52	-0.0054	0.0033	0.0000	0.00000	0.00000	-0.00194
53	-0.0054	0.0028	0.0000	0.00000	0.00000	-0.00194
54	-0.0054	0.0023	0.0000	0.00000	0.00000	-0.00194
55	-0.0054	0.0018	0.0000	0.00000	0.00000	-0.00194
56	-0.0054	0.0013	0.0000	0.00000	0.00000	-0.00194
57	-0.0054	0.0008	0.0000	0.00000	0.00000	-0.00194
58	-0.0054	0.0003	0.0000	0.00000	0.00000	-0.00194
59	-0.0041	0.0087	0.0000	0.00000	0.00000	-0.00194
60	-0.0041	0.0082	0.0000	0.00000	0.00000	-0.00194
61	-0.0041	0.0077	0.0000	0.00000	0.00000	-0.00194
62	-0.0041	0.0072	0.0000	0.00000	0.00000	-0.00194
63	-0.0041	0.0067	0.0000	0.00000	0.00000	-0.00194
64	-0.0041	0.0062	0.0000	0.00000	0.00000	-0.00194
65	-0.0041	0.0057	0.0000	0.00000	0.00000	-0.00194
66	-0.0041	0.0052	0.0000	0.00000	0.00000	-0.00194
67	-0.0041	0.0047	0.0000	0.00000	0.00000	-0.00194
68	-0.0041	0.0042	0.0000	0.00000	0.00000	-0.00194
69	-0.0041	0.0037	0.0000	0.00000	0.00000	-0.00194
70	-0.0041	0.0032	0.0000	0.00000	0.00000	-0.00194
71	-0.0041	0.0027	0.0000	0.00000	0.00000	-0.00194
72	-0.0041	0.0022	0.0000	0.00000	0.00000	-0.00194
73	-0.0041	0.0017	0.0000	0.00000	0.00000	-0.00194
74	-0.0041	0.0012	0.0000	0.00000	0.00000	-0.00194
75	-0.0041	0.0007	0.0000	0.00000	0.00000	-0.00194
76	-0.0041	0.0002	0.0000	0.00000	0.00000	-0.00194
77	-0.0041	0.0093	0.0000	0.00000	0.00000	-0.00194
78	-0.0041	0.0088	0.0000	0.00000	0.00000	-0.00194
79	-0.0041	0.0083	0.0000	0.00000	0.00000	-0.00194
80	-0.0041	0.0078	0.0000	0.00000	0.00000	0.00000
81	-0.0041	0.0073	0.0000	0.00000	0.00000	-0.00194
82	-0.0041	0.0068	0.0000	0.00000	0.00000	-0.00194
83	-0.0041	0.0063	0.0000	0.00000	0.00000	0.00000
84	-0.0041	0.0058	0.0000	0.00000	0.00000	-0.00194
85	-0.0041	0.0053	0.0000	0.00000	0.00000	-0.00194
86	-0.0041	0.0048	0.0000	0.00000	0.00000	-0.00194
87	-0.0041	0.0043	0.0000	0.00000	0.00000	-0.00194
88	-0.0041	0.0038	0.0000	0.00000	0.00000	-0.00194
89	-0.0041	0.0033	0.0000	0.00000	0.00000	-0.00194
90	-0.0041	0.0028	0.0000	0.00000	0.00000	-0.00194
91	-0.0041	0.0023	0.0000	0.00000	0.00000	-0.00194
92	-0.0041	0.0018	0.0000	0.00000	0.00000	-0.00194
93	-0.0041	0.0013	0.0000	0.00000	0.00000	-0.00194
94	-0.0041	0.0008	0.0000	0.00000	0.00000	-0.00194
95	-0.0041	0.0003	0.0000	0.00000	0.00000	-0.00194
96	-0.0018	0.0088	0.0000	0.00000	0.00000	-0.00194
97	-0.0018	0.0083	0.0000	0.00000	0.00000	-0.00194
98	-0.0018	0.0078	0.0000	0.00000	0.00000	-0.00194
99	-0.0018	0.0073	0.0000	0.00000	0.00000	-0.00194
100	-0.0018	0.0068	0.0000	0.00000	0.00000	-0.00194
101	-0.0018	0.0063	0.0000	0.00000	0.00000	-0.00194
102	-0.0018	0.0058	0.0000	0.00000	0.00000	-0.00194
103	-0.0067	0.0025	0.0000	0.00000	0.00000	-0.00194
104	-0.0018	0.0025	0.0000	0.00000	0.00000	-0.00194
105	-0.0018	0.0048	0.0000	0.00000	0.00000	0.00000
106	-0.0018	0.0038	0.0000	0.00000	0.00000	0.00000
107	-0.0018	0.0028	0.0000	0.00000	0.00000	0.00000
108	-0.0018	0.0018	0.0000	0.00000	0.00000	0.00000
109	-0.0018	0.0008	0.0000	0.00000	0.00000	0.00000
111	-0.0018	0.0088	0.0000	0.00000	0.00000	0.00000
112	-0.0018	0.0078	0.0000	0.00000	0.00000	0.00000
113	-0.0018	0.0068	0.0000	0.00000	0.00000	0.00000
114	-0.0018	0.0058	0.0000	0.00000	0.00000	0.00000
115	-0.0018	0.0048	0.0000	0.00000	0.00000	0.00000
116	-0.0018	0.0038	0.0000	0.00000	0.00000	0.00000
117	-0.0018	0.0028	0.0000	0.00000	0.00000	0.00000
118	-0.0018	0.0018	0.0000	0.00000	0.00000	0.00000
119	-0.0018	0.0008	0.0000	0.00000	0.00000	0.00000
121	-0.0018	0.0088	0.0000	0.00000	0.00000	0.00000
122	-0.0018	0.0078	0.0000	0.00000	0.00000	0.00000
123	-0.0018	0.0068	0.0000	0.00000	0.00000	0.00000
124	-0.0018	0.0058	0.0000	0.00000	0.00000	0.00000
125	-0.0018	0.0048	0.0000	0.00000	0.00000	0.00000
126	-0.0018	0.0038	0.0000	0.00000	0.00000	0.00000
127	-0.0018	0.0028	0.0000	0.00000	0.00000	0.00000
128	-0.0018	0.0018	0.0000	0.00000	0.00000	0.00000
129	-0.0018	0.0008	0.0000	0.00000	0.00000	0.00000
131	-0.0018	0.0088	0.0000	0.00000	0.00000	0.00000
132	-0.0018	0.0078	0.0000	0.00000	0.00000	0.00000
133	-0.0018	0.0068	0.0000	0.00000	0.00000	0.00000
134	-0.0018	0.0058	0.0000	0.00000	0.00000	0.00000
135	-0.0018	0.0048	0.0000	0.00000	0.00000	0.00000
136	-0.0018	0.0038	0.0000	0.00000	0.00000	0.00000
137	-0.0018	0.0028	0.0000	0.00000	0.00000	0.00000
138	-0.0018	0.0018	0.0000	0.00000	0.00000	0.00000
139	-0.0018	0.0008	0.0000	0.00000	0.00000	0.00000
141	-0.0018	0.0088	0.0000	0.00000	0.00000	0.00000
142	-0.0018	0.0078	0.0000	0.00000	0.00000	0.00000
143	-0.0018	0.0068	0.0000	0.00000	0.00000	0.00000
144	-0.0018	0.0058	0.0000	0.00000	0.00000	0.00000
145	-0.0018	0.0048	0.0000	0.00000	0.00000	0.00000
146	-0.0018	0.0038	0.0000	0.00000	0.00000	0.00000
147	-0.0018	0.0028	0.0000	0.00000	0.00000	0.00000
148	-0.0018	0.0018	0.0000	0.00000	0.00000	0.00000
149	-0.0018	0.0008	0.0000	0.00000	0.00000	0.00000
151	-0.0018	0.0088	0.0000	0.00000	0.00000	0.00000
152	-0.0018	0.0078	0.0000	0.00000	0.00000	0.00000
153	-0.0018	0.0068	0.0000	0.00000	0.00000	0.00000
154	-0.0018	0.0058	0.0000	0.00000	0.00000	0.00000
155	-0.0018	0.0048	0.0000	0.00000	0.00000	0.00000
156	-0.0018	0.0038	0.0000	0.00000	0.00000	0.00000
157	-0.0018	0.0028	0.0000	0.00000	0.00000	0.00000
158	-0.0018	0.0018	0.0000	0.00000	0.00000	0.00000
159	-0.0018	0.0008	0.0000	0.00000	0.00000	0.00000
161	-0.0018	0.0088	0.0000	0.00000	0.00000	0.00000
162	-0.0018	0.0078	0.0000	0.00000	0.00000	0.00000
163	-0.0018	0.0068	0.0000	0.00000	0.00000	0.00000
164	-0.0018	0.0058	0.0000	0.00000	0.00000	0.00000
165	-0.0018	0.0048	0.0000	0.00000	0.00000	0.00000
166	-0.0018	0.0038	0.0000	0.00000	0.00000	0.00000
167	-0.0018	0.0028	0.0000	0.00000	0.00000	0.00000
168	-0.0018	0.0018	0.0000	0.00000	0.00000	0.00000
169	-0.0018	0.0008	0.0000	0.00000	0.00000	0.00000
171	-0.0018	0.0088	0.0000	0.00000	0.00000	0.00000
172	-0.0018	0.0078	0.0000	0.00000	0.00000	0.00000

MEMBER FORCES

CASE 7: Lateral load Y

Member	Node	Axial kN	Moment-y kNm	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	0.00	0.00	0.00	0.00	0.00
2	2	0.00	0.00	0.00	0.00	0.00	0.00
	8	0.00	0.00	0.00	0.00	0.00	0.00
3	3	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00
4	4	0.00	0.00	0.00	0.00	0.00	0.00
	6	0.00	0.00	0.00	0.00	0.00	0.00
5	5	0.00	0.00	0.00	0.00	0.00	0.00
	7	0.00	0.00	0.00	0.00	0.00	0.00
6	6	0.00	0.00	0.00	0.00	0.00	0.00
	7	0.00	0.00	0.00	0.00	0.00	0.00
8	1	0.00	0.00	0.00	0.00	0.00	0.00
	19	0.00	0.00	0.00	0.00	0.00	0.00
9	4	0.00	0.00	0.00	0.00	0.00	0.00
	10	0.00	0.00	0.00	0.00	0.00	0.00
10	6	0.00	0.00	0.00	0.00	0.00	0.00
	12	0.00	0.00	0.00	0.00	0.00	0.00
11	9	0.00	0.00	0.00	0.00	0.00	0.00
	11	0.00	0.00	0.00	0.00	0.00	0.00
12	10	0.00	0.00	0.00	0.00	0.00	0.00
	11	0.00	0.00	0.00	0.00	0.00	0.00
13	11	0.00	0.00	0.00	0.00	0.00	0.00
	13	0.00	0.00	0.00	0.00	0.00	0.00
14	12	0.00	0.00	0.00	0.00	0.00	0.00
	13	0.00	0.00	0.00	0.00	0.00	0.00
15	13	0.00	0.00	0.00	0.00	0.00	0.00
	14	0.00	0.00	0.00	0.00	0.00	0.00
16	14	0.00	0.00	0.00	0.00	0.00	0.00
	14A	0.00	0.00	0.00	0.00	0.00	0.00
17	14	0.00	0.00	0.00	0.00	0.00	0.00
	16	0.00	0.00	0.00	0.00	0.00	0.00
18	15	0.00	0.00	0.00	0.00	0.00	0.00
	18	0.00	0.00	0.00	0.00	0.00	0.00
19	19	0.00	0.00	0.00	0.00	0.00	0.00
	23	0.00	0.00	0.00	0.00	0.00	0.00
20	12	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00
21	17	0.00	0.39	-0.45	0.00	-0.34	0.01
	18	0.00	0.39	-0.45	0.00	0.00	0.00
22	18	0.00	0.00	0.00	0.00	0.00	0.00
	27	0.00	0.00	0.00	0.00	0.00	0.00
23	19	0.00	0.00	0.00	0.00	0.00	0.00
	27	0.00	0.00	0.00	0.00	0.00	0.00
24	20	0.00	0.26	-0.34	0.00	-1.85	0.53
	25	0.00	0.26	-0.34	0.00	0.00	0.00
25	21	0.00	0.59	-0.55	0.00	-1.18	1.27
	35	0.00	0.59	-0.55	0.00	0.00	0.00
26	22	0.00	0.00	0.00	0.00	0.00	0.00
	34	0.00	0.00	0.00	0.00	0.00	0.00
27	23	0.00	0.00	0.00	0.00	0.00	0.00
	26	0.00	0.00	0.00	0.00	0.00	0.00
28	24	0.00	0.00	0.00	0.00	0.00	0.00
	26	0.00	0.00	0.00	0.00	0.00	0.00
29	25	0.00	0.00	0.00	0.00	0.00	0.00
	28	0.00	0.00	0.00	0.00	0.00	0.00
30	28	0.00	0.00	0.00	0.00	0.00	0.00
	31	0.00	0.00	0.00	0.00	0.00	0.00
31	28	0.00	0.00	0.00	0.00	0.00	0.00
	29	0.00	0.00	0.00	0.00	0.00	0.00
32	27	0.00	0.00	0.00	0.00	0.00	0.00
	31	0.00	0.00	0.00	0.00	0.00	0.00
33	25	0.00	0.00	0.00	0.00	0.00	0.00
	33	0.00	0.00	0.00	0.00	0.00	0.00
34	29	0.00	0.00	0.00	0.00	0.00	0.00
	33	0.00	0.00	0.00	0.00	0.00	0.00
35	30	0.00	0.00	0.00	0.00	0.00	0.00
	33	0.00	0.00	0.00	0.00	0.00	0.00
36	32	0.00	0.00	0.00	0.00	0.00	0.00
	33	0.00	0.00	0.00	0.00	0.00	0.00
37	31	0.00	0.00	0.00	0.00	0.00	0.00
	32	0.00	0.00	0.00	0.00	0.00	0.00
38	33	0.00	0.00	0.00	0.00	0.00	0.00
	34	0.00	0.00	0.00	0.00	0.00	0.00
39	33	0.00	0.00	0.00	0.00	0.00	0.00
	34	0.00	0.00	0.00	0.00	0.00	0.00
40	34	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.00	0.00	0.00	0.00	0.00
41	28	0.00	0.00	0.00	0.00	0.00	0.00

	30	0.00	0.00	0.00	0.00	0.00	0.00
42	31	0.00	0.00	0.00	0.00	0.00	0.00
	32	0.00	0.00	0.00	0.00	0.00	0.00
43	33	0.00	0.00	0.00	0.00	0.00	0.00
	41	0.00	0.00	0.00	0.00	0.00	0.00
44	34	0.00	0.00	0.00	0.00	0.00	0.00
	42	0.00	0.00	0.00	0.00	0.00	0.00
45	37	0.00	0.00	0.00	0.00	0.00	0.00
	43	0.00	0.00	0.00	0.00	0.00	0.00
46	38	0.00	0.00	0.00	0.00	0.00	0.00
	40	0.00	0.00	0.00	0.00	0.00	0.00
47	39	0.00	0.00	0.00	0.00	0.00	0.00
	45	0.00	0.00	0.00	0.00	0.00	0.00
48	40	0.00	0.00	0.00	0.00	0.00	0.00
	42	0.00	0.00	0.00	0.00	0.00	0.00
49	41	0.00	0.00	0.00	0.00	0.00	0.00
	42	0.00	0.00	0.00	0.00	0.00	0.00
50	42	0.00	0.00	0.00	0.00	0.00	0.00
	43	0.00	0.00	0.00	0.00	0.00	0.00
51	38	0.00	0.00	0.00	0.00	0.00	0.00
	46	0.00	0.00	0.00	0.00	0.00	0.00
52	39	0.00	0.00	0.00	0.00	0.00	0.00
	47	0.00	0.00	0.00	0.00	0.00	0.00
53	41	0.00	0.00	0.00	0.00	0.00	0.00
	48	0.00	0.00	0.00	0.00	0.00	0.00
54	44	0.00	0.00	0.00	0.00	0.00	0.00
	51	0.00	0.00	0.00	0.00	0.00	0.00
55	45	0.00	0.00	0.00	0.00	0.00	0.00
	51	0.00	0.00	0.00	0.00	0.00	0.00
56	46	0.00	0.00	0.00	0.00	0.00	0.00
	48	0.00	0.00	0.00	0.00	0.00	0.00
57	47	0.00	0.00	0.00	0.00	0.00	0.00
	49	0.00	0.00	0.00	0.00	0.00	0.00
58	48	0.00	0.00	0.00	0.00	0.00	0.00
	52	0.00	0.00	0.00	0.00	0.00	0.00
59	49	0.00	0.00	0.00	0.00	0.00	0.00
	50	0.00	0.00	0.00	0.00	0.00	0.00
60	50	0.00	0.00	0.00	0.00	0.00	0.00
	51	0.00	0.00	0.00	0.00	0.00	0.00
61	46	0.00	0.00	0.00	0.00	0.00	0.00
	52	0.00	0.00	0.00	0.00	0.00	0.00
62	47	0.00	0.00	0.00	0.00	0.00	0.00
	54	0.00	0.00	0.00	0.00	0.00	0.00
63	48	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00
64	52	0.00	0.00	0.00	0.00	0.00	0.00
	55	0.00	0.00	0.00	0.00	0.00	0.00
65	53	0.00	0.00	0.00	0.00	0.00	0.00
	59	0.00	0.00	0.00	0.00	0.00	0.00
66	54	0.00	0.00	0.00	0.00	0.00	0.00
	56	0.00	0.00	0.00	0.00	0.00	0.00
67	55	0.00	0.00	0.00	0.00	0.00	0.00
	56	0.00	0.00	0.00	0.00	0.00	0.00
68	56	0.00	0.00	0.00	0.00	0.00	0.00
	57	0.00	0.00	0.00	0.00	0.00	0.00
69	54	0.00	0.00	0.00	0.00	0.00	0.00
	58	0.00	0.00	0.00	0.00	0.00	0.00
70	55	0.00	0.00	0.00	0.00	0.00	0.00
	59	0.00	0.00	0.00	0.00	0.00	0.00
71	57	0.00	0.00	0.00	0.00	0.00	0.00
	60	0.00	0.00	0.00	0.00	0.00	0.00
72	58	0.00	0.00	0.00	0.00	0.00	0.00
	62	0.00	0.00	0.00	0.00	0.00	0.00
73	59	0.00	0.00	0.00	0.00	0.00	0.00
	61	0.00	0.00	0.00	0.00	0.00	0.00
74	60	0.00	0.00	0.00	0.00	0.00	0.00
	63	0.00	0.00	0.00	0.00	0.00	0.00
75	61	0.00	0.00	0.00	0.00	0.00	0.00
	62	0.00	0.00	0.00	0.00	0.00	0.00
76	62	0.00	0.00	0.00	0.00	0.00	0.00
	64	0.00	0.00	0.00	0.00	0.00	0.00
77	63	0.00	0.00	0.00	0.00	0.00	0.00
	65	0.00	0.00	0.00	0.00	0.00	0.00
78	64	0.00	0.00	0.00	0.00	0.00	0.00
	66	0.00	0.00	0.00	0.00	0.00	0.00
79	65	0.00	0.00	0.00	0.00	0.00	0.00
	66	0.00	0.00	0.00	0.00	0.00	0.00
80	66	0.00	0.00	0.00	0.00	0.00	0.00
	67	0.00	0.00	0.00	0.00	0.00	0.00
81	69	0.00	0.00	0.00	0.00	0.00	0.00
	70	0.00	0.00	0.00	0.00	0.00	0.00
82	67	0.00	0.00	0.00	0.00	0.00	0.00
	71	0.00	0.00	0.00	0.00	0.00	0.00
83	65	0.00	0.00	0.00	0.00	0.00	0.00
	73	0.00	0.00	0.00	0.00	0.00	0.00
84	68	0.00	0.00	0.00	0.00	0.00	0.00
	74	0.00	0.00	0.00	0.00	0.00	0.00
85	69	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00
86	70	0.00	0.00	0.00	0.00	0.00	0.00
	72	0.00	0.00	0.00	0.00	0.00	0.00
87	71	0.00	0.00	0.00	0.00	0.00	0.00
	72	0.00	0.00	0.00	0.00	0.00	0.00
88	72	0.00	0.00	0.00	0.00	0.00	0.00
	74	0.00	0.00	0.00	0.00	0.00	0.00
89	73	0.00	0.00	0.00	0.00	0.00	0.00
	74	0.00	0.00	0.00	0.00	0.00	0.00
90	74	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00
91	68	0.00	0.00	0.00	0.00	0.00	0.00
	76	0.00	0.00	0.00	0.00	0.00	0.00
92	71	0.00	0.00	0.00	0.00	0.00	0.00
	81	0.00	0.00	0.00	0.00	0.00	0.00
93	73	0.00	0.00	0.00	0.00	0.00	0.00
	84	0.00	0.00	0.00	0.00	0.00	0.00
94	76	0.00	3.97	-6.23	0.00	0.00	0.00
	78	0.00	3.97	-6.23	0.00	3.13	-1.98
95	76	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00
96	77	0.00	0.00	0.00	0.00	0.00	0.00
	80	0.00	0.00	0.00	0.00	0.00	0.00
97	79	0.00	0.00	0.00	0.00	0.00	0.00
	82	0.00	0.00	0.00	0.00	0.00	0.00
98	80	0.00	-3.03	-0.65	0.00	-1.62	-0.68
	81	0.00	-3.03	-0.65	0.00	0.00	0.00
99	81	0.00	0.00	0.00	0.00	0.00	0.00
	83	0.00	0.00	0.00	0.00	0.00	0.00
100	82	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00
101	83	0.00	-3.18	-1.98	0.00	-2.18	-0.25
	84	0.00	-3.18	-1.98	0.00	0.00	0.00
102	84	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00
103	85	0.00	0.00	0.00	0.00	0.00	0.00
	86	0.00	0.00	0.00	0.00	0.00	0.00
104	78	0.00	0.00	0.00	0.00	0.00	0.00
	82	0.00	0.00	0.00	0.00	0.00	0.00
105	81	0.00	0.00	0.00	0.00	0.00	0.00
	88	0.00	0.00	0.00	0.00	0.00	0.00
106	84	0.00	0.00	0.00	0.00	0.00	0.00
	90	0.00	0.00	0.00	0.00	0.00	0.00
107	87	0.00	0.00	0.00	0.00	0.00	0.00
	89	0.00	0.00	0.00	0.00	0.00	0.00
108	88	0.00	0.00	0.00	0.00	0.00	0.00
	89	0.00	0.00	0.00	0.00	0.00	0.00
109	90	0.00	0.00	0.00	0.00	0.00	0.00
	91	0.00	0.00	0.00	0.00	0.00	0.00
110	90	0.00	0.00	0.00	0.00	0.00	0.00
	91	0.00	0.00	0.00	0.00	0.00	0.00
111	91	0.00	0.00	0.00	0.00	0.00	0.00
	93	0.00	0.00	0.00	0.00	0.00	0.00
112	92	0.00	0.00	0.00	0.00	0.00	0.00
	93	0.00	0.00	0.00	0.00	0.00	0.00
113	93	0.00	0.00	0.00	0.00	0.00	0.00
	94	0.00	0.00	0.00	0.00	0.00	0.00
114	92	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00
115	95	0.00	0.00	0.00	0.00	0.00	0.00
	97	0.00	0.00	0.00	0.00	0.00	0.00
116	96	0.00	0.00	0.00	0.00	0.00	0.00
	100	0.00	0.00	0.00	0.00	0.00	0.00
117	95	0.00	0.00	0.00	0.00	0.00	0.00
	102	0.00	0.00	0.00	0.00	0.00	0.00
118	96	0.00	0.00	0.00	0.00	0.00	0.00
	103	0.00	-0.00	0.00	0.00	0.00	0.00
119	97	0.00	0.00	0.00	0.00	0.00	0.00
	98	0.00	0.00	0.00	0.00	0.00	0.00
120	98	0.00	0.00	0.00	0.00	0.00	0.00
	99	0.00	0.00	0.00	0.00	0.00	0.00
121	99	0.00	0.00	0.00	0.00	0.00	0.00
	101	0.00	0.00	0.00	0.00	0.00	0.00
122	100	0.00	0.00	0.00	0.00	0.00	0.00
	101	0.00	0.00	0.00	0.00	0.00	0.00
124	7	0.00	0.00	0.00	0.00	0.00	0.00
	103	0.00	0.00	0.00	0.00	0.00	0.00
125	107	0.00	0.00	0.00	0.00	0.00	0.00
	9	0.00	0.00	0.00	0.00	0.00	0.00
126	201	0.00	0.00	0.00	0.00	0.00	0.00
	204	0.00	0.00	0.00	0.00	0.00	0.00
127	204	0.00	0.00	0.00	0.00	0.00	0.00
	202	0.00	0.00	0.00	0.00	0.00	0.00
128	205	0.00	0.00	0.00	0.00	0.00	0.00
	206	0.00	0.00	0.00	0.00	0.00	0.00
131	208	0.00	0.00	0.00	0.00	0.00	0.00
	211	0.00	0.00	0.00	0.00	0.00	0.00
132	209	0.00	0.00	0.00	0.00	0.00	0.00
	210	0.00	0.00	0.00	0.00	0.00	0.00
201	204	0.00	0.00	0.00	0.00	0.00	0.00
	205	0.00	0.00	0.00	0.00	0.00	0.00
205	206	0.00	0.00	0.00	0.00	0.00	0.00
	209	0.00	0.00	0.00	0.00	0.00	0.00
208	171	0.00	0.00	0.00	0.00	0.00	0.00
	172	0.00	0.00	0.00	0.00	0.00	0.00
209	211	0.00	0.00	0.00	0.00	0.00	0.00
	169	0.00	0.00	0.00	0.00	0.00	0.00
210	169	0.00	0.00	0.00	0.00	0.00	0.00
	171	0.00	0.00	0.00	0.00	0.00	0.00
211	213	0.00	0.00	0.00	0.00	0.00	0.00
	172	0.00	0.00	0.00	0.00	0.00	0.00
212	172	0.00	0.00	0.00	0.00	0.00	0.00
	206	0.00	0.00	0.00	0.00	0.00	0.00
213	206	0.00	0.00	0.00	0.00	0.00	0.00
	204	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 rule Moments - Sagging

SUPPORT REACTIONS

CASE 1: Lateral Load F

Node	Force X kN	Force Y kN	Force Z kN	Moment X kNm	Moment Y kNm	Moment Z kNm
19	3.39	-8.65	0.00	0.00	4.07	0.00
20	0.20	-8.34	0.00	0.00	8.61	0.00
21	0.59	-8.55	0.00	0.00	1.37	0.00
45	0.00	0.00	0.00	0.00	0.00	0.00
78	-3.97	-6.23	0.00	0.00	3.13	-1.98
80	-0.62	-2.55	0.00	0.00	1.52	-0.25
83	-0.18	-1.98	0.00	0.00	3.18	-0.00
106	0.00	0.00	0.00	0.00	0.00	0.00
108	0.00	0.00	0.00	0.00	0.00	0.00
109	0.00	0.00	0.00	0.00	0.00	0.00
146	0.00	0.00	0.00	0.00	0.00	0.00
148	0.00	0.00	0.00	0.00	0.00	0.00
171	0.00	0.00	0.00	0.00	0.00	0.00
6001:	0.00	-18.20	0.00 (all nodes)			

Max. residual: -1.1490E-10 at 2009: 497

(Reactions are as structure is positive global axis directions.)

CASE 2: G + Q

Load Combinations

Case	Factor	
1	1.000	Dead
2	1.000	Live

Sum of Applied Loads (Global Axes):
FX: 0.000 FY: 0.000 FZ: -71.504
Moments about the global origin:
MX: -163.797 MY: 268.215 MZ: 0.000

NODE DISPLACEMENTS

CASE 1: G + Q

Node	X-Disp m	Y-Disp m	Z-Disp m	X-Rotn rad	Y-Rotn rad	Z-Rotn rad
1	0.0000	0.0000	-0.0014	0.00289	0.03118	0.00000
2	0.0001	-0.0000	-7.3738E+03	3.2720E+09	-0.03192	0.00003
3	0.0001	0.0000	0.0002	2.2720E+09	0.03098	-0.00002
4	0.0000	0.0000	-0.0005	0.00001	0.03116	0.00000
5	0.0001	0.0000	-0.0001	3.2720E+09	0.03104	-0.00002
6	0.0000	0.0000	-0.0014	0.00213	0.03118	0.00000
7	0.0001	-0.0000	-0.0014	3.2720E+09	0.03094	-0.00005
8	0.0001	-0.0000	-0.0014	3.2720E+09	-0.03197	0.00003
9	0.0001	0.0000	0.0008	0.00124	0.03046	-0.00011
10	0.0000	0.0000	-0.0001	-0.00000	0.03118	0.00000
11	0.0001	0.0000	-0.0001	0.00124	0.03038	-0.00011
12	0.0000	0.0000	-0.0007	0.00186	0.03118	0.00000
13	0.0001	-0.0000	-0.0007	0.00124	0.03015	-0.00005
14	0.0001	-0.0000	-0.0006	0.00124	-0.03018	0.00002
15	0.0000	0.0000	-0.0006	0.00186	0.03116	0.00000
16	0.0001	-0.0000	-0.0005	0.00124	-0.03038	0.00002
17	0.0000	0.0000	-0.0000	0.00000	0.03008	0.00000
18	0.0000	0.0000	-0.0001	0.00125	0.03116	0.00000
19	0.0001	-0.0001	-2.2338E+04	3.3521E+09	-0.03032	0.00001
20	0.0000	0.0000	0.0000	0.00000	0.03008	0.00000
21	0.0000	0.0000	0.0000	0.00000	0.03008	0.00000
22	0.0001	0.0001	-0.0001	3.3521E+09	0.03013	-0.00000
23	0.0000	0.0000	-0.0002	-0.00001	0.03116	0.00000
24	0.0001	0.0001	-0.0002	3.3521E+09	0.03024	-0.00000
25	0.0000	0.0000	-0.0002	0.00116	0.03116	0.00000
26	0.0001	-0.0001	-0.0002	3.3521E+09	0.03001	-0.00000
27	0.0001	-0.0001	-0.0001	3.3521E+09	-0.03002	0.00001

26	0.0000	0.0000	0.0000	0.00047	0.00110	0.00000
27	0.0001	0.0000	-8.117E+05	1.872E+09	-0.00810	0.00000
28	0.0001	0.0000	-0.0005	1.872E+09	-0.00824	-0.00000
29	0.0001	0.0000	-0.0005	-0.00084	0.00110	-0.00000
30	0.0001	0.0001	-0.0005	1.872E+09	-0.00819	-0.00000
31	0.0001	0.0000	0.0001	0.00028	0.00110	0.00000
32	0.0001	0.0000	0.0001	1.872E+09	-0.00815	-0.00000
33	0.0001	0.0000	0.0002	1.872E+09	-0.00820	0.00000
34	0.0001	0.0000	0.0004	0.00011	0.00110	0.00000
35	0.0001	0.0000	-3.006E+05	1.152E+09	-0.00834	0.00000
36	0.0001	0.0001	-0.0009	1.152E+09	-0.00834	-0.00004
37	0.0001	0.0000	-0.0006	-0.00078	0.00110	0.00000
38	0.0001	0.0001	-0.0008	1.152E+09	-0.00832	-0.00004
39	0.0001	0.0000	0.0001	-0.00066	0.00110	0.00000
40	0.0001	0.0000	0.0001	1.152E+09	-0.00828	-0.00002
41	0.0001	0.0000	0.0004	1.152E+09	-0.00843	0.00000
42	0.0001	0.0000	0.0004	0.00002	0.00110	0.00000
43	0.0001	0.0000	0.0006	0.00000	-0.00835	0.00000
44	0.0001	0.0000	-0.0011	0.00000	-0.00845	-0.00002
45	0.0001	0.0000	-0.0010	-0.00079	0.00110	0.00000
46	0.0001	0.0000	-0.0010	0.00000	-0.00835	-0.00002
47	0.0001	0.0000	0.0001	0.00065	0.00110	0.00000
48	0.0001	0.0000	0.0001	0.00000	-0.00820	-0.00001
49	0.0001	0.0000	0.0004	0.00000	-0.00851	0.00000
50	0.0001	0.0000	0.0004	0.00000	-0.00841	0.00000
51	0.0001	0.0000	0.0004	0.00003	0.00110	0.00000
52	0.0001	0.0000	-3.006E+05	1.152E+09	-0.00851	0.00000
53	0.0001	0.0000	-0.0012	1.152E+09	-0.00847	0.00000
54	0.0001	0.0000	-0.0010	0.00001	0.00110	0.00000
55	0.0001	0.0000	-0.0011	1.152E+09	-0.00835	0.00000
56	0.0001	0.0000	0.0001	0.00018	0.00110	0.00000
57	0.0001	0.0000	0.0001	1.152E+09	-0.00827	0.00000
58	0.0001	0.0000	0.0004	1.152E+09	-0.00851	0.00000
59	0.0001	0.0000	0.0004	-0.00081	0.00110	0.00000
60	0.0001	0.0000	-3.006E+05	1.152E+09	-0.00853	0.00000
61	0.0001	0.0000	-0.0010	1.152E+09	-0.00852	0.00000
62	0.0001	-5.0001	-0.0010	1.152E+09	-0.00840	-0.00003
63	0.0001	0.0000	-0.0009	0.00068	0.00110	0.00000
64	0.0001	0.0001	0.0005	1.152E+09	-0.00823	0.00004
65	0.0001	0.0000	0.0002	0.00015	0.00110	0.00000
66	0.0001	0.0000	0.0004	1.152E+09	-0.00823	0.00001
67	0.0001	0.0000	0.0004	1.152E+09	-0.00842	0.00000
68	0.0001	0.0000	0.0003	-0.00032	0.00110	0.00000
69	0.0001	0.0000	-2.043E+05	8.192E+08	-0.00837	0.00000
70	0.0001	-3.0001	-0.0006	8.192E+08	-0.00831	-0.00004
71	0.0000	0.0000	-0.0005	0.00067	0.00110	0.00000
72	0.0001	-0.0001	-0.0006	8.192E+08	-0.00811	0.00005
73	0.0000	0.0000	0.0003	-0.00011	0.00110	0.00000
74	0.0001	0.0000	0.0007	8.192E+08	0.00815	0.00002
75	0.0001	0.0000	0.0003	8.192E+08	-0.00842	0.00000
76	0.0000	0.0000	0.0000	-0.00124	0.00110	0.00000
77	0.0001	0.0001	4.043E+05	8.024E+05	-0.00833	0.00002
78	0.0000	0.0000	0.0000	0.00008	0.00000	0.00000
79	0.0001	-3.0001	-0.0004	8.024E+08	0.00814	0.00000
80	0.0000	0.0000	0.0000	0.00003	0.00000	0.00000
81	0.0000	0.0000	-0.0001	0.00043	0.00110	0.00000
82	0.0001	0.0000	-0.0001	8.024E+08	0.00826	0.00005
83	0.0000	0.0000	0.0000	0.00002	0.00000	0.00000
84	0.0000	0.0000	-0.0001	-0.00131	0.00110	0.00000
85	0.0001	0.0001	-0.0001	8.024E+08	0.00827	0.00004
86	0.0001	0.0001	0.0000	8.024E+08	-0.00844	-0.00002
87	0.0001	0.0000	0.0001	-0.00134	0.00045	0.00111
88	0.0000	0.0000	-0.0001	0.00005	0.00110	0.00000
89	0.0001	0.0000	-0.0001	-0.00134	0.00057	0.00111
90	0.0000	0.0000	-0.0000	-0.00131	0.00110	0.00000
91	0.0001	0.0000	-0.0001	-0.00134	0.00063	0.00001
92	0.0000	0.0000	-0.0005	-0.00184	0.00110	0.00000
93	0.0001	0.0002	-0.0003	-0.00134	-0.00051	-0.00003
94	0.0001	0.0002	-0.0004	-0.00134	-0.00047	-0.00003
95	0.0000	0.0000	-0.0010	-0.00134	0.00110	0.00000
96	0.0001	0.0002	-0.0008	-0.00058	-0.00053	-0.00003
97	0.0001	0.0003	0.0002	-0.00067	0.00103	0.00006
98	0.0000	0.0000	-0.0001	-0.00068	0.00110	0.00000
99	0.0001	0.0000	-0.0001	-0.00067	0.00110	0.00000
100	0.0000	0.0000	-0.0014	0.00222	0.00110	0.00000
101	0.0001	0.0002	-0.0014	-0.00066	0.00084	0.00004
102	0.0001	0.0002	-0.0013	-0.00000	-0.00105	-0.00002
103	0.0001	-0.0002	-0.0027	0.2725+05	-0.00037	0.00001
104	0.0001	0.0002	-0.0027	-0.00066	-0.00049	-0.00002
105	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
106	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
107	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
108	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
109	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
110	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
111	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
112	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
113	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
114	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
115	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
116	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
117	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
118	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000

Member Forces

Case: 1: 1 + D

Member	Node	Axial kN	Shear-y kN	Shear-z kN	Torque kNm	Moment-y kNm	Moment-z kNm
1	1	-4.84	0.00	-0.01	0.00	0.00	0.00
	8	-4.84	0.00	-0.01	0.00	0.00	0.00
2	8	0.00	0.58	0.00	0.00	0.00	0.00
	9	0.00	1.00	0.00	0.00	0.00	-0.18
3	2	0.00	3.78	0.00	0.00	0.00	0.00
	5	0.00	3.13	0.00	0.00	0.00	-0.23
4	4	-2.80	3.06	0.00	0.00	0.00	0.00
	5	-2.80	3.00	0.00	0.00	0.00	0.00
5	5	0.00	-1.47	0.00	0.00	0.00	-0.23
	7	0.00	2.27	0.00	0.00	-3.01	-1.11
6	6	-5.57	8.08	-0.01	0.00	0.00	0.00
	7	-5.57	8.09	-0.01	0.00	0.00	0.00
8	1	0.00	4.64	0.00	0.00	0.00	0.00
	25	0.00	4.64	0.00	0.00	0.00	-1.79
9	4	0.00	3.00	0.00	0.00	0.00	0.00
	28	0.00	2.48	0.00	0.00	0.00	-0.55
10	6	0.00	5.57	0.00	0.00	0.00	0.00
	10	0.00	5.57	0.00	0.00	0.00	-1.57
11	9	0.00	8.70	0.00	0.00	0.00	0.00
	31	0.00	8.68	0.00	0.00	0.00	-0.20
12	10	-1.87	9.00	0.00	0.00	0.00	0.00
	31	-1.87	9.00	0.00	0.00	0.00	0.00
13	31	0.00	-0.74	0.00	0.00	0.00	-0.20
	33	0.00	0.94	0.00	0.00	0.00	-0.20
14	32	-1.70	9.00	0.00	0.00	0.00	0.00
	33	-1.70	9.00	0.00	0.00	0.00	0.00
15	33	0.00	-0.06	0.00	0.00	0.00	-0.20
	34	0.00	0.72	0.00	0.00	0.00	-0.16
16	34	-1.66	9.00	0.00	0.00	0.00	0.00
	35	-1.66	9.00	0.00	0.00	0.00	0.00
17	35	0.00	-0.74	0.00	0.00	0.00	-0.16
	37	0.00	-0.59	0.00	0.00	0.00	0.00
18	35	0.00	5.18	0.00	0.00	0.00	-1.78
	38	0.00	5.18	0.00	0.00	0.00	-2.73
19	38	0.00	5.22	0.00	0.00	0.00	-2.95
	39	0.00	4.22	0.00	0.00	0.00	-2.36
20	12	0.00	7.87	0.00	0.00	0.00	-1.87
	35	0.00	7.37	0.00	0.00	0.00	-4.33
21	17	-12.09	8.90	0.00	0.00	0.00	0.00
	18	-12.09	8.90	0.00	0.00	0.00	0.00
22	18	-1.45	8.90	-0.01	0.00	0.00	0.00
	27	-1.45	8.90	-0.01	0.00	0.00	0.00
23	19	0.00	8.55	0.00	0.00	0.00	0.00
	27	0.00	8.71	0.00	0.00	0.00	-0.15
24	20	-10.87	8.90	0.00	0.00	0.00	0.00
	33	-10.87	8.90	0.00	0.00	0.00	0.00
25	21	-14.58	8.90	0.00	0.00	0.00	0.00
	25	-14.58	8.90	0.00	0.00	0.00	0.00
26	22	0.00	8.70	0.00	0.00	0.00	0.00
	28	0.00	8.55	0.00	0.00	0.00	+0.29
27	23	-1.81	8.90	0.00	0.00	0.00	0.00
	24	-1.81	8.90	0.00	0.00	0.00	0.00
28	24	0.00	-0.73	0.00	0.00	0.00	-0.25
	26	0.00	0.86	0.00	0.00	0.00	-0.34
29	25	-1.73	8.90	0.00	0.00	0.00	0.00
	26	-1.73	8.90	0.00	0.00	0.00	0.00
30	26	0.00	-0.67	0.00	0.00	0.00	-0.34
	27	0.00	0.71	0.00	0.00	0.00	-0.15
31	28	0.00	-4.56	0.00	0.00	0.00	-1.73
	29	0.00	-4.56	0.00	0.00	0.00	-1.92
32	29	0.00	-5.95	0.00	0.00	0.00	-0.34
	31	0.00	-5.95	0.00	0.00	0.00	-0.34
33	30	0.00	-5.79	0.00	0.00	0.00	-1.33
	32	0.00	-5.79	0.00	0.00	0.00	-1.82
34	32	-1.42	9.00	0.00	0.00	0.00	0.00
	35	-1.42	9.00	0.00	0.00	0.00	0.00
35	36	0.00	0.55	0.00	0.00	0.00	0.00
	38	0.00	0.74	0.00	0.00	0.00	-0.16
36	40	0.00	0.73	0.00	0.00	0.00	0.00
	42	0.00	0.89	0.00	0.00	0.00	-0.28
37	41	-1.58	9.00	0.00	0.00	0.00	0.00
	42	-1.58	9.00	0.00	0.00	0.00	0.00
38	42	0.00	-0.73	0.00	0.00	0.00	-0.28
	44	0.00	0.85	0.00	0.00	0.00	-0.42
39	43	-1.78	9.00	0.00	0.00	0.00	0.00
	44	0.00	-0.93	0.00	0.00	0.00	-0.42
40	44	0.00	-0.93	0.00	0.00	0.00	-0.42
	46	0.00	0.55	0.00	0.00	0.00	-0.16
41	45	0.00	0.11	0.00	0.00	0.00	-1.92
	46	0.00	-0.11	0.00	0.00	0.00	-1.92
42	46	0.00	-0.11	0.00	0.00	0.00	-0.07
	48	0.00	-0.07	0.00	0.00	0.00	-0.04
43	47	0.00	-0.47	0.00	0.00	0.00	1.84
	48	0.00	-0.99	0.00	0.00	0.00	-2.02
44	48	0.00	-1.99	0.00	0.00	0.00	+0.42
	50	-1.46	0.00	0.00	0.00	0.00	0.00
45	49	-1.48	0.00	0.00	0.00	0.00	0.00
	50	0.00	0.55	0.00	0.00	0.00	0.00
46	50	0.00	0.74	0.00	0.00	0.00	-0.16
	52	0.00	0.12	0.00	0.00	0.00	-0.04
47	51	-1.49	0.00	0.00	0.00	0.00	0.00
	52	-1.49	0.00	0.00	0.00	0.00	0.00
48	52	0.00	-0.12	0.00	0.00	0.00	-0.04
	54	0.00	-0.55	0.00	0.00	0.00	-0.16
49	53	-1.48	0.00	0.00	0.00	0.00	0.00
	54	-1.48	0.00	0.00	0.00	0.00	0.00
50	54	0.00	-0.74	0.00	0.00	0.00	-0.16
	56	0.00	-0.59	0.00	0.00	0.00	0.00
51	55	-1.48	0.00	0.00	0.00	0.00	0.00
	56	-1.48	0.00	0.00	0.00	0.00	0.00
52	56	0.00	-0.59	0.00	0.00	0.00	-0.16
	58	0.00	-0.47	0.00	0.00	0.00	-0.13
53	57	-1.48	0.00	0.00	0.00	0.00	0.00
	58	-1.48	0.00	0.00	0.00	0.00	0.00
54	58	0.00	-0.47	0.00	0.00	0.00	-0.13
	60	0.00	-0.37	0.00	0.00	0.00	-0.10
55	59	0.00	0.00	0.00	0.00	0.00	0.00
	60	0.00	-0.00	0.00	0.00	0.00	0.00
56	60	0.00	-0.37	0.00	0.00	0.00	-0.10
	62	0.00	-0.29	0.00	0.00	0.00	-0.08
57	61	-1.48	0.00	0.00	0.00	0.00	0.00
	62	-1.48	0.00	0.00	0.00	0.00	0.00
58	62	0.00	-0.29	0.00	0.00	0.00	-0.08
	64	0.00	-0.23	0.00	0.00	0.00	-0.06
59	63	-1.48	0.00	0.00	0.00	0.00	0.00
	64	-1.48	0.00	0.00	0.00	0.00	0.00
60	64	0.00	-0.23	0.00	0.00	0.00	-0.06
	66	0.00	-0.18	0.00	0.00	0.00	-0.05
61	65	-1.48	0.00	0.00	0.00	0.00	0.00
	66	-1.48	0.00	0.00	0.00	0.00	0.00
62	66	0.00	-0.18	0.00	0.00	0.00	-0.05
	68	0.00	-0.14	0.00	0.00	0.00	-0.04
63	67	-1.48	0.00	0.00	0.00	0.00	0.00
	68	-1.48	0.00	0.00	0.00	0.00	0.00
64	68	0.00	-0.14	0.00	0.00	0.00	-0.04
	70	0.00	-0.09	0.00	0.00	0.00	-0.03
65	69	-1.48	0.00	0.00	0.00	0.00	0.00
	70	-1.48	0.00	0.00	0.00	0.00	0.00
66	70	0.00	-0.09	0.00	0.00	0.00	-0.03
	72	0.00	-0.05	0.00	0.00	0.00	-0.01
67	71	-1.48	0.00	0.00	0.00	0.00	0.00
	72	-1.48	0.00	0.00	0.00	0.00	0.00
68	72	0.00	-0.05	0.00	0.00	0.00	-0.01
	74	0.00	-0.01	0.00	0.00	0.00	-0.00
69	73	-1.48	0.00	0.00	0.00	0.00	0.00
	74	-1.48	0.00	0.00	0.00	0.00	0.00
70	74	0.00	0.00	0.00	0.00	0.00	0.00
	76	0.00	0.04	0.00	0.00	0.00	0.01
71	75	-1.48	0.00	0.00	0.00	0.00	0.00
	76	-1.48	0.00	0.00	0.00	0.00	0.00
72	76	0.00	0.04	0.00	0.00	0.00	0.01
	78	0.00	0.08	0.00	0.00	0.00	0.02
73	77	-1.48	0.00	0.00	0.00	0.00	0.00
	78	-1.48	0.00	0.00	0.00	0.00	0.00
74	78	0.00	0.08	0.00	0.00	0.00	0.02
	80	0.00	0.12	0.00	0.00	0.00	0.03
75	79	-1.48	0.00	0.00	0.00	0.00	0.00
	80	-1.48	0.00	0.00	0.00	0.00	0.00
76	80	0.00	0.12	0.00	0.00	0.00	0.03
	82	0.00	0.16	0.00	0.00	0.00	0.04
77	81	-1.48	0.00	0.00	0.00	0.00	0.00
	82	-1.48	0.00	0.00	0.00	0.00	0.00
78	82	0.00	0.16	0.00	0.00	0.00	0.04
	84	0.00	0.20	0.00	0.00	0.00	0.05
79	83	-1.48	0.00	0.00	0.00	0.00	0.00
	84	-1.48	0.00	0.00	0.00	0.00	0.00
80	84	0.00	0.20	0.00	0.00	0.00	0.05
	86	0.00	0.24	0.00	0.00	0.00	0.06
81	85	-1.48	0.00	0.00	0.00	0.00	0.00
	86	-1.48	0.00	0.00	0.00	0.00	0.00
82	86	0.00	0.24	0.00	0.00	0.00	0.06
	88	0.00	0.28	0.00	0.00	0.00	0.07
83	87	-1.48	0.00	0.00	0.00	0.00	0.00
	88	-1.48	0.00	0.00	0.00	0.00	0.00
84	88	0.00	0.28	0.00	0.00	0.00	0.07
	90	0.00	0.32	0.00	0.00	0.00	0.08
85	89	-1.48	0.00	0.00	0.00	0.00	0.00
	90	-1.48	0.00	0.00	0.00	0.00	0.00
86	90	0.00	0.32	0.00	0.00	0.00	0.08
	92	0.00	0.36	0.00	0.00	0.00	0.09
87	91	-1.48	0.00	0.00	0.00	0.00	0.00
	92	-1.48	0.00	0.00	0.00	0.00	0.00
88	92	0.00	0.36	0.00	0.00	0.00	0.09
	94	0.00	0.40	0.00	0.00	0.00	0.10
89	93	-1.48	0.00	0.00	0.00	0.00	0.00
	94	-1.48	0.00	0.00	0.00	0.00	0.00
90	94	0.00	0.40	0.00	0.00	0.00	0.10
	96	0.00	0.44	0.00	0.00	0.00	0.11
91	95	-1.48	0.00	0.00	0.00	0.00	0.00
	96	-1.48	0.00	0.00	0.00	0.00	0.00
92	96	0.00	0.44	0.00	0.00	0.00	0.11
	98	0.00	0.48	0.00	0.00	0.00	0.12
93	97	-1.48	0.00	0.00	0.00	0.00	0.00
	98	-1.48	0.00	0.00	0.00	0.00	0.00
94	98	0.00	0.48	0.00	0.00	0.00	0.12
	100	0.00	0.52	0.00	0.00	0.00	0.13
95	99	-1.48	0.00	0.00	0.00	0.00	0.00
	100	-1.48	0.00	0.00	0.00	0.00	0.00
96	100	0.00	0.52	0.00	0.00	0.00	0.13
	102	0.00	0.56	0.00	0.00	0.00	0.14
97	101	-1.48	0.00	0.00	0.00	0.00	0.00
	102	-1.48	0.00	0.00	0.00	0.00	0.00
98	102	0.00	0.56	0.00	0.00	0.00	0.14
	104	0.00	0.60	0.00	0.00	0.00	0.15
99	103	-1.48	0.00	0.00	0.00	0.00	0.00
	104	-1.48	0.00	0.00	0.00	0.00	0.00
100	104	0.00	0.60	0.00	0.00	0.00	0.15
	106	0.00	0.64	0.00	0.00	0.00	0.16
101	105	-1.48	0.00	0.00	0.00	0.00	0.00
	106	-1.48	0.00	0.00	0.00	0.00	0.00
102	106	0.00	0.64	0.00	0.00	0.00	0.16
	108	0.00	0.68	0.00	0.00	0.00	0.17
103	107	-1.48	0.00	0.00	0.00	0.00	0.00
	108	-1.48	0.00	0.00	0.00	0.00	0.00
104	108	0.00	0.68	0.00	0.00	0.00	0.17
	110	0.00	0.72	0.00	0.00	0.00	0.18
105	109	-1.48	0.00	0.00	0.00	0.00	0.00
	110	-1.48	0.00	0.00	0.00	0.00	0.00
106	110	0.00	0.72	0.00	0.00	0.00	0.18
	112	0.00	0.76	0.00	0.00	0.00	0.19
107	111	-1.48	0.00	0.00	0.00	0.00	0.00
	112	-1.48	0.00	0.00	0.00	0.00	0.00
108	112	0.00	0.76	0.00	0.00	0.00	0.19
	114	0.00	0.80	0.00	0.00	0.00	0.20
109	113	-1.48	0.00	0.00	0.00	0.00	0.00
	114	-1.48	0.00	0.00	0.00	0.00	0.00
110	114	0.00	0.80	0.00	0.00	0.00	0.20
	116	0.00	0.84	0.00	0.00	0.00	0.21
111	115	-1.48	0.00	0.00	0.00	0.00	0.00
	116	-1.48	0.00	0.00	0.00	0.00	0.00
112	116	0.00	0.84	0.00	0.00	0.00	0.21
	118	0.00	0.88	0.00	0.00	0.00	0.22
113	117	-1.48	0.00	0.00	0.00	0.00	0.00
	118	-1.48	0.00	0.00	0.00	0.00	0.00
114	118	0.00	0.88	0.00	0.00	0.00	0.22
	120	0.00	0.92	0.00	0.00	0.00	0.23
115	119	-1.48	0.00	0.00	0.00	0.00	0.00
	120	-1.48	0.00	0.00	0.00	0.00	0.00
116	120	0.00	0.92	0.00	0.00	0.00	0.23
	122	0.00	0.96	0.00	0.00	0.00	0.24
117	121	-1.48	0.00	0.00	0.00	0.00	0.00
	122	-1.48	0.00	0.00	0.00	0.00	0.00
118	122	0.00	0.96	0.00	0.00	0.00	0.24
	124	0.00	1.00	0.00	0.00	0.00	0.25
119	123	-1.48	0.00	0.00	0.00	0.00	0.00
	124	-1.48	0.00	0.00	0.00	0.00	0.00
120	124	0.00	1.00	0.00	0.00	0.00	0.25
	126	0.00	1.04	0.00	0.00	0.00	0.26
121	125	-1.48	0.00	0.00	0.00	0.00	0.00
	126	-1.48	0.00	0.00	0.00	0.00	0.00
122	126	0.00	1.04	0.00	0.00	0.00	0.26
	128	0.00	1.08	0.00	0.00	0.00	0.27
123	127	-1.48	0.00	0.00	0.00	0.00	0.00
	128	-1.48	0.00	0.00	0.00	0.00	0.00
124	128	0.00	1.08	0.00	0.00	0.00	0.27
	130	0.00	1.12	0.00	0.00	0.00	0.28
125	129	-1.48	0.00	0.00	0.00	0.00	0.00
	130	-1.48	0.00	0.00	0.00	0.00	0.00
126	130	0.00	1.12	0.00	0.00	0.00	0.28
	132	0.00	1.16	0.00	0.00	0.00	0.29
127	131	-1.48	0.00	0.00	0.00	0.00	0.00
	132	-1.48	0.00	0.00	0.00	0.00	0.00
128

	70	3.04	0.89	0.00	0.00	0.00	-0.20
87	71	-1.63	0.83	0.00	0.00	0.00	0.00
	72	-1.63	0.83	0.00	0.00	0.00	0.00
88	72	3.04	-0.74	0.00	0.00	0.00	-0.20
	73	3.04	0.83	0.00	0.00	0.00	-0.41
89	73	-1.64	0.83	0.00	0.00	0.00	0.00
	74	-1.64	0.83	0.00	0.00	0.00	0.00
90	74	3.04	-0.83	0.00	0.00	0.00	-0.41
	75	3.04	0.72	0.00	0.00	0.00	-0.16
91	60	3.04	4.17	0.00	0.00	0.00	-1.57
	76	3.04	4.17	0.00	0.00	0.00	-3.74
92	77	3.04	4.67	0.00	0.00	0.00	0.02
	61	3.04	4.67	0.00	0.00	0.00	-2.16
93	75	3.04	3.45	0.00	0.00	0.00	-1.65
	54	3.04	3.45	0.00	0.00	0.00	-1.68
94	76	-11.97	0.00	0.00	0.00	0.00	0.00
	78	-11.97	0.00	0.00	0.00	0.00	0.00
95	76	-1.16	0.00	-0.01	0.00	0.00	0.00
	66	-1.16	0.00	-0.01	0.00	0.00	0.00
96	77	3.00	0.55	0.00	0.00	0.00	0.00
	68	3.00	0.73	0.00	0.00	0.00	-0.16
97	79	6.00	0.10	0.00	0.00	0.00	0.00
	67	6.00	0.69	0.00	0.00	0.00	-0.20
98	80	-16.97	0.00	0.00	0.00	0.00	0.00
	81	-16.97	0.00	0.00	0.00	0.00	0.00
99	81	-1.16	0.00	0.00	0.00	0.00	0.00
	82	-1.64	0.00	0.00	0.00	0.00	0.00
100	82	3.00	-0.15	0.00	0.00	0.00	-0.20
	83	3.00	0.96	0.00	0.00	0.00	-0.36
101	83	-14.97	0.00	0.00	0.00	0.00	0.00
	84	-14.97	0.00	0.00	0.00	0.00	0.00
102	84	-1.17	0.00	0.00	0.00	0.00	0.00
	65	-1.17	0.00	0.00	0.00	0.00	0.00
103	65	3.00	0.92	0.00	0.00	0.00	-0.36
	85	3.00	0.73	0.00	0.00	0.00	-0.16
104	76	3.00	-0.16	0.00	0.00	0.00	-0.36
	62	3.00	-0.16	0.00	0.00	0.00	-0.00
105	61	3.00	-0.36	0.00	0.00	0.00	-0.20
	86	3.00	-0.36	0.00	0.00	0.00	-0.00
106	86	3.00	-0.73	0.00	0.00	0.00	-0.00
	58	6.00	-0.43	0.00	0.00	0.00	-0.25
107	67	6.00	0.00	0.00	0.00	0.00	0.00
	00	0.00	0.00	0.00	0.00	0.00	0.00
108	00	-1.65	0.00	0.00	0.00	0.00	0.00
	00	-1.65	0.00	0.00	0.00	0.00	0.00
109	00	0.00	-0.77	0.00	0.00	0.00	-0.25
	00	0.00	0.00	0.00	0.00	0.00	-0.00
110	00	-1.70	0.00	0.00	0.00	0.00	0.00
	00	-1.70	0.00	0.00	0.00	0.00	0.00
111	00	0.00	-0.00	0.00	0.00	0.00	-0.00
	00	0.00	0.00	0.00	0.00	0.00	-0.00
112	00	-1.65	0.00	0.00	0.00	0.00	0.00
	00	-1.65	0.00	0.00	0.00	0.00	0.00
113	00	0.00	-0.77	0.00	0.00	0.00	-0.25
	00	0.00	-0.00	0.00	0.00	0.00	-0.00
114	00	0.00	4.70	0.00	0.00	0.00	-1.05
	00	6.00	+4.70	0.00	0.00	0.00	0.00
115	00	0.00	2.71	0.00	0.00	0.00	-1.05
	00	0.00	-2.71	0.00	0.00	0.00	0.00
116	00	0.00	-5.04	0.00	0.00	0.00	-0.25
	100	0.00	-3.04	0.00	0.00	0.00	0.00
117	00	-1.70	0.00	-0.00	0.00	0.00	0.00
	102	-1.70	0.00	-0.00	0.00	0.00	0.00
118	00	0.00	0.55	0.00	0.00	0.00	0.00
	102	0.00	0.00	0.00	0.00	0.00	-0.16
119	97	0.00	0.70	0.00	0.00	0.00	0.00
	00	0.00	1.14	0.00	0.00	0.00	-0.23
120	00	-2.11	0.00	-0.01	0.00	0.00	0.00
	00	-2.11	0.00	-0.01	0.00	0.00	0.00
121	00	0.00	-1.56	-0.01	0.00	-0.01	-0.23
	101	0.00	2.00	-0.01	0.00	0.01	-1.16
122	100	-5.84	0.00	0.00	0.00	0.00	0.00
	101	-5.84	0.00	0.00	0.00	0.00	0.00
124	7	0.00	-2.10	0.00	0.00	-0.01	-1.11
	105	0.00	+0.89	0.00	0.00	0.00	1.49
125	103	0.00	1.11	0.00	0.00	0.00	1.49
	8	0.00	2.01	0.00	0.00	0.00	-0.19
126	101	0.00	-2.26	0.00	0.00	0.01	-1.16
	104	0.00	+0.99	0.00	0.00	0.00	1.53
127	104	0.00	1.15	0.00	0.00	0.00	1.53
	102	0.00	2.70	0.00	0.00	0.00	-0.19
128	106	0.00	0.00	0.00	0.00	0.00	0.00
	106	0.00	0.00	0.00	0.00	0.00	0.00
131	105	0.00	0.00	0.00	0.00	0.00	0.00
	111	0.00	0.00	0.00	0.00	0.00	0.00
132	105	0.00	0.00	0.00	0.00	0.00	0.00
	113	0.00	0.00	0.00	0.00	0.00	0.00
201	101	0.00	0.00	0.00	0.00	0.00	0.00
	102	0.00	0.00	0.00	0.00	0.00	0.00
205	107	0.00	0.00	0.00	0.00	0.00	0.00
	107	0.00	0.00	0.00	0.00	0.00	0.00
208	171	0.00	0.00	0.00	0.00	0.00	0.00
	172	0.00	0.00	0.00	0.00	0.00	0.00
209	111	0.00	0.00	0.00	0.00	0.00	0.00
	109	0.00	0.00	0.00	0.00	0.00	0.00
210	109	0.00	0.00	0.00	0.00	0.00	0.00
	113	0.00	0.00	0.00	0.00	0.00	0.00
211	113	0.00	0.00	0.00	0.00	0.00	0.00
	172	0.00	0.00	0.00	0.00	0.00	0.00
212	172	0.00	0.00	0.00	0.00	0.00	0.00
	108	0.00	0.00	0.00	0.00	0.00	0.00
213	108	0.00	0.00	0.00	0.00	0.00	0.00
	161	0.00	0.00	0.00	0.00	0.00	0.00

Positive Forces Shown Are:
Axial - Tension — Shear - End A sagging
Torque - Right-hand thrd. — Moment - Sagging

SUPPORT REACTIONS

CASE 3: G + Q

Node	Force-X (kN)	Force-Y (kN)	Force-Z (kN)	Moment-X (kNm)	Moment-Y (kNm)	Moment-Z (kNm)
17	0.00	0.00	12.09	0.00	0.00	0.00
20	0.00	0.00	10.67	0.00	0.00	0.00
21	0.00	0.00	11.38	0.00	0.00	0.00
49	0.00	0.00	0.00	0.00	0.00	0.00
78	0.00	-0.01	11.81	0.00	0.00	0.00
80	0.00	0.00	10.67	0.00	0.00	0.00
83	0.00	0.00	11.08	0.00	0.00	0.00
100	0.00	0.00	0.00	0.00	0.00	0.00
106	0.00	0.00	0.00	0.00	0.00	0.00
109	0.00	0.00	0.00	0.00	0.00	0.00
146	0.00	0.00	0.00	0.00	0.00	0.00
156	0.00	0.00	0.00	0.00	0.00	0.00
171	0.00	0.00	0.00	0.00	0.00	0.00
SUM:	0.00	0.00	74.70 (all spans)			

(Reactions act in opposite to positive global axis directions.)

CASE 4: 3G + Q

Load Combinations

Case	Factor	
1	1.000	Dead
2	1.000	Live

Sum of Applied Loads (Global Axes):
FX: 0.000 FY: 0.000 FZ: -313.439
Moments about the global origin:
MX: -249.653 MY: 284.956 MZ: 0.000

NODE DISPLACEMENTS

CASE 4: 3G + Q

Node	X-Disp m	Y-Disp m	Z-Disp m	X-Rotn rad	Y-Rotn rad	Z-Rotn rad
1	0.0000	0.0000	-0.0020	0.00139	0.00234	0.00000
2	0.0002	-0.0004	-1.4788E-04	6.4345E-09	-9.0E-360	0.00011
3	0.0002	0.0000	-0.0032	6.4345E-09	0.00200	-0.00006
4	0.0000	0.0000	-0.0030	0.00065	0.00234	0.00000
5	0.0002	-0.0001	-0.0031	6.4345E-09	0.00200	-0.00026
6	0.0005	0.0000	-0.0030	0.00153	0.00396	0.00000
7	0.0002	-0.0008	-3.0038	6.4345E-09	0.00192	-0.00000
8	0.0007	-0.0004	-0.0026	6.43E-09	-0.00170	0.00011
9	0.0002	0.0000	-0.0000	0.00302	0.00039	-0.00025
10	0.0000	0.0000	-0.0004	0.00317	0.00134	0.00000
11	0.0002	-0.0001	-0.0004	0.00317	0.00062	-0.00025
12	0.0000	0.0000	-0.0007	0.00489	0.00234	0.00000
13	0.0002	-0.0000	-0.0007	0.00333	0.00036	-0.00037
14	0.0002	-0.0004	-0.0013	0.00333	-0.00001	0.00010
15	0.0000	0.0000	-0.0013	0.00390	0.00234	0.00000
16	0.0003	-0.0004	-0.0012	0.00323	-0.00003	0.00010
17	0.0000	0.0000	0.0000	0.00300	0.00000	0.00000
18	0.0000	0.0000	-0.0001	0.00301	0.00234	0.00000
19	0.0002	-0.0001	-1.1F2E+05	6.2955E-09	0.00000	0.00000
20	0.0000	0.0000	0.0000	0.00300	0.00000	0.00000
21	0.0000	0.0000	0.0000	0.00300	0.00000	0.00000
22	0.0002	0.0001	-0.0004	6.2955E-09	-0.00039	-0.00022
23	0.0003	0.0000	-0.0003	0.00301	0.00234	0.00000
24	0.0002	0.0000	-0.0003	6.2955E-09	-0.00016	-0.00022
25	0.0003	0.0000	0.0002	0.00267	0.00234	0.00000
26	0.0002	-0.0004	-0.0002	6.2955E-09	0.00003	-0.00006
27	0.0002	-0.0003	-0.0001	6.2955E-09	-0.00016	0.00000
28	0.0000	0.0000	0.0007	0.00130	0.00234	0.00000
29	0.0002	-0.0001	-1.1888+05	2.5188E-09	0.00000	0.00000
30	0.0000	0.0001	-0.0007	2.5188E-09	-0.00391	-0.00011
31	0.0000	0.0000	-0.0005	-0.00076	0.00234	0.00000
32	0.0000	0.0001	-0.0005	2.5188E-09	-0.00391	-0.00011
33	0.0000	0.0000	0.0000	0.00304	0.00234	0.00000
34	0.0000	-0.0000	0.0000	1.4188E-09	-0.00391	-0.00004
35	0.0002	-0.0001	0.0001	2.5188E-09	0.00321	0.00000
36	0.0000	0.0000	0.0001	0.00041	0.00234	0.00000
37	0.0000	0.0000	-7.1178E-05	2.1628E-09	0.00350	0.00000
38	0.0002	0.0001	-0.0003	2.1628E-09	-0.00157	-0.00011
39	0.0000	0.0000	-0.0000	-0.00001	0.00234	0.00000
40	0.0000	0.0001	-0.0000	2.1628E-09	-0.00156	-0.00011
41	0.0000	0.0000	0.0001	0.00155	0.00147	0.00000
42	0.0000	-0.0001	0.0001	2.1628E-09	-0.00156	-0.00004
43	0.0000	-0.0001	0.0001	2.1628E-09	0.00312	0.00000
44	0.0000	0.0000	0.0001	0.00000	0.00234	0.00000
45	0.0000	0.0000	0.0001	0.00000	0.00144	0.00000
46	0.0000	0.0001	-0.0000	0.00000	-0.00234	0.00000
47	0.0000	0.0000	0.0001	0.00007	0.00234	0.00000
48	0.0000	0.0000	-0.0001	0.00000	-0.00177	-0.00005
49	0.0000	0.0000	0.0000	0.00000	0.00234	0.00000
50	0.0000	0.0000	0.0000	0.00000	-0.00045	-0.00001
51	0.0000	0.0000	0.0001	0.00000	0.00045	0.00000
52	0.0000	0.0000	0.0001	-0.00001	0.00234	0.00000
53	0.0000	0.0000	-7.1308E-05	2.1628E-09	0.00000	-0.00001
54	0.0000	0.0000	-0.0000	2.1628E-09	-0.00386	0.00000
55	0.0000	0.0000	-0.0001	0.00006	0.00234	0.00000
56	0.0000	0.0000	-0.0001	2.1628E-09	-0.00182	0.00000
57	0.0000	0.0000	0.0000	-0.00000	0.00234	0.00000
58	0.0000	0.0000	0.0000	2.1628E-09	-0.00067	0.00001
59	0.0000	0.0000	0.0000	2.1628E-09	0.00000	-0.00001
60	0.0000	0.0000	0.0000	0.00037	0.00234	0.00000
61	0.0000	0.0000	-7.1308E-05	2.1628E-09	0.00000	-0.00001
62	0.0000	-0.0001	-0.0000	2.1628E-09	-0.00183	0.00000
63	0.0000	0.0000	-0.0000	0.00317	0.00234	0.00000
64	0.0000	-0.0001	-0.0000	2.1628E-09	-0.00160	0.00000
65	0.0000	0.0000	0.0001	-0.00316	0.00234	0.00000
66	0.0000	0.0000	0.0001	3.1628E-09	-0.00000	0.00000
67	0.0000	0.0000	0.0001	2.1628E-09	0.00039	-0.00004
68	0.0000	0.0000	0.0001	-0.00106	0.00234	0.00000
69	0.0000	0.0001	-3.8472E-05	1.1628E-09	0.00027	-0.00000
70	0.0000	-0.0000	-0.0000	1.1628E-09	-0.00133	0.00015
71	0.0000	0.0000	-0.0000	0.00307	0.00234	0.00000
72	0.0000	-0.0001	-0.0000	1.1628E-09	-0.00110	0.00015
73	0.0000	0.0000	0.0001	-0.00167	0.00234	0.00000
74	0.0000	0.0000	0.0001	1.1628E-09	-0.00025	0.00004
75	0.0000	0.0000	0.0000	1.1628E-09	0.00010	-0.00006
76	0.0000	0.0000	-0.0001	-0.00203	0.00234	0.00000
77	0.0000	0.0000	-7.8118E-06	1.1628E-10	-0.00083	-0.00010
78	0.0000	0.0000	0.0000	0.00300	0.00000	0.00000
79	0.0000	0.0000	-0.0000	1.1628E-10	-0.00037	0.00002
80	0.0000	0.0000	0.0000	-0.00300	0.00000	0.00000
81	0.0000	0.0000	-0.0000	-0.00305	0.00234	0.00000
82	0.0000	0.0000	-0.0000	1.1628E-10	-0.00014	0.00002
83	0.0000	0.0000	0.0000	0.00300	0.00000	0.00000
84	0.0000	0.0000	-0.0001	-0.00316	0.00234	0.00000
85	0.0002	0.0000	-0.0001	1.1628E-10	-0.00183	0.00000
86	0.0002	0.0000	-0.0001	1.1628E-10	-0.00023	-0.00010
87	0.0002	0.0000	-0.0000	-0.00316	0.00234	0.00000
88	0.0000	0.0000	-0.0000	-0.00373	0.00234	0.00000
89	0.0002	0.0000	-0.0004	-0.00360	0.00051	0.00025
90	0.0003	0.0000	-0.0005	-0.00497	0.00234	0.00000
91	0.0002	0.0000	-0.0005	-0.00350	0.00023	0.00037
92	0.0003	0.0000	-0.0001	-0.00384	0.00234	0.00000
93	0.0002	0.0000	-0.0001	-0.00350	-0.00053	-0.00011
94	0.0002	0.0000	-0.0010	-0.00350	-0.00035	-0.00011
95	0.0000	0.0000	-0.0007	-0.00430	0.00234	0.00000
96	0.0002	0.0001	-0.0010	-0.00351	-0.00378	-0.00012
97	0.0002	0.0000	-0.0002	-0.00351	0.00232	0.00013
98	0.0000	0.0000	-0.0007	-0.00351	0.00234	0.00000
99	0.0002	0.0000	-0.0007	-0.00351	0.00234	0.00013
100	0.0000	0.0000	-0.0008	-0.00352	0.00234	0.00000
101	0.0002	0.0000	-0.0008	-0.00351	0.00152	0.00007
102	0.0002	0.0001	-0.0007	-0.00351	-0.00388	-0.00012
103	0.0002	-0.0003	-0.0004	4.4345E-09	-0.00098	0.00008
104	0.0002	0.0003	-0.0004	-0.00351	-0.00103	-0.00009
105	0.0000	0.0000	0.0000	0.00300	0.00000	0.00000
106	0.0000	0.0000	0.0000	0.00300	0.00000	0.00000
108	0.0000	0.0000	0.0000	0.00300	0.00000	0.00000
109	0.0000	0.0000	0.0000	0.00300	0.00000	0.00000
111	0.0000	0.0000	0.0000	0.00300	0.00000	0.00000
113	0.0000	0.0000	0.0000	0.00300	0.00300	0.00000
164	0.0000	0.0000	0.0000	0.00300	0.00300	0.00000
168	0.0000	0.0000	0.0000	0.00300	0.00300	0.00000
169	0.0000	0.0000	0.0000	0.00300	0.00300	0.00000
171	0.0000	0.0000	0.0000	0.00300	0.00300	0.00000
172	0.0000	0.0000	0.0000	0.00300	0.00300	0.00000

MEMBER FORCES

CASE 4: 25 * 0

Member	Node	Axial kN	Shear-y kN	Shear-z kN	Torque kNm	Moment-y kNm	Moment-z kNm
1	3	-0.38	0.80	-8.02	0.83	0.00	0.00
	6	-0.38	0.80	-8.02	0.83	0.00	0.00
2	3	0.00	1.10	9.00	0.83	0.00	0.00
	8	0.00	1.85	9.00	0.83	0.00	-0.38
3	7	0.00	1.40	9.00	0.83	0.00	0.00
	9	0.00	2.15	9.00	0.83	0.00	-0.45
4	4	-4.58	0.80	9.01	0.83	0.00	0.00
	5	-4.58	0.80	9.01	0.83	0.00	0.00
5	5	0.00	-3.80	9.01	0.83	0.00	-0.45
	7	0.00	4.82	9.01	0.83	-0.00	-1.78
6	6	-0.38	0.80	-8.02	0.83	0.00	0.00
	7	-0.38	0.80	-8.02	0.83	0.00	0.00
8	1	0.00	6.10	9.00	0.83	0.00	0.00
	10	0.00	6.10	9.00	0.83	0.00	-3.00
9	4	0.00	4.90	9.00	0.83	0.00	0.00
	10	0.00	4.90	9.00	0.83	0.00	-1.43
10	6	0.00	5.20	9.00	0.83	0.00	0.00
	12	0.00	5.20	9.00	0.83	0.00	-1.44
11	8	0.00	3.40	9.00	0.83	0.00	0.00
	11	0.00	3.81	9.00	0.83	0.00	-0.38
12	10	-3.80	8.90	9.00	0.83	0.00	0.00
	11	-20.80	8.90	9.00	0.83	0.00	0.00
13	11	0.00	-6.00	9.00	0.83	0.00	-0.38
	12	0.00	6.90	-9.00	0.83	0.00	-0.25
14	12	-1.75	6.90	9.00	0.83	0.00	0.00
	13	-1.75	6.90	9.00	0.83	0.00	0.00
15	13	0.00	-6.00	9.00	0.83	0.00	-0.03
	14	0.00	2.90	9.00	0.83	0.00	-0.38
16	14	-2.27	8.90	9.00	0.83	0.00	0.00
	15	-2.27	6.90	9.00	0.83	0.00	0.00
17	14	0.00	-1.32	0.00	0.83	0.00	-0.38
	16	0.00	-2.10	0.00	0.83	0.00	0.00
18	15	0.00	38.16	0.00	0.83	0.00	-2.88
	19	0.00	38.16	0.00	0.83	0.00	-6.48
19	16	0.00	7.57	0.00	0.83	0.00	-1.83
	23	0.00	7.57	0.00	0.83	0.00	-4.33
20	19	0.00	31.13	0.00	0.83	0.00	-0.44
	25	0.00	31.13	0.00	0.83	0.00	-7.15
21	17	-16.67	8.00	0.00	0.83	0.00	0.00
	18	-16.67	8.00	0.00	0.83	0.00	0.00
22	18	-2.25	8.00	-0.01	0.83	0.00	0.00
	27	-2.25	8.00	-0.01	0.83	0.00	0.00
23	19	0.00	1.10	0.00	0.83	0.00	0.00
	27	0.00	1.33	0.00	0.83	0.00	-0.25
24	20	-17.94	8.00	0.00	0.83	0.00	0.00
	21	-17.94	8.00	0.00	0.83	0.00	0.00
25	21	-18.53	8.00	0.00	0.83	0.00	0.00
	25	-18.53	8.00	0.00	0.83	0.00	0.00
26	22	8.00	1.10	0.00	0.83	0.00	0.00
	31	8.00	1.81	0.00	0.83	0.00	-0.38
27	23	-2.55	8.00	0.00	0.83	0.00	0.00
	31	-2.55	8.00	0.00	0.83	0.00	0.00
28	24	8.00	-8.54	0.00	0.83	0.00	-0.38
	26	8.00	8.51	0.00	0.83	0.00	-0.34
29	25	-1.85	8.00	0.00	0.83	0.00	0.00
	26	-1.85	7.00	0.00	0.83	0.00	0.00
30	25	8.00	-8.54	0.00	0.83	0.00	-0.34
	27	8.00	8.51	0.00	0.83	0.00	-0.30
31	10	8.00	-6.19	0.00	0.83	0.00	-6.48
	20	8.00	-6.19	0.00	0.83	0.00	-3.71
32	27	8.00	-7.81	0.00	0.83	0.00	-4.20
	31	8.00	-7.81	0.00	0.83	0.00	-1.22
33	25	8.00	-6.55	0.00	0.83	0.00	-7.15
	33	8.00	-6.55	0.00	0.83	0.00	-4.53
34	28	-2.14	0.68	0.00	0.83	0.00	0.00
	35	-2.14	0.68	0.00	0.83	0.00	0.00
35	29	8.00	1.10	0.00	0.83	0.00	0.00
	35	8.00	1.32	0.00	0.83	0.00	-0.30
36	30	8.00	1.40	0.00	0.83	0.00	0.00
	32	8.00	1.81	0.00	0.83	0.00	-0.38
37	31	-2.16	0.68	0.01	0.83	0.00	0.00
	32	-2.16	0.68	0.01	0.83	0.00	0.00
38	32	8.00	-0.85	0.01	0.83	0.00	-0.38
	34	8.00	1.08	0.01	0.83	-0.01	-0.35
39	33	-2.04	0.68	-0.01	0.83	0.00	0.00
	34	-2.04	0.68	-0.01	0.83	0.00	0.00
40	34	0.00	-1.04	-0.01	0.83	-0.01	-0.36
	35	0.00	0.81	-0.01	0.83	0.00	-0.30
41	30	0.00	-4.65	0.00	0.83	0.00	-3.77
	36	0.00	-4.65	0.00	0.83	0.00	-1.91
42	31	0.00	-0.35	0.00	0.83	0.00	-1.23
	36	0.00	-0.35	0.00	0.83	0.00	0.91
43	33	0.00	-4.51	0.00	0.83	0.00	-4.53
	41	0.00	-4.51	0.00	0.83	0.00	-2.71
44	36	-2.18	0.00	-8.01	0.83	0.00	0.00
	42	-2.18	0.00	-8.01	0.83	0.00	0.00
45	37	0.00	1.10	0.00	0.83	0.00	0.00
	42	0.00	1.32	0.00	0.83	0.00	-0.30
46	38	0.00	1.40	0.00	0.83	0.00	0.00
	40	0.00	1.81	0.00	0.83	0.00	-0.38
47	39	-2.53	0.00	0.00	0.83	0.00	0.00
	40	-2.53	0.00	0.00	0.83	0.00	0.00
48	40	0.00	-0.81	0.00	0.83	0.00	-0.38
	42	0.00	1.35	0.00	0.83	0.00	-0.34
49	41	-2.14	0.00	0.00	0.83	0.00	0.00
	42	-2.14	0.00	0.00	0.83	0.00	0.00
50	42	0.00	-3.39	0.00	0.83	0.00	-0.34
	43	0.00	0.87	0.00	0.83	0.00	-0.30
51	36	0.00	-2.66	0.00	0.83	0.00	-1.91
	44	0.00	-2.65	0.00	0.83	0.00	-0.87
52	38	0.00	-2.52	0.00	0.83	0.00	0.91
	47	0.00	-2.51	0.00	0.83	0.00	2.19
53	41	0.00	-2.37	0.00	0.83	0.00	-2.73
	45	0.00	-2.37	0.00	0.83	0.00	-1.73
54	44	-2.17	0.00	-8.01	0.83	0.00	0.00
	51	-2.17	0.00	-8.01	0.83	0.00	0.00
55	45	0.00	1.10	0.00	0.83	0.00	0.00
	51	0.00	1.32	0.00	0.83	0.00	-0.30
56	46	0.00	1.40	0.00	0.83	0.00	0.00
	48	0.00	1.82	0.00	0.83	0.00	-0.38
57	47	-2.51	0.00	0.00	0.83	0.00	0.00
	48	-2.51	0.00	0.00	0.83	0.00	0.00
58	48	0.00	-8.99	0.00	0.83	0.00	-0.38
	50	0.00	1.97	0.00	0.83	0.00	-0.38
59	49	-2.18	0.00	0.00	0.83	0.00	0.00
	50	-2.18	0.00	0.00	0.83	0.00	0.00
60	52	0.00	-1.11	0.00	0.83	0.00	-0.38
	51	0.00	0.25	0.00	0.83	0.00	-0.33
61	44	0.00	-9.26	0.00	0.83	0.00	-0.87
	52	0.00	-9.38	0.00	0.83	0.00	-0.75
62	47	0.00	-8.32	0.00	0.83	0.00	2.19
	55	0.00	-8.32	0.00	0.83	0.00	2.23
63	49	0.00	-8.19	0.00	0.83	0.00	-1.73
	57	0.00	-8.19	0.00	0.83	0.00	-1.65
64	52	-2.17	0.00	-0.01	0.83	0.00	0.00
	58	-2.17	0.00	-0.01	0.83	0.00	0.00
65	53	0.00	1.10	0.00	0.83	0.00	0.00
	58	0.00	1.32	0.00	0.83	0.00	-0.30
66	54	0.00	1.40	0.00	0.83	0.00	0.00
	56	0.00	1.82	0.00	0.83	0.00	-0.38
67	55	-2.50	0.00	0.00	0.83	0.00	0.00
	56	-2.50	0.00	0.00	0.83	0.00	0.00
68	56	0.00	-0.98	0.00	0.83	0.00	-0.38
	58	0.00	1.38	0.00	0.83	0.00	-0.29
69	57	-2.19	0.00	0.00	0.83	0.00	0.00
	58	-2.19	0.00	0.00	0.83	0.00	0.00
70	59	0.00	-1.11	0.00	0.83	0.00	-0.50
	59	0.00	0.85	0.00	0.83	0.00	-0.30
71	32	0.00	1.89	0.00	0.83	0.00	-0.75
	60	0.00	1.89	0.00	0.83	0.00	-1.54
72	35	0.00	2.19	0.00	0.83	0.00	2.23
	63	0.00	2.19	0.00	0.83	0.00	1.31
73	57	0.00	1.98	0.00	0.83	0.00	-1.65
	65	0.00	1.98	0.00	0.83	0.00	-2.45
74	60	-2.10	0.00	-0.01	0.83	0.00	0.00
	67	-2.10	0.00	-0.01	0.83	0.00	0.00
75	61	0.00	1.10	0.00	0.83	0.00	0.00
	67	0.00	1.32	0.00	0.83	0.00	-0.30
76	62	0.00	1.40	0.00	0.83	0.00	0.00
	64	0.00	1.82	0.00	0.83	0.00	-0.38
77	63	-2.52	0.00	0.00	0.83	0.00	0.00
	64	-2.52	0.00	0.00	0.83	0.00	0.00
78	64	0.00	-0.99	0.00	0.83	0.00	-0.38
	66	0.00	1.86	0.00	0.83	0.00	-0.56
79	65	-2.16	0.00	0.00	0.83	0.00	0.00
	66	-2.16	0.00	0.00	0.83	0.00	0.00
80	66	0.00	-1.19	0.00	0.83	0.00	-0.26
	67	0.00	0.86	0.00	0.83	0.00	-0.30
81	60	0.00	4.87	0.00	0.83	0.00	-1.34
	68	0.00	4.87	0.00	0.83	0.00	-3.29
82	63	0.00	4.78	0.00	0.83	0.00	1.31
	71	0.00	4.78	0.00	0.83	0.00	-0.04
83	65	0.00	4.15	0.00	0.83	0.00	-2.45
	73	0.00	4.15	0.00	0.83	0.00	-4.33
84	68	-2.30	0.00	-0.01	0.83	0.00	0.00
	75	-2.30	0.00	-0.01	0.83	0.00	0.00
85	69	0.00	4.10	0.00	0.83	0.00	0.00
	75	0.00	1.31	0.00	0.83	0.00	-0.38
86	70	0.00	1.40	0.00	0.83	0.00	0.00
	72	0.00	1.82	0.00	0.83	0.00	-0.38
87	71	-2.55	0.00	0.00	0.83	0.00	0.00
	72	-2.55	0.00	0.00	0.83	0.00	0.00
88	72	0.00	-0.97	0.00	0.83	0.00	-0.38
	74	0.00	1.33	0.00	0.83	0.00	-0.30
89	73	-2.30	0.00	0.00	0.83	0.00	0.00
	74	-2.30	0.00	0.00	0.83	0.00	0.00
90	74	0.00	-1.07	0.00	0.83	0.00	-0.38
	76	0.00	0.99	0.00	0.83	0.00	-0.38
91	68	0.00	6.27	0.00	0.83	0.00	-0.79
	76	0.00	6.27	0.00	0.83	0.00	-6.91
92	71	0.00	7.25	0.00	0.83	0.00	-0.66
	81	0.00	7.25	0.00	0.83	0.00	-6.43
93	73	0.00	6.25	0.00	0.83	0.00	-0.23
	84	0.00	6.25	0.00	0.83	0.00	-7.49
94	74	-19.18	0.00	0.00	0.83	0.00	0.00
	75	-19.18	0.00	0.00	0.83	0.00	0.00
95	76	-2.24	0.00	-0.02	0.83	0.00	0.00
	86	-2.24	0.00	-0.02	0.83	0.00	0.00
96	77	0.00	4.10	0.00	0.83	0.00	0.00
	86	0.00	1.31	0.00	0.83	0.00	-0.25
97	79	0.00	1.40	0.00	0.83	0.00	0.00
	82	0.00	1.82	0.00	0.83	0.00	-0.38
98	80	-17.68	0.00	0.00	0.83	0.00	0.00
	81	-17.68	0.00	0.00	0.83	0.00	0.00
99	82	-2.58	0.00	0.00	0.83	0.00	0.00
	92	-2.58	0.00	0.00	0.83	0.00	0.00
100	84	0.00	-0.91	0.00	0.83	0.00	-0.37
	85	0.00	0.95	0.00	0.83	0.00	-0.26
101	83	-19.84	0.00	0.00	0.83	0.00	0.00
	84	-19.84	0.00	0.00	0.83	0.00	0.00
102	84	-1.93	0.00	0.00	0.83	0.00	0.00
	85	-1.93	0.00	0.00	0.83	0.00	0.00
103	86	0.00	-0.96	0.00	0.83	0.00	-0.38
	88	0.00	1.91	0.00	0.83	0.00	-0.30
104	76	0.00	-13.59	0.00	0.83	0.00	-6.91
	92	0.00	-13.59	0.00	0.83	0.00	-3.32
105	81	0.00	-7.03	0.00	0.83	0.00	-6.43
	88	0.00	-7.03	0.00	0.83	0.00	-2.58
106	84	0.00	-11.75	0.00	0.83	0.00	-7.49
	90	0.00	-11.75	0.00	0.83	0.00	-3.95
107	87	0.00	1.40	0.00	0.83	0.00	0.00
	90	0.00	1.82	0.00	0.83	0.00	-0.38
108	88	-2.83	0.00	0.00	0.83	0.00	0.00
	89	-3.83	0.00	0.00	0.83	0.00	0.00
109	89	0.00	-1.01	0.00	0.83	0.00	-0.38
	91	0.00	0.90	0.00	0.83	0.00	-0.26
110	90	-1.84	0.00	0.00	0.83	0.00	0.00
	91	-1.84	0.00	0.00	0.83	0.00	0.00
111	91	0.00	-0.94	0.00	0.83	0.00	-0.26
	93	0.00	0.98	0.00	0.83	0.00	-0.30
112	92	-2.29	0.00	0.00	0.83	0.00	0.00
	93	-2.29	0.00	0.00	0.83	0.00	0.00
113	83	0.00	-1.31	0.00	0.83	0.00	-0.30
	94	0.00	-1.18	0.00	0.83	0.00	0.00
114	92	0.00	-0.31	0.00	0.83	0.00	-3.32
	95	0.00	-0.31	0.00	0.83	0.00	0.00
115	88	0.00	-5.28	0.00	0.83	0.00	-2.08
	96	0.00	-5.28	0.00	0.83	0.00	0.00
116	90	0.00	-9.51	0.00	0.83	0.00	-3.95
	100	0.00	-9.51	0.00	0.83	0.00	0.00
117	95	-0.31	0.00	-0.01	0.83	0.00	0.00
	102	-0.31	0.00	-0.01	0.83	0.00	0.00
118	98	0.00	1.18	0.00	0.83	0.00	0.00
	102	0.00	1.88	0.00	0.83	0.00	-0.37
119	97	0.00	1.48	0.00	0.83	0.00	0.00
	98	0.00	2.23	0.00	0.83	0.00	-0.10
120	98	-5.00	0.00	-0.03	0.83	0.00	0.00
	99	-5.00	0.00	-0.03	0.83	0.00	0.00
121	88	0.00	-2.08	-0.03	0.83	-0.03	-6.15
	101	0.00	1.28	-0.03	0.83	0.00	-1.09
122	100	-9.91	0.00	0.04	0.83	0.00	0.00
	101	-9.91	0.00	0.04	0.83	0.00	0.00
123	1	0.00	-5.36	-0.01	0.83	-0.02	-1.79
	103	0.00	-1.33	-0.01	0.83	-0.01	2.56
124	103	0.00	1.87	-0.01	0.83	-0.01	2.56
	4	0.00	4.66	-0.01	0.83	0.00	-0.38
125	104	0.00	-0.63	0.01	0.83	0.02	-1.89
	104	0.00	-1.34	0.01	0.83	0.01	2.64
126	104	0.00	1.86	0.01	0.83	0.01	2.64
	102	0.00	4.83	0.01	0.83	0.00	-0.37
127	105	0.00	0.00	0.00	0.83	0.00	0.00
	106	0.00	0.00	0.00	0.83	0.00	0.00
128	106	0.00	0.00	0.00	0.83	0.00	0.00
	107	0.00	0.00	0.00	0.83	0.00	0.00
129	107	0.00	0.00	0.00	0.83	0.00	0.00
	108	0.00	0.00	0.00	0.83	0.00	0.00
130	108	0.00	0.00	0.00	0.83	0.00	0.00
	105	0.00	0.00	0.00	0.83	0.00	0.00

	199	0.00	0.00	0.00	0.00	-4.00	0.00
288	171	0.00	0.00	0.00	0.00	-4.00	0.00
	172	0.00	0.00	0.00	0.00	-4.00	0.00
289	111	0.00	0.00	0.00	0.00	-4.00	0.00
	159	0.00	0.00	0.00	0.00	-4.00	0.00
210	109	0.00	0.00	0.00	0.00	-4.00	0.00
	111	0.00	0.00	0.00	0.00	-4.00	0.00
211	113	0.00	0.00	0.00	0.00	-4.00	0.00
	172	0.00	0.00	0.00	0.00	-4.00	0.00
212	172	0.00	0.00	0.00	0.00	-4.00	0.00
	105	0.00	0.00	0.00	0.00	-4.00	0.00
213	106	0.00	0.00	0.00	0.00	-4.00	0.00
	104	0.00	0.00	0.00	0.00	-4.00	0.00

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

SUPPORT REACTIONS

CASE 4: 1G + Q

Node	Force-X kN	Force-Y kN	Force-Z kN	Moment-X kNm	Moment-Y kNm	Moment-Z kNm
37	0.00	0.00	19.47	0.00	0.00	0.00
38	0.00	0.00	17.84	0.00	0.00	0.00
51	0.00	0.00	19.53	0.00	0.00	0.00
45	0.00	0.00	0.00	0.00	0.00	0.00
58	0.00	-0.01	19.58	0.00	0.00	0.00
80	0.00	0.00	17.86	0.00	0.00	0.00
83	0.00	0.00	19.56	0.00	0.00	0.00
109	0.00	0.00	0.00	0.00	0.00	0.00
108	0.00	0.00	0.00	0.00	0.00	0.00
105	0.00	0.00	0.00	0.00	0.00	0.00
166	0.00	0.00	0.00	0.00	0.00	0.00
168	0.00	0.00	0.00	0.00	0.00	0.00
171	0.00	0.00	0.00	0.00	0.00	0.00
Sum:	0.00	-0.01	213.04	(all reads)		

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

CASE 5: 1.25 + 1.5Q

Load Combinations

Case	Factor
1	1.250 Dead
2	1.500 Live

Sum of Applied Loads (Global Axes):
FX: 0.000 FY: 0.000 FZ: -320.376
Moments about the global origin:
MX: -259.539 MY: 253.200 MZ: 0.000

NODE DISPLACEMENTS

CASE 5: 1.25 + 1.5Q

Node	X-Disp m	Y-Disp m	Z-Disp m	X-Rotn rad	Y-Rotn rad	Z-Rotn rad
1	0.0000	0.0000	-0.0016	0.00248	0.00197	0.00000
2	0.0001	-0.0002	-0.1488E-03	2.768E+09	-0.00037	0.00001
3	0.0001	0.0001	0.0002	2.768E+09	0.00113	-0.00014
4	0.0000	0.0000	0.0001	-0.00023	0.00127	0.00000
5	0.0001	0.0000	0.0001	2.768E+09	0.00121	-0.00014
6	0.0000	0.0000	-0.0016	0.00224	0.00127	0.00000
7	0.0001	-0.0002	-0.0015	2.768E+09	0.00124	-0.00006
8	0.0001	-0.0002	-0.0016	2.768E+09	-0.00063	0.00001
9	0.0001	0.0001	0.0001	0.00117	0.00072	-0.00013
10	0.0000	0.0000	0.0000	-0.00017	0.00127	0.00000
11	0.0001	0.0000	0.0000	0.00127	0.00088	-0.00013
12	0.0000	0.0000	-0.0007	0.00102	0.00127	0.00000
13	0.0001	-0.0002	-0.0007	0.00127	0.00019	-0.00006
14	0.0001	-0.0002	-0.0007	0.00127	-0.00071	0.00001
15	0.0000	0.0000	-0.0001	0.00125	0.00127	0.00000
16	0.0001	-0.0002	-0.0006	0.00127	-0.00059	0.00001
17	0.0000	0.0000	0.0000	0.00068	0.00000	0.00000
18	0.0000	0.0000	-0.0001	0.00141	0.00127	0.00000
19	0.0001	-0.0001	-2.768E+09	4.148E+09	-0.00056	0.00000
20	0.0000	0.0000	0.0000	0.00068	0.00000	0.00000
21	0.0000	0.0000	0.0000	0.00068	0.00000	0.00000
22	0.0001	0.0001	-0.0001	4.148E+09	0.00038	-0.00010
23	0.0000	0.0000	-0.0001	-0.00005	0.00127	0.00000
24	0.0001	0.0001	-0.0002	4.148E+09	0.00048	-0.00010
25	0.0000	0.0000	-0.0002	0.00098	0.00121	0.00000
26	0.0001	-0.0001	-0.0002	4.148E+09	0.00088	-0.00005
27	0.0001	-0.0001	-0.0001	4.148E+09	-0.00072	0.00000
28	0.0000	0.0000	0.0000	0.00043	0.00127	0.00000
29	0.0001	0.0000	-7.639E+05	2.315E+09	-0.00032	-0.00000
30	0.0000	0.0001	-0.0001	2.315E+09	-0.00021	-0.00000
31	0.0000	0.0000	-0.0007	-0.00139	0.0012?	0.00000
32	0.0001	0.0001	-0.0007	2.315E+09	-0.00081	-0.00006
33	0.0000	0.0000	-0.0001	-0.00011	0.00127	0.00000
34	0.0001	0.0001	-0.0001	2.315E+09	-0.0007?	-0.00004
35	0.0001	0.0000	0.0000	0.00115	0.00127	0.00000
36	0.0000	0.0000	-8.701E+05	1.425E+09	-0.00071	-0.00003
37	0.0001	0.0000	-0.0012	1.425E+09	-0.0001.	-0.00001
38	0.0000	0.0000	-0.0012	-0.00116	0.0012?	0.00000
39	0.0001	0.0001	-0.0012	1.425E+09	-0.00088	-0.00006
40	0.0000	0.0000	-0.0007	-0.00042	0.00127	0.00000
41	0.0001	0.0000	-0.0007	1.425E+09	-0.00053	-0.00003
42	0.0001	0.0000	0.0000	1.425E+09	-0.00080	-0.00002
43	0.0000	0.0000	0.0000	-0.00003	0.00127	0.00000
44	0.0001	0.0000	0.0000	0.00000	-0.00065	-0.00001
45	0.0001	0.0000	0.0000	0.00000	-0.00065	-0.00001
46	0.0001	0.0001	-0.0016	0.00000	-0.00065	0.00000
47	0.0000	0.0000	-0.0015	-0.00019	0.00127	0.00000
48	0.0001	0.0001	-0.0015	0.00000	-0.00065	-0.00001
49	0.0000	0.0000	-0.0014	-0.00021	0.00127	0.00000
50	0.0001	0.0000	-0.0014	0.00000	-0.00077	-0.00001
51	0.0001	0.0000	0.0001	0.00000	-0.00073	-0.00001
52	0.0002	0.0000	0.0003	0.00000	0.00127	0.00000
53	0.0001	0.0000	-4.701E+05	1.425E+09	-0.00082	0.00000
54	0.0001	0.0000	-0.0016	1.425E+09	-0.00062	0.00000
55	0.0000	0.0000	-0.0016	0.00000	0.00127	0.00000
56	0.0001	0.0000	-0.0016	1.425E+09	-0.00068	0.00000
57	0.0000	0.0000	-0.0016	0.00000	0.00127	0.00000
58	0.0001	0.0000	-0.0016	1.425E+09	-0.00059	0.00000
59	0.0001	0.0000	0.0003	1.425E+09	-0.00063	0.00000
60	0.0000	0.0000	0.0004	0.00000	0.00127	0.00000
61	0.0001	0.0000	-4.701E+05	1.425E+09	-0.00053	0.00000
62	0.0001	-0.0001	-0.0013	1.425E+09	-0.00037	0.00000
63	0.0000	0.0000	-0.0013	0.00000	0.00127	0.00000
64	0.0001	-0.0001	-0.0013	1.425E+09	-0.00008	0.00000
65	0.0000	0.0000	-0.0012	0.00000	0.00127	0.00000
66	0.0001	0.0000	-0.0002	1.425E+09	-0.00005	0.00000
67	0.0001	0.0000	0.0003	1.425E+09	-0.00005	0.00000
68	0.0000	0.0000	0.0003	-0.00021	0.00127	0.00000
69	0.0001	0.0000	-0.534E+05	1.865E+09	-0.00075	0.00000
70	0.0001	-0.0001	-0.0008	1.865E+09	-0.00059	0.00000
71	0.0000	0.0000	-0.0008	0.00131	0.00127	0.00000
72	0.0001	-0.0001	-0.0008	1.865E+09	0.00113	0.00000
73	0.0000	0.0000	0.0000	0.00031	0.00127	0.00000
74	0.0001	0.0000	0.0000	1.865E+09	-0.00033	0.00000
75	0.0001	0.0000	0.0003	1.865E+09	-0.00001	0.00000
76	0.0000	0.0000	0.0000	-0.00141	0.00127	0.00000
77	0.0001	0.0001	+4.953E+09	1.453E+09	-0.00002	0.00000
78	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
79	0.0001	-0.0001	-0.0001	1.453E+09	0.00038	0.00010
80	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
81	0.0000	0.0000	-0.0002	0.00092	0.00127	0.00000
82	0.0001	-0.0001	-0.0002	1.453E+09	0.00058	0.00010
83	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
84	0.0000	0.0000	-0.0002	-0.00104	0.00127	0.00000
85	0.0001	0.0001	-0.0002	1.453E+09	0.00004	0.00005
86	0.0001	0.0001	0.0008	1.453E+09	0.00004	0.00005
87	0.0001	0.0001	0.0008	1.453E+09	-0.00071	0.00011
88	0.0000	0.0000	0.0008	0.00037	0.00127	0.00000
89	0.0001	0.0000	0.0008	-0.00137	0.00085	0.00013
90	0.0000	0.0000	-0.0004	-0.00195	0.00127	0.00000
91	0.0001	0.0001	-0.0008	-0.00137	0.00017	0.00006
92	0.0000	0.0000	-0.0008	-0.00218	0.00127	0.00000
93	0.0001	0.0001	-0.0008	-0.00137	-0.00076	-0.00002
94	0.0001	0.0001	-0.0004	-0.00137	-0.00084	-0.00002
95	0.0000	0.0000	-0.0015	-0.00249	0.00127	0.00000
96	0.0001	0.0001	-0.0008	0.00015	-0.00246	-0.00002
97	0.0001	0.0000	0.0004	0.00010	0.00130	0.00007
98	0.0000	0.0000	0.0001	0.00013	0.00127	0.00000
99	0.0001	0.0000	0.0001	0.00018	0.00127	0.00007
100	0.0000	0.0000	-0.0015	-0.00234	0.00127	0.00000
101	0.0001	0.0001	-0.0015	0.00019	0.00124	0.00005
102	0.0001	0.0001	-0.0015	0.00019	-0.00232	-0.00002
103	0.0001	0.0001	-0.0015	2.768E+09	-0.00037	0.00000
104	0.0001	0.0001	-0.0012	0.00019	-0.00099	-0.00001
105	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
106	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
107	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
108	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
109	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
110	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
111	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
112	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
113	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
114	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
115	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
116	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
117	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
118	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
119	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
120	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
121	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000
122	0.0000	0.0000	0.0000	0.00000	0.00000	0.00000

MEMBER FORCES

CASE 5: 1.25 + 1.5Q

Member	Node	Axial kN	Eccentricity kN	Shear-x kN	Torque kNm	Moment-y kNm	Moment-z kNm
1	1	-0.85	0.00	-0.00	0.00	0.00	0.00
	8	+5.85	0.00	-0.02	0.00	0.00	0.00
2	2	0.00	0.55	0.00	0.00	0.00	0.00
	9	0.00	1.21	0.00	0.00	0.00	-0.24
3	3	0.00	0.94	0.00	0.00	0.00	0.00
	5	0.00	1.37	0.00	0.00	0.00	-0.28
4	4	-3.19	0.00	0.00	0.00	0.00	0.00
	5	-3.28	0.00	0.00	0.00	0.00	0.00
5	5	0.00	-1.91	0.00	0.00	0.00	-0.23
	7	0.00	2.00	0.00	0.00	-0.01	-1.45
6	6	-4.66	0.00	-0.01	0.00	0.00	0.00
	7	-4.88	0.00	-0.01	0.00	0.00	0.00
8	1	0.00	0.00	0.00	0.00	0.00	0.00
	19	0.00	0.00	0.00	0.00	0.00	-2.28
9	4	0.00	3.18	0.00	0.00	0.00	0.00
	10	0.00	3.18	0.00	0.00	0.00	-1.17
10	6	0.00	0.55	0.00	0.00	0.00	0.00
	12	0.00	0.35	0.00	0.00	0.00	-1.51
11	9	0.00	0.84	0.00	0.00	0.00	0.00
	11	0.00	1.19	0.00	0.00	0.00	-2.34
12	10	-2.14	0.00	0.00	0.00	0.00	0.00
	11	-2.14	0.00	0.00	0.00	0.00	0.00
13	11	0.00	-1.84	0.00	0.00	0.00	-0.24
	13	0.00	1.25	0.00	0.00	0.00	-0.48
14	12	-2.93	0.00	0.00	0.00	0.00	0.00
	13	-2.93	0.00	0.00	0.00	0.00	0.00
15	13	0.00	-1.27	0.00	0.00	0.00	-0.48
	14	0.00	1.92	0.00	0.00	0.00	-0.23
16	14	-1.55	0.00	0.00	0.00	0.00	0.00
	15	-1.55	0.00	0.00	0.00	0.00	0.00
17	14	0.00	-0.92	0.00	0.00	0.00	-0.23
	16	0.00	-0.55	0.00	0.00	0.00	0.00
18	15	0.00	7.85	0.00	0.00	0.00	-2.16
	18	0.00	7.85	0.00	0.00	0.00	-1.17
19	10	0.00	5.32	0.00	0.00	0.00	-1.17
	23	0.00	5.32	0.00	0.00	0.00	-2.94
20	13	0.00	9.38	0.00	0.00	0.00	-2.51
	26	0.00	9.38	0.00	0.00	0.00	-5.64
21	17	-15.51	0.00	0.00	0.00	0.00	0.00
	18	-15.51	0.00	0.00	0.00	0.00	0.00
22	18	-1.94	0.00	-0.01	0.00	0.00	0.00
	27	-1.94	0.00	-0.01	0.00	0.00	0.00
23	15	0.00	0.00	0.00	0.00	0.00	0.00
	27	0.00	0.93	0.00	0.00	0.00	-3.38
24	20	-14.19	0.00	0.00	0.00	0.00	0.00
	22	-14.19	0.00	0.00	0.00	0.00	0.00
25	21	-38.38	0.00	0.00	0.00	0.00	0.00
	25	-38.38	0.00	0.00	0.00	0.00	0.00
26	22	0.00	0.84	0.00	0.00	0.00	0.00
	24	0.00	1.19	0.00	0.00	0.00	-0.24
27	23	-2.11	0.00	0.00	0.00	0.00	0.00
	24	-2.11	0.00	0.00	0.00	0.00	0.00
28	24	0.00	-1.83	0.00	0.00	0.00	-0.24
	25	0.00	1.27	0.00	0.00	0.00	-0.51
29	25	-2.56	0.00	0.00	0.00	0.00	0.00
	26	-2.56	0.00	0.00	0.00	0.00	0.00
30	26	0.00	-1.39	0.00	0.00	0.00	-0.51
	27	0.00	1.61	0.00	0.00	0.00	-0.30
31	28	0.00	-0.13	0.00	0.00	0.00	-4.77
	29	0.00	-0.13	0.00	0.00	0.00	-2.38
32	33	0.00	-0.14	0.00	0.00	0.00	-2.94
	31	0.00	-0.14	0.00	0.00	0.00	-5.29
33	29	0.00	-0.43	0.00	0.00	0.00	-3.54
	33	0.00	-0.43	0.00	0.00	0.00	-2.21
34	28	-1.92	0.00	-0.01	0.00	0.00	0.00
	34	-1.92	0.00	-0.01	0.00	0.00	0.00
35	29	0.00	0.00	0.00	0.00	0.00	0.00
	35	0.00	0.94	0.00	0.00	0.00	-0.20
36	35	0.00	0.04	0.00	0.00	0.00	0.00
	32	0.00	1.18	0.00	0.00	0.00	-0.24
37	31	-2.11	0.00	0.00	0.00	0.00	0.00
	32	-2.11	0.00	0.00	0.00	0.00	0.00
38	32	0.00	-1.80	0.00	0.00	0.00	-0.24
	36	0.00	1.29	0.00	0.00	0.00	-0.56
39	33	-2.90	0.00	0.00	0.00	0.00	0.00
	34	-2.90	0.00	0.00	0.00	0.00	0.00
40	36	0.00	-1.31	0.00	0.00	0.00	-0.56
	35	0.00	0.99	0.00	0.00	0.00	-0.20
41	28	0.00	+0.21	0.00	0.00	0.00	-3.32
	36	0.00	+0.21	0.00	0.00	0.00	-0.64
42	31	0.00	-4.63	0.00	0.00	0.00	-0.21
	38	0.00	-4.63	0.00	0.00	0.00	3.93
43	33	0.00	-5.03	0.00	0.00	0.00	-3.27
	41	0.00	-5.03	0.00	0.00	0.00	0.06
44	38	-1.87	0.00	-0.01	0.00	0.00	0.00
	43	-1.87	0.00	-0.01	0.00	0.00	0.00

45	37	0.00	0.66	0.00	0.00	0.00	0.00
	43	0.00	0.94	0.00	0.00	0.00	+0.20
46	38	0.00	0.84	0.00	0.00	0.00	0.00
	45	0.00	1.13	0.00	0.00	0.00	-0.24
47	39	-2.17	0.00	0.00	0.00	0.00	0.00
	40	-2.17	0.00	0.00	0.00	0.00	0.00
48	43	0.00	-1.66	0.00	0.00	0.00	+0.24
	42	0.00	1.36	0.00	0.00	0.00	+0.58
49	41	-2.75	0.00	0.00	0.00	0.00	0.00
	42	-2.75	0.00	0.00	0.00	0.00	0.00
50	42	0.00	-1.35	0.00	0.00	0.00	+0.58
	43	0.00	1.64	0.00	0.00	0.00	+0.20
51	36	0.00	-2.23	0.00	0.00	0.00	+0.64
	44	0.00	-3.22	0.00	0.00	0.00	0.20
52	38	0.00	-2.48	0.00	0.00	0.00	1.00
	47	0.00	-2.48	0.00	0.00	0.00	2.83
53	41	0.00	-3.06	0.00	0.00	0.00	0.06
	49	0.00	+3.06	0.00	0.00	0.00	1.35
54	46	-1.97	0.00	-0.01	0.00	0.00	0.00
	51	-1.97	0.00	-0.01	0.00	0.00	0.00
55	45	0.00	0.66	0.00	0.00	0.00	0.00
	51	0.00	0.94	0.00	0.00	0.00	-0.20
56	46	0.00	0.84	0.00	0.00	0.00	0.00
	49	0.00	1.13	0.00	0.00	0.00	-0.24
57	47	-2.17	0.00	0.00	0.00	0.00	0.00
	49	-2.17	0.00	0.00	0.00	0.00	0.00
58	49	0.00	-1.66	0.00	0.00	0.00	+0.24
	53	0.00	1.27	0.00	0.00	0.00	+0.55
59	49	-2.75	0.00	0.00	0.00	0.00	0.00
	49	-2.75	0.00	0.00	0.00	0.00	0.00
60	50	0.00	-1.39	0.00	0.00	0.00	+0.58
	51	0.00	1.64	0.00	0.00	0.00	+0.20
61	46	0.00	-0.20	0.00	0.00	0.00	0.20
	52	0.00	-0.24	0.00	0.00	0.00	0.41
62	47	0.00	-0.28	0.00	0.00	0.00	2.83
	55	0.00	-0.38	0.00	0.00	0.00	2.76
63	48	0.00	-0.33	0.00	0.00	0.00	1.35
	57	0.00	-0.32	0.00	0.00	0.00	1.49
64	52	-1.97	0.00	-0.01	0.00	0.00	0.00
	58	-1.97	0.00	-0.01	0.00	0.00	0.00
65	55	0.00	0.66	0.00	0.00	0.00	0.00
	59	0.00	0.94	0.00	0.00	0.00	+0.20
66	56	0.00	0.84	0.00	0.00	0.00	0.00
	59	0.00	1.13	0.00	0.00	0.00	+0.24
67	55	-2.17	0.00	0.00	0.00	0.00	0.00
	59	-2.17	0.00	0.00	0.00	0.00	0.00
68	58	0.00	-1.06	0.00	0.00	0.00	+0.24
	59	0.00	1.27	0.00	0.00	0.00	+0.55
69	57	-2.75	0.00	0.00	0.00	0.00	0.00
	59	-2.75	0.00	0.00	0.00	0.00	0.00
70	58	0.00	-1.39	0.00	0.00	0.00	+0.58
	59	0.00	1.08	0.00	0.00	0.00	+0.20
71	57	0.00	1.71	0.00	0.00	0.00	0.41
	63	0.00	1.71	0.00	0.00	0.00	+0.20
72	56	0.00	1.48	0.00	0.00	0.00	2.76
	63	0.00	1.08	0.00	0.00	0.00	1.98
73	57	0.00	2.42	0.00	0.00	0.00	1.49
	65	0.00	2.42	0.00	0.00	0.00	0.49
74	60	-1.97	0.00	-0.01	0.00	0.00	0.00
	67	-1.97	0.00	-0.01	0.00	0.00	0.00
75	61	0.00	0.66	0.00	0.00	0.00	0.00
	67	0.00	0.94	0.00	0.00	0.00	+0.20
76	62	0.00	0.84	0.00	0.00	0.00	0.00
	66	0.00	1.13	0.00	0.00	0.00	+0.24
77	63	-2.17	0.00	0.00	0.00	0.00	0.00
	66	-2.17	0.00	0.00	0.00	0.00	0.00
78	66	0.00	-1.06	0.00	0.00	0.00	+0.24
	68	0.00	1.27	0.00	0.00	0.00	+0.55
79	65	-2.75	0.00	0.00	0.00	0.00	0.00
	68	-2.75	0.00	0.00	0.00	0.00	0.00
80	65	0.00	-1.39	0.00	0.00	0.00	+0.55
	67	0.00	1.83	0.00	0.00	0.00	+0.20
81	80	0.00	2.64	0.00	0.00	0.00	+0.30
	86	0.00	2.68	0.00	0.00	0.00	+1.85
82	83	0.00	4.05	0.00	0.00	0.00	1.96
	71	0.00	4.05	0.00	0.00	0.00	0.20
83	85	0.00	3.38	0.00	0.00	0.00	0.49
	73	0.00	3.38	0.00	0.00	0.00	-1.76
84	84	-1.96	0.00	-0.01	0.00	0.00	0.00
	75	-1.96	0.00	-0.01	0.00	0.00	0.00
85	85	0.00	0.68	0.00	0.00	0.00	0.00
	75	0.00	0.92	0.00	0.00	0.00	-0.20
86	70	0.00	0.86	0.00	0.00	0.00	0.00
	72	0.00	1.12	0.00	0.00	0.00	-0.24
87	71	-2.17	0.00	0.00	0.00	0.00	0.00
	72	-2.17	0.00	0.00	0.00	0.00	0.00
88	72	0.00	-1.06	0.00	0.00	0.00	-0.24
	74	0.00	1.36	0.00	0.00	0.00	+0.58
89	73	-2.75	0.00	0.00	0.00	0.00	0.00
	74	-2.75	0.00	0.00	0.00	0.00	0.00
90	74	0.00	-1.39	0.00	0.00	0.00	+0.58
	76	0.00	1.64	0.00	0.00	0.00	+0.20
91	68	0.00	5.63	0.00	0.00	0.00	-1.85
	76	0.00	5.65	0.00	0.00	0.00	+1.77
92	71	0.00	6.23	0.00	0.00	0.00	0.20
	83	0.00	6.23	0.00	0.00	0.00	-7.96
93	75	0.00	7.91	0.00	0.00	0.00	-1.76
	84	0.00	7.93	0.00	0.00	0.00	-9.82
94	76	-15.53	0.00	0.00	0.00	0.00	0.00
	78	-15.53	0.00	0.00	0.00	0.00	0.00
95	78	-1.96	0.00	-0.01	0.00	0.00	0.00
	86	-1.96	0.00	-0.01	0.00	0.00	0.00
96	77	0.00	0.84	0.00	0.00	0.00	0.00
	86	0.00	0.92	0.00	0.00	0.00	-0.20
97	79	0.00	0.84	0.00	0.00	0.00	0.00
	82	0.00	1.11	0.00	0.00	0.00	-0.24
98	80	-15.90	0.00	0.00	0.00	0.00	0.00
	81	-15.90	0.00	0.00	0.00	0.00	0.00
99	81	-2.17	0.00	0.00	0.00	0.00	0.00
	88	-2.17	0.00	0.00	0.00	0.00	0.00
100	82	0.00	-1.06	0.00	0.00	0.00	-0.24
	83	0.00	1.33	0.00	0.00	0.00	+0.54
101	83	-20.45	0.00	0.00	0.00	0.00	0.00
	84	-20.45	0.00	0.00	0.00	0.00	0.00
102	84	-2.69	0.00	0.00	0.00	0.00	0.00
	85	-2.69	0.00	0.00	0.00	0.00	0.00
103	85	0.00	-1.36	0.00	0.00	0.00	-0.54
	96	0.00	1.84	0.00	0.00	0.00	+0.35
104	96	0.00	-7.94	0.00	0.00	0.00	+1.73
	92	0.00	-7.94	0.00	0.00	0.00	-2.38
105	91	0.00	-5.50	0.00	0.00	0.00	-2.88
	88	0.00	-5.50	0.00	0.00	0.00	-1.33
106	94	0.00	-5.94	0.00	0.00	0.00	-0.82
	96	0.00	-5.94	0.00	0.00	0.00	-2.87
107	87	0.00	5.94	0.00	0.00	0.00	0.00
	85	0.00	1.11	0.00	0.00	0.00	-0.24
108	88	-2.17	0.00	0.00	0.00	0.00	0.00
	89	-2.17	0.00	0.00	0.00	0.00	0.00
109	89	0.00	-1.08	0.00	0.00	0.00	-0.24
	91	0.00	1.32	0.00	0.00	0.00	-0.51
110	90	-2.88	0.00	0.00	0.00	0.00	0.00
	92	-2.88	0.00	0.00	0.00	0.00	0.00
111	91	0.00	-1.34	0.00	0.00	0.00	-0.51
	93	0.00	1.08	0.00	0.00	0.00	+0.28
112	92	-1.98	0.00	0.00	0.00	0.00	0.00
	93	-1.98	0.00	0.00	0.00	0.00	0.00
113	93	0.00	-0.02	0.00	0.00	0.00	+0.28
	94	0.00	-0.06	0.00	0.00	0.00	0.00
114	82	0.00	-5.96	0.00	0.00	0.00	-1.39
	95	0.00	-5.96	0.00	0.00	0.00	0.00
115	88	0.00	-3.51	0.00	0.00	0.00	+1.33
	98	0.00	-3.51	0.00	0.00	0.00	0.00
116	98	0.00	-7.18	0.00	0.00	0.00	+2.87
	100	0.00	-7.18	0.00	0.00	0.00	0.00
117	95	-5.96	0.00	+0.02	0.00	0.00	0.00
	102	-5.96	0.00	+0.02	0.00	0.00	0.00
118	96	0.00	0.95	0.00	0.00	0.00	0.00
	102	0.00	1.19	0.00	0.00	0.00	+0.33
119	97	0.00	0.84	0.00	0.00	0.00	0.00
	99	0.00	1.10	0.00	0.00	0.00	+0.24
120	98	-5.31	0.00	+0.01	0.01	0.00	0.00
	98	-5.31	0.00	+0.01	0.01	0.00	0.00
121	99	0.00	-1.41	+0.01	0.00	+0.01	-0.28
	101	0.00	3.04	+0.01	0.00	0.02	-1.52
122	100	-7.38	0.00	0.02	0.01	0.00	0.00
	101	-7.38	0.00	0.02	0.01	0.00	0.00
124	3	0.00	-3.98	0.00	0.00	-0.01	+1.49
	102	0.00	-1.21	0.00	0.00	0.00	1.92
125	103	0.00	1.13	0.00	0.00	0.00	1.52
	5	0.00	3.36	0.00	0.00	0.00	+0.24
126	101	0.00	-6.14	0.00	0.00	0.01	+1.52
	104	0.00	-1.72	0.00	0.00	0.00	1.96
127	104	0.00	1.12	0.00	0.00	0.00	1.96
	102	0.00	3.45	0.00	0.00	0.00	-0.23
128	105	0.00	0.00	0.00	0.00	0.00	0.00
	106	0.00	0.00	0.00	0.00	0.00	0.00
131	108	0.00	0.00	0.00	0.00	0.00	0.00
	111	0.00	0.00	0.00	0.00	0.00	0.00
132	109	0.00	0.00	0.00	0.00	0.00	0.00
	112	0.00	0.00	0.00	0.00	0.00	0.00
201	164	0.00	0.00	0.00	0.00	0.00	0.00
	168	0.00	0.00	0.00	0.00	0.00	0.00
209	168	0.00	0.00	0.00	0.00	0.00	0.00
	169	0.00	0.00	0.00	0.00	0.00	0.00
209	171	0.00	0.00	0.00	0.00	0.00	0.00
	172	0.00	0.00	0.00	0.00	0.00	0.00
209	LLL	0.00	0.00	0.00	0.00	0.00	0.00
	1AA	0.00	0.00	0.00	0.00	0.00	0.00
210	1BB	0.00	0.00	0.00	0.00	0.00	0.00
	213	0.00	0.00	0.00	0.00	0.00	0.00
211	214	0.00	0.00	0.00	0.00	0.00	0.00
	172	0.00	0.00	0.00	0.00	0.00	0.00
212	172	0.00	0.00	0.00	0.00	0.00	0.00
	106	0.00	0.00	0.00	0.00	0.00	0.00
213	105	0.00	0.00	0.00	0.00	0.00	0.00
	164	0.00	0.00	0.00	0.00	0.00	0.00

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

SUPPORT REACTIONS

CASE 5: 1.35 + 1.5Q

Node	Force-X kN	Force-Z kN	Force-Y kN	Moment-X kNm	Moment-Y kNm	Moment-Z kNm
17	0.00	0.00	11.81	0.00	0.00	0.00
20	0.00	0.00	14.19	0.00	0.00	0.00
21	0.00	0.00	30.38	0.00	0.00	0.00
45	0.00	0.00	0.00	0.00	0.00	0.00
78	0.00	-0.01	19.93	0.00	0.00	0.00
82	0.00	0.00	13.90	0.00	0.00	0.00
83	0.00	0.00	20.45	0.00	0.00	0.00
165	0.00	0.00	0.00	0.00	0.00	0.00
166	0.00	0.00	0.00	0.00	0.00	0.00
167	0.00	0.00	0.00	0.00	0.00	0.00
168	0.00	0.00	0.00	0.00	0.00	0.00
169	0.00	0.00	0.00	0.00	0.00	0.00
171	0.00	0.00	0.00	0.00	0.00	0.00
SUM:	0.00	0.00	166.30	(all nodes)		

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

GIB EzyBrace® 2011 Software

Demand Calculation Sheet — single storey — V06/11

Job Details

Name	Morton-Jones Residence
Street and Number	52 Kauri Point Road, Laingholm
Lot and DP Number	
City/Town/District	Lairgholm
Designer	A Barrett
Company Name	The draughting machine
Date	15/10/2013

BRANZ Appraised
Appraisal No.294 [2011]

Select Lining Option: 10 or 13 mm GIB® Plasterboard

Building Specification

Number of storeys	single
Floor Loading	2kPa
Foundation Type	subFloor
Cladding Weight (subfloor)	light

	Single Floor	Complete Single Floor Column only
Cladding Weight	light	
Roof Weight	light	
Room in Roof Space	no	
Roof Pitch (degrees)	45	
Roof height above eaves (m)	2.0	
Building height to apex (m)	7.2	
Ground to lower floor level (m)	3.8	
Stud Height (m)	2.7	
Building Length (m)	8.2	
Building Width (m)	5.0	
Building Plan Area (m2)	38	

check heights, storey less than 2 m

Building Location

Wind Zone	***High***
Select by Building Consent Authority Map	
or Preference	High
Wind Region	Preference selected
Lee Zone	Preference selected
Ground Roughness	Preference selected
Site Exposure	Preference selected
Topographic Class	Preference selected

Earthquake Zone: 1

Soil Type: D&E (deep to very soft)

Annual exceedance probability: 1/500 (NZS3604:2011 default)

Bracing Units required for Wind

Demand W (BU)	subfloor	Walls single
along	595	235
across	860	315

Bracing Units required for Earthquake

Demand along / across E (BU)	Walls	
	subfloor	single
	276	138

Morton-Jones Residence A Barrett

GIB EzyBrace® 2011 Software

SINGLE OR UPPER STOREY WALLS ALONG

V06/11

Lines		Bracing Elements							
1	2	3	4	5	6	7	8	9	10
Line Total Check	Line Label	Bracing Element No.	Available Wall Length L (m)	Angle to Bracing line (degrees)	Element Height H (m)	Bracing Type	Supplier	Bracing Units Achieved	
								W	E
272	a	1	2.4		2.4	GS1-N	GIB®	166	144
		2	2.4		2.7	GS1-N	GIB®	147	128
267	b	1	1		2.4	BL1-H	GIB®	118	103
			0.9		2.7	BL1-H	GIB®	91	82
			0.9		2.7	BL1-H	GIB®	91	82

					Wind	Earthq.
Totals Achieved	W	260%	EQ	389%	612	539
Timber Floor, design limit of 120 BU/m			***accepted***		OK	OK
Totals Required (from Demand)					235	138

GIB EzyBrace® 2011 Software

SINGLE OR UPPER STOREY WALLS ACROSS

V08/11

Lines		Bracing Elements							
1	2	3	4	5	6	7	8	9	10
Line Total Check	Line Label	Bracing Element No.	Available Wall Length L (m)	Angle to Bracing line (degrees)	Element Height H (m)	Bracing Type	Supplier	Bracing Units Achieved	
								W	E
144	m	1	2.4		2.4	GS1-N	GIB®	166	144
144	n	1	2.4		2.4	GS1-N	GIB®	166	144
111	o	1	1.2		2.7	BL1-H	GIB®	128	111
128	p	1	2.4		2.7	GS1-N	GIB®	147	128

						Wind	Earthq.
Totals Achieved		W	193%	EQ	381%	606	527
Timber Floor, design limit of 120 BU/m				***accepted***		OK	OK
Totals Required (from Demand)						315	138

HENDERSON TIMBER
66 The Concourse HENDERSON Ph (09) 838-8075 Fax 836-1480

Date: 04-11-2014
Pryda Build V 3.0.7.6

Fabricator / Designer Statement

Job Ref: 7578C

This statement may be used by the Building Consent Authority for compliance purposes and is issued by a licensed truss fabricator using the Pryda Build software.

CLIENT Name: *Mr & Mrs Morton-Jones*

SITE Details:

Address : *52 Kauri Point Rd*
Laingholm

City:

Post Code:

FTMA NEW ZEALAND

Nominal Design Criteria:

Design working life: 50 years
Building importance: Residential
Roofing: Corrugated iron (6.0 kg/sq.m)
Ceiling: 10mm Gib-board (6.8 kg/sq.m)
Top chord purlins: 900 mm

BC restraints: Battens at 600 mm
Standard truss spacing: 900 mm
Standard roof pitch: 45.00 deg.
Ult. design wind speed: 44 m/s (wind classification = High)

Design roof snow load: 0 Pa
(incl. probability factor)
Ground snow load: 0 Pa
Location: Region N0 - upper Nth Island
Altitude above sea level: 100 m

Max. eaves height: 3 m
Max. ridge height: 6 m

Int pressure coeff. up: 0.2
Overhang Condition: No fascia

The correctness of the Design Criteria used by the Pryda Build truss design software is the responsibility of the fabricator.

Note : A structural fascia beam is required at all hip and dutch hip corners to support the short creeper/rafter overhangs, as shown in AS4440-2004

Note: The standard trusses in this job have been designed for wind conditions assuming a fully hipped (or Dutch hip) roof.

All truss designs and their connections have been designed using Pryda design software. Additional items such as roof/ceiling plane bracing, special notes, supplementary timber, etc., which may be shown on the plan drawings are the responsibility of others.

All trusses shall be manufactured in accordance with the fabrication specifications provided by Pryda, and installed, connected and braced in accordance with the recommendations given in - : AS4440:2004 "Installation of nailplated timber roof trusses" and any other supplementary details that may be provided, such as the Pryda Installation Guides.

Timber verification and grading values are in accordance with clause B1 and timber treatment in accordance with clause B2 of the New Zealand Building Code.

I/we confirm that the trusses for this project have been manufactured in accordance with the fabrication specifications provided by Pryda New Zealand

Name: BRIAN BURNSIDE Position: TRUSS DETAILER

Signed: B. Burnside Date: 04-11-2014

HENDERSON TIMBER
66 The Concourse HENDERSON Ph (09) 838-8075 Fax 836-1480

Date: 04-11-2014
Pryda Build V 3.0.7.6

Producer Statement - PS1 - Design

Job Ref: **7578C**

This producer statement applies to the structural engineering design software "Pryda Build" supplied by Pryda NZ to

HENDERSON TIMBER

who is licensed to use the software to produce nailplated timber roof truss, floor truss, lintel and beam designs. These truss designs are in accordance with sound and widely accepted engineering principles and comply with the Compliance Document for the New Zealand Building Code, Clause B1, and New Zealand Building Code Verification Method B1/VM1. The durability shall comply with the New Zealand Building Code, Clause B2, for importance level 2 and a design working life of 50 years.

In addition to the above, this software also complies in part with:

ANSI / TPI 1 - 2002 National Design Standard for metal plate connected wood truss construction.

AS 1649 - 2001 Timber - Methods of test for mechanical fasteners and connectors - Basic working loads and characteristic strengths.

The truss designs require that the supporting structure is stable in its own right, and that the trusses will be braced in accordance with the New Zealand Building Code Standard NZS 3604:2011, and any supplementary details provided, such as the Pryda Installation Guides.

Pryda NZ holds a current policy of Professional Indemnity Insurance with cover no less than NZ$2 million. The policy includes the engineering design processes used in the software.

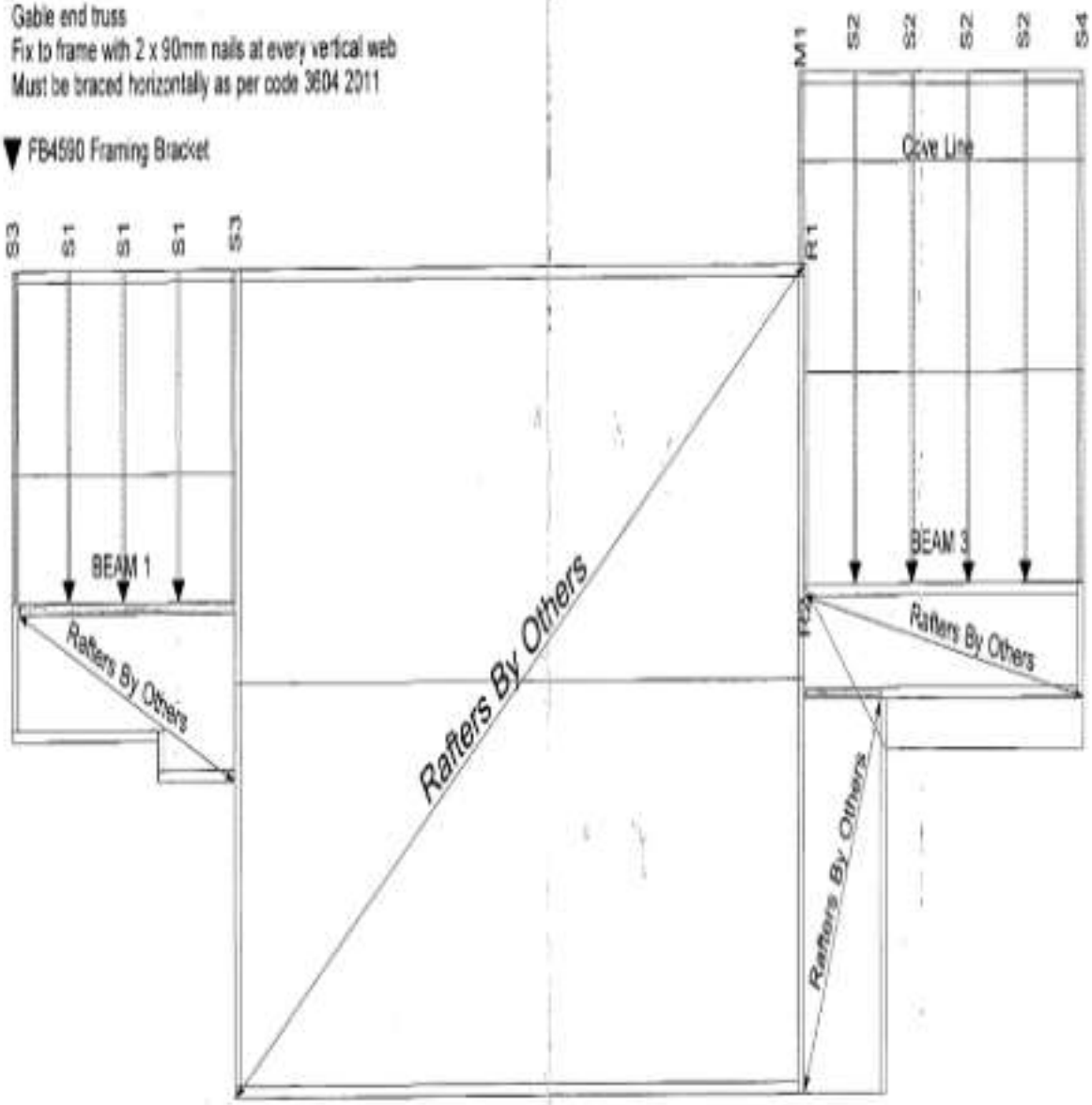
On behalf of Pryda NZ (a division of ITW New Zealand)

A C van Blerk BSc (Eng) MIPENZ (214689) CPEng IntPE
Engineering Services Manager

All tie-downs Use 2 / 90 x 3.15 dia Skew Nails
with 2 x Z nails unless otherwise noted

Gable end truss
Fix to frame with 2 x 90mm nails at every vertical web
Must be braced horizontally as per code 3604 2011

▼ FB4590 Framing Bracket



Preliminary Roof Layout for Council Consent Application only
Not for manufacture

pryda solutions

Customer: Mr & Mrs Mc Iron-Jones
Site Address: 52 Kauri Point Rd
Laingholm

Roofing: Corrugated Iron
Pitch: 45.00 deg
Spacing: 900
Design Wind Velocity: N.W.M. deg (ULS)
Details: 0504/BUN0438

Job No: 15780
Scale:
Level: